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Automated Report

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Building 5 Area, PR

SM04.00.06

SGS Accutest Job Number: JC16038

Sampling Dates: 03/08/16 - 03/09/16

Report to:

Anderson, Mulholland & Associates
2700 Westchester Avenue Suite 417
Purchase, NY 10577
ttaylor@amaiconsult.com

ATTN: Terry Taylor

Total number of pages in report: 1251

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

Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

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Test results relate only to samples analyzed.

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SGS ACCUTEST

April 15, 2016

Mr. Terry Taylor

Anderson, Mulholland & Associates
2700 Westchester Avenue Suite 417
Purchase, NY 10577

RE: Accutest Job # JC16038 -Reissues

Dear Mr. Terry:

The final report for Accutest job number JC16038 has been edited to reflect changes to your data package. These edits have been incorporated into the revised report which is attached.

additional Compounds have been reported to JC16038 per client requested; the **Benzyl Chloride** were not included for samples JC16038 -5R thru 10R due to original batch was not Calibrated.

The attached revised report incorporates these revisions.

Please contact Tammy McCloskey at (732) 329-0200 if you need further assistance in this matter.

Sincerely,

Wendy Ting

Environment, Health and Safety

Report Production Technician.

SGS-ACCUTEST LABORATORIES

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SGS Accutest

Sample Summary

Anderson, Mulholland & Associates

Job No: JC16038

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC16038-1	03/09/16	09:46	NMR	03/11/16	AQ	Ground Water	MW-13
JC16038-1R	03/09/16	09:46	NMR	03/11/16	AQ	Ground Water	MW-13
JC16038-2	03/09/16	11:19	NMR	03/11/16	AQ	Ground Water	MW-7
JC16038-2R	03/09/16	11:19	NMR	03/11/16	AQ	Ground Water	MW-7
JC16038-3	03/09/16	12:41	NMR	03/11/16	AQ	Ground Water	MW-3
JC16038-3R	03/09/16	12:41	NMR	03/11/16	AQ	Ground Water	MW-3
JC16038-4	03/09/16	15:29	NMR	03/11/16	AQ	Ground Water	MW-5
JC16038-4R	03/09/16	15:29	NMR	03/11/16	AQ	Ground Water	MW-5
JC16038-5	03/09/16	18:47	NMR	03/11/16	AQ	Ground Water	MW-16
JC16038-5R	03/09/16	18:47	NMR	03/11/16	AQ	Ground Water	MW-16
JC16038-6	03/09/16	19:02	NMR	03/11/16	AQ	Ground Water	MW-16D
JC16038-6R	03/09/16	19:02	NMR	03/11/16	AQ	Ground Water	MW-16D
JC16038-7	03/09/16	19:02	NMR	03/11/16	AQ	Trip Blank Water	TB030902

SGS Accutest

Sample Summary
(continued)

Anderson, Mulholland & Associates

Job No: JC16038

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC16038-7R	03/09/16	19:02	NMR	03/11/16	AQ	Trip Blank Water	TB030902
JC16038-8	03/08/16	14:27	NMR	03/11/16	AQ	Ground Water	S-30
JC16038-8R	03/08/16	14:27	NMR	03/11/16	AQ	Ground Water	S-30
JC16038-9	03/08/16	14:30	NMR	03/11/16	AQ	Field Blank Water	FB030816
JC16038-9R	03/08/16	14:30	NMR	03/11/16	AQ	Field Blank Water	FB030816
JC16038-10	03/08/16	18:08	NMR	03/11/16	AQ	Ground Water	MW-11
JC16038-10R	03/08/16	18:08	NMR	03/11/16	AQ	Ground Water	MW-11

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Anderson, Mulholland & Associates	**Job No**	JC16038
Site:	BMSMC, Building 5 Area, PR	**Report Date**	4/15/2016 1:15:24 PM

On 03/11/2016, 8 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 3.6 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC16038 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.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** VA8370

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC16250-14MS, JC16250-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for m,p-Xylene, Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Toluene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix: AQ **Batch ID:** VU9383

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC16101-1MS, JC16101-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** VU9384

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC16065-1MS, JC16065-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP92078

- All samples were extracted within the recommended method holding time.
- Sample(s) JC16090-1MS, JC16090-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC16038-9R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.
- JC16038-6R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.
- JC16038-5R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.
- JC16038-4R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.
- JC16038-3R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.
- JC16038-1R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.
- JC16038-8 for 2-Fluorobiphenyl: Outside control limits due to dilution.
- JC16038-2R for 1-Methylnaphthalene: This compound in ICV is outside QC limits bias low.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ	**Batch ID:** OP92078A

- All samples were extracted within the recommended method holding time.
- Sample(s) JC16038-2MS, JC16038-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,4-Dioxane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,4-Dioxane are outside control limits. Outside control limits due to matrix interference.

Volatiles by GC By Method SW846-8015C (DAI)

Matrix: AQ	**Batch ID:** GGH5211

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC15796-1MS, JC15796-1MSD were used as the QC samples indicated.

Matrix: AQ	**Batch ID:** GGH5213

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC16038-1MS, JC16038-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8081B

Matrix: AQ	**Batch ID:** OP92108

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's 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.

Accutest Laboratories 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 Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JC16038
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 03/08/16 thru 03/09/16

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC16038-1	**MW-13**					
Chlorobenzene		0.28 J	1.0	0.19	ug/l	SW846 8260C
1,2-Dichlorobenzene		0.90 J	1.0	0.19	ug/l	SW846 8260C
Freon 113		30.1	5.0	0.52	ug/l	SW846 8260C
4-Chloroaniline		1.3 J	5.0	0.23	ug/l	SW846 8270D
JC16038-1R	**MW-13**					
No hits reported in this sample.						
JC16038-2	**MW-7**					
Chlorobenzene		1.4	1.0	0.19	ug/l	SW846 8260C
1,2-Dichlorobenzene		7.3	1.0	0.19	ug/l	SW846 8260C
1,3-Dichlorobenzene		0.30 J	1.0	0.23	ug/l	SW846 8260C
1,4-Dichlorobenzene		1.1	1.0	0.27	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.4	1.0	0.27	ug/l	SW846 8260C
Ethylbenzene		1.7	1.0	0.27	ug/l	SW846 8260C
Methyl Tert Butyl Ether		0.56 J	1.0	0.24	ug/l	SW846 8260C
Trichloroethene		0.66 J	1.0	0.22	ug/l	SW846 8260C
m,p-Xylene		5.8	1.0	0.38	ug/l	SW846 8260C
o-Xylene		0.50 J	1.0	0.17	ug/l	SW846 8260C
Xylene (total)		6.3	1.0	0.17	ug/l	SW846 8260C
1,4-Dioxane		1.72	0.11	0.056	ug/l	SW846 8270D BY SIM
JC16038-2R	**MW-7**					
No hits reported in this sample.						
JC16038-3	**MW-3**					
Benzene		0.32 J	0.50	0.24	ug/l	SW846 8260C
Chlorobenzene		0.36 J	1.0	0.19	ug/l	SW846 8260C
Cyclohexane		4.0 J	5.0	0.28	ug/l	SW846 8260C
1,2-Dichlorobenzene		0.27 J	1.0	0.19	ug/l	SW846 8260C
Ethylbenzene		0.45 J	1.0	0.27	ug/l	SW846 8260C
Isopropylbenzene		18.6	1.0	0.23	ug/l	SW846 8260C
Methylcyclohexane		4.9 J	5.0	0.22	ug/l	SW846 8260C
Toluene		0.42 J	1.0	0.16	ug/l	SW846 8260C
m,p-Xylene		0.61 J	1.0	0.38	ug/l	SW846 8260C
o-Xylene		0.98 J	1.0	0.17	ug/l	SW846 8260C
Xylene (total)		1.6	1.0	0.17	ug/l	SW846 8260C
Acenaphthene		0.67 J	1.0	0.29	ug/l	SW846 8270D
Fluorene		1.2	1.0	0.29	ug/l	SW846 8270D

Summary of Hits

Job Number: JC16038
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 03/08/16 thru 03/09/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
2-Methylnaphthalene		52.4	1.0	0.29	ug/l	SW846 8270D
Naphthalene		3.6	1.0	0.28	ug/l	SW846 8270D
Naphthalene		3.57	0.10	0.013	ug/l	SW846 8270D BY SIM
JC16038-3R	**MW-3**					
1,2,4-Trimethylbenzene		0.58 J	2.0	0.22	ug/l	SW846 8260C
1-Methylnaphthalene [a]		59.2	1.0	0.26	ug/l	SW846 8270D
JC16038-4	**MW-5**					
Benzene		7.4	0.50	0.24	ug/l	SW846 8260C
Chlorobenzene		0.36 J	1.0	0.19	ug/l	SW846 8260C
1,2-Dichlorobenzene		0.48 J	1.0	0.19	ug/l	SW846 8260C
cis-1,2-Dichloroethene		0.29 J	1.0	0.27	ug/l	SW846 8260C
Ethylbenzene		1040	20	5.4	ug/l	SW846 8260C
Isopropylbenzene		20.8	1.0	0.23	ug/l	SW846 8260C
Methyl Tert Butyl Ether		11.8	1.0	0.24	ug/l	SW846 8260C
Toluene		0.25 J	1.0	0.16	ug/l	SW846 8260C
m,p-Xylene		2480	20	7.5	ug/l	SW846 8260C
o-Xylene		0.42 J	1.0	0.17	ug/l	SW846 8260C
Xylene (total)		2480	20	3.3	ug/l	SW846 8260C
2,4-Dimethylphenol		5.7	5.3	1.3	ug/l	SW846 8270D
2-Methylnaphthalene		0.63 J	1.1	0.30	ug/l	SW846 8270D
Naphthalene		2.7	1.1	0.30	ug/l	SW846 8270D
Naphthalene		2.48	0.11	0.014	ug/l	SW846 8270D BY SIM
1,4-Dioxane		0.734	0.11	0.056	ug/l	SW846 8270D BY SIM
JC16038-4R	**MW-5**					
Tetrahydrofuran		3.0 J	10	1.4	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		1.9 J	2.0	0.22	ug/l	SW846 8260C
1-Methylnaphthalene [a]		1.0 J	1.1	0.28	ug/l	SW846 8270D
JC16038-5	**MW-16**					
Chlorobenzene		0.34 J	1.0	0.19	ug/l	SW846 8260C
1,2-Dichlorobenzene		12.2	1.0	0.19	ug/l	SW846 8260C
1,3-Dichlorobenzene		0.49 J	1.0	0.23	ug/l	SW846 8260C
1,4-Dichlorobenzene		2.5	1.0	0.27	ug/l	SW846 8260C
Freon 113		58.5	5.0	0.52	ug/l	SW846 8260C
1,4-Dioxane		0.388	0.11	0.056	ug/l	SW846 8270D BY SIM

Summary of Hits

Job Number: JC16038
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 03/08/16 thru 03/09/16

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC16038-5R	**MW-16**					
No hits reported in this sample.						
JC16038-6	**MW-16D**					
Chlorobenzene		0.32 J	1.0	0.19	ug/l	SW846 8260C
1,2-Dichlorobenzene		12.7	1.0	0.19	ug/l	SW846 8260C
1,3-Dichlorobenzene		0.46 J	1.0	0.23	ug/l	SW846 8260C
1,4-Dichlorobenzene		2.5	1.0	0.27	ug/l	SW846 8260C
Freon 113		44.0	5.0	0.52	ug/l	SW846 8260C
Acenaphthene		0.44 J	1.0	0.29	ug/l	SW846 8270D
Fluorene		0.49 J	1.0	0.30	ug/l	SW846 8270D
2-Methylnaphthalene		3.4	1.0	0.30	ug/l	SW846 8270D
Naphthalene		2.3	1.0	0.29	ug/l	SW846 8270D
Phenanthrene		0.61 J	1.0	0.24	ug/l	SW846 8270D
Naphthalene		2.31	0.10	0.014	ug/l	SW846 8270D BY SIM
1,4-Dioxane		0.925	0.10	0.055	ug/l	SW846 8270D BY SIM
JC16038-6R	**MW-16D**					
1-Methylnaphthalene [a]		3.3	1.0	0.27	ug/l	SW846 8270D
JC16038-7	**TB030902**					
No hits reported in this sample.						
JC16038-7R	**TB030902**					
No hits reported in this sample.						
JC16038-8	**S-30**					
Benzaldehyde		0.90 J	5.1	0.34	ug/l	SW846 8270D
1,4-Dioxane		2220	40	29	ug/l	SW846 8270D
JC16038-8R	**S-30**					
No hits reported in this sample.						
JC16038-9	**FB030816**					
Chlorobenzene		0.30 J	1.0	0.19	ug/l	SW846 8260C
Isopropylbenzene		0.91 J	1.0	0.23	ug/l	SW846 8260C
Methyl Tert Butyl Ether		4.5	1.0	0.24	ug/l	SW846 8260C

Summary of Hits

Job Number: JC16038
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 03/08/16 thru 03/09/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
bis(2-Ethylhexyl)phthalate		1.2 J	2.0	0.77	ug/l	SW846 8270D
JC16038-9R	**FB030816**					
No hits reported in this sample.						
JC16038-10	**MW-11**					
Methyl Tert Butyl Ether		1.9	1.0	0.24	ug/l	SW846 8260C
1,4-Dioxane		385	5.2	3.7	ug/l	SW846 8270D
JC16038-10R	**MW-11**					
No hits reported in this sample.						

(a) This compound in ICV is outside QC limits bias low.

Sample Results

Report of Analysis

SGS Accutest

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204171.D	1	03/16/16	NH	n/a	n/a	VU9384
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.28	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.90	1.0	0.19	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	30.1	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

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

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155577.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	1.3	5.0	0.23	ug/l	J
86-74-8	Carbazole	ND	1.0	0.29	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:	MW-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	30%		10-110%

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-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	78%		39-149%
4165-60-0	Nitrobenzene-d5	75%		32-128%
321-60-8	2-Fluorobiphenyl	68%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15636.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		24-125%
321-60-8	2-Fluorobiphenyl	77%		19-127%
1718-51-0	Terphenyl-d14	77%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103819.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	77%		56-145%
111-27-3	Hexanol	75%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204171R.D	1	03/16/16	NH	n/a	n/a	VU9384
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	JC16038-1R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155577.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		32-128%
321-60-8	2-Fluorobiphenyl	68%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204139.D	1	03/15/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	1.4	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	7.3	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	0.30	1.0	0.23	ug/l	J
106-46-7	1,4-Dichlorobenzene	1.1	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	1.7	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	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:	MW-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.56	1.0	0.24	ug/l	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	0.66	1.0	0.22	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	5.8	1.0	0.38	ug/l	
95-47-6	o-Xylene	0.50	1.0	0.17	ug/l	J
1330-20-7	Xylene (total)	6.3	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155578.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.98	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	1.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	0.92	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.86	ug/l	
	3&4-Methylphenol	ND	2.1	0.71	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.3	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.33	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.6	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.30	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.29	ug/l	
120-12-7	Anthracene	ND	1.1	0.26	ug/l	
1912-24-9	Atrazine	ND	2.1	0.44	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.33	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.35	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.43	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.39	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.29	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.27	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.24	ug/l	
86-74-8	Carbazole	ND	1.1	0.31	ug/l	

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

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.45	ug/l	
218-01-9	Chrysene	ND	1.1	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.30	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.29	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.28	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.29	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.83	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.33	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.81	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.24	ug/l	
86-73-7	Fluorene	ND	1.1	0.31	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	0.31	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.30	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.30	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.36	ug/l	
91-20-3	Naphthalene	ND	1.1	0.30	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.49	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.33	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.31	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.24	ug/l	
129-00-0	Pyrene	ND	1.1	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		14-88%
4165-62-2	Phenol-d5	33%		10-110%

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-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	85%		39-149%
4165-60-0	Nitrobenzene-d5	73%		32-128%
321-60-8	2-Fluorobiphenyl	68%		35-119%
1718-51-0	Terphenyl-d14	76%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15637.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.014	ug/l	
123-91-1	1,4-Dioxane	1.72	0.11	0.056	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		24-125%
321-60-8	2-Fluorobiphenyl	74%		19-127%
1718-51-0	Terphenyl-d14	89%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103822.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	93%		56-145%
111-27-3	Hexanol	94%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204139R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	JC16038-2R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155578.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	ND	1.1	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		32-128%
321-60-8	2-Fluorobiphenyl	68%		35-119%
1718-51-0	Terphenyl-d14	76%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204147.D	1	03/15/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	0.32	0.50	0.24	ug/l	J
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.36	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	4.0	5.0	0.28	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.27	1.0	0.19	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	0.45	1.0	0.27	ug/l	J
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

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

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	18.6	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	4.9	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	0.42	1.0	0.16	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	0.61	1.0	0.38	ug/l	J
95-47-6	o-Xylene	0.98	1.0	0.17	ug/l	J
1330-20-7	Xylene (total)	1.6	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155579.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	0.67	1.0	0.29	ug/l	J
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	

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

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	1.2	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
91-57-6	2-Methylnaphthalene	52.4	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	3.6	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	32%		10-110%

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-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	71%		39-149%
4165-60-0	Nitrobenzene-d5	67%		32-128%
321-60-8	2-Fluorobiphenyl	64%		35-119%
1718-51-0	Terphenyl-d14	68%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15638.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	3.57	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		24-125%
321-60-8	2-Fluorobiphenyl	68%		19-127%
1718-51-0	Terphenyl-d14	75%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103823.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	93%		56-145%
111-27-3	Hexanol	91%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204147R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.58	2.0	0.22	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	JC16038-3R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155579R.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	59.2	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		32-128%
321-60-8	2-Fluorobiphenyl	64%		35-119%
1718-51-0	Terphenyl-d14	68%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204148.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2	A221006.D	20	03/17/16	NH	n/a	n/a	VA8370

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	7.4	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.36	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.48	1.0	0.19	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.29	1.0	0.27	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	1040 [a]	20	5.4	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

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

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	20.8	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	11.8	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	0.25	1.0	0.16	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	2480 [a]	20	7.5	ug/l	
95-47-6	o-Xylene	0.42	1.0	0.17	ug/l	J
1330-20-7	Xylene (total)	2480 [a]	20	3.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	102%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	100%	100%	78-117%

(a) Result is from Run# 2

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155580.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.98	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	1.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	5.7	5.3	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	0.92	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.86	ug/l	
	3&4-Methylphenol	ND	2.1	0.71	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.3	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.33	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.6	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.30	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.29	ug/l	
120-12-7	Anthracene	ND	1.1	0.26	ug/l	
1912-24-9	Atrazine	ND	2.1	0.44	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.33	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.35	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.43	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.39	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.29	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.27	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.24	ug/l	
86-74-8	Carbazole	ND	1.1	0.31	ug/l	

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

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.45	ug/l	
218-01-9	Chrysene	ND	1.1	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.30	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.29	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.28	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.29	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.83	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.33	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.81	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.24	ug/l	
86-73-7	Fluorene	ND	1.1	0.31	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	0.31	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.30	ug/l	
91-57-6	2-Methylnaphthalene	0.63	1.1	0.30	ug/l	J
88-74-4	2-Nitroaniline	ND	5.3	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.36	ug/l	
91-20-3	Naphthalene	2.7	1.1	0.30	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.49	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.33	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.31	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.24	ug/l	
129-00-0	Pyrene	ND	1.1	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	32%		10-110%

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-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	83%		39-149%
4165-60-0	Nitrobenzene-d5	71%		32-128%
321-60-8	2-Fluorobiphenyl	70%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15639.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	2.48	0.11	0.014	ug/l	
123-91-1	1,4-Dioxane	0.734	0.11	0.056	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		24-125%
321-60-8	2-Fluorobiphenyl	73%		19-127%
1718-51-0	Terphenyl-d14	80%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103824.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	100%		56-145%
111-27-3	Hexanol	97%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204148R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	3.0	10	1.4	ug/l	J
95-63-6	1,2,4-Trimethylbenzene	1.9	2.0	0.22	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC16038-4R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155580R.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	1.0	1.1	0.28	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		32-128%
321-60-8	2-Fluorobiphenyl	70%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A221005.D	1	03/17/16	NH	n/a	n/a	VA8370
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.34	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	12.2	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	0.49	1.0	0.23	ug/l	J
106-46-7	1,4-Dichlorobenzene	2.5	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	58.5	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

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

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155581.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.98	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	1.5	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	0.92	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.86	ug/l	
	3&4-Methylphenol	ND	2.1	0.71	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.3	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.33	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.6	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.30	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.29	ug/l	
120-12-7	Anthracene	ND	1.1	0.26	ug/l	
1912-24-9	Atrazine	ND	2.1	0.44	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.33	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.35	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.43	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.39	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.29	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.27	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.24	ug/l	
86-74-8	Carbazole	ND	1.1	0.31	ug/l	

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

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.45	ug/l	
218-01-9	Chrysene	ND	1.1	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.30	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.29	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.28	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.34	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.29	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.83	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.33	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.81	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.24	ug/l	
86-73-7	Fluorene	ND	1.1	0.31	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	0.31	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.30	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.30	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.36	ug/l	
91-20-3	Naphthalene	ND	1.1	0.30	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.49	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.33	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.31	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.24	ug/l	
129-00-0	Pyrene	ND	1.1	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	32%		10-110%

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-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	77%		39-149%
4165-60-0	Nitrobenzene-d5	72%		32-128%
321-60-8	2-Fluorobiphenyl	66%		35-119%
1718-51-0	Terphenyl-d14	71%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15640.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.11	0.014	ug/l	
123-91-1	1,4-Dioxane	0.388	0.11	0.056	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	74%		24-125%
321-60-8	2-Fluorobiphenyl	73%		19-127%
1718-51-0	Terphenyl-d14	79%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103825.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	96%		56-145%
111-27-3	Hexanol	93%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A221005R.D	1	03/17/16	NH	n/a	n/a	VA8370
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC16038-5R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155581.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	ND	1.1	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		32-128%
321-60-8	2-Fluorobiphenyl	66%		35-119%
1718-51-0	Terphenyl-d14	71%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204161.D	1	03/15/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.32	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	12.7	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	0.46	1.0	0.23	ug/l	J
106-46-7	1,4-Dichlorobenzene	2.5	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	44.0	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

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

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155582.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	0.90	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.84	ug/l	
	3&4-Methylphenol	ND	2.1	0.69	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.32	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	1.5	ug/l	
83-32-9	Acenaphthene	0.44	1.0	0.29	ug/l	J
208-96-8	Acenaphthylene	ND	1.0	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.1	0.43	ug/l	
100-52-7	Benzaldehyde	ND	5.2	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.34	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.38	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.28	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	0.24	ug/l	
86-74-8	Carbazole	ND	1.0	0.30	ug/l	

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

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.44	ug/l	
218-01-9	Chrysene	ND	1.0	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.29	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.28	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.27	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.33	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.55	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.2	0.28	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.81	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.79	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.24	ug/l	
86-73-7	Fluorene	0.49	1.0	0.30	ug/l	J
118-74-1	Hexachlorobenzene	ND	1.0	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.30	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	3.4	1.0	0.30	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.35	ug/l	
91-20-3	Naphthalene	2.3	1.0	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.32	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.30	ug/l	
85-01-8	Phenanthrene	0.61	1.0	0.24	ug/l	J
129-00-0	Pyrene	ND	1.0	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		14-88%
4165-62-2	Phenol-d5	39%		10-110%

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-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	97%		39-149%
4165-60-0	Nitrobenzene-d5	97%		32-128%
321-60-8	2-Fluorobiphenyl	89%		35-119%
1718-51-0	Terphenyl-d14	86%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15641.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	2.31	0.10	0.014	ug/l	
123-91-1	1,4-Dioxane	0.925	0.10	0.055	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	93%		24-125%
321-60-8	2-Fluorobiphenyl	92%		19-127%
1718-51-0	Terphenyl-d14	97%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103826.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	98%		56-145%
111-27-3	Hexanol	94%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204161R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-16D		
Lab Sample ID:	JC16038-6R	**Date Sampled:**	03/09/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155582R.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	3.3	1.0	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	97%		32-128%
321-60-8	2-Fluorobiphenyl	89%		35-119%
1718-51-0	Terphenyl-d14	86%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	TB030902		
Lab Sample ID:	JC16038-7	**Date Sampled:**	03/09/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204159.D	1	03/15/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	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:	TB030902		
Lab Sample ID:	JC16038-7	**Date Sampled:**	03/09/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	TB030902		
Lab Sample ID:	JC16038-7	**Date Sampled:**	03/09/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103829.D	1	03/18/16	XPL	n/a	n/a	GGH5213
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	99%		56-145%
111-27-3	Hexanol	91%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	TB030902		
Lab Sample ID:	JC16038-7R	**Date Sampled:**	03/09/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204159R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204162.D	1	03/15/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	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:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103411.D	1	03/17/16	SD	03/15/16	OP92078	EP4545
Run #2	P103375.D	40	03/16/16	LK	03/15/16	OP92078	EP4542

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2	990 ml	1.0 ml

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.94	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	0.88	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.83	ug/l	
	3&4-Methylphenol	ND	2.0	0.68	ug/l	
88-75-5	2-Nitrophenol	ND	5.1	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.1	1.5	ug/l	
108-95-2	Phenol	ND	2.0	0.32	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.1	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.1	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.1	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	0.90	5.1	0.34	ug/l	J
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.34	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.1	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.30	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:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.29	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.27	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.33	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.54	ug/l	
123-91-1	1,4-Dioxane	2220 [a]	40	29	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.1	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.78	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.30	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.43	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.37	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.30	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.39	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.1	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.1	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.1	0.35	ug/l	
91-20-3	Naphthalene	ND	1.0	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.47	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.32	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.30	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%	61%	14-88%

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:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	45%	34%	10-110%
118-79-6	2,4,6-Tribromophenol	105%	55%	39-149%
4165-60-0	Nitrobenzene-d5	101%	93%	32-128%
321-60-8	2-Fluorobiphenyl	95%	120% [b]	35-119%
1718-51-0	Terphenyl-d14	96%	84%	10-126%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15642.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%		24-125%
321-60-8	2-Fluorobiphenyl	96%		19-127%
1718-51-0	Terphenyl-d14	93%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103789.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	98%		56-145%
111-27-3	Hexanol	90%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G66288.D	1	03/20/16	BP	03/15/16	OP92108	G4G1744
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		26-132%
877-09-8	Tetrachloro-m-xylene	99%		26-132%
2051-24-3	Decachlorobiphenyl	101%		10-118%
2051-24-3	Decachlorobiphenyl	103%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8R	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204162R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	S-30		
Lab Sample ID:	JC16038-8R	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103411.D	1	03/17/16	SD	03/15/16	OP92078	EP4545
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	101%		32-128%
321-60-8	2-Fluorobiphenyl	95%		35-119%
1718-51-0	Terphenyl-d14	96%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204160.D	1	03/15/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	0.30	1.0	0.19	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	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:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	0.91	1.0	0.23	ug/l	J
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.5	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155576.D	1	03/15/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	

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

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	1.2	2.0	0.77	ug/l	J
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		14-88%
4165-62-2	Phenol-d5	36%		10-110%

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:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
118-79-6	2,4,6-Tribromophenol	87%		39-149%
4165-60-0	Nitrobenzene-d5	90%		32-128%
321-60-8	2-Fluorobiphenyl	83%		35-119%
1718-51-0	Terphenyl-d14	83%		10-126%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15643.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	90%		24-125%
321-60-8	2-Fluorobiphenyl	96%		19-127%
1718-51-0	Terphenyl-d14	92%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103799.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	102%		56-145%
111-27-3	Hexanol	90%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G66287.D	1	03/20/16	BP	03/15/16	OP92108	G4G1744
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		26-132%
877-09-8	Tetrachloro-m-xylene	86%		26-132%
2051-24-3	Decachlorobiphenyl	67%		10-118%
2051-24-3	Decachlorobiphenyl	73%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9R	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204160R.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	FB030816		
Lab Sample ID:	JC16038-9R	**Date Sampled:**	03/08/16
Matrix:	AQ - Field Blank Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155576.D	1	03/15/16	SD	03/15/16	OP92078	EF6543
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene [a]	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	90%		32-128%
321-60-8	2-Fluorobiphenyl	83%		35-119%
1718-51-0	Terphenyl-d14	83%		10-126%

(a) This compound in ICV is outside QC limits bias low.

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204163.D	1	03/16/16	NH	n/a	n/a	VU9383
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	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	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:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.9	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103372.D	1	03/16/16	LK	03/15/16	OP92078	EP4542
Run #2	P103374.D	5	03/16/16	LK	03/15/16	OP92078	EP4542

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2	970 ml	1.0 ml

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	0.90	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.84	ug/l	
	3&4-Methylphenol	ND	2.1	0.69	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.32	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.25	ug/l	
98-86-2	Acetophenone	ND	2.1	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.1	0.43	ug/l	
100-52-7	Benzaldehyde	ND	5.2	0.35	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.34	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.33	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.38	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.28	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	0.24	ug/l	
86-74-8	Carbazole	ND	1.0	0.30	ug/l	

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

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.44	ug/l	
218-01-9	Chrysene	ND	1.0	0.36	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.29	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.28	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.27	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.33	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.55	ug/l	
123-91-1	1,4-Dioxane	385 [a]	5.2	3.7	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.2	0.28	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.81	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.30	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.79	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.24	ug/l	
86-73-7	Fluorene	ND	1.0	0.30	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.44	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.38	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.30	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.40	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.30	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	0.22	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	0.25	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	0.35	ug/l	
91-20-3	Naphthalene	ND	1.0	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.32	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.30	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.24	ug/l	
129-00-0	Pyrene	ND	1.0	0.35	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%	63%	14-88%

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-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL List (SOM0 1.1)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	46%	46%	10-110%
118-79-6	2,4,6-Tribromophenol	99%	90%	39-149%
4165-60-0	Nitrobenzene-d5	97%	104%	32-128%
321-60-8	2-Fluorobiphenyl	95%	113%	35-119%
1718-51-0	Terphenyl-d14	93%	99%	10-126%

(a) Result is from Run# 2

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4P15644.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.014	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	110%		24-125%
321-60-8	2-Fluorobiphenyl	115%		19-127%
1718-51-0	Terphenyl-d14	111%		10-119%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846-8015C (DAI)	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GH103788.D	1	03/17/16	XPL	n/a	n/a	GGH5211
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	95%		56-145%
111-27-3	Hexanol	85%		56-145%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G66289.D	1	03/20/16	BP	03/15/16	OP92108	G4G1744
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.011	0.0045	ug/l	
72-54-8	4,4'-DDD	ND	0.011	0.0052	ug/l	
50-29-3	4,4'-DDT	ND	0.011	0.0050	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%		26-132%
877-09-8	Tetrachloro-m-xylene	76%		26-132%
2051-24-3	Decachlorobiphenyl	72%		10-118%
2051-24-3	Decachlorobiphenyl	81%		10-118%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10R	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204163R.D	1	03/16/16	NH	n/a	n/a	VU9383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

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

SGS Accutest

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	JC16038-10R	**Date Sampled:**	03/08/16
Matrix:	AQ - Ground Water	**Date Received:**	03/11/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P103372.D	1	03/16/16	LK	03/15/16	OP92078	EP4542
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
90-12-0	1-Methylnaphthalene	ND	1.0	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	97%		32-128%
321-60-8	2-Fluorobiphenyl	95%		35-119%
1718-51-0	Terphenyl-d14	93%		10-126%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

GW
FB
WTB

L

Accutest Job #: JC16038
Accutest Quote #:

Client Information	Facility Information
Anderson Mulholland & Associates	Anderson Mulholland
Name: 2700 Westchester Avenue	Project Name:
Address: Purchase NY 10577	Location:
City State Zip: Terry Taylor	Project/PO #: BMS: Former Tank Farm
Send Report to: Phone #: 914-251-0400	FAX #: 914-251-1286

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	VOCs, 8260C	SVOC, 8270D	Volatile Alcohols, 8015B	SVOC, 8270D SIM		* 1,4 Dioxane					
MW- 13	3/9/16	946	NMR	GW	8	X				X	X	X	X	X						1	E19
MW- 7		1119		GW	8	X				X	X	X	X	X						2	V717
MW- 3		1241		GW	8	X				X	X	X	X	X						3	
MW- 5		1529		GW	8	X				X	X	X	X	X						4	
MW- 16		1847		GW	8	X				X	X	X	X	X		*				5	
MW- 16.D	3/9/16	1902	NMR	GW	8	X				X	X	X	X	X		*	3/11/16			6	
MW-				GW	8	X				X	X	X	X	X			(#2) OB				
MW-				GW	8	X				X	X	X	X	X			INITIAL ASSESSMENT	JA/ec			
MW-				GW	8	X				X	X	X	X	X			LABEL VERIFICATION			7	
TB030902	3/9/16	1902	NMR	W	4	X					X		X								

Turnaround Information

- [X] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

RUSH TAT is for FAX data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [X] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Federal Express ID # 8012 1953 5581
Lab Trip Blank Date 2/27/16 Time 1000
SVOC Analysis by Method 8270D SIM for 1,4 Dioxane and Naphthalene only.

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 Vlesh M. Rivera	3/9/16 1433	1 Fedex	2 Fedex	3/11/16 1015	2
Relinquished By Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal # 160 162, 164	Preserved where applicat yes	On Ice: yes

2.3 ec
2-7 Jp
3.2

Fed# 7758 4461 1366, 1355, / 8012 1955 581

5.1 5

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

Accutest Job #: JC16038
Accutest Quote #:

Client Information

Name: Anderson Mulholland & Associates
Address: 2700 Westchester Avenue
City: Purchase State: NY Zip: 10577
Send Report to: Terry Taylor
Phone #: 914-251-0400

Facility Information

Anderson Mulholland and Associates Inc.
Project Name:
Location:
Project/PO #: BMS: Building 5 Area
FAX #: 914-251-1286

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	VOCs, 8260C	SVOC, 8270D	Volatile Alcohols, 8015B	Organo Pesticides, 8081B	SVOC, 8270D SIM						
S-3D	3/8/16	1427	NMR	GW	10	X				X	X	X	X	X	X			8			
FB030816	3/8/16	1430	NMR	GW	10	X				X	X	X	X	X	X			9			
MW-11	3/8/16	1808	NMR	GW	10	X				X	X	X	X	X	X			10			
			NMR	GW	10	X				X	X	X	X	X	X						
			NMR	GW	10	X				X	X	X	X	X	X						
			NMR	GW	10	X				X	X	X	X	X	X						
			NMR	GW	10	X				X	X	X	X	X	X						
			NMR	GW	10	X				X	X	X	X	X	X						
			NMR	GW	10	X				X	X	X	X	X	X						

Turnaround Information

- [X] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

RUSH TAT is for FAX data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [X] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Federal Express ID # 8012 1953 5581
Lab Trip Blank Date 3/27/16 Time 1000
SVOC Analysis by Method 8270D SIM for 1,4 Dioxane and Naphthalene only.

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Victor M Rivera	3/10/16	1 [illegible]	2 [illegible]	3/11/16 1015	2 [illegible]
3		3	4		4
5		5	Seal # 160, 162, 164	Preserved where applical [illegible]	On Ice: [illegible]

5.1 5

Job Number: JC16038 **Client:** ANDERSON MULHOLLAND **Project:** ANDERSON MULHOLLAND

Date / Time Received: 3/11/2016 10:15 **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3); Cooler 2: (2.7); Cooler 3: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.7); Cooler 2: (3.1); Cooler 3: (3.6);

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:	3	

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:	☐	☐	☑

Comments -1 1 of 6 VOA rec'd broken.

-6 3 of 6 VOA rec'd broken.

Problem Resolution

Accutest Job Number: JC16038

CSR: _____ **Response Date:** 3/11/2016

Response: Proceed with analysis

Job Change Order: JC16038

Requested Date:	4/8/2016	**Received Date:**	3/11/2016
Account Name:	Anderson, Mulholland & Associate	**Due Date:**	3/25/2016
Project Description:	BMSMC, Building 5 Area, PR	**Deliverable:**	FULT1
CSR:	matthews	**TAT (Days):**	3

==========

Sample #: JC16038-all

Dept:

TAT: 3

Change:

please relog retrieve on original job for VR8260124TMB, VMS+BNZLCHL, VMS+IPTOLU, VMS+THF, BR8270MNAP

==========

Above Changes Per: Addison Rice

Date/Time: 4/8/2016 9:47:32 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the SGS Accutest Client Service Representative.

Job Change Order: JC16038

Requested Date:	4/12/2016	**Received Date:**	3/11/2016
Account Name:	Anderson, Mulholland & Associate	**Due Date:**	3/25/2016
Project Description:	BMSMC, Building 5 Area, PR	**Deliverable:**	FULT1
CSR:	tammym	**TAT (Days):**	2

==========

Sample #: JC16038-5R through 10R

Dept:

TAT: 2

Change:
cancel VMS+BNZLCHL, lab unable to report

==========

Above Changes Per: Lab

Date/Time: 4/12/2016 10:58:59 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the SGS Accutest Client Service Representative.

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC16038

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC16038-1 MW-13	Collected: 09-MAR-16 09:46 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-1	SW846 8270D	16-MAR-16 00:09	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-1	SW846 8260C	16-MAR-16 11:53	NH			V8260TCL20
JC16038-1	SW846 8270D BY SIM	17-MAR-16 02:30	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-1	SW846-8015C (DAI)	18-MAR-16 16:35	XPL			D8015LMA
JC16038-2 MW-7	Collected: 09-MAR-16 11:19 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-2	SW846 8260C	15-MAR-16 12:24	NH			V8260TCL20
JC16038-2	SW846 8270D	16-MAR-16 00:37	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-2	SW846 8270D BY SIM	17-MAR-16 03:01	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-2	SW846-8015C (DAI)	18-MAR-16 17:18	XPL			D8015LMA
JC16038-3 MW-3	Collected: 09-MAR-16 12:41 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-3	SW846 8260C	15-MAR-16 16:19	NH			V8260TCL20
JC16038-3	SW846 8270D	16-MAR-16 01:06	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-3	SW846 8270D BY SIM	17-MAR-16 03:31	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-3	SW846-8015C (DAI)	18-MAR-16 17:33	XPL			D8015LMA
JC16038-4 MW-5	Collected: 09-MAR-16 15:29 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-4	SW846 8260C	15-MAR-16 16:48	NH			V8260TCL20
JC16038-4	SW846 8270D	16-MAR-16 01:35	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-4	SW846 8270D BY SIM	17-MAR-16 04:01	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-4	SW846 8260C	17-MAR-16 12:30	NH			V8260TCL20
JC16038-4	SW846-8015C (DAI)	18-MAR-16 17:47	XPL			D8015LMA
JC16038-5 MW-16	Collected: 09-MAR-16 18:47 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-5	SW846 8270D	16-MAR-16 02:04	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-5	SW846 8270D BY SIM	17-MAR-16 04:31	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-5	SW846 8260C	17-MAR-16 12:00	NH			V8260TCL20
JC16038-5	SW846-8015C (DAI)	18-MAR-16 18:02	XPL			D8015LMA

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC16038

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC16038-6 MW-16D	Collected: 09-MAR-16 19:02 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-6	SW846 8260C	15-MAR-16 23:08	NH			V8260TCL20
JC16038-6	SW846 8270D	16-MAR-16 02:32	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-6	SW846 8270D BY SIM	17-MAR-16 05:01	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-6	SW846-8015C (DAI)	18-MAR-16 18:23	XPL			D8015LMA
JC16038-7 TB030902	Collected: 09-MAR-16 19:02 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-7	SW846 8260C	15-MAR-16 22:10	NH			V8260TCL20
JC16038-7	SW846-8015C (DAI)	18-MAR-16 19:07	XPL			D8015LMA
JC16038-8 S-30	Collected: 08-MAR-16 14:27 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-8	SW846 8260C	15-MAR-16 23:37	NH			V8260TCL20
JC16038-8	SW846 8270D	16-MAR-16 19:35	LK	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-8	SW846 8270D BY SIM	17-MAR-16 05:31	JJ	15-MAR-16	FA	BSIM + NAP
JC16038-8	SW846-8015C (DAI)	17-MAR-16 15:13	XPL			D8015LMA
JC16038-8	SW846 8270D	17-MAR-16 23:41	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-8	SW846 8081B	20-MAR-16 13:36	BP	15-MAR-16	RF	P8081BETABHC,PGC + 44DDD, PGC + 44DDT
JC16038-9 FB030816	Collected: 08-MAR-16 14:30 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-9	SW846 8260C	15-MAR-16 22:39	NH			V8260TCL20
JC16038-9	SW846 8270D	15-MAR-16 23:40	SD	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-9	SW846 8270D BY SIM	17-MAR-16 06:01	JJ	15-MAR-16	FA	B8270SIM14DIOX,BSIM + NAP
JC16038-9	SW846-8015C (DAI)	17-MAR-16 18:04	XPL			D8015LMA
JC16038-9	SW846 8081B	20-MAR-16 13:21	BP	15-MAR-16	RF	P8081BETABHC,PGC + 44DDD, PGC + 44DDT
JC16038-10 MW-11	Collected: 08-MAR-16 18:08 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-10	SW846 8260C	16-MAR-16 00:07	NH			V8260TCL20

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC16038

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC16038-10	SW846 8270D	16-MAR-16 18:07	LK	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-10	SW846 8270D	16-MAR-16 19:06	LK	15-MAR-16	FA	AB8270TCL20-14DX
JC16038-10	SW846 8270D BY SIM	17-MAR-16 06:31	JJ	15-MAR-16	FA	BSIM+NAP
JC16038-10	SW846-8015C (DAI)	17-MAR-16 14:58	XPL			D8015LMA
JC16038-10	SW846 8081B	20-MAR-16 13:50	BP	15-MAR-16	RF	P8081BETABHC,PGC+44DDD, PGC+44DDT
JC16038-1R	Collected: 09-MAR-16 09:46 By: NMR		Received: 11-MAR-16 By: AM			
MW-13						
JC16038-1R	SW846 8270D	16-MAR-16 00:09	SD	15-MAR-16	FA	BR8270MNAP
JC16038-1R	SW846 8260C	16-MAR-16 11:53	NH			VMS+BNZLCHL,VMS+IPTOLU, VMS+THF,VR8260124TMB
JC16038-2R	Collected: 09-MAR-16 11:19 By: NMR		Received: 11-MAR-16 By: AM			
MW-7						
JC16038-2R	SW846 8260C	15-MAR-16 12:24	NH			VMS+BNZLCHL,VMS+IPTOLU, VMS+THF,VR8260124TMB
JC16038-2R	SW846 8270D	16-MAR-16 00:37	SD	15-MAR-16	FA	BR8270MNAP
JC16038-3R	Collected: 09-MAR-16 12:41 By: NMR		Received: 11-MAR-16 By: AM			
MW-3						
JC16038-3R	SW846 8260C	15-MAR-16 16:19	NH			VMS+BNZLCHL,VMS+IPTOLU, VMS+THF,VR8260124TMB
JC16038-3R	SW846 8270D	16-MAR-16 01:06	SD	15-MAR-16	FA	BR8270MNAP
JC16038-4R	Collected: 09-MAR-16 15:29 By: NMR		Received: 11-MAR-16 By: AM			
MW-5						
JC16038-4R	SW846 8260C	15-MAR-16 16:48	NH			VMS+BNZLCHL,VMS+IPTOLU, VMS+THF,VR8260124TMB
JC16038-4R	SW846 8270D	16-MAR-16 01:35	SD	15-MAR-16	FA	BR8270MNAP
JC16038-5R	Collected: 09-MAR-16 18:47 By: NMR		Received: 11-MAR-16 By: AM			
MW-16						
JC16038-5R	SW846 8270D	16-MAR-16 02:04	SD	15-MAR-16	FA	BR8270MNAP

Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC16038

BMSMC, Building 5 Area, PR
Project No: SM04.00.06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC16038-5R	SW846 8260C	17-MAR-16 12:00	NH			VMS + IPTOLU,VMS + THF, VR8260124TMB
JC16038-6R MW-16D	Collected: 09-MAR-16 19:02 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-6R	SW846 8260C	15-MAR-16 23:08	NH			VMS + IPTOLU,VMS + THF, VR8260124TMB
JC16038-6R	SW846 8270D	16-MAR-16 02:32	SD	15-MAR-16	FA	BR8270MNAP
JC16038-7R TB030902	Collected: 09-MAR-16 19:02 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-7R	SW846 8260C	15-MAR-16 22:10	NH			VMS + IPTOLU,VMS + THF, VR8260124TMB
JC16038-8R S-30	Collected: 08-MAR-16 14:27 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-8R	SW846 8260C	15-MAR-16 23:37	NH			VMS + IPTOLU,VMS + THF, VR8260124TMB
JC16038-8R	SW846 8270D	17-MAR-16 23:41	SD	15-MAR-16	FA	BR8270MNAP
JC16038-9R FB030816	Collected: 08-MAR-16 14:30 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-9R	SW846 8260C	15-MAR-16 22:39	NH			VMS + IPTOLU,VMS + THF, VR8260124TMB
JC16038-9R	SW846 8270D	15-MAR-16 23:40	SD	15-MAR-16	FA	BR8270MNAP
JC16038-10R MW-11	Collected: 08-MAR-16 18:08 By: NMR		Received: 11-MAR-16 By: AM			
JC16038-10R	SW846 8260C	16-MAR-16 00:07	NH			VMS + IPTOLU,VMS + THF, VR8260124TMB
JC16038-10R	SW846 8270D	16-MAR-16 18:07	LK	15-MAR-16	FA	BR8270MNAP

SGS Accutest Internal Chain of Custody

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 03/11/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-1.1	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-1.1	Brian Johnson		03/15/16 14:51	Depleted
JC16038-1.1.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-1.1
JC16038-1.1.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-1.1
JC16038-1.1.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-1.1.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-1.1.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-1.1.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-1.1.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-1.1.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-1.1.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-1.2	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-1.2	Brian Johnson		03/15/16 14:51	Depleted
JC16038-1.2.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-1.2
JC16038-1.2.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-1.2
JC16038-1.2.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-1.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-1.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-1.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-1.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-1.5	Secured Storage	Nicole Horvath	03/16/16 10:53	Retrieve from Storage
JC16038-1.5	Nicole Horvath	GCMSU	03/16/16 10:53	Load on Instrument
JC16038-1.5	GCMSU	Nicole Horvath	03/17/16 08:35	Unload from Instrument
JC16038-1.5	Nicole Horvath	Secured Storage	03/17/16 08:35	Return to Storage
JC16038-1.6	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-1.6	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-1.6	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-1.6	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-2.1	Secured Storage	Nicholas Goydish	03/15/16 13:57	Retrieve from Storage
JC16038-2.1	Nicholas Goydish		03/15/16 16:07	Depleted
JC16038-2.1.1	Nicholas Goydish	Organics Prep	03/15/16 13:58	Extract from JC16038-2.1
JC16038-2.1.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-2.1
JC16038-2.1.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-2.1.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-2.1.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-2.1.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-2.1.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-2.1.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-2.1.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-2.2	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-2.2	Brian Johnson		03/15/16 14:51	Depleted
JC16038-2.2.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-2.2
JC16038-2.2.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-2.2
JC16038-2.2.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-2.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-2.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-2.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-2.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-2.7	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-2.7	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-2.7	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-2.7	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-3.2	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-3.2	Brian Johnson		03/15/16 14:51	Depleted
JC16038-3.2.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-3.2
JC16038-3.2.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-3.2
JC16038-3.2.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-3.2.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-3.2.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-3.2.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-3.2.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-3.2.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-3.2.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-3.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-3.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-3.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-3.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-3.7	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-3.7	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-3.7	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-3.7	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-4.1	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-4.1	Brian Johnson		03/15/16 14:51	Depleted
JC16038-4.1.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-4.1
JC16038-4.1.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-4.1
JC16038-4.1.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-4.1.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-4.1.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-4.1.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-4.1.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-4.1.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-4.1.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-4.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-4.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-4.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-4.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-4.6	Secured Storage	Nicole Horvath	03/16/16 10:14	Retrieve from Storage
JC16038-4.6	Nicole Horvath	Secured Storage	03/16/16 10:14	Return to Storage
JC16038-4.7	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-4.7	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-4.7	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-4.7	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-5.2	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-5.2	Brian Johnson		03/15/16 14:51	Depleted
JC16038-5.2.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-5.2
JC16038-5.2.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-5.2
JC16038-5.2.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-5.2.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-5.2.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-5.2.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-5.2.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-5.2.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-5.2.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-5.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-5.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-5.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-5.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-5.7	Secured Storage	Nicole Horvath	03/17/16 11:16	Retrieve from Storage
JC16038-5.7	Nicole Horvath	GCMSA	03/17/16 11:16	Load on Instrument
JC16038-5.7	GCMSA	Nicole Horvath	03/18/16 09:38	Unload from Instrument
JC16038-5.7	Nicole Horvath	Secured Storage	03/18/16 09:38	Return to Storage
JC16038-5.8	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-5.8	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-5.8	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-5.8	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-6.2	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-6.2	Brian Johnson		03/15/16 14:51	Depleted
JC16038-6.2.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-6.2
JC16038-6.2.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-6.2
JC16038-6.2.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-6.2.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-6.2.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-6.2.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-6.2.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-6.2.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-6.2.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-6.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-6.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-6.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-6.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-6.5	Secured Storage	Nicole Horvath	03/15/16 10:01	Retrieve from Storage
JC16038-6.5	Nicole Horvath	Secured Storage	03/15/16 10:01	Return to Storage
JC16038-6.5	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-6.5	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-6.5	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-6.5	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-7.3	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-7.3	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-7.3	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-7.3	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-7.4	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-7.4	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-7.4	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-7.4	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-8.1	Secured Storage	Luis Villanueva	03/15/16 13:19	Retrieve from Storage
JC16038-8.1	Luis Villanueva	Secured Staging Area	03/15/16 13:19	Return to Storage
JC16038-8.1	Secured Staging Area	Ryan Fantasia	03/15/16 15:03	Retrieve from Storage
JC16038-8.1	Ryan Fantasia	Kyle Sanford	03/15/16 15:14	Custody Transfer
JC16038-8.1	Kyle Sanford		03/15/16 21:10	Depleted
JC16038-8.1.1	Kyle Sanford	Organics Prep	03/15/16 15:16	Extract from JC16038-8.1
JC16038-8.1.1	Organics Prep	Ryan Fantasia	03/15/16 23:14	Extract from JC16038-8.1
JC16038-8.1.1	Ryan Fantasia	Extract Storage	03/15/16 23:14	Return to Storage
JC16038-8.1.1	Extract Storage	Brittany Piercy	03/20/16 11:37	Retrieve from Storage
JC16038-8.1.1	Brittany Piercy	GC4G	03/20/16 11:37	Load on Instrument
JC16038-8.1.1	GC4G	Brittany Piercy	03/21/16 16:53	Unload from Instrument
JC16038-8.1.1	Brittany Piercy	Extract Freezer	03/21/16 16:53	Return to Storage
JC16038-8.2	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-8.2	Brian Johnson		03/15/16 14:51	Depleted
JC16038-8.2.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-8.2
JC16038-8.2.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-8.2
JC16038-8.2.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-8.2.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-8.2.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-8.2.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-8.2.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-8.2.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-8.2.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-8.3	Secured Storage	Luis Villanueva	03/15/16 13:19	Retrieve from Storage
JC16038-8.3	Luis Villanueva	Secured Staging Area	03/15/16 13:19	Return to Storage
JC16038-8.3	Secured Staging Area	Ryan Fantasia	03/15/16 15:03	Retrieve from Storage
JC16038-8.3	Ryan Fantasia	Kyle Sanford	03/15/16 15:14	Custody Transfer
JC16038-8.3	Kyle Sanford	Secured Storage	03/15/16 21:10	Return to Storage
JC16038-8.6	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-8.6	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-8.6	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-8.6	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-8.9	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-8.9	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-8.9	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-8.9	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-9.1	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-9.1	Brian Johnson		03/15/16 14:51	Depleted
JC16038-9.1.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-9.1
JC16038-9.1.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-9.1
JC16038-9.1.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-9.1.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-9.1.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-9.1.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-9.1.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-9.1.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-9.1.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-9.2	Secured Storage	Luis Villanueva	03/15/16 13:19	Retrieve from Storage
JC16038-9.2	Luis Villanueva	Secured Staging Area	03/15/16 13:19	Return to Storage
JC16038-9.2	Secured Staging Area	Ryan Fantasia	03/15/16 15:03	Retrieve from Storage
JC16038-9.2	Ryan Fantasia	Kyle Sanford	03/15/16 15:14	Custody Transfer
JC16038-9.2	Kyle Sanford		03/15/16 21:10	Depleted
JC16038-9.2.1	Kyle Sanford	Organics Prep	03/15/16 15:16	Extract from JC16038-9.2
JC16038-9.2.1	Organics Prep	Ryan Fantasia	03/15/16 23:14	Extract from JC16038-9.2
JC16038-9.2.1	Ryan Fantasia	Extract Storage	03/15/16 23:14	Return to Storage
JC16038-9.2.1	Extract Storage	Brittany Piercy	03/20/16 11:37	Retrieve from Storage
JC16038-9.2.1	Brittany Piercy	GC4G	03/20/16 11:37	Load on Instrument
JC16038-9.2.1	GC4G	Brittany Piercy	03/21/16 16:53	Unload from Instrument
JC16038-9.2.1	Brittany Piercy	Extract Freezer	03/21/16 16:53	Return to Storage
JC16038-9.6	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-9.6	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-9.6	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-9.6	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage
JC16038-9.8	Secured Storage	Nicole Horvath	03/17/16 11:16	Retrieve from Storage
JC16038-9.8	Nicole Horvath	GCMSA	03/17/16 11:16	Load on Instrument
JC16038-9.8	GCMSA	Nicole Horvath	03/18/16 09:38	Unload from Instrument
JC16038-9.8	Nicole Horvath	Secured Storage	03/18/16 09:38	Return to Storage
JC16038-9.9	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-9.9	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-9.9	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-9.9	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-10.1	Secured Storage	Brian Johnson	03/15/16 04:31	Retrieve from Storage
JC16038-10.1	Brian Johnson		03/15/16 14:51	Depleted

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Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC16038-10.1.1	Brian Johnson	Organics Prep	03/15/16 05:08	Extract from JC16038-10.1
JC16038-10.1.1	Organics Prep	Folarin Adedeji	03/15/16 17:41	Extract from JC16038-10.1
JC16038-10.1.1	Folarin Adedeji	Extract Storage	03/15/16 17:41	Return to Storage
JC16038-10.1.1	Extract Storage	Julius Johnson	03/15/16 22:29	Retrieve from Storage
JC16038-10.1.1	Julius Johnson	GCMSF	03/15/16 22:29	Load on Instrument
JC16038-10.1.1	GCMSF	Linsey Kirschmann	03/16/16 16:52	Unload from Instrument
JC16038-10.1.1	Linsey Kirschmann	Extract Freezer	03/16/16 16:52	Return to Storage
JC16038-10.1.1	Extract Freezer	Julius Johnson	03/16/16 23:18	Retrieve from Storage
JC16038-10.1.1	Julius Johnson	GCMS4P	03/16/16 23:18	Load on Instrument
JC16038-10.2	Secured Storage	Luis Villanueva	03/15/16 13:19	Retrieve from Storage
JC16038-10.2	Luis Villanueva	Secured Staging Area	03/15/16 13:19	Return to Storage
JC16038-10.2	Secured Staging Area	Ryan Fantasia	03/15/16 15:03	Retrieve from Storage
JC16038-10.2	Ryan Fantasia	Kyle Sanford	03/15/16 15:14	Custody Transfer
JC16038-10.2	Kyle Sanford		03/15/16 21:10	Depleted
JC16038-10.2.1	Kyle Sanford	Organics Prep	03/15/16 15:16	Extract from JC16038-10.2
JC16038-10.2.1	Organics Prep	Ryan Fantasia	03/15/16 23:14	Extract from JC16038-10.2
JC16038-10.2.1	Ryan Fantasia	Extract Storage	03/15/16 23:14	Return to Storage
JC16038-10.2.1	Extract Storage	Brittany Piercy	03/20/16 11:37	Retrieve from Storage
JC16038-10.2.1	Brittany Piercy	GC4G	03/20/16 11:37	Load on Instrument
JC16038-10.2.1	GC4G	Brittany Piercy	03/21/16 16:53	Unload from Instrument
JC16038-10.2.1	Brittany Piercy	Extract Freezer	03/21/16 16:53	Return to Storage
JC16038-10.5	Secured Storage	Nicole Horvath	03/15/16 10:56	Retrieve from Storage
JC16038-10.5	Nicole Horvath	GCMSU	03/15/16 10:56	Load on Instrument
JC16038-10.5	GCMSU	Nicole Horvath	03/16/16 08:56	Unload from Instrument
JC16038-10.5	Nicole Horvath	Secured Storage	03/16/16 08:56	Return to Storage
JC16038-10.6	Secured Storage	Xu Liu	03/14/16 09:58	Retrieve from Storage
JC16038-10.6	Xu Liu	Secured Storage	03/14/16 13:42	Return to Storage
JC16038-10.6	Secured Storage	Xu Liu	03/17/16 09:52	Retrieve from Storage
JC16038-10.6	Xu Liu	Secured Storage	03/17/16 15:10	Return to Storage

GC/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: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9383-MB	U204134.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-2R, JC16038-3R, JC16038-4R

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9383-MB	U204134.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-2R, JC16038-3R, JC16038-4R

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	101%	78-117%

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

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9383-MB2	U204156.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9383-MB2	U204156.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	73-122%
2037-26-5	Toluene-D8	99%	84-119%
460-00-4	4-Bromofluorobenzene	103%	78-117%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9384-MB	U204167.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-44-7	Benzyl Chloride	ND	5.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9384-MB	U204167.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	73-122%
2037-26-5	Toluene-D8	99%	84-119%
460-00-4	4-Bromofluorobenzene	104%	78-117%

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

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA8370-MB	A221001.D	1	03/17/16	NH	n/a	n/a	VA8370

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

JC16038-4, JC16038-5, JC16038-5R

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.21	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA8370-MB	A221001.D	1	03/17/16	NH	n/a	n/a	VA8370

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

JC16038-4, JC16038-5, JC16038-5R

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
109-99-9	Tetrahydrofuran	ND	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	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	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	98%	78-117%

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

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9383-BS	U204135.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	57.7	115	47-144
71-43-2	Benzene	50	51.0	102	81-119
100-44-7	Benzyl Chloride	50	59.2	118	40-157
74-97-5	Bromochloromethane	50	54.2	108	84-120
75-27-4	Bromodichloromethane	50	53.5	107	81-125
75-25-2	Bromoform	50	51.2	102	74-128
74-83-9	Bromomethane	50	53.5	107	52-146
78-93-3	2-Butanone (MEK)	50	55.7	111	68-130
75-15-0	Carbon disulfide	50	54.0	108	71-129
56-23-5	Carbon tetrachloride	50	52.8	106	77-140
108-90-7	Chlorobenzene	50	52.3	105	84-116
75-00-3	Chloroethane	50	49.1	98	70-148
67-66-3	Chloroform	50	57.4	115	81-120
74-87-3	Chloromethane	50	43.9	88	50-143
110-82-7	Cyclohexane	50	53.2	106	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	52.6	105	66-132
124-48-1	Dibromochloromethane	50	51.7	103	81-122
106-93-4	1,2-Dibromoethane	50	50.0	100	81-120
95-50-1	1,2-Dichlorobenzene	50	51.6	103	80-117
541-73-1	1,3-Dichlorobenzene	50	51.1	102	81-116
106-46-7	1,4-Dichlorobenzene	50	50.6	101	80-115
75-71-8	Dichlorodifluoromethane	50	46.9	94	36-169
75-34-3	1,1-Dichloroethane	50	54.9	110	80-125
107-06-2	1,2-Dichloroethane	50	52.4	105	78-131
75-35-4	1,1-Dichloroethene	50	55.1	110	73-127
156-59-2	cis-1,2-Dichloroethene	50	53.4	107	77-118
156-60-5	trans-1,2-Dichloroethene	50	51.1	102	75-118
78-87-5	1,2-Dichloropropane	50	51.7	103	80-124
10061-01-5	cis-1,3-Dichloropropene	50	53.8	108	72-121
10061-02-6	trans-1,3-Dichloropropene	50	54.0	108	73-122
100-41-4	Ethylbenzene	50	52.1	104	80-118
76-13-1	Freon 113	50	60.9	122	76-140
591-78-6	2-Hexanone	50	51.4	103	66-128
98-82-8	Isopropylbenzene	50	53.1	106	78-125
99-87-6	p-Isopropyltoluene	50	55.4	111	81-124
79-20-9	Methyl Acetate	50	54.8	110	63-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9383-BS	U204135.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	54.7	109	69-132
1634-04-4	Methyl Tert Butyl Ether	100	112	112	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	53.7	107	73-129
75-09-2	Methylene chloride	50	52.7	105	75-122
100-42-5	Styrene	50	54.3	109	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	50.7	101	69-116
127-18-4	Tetrachloroethene	50	53.2	106	69-138
109-99-9	Tetrahydrofuran	50	54.9	110	56-132
108-88-3	Toluene	50	52.9	106	80-122
87-61-6	1,2,3-Trichlorobenzene	50	54.8	110	74-137
120-82-1	1,2,4-Trichlorobenzene	50	55.1	110	75-135
71-55-6	1,1,1-Trichloroethane	50	57.5	115	80-131
79-00-5	1,1,2-Trichloroethane	50	52.1	104	78-122
79-01-6	Trichloroethene	50	51.6	103	83-122
75-69-4	Trichlorofluoromethane	50	50.1	100	66-143
95-63-6	1,2,4-Trimethylbenzene	50	54.0	108	82-125
75-01-4	Vinyl chloride	50	43.1	86	57-138
	m,p-Xylene	100	106	106	82-119
95-47-6	o-Xylene	50	54.9	110	82-119
1330-20-7	Xylene (total)	150	161	107	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	108%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	100%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9384-BS	U204168.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	55.8	112	47-144
71-43-2	Benzene	50	52.2	104	81-119
100-44-7	Benzyl Chloride	50	58.4	117	40-157
74-97-5	Bromochloromethane	50	55.0	110	84-120
75-27-4	Bromodichloromethane	50	54.4	109	81-125
75-25-2	Bromoform	50	51.7	103	74-128
74-83-9	Bromomethane	50	52.0	104	52-146
78-93-3	2-Butanone (MEK)	50	56.2	112	68-130
75-15-0	Carbon disulfide	50	55.9	112	71-129
56-23-5	Carbon tetrachloride	50	54.0	108	77-140
108-90-7	Chlorobenzene	50	52.7	105	84-116
75-00-3	Chloroethane	50	47.0	94	70-148
67-66-3	Chloroform	50	59.0	118	81-120
74-87-3	Chloromethane	50	40.5	81	50-143
110-82-7	Cyclohexane	50	47.5	95	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	52.1	104	66-132
124-48-1	Dibromochloromethane	50	52.1	104	81-122
106-93-4	1,2-Dibromoethane	50	50.3	101	81-120
95-50-1	1,2-Dichlorobenzene	50	53.0	106	80-117
541-73-1	1,3-Dichlorobenzene	50	51.9	104	81-116
106-46-7	1,4-Dichlorobenzene	50	51.3	103	80-115
75-71-8	Dichlorodifluoromethane	50	47.8	96	36-169
75-34-3	1,1-Dichloroethane	50	56.4	113	80-125
107-06-2	1,2-Dichloroethane	50	53.3	107	78-131
75-35-4	1,1-Dichloroethene	50	57.4	115	73-127
156-59-2	cis-1,2-Dichloroethene	50	54.7	109	77-118
156-60-5	trans-1,2-Dichloroethene	50	52.9	106	75-118
78-87-5	1,2-Dichloropropane	50	52.6	105	80-124
10061-01-5	cis-1,3-Dichloropropene	50	54.5	109	72-121
10061-02-6	trans-1,3-Dichloropropene	50	55.1	110	73-122
100-41-4	Ethylbenzene	50	52.6	105	80-118
76-13-1	Freon 113	50	61.3	123	76-140
591-78-6	2-Hexanone	50	51.6	103	66-128
98-82-8	Isopropylbenzene	50	54.1	108	78-125
99-87-6	p-Isopropyltoluene	50	56.5	113	81-124
79-20-9	Methyl Acetate	50	53.1	106	63-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU9384-BS	U204168.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	54.3	109	69-132
1634-04-4	Methyl Tert Butyl Ether	100	110	110	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	53.4	107	73-129
75-09-2	Methylene chloride	50	54.4	109	75-122
100-42-5	Styrene	50	54.8	110	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	51.2	102	69-116
127-18-4	Tetrachloroethene	50	53.9	108	69-138
109-99-9	Tetrahydrofuran	50	55.5	111	56-132
108-88-3	Toluene	50	54.1	108	80-122
87-61-6	1,2,3-Trichlorobenzene	50	54.2	108	74-137
120-82-1	1,2,4-Trichlorobenzene	50	55.1	110	75-135
71-55-6	1,1,1-Trichloroethane	50	58.3	117	80-131
79-00-5	1,1,2-Trichloroethane	50	52.5	105	78-122
79-01-6	Trichloroethene	50	52.5	105	83-122
75-69-4	Trichlorofluoromethane	50	50.9	102	66-143
95-63-6	1,2,4-Trimethylbenzene	50	54.8	110	82-125
75-01-4	Vinyl chloride	50	42.6	85	57-138
	m,p-Xylene	100	107	107	82-119
95-47-6	o-Xylene	50	55.3	111	82-119
1330-20-7	Xylene (total)	150	162	108	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	109%	73-122%
2037-26-5	Toluene-D8	101%	84-119%
460-00-4	4-Bromofluorobenzene	101%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA8370-BS	A221002.D	1	03/17/16	NH	n/a	n/a	VA8370

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

JC16038-4, JC16038-5, JC16038-5R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	49.8	100	47-144
71-43-2	Benzene	50	49.9	100	81-119
74-97-5	Bromochloromethane	50	52.6	105	84-120
75-27-4	Bromodichloromethane	50	49.8	100	81-125
75-25-2	Bromoform	50	52.4	105	74-128
74-83-9	Bromomethane	50	49.1	98	52-146
78-93-3	2-Butanone (MEK)	50	55.7	111	68-130
75-15-0	Carbon disulfide	50	52.3	105	71-129
56-23-5	Carbon tetrachloride	50	54.3	109	77-140
108-90-7	Chlorobenzene	50	51.4	103	84-116
75-00-3	Chloroethane	50	50.2	100	70-148
67-66-3	Chloroform	50	53.9	108	81-120
74-87-3	Chloromethane	50	41.3	83	50-143
110-82-7	Cyclohexane	50	53.0	106	77-125
96-12-8	1,2-Dibromo-3-chloropropane	50	49.5	99	66-132
124-48-1	Dibromochloromethane	50	51.2	102	81-122
106-93-4	1,2-Dibromoethane	50	49.4	99	81-120
95-50-1	1,2-Dichlorobenzene	50	50.7	101	80-117
541-73-1	1,3-Dichlorobenzene	50	51.2	102	81-116
106-46-7	1,4-Dichlorobenzene	50	51.3	103	80-115
75-71-8	Dichlorodifluoromethane	50	43.9	88	36-169
75-34-3	1,1-Dichloroethane	50	50.6	101	80-125
107-06-2	1,2-Dichloroethane	50	49.9	100	78-131
75-35-4	1,1-Dichloroethene	50	52.2	104	73-127
156-59-2	cis-1,2-Dichloroethene	50	52.0	104	77-118
156-60-5	trans-1,2-Dichloroethene	50	50.4	101	75-118
78-87-5	1,2-Dichloropropane	50	50.6	101	80-124
10061-01-5	cis-1,3-Dichloropropene	50	52.0	104	72-121
10061-02-6	trans-1,3-Dichloropropene	50	52.3	105	73-122
100-41-4	Ethylbenzene	50	51.7	103	80-118
76-13-1	Freon 113	50	57.4	115	76-140
591-78-6	2-Hexanone	50	52.3	105	66-128
98-82-8	Isopropylbenzene	50	54.3	109	78-125
99-87-6	p-Isopropyltoluene	50	57.2	114	81-124
79-20-9	Methyl Acetate	50	46.4	93	63-120
108-87-2	Methylcyclohexane	50	51.5	103	69-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA8370-BS	A221002.D	1	03/17/16	NH	n/a	n/a	VA8370

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

JC16038-4, JC16038-5, JC16038-5R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	100	99.9	100	73-122
108-10-1	4-Methyl-2-pentanone(MIBK)	50	54.0	108	73-129
75-09-2	Methylene chloride	50	48.8	98	75-122
100-42-5	Styrene	50	52.7	105	81-121
79-34-5	1,1,2,2-Tetrachloroethane	50	48.5	97	69-116
127-18-4	Tetrachloroethene	50	50.6	101	69-138
109-99-9	Tetrahydrofuran	50	49.5	99	56-132
108-88-3	Toluene	50	52.4	105	80-122
87-61-6	1,2,3-Trichlorobenzene	50	50.6	101	74-137
120-82-1	1,2,4-Trichlorobenzene	50	51.6	103	75-135
71-55-6	1,1,1-Trichloroethane	50	57.7	115	80-131
79-00-5	1,1,2-Trichloroethane	50	51.8	104	78-122
79-01-6	Trichloroethene	50	51.1	102	83-122
75-69-4	Trichlorofluoromethane	50	49.8	100	66-143
95-63-6	1,2,4-Trimethylbenzene	50	55.5	111	82-125
75-01-4	Vinyl chloride	50	45.8	92	57-138
	m,p-Xylene	100	107	107	82-119
95-47-6	o-Xylene	50	53.2	106	82-119
1330-20-7	Xylene (total)	150	160	107	82-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	99%	73-122%
2037-26-5	Toluene-D8	101%	84-119%
460-00-4	4-Bromofluorobenzene	98%	78-117%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16101-1MS	U204144.D	1	03/15/16	NH	n/a	n/a	VU9383
JC16101-1	U204140.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	JC16101-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		50	50.0	100	33-158
71-43-2	Benzene	ND		50	48.3	97	43-138
100-44-7	Benzyl Chloride	ND		50	55.0	110	48-155
74-97-5	Bromochloromethane	ND		50	49.7	99	75-127
75-27-4	Bromodichloromethane	ND		50	49.4	99	72-128
75-25-2	Bromoform	ND		50	45.2	90	70-131
74-83-9	Bromomethane	ND		50	56.3	113	47-142
78-93-3	2-Butanone (MEK)	ND		50	48.1	96	56-146
75-15-0	Carbon disulfide	ND		50	52.1	104	38-136
56-23-5	Carbon tetrachloride	ND		50	51.6	103	45-149
108-90-7	Chlorobenzene	ND		50	48.7	97	70-124
75-00-3	Chloroethane	ND		50	51.2	102	47-139
67-66-3	Chloroform	ND		50	54.6	109	66-126
74-87-3	Chloromethane	ND		50	46.2	92	41-140
110-82-7	Cyclohexane	ND		50	45.8	92	30-148
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	44.8	90	64-136
124-48-1	Dibromochloromethane	ND		50	46.8	94	75-126
106-93-4	1,2-Dibromoethane	ND		50	44.9	90	77-124
95-50-1	1,2-Dichlorobenzene	ND		50	47.5	95	71-124
541-73-1	1,3-Dichlorobenzene	ND		50	47.5	95	69-125
106-46-7	1,4-Dichlorobenzene	ND		50	46.7	93	69-122
75-71-8	Dichlorodifluoromethane	ND		50	54.3	109	24-161
75-34-3	1,1-Dichloroethane	ND		50	52.4	105	60-129
107-06-2	1,2-Dichloroethane	ND		50	48.1	96	72-133
75-35-4	1,1-Dichloroethene	ND		50	54.3	109	40-137
156-59-2	cis-1,2-Dichloroethene	ND		50	50.3	101	57-128
156-60-5	trans-1,2-Dichloroethene	ND		50	49.6	99	53-128
78-87-5	1,2-Dichloropropane	ND		50	48.3	97	69-127
10061-01-5	cis-1,3-Dichloropropene	ND		50	49.3	99	67-129
10061-02-6	trans-1,3-Dichloropropene	ND		50	49.4	99	68-130
100-41-4	Ethylbenzene	ND		50	49.4	99	38-139
76-13-1	Freon 113	ND		50	64.6	129	34-154
591-78-6	2-Hexanone	ND		50	44.6	89	55-148
98-82-8	Isopropylbenzene	ND		50	50.2	100	54-137
99-87-6	p-Isopropyltoluene	ND		50	52.4	105	57-135
79-20-9	Methyl Acetate	ND		50	49.6	99	60-137

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16101-1MS	U204144.D	1	03/15/16	NH	n/a	n/a	VU9383
JC16101-1	U204140.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	JC16101-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-87-2	Methylcyclohexane	ND		50	57.4	115	30-152
1634-04-4	Methyl Tert Butyl Ether	ND		100	101	101	64-132
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		50	46.0	92	68-139
75-09-2	Methylene chloride	ND		50	49.0	98	63-128
100-42-5	Styrene	ND		50	50.7	101	61-134
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	44.6	89	67-126
127-18-4	Tetrachloroethene	ND		50	51.3	103	43-145
109-99-9	Tetrahydrofuran	ND		50	48.0	96	49-135
108-88-3	Toluene	ND		50	49.8	100	51-136
87-61-6	1,2,3-Trichlorobenzene	ND		50	49.7	99	66-140
120-82-1	1,2,4-Trichlorobenzene	ND		50	49.7	99	65-138
71-55-6	1,1,1-Trichloroethane	ND		50	55.4	111	51-141
79-00-5	1,1,2-Trichloroethane	ND		50	46.8	94	71-127
79-01-6	Trichloroethene	ND		50	49.0	98	55-136
75-69-4	Trichlorofluoromethane	ND		50	55.3	111	33-157
95-63-6	1,2,4-Trimethylbenzene	ND		50	50.5	101	40-143
75-01-4	Vinyl chloride	ND		50	47.6	95	34-147
	m,p-Xylene	ND		100	100	100	42-139
95-47-6	o-Xylene	ND		50	51.8	104	56-134
1330-20-7	Xylene (total)	ND		150	152	101	46-137

CAS No.	Surrogate Recoveries	MS	JC16101-1	Limits
1868-53-7	Dibromofluoromethane	105%	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	109%	107%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	99%	104%	78-117%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16065-1MS	U204179.D	1	03/16/16	NH	n/a	n/a	VU9384
JC16065-1	U204173.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	JC16065-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		50	51.7	103	33-158
71-43-2	Benzene	ND		50	50.2	100	43-138
100-44-7	Benzyl Chloride	ND		50	53.6	107	48-155
74-97-5	Bromochloromethane	ND		50	51.8	104	75-127
75-27-4	Bromodichloromethane	ND		50	52.9	106	72-128
75-25-2	Bromoform	ND		50	49.6	99	70-131
74-83-9	Bromomethane	ND		50	56.7	113	47-142
78-93-3	2-Butanone (MEK)	ND		50	51.7	103	56-146
75-15-0	Carbon disulfide	ND		50	52.0	104	38-136
56-23-5	Carbon tetrachloride	ND		50	53.2	106	45-149
108-90-7	Chlorobenzene	ND		50	52.3	105	70-124
75-00-3	Chloroethane	ND		50	51.3	103	47-139
67-66-3	Chloroform	1.5		50	59.2	115	66-126
74-87-3	Chloromethane	ND		50	46.4	93	41-140
110-82-7	Cyclohexane	ND		50	46.5	93	30-148
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	50.5	101	64-136
124-48-1	Dibromochloromethane	ND		50	50.8	102	75-126
106-93-4	1,2-Dibromoethane	ND		50	48.3	97	77-124
95-50-1	1,2-Dichlorobenzene	ND		50	51.8	104	71-124
541-73-1	1,3-Dichlorobenzene	ND		50	51.2	102	69-125
106-46-7	1,4-Dichlorobenzene	ND		50	50.6	101	69-122
75-71-8	Dichlorodifluoromethane	ND		50	50.4	101	24-161
75-34-3	1,1-Dichloroethane	ND		50	54.4	109	60-129
107-06-2	1,2-Dichloroethane	ND		50	50.7	101	72-133
75-35-4	1,1-Dichloroethene	ND		50	54.3	109	40-137
156-59-2	cis-1,2-Dichloroethene	ND		50	52.5	105	57-128
156-60-5	trans-1,2-Dichloroethene	ND		50	50.6	101	53-128
78-87-5	1,2-Dichloropropane	ND		50	50.8	102	69-127
10061-01-5	cis-1,3-Dichloropropene	ND		50	53.0	106	67-129
10061-02-6	trans-1,3-Dichloropropene	ND		50	53.4	107	68-130
100-41-4	Ethylbenzene	ND		50	52.7	105	38-139
76-13-1	Freon 113	ND		50	55.0	110	34-154
591-78-6	2-Hexanone	ND		50	48.5	97	55-148
98-82-8	Isopropylbenzene	ND		50	54.0	108	54-137
99-87-6	p-Isopropyltoluene	ND		50	57.1	114	57-135
79-20-9	Methyl Acetate	ND		50	47.7	95	60-137

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16065-1MS	U204179.D	1	03/16/16	NH	n/a	n/a	VU9384
JC16065-1	U204173.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	JC16065-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-87-2	Methylcyclohexane	ND		50	53.0	106	30-152
1634-04-4	Methyl Tert Butyl Ether	ND		100	100	100	64-132
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		50	50.3	101	68-139
75-09-2	Methylene chloride	ND		50	50.2	100	63-128
100-42-5	Styrene	ND		50	54.4	109	61-134
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	48.7	97	67-126
127-18-4	Tetrachloroethene	ND		50	53.9	108	43-145
109-99-9	Tetrahydrofuran	ND		50	49.9	100	49-135
108-88-3	Toluene	ND		50	52.7	105	51-136
87-61-6	1,2,3-Trichlorobenzene	ND		50	55.0	110	66-140
120-82-1	1,2,4-Trichlorobenzene	ND		50	54.9	110	65-138
71-55-6	1,1,1-Trichloroethane	ND		50	57.3	115	51-141
79-00-5	1,1,2-Trichloroethane	ND		50	50.2	100	71-127
79-01-6	Trichloroethene	ND		50	51.7	103	55-136
75-69-4	Trichlorofluoromethane	ND		50	54.9	110	33-157
95-63-6	1,2,4-Trimethylbenzene	ND		50	54.6	109	40-143
75-01-4	Vinyl chloride	ND		50	47.7	95	34-147
	m,p-Xylene	ND		100	107	107	42-139
95-47-6	o-Xylene	ND		50	55.0	110	56-134
1330-20-7	Xylene (total)	ND		150	162	108	46-137

CAS No.	Surrogate Recoveries	MS	JC16065-1	Limits
1868-53-7	Dibromofluoromethane	106%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	109%	108%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	98%	104%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16250-14MS	A221012.D	25	03/17/16	NH	n/a	n/a	VA8370
JC16250-14MSD	A221013.D	25	03/17/16	NH	n/a	n/a	VA8370
JC16250-14	A221008.D	25	03/17/16	NH	n/a	n/a	VA8370
JC16250-14	A221009.D	250	03/17/16	NH	n/a	n/a	VA8370

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

JC16038-4, JC16038-5, JC16038-5R

CAS No.	Compound	JC16250-14 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		1250	1180	94	1250	1170	94	1	33-158/19
71-43-2	Benzene	689		1250	1720	82	1250	1770	86	3	43-138/12
74-97-5	Bromochloromethane	ND		1250	1220	98	1250	1250	100	2	75-127/12
75-27-4	Bromodichloromethane	ND		1250	1150	92	1250	1190	95	3	72-128/13
75-25-2	Bromoform	ND		1250	1210	97	1250	1230	98	2	70-131/12
74-83-9	Bromomethane	ND		1250	1180	94	1250	1240	99	5	47-142/16
78-93-3	2-Butanone (MEK)	ND		1250	1310	105	1250	1340	107	2	56-146/12
75-15-0	Carbon disulfide	ND		1250	1190	95	1250	1220	98	2	38-136/17
56-23-5	Carbon tetrachloride	ND		1250	1180	94	1250	1260	101	7	45-149/17
108-90-7	Chlorobenzene	ND		1250	1210	97	1250	1230	98	2	70-124/12
75-00-3	Chloroethane	ND		1250	1180	94	1250	1240	99	5	47-139/15
67-66-3	Chloroform	ND		1250	1240	99	1250	1270	102	2	66-126/13
74-87-3	Chloromethane	ND		1250	990	79	1250	1040	83	5	41-140/15
110-82-7	Cyclohexane	46.9	J	1250	1370	106	1250	1280	99	7	30-148/17
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1120	90	1250	1120	90	0	64-136/14
124-48-1	Dibromochloromethane	ND		1250	1190	95	1250	1190	95	0	75-126/12
106-93-4	1,2-Dibromoethane	ND		1250	1140	91	1250	1140	91	0	77-124/11
95-50-1	1,2-Dichlorobenzene	ND		1250	1160	93	1250	1200	96	3	71-124/12
541-73-1	1,3-Dichlorobenzene	ND		1250	1170	94	1250	1220	98	4	69-125/12
106-46-7	1,4-Dichlorobenzene	ND		1250	1180	94	1250	1220	98	3	69-122/12
75-71-8	Dichlorodifluoromethane	ND		1250	993	79	1250	1040	83	5	24-161/20
75-34-3	1,1-Dichloroethane	ND		1250	1170	94	1250	1200	96	3	60-129/13
107-06-2	1,2-Dichloroethane	ND		1250	1150	92	1250	1170	94	2	72-133/12
75-35-4	1,1-Dichloroethene	ND		1250	1210	97	1250	1260	101	4	40-137/17
156-59-2	cis-1,2-Dichloroethene	ND		1250	1220	98	1250	1260	101	3	57-128/13
156-60-5	trans-1,2-Dichloroethene	ND		1250	1160	93	1250	1160	93	0	53-128/15
78-87-5	1,2-Dichloropropane	ND		1250	1150	92	1250	1170	94	2	69-127/12
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1220	98	1250	1220	98	0	67-129/14
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1240	99	1250	1250	100	1	68-130/14
100-41-4	Ethylbenzene	2750		1250	3410	53	1250	3510	61	3	38-139/12
76-13-1	Freon 113	ND		1250	1110	89	1250	1190	95	7	34-154/18
591-78-6	2-Hexanone	ND		1250	1230	98	1250	1220	98	1	55-148/15
98-82-8	Isopropylbenzene	101		1250	1310	97	1250	1390	103	6	54-137/15
99-87-6	p-Isopropyltoluene	ND		1250	1290	103	1250	1350	108	5	57-135/16
79-20-9	Methyl Acetate	ND		1250	960	77	1250	926	74	4	60-137/13
108-87-2	Methylcyclohexane	30.7	J	1250	1010	78	1250	1070	83	6	30-152/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16250-14MS	A221012.D	25	03/17/16	NH	n/a	n/a	VA8370
JC16250-14MSD	A221013.D	25	03/17/16	NH	n/a	n/a	VA8370
JC16250-14	A221008.D	25	03/17/16	NH	n/a	n/a	VA8370
JC16250-14	A221009.D	250	03/17/16	NH	n/a	n/a	VA8370

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

JC16038-4, JC16038-5, JC16038-5R

CAS No.	Compound	JC16250-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	13.4	J	2500	2130	85	2500	2190	87	3	64-132/13
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		1250	1230	98	1250	1220	98	1	68-139/12
75-09-2	Methylene chloride	ND		1250	1160	93	1250	1210	97	4	63-128/13
100-42-5	Styrene	ND		1250	1380	110	1250	1400	112	1	61-134/13
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1110	89	1250	1110	89	0	67-126/13
127-18-4	Tetrachloroethene	ND		1250	1180	94	1250	1230	98	4	43-145/15
109-99-9	Tetrahydrofuran	ND		1250	1140	91	1250	1150	92	1	49-135/14
108-88-3	Toluene	8230 [b]		1250	7740	-39* [a]	1250	7870	-29* [a]	2	51-136/13
87-61-6	1,2,3-Trichlorobenzene	ND		1250	1120	90	1250	1180	94	5	66-140/14
120-82-1	1,2,4-Trichlorobenzene	ND		1250	1180	94	1250	1220	98	3	65-138/15
71-55-6	1,1,1-Trichloroethane	ND		1250	1290	103	1250	1360	109	5	51-141/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1230	98	1250	1230	98	0	71-127/12
79-01-6	Trichloroethene	ND		1250	1180	94	1250	1210	97	3	55-136/14
75-69-4	Trichlorofluoromethane	ND		1250	1230	98	1250	1300	104	6	33-157/21
95-63-6	1,2,4-Trimethylbenzene	2100		1250	3030	74	1250	3150	84	4	40-143/13
75-01-4	Vinyl chloride	ND		1250	1090	87	1250	1150	92	5	34-147/17
	m,p-Xylene	9740		2500	10500	30* [a]	2500	10600	34* [a]	1	42-139/13
95-47-6	o-Xylene	3240		1250	3970	58	1250	4100	69	3	56-134/13
1330-20-7	Xylene (total)	13000		3750	14500	40* [a]	3750	14700	45* [a]	1	46-137/12

CAS No.	Surrogate Recoveries	MS	MSD	JC16250-14	JC16250-14	Limits
1868-53-7	Dibromofluoromethane	103%	103%	101%	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	98%	99%	99%	73-122%
2037-26-5	Toluene-D8	101%	102%	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	98%	97%	100%	100%	78-117%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Result is from Run #2.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16101-2DUP	U204146.D	1	03/15/16	NH	n/a	n/a	VU9383
JC16101-2	U204141.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	JC16101-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	30
71-43-2	Benzene	ND		ND		nc	30
100-44-7	Benzyl Chloride	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
99-87-6	p-Isopropyltoluene	ND		ND		nc	30
79-20-9	Methyl Acetate	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16101-2DUP	U204146.D	1	03/15/16	NH	n/a	n/a	VU9383
JC16101-2	U204141.D	1	03/15/16	NH	n/a	n/a	VU9383

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

JC16038-2, JC16038-3, JC16038-4, JC16038-6, JC16038-7, JC16038-8, JC16038-9, JC16038-10, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-6R, JC16038-7R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	JC16101-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-87-2	Methylcyclohexane	ND		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	30
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	30
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
109-99-9	Tetrahydrofuran	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	30
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
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	30
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	30

CAS No.	Surrogate Recoveries	DUP	JC16101-2	Limits
1868-53-7	Dibromofluoromethane	105%	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	107%	73-122%
2037-26-5	Toluene-D8	99%	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	103%	78-117%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16065-2DUP	U204181.D	1	03/16/16	NH	n/a	n/a	VU9384
JC16065-2	U204174.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	JC16065-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	30
71-43-2	Benzene	ND		ND		nc	30
100-44-7	Benzyl Chloride	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
99-87-6	p-Isopropyltoluene	ND		ND		nc	30
79-20-9	Methyl Acetate	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16065-2DUP	U204181.D	1	03/16/16	NH	n/a	n/a	VU9384
JC16065-2	U204174.D	1	03/16/16	NH	n/a	n/a	VU9384

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

JC16038-1, JC16038-1R

CAS No.	Compound	JC16065-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-87-2	Methylcyclohexane	ND		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	30
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	30
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
109-99-9	Tetrahydrofuran	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	30
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
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	30
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	30

CAS No.	Surrogate Recoveries	DUP	JC16065-2	Limits
1868-53-7	Dibromofluoromethane	105%	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	109%	109%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	104%	103%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: VA8353-BFB
Lab File ID: A220638.D
Instrument ID: GCMSA
Injection Date: 03/04/16
Injection Time: 12:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	21546	17.8		Pass
75	30.0 - 60.0% of mass 95	54610	45.2		Pass
95	Base peak, 100% relative abundance	120898	100.0		Pass
96	5.0 - 9.0% of mass 95	8278	6.85		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	106842	88.4		Pass
175	5.0 - 9.0% of mass 174	8506	7.04	(7.96) [a]	Pass
176	95.0 - 101.0% of mass 174	104973	86.8	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6700	5.54	(6.38) [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
VA8353-IC8353	A220641.D	03/04/16	14:40	02:10	Initial cal 1
VA8353-IC8353	A220642.D	03/04/16	15:10	02:40	Initial cal 2
VA8353-IC8353	A220643.D	03/04/16	15:39	03:09	Initial cal 5
VA8353-IC8353	A220644.D	03/04/16	16:09	03:39	Initial cal 10
VA8353-IC8353	A220645.D	03/04/16	16:39	04:09	Initial cal 0.5
VA8353-IC8353	A220646.D	03/04/16	17:09	04:39	Initial cal 0.2
VA8353-IC8353	A220647.D	03/04/16	17:38	05:08	Initial cal 20
VA8353-ICC8353	A220648.D	03/04/16	18:08	05:38	Initial cal 50
VA8353-IC8353	A220649.D	03/04/16	18:37	06:07	Initial cal 100
VA8353-IC8353	A220650.D	03/04/16	19:07	06:37	Initial cal 200
VA8353-ICV8353	A220653.D	03/04/16	20:35	08:05	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: VA8370-BFB
Lab File ID: A220998.D
Instrument ID: GCMSA
Injection Date: 03/17/16
Injection Time: 08:07

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	17336	17.7		Pass
75	30.0 - 60.0% of mass 95	43914	44.8		Pass
95	Base peak, 100% relative abundance	98050	100.0		Pass
96	5.0 - 9.0% of mass 95	6527	6.66		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	87701	89.4		Pass
175	5.0 - 9.0% of mass 174	6442	6.57	(7.35) [a]	Pass
176	95.0 - 101.0% of mass 174	85762	87.5	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	6069	6.19	(7.08) [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
VA8370-CC8353	A220999.D	03/17/16	09:00	00:53	Continuing cal 20
VA8370-MB	A221001.D	03/17/16	10:01	01:54	Method Blank
VA8370-BS	A221002.D	03/17/16	10:31	02:24	Blank Spike
JC16038-5	A221005.D	03/17/16	12:00	03:53	MW-16
JC16038-5R	A221005R.D	03/17/16	12:00	03:53	MW-16
JC16038-4	A221006.D	03/17/16	12:30	04:23	MW-5
ZZZZZZ	A221007.D	03/17/16	13:00	04:53	(unrelated sample)
JC16250-14	A221008.D	03/17/16	13:30	05:23	(used for QC only; not part of job JC16038)
JC16250-14	A221009.D	03/17/16	14:01	05:54	(used for QC only; not part of job JC16038)
ZZZZZZ	A221010.D	03/17/16	14:31	06:24	(unrelated sample)
ZZZZZZ	A221011.D	03/17/16	15:01	06:54	(unrelated sample)
JC16250-14MS	A221012.D	03/17/16	15:31	07:24	Matrix Spike
JC16250-14MSD	A221013.D	03/17/16	16:01	07:54	Matrix Spike Duplicate
ZZZZZZ	A221015.D	03/17/16	17:01	08:54	(unrelated sample)
ZZZZZZ	A221016.D	03/17/16	17:31	09:24	(unrelated sample)
ZZZZZZ	A221017.D	03/17/16	18:01	09:54	(unrelated sample)
ZZZZZZ	A221018.D	03/17/16	18:31	10:24	(unrelated sample)
ZZZZZZ	A221019.D	03/17/16	19:01	10:54	(unrelated sample)
ZZZZZZ	A221020.D	03/17/16	19:31	11:24	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: VU9367-BFB
Lab File ID: U203694.D
Instrument ID: GCMSU
Injection Date: 02/26/16
Injection Time: 10:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15488	20.1		Pass
75	30.0 - 60.0% of mass 95	36613	47.5		Pass
95	Base peak, 100% relative abundance	77106	100.0		Pass
96	5.0 - 9.0% of mass 95	5147	6.68		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	70741	91.7		Pass
175	5.0 - 9.0% of mass 174	5299	6.87	(7.49) [a]	Pass
176	95.0 - 101.0% of mass 174	68253	88.5	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4560	5.91	(6.68) [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
VU9367-IC9367	U203695.D	02/26/16	11:10	00:44	Initial cal 0.2
VU9367-IC9367	U203696.D	02/26/16	11:39	01:13	Initial cal 0.5
VU9367-IC9367	U203697.D	02/26/16	12:08	01:42	Initial cal 1
VU9367-IC9367	U203698.D	02/26/16	12:38	02:12	Initial cal 2
VU9367-IC9367	U203699.D	02/26/16	13:07	02:41	Initial cal 5
VU9367-IC9367	U203700.D	02/26/16	13:37	03:11	Initial cal 10
VU9367-IC9367	U203701.D	02/26/16	14:06	03:40	Initial cal 20
VU9367-ICC9367	U203702.D	02/26/16	14:35	04:09	Initial cal 50
VU9367-IC9367	U203703.D	02/26/16	15:05	04:39	Initial cal 100
VU9367-IC9367	U203704.D	02/26/16	15:34	05:08	Initial cal 200
VU9367-ICV9367	U203707.D	02/26/16	17:02	06:36	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: VU9383-BFB
Lab File ID: U204131.D
Instrument ID: GCMSU
Injection Date: 03/15/16
Injection Time: 08:20

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15023	20.5		Pass
75	30.0 - 60.0% of mass 95	35597	48.7		Pass
95	Base peak, 100% relative abundance	73128	100.0		Pass
96	5.0 - 9.0% of mass 95	4918	6.73		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	64920	88.8		Pass
175	5.0 - 9.0% of mass 174	4887	6.68	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	62757	85.8	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	4215	5.76	(6.72) [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
VU9383-CC9367	U204132.D	03/15/16	08:57	00:37	Continuing cal 20
VU9383-MB	U204134.D	03/15/16	09:57	01:37	Method Blank
VU9383-BS	U204135.D	03/15/16	10:26	02:06	Blank Spike
JC16038-2	U204139.D	03/15/16	12:24	04:04	MW-7
JC16038-2R	U204139R.D	03/15/16	12:24	04:04	MW-7
JC16101-1	U204140.D	03/15/16	12:53	04:33	(used for QC only; not part of job JC16038)
JC16101-2	U204141.D	03/15/16	13:22	05:02	(used for QC only; not part of job JC16038)
ZZZZZZ	U204142.D	03/15/16	13:52	05:32	(unrelated sample)
ZZZZZZ	U204143.D	03/15/16	14:21	06:01	(unrelated sample)
JC16101-1MS	U204144.D	03/15/16	14:51	06:31	Matrix Spike
JC16101-2DUP	U204146.D	03/15/16	15:49	07:29	Duplicate
JC16038-3R	U204147R.D	03/15/16	16:19	07:59	MW-3
JC16038-3	U204147.D	03/15/16	16:19	07:59	MW-3
JC16038-4R	U204148R.D	03/15/16	16:48	08:28	MW-5
JC16038-4	U204148.D	03/15/16	16:48	08:28	MW-5
ZZZZZZ	U204151.D	03/15/16	18:16	09:56	(unrelated sample)
ZZZZZZ	U204152.D	03/15/16	18:45	10:25	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: VU9383-BFB2
Lab File ID: U204153.D
Instrument ID: GCMSU
Injection Date: 03/15/16
Injection Time: 19:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14935	20.5		Pass
75	30.0 - 60.0% of mass 95	35597	49.0		Pass
95	Base peak, 100% relative abundance	72712	100.0		Pass
96	5.0 - 9.0% of mass 95	4983	6.85		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	66765	91.8		Pass
175	5.0 - 9.0% of mass 174	5138	7.07	(7.70) [a]	Pass
176	95.0 - 101.0% of mass 174	64787	89.1	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	4156	5.72	(6.41) [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
VU9383-CC9367	U204154.D	03/15/16	19:43	00:29	Continuing cal 50
VU9383-MB2	U204156.D	03/15/16	20:42	01:28	Method Blank
ZZZZZZ	U204157.D	03/15/16	21:11	01:57	(unrelated sample)
ZZZZZZ	U204158.D	03/15/16	21:41	02:27	(unrelated sample)
JC16038-7R	U204159R.D	03/15/16	22:10	02:56	TB030902
JC16038-7	U204159.D	03/15/16	22:10	02:56	TB030902
JC16038-9	U204160.D	03/15/16	22:39	03:25	FB030816
JC16038-9R	U204160R.D	03/15/16	22:39	03:25	FB030816
JC16038-6R	U204161R.D	03/15/16	23:08	03:54	MW-16D
JC16038-6	U204161.D	03/15/16	23:08	03:54	MW-16D
JC16038-8R	U204162R.D	03/15/16	23:37	04:23	S-30
JC16038-8	U204162.D	03/15/16	23:37	04:23	S-30
JC16038-10R	U204163R.D	03/16/16	00:07	04:53	MW-11
JC16038-10	U204163.D	03/16/16	00:07	04:53	MW-11

Instrument Performance Check (BFB)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: VU9384-BFB
Lab File ID: U204164.D
Instrument ID: GCMSU
Injection Date: 03/16/16
Injection Time: 08:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14989	20.6		Pass
75	30.0 - 60.0% of mass 95	35176	48.3		Pass
95	Base peak, 100% relative abundance	72778	100.0		Pass
96	5.0 - 9.0% of mass 95	4736	6.51		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	65642	90.2		Pass
175	5.0 - 9.0% of mass 174	4951	6.80	(7.54) [a]	Pass
176	95.0 - 101.0% of mass 174	64005	87.9	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4242	5.83	(6.63) [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
VU9384-CC9367	U204165.D	03/16/16	08:56	00:35	Continuing cal 20
VU9384-MB	U204167.D	03/16/16	09:55	01:34	Method Blank
VU9384-BS	U204168.D	03/16/16	10:24	02:03	Blank Spike
ZZZZZZ	U204170.D	03/16/16	11:23	03:02	(unrelated sample)
JC16038-1R	U204171R.D	03/16/16	11:53	03:32	MW-13
JC16038-1	U204171.D	03/16/16	11:53	03:32	MW-13
JC16065-1	U204173.D	03/16/16	12:22	04:01	(used for QC only; not part of job JC16038)
JC16065-2	U204174.D	03/16/16	12:52	04:31	(used for QC only; not part of job JC16038)
ZZZZZZ	U204175.D	03/16/16	13:21	05:00	(unrelated sample)
ZZZZZZ	U204176.D	03/16/16	13:50	05:29	(unrelated sample)
ZZZZZZ	U204177.D	03/16/16	14:20	05:59	(unrelated sample)
ZZZZZZ	U204178.D	03/16/16	14:50	06:29	(unrelated sample)
JC16065-1MS	U204179.D	03/16/16	15:19	06:58	Matrix Spike
JC16065-2DUP	U204181.D	03/16/16	16:18	07:57	Duplicate
ZZZZZZ	U204182.D	03/16/16	16:48	08:27	(unrelated sample)
ZZZZZZ	U204183.D	03/16/16	17:18	08:57	(unrelated sample)
ZZZZZZ	U204184.D	03/16/16	17:47	09:26	(unrelated sample)
ZZZZZZ	U204185.D	03/16/16	18:17	09:56	(unrelated sample)
ZZZZZZ	U204186.D	03/16/16	18:46	10:25	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	VA8370-CC8353	**Injection Date:**	03/17/16
Lab File ID:	A220999.D	**Injection Time:**	09:00
Instrument ID:	GCMSA	**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	395901	8.26	244577	10.61	373504	11.55	333044	14.94	179655	17.54
Upper Limit [a]	791802	8.76	489154	11.11	747008	12.05	666088	15.44	359310	18.04
Lower Limit [b]	197951	7.76	122289	10.11	186752	11.05	166522	14.44	89828	17.04

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA8370-MB	433882	8.22	291257	10.59	437101	11.53	392967	14.93	219533	17.53
VA8370-BS	442203	8.24	296217	10.60	450580	11.54	406077	14.94	225727	17.53
JC16038-5	430715	8.23	287490	10.60	433641	11.54	386323	14.94	216952	17.53
JC16038-5R	430715	8.23	287490	10.60	433641	11.54	386323	14.94	216952	17.53
JC16038-4	418768	8.23	288328	10.60	439852	11.54	391266	14.93	218489	17.53
ZZZZZZ	429510	8.22	281445	10.59	437595	11.54	386174	14.94	217407	17.53
JC16250-14	420553	8.23	296803	10.59	453092	11.54	401948	14.94	225105	17.53
JC16250-14	420039	8.23	295615	10.59	443284	11.54	395854	14.94	218623	17.53
ZZZZZZ	430644	8.23	290813	10.60	447357	11.54	399210	14.93	221938	17.53
ZZZZZZ	426719	8.24	290033	10.59	434582	11.54	385111	14.94	211378	17.53
JC16250-14MS	458809	8.23	302426	10.59	466002	11.54	425761	14.93	239054	17.53
JC16250-14MSD	450504	8.25	306866	10.59	470661	11.54	428527	14.93	238502	17.53
ZZZZZZ	425834	8.24	296599	10.60	447960	11.54	394273	14.94	219221	17.53
ZZZZZZ	421134	8.23	296741	10.59	446353	11.54	394133	14.94	213405	17.53
ZZZZZZ	441379	8.24	293446	10.59	437393	11.54	386622	14.94	218024	17.53
ZZZZZZ	431457	8.23	288593	10.60	436654	11.54	383020	14.93	217595	17.53
ZZZZZZ	434979	8.23	282947	10.59	431366	11.54	384554	14.94	218971	17.53
ZZZZZZ	417319	8.23	283465	10.60	429451	11.54	378552	14.94	216097	17.53

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.

Volatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	VU9383-CC9367	**Injection Date:**	03/15/16
Lab File ID:	U204132.D	**Injection Time:**	08:57
Instrument ID:	GCMSU	**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	115005	7.86	216574	10.06	314082	10.98	292228	14.30	161522	16.88
Upper Limit [a]	230010	8.36	433148	10.56	628164	11.48	584456	14.80	323044	17.38
Lower Limit [b]	57503	7.36	108287	9.56	157041	10.48	146114	13.80	80761	16.38

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VU9383-MB	116982	7.86	222194	10.06	323763	10.98	299466	14.30	161345	16.88
VU9383-BS	113981	7.87	227449	10.06	331316	10.98	309383	14.30	172279	16.88
JC16038-2	112282	7.86	233708	10.06	341262	10.98	310454	14.30	161896	16.88
JC16038-2R	112282	7.86	233708	10.06	341262	10.98	310454	14.30	161896	16.88
JC16101-1	114458	7.85	232118	10.06	338272	10.98	312670	14.30	162192	16.88
JC16101-2	113920	7.85	231925	10.06	336915	10.98	310303	14.30	159676	16.88
ZZZZZZ	130199	7.86	231435	10.06	336711	10.98	308438	14.30	162401	16.88
ZZZZZZ	135560	7.86	229188	10.06	335970	10.98	309661	14.30	163881	16.88
JC16101-1MS	109551	7.86	226698	10.06	331746	10.98	308546	14.30	172982	16.88
JC16101-2DUP	114250	7.86	232892	10.06	339672	10.98	311770	14.31	165486	16.88
JC16038-3R	112964	7.86	231109	10.06	340116	10.98	311795	14.30	171129	16.88
JC16038-3	112964	7.86	231109	10.06	340116	10.98	311795	14.30	171129	16.88
JC16038-4R	110407	7.85	233946	10.06	340262	10.98	316000	14.30	175776	16.88
JC16038-4	110407	7.85	233946	10.06	340262	10.98	316000	14.30	175776	16.88
ZZZZZZ	117078	7.86	235976	10.06	342534	10.98	311555	14.30	163629	16.88
ZZZZZZ	114513	7.86	234740	10.06	339992	10.98	312234	14.30	161681	16.88

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.

Volatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	VU9383-CC9367	**Injection Date:**	03/15/16
Lab File ID:	U204154.D	**Injection Time:**	19:43
Instrument ID:	GCMSU	**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	119426	7.86	227785	10.06	333225	10.98	306994	14.30	169831	16.88
Upper Limit [a]	238852	8.36	455570	10.56	666450	11.48	613988	14.80	339662	17.38
Lower Limit [b]	59713	7.36	113893	9.56	166613	10.48	153497	13.80	84916	16.38

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VU9383-MB2	121892	7.86	234602	10.06	340295	10.98	313123	14.30	164180	16.88
ZZZZZZ	117491	7.86	232624	10.06	338076	10.98	312257	14.30	162445	16.88
ZZZZZZ	116985	7.86	231735	10.06	337972	10.98	309656	14.30	161125	16.88
JC16038-7	113022	7.86	230464	10.06	335566	10.98	309194	14.30	160283	16.88
JC16038-7R	113022	7.86	230464	10.06	335566	10.98	309194	14.30	160283	16.88
JC16038-9	107365	7.86	231914	10.06	338818	10.98	311180	14.30	161209	16.88
JC16038-9R	107365	7.86	231914	10.06	338818	10.98	311180	14.30	161209	16.88
JC16038-6R	110288	7.86	229926	10.06	337055	10.98	307417	14.30	161884	16.88
JC16038-6	110288	7.86	229926	10.06	337055	10.98	307417	14.30	161884	16.88
JC16038-8R	111905	7.86	231112	10.06	336227	10.98	308513	14.30	160141	16.88
JC16038-8	111905	7.86	231112	10.06	336227	10.98	308513	14.30	160141	16.88
JC16038-10	110037	7.86	229716	10.06	334372	10.98	304553	14.30	159540	16.88
JC16038-10R	110037	7.86	229716	10.06	334372	10.98	304553	14.30	159540	16.88

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.

Volatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	VU9384-CC9367	**Injection Date:**	03/16/16
Lab File ID:	U204165.D	**Injection Time:**	08:56
Instrument ID:	GCMSU	**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	112875	7.86	217356	10.06	317546	10.98	295349	14.30	162758	16.88
Upper Limit [a]	225750	8.36	434712	10.56	635092	11.48	590698	14.80	325516	17.38
Lower Limit [b]	56438	7.36	108678	9.56	158773	10.48	147675	13.80	81379	16.38

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VU9384-MB	116764	7.86	232633	10.06	340869	10.98	309264	14.30	160350	16.88
VU9384-BS	108146	7.86	226237	10.06	331881	10.98	308588	14.30	169565	16.88
ZZZZZZ	104848	7.86	230655	10.06	338351	10.98	309128	14.30	162270	16.88
JC16038-1	107500	7.86	227356	10.06	334119	10.98	307433	14.30	160944	16.88
JC16038-1R	107500	7.86	227356	10.06	334119	10.98	307433	14.30	160944	16.88
JC16065-1	110295	7.86	230107	10.06	337120	10.98	309031	14.30	160169	16.88
JC16065-2	107689	7.86	226001	10.06	331139	10.98	304110	14.30	159725	16.88
ZZZZZZ	110274	7.86	227622	10.06	334159	10.98	305976	14.31	158790	16.88
ZZZZZZ	125170	7.86	228778	10.06	333266	10.98	308764	14.31	159526	16.88
ZZZZZZ	113955	7.85	224244	10.06	327866	10.98	302535	14.30	159411	16.88
ZZZZZZ	132357	7.86	226755	10.06	334022	10.98	307679	14.30	161785	16.88
JC16065-1MS	110385	7.86	223890	10.06	330532	10.98	306265	14.30	171576	16.88
JC16065-2DUP	115365	7.86	231980	10.06	339495	10.98	310465	14.30	163381	16.88
ZZZZZZ	118723	7.86	230256	10.06	338170	10.98	309039	14.30	162485	16.88
ZZZZZZ	118498	7.86	226803	10.06	333305	10.98	304812	14.30	159863	16.88
ZZZZZZ	117760	7.86	228203	10.06	335609	10.98	307556	14.30	160697	16.88
ZZZZZZ	119609	7.86	228497	10.06	334195	10.98	307428	14.30	161509	16.88
ZZZZZZ	118508	7.86	225807	10.06	329291	10.98	305551	14.30	160344	16.88

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.

Volatile Surrogate Recovery Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

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
JC16038-1	U204171.D	106	108	99	103
JC16038-2	U204139.D	105	107	100	103
JC16038-3	U204147.D	105	108	99	104
JC16038-4	A221006.D	104	102	100	100
JC16038-4	U204148.D	105	107	100	100
JC16038-5	A221005.D	103	100	100	99
JC16038-6	U204161.D	106	107	99	103
JC16038-7	U204159.D	105	108	100	103
JC16038-8	U204162.D	105	107	99	104
JC16038-9	U204160.D	105	107	99	103
JC16038-10	U204163.D	104	107	99	103
JC16038-1R	U204171R.D	106	108	99	103
JC16038-2R	U204139R.D	105	107	100	103
JC16038-3R	U204147R.D	105	108	99	101
JC16038-4R	U204148R.D	105	107	100	100
JC16038-5R	A221005R.D	103	100	100	99
JC16038-6R	U204161R.D	106	107	99	103
JC16038-7R	U204159R.D	105	108	100	103
JC16038-8R	U204162R.D	105	107	99	104
JC16038-9R	U204160R.D	105	107	99	103
JC16038-10R	U204163R.D	104	107	99	103
JC16065-1MS	U204179.D	106	109	100	98
JC16065-2DUP	U204181.D	105	109	100	104
JC16101-1MS	U204144.D	105	109	100	99
JC16101-2DUP	U204146.D	105	107	99	102
JC16250-14MS	A221012.D	103	102	101	98
JC16250-14MSD	A221013.D	103	98	102	97
VA8370-BS	A221002.D	102	99	101	98
VA8370-MB	A221001.D	104	102	100	98
VU9383-BS	U204135.D	104	108	100	100
VU9383-MB	U204134.D	105	107	100	101
VU9383-MB2	U204156.D	104	107	99	103
VU9384-BS	U204168.D	105	109	101	101
VU9384-MB	U204167.D	105	107	99	104

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%

Volatile Surrogate Recovery Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

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

Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JC16038 **Sample:** VA8353-ICC8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220648.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MSA

```
Method       : C:\MSDCHEM\1\METHODS\MA8353.M (RTE Integrator)
Title        : SW 846  8260C DB624 60m x 0.25mm x 1.4um
Last Update  : Tue Mar 08 10:06:22 2016
Response via : Initial Calibration

Calibration Files
5   =A220643.D   2   =A220642.D   20  =A220647.D   50  =A220648.D
100 =A220649.D   1   =A220641.D   200 =A220650.D   0.5 =A220645.D
10  =A220644.D   0.2 =A220646.D       =                =

Compound
        5     2     20    50    100   1     200   0.5   10    0.2    Avg   %RSD
-------------------------------------------------------------------------------

1) I   Tert Butyl Alcohol-d9 ----------------ISTD---------------------
2)  1,4-dioxane
     0.057 0.052 0.061 0.067 0.075       0.070       0.060        0.063   12.61
3)  tertiary butyl alcohol
     0.844 0.727 0.925 0.941 1.021       0.918       0.886        0.894   10.25

4) I   pentafluorobenzene    ----------------ISTD---------------------
5)  propene
                                                                  0.000#  -1.00
6)  chlorotrifluoroethene
                                                                  0.000#  -1.00
7)  chlorodifluoromethane
     0.727 0.675 0.847 0.855 0.960 0.645 0.789       0.819        0.790   13.14
8)  dichlorodifluoromethane
     0.836 0.757 0.975 0.991 1.058 1.029 0.907       1.025        0.948   11.12
9)  chloromethane
     0.876 0.794 0.955 1.001 1.143 1.186 1.026       0.962        0.993   13.00
10)  vinyl chloride
     0.976 0.940 1.171 1.240 1.388 1.223 1.213       1.207        1.170   12.46
11)  bromomethane
     0.420 0.436 0.480 0.491 0.530 0.725             0.491        0.510   19.84
12)  chloroethane
     0.372 0.346 0.421 0.435 0.461 0.514 0.345       0.433        0.416   14.12
13)  vinyl bromide
                                                                  0.000#  -1.00
14)  trichlorofluoromethane
     0.776 0.709 0.922 0.954 1.030 0.819 0.913 0.939 0.944        0.890   11.34
15)  pentane
                                                                  0.000#  -1.00
16)  ethyl ether
     0.230 0.199 0.252 0.252 0.257 0.206 0.241 0.261 0.267        0.240   10.12
17)  Freon 123a
                                                                  0.000#  -1.00
18)  acrolein
     0.134 0.141 0.124 0.129       0.149             0.134        0.135    6.56
19)  freon 113
     0.365 0.324 0.438 0.429 0.507       0.433       0.410        0.415   13.98
20)  1,1-dichloroethene
     0.603 0.546 0.724 0.706 0.760 0.496 0.702 0.835 0.718        0.677   15.88
21)  acetone
     0.058       0.062 0.065 0.071       0.065       0.064        0.064    6.29
22)  allyl chloride
     0.290 0.270 0.327 0.331 0.353 0.286 0.363 0.353 0.339        0.324   10.34
23)  acetonitrile
```

	0.060		0.067	0.069	0.078		0.066		0.064		0.067	9.31
24)	iodomethane											
	0.757	0.662	0.866	0.837	0.932	0.630	0.866	0.973	0.869		0.821	14.14
25)	carbon disulfide											
	1.455	1.334	1.666	1.597	1.739	1.369	1.557		1.677		1.549	9.63
26)	methylene chloride											
	0.481	0.447	0.526	0.507	0.544	0.436	0.511	0.725	0.538		0.524	16.07
27)	methyl acetate											
	0.435	0.394	0.467	0.478	0.522	0.402	0.451		0.470		0.452	9.28
28)	methyl tert butyl ether											
	1.451	1.267	1.586	1.551	1.674	1.258	1.516	2.012	1.647	1.972	1.593	15.86
29)	trans-1,2-dichloroethene											
	0.570	0.497	0.652	0.638	0.671	0.499	0.610	0.774	0.669		0.620	14.22
30)	hexane											
	0.463	0.404	0.540	0.548	0.593	0.355	0.521	0.625	0.521		0.508	17.08
31)	di-isopropyl ether											
	1.485	1.332	1.641	1.672	1.884	1.275	1.543	1.898	1.595		1.592	13.50
32)	t-butyl formate											
	0.410	0.355	0.473	0.496	0.584	0.367	0.503	0.518	0.453		0.462	16.09
33)	ethyl tert-butyl ether											
	1.433	1.179	1.587	1.615	1.829	1.194	1.529	1.644	1.507		1.502	13.97
34)	2-butanone											
	0.066	0.049	0.074	0.073	0.081		0.077		0.076		0.071	14.77
35)	1,1-dichloroethane											
	0.735	0.633	0.811	0.813	0.840	0.648	0.763	0.974	0.829		0.783	13.30
36)	chloroprene											
	0.530	0.450	0.600	0.632	0.676	0.457	0.598	0.664	0.577		0.576	14.25
37)	acrylonitrile											
	0.222	0.195	0.240	0.231	0.246	0.184	0.220	0.290	0.248		0.231	13.56
38)	vinyl acetate											
	0.077	0.060	0.086	0.090	0.103		0.092		0.074		0.083	16.99
39)	ethyl acetate											
	0.074	0.081	0.081	0.095	0.102		0.091		0.079		0.086	11.92
40)	ethyl acrylate											
											0.000#	-1.00
41)	2,2-dichloropropane											
	0.728	0.648	0.781	0.754	0.815	0.664	0.731		0.817		0.742	8.49
42)	cis-1,2-dichloroethene											
	0.436	0.395	0.492	0.486	0.507	0.386	0.478		0.500		0.460	10.44
43)	propionitrile											
	0.095	0.085	0.106	0.103	0.111	0.079	0.104	0.129	0.108		0.102	14.29
44)	bromochloromethane											
	0.211	0.191	0.242	0.231	0.247	0.188	0.238	0.287	0.238		0.230	13.24
45)	tetrahydrofuran											
	0.232	0.217	0.238	0.235	0.256	0.198	0.235		0.255		0.233	8.17
46)	chloroform											
	0.660	0.559	0.736	0.730	0.763	0.545	0.701	0.880	0.738		0.701	14.74
47)	dibromofluoromethane (s)											
	0.473	0.473	0.469	0.470	0.474	0.487	0.465	0.478	0.475	0.480	0.474	1.30
48)	1,2-dichloroethane-d4 (s)											
	0.508	0.511	0.503	0.508	0.506	0.529	0.492	0.523	0.507	0.509	0.510	1.99
49)	methacrylonitrile											
	0.199	0.180	0.226	0.229	0.242	0.185	0.228	0.275	0.238		0.222	13.59
50)	cyclohexane											
	0.734	0.617	0.854	0.827	0.927		0.859		0.836		0.808	12.60
51)	1,1,1-trichloroethane											
	0.667	0.546	0.749	0.721	0.799	0.521	0.725		0.747		0.684	14.68
52)	iso-butyl alcohol											
	0.035	0.033	0.032	0.034	0.039		0.038		0.029		0.034	10.23
53)	tert-amyl methyl ether											

```
      1.385 1.253 1.534 1.561 1.813 1.356 1.544 1.748 1.473        1.519   11.85

54) I   1,4-difluorobenzene   ----------------ISTD--------------------
55)  Di-isobutylene
                                                                    0.000#  -1.00
56)  epichlorohydrin
      0.039 0.034 0.043 0.045 0.052       0.047       0.041        0.043   13.02
57)  n-butyl alcohol
      0.018 0.017 0.021 0.022 0.026 0.014 0.023       0.019        0.020   18.04
58)  carbon tetrachloride
      0.379 0.326 0.448 0.431 0.473 0.314 0.433 0.525 0.441        0.419   16.31
59)  1,1-dichloropropene
      0.333 0.295 0.386 0.379 0.397 0.282 0.374 0.449 0.382        0.364   14.41
60)  benzene
      1.077 0.972 1.191 1.166 1.204 0.951 1.091 1.493 1.218        1.152   13.97
61)  Iso-octane
      1.088 0.905 1.353 1.389 1.622       1.383       1.277        1.288   18.00
62)  heptane
      0.181 0.157 0.212 0.221 0.245       0.219       0.203        0.205   13.96
63)  tert amyl alcohol
                                                                    0.000#  -1.00
64)  isopropyl acetate
      0.068 0.069 0.074 0.077 0.088 0.045 0.078       0.071        0.071   17.33
65)  1,2-dichloroethane
      0.343 0.296 0.372 0.356 0.372 0.290 0.346 0.461 0.381        0.357   14.05
66)  trichloroethene
      0.251 0.207 0.284 0.281 0.299 0.212 0.281 0.359 0.283        0.273   16.85
67)  2-nitropropane
      0.120 0.123 0.126 0.126 0.135       0.126       0.129        0.126    3.79
68)  tert-amyl ethyl ether
                                                                    0.000#  -1.00
69)  methylcyclohexane
      0.492 0.394 0.578 0.581 0.675 0.365 0.589 0.607 0.560        0.538   18.92
70)  2-chloroethyl vinyl ether
      0.182 0.159 0.200 0.210 0.225 0.153 0.196 0.210 0.192        0.192   12.38
71)  methyl methacrylate
      0.077 0.064 0.085 0.085 0.094 0.058 0.095 0.083 0.087        0.081   15.52
72)  1,2-dichloropropane
      0.298 0.239 0.318 0.319 0.334 0.247 0.317 0.369 0.333        0.308   13.51
73)  dibromomethane
      0.174 0.147 0.190 0.187 0.196 0.137 0.188 0.211 0.193        0.180   13.37
74)  bromodichloromethane
      0.358 0.287 0.378 0.382 0.404 0.293 0.377 0.458 0.393        0.370   14.33
75)  cis-1,3-dichloropropene
      0.410 0.356 0.462 0.463 0.488 0.345 0.465 0.569 0.474        0.448   15.38
76)  toluene-d8 (s)
      1.167 1.166 1.165 1.156 1.193 1.157 1.192 1.156 1.154 1.157  1.166    1.25
77)  4-methyl-2-pentanone
      0.163 0.126 0.182 0.178 0.197 0.128 0.191 0.197 0.184        0.172   15.96
78)  toluene
      1.061 0.876 1.146 1.137 1.197 0.827 1.089 1.430 1.174        1.104   16.12
79)  3-methyl-1-butanol
      0.028 0.025 0.033 0.034 0.039       0.035       0.031        0.032   14.17
80)  trans-1,3-dichloropropene
      0.377 0.329 0.409 0.413 0.433 0.299 0.420 0.491 0.424        0.399   14.37
81)  ethyl methacrylate
      0.365 0.304 0.409 0.406 0.434 0.285 0.425 0.463 0.407        0.389   15.32
82)  1,1,2-trichloroethane
      0.204 0.173 0.218 0.227 0.236 0.145 0.231 0.239 0.232        0.212   15.29
83)  2-hexanone
```

```
       0.142 0.122 0.156 0.154 0.165       0.165       0.162        0.152   10.18

 84) I   chlorobenzene-d5      ----------------ISTD---------------------
 85)  tetrachloroethene
       0.309 0.273 0.351 0.340 0.368 0.262 0.345 0.399 0.351        0.333   13.31
 86)  1,3-dichloropropane
       0.471 0.385 0.508 0.493 0.512 0.383 0.479 0.542 0.533        0.479   12.19
 87)  butyl acetate
       0.250 0.225 0.277 0.289 0.308 0.240 0.269 0.367 0.276        0.278   15.12
 88)  3,3-dimethyl-1-butanol
       0.082 0.073 0.099 0.102 0.115       0.100       0.092        0.095   14.79
 89)  dibromochloromethane
       0.314 0.256 0.340 0.340 0.359 0.239 0.344 0.377 0.354        0.325   14.54
 90)  1,2-dibromoethane
       0.282 0.244 0.307 0.308 0.318 0.236 0.300 0.372 0.319        0.299   13.81
 91)  n-butyl ether
       1.356 1.133 1.539 1.473 1.483 1.067 1.270 1.797 1.564        1.409   16.18
 92)  chlorobenzene
       0.777 0.666 0.859 0.857 0.867 0.618 0.804 1.012 0.891        0.817   14.57
 93)  1,1,1,2-tetrachloroethane
       0.334 0.273 0.381 0.385 0.418 0.257 0.391 0.396 0.396        0.359   16.18
 94)  ethylbenzene
       1.379 1.135 1.520 1.489 1.513 1.086 1.346 1.778 1.536        1.420   15.04
 95)  m,p-xylene
       0.509 0.423 0.576 0.574 0.597 0.396 0.541 0.659 0.591        0.541   15.73
 96)  o-xylene
       1.107 0.951 1.269 1.241 1.298 0.903 1.164 1.512 1.276        1.191   15.67
 97)  styrene
       0.812 0.682 0.950 0.947 0.979 0.661 0.909 1.071 0.949        0.885   15.61
 98)  bromoform
       0.226 0.184 0.253 0.259 0.274 0.190 0.259 0.292 0.263        0.244   15.10

 99) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
100)  isopropylbenzene
       2.543 2.144 3.047 2.973 3.014 1.932 2.552 3.303 2.996        2.723   16.86
101)  cyclohexanone
       0.056 0.070 0.059 0.054 0.056 0.075 0.050       0.064        0.060   14.12
102)  4-bromofluorobenzene (s)
       0.865 0.856 0.870 0.863 0.835 0.863 0.816 0.842 0.869 0.901  0.858    2.66
103)  bromobenzene
       0.651 0.561 0.704 0.707 0.700 0.503 0.663 0.851 0.720        0.673   14.75
104)  1,1,2,2-tetrachloroethane
       0.888 0.749 0.984 0.934 0.936 0.742 0.850 1.157 0.977        0.913   13.99
105)  trans-1,4-dichloro-2-butene
       0.124       0.164 0.176 0.186       0.178       0.153        0.163   13.79
106)  1,2,3-trichloropropane
       0.222 0.198 0.233 0.233 0.232 0.170 0.215       0.250        0.219   11.41
107)  n-propylbenzene
       2.934 2.436 3.393 3.277 3.166 2.230 2.665 3.773 3.313        3.021   16.46
108)  2-chlorotoluene
       0.610 0.516 0.720 0.708 0.727 0.484 0.677 0.835 0.702        0.664   16.61
109)  4-chlorotoluene
       1.711 1.431 1.948 1.900 1.862 1.403 1.689 2.379 1.938        1.807   16.42
110)  p-ethyltoluene
                                                                    0.000#  -1.00
111)  1,3,5-trimethylbenzene
       2.178 1.744 2.575 2.526 2.592 1.674 2.274 2.649 2.506        2.302   16.06
112)  tert-butylbenzene
       0.461 0.363 0.553 0.579 0.616 0.347 0.591 0.520 0.530        0.507   19.16
113)  pentachloroethane
```

Initial Calibration Summary

Job Number: JC16038 **Sample:** VA8353-ICC8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220648.D
Project: BMSMC, Building 5 Area, PR

```
       0.492 0.420 0.572 0.578 0.635 0.342 0.609 0.536 0.554        0.527   17.84
114)  1,2,4-trimethylbenzene
       2.202 1.789 2.602 2.495 2.531 1.641 2.248 2.733 2.519        2.307   16.26
115)  sec-butylbenzene
       2.969 2.446 3.627 3.523 3.606 2.222 3.005 3.942 3.496        3.204   18.16
116)  1,3-dichlorobenzene
       1.210 0.995 1.381 1.347 1.367 0.994 1.270 1.743 1.383        1.299   17.47
117)  p-isopropyltoluene
       2.435 1.918 2.972 2.862 2.905 1.761 2.540 3.086 2.874        2.595   18.34
118)  1,2,3-trimethylbenzene
                                                                    0.000#  -1.00
119)  1,4-dichlorobenzene
       1.240 1.022 1.408 1.349 1.380 0.965 1.263 1.757 1.399        1.309   17.76
120)  p-diethylbenzene
                                                                    0.000#  -1.00
121)  1,2-dichlorobenzene
       1.324 1.120 1.453 1.385 1.410 0.936 1.305 1.680 1.458        1.341   15.86
122)  n-butylbenzene
       1.290 1.063 1.525 1.485 1.486       1.384       1.485        1.388   11.86
123)  1,2,4,5-tetramethylbenzene
                                                                    0.000#  -1.00
124)  1,2-dibromo-3-chloropropane
       0.260 0.208 0.282 0.266 0.279 0.215 0.263       0.290        0.258   11.91
125)  1,3,5-trichlorobenzene
       1.169 0.999 1.351 1.291 1.348 0.941 1.274 1.569 1.337        1.253   15.35
126)  1,2,4-trichlorobenzene
       1.166 1.007 1.321 1.240 1.318 0.886 1.249       1.328        1.189   13.66
127)  hexachlorobutadiene
       0.523 0.477 0.645 0.649 0.683 0.429 0.693       0.640        0.592   17.04
128)  naphthalene
       3.750 3.079 4.116 3.770 3.753 2.884 3.118       4.086        3.569   13.34
129)  1,2,3-trichlorobenzene
       1.306 1.105 1.484 1.388 1.462 1.071 1.365       1.455        1.329   12.05
130)  hexachloroethane
       0.408 0.343 0.532 0.556 0.590       0.585       0.497        0.502   18.69
131)  Ethylenimine
                                                                    0.000#  -1.00
132)  Bis(chloromethyl)ether
                                                                    0.000#  -1.00
133)  2-methylnaphthalene
                                                                    0.000#  -1.00
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MA8353.M          Tue Mar 08 10:07:56 2016   RPT1
```

Initial Calibration Verification

Job Number: JC16038 **Sample:** VA8353-ICV8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220653.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\A220653.D Vial: 17
Acq On : 4 Mar 2016 8:35 pm Operator: NicoleH1
Sample : icv8353-50 Inst : MSA
Misc : MS99098,VA8353,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA8353.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Tue Mar 08 10:06:22 2016
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	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	106	0.00	8.23
2	M	1,4-dioxane	0.063	0.066	-4.8	106	0.00	12.28
3	M	tertiary butyl alcohol	0.894	0.888	0.7	100	0.00	8.36
4	I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	10.60
5		propene		----------NA----------				
6		chlorotrifluoroethene		----------NA----------				
7	M	chlorodifluoromethane	0.790	0.891	-12.8	108	0.00	4.47
8	M	dichlorodifluoromethane	0.948	0.864	8.9	90	0.02	4.46
9	M	chloromethane	0.993	0.823	17.1	85	0.00	4.84
10	M	vinyl chloride	1.170	1.057	9.7	88	0.00	5.15
11	M	bromomethane	0.510	0.483	5.3	102	0.00	5.89
12	M	chloroethane	0.416	0.395	5.0	94	0.00	6.08
13		vinyl bromide		----------NA----------				
14	M	trichlorofluoromethane	0.890	0.862	3.1	93	0.00	6.63
15	m	pentane		----------NA----------				
16	M	ethyl ether	0.240	0.248	-3.3	101	0.00	7.08
17		Freon 123a		----------NA----------				
18	M	acrolein	0.135	0.110	18.5	88	0.00	7.33
19		freon 113	0.415	0.456	-9.9	110	0.00	7.52
20	M	1,1-dichloroethene	0.677	0.688	-1.6	101	0.00	7.53
21	M	acetone	0.064	0.065	-1.6	104	0.00	7.58
22	M	allyl chloride	0.324	0.301	7.1	94	0.00	8.10
23	M	acetonitrile	0.067	0.065	3.0	97	0.00	8.03
24	M	iodomethane	0.821	0.841	-2.4	104	0.00	7.82
25	M	carbon disulfide	1.549	1.669	-7.7	108	0.00	7.96
26	M	methylene chloride	0.524	0.498	5.0	102	0.00	8.28
27	M	methyl acetate	0.452	0.419	7.3	90	0.00	8.08
28	M	methyl tert butyl ether	1.593	1.497	6.0	100	0.00	8.66
29	M	trans-1,2-dichloroethene	0.620	0.601	3.1	97	0.00	8.69
30		hexane	0.508	0.459	9.6	86	0.00	9.04
31	M	di-isopropyl ether	1.592	1.553	2.4	96	0.00	9.30
32	m	t-butyl formate	0.462	0.409	11.5	85	0.00	10.49
33	M	ethyl tert-butyl ether	1.502	1.549	-3.1	99	0.00	9.78
34	M	2-butanone	0.071	0.076	-7.0	108	0.00	10.02
35	M	1,1-dichloroethane	0.783	0.779	0.5	99	0.00	9.29
36	M	chloroprene	0.576	0.568	1.4	93	0.00	9.41
37	M	acrylonitrile	0.231	0.235	-1.7	105	0.00	8.63
38	M	vinyl acetate	0.083	0.086	-3.6	98	0.00	9.27
39	M	ethyl acetate	0.086	0.085	1.2	93	0.00	10.05
40		ethyl acrylate		----------NA----------				
41	M	2,2-dichloropropane	0.742	0.736	0.8	101	0.00	10.07

Initial Calibration Verification

Job Number: JC16038 **Sample:** VA8353-ICV8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220653.D
Project: BMSMC, Building 5 Area, PR

42	M	cis-1,2-dichloroethene	0.460	0.467	-1.5	99	0.00	10.05
43	M	propionitrile	0.102	0.104	-2.0	104	0.00	10.12
44	M	bromochloromethane	0.230	0.230	0.0	103	0.00	10.37
45	M	tetrahydrofuran	0.233	0.231	0.9	102	0.00	10.42
46	M	chloroform	0.701	0.720	-2.7	102	0.00	10.43
47	S	dibromofluoromethane (s)	0.474	0.466	1.7	102	0.00	10.63
48	S	1,2-dichloroethane-d4 (s)	0.510	0.494	3.1	101	0.00	11.07
49	M	methacrylonitrile	0.222	0.221	0.5	99	0.00	10.31
50		cyclohexane	0.808	0.817	-1.1	102	0.00	10.81
51	M	1,1,1-trichloroethane	0.684	0.748	-9.4	107	0.00	10.72
52		iso-butyl alcohol	0.034	0.034	0.0	103	0.00	10.86
53	M	tert-amyl methyl ether	1.519	1.553	-2.2	103	0.00	11.21
54	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	11.54
55	M	Di-isobutylene		----------NA----------				
56	M	epichlorohydrin	0.043	0.045	-4.7	100	0.00	12.84
57	M	n-butyl alcohol	0.020	0.022	-10.0	101	0.00	11.64
58	M	carbon tetrachloride	0.419	0.433	-3.3	102	0.00	10.93
59	M	1,1-dichloropropene	0.364	0.391	-7.4	105	0.00	10.90
60	M	benzene	1.152	1.150	0.2	100	0.00	11.16
61	M	Iso-octane	1.288	1.366	-6.1	100	0.00	11.20
62	M	heptane	0.205	0.204	0.5	94	0.00	11.36
63	m	tert amyl alcohol		----------NA----------				
64	M	isopropyl acetate	0.071	0.076	-7.0	100	0.00	11.08
65	M	1,2-dichloroethane	0.357	0.348	2.5	99	0.00	11.16
66	M	trichloroethene	0.273	0.277	-1.5	100	0.00	11.89
67	M	2-nitropropane	0.126	0.128	-1.6	103	0.00	12.69
68	m	tert-amyl ethyl ether		----------NA----------				
69	m	methylcyclohexane	0.538	0.575	-6.9	101	0.00	12.15
70	M	2-chloroethyl vinyl ether	0.192	0.208	-8.3	101	0.00	12.72
71	M	methyl methacrylate	0.081	0.090	-11.1	107	0.00	12.17
72	M	1,2-dichloropropane	0.308	0.311	-1.0	99	0.00	12.17
73	M	dibromomethane	0.180	0.182	-1.1	99	0.00	12.32
74	M	bromodichloromethane	0.370	0.371	-0.3	99	0.00	12.45
75	M	cis-1,3-dichloropropene	0.448	0.458	-2.2	100	0.00	12.95
76	S	toluene-d8 (s)	1.166	1.157	0.8	102	0.00	13.28
77	M	4-methyl-2-pentanone	0.172	0.187	-8.7	107	0.00	13.07
78	M	toluene	1.104	1.133	-2.6	101	0.00	13.36
79	M	3-methyl-1-butanol	0.032	0.034	-6.3	103	0.00	13.06
80	M	trans-1,3-dichloropropene	0.399	0.398	0.3	98	0.00	13.55
81	M	ethyl methacrylate	0.389	0.403	-3.6	101	0.00	13.55
82	M	1,1,2-trichloroethane	0.212	0.222	-4.7	99	0.00	13.78
83	M	2-hexanone	0.152	0.160	-5.3	106	0.00	13.99
84	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.94
85	M	tetrachloroethene	0.333	0.351	-5.4	106	0.00	14.00
86	M	1,3-dichloropropane	0.479	0.485	-1.3	101	0.00	13.99
87	M	butyl acetate	0.278	0.283	-1.8	101	0.00	14.07
88		3,3-dimethyl-1-butanol	0.095	0.102	-7.4	102	0.00	14.16
89	M	dibromochloromethane	0.325	0.333	-2.5	100	0.00	14.27
90	M	1,2-dibromoethane	0.299	0.302	-1.0	100	0.00	14.45
91	M	n-butyl ether	1.409	1.464	-3.9	102	0.00	14.89
92	M	chlorobenzene	0.817	0.855	-4.7	102	0.00	14.97
93	M	1,1,1,2-tetrachloroethane	0.359	0.380	-5.8	101	0.00	15.03
94	M	ethylbenzene	1.420	1.467	-3.3	101	0.00	15.04
95	M	m,p-xylene	0.541	0.567	-4.8	101	0.00	15.16
96	M	o-xylene	1.191	1.246	-4.6	103	0.00	15.62
97	M	styrene	0.885	0.917	-3.6	99	0.00	15.63
98	M	bromoform	0.244	0.256	-4.9	102	0.00	15.91

Initial Calibration Verification

Job Number: JC16038 **Sample:** VA8353-ICV8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220653.D
Project: BMSMC, Building 5 Area, PR

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	17.53
100	M	isopropylbenzene	2.723	2.807	-3.1	101	0.00	16.01
101	m	cyclohexanone	0.060	0.052	13.3	103	0.00	16.19
102	S	4-bromofluorobenzene (s)	0.858	0.838	2.3	103	0.00	16.23
103	M	bromobenzene	0.673	0.660	1.9	99	0.00	16.45
104	M	1,1,2,2-tetrachloroethane	0.913	0.882	3.4	101	0.00	16.32
105	M	trans-1,4-dichloro-2-bute	0.163	0.174	-6.7	105	0.00	16.38
106	M	1,2,3-trichloropropane	0.219	0.220	-0.5	101	0.00	16.41
107	M	n-propylbenzene	3.021	3.151	-4.3	102	0.00	16.47
108	M	2-chlorotoluene	0.664	0.658	0.9	99	0.00	16.63
109	M	4-chlorotoluene	1.807	1.802	0.3	101	0.00	16.74
110	m	p-ethyltoluene		----------NA----------				
111	M	1,3,5-trimethylbenzene	2.302	2.389	-3.8	101	0.00	16.63
112	M	tert-butylbenzene	0.507	0.545	-7.5	100	0.00	17.04
113	M	pentachloroethane	0.527	0.560	-6.3	103	0.00	17.11
114	M	1,2,4-trimethylbenzene	2.307	2.403	-4.2	103	0.00	17.08
115	M	sec-butylbenzene	3.204	3.338	-4.2	101	0.00	17.27
116	M	1,3-dichlorobenzene	1.299	1.295	0.3	102	0.00	17.47
117	M	p-isopropyltoluene	2.595	2.782	-7.2	103	0.00	17.40
118	M	1,2,3-trimethylbenzene		----------NA----------				
119	M	1,4-dichlorobenzene	1.309	1.319	-0.8	104	0.00	17.56
120	m	p-diethylbenzene		----------NA----------				
121	M	1,2-dichlorobenzene	1.341	1.352	-0.8	104	0.00	18.00
122	M	n-butylbenzene	1.388	1.376	0.9	99	0.00	17.86
123	m	1,2,4,5-tetramethylbenzen		----------NA----------				
124	M	1,2-dibromo-3-chloropropa	0.258	0.266	-3.1	106	0.00	18.86
125	M	1,3,5-trichlorobenzene	1.253	1.237	1.3	102	0.00	19.08
126	M	1,2,4-trichlorobenzene	1.189	1.256	-5.6	108	0.00	19.81
127	M	hexachlorobutadiene	0.592	0.608	-2.7	100	0.00	19.95
128	M	naphthalene	3.569	3.713	-4.0	105	0.00	20.13
129	M	1,2,3-trichlorobenzene	1.329	1.347	-1.4	103	0.00	20.40
130	M	hexachloroethane	0.502	0.532	-6.0	102	0.00	18.30
131		Ethylenimine		----------NA----------				
132		Bis(chloromethyl)ether		----------NA----------				
133		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A220648.D MA8353.M Tue Mar 08 10:08:15 2016 RPT1

6.9.2
6

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VA8370-CC8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220999.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\A220999.D                    Vial: 2
Acq On    : 17 Mar 2016   9:00 am                     Operator: NicoleH1
Sample    : cc8353-20                                 Inst    : MSA
Misc      : MS99717,VA8370,5,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MA8353.M (RTE Integrator)
Title        : SW 846  8260C DB624 60m x 0.25mm x 1.4um
Last Update  : Thu Mar 17 08:41:28 2016
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	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	72	0.02	8.26
2	M	1,4-dioxane	0.063	0.065	-3.2	76	0.00	12.28
3	M	tertiary butyl alcohol	0.894	0.867	3.0	67	0.04	8.39
4	I	pentafluorobenzene	1.000	1.000	0.0	64	0.02	10.61
5		propene		----------NA----------				
6		chlorotrifluoroethene		----------NA----------				
7	M	chlorodifluoromethane	0.790	0.913	-15.6	69	0.06	4.52
8	M	dichlorodifluoromethane	0.948	0.942	0.6	62	0.08	4.53
9	M	chloromethane	0.993	0.869	12.5	58	0.05	4.90
10	M	vinyl chloride	1.170	1.180	-0.9	64	0.06	5.21
11	M	bromomethane	0.510	0.470	7.8	63	0.05	5.94
12	M	chloroethane	0.416	0.414	0.5	63	0.06	6.14
13		vinyl bromide		----------NA----------				
14	M	trichlorofluoromethane	0.890	0.948	-6.5	66	0.02	6.65
15	m	pentane		----------NA----------				
16	M	ethyl ether	0.240	0.240	0.0	61	0.04	7.12
17		Freon 123a		----------NA----------				
18	M	acrolein	0.135	0.128	5.2	66	0.04	7.37
19		freon 113	0.415	0.455	-9.6	66	0.03	7.56
20	M	1,1-dichloroethene	0.677	0.679	-0.3	60	0.04	7.57
21	M	acetone	0.064	0.060	6.3	62	0.04	7.62
22	M	allyl chloride	0.324	0.305	5.9	60	0.04	8.13
23	M	acetonitrile	0.067	0.066	1.5	63	0.03	8.07
24	M	iodomethane	0.821	0.841	-2.4	62	0.04	7.86
25	M	carbon disulfide	1.549	1.669	-7.7	64	0.03	7.99
26	M	methylene chloride	0.524	0.504	3.8	61	0.03	8.31
27	M	methyl acetate	0.452	0.450	0.4	62	0.03	8.11
28	M	methyl tert butyl ether	1.593	1.601	-0.5	65	0.03	8.69
29	M	trans-1,2-dichloroethene	0.620	0.642	-3.5	63	0.03	8.72
30		hexane	0.508	0.567	-11.6	67	0.03	9.07
31	M	di-isopropyl ether	1.592	1.589	0.2	62	0.02	9.31
32	m	t-butyl formate	0.462	0.549	-18.8	74	0.02	10.51
33	M	ethyl tert-butyl ether	1.502	1.548	-3.1	62	0.02	9.79
34	M	2-butanone	0.071	0.078	-9.9	68	0.02	10.04
35	M	1,1-dichloroethane	0.783	0.766	2.2	60	0.03	9.31
36	M	chloroprene	0.576	0.587	-1.9	63	0.03	9.43
37	M	acrylonitrile	0.231	0.226	2.2	60	0.03	8.65
38	M	vinyl acetate	0.083	0.080	3.6	60	0.02	9.30
39	M	ethyl acetate	0.086	0.088	-2.3	69	0.01	10.06
40		ethyl acrylate		----------NA----------				
41	M	2,2-dichloropropane	0.742	0.881	-18.7	72	0.02	10.09

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VA8370-CC8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220999.D
Project: BMSMC, Building 5 Area, PR

42	M	cis-1,2-dichloroethene	0.460	0.489	-6.3	63	0.02	10.07
43	M	propionitrile	0.102	0.100	2.0	61	0.02	10.13
44	M	bromochloromethane	0.230	0.234	-1.7	62	0.02	10.39
45	M	tetrahydrofuran	0.233	0.228	2.1	61	0.01	10.43
46	M	chloroform	0.701	0.707	-0.9	61	0.01	10.44
47	S	dibromofluoromethane (s)	0.474	0.488	-3.0	67	0.01	10.64
48	S	1,2-dichloroethane-d4 (s)	0.510	0.511	-0.2	65	0.01	11.08
49	M	methacrylonitrile	0.222	0.210	5.4	60	0.02	10.33
50		cyclohexane	0.808	0.836	-3.5	63	0.02	10.82
51	M	1,1,1-trichloroethane	0.684	0.749	-9.5	64	0.02	10.73
52		iso-butyl alcohol	0.034	0.034	0.0	67	0.01	10.87
53	M	tert-amyl methyl ether	1.519	1.477	2.8	62	0.01	11.22
54	I	1,4-difluorobenzene	1.000	1.000	0.0	67	0.00	11.55
55	M	Di-isobutylene		----------NA----------				
56	M	epichlorohydrin	0.043	0.044	-2.3	68	0.00	12.84
57	M	n-butyl alcohol	0.020	0.021	-5.0	68	0.00	11.64
58	M	carbon tetrachloride	0.419	0.433	-3.3	64	0.01	10.94
59	M	1,1-dichloropropene	0.364	0.367	-0.8	63	0.01	10.90
60	M	benzene	1.152	1.111	3.6	62	0.02	11.18
61	M	Iso-octane	1.288	1.318	-2.3	65	0.01	11.21
62	M	heptane	0.205	0.227	-10.7	72	0.00	11.37
63	m	tert amyl alcohol		----------NA----------				
64	M	isopropyl acetate	0.071	0.070	1.4	63	0.00	11.09
65	M	1,2-dichloroethane	0.357	0.342	4.2	61	0.00	11.17
66	M	trichloroethene	0.273	0.269	1.5	63	0.00	11.90
67	M	2-nitropropane	0.126	0.119	5.6	63	0.00	12.70
68	m	tert-amyl ethyl ether		----------NA----------				
69	m	methylcyclohexane	0.538	0.563	-4.6	65	0.00	12.16
70	M	2-chloroethyl vinyl ether	0.192	0.198	-3.1	66	0.00	12.72
71	M	methyl methacrylate	0.081	0.078	3.7	62	0.00	12.17
72	M	1,2-dichloropropane	0.308	0.298	3.2	62	0.00	12.18
73	M	dibromomethane	0.180	0.176	2.2	62	0.01	12.33
74	M	bromodichloromethane	0.370	0.351	5.1	62	0.00	12.46
75	M	cis-1,3-dichloropropene	0.448	0.448	0.0	65	0.00	12.95
76	S	toluene-d8 (s)	1.166	1.169	-0.3	67	0.00	13.28
77	M	4-methyl-2-pentanone	0.172	0.170	1.2	62	0.00	13.07
78	M	toluene	1.104	1.118	-1.3	65	0.00	13.36
79	M	3-methyl-1-butanol	0.032	0.034	-6.3	69	0.00	13.06
80	M	trans-1,3-dichloropropene	0.399	0.403	-1.0	66	0.00	13.55
81	M	ethyl methacrylate	0.389	0.381	2.1	62	0.00	13.56
82	M	1,1,2-trichloroethane	0.212	0.212	0.0	65	0.00	13.79
83	M	2-hexanone	0.152	0.144	5.3	62	0.00	13.99
84	I	chlorobenzene-d5	1.000	1.000	0.0	69	0.00	14.94
85	M	tetrachloroethene	0.333	0.324	2.7	64	0.00	14.00
86	M	1,3-dichloropropane	0.479	0.463	3.3	63	0.00	13.99
87	M	butyl acetate	0.278	0.252	9.4	63	0.00	14.07
88		3,3-dimethyl-1-butanol	0.095	0.096	-1.1	67	0.00	14.16
89	M	dibromochloromethane	0.325	0.316	2.8	64	0.00	14.28
90	M	1,2-dibromoethane	0.299	0.288	3.7	65	0.00	14.45
91	M	n-butyl ether	1.409	1.290	8.4	58	0.00	14.88
92	M	chlorobenzene	0.817	0.817	0.0	66	0.00	14.97
93	M	1,1,1,2-tetrachloroethane	0.359	0.365	-1.7	66	0.00	15.04
94	M	ethylbenzene	1.420	1.411	0.6	64	0.00	15.04
95	M	m,p-xylene	0.541	0.549	-1.5	66	0.00	15.16
96	M	o-xylene	1.191	1.180	0.9	64	0.00	15.63
97	M	styrene	0.885	0.887	-0.2	65	0.00	15.63
98	M	bromoform	0.244	0.244	0.0	67	0.00	15.91

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VA8370-CC8353
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** A220999.D
Project: BMSMC, Building 5 Area, PR

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	68	0.00	17.54
100	M	isopropylbenzene	2.723	2.901	-6.5	65	0.00	16.01
101	m	cyclohexanone	0.060	0.102	-70.0#	118	0.00	16.19
102	S	4-bromofluorobenzene (s)	0.858	0.877	-2.2	69	0.00	16.23
103	M	bromobenzene	0.673	0.696	-3.4	68	0.00	16.45
104	M	1,1,2,2-tetrachloroethane	0.913	0.897	1.8	62	0.00	16.32
105	M	trans-1,4-dichloro-2-bute	0.163	0.217	-33.1#	91	0.00	16.37
106	M	1,2,3-trichloropropane	0.219	0.231	-5.5	68	0.00	16.42
107	M	n-propylbenzene	3.021	3.215	-6.4	65	0.00	16.47
108	M	2-chlorotoluene	0.664	0.682	-2.7	65	0.00	16.63
109	M	4-chlorotoluene	1.807	1.861	-3.0	65	0.00	16.74
110	m	p-ethyltoluene		----------NA----------				
111	M	1,3,5-trimethylbenzene	2.302	2.436	-5.8	65	0.00	16.64
112	M	tert-butylbenzene	0.507	0.540	-6.5	67	0.00	17.03
113	M	pentachloroethane	0.527	0.553	-4.9	66	0.00	17.11
114	M	1,2,4-trimethylbenzene	2.307	2.446	-6.0	64	0.00	17.08
115	M	sec-butylbenzene	3.204	3.471	-8.3	65	0.00	17.27
116	M	1,3-dichlorobenzene	1.299	1.359	-4.6	67	0.00	17.47
117	M	p-isopropyltoluene	2.595	2.823	-8.8	65	0.00	17.40
118	M	1,2,3-trimethylbenzene		----------NA----------				
119	M	1,4-dichlorobenzene	1.309	1.354	-3.4	66	0.00	17.56
120	m	p-diethylbenzene		----------NA----------				
121	M	1,2-dichlorobenzene	1.341	1.367	-1.9	64	0.00	18.00
122	M	n-butylbenzene	1.388	1.449	-4.4	65	0.00	17.86
123	m	1,2,4,5-tetramethylbenzen		----------NA----------				
124	M	1,2-dibromo-3-chloropropa	0.258	0.261	-1.2	63	0.00	18.85
125	M	1,3,5-trichlorobenzene	1.253	1.290	-3.0	65	0.00	19.08
126	M	1,2,4-trichlorobenzene	1.189	1.268	-6.6	66	0.00	19.81
127	M	hexachlorobutadiene	0.592	0.629	-6.3	67	0.00	19.95
128	M	naphthalene	3.569	3.710	-4.0	62	0.00	20.13
129	M	1,2,3-trichlorobenzene	1.329	1.383	-4.1	64	0.00	20.40
130	M	hexachloroethane	0.502	0.509	-1.4	65	0.00	18.30
131		Ethylenimine		----------NA----------				
132		Bis(chloromethyl)ether		----------NA----------				
133		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A220647.D MA8353.M Thu Mar 17 17:06:42 2016 RPT1

6.9.3

6

Initial Calibration Summary

Job Number: JC16038 **Sample:** VU9367-ICC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U203702.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MSU

```
Method       : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title        : SW-846  8260C, ZB624  60m x 250um x 1.40um
Last Update  : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Calibration Files
5   =u203699.D   2   =u203698.D   20  =u203701.D   50  =u203702.D
100 =u203703.D   1   =u203697.D   200 =u203704.D   10  =u203700.D
0.5 =u203696.D   0.2 =u203695.D       =                =

Compound
        5     2     20    50    100   1     200   10    0.5   0.2    Avg   %RSD
-------------------------------------------------------------------------------

1) I   Tert Butyl Alcohol-d9 ----------------ISTD---------------------
2)  tertiary butyl alcohol
     1.034 0.989 1.190 1.223 1.198 0.975 1.097 1.209              1.114    9.32
3)  Ethanol
                                                                  0.000   -1.00
4)  1,4-dioxane
     0.074 0.061 0.095 0.102 0.102       0.093 0.093              0.089   17.10

5) I   pentafluorobenzene    ----------------ISTD---------------------
6)  freon 115
                                                                  0.000   -1.00
7)  freon 23
                                                                  0.000   -1.00
8)  freon 143A
                                                                  0.000   -1.00
9)  freon 152A
                                                                  0.000   -1.00
10)  chlorotrifluoroethene
                                                                  0.000   -1.00
11)  chlorodifluoromethane
      0.485 0.441 0.587 0.603 0.579 0.568 0.526 0.589              0.547   10.57
12)  dichlorodifluoromethane
      0.481 0.402 0.480 0.520 0.492 0.552 0.481 0.472              0.485    8.87
13)  freon 142B
                                                                  0.000   -1.00
14)  freon 114
                                                                  0.000   -1.00
15)  chloromethane
      0.808 0.808 0.795 0.869 0.787 1.184 0.787 0.761              0.850   16.29
16)  vinyl chloride
      0.709 0.685 0.687 0.738 0.664 0.940 0.655 0.653              0.716   13.22
17)  acetaldehyde
                                                                  0.000   -1.00
18)  bromomethane
      0.361 0.358 0.358 0.380 0.335       0.283 0.343              0.345    8.94
19)  chloroethane
      0.376 0.379 0.372 0.398 0.359 0.488 0.353 0.352              0.385   11.59
20)  trichlorofluoromethane
      0.654 0.613 0.652 0.701 0.639       0.637 0.616              0.644    4.59
21)  pentane
                                                                  0.000   -1.00
22)  freon 123A
                                                                  0.000   -1.00
23)  ethyl ether
```

	0.251	0.197	0.281	0.301	0.295	0.279	0.293	0.280			0.272	12.57
24)	2-CHLOROPROPANE											
	1.006	0.744	1.093	1.137	1.070	1.085	1.066	1.086			1.036	11.93
25)	freon 141B											
											0.000	-1.00
26)	freon 123											
											0.000	-1.00
27)	acrolein											
	0.114	0.124	0.118	0.121		0.123		0.105			0.117	6.15
28)	1,1-dichloroethene											
	0.396	0.267	0.423	0.437	0.412	0.390	0.419	0.418	0.284		0.383	16.35
29)	acetone											
	0.033	0.037	0.043	0.048	0.045		0.046	0.040			0.042	12.66
30)	allyl chloride											
	0.294	0.199	0.337	0.352	0.335	0.296	0.336	0.324			0.309	15.88
31)	acetonitrile											
	0.053	0.056	0.056	0.057	0.053		0.050	0.059			0.055	5.24
32)	iodomethane											
	0.710	0.509	0.782	0.817	0.780	0.760	0.802	0.776			0.742	13.40
33)	carbon disulfide											
	1.461	1.035	1.586	1.646	1.551	1.526	1.566	1.597	1.418	1.295	1.468	12.49
34)	1-CHLOROPROPANE											
	0.039		0.045	0.047	0.044		0.044	0.045			0.044	5.65
35)	methylene chloride											
	0.471	0.379	0.509	0.523	0.494	0.510	0.501	0.512			0.487	9.53
36)	methyl acetate											
	0.385	0.362	0.476	0.479	0.459	0.413	0.427	0.492			0.436	10.89
37)	methyl tert butyl ether											
	1.334	1.084	1.458	1.502	1.444	1.513	1.459	1.444	1.316	1.154	1.371	10.80
38)	trans-1,2-dichloroethene											
	0.440	0.309	0.476	0.492	0.464	0.478	0.464	0.481			0.451	13.16
39)	di-isopropyl ether											
	1.691	1.637	1.983	2.036	1.949	1.978	1.838	2.009	1.989	1.829	1.894	7.36
40)	ethyl tert-butyl ether											
	1.427	1.374	1.679	1.747	1.679	1.668	1.612	1.703	1.645		1.615	7.91
41)	2-butanone											
	0.048		0.060	0.061	0.060		0.060	0.053			0.057	9.18
42)	1,1-dichloroethane											
	0.887	0.645	0.963	1.003	0.944	0.956	0.940	0.969	0.808		0.902	12.36
43)	chloroprene											
	0.627	0.591	0.762	0.797	0.766	0.690	0.716	0.767			0.715	10.28
44)	acrylonitrile											
	0.195	0.160	0.216	0.220	0.208	0.220	0.205	0.211	0.182		0.202	9.96
45)	vinyl acetate											
	0.065		0.086	0.096	0.094		0.087	0.084			0.085	12.64
46)	ethyl acetate											
	0.063		0.091	0.094	0.091		0.086	0.081			0.084	13.27
47)	2,2-dichloropropane											
	0.673	0.480	0.706	0.729	0.690	0.686	0.677	0.725			0.671	11.92
48)	cis-1,2-dichloroethene											
	0.486	0.354	0.521	0.544	0.519	0.512	0.519	0.521			0.497	12.08
49)	methyl acrylate											
	0.058		0.071	0.076	0.075		0.075	0.068			0.071	9.54
50)	propionitrile											
	0.076	0.063	0.085	0.086	0.082	0.083	0.082	0.083			0.080	9.16
51)	bromochloromethane											
	0.225	0.163	0.243	0.258	0.249	0.228	0.253	0.247			0.233	13.06
52)	tetrahydrofuran											
	0.193	0.145	0.218	0.220	0.211	0.193	0.210	0.215			0.201	12.30
53)	chloroform											

Initial Calibration Summary

Job Number: JC16038 **Sample:** VU9367-ICC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U203702.D
Project: BMSMC, Building 5 Area, PR

```
      0.761 0.570 0.826 0.865 0.829 0.825 0.830 0.831 0.707 0.633  0.768   12.93
54)  tert-butyl Formate
      0.379 0.342 0.449 0.475 0.463 0.418 0.448 0.449              0.428   10.67
55)  iso-butyl alcohol
      0.024 0.023 0.030 0.031 0.030 0.027 0.027 0.031 0.021        0.027   13.76
56)  dibromofluoromethane (s)
      0.407 0.404 0.404 0.408 0.404 0.403 0.406 0.409 0.406 0.411  0.406    0.61
57)  1,2-dichloroethane-d4 (s)
      0.493 0.487 0.492 0.502 0.502 0.490 0.504 0.495 0.487 0.494  0.495    1.25
58)  freon 113
      0.256 0.192 0.299 0.310 0.306       0.281 0.307              0.279   15.29
59)  methacrylonitrile
      0.349 0.281 0.379 0.401 0.389 0.359 0.392 0.378 0.267        0.355   13.77
60)  1,1,1-trichloroethane
      0.640 0.433 0.680 0.713 0.692 0.636 0.696 0.678              0.646   13.97
61)  tert amyl alcohol
                                                                   0.000   -1.00
62)  tert-amyl methyl ether
      0.274 0.263 0.326 0.334 0.322 0.298 0.305 0.327 0.253        0.300   10.13
63)  iso-octane
      1.640 1.396 1.752 1.737 1.743 1.659 1.524 1.942              1.674    9.78

64) I   1,4-difluorobenzene   ----------------ISTD--------------------
65)  Di-isobutylene
                                                                   0.000   -1.00
66)  epichlorohydrin
      0.033 0.032 0.042 0.043 0.041 0.036 0.039 0.040 0.026        0.037   15.16
67)  n-butyl alcohol
      0.010 0.009 0.013 0.013 0.013 0.010 0.011 0.012              0.011   15.26
68)  Cyclohexane
      0.502       0.524 0.623 0.515       0.584 0.530              0.546    8.56
69)  carbon tetrachloride
      0.425 0.288 0.460 0.473 0.450 0.407 0.453 0.453              0.426   13.99
70)  1,1-dichloropropene
      0.452 0.303 0.483 0.505 0.480 0.456 0.474 0.484              0.455   13.97
71)  hexane
      0.416 0.350 0.457 0.462 0.465       0.413 0.495              0.437   10.97
72)  benzene
      1.362 1.027 1.458 1.497 1.407 1.520 1.370 1.457 1.325 1.369  1.379   10.09
73)  heptane
      0.259 0.208 0.287 0.298 0.310 0.263 0.281 0.312              0.277   12.37
74)  isopropyl acetate
      0.680 0.650 0.806 0.827 0.808 0.795 0.765 0.812 0.763        0.767    8.11
75)  1,2-dichloroethane
      0.444 0.357 0.481 0.498 0.477 0.494 0.472 0.483 0.442        0.461    9.42
76)  ethyl acrylate
                                                                   0.000   -1.00
77)  tert amyl ethyl ether
                                                                   0.000   -1.00
78)  trichloroethene
      0.328 0.222 0.352 0.371 0.357 0.348 0.360 0.344              0.335   14.13
79)  methylcyclohexane
      0.492 0.438 0.564 0.569 0.560 0.502 0.516 0.583              0.528    9.41
80)  2-nitropropane
      0.133 0.116 0.159 0.163 0.158 0.158 0.152 0.156 0.123        0.146   12.14
81)  2-chloroethyl vinyl ether
      0.187 0.179 0.237 0.246 0.240 0.214 0.219 0.232 0.204 0.158  0.212   13.91
82)  methyl methacrylate
      0.077 0.060 0.091 0.094 0.094       0.094 0.086              0.085   14.98
83)  1,2-dichloropropane
```

```
      0.373 0.290 0.407 0.423 0.407 0.422 0.402 0.412 0.374        0.390   10.67
 84)  propyl acetate
      0.060 0.054 0.070 0.072 0.069 0.051 0.064 0.070              0.064   12.58
 85)  dibromomethane
      0.193 0.154 0.216 0.221 0.216 0.213 0.220 0.210 0.145        0.199   14.71
 86)  bromodichloromethane
      0.440 0.331 0.485 0.507 0.493 0.492 0.505 0.478 0.422 0.326  0.448   15.29
 87)  cis-1,3-dichloropropene
      0.580 0.442 0.632 0.664 0.647 0.647 0.645 0.622 0.522        0.600   12.27
 88)  toluene-d8 (s)
      1.196 1.196 1.216 1.203 1.189 1.198 1.211 1.205 1.199 1.195  1.201    0.69
 89)  4-methyl-2-pentanone
      0.139 0.105 0.162 0.166 0.160       0.158 0.156              0.149   14.35
 90)  toluene
      0.824 0.610 0.891 0.928 0.892 0.912 0.888 0.894 0.770 0.718  0.833   12.40
 91)  3-methyl-1-butanol
      0.016 0.014 0.021 0.022 0.020 0.016 0.018 0.020              0.018   14.93
 92)  trans-1,3-dichloropropene
      0.516 0.410 0.576 0.604 0.587 0.571 0.590 0.566 0.465 0.444  0.533   13.07
 93)  ethyl methacrylate
      0.409 0.333 0.485 0.513 0.508 0.447 0.510 0.460              0.458   13.58
 94)  1,1,2-trichloroethane
      0.251 0.201 0.279 0.290 0.281 0.286 0.286 0.272 0.212        0.262   12.82
 95)  2-hexanone
      0.133       0.163 0.168 0.162       0.161 0.154              0.157    8.02

 96) I   chlorobenzene-d5      ----------------ISTD---------------------
 97)  cyclohexanone
      0.024 0.023 0.025 0.028 0.025 0.033 0.025 0.021              0.026   14.15
 98)  tetrachloroethene
      0.313 0.218 0.337 0.355 0.347 0.330 0.340 0.337 0.249        0.314   15.18
 99)  1,3-dichloropropane
      0.568 0.453 0.613 0.633 0.622 0.649 0.600 0.608 0.552        0.589   10.02
100)  butyl acetate
      0.248 0.230 0.298 0.304 0.302 0.274 0.274 0.292 0.214        0.271   12.23
101)  dibromochloromethane
      0.363 0.285 0.405 0.433 0.431 0.405 0.436 0.398 0.325        0.387   13.55
102)  1,2-dibromoethane
      0.313 0.251 0.347 0.366 0.363 0.345 0.366 0.341              0.337   11.48
103)  3,3-dimethyl-1-Butanol
      0.036 0.034 0.050 0.053 0.050       0.042 0.046              0.045   16.36
104)  n-butyl ether
      1.775 1.309 1.994 2.123 2.083 1.934 1.991 1.947 1.572        1.859   14.25
105)  chlorobenzene
      0.976 0.752 1.060 1.112 1.077 1.095 1.059 1.060 0.954 0.943  1.009   10.71
106)  1,1,1,2-tetrachloroethane
      0.360 0.275 0.391 0.410 0.400 0.392 0.397 0.394              0.377   11.56
107)  ethylbenzene
      1.726 1.255 1.859 1.940 1.880 1.877 1.818 1.873 1.705 1.742  1.768   11.08
108)  m,p-xylene
      0.646 0.480 0.713 0.742 0.713 0.718 0.685 0.709 0.623 0.585  0.661   12.19
109)  o-xylene
      0.650 0.481 0.709 0.730 0.715 0.707 0.696 0.696 0.573 0.543  0.650   13.32
110)  styrene
      1.069 0.789 1.203 1.272 1.238 1.135 1.206 1.168 0.916 0.953  1.095   14.57
111)  bromoform
      0.261 0.214 0.296 0.317 0.321 0.269 0.329 0.286              0.287   13.32

112) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
113)  isopropylbenzene
```

```
       3.116 2.266 3.351 3.467 3.351 3.444 3.342 3.358 2.887 2.584  3.117   13.13
114)  4-bromofluorobenzene (s)
       0.913 0.924 0.910 0.902 0.899 0.932 0.919 0.912 0.917 0.923  0.915    1.10
115)  bromobenzene
       0.828 0.628 0.891 0.917 0.889 0.980 0.899 0.892 0.822 0.776  0.852   11.39
116)  1,1,2,2-tetrachloroethane
       0.831 0.690 0.904 0.922 0.893 0.950 0.910 0.894 0.803 0.658  0.846   11.84
117)  trans-1,4-dichloro-2-butene
       0.209       0.275 0.291 0.287       0.297 0.261              0.270   11.99
118)  1,2,3-trichloropropane
       0.196 0.165 0.223 0.230 0.220 0.194 0.220 0.230              0.210   10.89
119)  n-propylbenzene
       3.786 2.696 4.061 4.183 3.988 4.050 3.856 4.063 3.538 3.351  3.757   12.09
120)  2-chlorotoluene
       0.770 0.581 0.823 0.846 0.820 0.897 0.813 0.831 0.701        0.787   11.97
121)  4-chlorotoluene
       2.317 1.834 2.496 2.574 2.498 2.653 2.529 2.505 2.258 2.391  2.406    9.68
122)  p-Ethyltoluene
                                                                    0.000   -1.00
123)  1,3,5-trimethylbenzene
       2.606 1.904 2.821 2.937 2.846 2.872 2.749 2.842 2.506 2.219  2.630   12.72
124)  tert-butylbenzene
       2.248 1.631 2.436 2.547 2.482 2.474 2.418 2.428 2.264 1.821  2.275   13.49
125)  pentachloroethane
       0.512 0.380 0.565 0.595 0.588 0.575 0.594 0.562 0.387        0.529   16.25
126)  1,2,4-trimethylbenzene
       2.638 1.964 2.899 3.018 2.922 2.946 2.859 2.894 2.510 2.524  2.717   11.79
127)  1,2,3-trimethylbenzene
                                                                    0.000   -1.00
128)  sec-butylbenzene
       3.362 2.378 3.701 3.862 3.754 3.626 3.624 3.711 3.212 2.810  3.404   14.04
129)  1,3-dichlorobenzene
       1.586 1.214 1.714 1.797 1.748 1.744 1.741 1.716 1.602 1.539  1.640   10.45
130)  p-isopropyltoluene
       2.822 2.054 3.131 3.269 3.192 3.012 3.062 3.114 2.719 2.403  2.878   13.49
131)  1,4-dichlorobenzene
       1.595 1.258 1.703 1.789 1.755 1.842 1.744 1.727 1.665        1.675   10.24
132)  benzyl chloride
       1.389 1.342 1.694 1.774 1.732 1.726 1.629 1.698 1.746 1.598  1.633    9.23
133)  1,2-dichlorobenzene
       1.461 1.168 1.604 1.680 1.651 1.668 1.626 1.596 1.438 1.436  1.533   10.39
134)  p-Diethylbenzene
                                                                    0.000   -1.00
135)  n-butylbenzene
       1.448 1.014 1.625 1.736 1.690 1.480 1.608 1.618 1.382 1.191  1.479   15.56
136)  1,2,4,5-Tetramethylbenzene
                                                                    0.000   -1.00
137)  1,2-dibromo-3-chloropropane
       0.134 0.119 0.165 0.174 0.174 0.123 0.182 0.159              0.154   16.00
138)  1,3,5-trichlorobenzene
       1.143 0.876 1.270 1.379 1.362 1.258 1.332 1.257 1.101        1.220   13.02
139)  1,2,4-trichlorobenzene
       0.862 0.704 1.017 1.118 1.121 0.955 1.109 0.988 0.828        0.967   15.04
140)  hexachlorobutadiene
       0.562 0.394 0.607 0.645 0.633 0.568 0.602 0.607              0.577   13.75
141)  naphthalene
       1.628 1.330 1.960 2.113 2.112 1.821 2.100 1.872 1.533 2.098  1.857   14.96
142)  INDANE
                                                                    0.000   -1.00
143)  1,2,3-trichlorobenzene
```

Initial Calibration Summary

Job Number: JC16038 **Sample:** VU9367-ICC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U203702.D
Project: BMSMC, Building 5 Area, PR

```
       0.678 0.554 0.814 0.897 0.900 0.722 0.881 0.783              0.779   15.68
144)  hexachloroethane
       0.509 0.366 0.566 0.607 0.604 0.505 0.596 0.562              0.539   14.92
145)  MMT
                                                                    0.000   -1.00
146)  Bis(chloromethyl)ether
                                                                    0.000   -1.00
147)  Ethylenimine
                                                                    0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MU9367.M          Mon Feb 29 09:35:16 2016   U_CORE
```

Initial Calibration Verification

Job Number: JC16038 **Sample:** VU9367-ICV9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U203707.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\u203707.D Vial: 14
Acq On : 26 Feb 2016 5:02 pm Operator: NicoleH1
Sample : icv9367-50 Inst : MSU
Misc : ms98802,vu9367,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
Last Update : Mon Feb 29 09:33:35 2016
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	98	0.00	7.86
2	M	tertiary butyl alcohol	1.114	1.215	-9.1	98	0.00	7.98
3		Ethanol		----------NA----------				
4	m	1,4-dioxane	0.089	0.095	-6.7	92	0.00	11.71
5	I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	10.06
6	M	freon 115		----------NA----------				
7	M	freon 23		----------NA----------				
8	M	freon 143A		----------NA----------				
9	M	freon 152A		----------NA----------				
10	M	chlorotrifluoroethene		----------NA----------				
11	M	chlorodifluoromethane	0.547	0.624	-14.1	103	0.00	4.40
12	M	dichlorodifluoromethane	0.485	0.500	-3.1	96	-0.01	4.38
13	M	freon 142B		----------NA----------				
14	M	freon 114		----------NA----------				
15	M	chloromethane	0.850	0.733	13.8	84	0.00	4.76
16	M	vinyl chloride	0.716	0.644	10.1	87	0.00	5.03
17	M	acetaldehyde		----------NA----------				
18	M	bromomethane	0.345	0.384	-11.3	101	-0.01	5.70
19	M	chloroethane	0.385	0.372	3.4	93	0.00	5.89
20	M	trichlorofluoromethane	0.644	0.648	-0.6	92	0.00	6.32
21	M	pentane		----------NA----------				
22	M	freon 123A		----------NA----------				
23	M	ethyl ether	0.272	0.294	-8.1	97	0.00	6.74
24		2-CHLOROPROPANE	1.036	1.119	-8.0	98	0.00	6.97
25	M	freon 141B		----------NA----------				
26	M	freon 123		----------NA----------				
27	M	acrolein	0.117	0.126	-7.7	103	0.00	7.04
28	M	1,1-dichloroethene	0.383	0.425	-11.0	97	0.00	7.19
29	M	acetone	0.042	0.047	-11.9	99	0.00	7.25
30	M	allyl chloride	0.309	0.333	-7.8	94	0.00	7.72
31	M	acetonitrile	0.055	0.054	1.8	96	0.00	7.72
32	M	iodomethane	0.742	0.790	-6.5	96	0.00	7.49
33	M	carbon disulfide	1.468	1.614	-9.9	98	0.00	7.61
34		1-CHLOROPROPANE	0.044	0.045	-2.3	96	0.00	7.95
35	M	methylene chloride	0.487	0.501	-2.9	96	0.00	7.92
36	M	methyl acetate	0.436	0.464	-6.4	97	0.00	7.70
37	M	methyl tert butyl ether	1.371	1.460	-6.4	97	0.00	8.22
38	M	trans-1,2-dichloroethene	0.451	0.470	-4.2	95	0.00	8.28
39	M	di-isopropyl ether	1.894	2.009	-6.1	98	0.00	8.79
40	M	ethyl tert-butyl ether	1.615	1.743	-7.9	99	0.00	9.25
41	M	2-butanone	0.057	0.061	-7.0	99	0.00	9.54

Initial Calibration Verification

Job Number: JC16038 **Sample:** VU9367-ICV9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U203707.D
Project: BMSMC, Building 5 Area, PR

42	M	1,1-dichloroethane	0.902	0.972	-7.8	97	0.00	8.85
43	M	chloroprene	0.715	0.803	-12.3	100	0.00	8.94
44	M	acrylonitrile	0.202	0.217	-7.4	98	0.00	8.25
45	M	vinyl acetate	0.085	0.094	-10.6	98	0.00	8.81
46	M	ethyl acetate	0.084	0.092	-9.5	98	0.00	9.53
47	M	2,2-dichloropropane	0.671	0.714	-6.4	98	0.00	9.58
48	M	cis-1,2-dichloroethene	0.497	0.519	-4.4	95	0.00	9.57
49	M	methyl acrylate	0.071	0.077	-8.5	101	0.00	9.62
50	M	propionitrile	0.080	0.084	-5.0	97	0.00	9.66
51	M	bromochloromethane	0.233	0.249	-6.9	96	0.00	9.89
52	M	tetrahydrofuran	0.201	0.216	-7.5	98	0.00	9.91
53	M	chloroform	0.768	0.850	-10.7	98	0.00	9.93
54		tert-butyl Formate	0.428	0.406	5.1	85	0.00	9.96
55	M	iso-butyl alcohol	0.027	0.030	-11.1	95	0.00	10.35
56	S	dibromofluoromethane (s)	0.406	0.398	2.0	97	0.00	10.14
57	S	1,2-dichloroethane-d4 (s)	0.495	0.492	0.6	98	0.00	10.56
58	M	freon 113	0.279	0.340	-21.9	110	0.00	7.16
59	M	methacrylonitrile	0.355	0.379	-6.8	94	0.00	9.82
60	M	1,1,1-trichloroethane	0.646	0.728	-12.7	102	0.00	10.18
61	M	tert amyl alcohol		----------NA----------				
62	M	tert-amyl methyl ether	0.300	0.337	-12.3	101	0.00	10.63
63		iso-octane	1.674	1.807	-7.9	104	0.00	10.59
64	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	10.98
65	M	Di-isobutylene		----------NA----------				
66	M	epichlorohydrin	0.037	0.043	-16.2	98	0.00	12.28
67	M	n-butyl alcohol	0.011	0.013	-18.2	96	0.00	11.09
68	M	Cyclohexane	0.546	0.612	-12.1	96	0.00	10.25
69	M	carbon tetrachloride	0.426	0.473	-11.0	98	0.00	10.38
70	M	1,1-dichloropropene	0.455	0.524	-15.2	102	0.00	10.36
71	M	hexane	0.437	0.446	-2.1	95	0.00	8.55
72	M	benzene	1.379	1.466	-6.3	96	0.00	10.62
73	M	heptane	0.277	0.312	-12.6	103	0.00	10.75
74	M	isopropyl acetate	0.767	0.887	-15.6	105	0.00	10.51
75	M	1,2-dichloroethane	0.461	0.491	-6.5	97	0.00	10.64
76	M	ethyl acrylate		----------NA----------				
77		tert amyl ethyl ether		----------NA----------				
78	M	trichloroethene	0.335	0.366	-9.3	97	0.00	11.32
79	M	methylcyclohexane	0.528	0.604	-14.4	104	0.00	11.54
80	M	2-nitropropane	0.146	0.166	-13.7	100	0.00	12.13
81	M	2-chloroethyl vinyl ether	0.212	0.255	-20.3	102	0.00	12.12
82	M	methyl methacrylate	0.085	0.096	-12.9	100	0.00	11.58
83	M	1,2-dichloropropane	0.390	0.418	-7.2	97	0.00	11.60
84	M	propyl acetate	0.064	0.073	-14.1	100	0.00	11.61
85	M	dibromomethane	0.199	0.216	-8.5	96	0.00	11.77
86	M	bromodichloromethane	0.448	0.501	-11.8	97	0.00	11.90
87	M	cis-1,3-dichloropropene	0.600	0.654	-9.0	97	0.00	12.36
88	S	toluene-d8 (s)	1.201	1.206	-0.4	98	0.00	12.66
89	M	4-methyl-2-pentanone	0.149	0.168	-12.8	99	0.00	12.45
90	M	toluene	0.833	0.921	-10.6	97	0.00	12.74
91	M	3-methyl-1-butanol	0.018	0.022	-22.2	100	0.00	12.46
92	M	trans-1,3-dichloropropene	0.533	0.582	-9.2	94	0.00	12.95
93	M	ethyl methacrylate	0.458	0.510	-11.4	98	0.00	12.92
94	M	1,1,2-trichloroethane	0.262	0.285	-8.8	96	0.00	13.19
95	M	2-hexanone	0.157	0.172	-9.6	100	0.00	13.36
96	I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	14.30
97	M	cyclohexanone	0.026	0.025	3.8	90	0.00	15.56
98	M	tetrachloroethene	0.314	0.355	-13.1	99	0.00	13.36
99	M	1,3-dichloropropane	0.589	0.616	-4.6	96	0.00	13.39

Initial Calibration Verification

Job Number: JC16038 **Sample:** VU9367-ICV9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U203707.D
Project: BMSMC, Building 5 Area, PR

100	M	butyl acetate	0.271	0.322	-18.8	105	0.00	13.42
101	M	dibromochloromethane	0.387	0.424	-9.6	97	0.00	13.68
102	M	1,2-dibromoethane	0.337	0.359	-6.5	97	0.00	13.85
103		3,3-dimethyl-1-Butanol	0.045	0.054	-20.0	100	0.00	13.54
104		n-butyl ether	1.859	2.118	-13.9	98	0.00	14.20
105	M	chlorobenzene	1.009	1.109	-9.9	98	0.00	14.34
106	M	1,1,1,2-tetrachloroethane	0.377	0.399	-5.8	96	0.00	14.40
107	M	ethylbenzene	1.768	1.927	-9.0	98	0.00	14.38
108	M	m,p-xylene	0.661	0.735	-11.2	98	0.00	14.50
109	M	o-xylene	0.650	0.743	-14.3	100	0.00	14.97
110	M	styrene	1.095	1.244	-13.6	96	0.00	14.98
111	M	bromoform	0.287	0.320	-11.5	100	0.00	15.30
112	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	16.88
113	M	isopropylbenzene	3.117	3.378	-8.4	98	0.00	15.34
114	S	4-bromofluorobenzene (s)	0.915	0.890	2.7	99	0.00	15.58
115	M	bromobenzene	0.852	0.901	-5.8	99	0.00	15.80
116	M	1,1,2,2-tetrachloroethane	0.846	0.891	-5.3	97	0.00	15.70
117	M	trans-1,4-dichloro-2-bute	0.270	0.293	-8.5	101	0.00	15.74
118	M	1,2,3-trichloropropane	0.210	0.222	-5.7	97	0.00	15.78
119	M	n-propylbenzene	3.757	4.188	-11.5	101	0.00	15.79
120	M	2-chlorotoluene	0.787	0.824	-4.7	98	0.00	15.97
121	M	4-chlorotoluene	2.406	2.544	-5.7	99	0.00	16.08
122		p-Ethyltoluene		----------NA----------				
123	M	1,3,5-trimethylbenzene	2.630	2.899	-10.2	99	0.00	15.96
124	M	tert-butylbenzene	2.275	2.545	-11.9	100	0.00	16.35
125	M	pentachloroethane	0.529	0.597	-12.9	101	0.00	16.46
126	M	1,2,4-trimethylbenzene	2.717	3.028	-11.4	101	0.00	16.40
127		1,2,3-trimethylbenzene		----------NA----------				
128	M	sec-butylbenzene	3.404	3.808	-11.9	99	0.00	16.59
129	M	1,3-dichlorobenzene	1.640	1.773	-8.1	99	0.00	16.82
130	M	p-isopropyltoluene	2.878	3.322	-15.4	102	0.00	16.71
131	M	1,4-dichlorobenzene	1.675	1.780	-6.3	100	0.00	16.91
132	M	benzyl chloride	1.633	1.811	-10.9	103	0.00	17.04
133	M	1,2-dichlorobenzene	1.533	1.687	-10.0	101	0.00	17.35
134		p-Diethylbenzene		----------NA----------				
135	M	n-butylbenzene	1.479	1.724	-16.6	100	0.00	17.17
136		1,2,4,5-Tetramethylbenzen		----------NA----------				
137	M	1,2-dibromo-3-chloropropa	0.154	0.178	-15.6	103	0.00	18.21
138		1,3,5-trichlorobenzene	1.220	1.365	-11.9	99	0.00	18.40
139	M	1,2,4-trichlorobenzene	0.967	1.136	-17.5	102	0.00	19.13
140	M	hexachlorobutadiene	0.577	0.660	-14.4	103	0.00	19.24
141	M	naphthalene	1.857	2.107	-13.5	100	0.00	19.46
142		INDANE		----------NA----------				
143	M	1,2,3-trichlorobenzene	0.779	0.903	-15.9	101	0.00	19.74
144	M	hexachloroethane	0.539	0.623	-15.6	103	0.00	17.63
145	M	MMT		----------NA----------				
146	M	Bis(chloromethyl)ether		----------NA----------				
147	M	Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
u203702.D MU9367.M Mon Feb 29 09:35:09 2016 U_CORE

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9383-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204132.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\U\vu9383\u204132.D         Vial: 2
Acq On    : 15 Mar 2016   8:57 am                    Operator: NicoleH1
Sample    : cc9367-20                                Inst    : MSU
Misc      : ms99574,vu9383,5.0,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title        : SW-846  8260C, ZB624  60m x 250um x 1.40um
Last Update  : Mon Feb 29 09:33:35 2016
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	85	0.00	7.86
2	M	tertiary butyl alcohol	1.114	1.168	-4.8	84	0.00	7.98
3		Ethanol		----------NA----------				
4	m	1,4-dioxane	0.089	0.096	-7.9	86	0.00	11.72
5	I	pentafluorobenzene	1.000	1.000	0.0	85	0.00	10.06
6	M	freon 115		----------NA----------				
7	M	freon 23		----------NA----------				
8	M	freon 143A		----------NA----------				
9	M	freon 152A		----------NA----------				
10	M	chlorotrifluoroethene		----------NA----------				
11	M	chlorodifluoromethane	0.547	0.653	-19.4	94	0.01	4.41
12	M	dichlorodifluoromethane	0.485	0.508	-4.7	90	0.00	4.39
13	M	freon 142B		----------NA----------				
14	M	freon 114		----------NA----------				
15	M	chloromethane	0.850	0.820	3.5	87	0.00	4.76
16	M	vinyl chloride	0.716	0.707	1.3	87	0.00	5.03
17	M	acetaldehyde		----------NA----------				
18	M	bromomethane	0.345	0.377	-9.3	89	0.00	5.71
19	M	chloroethane	0.385	0.394	-2.3	90	0.01	5.90
20	M	trichlorofluoromethane	0.644	0.714	-10.9	93	0.05	6.36
21	M	pentane		----------NA----------				
22	M	freon 123A		----------NA----------				
23	M	ethyl ether	0.272	0.297	-9.2	90	0.00	6.75
24		2-CHLOROPROPANE	1.036	1.202	-16.0	93	0.01	6.97
25	M	freon 141B		----------NA----------				
26	M	freon 123		----------NA----------				
27	M	acrolein	0.117	0.126	-7.7	90	0.00	7.04
28	M	1,1-dichloroethene	0.383	0.447	-16.7	89	0.00	7.20
29	M	acetone	0.042	0.047	-11.9	92	0.00	7.25
30	M	allyl chloride	0.309	0.328	-6.1	82	0.01	7.73
31	M	acetonitrile	0.055	0.062	-12.7	94	0.00	7.72
32	M	iodomethane	0.742	0.829	-11.7	90	0.00	7.50
33	M	carbon disulfide	1.468	1.716	-16.9	92	0.00	7.62
34		1-CHLOROPROPANE	0.044	0.049	-11.4	91	0.00	7.95
35	M	methylene chloride	0.487	0.539	-10.7	90	0.00	7.93
36	M	methyl acetate	0.436	0.519	-19.0	93	0.00	7.70
37	M	methyl tert butyl ether	1.371	1.559	-13.7	91	0.00	8.22
38	M	trans-1,2-dichloroethene	0.451	0.496	-10.0	88	0.00	8.28
39	M	di-isopropyl ether	1.894	2.160	-14.0	92	0.00	8.79
40	M	ethyl tert-butyl ether	1.615	1.771	-9.7	89	0.00	9.25
41	M	2-butanone	0.057	0.062	-8.8	88	0.00	9.53

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9383-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204132.D
Project: BMSMC, Building 5 Area, PR

42	M	1,1-dichloroethane	0.902	1.032	-14.4	91	0.00	8.85
43	M	chloroprene	0.715	0.854	-19.4	95	0.00	8.94
44	M	acrylonitrile	0.202	0.224	-10.9	88	0.00	8.25
45	M	vinyl acetate	0.085	0.091	-7.1	89	0.00	8.81
46	M	ethyl acetate	0.084	0.093	-10.7	87	0.00	9.54
47	M	2,2-dichloropropane	0.671	0.821	-22.4#	98	0.00	9.58
48	M	cis-1,2-dichloroethene	0.497	0.548	-10.3	89	0.00	9.58
49	M	methyl acrylate	0.071	0.073	-2.8	87	0.00	9.62
50	M	propionitrile	0.080	0.086	-7.5	87	0.00	9.66
51	M	bromochloromethane	0.233	0.257	-10.3	89	0.00	9.89
52	M	tetrahydrofuran	0.201	0.231	-14.9	90	0.00	9.92
53	M	chloroform	0.768	0.875	-13.9	90	0.00	9.94
54		tert-butyl Formate	0.428	0.573	-33.9#	108	0.00	9.96
55	M	iso-butyl alcohol	0.027	0.030	-11.1	86	0.00	10.35
56	S	dibromofluoromethane (s)	0.406	0.427	-5.2	89	0.00	10.13
57	S	1,2-dichloroethane-d4 (s)	0.495	0.530	-7.1	91	0.00	10.56
58	M	freon 113	0.279	0.357	-28.0#	101	0.00	7.17
59	M	methacrylonitrile	0.355	0.397	-11.8	89	0.00	9.82
60	M	1,1,1-trichloroethane	0.646	0.741	-14.7	92	0.00	10.19
61	M	tert amyl alcohol		----------NA----------				
62	M	tert-amyl methyl ether	0.300	0.335	-11.7	87	0.00	10.63
63		iso-octane	1.674	2.214	-32.3#	107	0.00	10.59
64	I	1,4-difluorobenzene	1.000	1.000	0.0	89	0.00	10.98
65	M	Di-isobutylene		----------NA----------				
66	M	epichlorohydrin	0.037	0.039	-5.4	85	0.00	12.27
67	M	n-butyl alcohol	0.011	0.012	-9.1	83	0.00	11.09
68	M	Cyclohexane	0.546	0.537	1.6	91	0.00	10.25
69	M	carbon tetrachloride	0.426	0.478	-12.2	93	0.00	10.38
70	M	1,1-dichloropropene	0.455	0.485	-6.6	89	0.00	10.36
71	M	hexane	0.437	0.591	-35.2#	115	0.00	8.55
72	M	benzene	1.379	1.449	-5.1	89	0.00	10.62
73	M	heptane	0.277	0.341	-23.1#	106	0.00	10.75
74	M	isopropyl acetate	0.767	0.791	-3.1	87	0.00	10.51
75	M	1,2-dichloroethane	0.461	0.490	-6.3	91	0.00	10.64
76	M	ethyl acrylate		----------NA----------				
77		tert amyl ethyl ether		----------NA----------				
78	M	trichloroethene	0.335	0.355	-6.0	90	0.00	11.32
79	M	methylcyclohexane	0.528	0.633	-19.9	100	0.00	11.54
80	M	2-nitropropane	0.146	0.161	-10.3	90	0.00	12.13
81	M	2-chloroethyl vinyl ether	0.212	0.231	-9.0	87	0.00	12.12
82	M	methyl methacrylate	0.085	0.086	-1.2	84	0.00	11.58
83	M	1,2-dichloropropane	0.390	0.416	-6.7	91	0.00	11.61
84	M	propyl acetate	0.064	0.069	-7.8	87	0.00	11.62
85	M	dibromomethane	0.199	0.212	-6.5	87	0.00	11.77
86	M	bromodichloromethane	0.448	0.483	-7.8	89	0.00	11.90
87	M	cis-1,3-dichloropropene	0.600	0.634	-5.7	89	0.00	12.36
88	S	toluene-d8 (s)	1.201	1.197	0.3	88	0.00	12.66
89	M	4-methyl-2-pentanone	0.149	0.156	-4.7	86	0.00	12.45
90	M	toluene	0.833	0.886	-6.4	89	0.00	12.74
91	M	3-methyl-1-butanol	0.018	0.019	-5.6	81	0.00	12.46
92	M	trans-1,3-dichloropropene	0.533	0.576	-8.1	89	0.00	12.95
93	M	ethyl methacrylate	0.458	0.463	-1.1	85	0.00	12.92
94	M	1,1,2-trichloroethane	0.262	0.271	-3.4	87	0.00	13.19
95	M	2-hexanone	0.157	0.153	2.5	84	0.00	13.36
96	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.30
97	M	cyclohexanone	0.026	0.019	26.9#	67	0.00	15.56
98	M	tetrachloroethene	0.314	0.335	-6.7	89	0.00	13.36
99	M	1,3-dichloropropane	0.589	0.601	-2.0	87	0.00	13.39

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9383-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204132.D
Project: BMSMC, Building 5 Area, PR

100	M	butyl acetate	0.271	0.288	-6.3	86	0.00	13.42
101	M	dibromochloromethane	0.387	0.399	-3.1	88	0.00	13.68
102	M	1,2-dibromoethane	0.337	0.339	-0.6	87	0.00	13.85
103		3,3-dimethyl-1-Butanol	0.045	0.041	8.9	73	0.00	13.54
104		n-butyl ether	1.859	1.861	-0.1	83	0.00	14.20
105	M	chlorobenzene	1.009	1.046	-3.7	88	0.00	14.34
106	M	1,1,1,2-tetrachloroethane	0.377	0.396	-5.0	91	0.00	14.40
107	M	ethylbenzene	1.768	1.840	-4.1	88	0.00	14.39
108	M	m,p-xylene	0.661	0.701	-6.1	88	0.00	14.50
109	M	o-xylene	0.650	0.700	-7.7	88	0.00	14.97
110	M	styrene	1.095	1.176	-7.4	87	0.00	14.98
111	M	bromoform	0.287	0.293	-2.1	88	0.00	15.30
112	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	16.88
113	M	isopropylbenzene	3.117	3.398	-9.0	90	0.00	15.34
114	S	4-bromofluorobenzene (s)	0.915	0.919	-0.4	90	0.00	15.58
115	M	bromobenzene	0.852	0.876	-2.8	88	0.00	15.80
116	M	1,1,2,2-tetrachloroethane	0.846	0.880	-4.0	87	0.00	15.70
117	M	trans-1,4-dichloro-2-bute	0.270	0.271	-0.4	88	0.00	15.74
118	M	1,2,3-trichloropropane	0.210	0.221	-5.2	88	0.00	15.79
119	M	n-propylbenzene	3.757	4.063	-8.1	89	0.00	15.79
120	M	2-chlorotoluene	0.787	0.830	-5.5	90	0.00	15.97
121	M	4-chlorotoluene	2.406	2.475	-2.9	88	0.00	16.08
122		p-Ethyltoluene		----------NA----------				
123	M	1,3,5-trimethylbenzene	2.630	2.856	-8.6	90	0.00	15.96
124	M	tert-butylbenzene	2.275	2.451	-7.7	90	0.00	16.35
125	M	pentachloroethane	0.529	0.568	-7.4	90	0.00	16.46
126	M	1,2,4-trimethylbenzene	2.717	2.927	-7.7	90	0.00	16.40
127		1,2,3-trimethylbenzene		----------NA----------				
128	M	sec-butylbenzene	3.404	3.738	-9.8	90	0.00	16.59
129	M	1,3-dichlorobenzene	1.640	1.714	-4.5	89	0.00	16.82
130	M	p-isopropyltoluene	2.878	3.126	-8.6	89	0.00	16.71
131	M	1,4-dichlorobenzene	1.675	1.701	-1.6	89	0.00	16.91
132	M	benzyl chloride	1.633	1.794	-9.9	94	0.00	17.04
133	M	1,2-dichlorobenzene	1.533	1.595	-4.0	89	0.00	17.35
134		p-Diethylbenzene		----------NA----------				
135	M	n-butylbenzene	1.479	1.651	-11.6	91	0.00	17.18
136		1,2,4,5-Tetramethylbenzen		----------NA----------				
137	M	1,2-dibromo-3-chloropropa	0.154	0.163	-5.8	88	0.00	18.21
138		1,3,5-trichlorobenzene	1.220	1.278	-4.8	90	0.00	18.40
139	M	1,2,4-trichlorobenzene	0.967	1.025	-6.0	90	0.00	19.13
140	M	hexachlorobutadiene	0.577	0.641	-11.1	94	0.00	19.24
141	M	naphthalene	1.857	1.856	0.1	84	0.00	19.46
142		INDANE		----------NA----------				
143	M	1,2,3-trichlorobenzene	0.779	0.814	-4.5	89	0.00	19.74
144	M	hexachloroethane	0.539	0.581	-7.8	92	0.00	17.63
145	M	MMT		----------NA----------				
146	M	Bis(chloromethyl)ether		----------NA----------				
147	M	Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
u203701.D MU9367.M Wed Mar 16 13:08:25 2016 T

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9383-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204154.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\U\vu9383\u204154.D          Vial: 24
Acq On    : 15 Mar 2016   7:43 pm                     Operator: NicoleH1
Sample    : cc9367-50                                 Inst    : MSU
Misc      : ms99574,vu9383,5.0,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title        : SW-846  8260C, ZB624  60m x 250um x 1.40um
Last Update  : Mon Feb 29 09:33:35 2016
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	89	0.00	7.86
2	M	tertiary butyl alcohol	1.114	1.188	-6.6	86	0.00	7.98
3		Ethanol		----------NA----------				
4	m	1,4-dioxane	0.089	0.093	-4.5	81	0.00	11.72
5	I	pentafluorobenzene	1.000	1.000	0.0	89	0.00	10.06
6	M	freon 115		----------NA----------				
7	M	freon 23		----------NA----------				
8	M	freon 143A		----------NA----------				
9	M	freon 152A		----------NA----------				
10	M	chlorotrifluoroethene		----------NA----------				
11	M	chlorodifluoromethane	0.547	0.400	26.9#	59	0.00	4.40
12	M	dichlorodifluoromethane	0.485	0.496	-2.3	85	0.00	4.38
13	M	freon 142B		----------NA----------				
14	M	freon 114		----------NA----------				
15	M	chloromethane	0.850	0.789	7.2	81	0.00	4.76
16	M	vinyl chloride	0.716	0.689	3.8	83	0.00	5.03
17	M	acetaldehyde		----------NA----------				
18	M	bromomethane	0.345	0.346	-0.3	81	0.00	5.71
19	M	chloroethane	0.385	0.379	1.6	85	0.00	5.89
20	M	trichlorofluoromethane	0.644	0.691	-7.3	88	0.00	6.32
21	M	pentane		----------NA----------				
22	M	freon 123A		----------NA----------				
23	M	ethyl ether	0.272	0.304	-11.8	90	0.00	6.75
24		2-CHLOROPROPANE	1.036	1.181	-14.0	92	0.00	6.97
25	M	freon 141B		----------NA----------				
26	M	freon 123		----------NA----------				
27	M	acrolein	0.117	0.127	-8.5	93	0.00	7.04
28	M	1,1-dichloroethene	0.383	0.438	-14.4	89	0.00	7.20
29	M	acetone	0.042	0.056	-33.3#	105	0.00	7.26
30	M	allyl chloride	0.309	0.340	-10.0	86	0.00	7.73
31	M	acetonitrile	0.055	0.057	-3.6	90	0.00	7.72
32	M	iodomethane	0.742	0.815	-9.8	89	0.00	7.50
33	M	carbon disulfide	1.468	1.626	-10.8	88	0.00	7.62
34		1-CHLOROPROPANE	0.044	0.048	-9.1	91	0.00	7.95
35	M	methylene chloride	0.487	0.527	-8.2	90	0.00	7.92
36	M	methyl acetate	0.436	0.491	-12.6	91	0.00	7.70
37	M	methyl tert butyl ether	1.371	1.542	-12.5	91	0.00	8.22
38	M	trans-1,2-dichloroethene	0.451	0.489	-8.4	88	0.00	8.28
39	M	di-isopropyl ether	1.894	2.055	-8.5	90	0.00	8.79
40	M	ethyl tert-butyl ether	1.615	1.763	-9.2	90	0.00	9.25
41	M	2-butanone	0.057	0.062	-8.8	90	0.00	9.54

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9383-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204154.D
Project: BMSMC, Building 5 Area, PR

42	M	1,1-dichloroethane	0.902	1.022	-13.3	91	0.00	8.85
43	M	chloroprene	0.715	0.811	-13.4	91	0.00	8.94
44	M	acrylonitrile	0.202	0.223	-10.4	90	0.00	8.25
45	M	vinyl acetate	0.085	0.091	-7.1	84	0.00	8.81
46	M	ethyl acetate	0.084	0.097	-15.5	92	0.00	9.54
47	M	2,2-dichloropropane	0.671	0.453	32.5#	55	0.00	9.58
48	M	cis-1,2-dichloroethene	0.497	0.544	-9.5	89	0.00	9.58
49	M	methyl acrylate	0.071	0.078	-9.9	91	0.00	9.62
50	M	propionitrile	0.080	0.087	-8.7	90	0.00	9.66
51	M	bromochloromethane	0.233	0.258	-10.7	89	0.00	9.89
52	M	tetrahydrofuran	0.201	0.230	-14.4	93	0.00	9.92
53	M	chloroform	0.768	0.880	-14.6	90	0.00	9.94
54		tert-butyl Formate	0.428	0.476	-11.2	89	0.00	9.96
55	M	iso-butyl alcohol	0.027	0.030	-11.1	86	0.00	10.35
56	S	dibromofluoromethane (s)	0.406	0.425	-4.7	93	0.00	10.14
57	S	1,2-dichloroethane-d4 (s)	0.495	0.539	-8.9	95	0.00	10.56
58	M	freon 113	0.279	0.306	-9.7	88	0.00	7.16
59	M	methacrylonitrile	0.355	0.413	-16.3	92	0.00	9.83
60	M	1,1,1-trichloroethane	0.646	0.737	-14.1	92	0.00	10.19
61	M	tert amyl alcohol		----------NA----------				
62	M	tert-amyl methyl ether	0.300	0.335	-11.7	89	0.00	10.63
63		iso-octane	1.674	1.712	-2.3	88	0.00	10.59
64	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	10.98
65	M	Di-isobutylene		----------NA----------				
66	M	epichlorohydrin	0.037	0.036	2.7	78	0.00	12.27
67	M	n-butyl alcohol	0.011	0.012	-9.1	83	0.00	11.10
68	M	Cyclohexane	0.546	0.517	5.3	77	0.00	10.25
69	M	carbon tetrachloride	0.426	0.462	-8.5	91	0.00	10.38
70	M	1,1-dichloropropene	0.455	0.487	-7.0	90	0.00	10.36
71	M	hexane	0.437	0.417	4.6	84	0.00	8.55
72	M	benzene	1.379	1.440	-4.4	90	0.00	10.62
73	M	heptane	0.277	0.232	16.2	73	0.00	10.75
74	M	isopropyl acetate	0.767	0.807	-5.2	91	0.00	10.52
75	M	1,2-dichloroethane	0.461	0.492	-6.7	92	0.00	10.65
76	M	ethyl acrylate		----------NA----------				
77		tert amyl ethyl ether		----------NA----------				
78	M	trichloroethene	0.335	0.355	-6.0	89	0.00	11.33
79	M	methylcyclohexane	0.528	0.573	-8.5	94	0.00	11.54
80	M	2-nitropropane	0.146	0.164	-12.3	94	0.00	12.13
81	M	2-chloroethyl vinyl ether	0.212	0.232	-9.4	88	0.00	12.13
82	M	methyl methacrylate	0.085	0.091	-7.1	90	0.00	11.58
83	M	1,2-dichloropropane	0.390	0.411	-5.4	91	0.00	11.61
84	M	propyl acetate	0.064	0.069	-7.8	89	0.00	11.62
85	M	dibromomethane	0.199	0.215	-8.0	91	0.00	11.78
86	M	bromodichloromethane	0.448	0.489	-9.2	90	0.00	11.90
87	M	cis-1,3-dichloropropene	0.600	0.588	2.0	83	0.00	12.36
88	S	toluene-d8 (s)	1.201	1.195	0.5	93	0.00	12.67
89	M	4-methyl-2-pentanone	0.149	0.161	-8.1	90	0.00	12.46
90	M	toluene	0.833	0.891	-7.0	90	0.00	12.74
91	M	3-methyl-1-butanol	0.018	0.019	-5.6	82	0.00	12.47
92	M	trans-1,3-dichloropropene	0.533	0.538	-0.9	83	0.00	12.95
93	M	ethyl methacrylate	0.458	0.497	-8.5	90	0.00	12.92
94	M	1,1,2-trichloroethane	0.262	0.279	-6.5	90	0.00	13.19
95	M	2-hexanone	0.157	0.163	-3.8	91	0.00	13.36
96	I	chlorobenzene-d5	1.000	1.000	0.0	93	0.00	14.30
97	M	cyclohexanone	0.026	0.015	42.3#	52	0.00	15.56
98	M	tetrachloroethene	0.314	0.338	-7.6	89	0.00	13.36
99	M	1,3-dichloropropane	0.589	0.616	-4.6	91	0.00	13.39

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9383-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204154.D
Project: BMSMC, Building 5 Area, PR

100	M	butyl acetate	0.271	0.295	-8.9	90	0.00	13.42
101	M	dibromochloromethane	0.387	0.415	-7.2	89	0.00	13.68
102	M	1,2-dibromoethane	0.337	0.351	-4.2	90	0.00	13.85
103		3,3-dimethyl-1-Butanol	0.045	0.044	2.2	77	0.00	13.54
104		n-butyl ether	1.859	1.929	-3.8	85	0.00	14.20
105	M	chlorobenzene	1.009	1.066	-5.6	89	0.00	14.34
106	M	1,1,1,2-tetrachloroethane	0.377	0.397	-5.3	90	0.00	14.40
107	M	ethylbenzene	1.768	1.864	-5.4	90	0.00	14.39
108	M	m,p-xylene	0.661	0.709	-7.3	89	0.00	14.50
109	M	o-xylene	0.650	0.702	-8.0	90	0.00	14.97
110	M	styrene	1.095	1.202	-9.8	88	0.00	14.98
111	M	bromoform	0.287	0.304	-5.9	89	0.00	15.30
112	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	16.88
113	M	isopropylbenzene	3.117	3.403	-9.2	90	0.00	15.34
114	S	4-bromofluorobenzene (s)	0.915	0.920	-0.5	94	0.00	15.58
115	M	bromobenzene	0.852	0.892	-4.7	89	0.00	15.80
116	M	1,1,2,2-tetrachloroethane	0.846	0.908	-7.3	90	0.00	15.70
117	M	trans-1,4-dichloro-2-bute	0.270	0.237	12.2	75	0.00	15.74
118	M	1,2,3-trichloropropane	0.210	0.225	-7.1	90	0.00	15.78
119	M	n-propylbenzene	3.757	4.045	-7.7	89	0.00	15.79
120	M	2-chlorotoluene	0.787	0.825	-4.8	90	0.00	15.97
121	M	4-chlorotoluene	2.406	2.475	-2.9	88	0.00	16.08
122		p-Ethyltoluene		----------NA----------				
123	M	1,3,5-trimethylbenzene	2.630	2.861	-8.8	89	0.00	15.96
124	M	tert-butylbenzene	2.275	2.496	-9.7	90	0.00	16.35
125	M	pentachloroethane	0.529	0.570	-7.8	88	0.00	16.46
126	M	1,2,4-trimethylbenzene	2.717	2.928	-7.8	89	0.00	16.40
127		1,2,3-trimethylbenzene		----------NA----------				
128	M	sec-butylbenzene	3.404	3.746	-10.0	89	0.00	16.59
129	M	1,3-dichlorobenzene	1.640	1.706	-4.0	87	0.00	16.82
130	M	p-isopropyltoluene	2.878	3.126	-8.6	88	0.00	16.71
131	M	1,4-dichlorobenzene	1.675	1.700	-1.5	87	0.00	16.91
132	M	benzyl chloride	1.633	0.732	55.2#	38#	0.00	17.04
133	M	1,2-dichlorobenzene	1.533	1.626	-6.1	89	0.00	17.35
134		p-Diethylbenzene		----------NA----------				
135	M	n-butylbenzene	1.479	1.613	-9.1	85	0.00	17.17
136		1,2,4,5-Tetramethylbenzen		----------NA----------				
137	M	1,2-dibromo-3-chloropropa	0.154	0.174	-13.0	92	0.00	18.21
138		1,3,5-trichlorobenzene	1.220	1.290	-5.7	86	0.00	18.40
139	M	1,2,4-trichlorobenzene	0.967	1.060	-9.6	87	0.00	19.13
140	M	hexachlorobutadiene	0.577	0.613	-6.2	87	0.00	19.24
141	M	naphthalene	1.857	2.001	-7.8	87	0.00	19.46
142		INDANE		----------NA----------				
143	M	1,2,3-trichlorobenzene	0.779	0.868	-11.4	89	0.00	19.74
144	M	hexachloroethane	0.539	0.590	-9.5	89	0.00	17.63
145	M	MMT		----------NA----------				
146	M	Bis(chloromethyl)ether		----------NA----------				
147	M	Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
u203702.D MU9367.M Wed Mar 16 13:19:19 2016 T

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9384-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204165.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\u204165.D                    Vial: 2
Acq On    : 16 Mar 2016   8:56 am                     Operator: NicoleH1
Sample    : cc9367-20                                 Inst    : MSU
Misc      : ms99610,vu9384,5.0,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title        : SW-846  8260C, ZB624  60m x 250um x 1.40um
Last Update  : Mon Feb 29 09:33:35 2016
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	83	0.00	7.86
2	M	tertiary butyl alcohol	1.114	1.162	-4.3	82	0.00	7.98
3		Ethanol		----------NA----------				
4	m	1,4-dioxane	0.089	0.091	-2.2	80	0.00	11.72
5	I	pentafluorobenzene	1.000	1.000	0.0	85	0.00	10.06
6	M	freon 115		----------NA----------				
7	M	freon 23		----------NA----------				
8	M	freon 143A		----------NA----------				
9	M	freon 152A		----------NA----------				
10	M	chlorotrifluoroethene		----------NA----------				
11	M	chlorodifluoromethane	0.547	0.650	-18.8	94	0.01	4.41
12	M	dichlorodifluoromethane	0.485	0.491	-1.2	87	0.00	4.39
13	M	freon 142B		----------NA----------				
14	M	freon 114		----------NA----------				
15	M	chloromethane	0.850	0.790	7.1	84	0.00	4.75
16	M	vinyl chloride	0.716	0.692	3.4	86	0.00	5.02
17	M	acetaldehyde		----------NA----------				
18	M	bromomethane	0.345	0.362	-4.9	86	0.00	5.72
19	M	chloroethane	0.385	0.389	-1.0	89	0.00	5.90
20	M	trichlorofluoromethane	0.644	0.707	-9.8	92	0.04	6.35
21	M	pentane		----------NA----------				
22	M	freon 123A		----------NA----------				
23	M	ethyl ether	0.272	0.293	-7.7	89	0.00	6.74
24		2-CHLOROPROPANE	1.036	1.222	-18.0	95	0.00	6.97
25	M	freon 141B		----------NA----------				
26	M	freon 123		----------NA----------				
27	M	acrolein	0.117	0.126	-7.7	91	0.00	7.04
28	M	1,1-dichloroethene	0.383	0.459	-19.8	92	0.00	7.19
29	M	acetone	0.042	0.046	-9.5	90	0.00	7.26
30	M	allyl chloride	0.309	0.344	-11.3	87	0.00	7.72
31	M	acetonitrile	0.055	0.061	-10.9	92	0.00	7.72
32	M	iodomethane	0.742	0.832	-12.1	90	0.00	7.49
33	M	carbon disulfide	1.468	1.712	-16.6	92	0.00	7.62
34		1-CHLOROPROPANE	0.044	0.050	-13.6	94	0.00	7.95
35	M	methylene chloride	0.487	0.536	-10.1	90	0.00	7.93
36	M	methyl acetate	0.436	0.511	-17.2	91	0.00	7.70
37	M	methyl tert butyl ether	1.371	1.538	-12.2	90	0.00	8.22
38	M	trans-1,2-dichloroethene	0.451	0.506	-12.2	90	0.00	8.28
39	M	di-isopropyl ether	1.894	2.152	-13.6	92	0.00	8.79
40	M	ethyl tert-butyl ether	1.615	1.752	-8.5	89	0.00	9.25
41	M	2-butanone	0.057	0.063	-10.5	90	0.00	9.54

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9384-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204165.D
Project: BMSMC, Building 5 Area, PR

42	M	1,1-dichloroethane	0.902	1.052	-16.6	93	0.00	8.85
43	M	chloroprene	0.715	0.854	-19.4	95	0.00	8.95
44	M	acrylonitrile	0.202	0.221	-9.4	87	0.00	8.25
45	M	vinyl acetate	0.085	0.087	-2.4	86	0.00	8.81
46	M	ethyl acetate	0.084	0.085	-1.2	80	0.00	9.53
47	M	2,2-dichloropropane	0.671	0.831	-23.8#	100	0.00	9.58
48	M	cis-1,2-dichloroethene	0.497	0.559	-12.5	91	0.00	9.58
49	M	methyl acrylate	0.071	0.073	-2.8	88	0.00	9.62
50	M	propionitrile	0.080	0.083	-3.8	84	0.00	9.65
51	M	bromochloromethane	0.233	0.257	-10.3	90	0.00	9.89
52	M	tetrahydrofuran	0.201	0.228	-13.4	89	0.00	9.92
53	M	chloroform	0.768	0.888	-15.6	91	0.00	9.93
54		tert-butyl Formate	0.428	0.567	-32.5#	107	0.00	9.96
55	M	iso-butyl alcohol	0.027	0.029	-7.4	82	0.00	10.35
56	S	dibromofluoromethane (s)	0.406	0.434	-6.9	91	0.00	10.13
57	S	1,2-dichloroethane-d4 (s)	0.495	0.537	-8.5	93	0.00	10.56
58	M	freon 113	0.279	0.332	-19.0	94	0.00	7.17
59	M	methacrylonitrile	0.355	0.399	-12.4	90	0.00	9.82
60	M	1,1,1-trichloroethane	0.646	0.749	-15.9	94	0.00	10.19
61	M	tert amyl alcohol		----------NA----------				
62	M	tert-amyl methyl ether	0.300	0.328	-9.3	86	0.00	10.62
63		iso-octane	1.674	2.067	-23.5#	100	0.00	10.59
64	I	1,4-difluorobenzene	1.000	1.000	0.0	90	0.00	10.98
65	M	Di-isobutylene		----------NA----------				
66	M	epichlorohydrin	0.037	0.039	-5.4	84	0.00	12.27
67	M	n-butyl alcohol	0.011	0.011	0.0	79	0.00	11.09
68	M	Cyclohexane	0.546	0.530	2.9	91	0.00	10.25
69	M	carbon tetrachloride	0.426	0.473	-11.0	93	0.00	10.38
70	M	1,1-dichloropropene	0.455	0.500	-9.9	93	0.00	10.35
71	M	hexane	0.437	0.553	-26.5#	109	0.00	8.55
72	M	benzene	1.379	1.469	-6.5	91	0.00	10.62
73	M	heptane	0.277	0.318	-14.8	100	0.00	10.75
74	M	isopropyl acetate	0.767	0.781	-1.8	87	0.00	10.51
75	M	1,2-dichloroethane	0.461	0.494	-7.2	93	0.00	10.64
76	M	ethyl acrylate		----------NA----------				
77		tert amyl ethyl ether		----------NA----------				
78	M	trichloroethene	0.335	0.355	-6.0	91	0.00	11.32
79	M	methylcyclohexane	0.528	0.586	-11.0	94	0.00	11.54
80	M	2-nitropropane	0.146	0.159	-8.9	90	0.00	12.12
81	M	2-chloroethyl vinyl ether	0.212	0.222	-4.7	84	0.00	12.12
82	M	methyl methacrylate	0.085	0.085	0.0	84	0.00	11.58
83	M	1,2-dichloropropane	0.390	0.418	-7.2	93	0.00	11.61
84	M	propyl acetate	0.064	0.068	-6.3	87	0.00	11.61
85	M	dibromomethane	0.199	0.212	-6.5	88	0.00	11.77
86	M	bromodichloromethane	0.448	0.484	-8.0	90	0.00	11.89
87	M	cis-1,3-dichloropropene	0.600	0.635	-5.8	91	0.00	12.36
88	S	toluene-d8 (s)	1.201	1.199	0.2	89	0.00	12.66
89	M	4-methyl-2-pentanone	0.149	0.149	0.0	83	0.00	12.45
90	M	toluene	0.833	0.889	-6.7	90	0.00	12.74
91	M	3-methyl-1-butanol	0.018	0.018	0.0	80	0.00	12.46
92	M	trans-1,3-dichloropropene	0.533	0.575	-7.9	90	0.00	12.96
93	M	ethyl methacrylate	0.458	0.461	-0.7	86	0.00	12.92
94	M	1,1,2-trichloroethane	0.262	0.275	-5.0	89	0.00	13.19
95	M	2-hexanone	0.157	0.146	7.0	81	0.00	13.36
96	I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	14.30
97	M	cyclohexanone	0.026	0.015	42.3#	54	0.00	15.56
98	M	tetrachloroethene	0.314	0.335	-6.7	90	0.00	13.36
99	M	1,3-dichloropropane	0.589	0.596	-1.2	88	0.00	13.39

Continuing Calibration Summary

Job Number: JC16038 **Sample:** VU9384-CC9367
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** U204165.D
Project: BMSMC, Building 5 Area, PR

100	M	butyl acetate	0.271	0.280	-3.3	85	0.00	13.42
101	M	dibromochloromethane	0.387	0.401	-3.6	89	0.00	13.68
102	M	1,2-dibromoethane	0.337	0.335	0.6	87	0.00	13.85
103		3,3-dimethyl-1-Butanol	0.045	0.040	11.1	72	0.00	13.54
104		n-butyl ether	1.859	1.893	-1.8	86	0.00	14.20
105	M	chlorobenzene	1.009	1.055	-4.6	90	0.00	14.34
106	M	1,1,1,2-tetrachloroethane	0.377	0.391	-3.7	90	0.00	14.40
107	M	ethylbenzene	1.768	1.860	-5.2	90	0.00	14.38
108	M	m,p-xylene	0.661	0.706	-6.8	89	0.00	14.50
109	M	o-xylene	0.650	0.705	-8.5	90	0.00	14.96
110	M	styrene	1.095	1.182	-7.9	89	0.00	14.98
111	M	bromoform	0.287	0.288	-0.3	87	0.00	15.30
112	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	16.88
113	M	isopropylbenzene	3.117	3.396	-9.0	91	0.00	15.34
114	S	4-bromofluorobenzene (s)	0.915	0.917	-0.2	90	0.00	15.58
115	M	bromobenzene	0.852	0.879	-3.2	89	0.00	15.80
116	M	1,1,2,2-tetrachloroethane	0.846	0.863	-2.0	86	0.00	15.70
117	M	trans-1,4-dichloro-2-bute	0.270	0.275	-1.9	90	0.00	15.74
118	M	1,2,3-trichloropropane	0.210	0.217	-3.3	87	0.00	15.79
119	M	n-propylbenzene	3.757	4.091	-8.9	90	0.00	15.79
120	M	2-chlorotoluene	0.787	0.831	-5.6	91	0.00	15.97
121	M	4-chlorotoluene	2.406	2.489	-3.4	90	0.00	16.08
122		p-Ethyltoluene		----------NA----------				
123	M	1,3,5-trimethylbenzene	2.630	2.863	-8.9	91	0.00	15.96
124	M	tert-butylbenzene	2.275	2.496	-9.7	92	0.00	16.35
125	M	pentachloroethane	0.529	0.569	-7.6	90	0.00	16.46
126	M	1,2,4-trimethylbenzene	2.717	2.940	-8.2	91	0.00	16.40
127		1,2,3-trimethylbenzene		----------NA----------				
128	M	sec-butylbenzene	3.404	3.753	-10.3	91	0.00	16.59
129	M	1,3-dichlorobenzene	1.640	1.701	-3.7	89	0.00	16.82
130	M	p-isopropyltoluene	2.878	3.159	-9.8	91	0.00	16.71
131	M	1,4-dichlorobenzene	1.675	1.700	-1.5	90	0.00	16.91
132	M	benzyl chloride	1.633	1.756	-7.5	93	0.00	17.04
133	M	1,2-dichlorobenzene	1.533	1.611	-5.1	90	0.00	17.35
134		p-Diethylbenzene		----------NA----------				
135	M	n-butylbenzene	1.479	1.665	-12.6	92	0.00	17.17
136		1,2,4,5-Tetramethylbenzen		----------NA----------				
137	M	1,2-dibromo-3-chloropropa	0.154	0.159	-3.2	87	0.00	18.21
138		1,3,5-trichlorobenzene	1.220	1.271	-4.2	90	0.00	18.39
139	M	1,2,4-trichlorobenzene	0.967	1.015	-5.0	90	0.00	19.13
140	M	hexachlorobutadiene	0.577	0.640	-10.9	95	0.00	19.24
141	M	naphthalene	1.857	1.809	2.6	83	0.00	19.46
142		INDANE		----------NA----------				
143	M	1,2,3-trichlorobenzene	0.779	0.811	-4.1	90	0.00	19.73
144	M	hexachloroethane	0.539	0.582	-8.0	92	0.00	17.63
145	M	MMT		----------NA----------				
146	M	Bis(chloromethyl)ether		----------NA----------				
147	M	Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
u203701.D MU9367.M Wed Mar 16 14:53:49 2016 U_CORE

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-core\vu9378-vu9390\
Data File : u204171.D
Acq On : 16 Mar 2016 11:53 am
Operator : NicoleH1
Sample : jc16038-1
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 12:57:45 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	107500	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	227356	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	334119	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	307433	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	160944	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.138	113	97734	52.92	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.84%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	121239	53.90	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.80%			
88) toluene-d8 (s)	12.663	98	399180	49.74	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.48%			
114) 4-bromofluorobenzene (s)	15.580	95	152385	51.74	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.48%			

Target Compounds						Qvalue
48) cis-1,2-dichloroethene	9.578	96	493	0.22	ug/L #	65
58) freon 113	7.163	151	38214	30.15	ug/L	96
105) chlorobenzene	14.346	112	1706	0.28	ug/L	97
131) 1,4-dichlorobenzene	16.903	146	1217	0.23	ug/L #	63
133) 1,2-dichlorobenzene	17.347	146	4457	0.90	ug/L	99

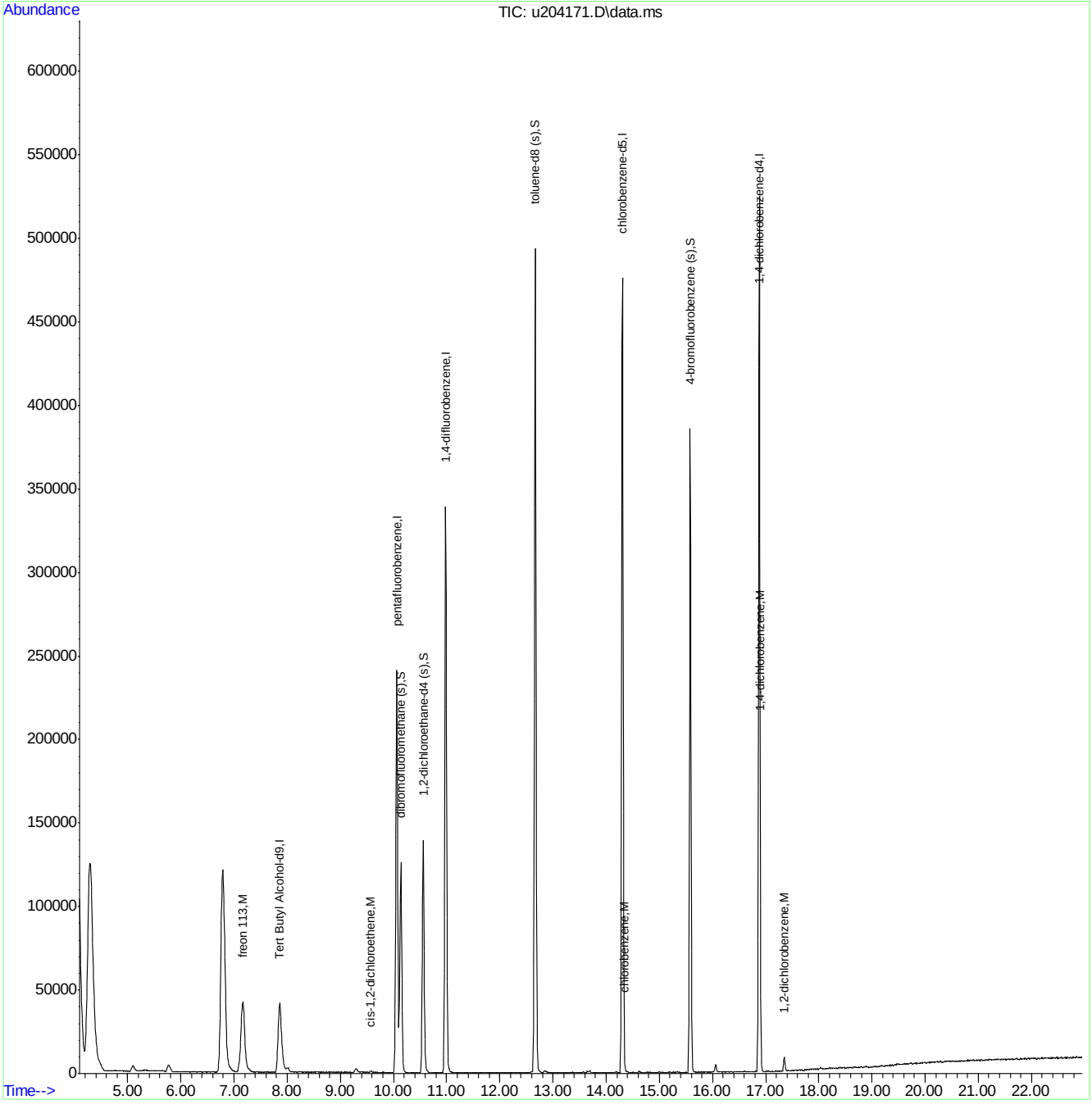
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

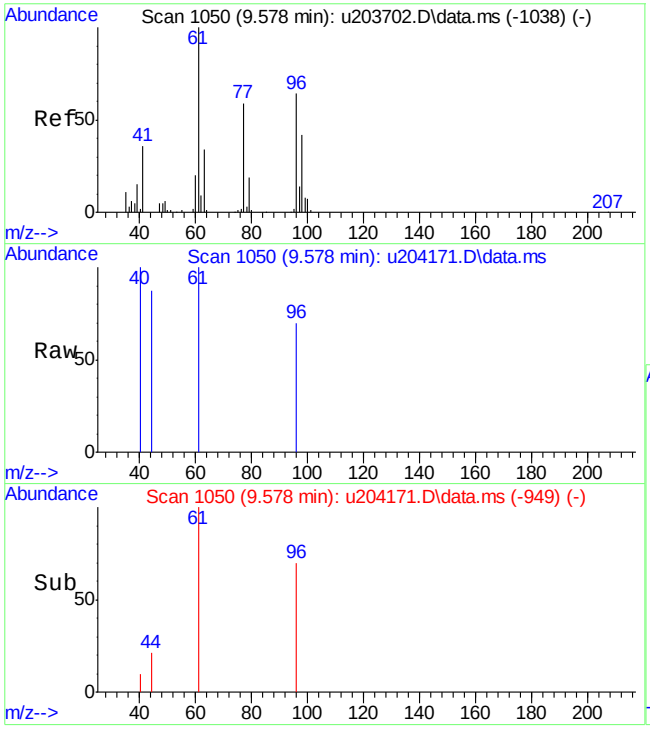
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-core\vu9378-vu9390\
Data File : u204171.D
Acq On : 16 Mar 2016 11:53 am
Operator : NicoleH1
Sample : jc16038-1
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 12:57:45 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



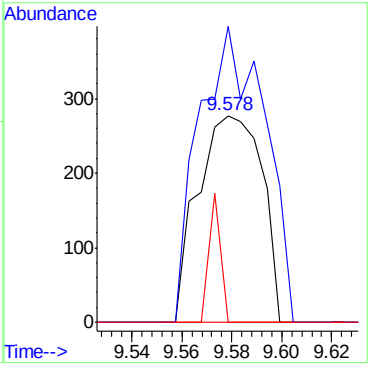
SGS ACCUTEST JC16038

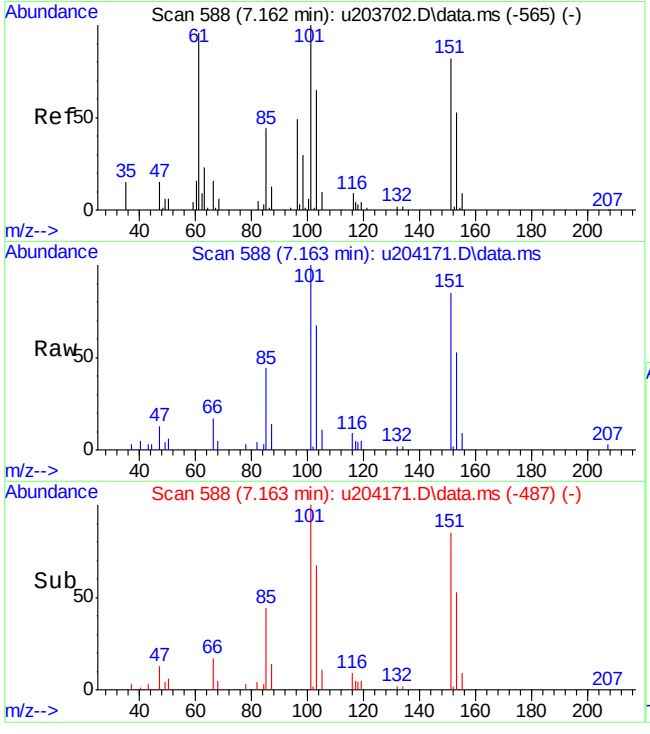


#48
cis-1,2-dichloroethene
Concen: 0.22 ug/L
RT: 9.578 min Scan# 1050
Delta R.T. 0.001 min
Lab File: u204171.D
Acq: 16 Mar 2016 11:53 am

Tgt Ion: 96 Resp: 493

Ion	Ratio	Lower	Upper
96	100		
61	143.3	134.2	194.2
98	0.0	35.3	95.3#

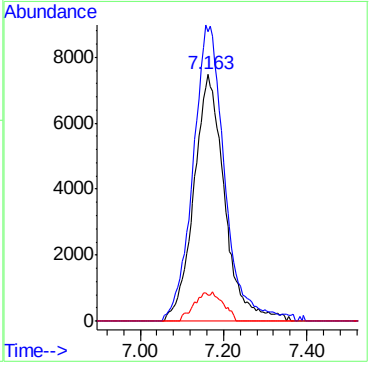


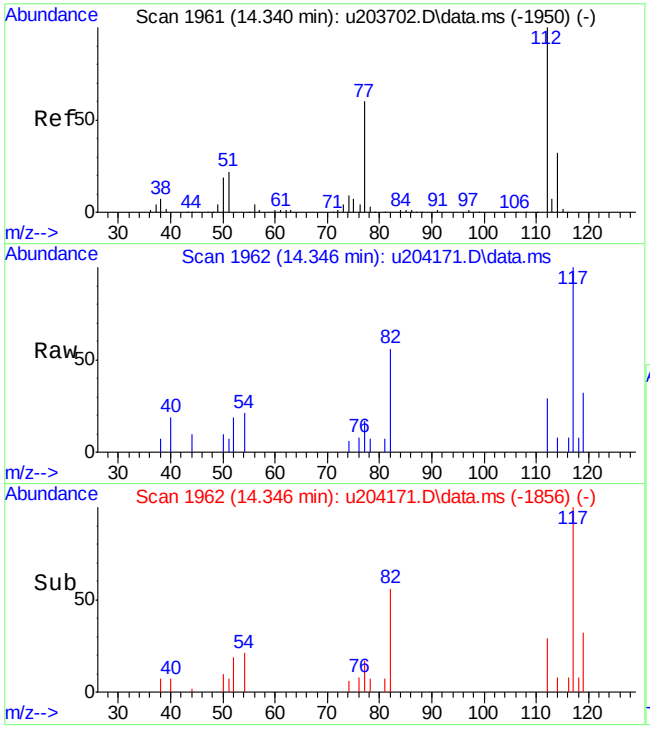


#58
freon 113
Concen: 30.15 ug/L
RT: 7.163 min Scan# 588
Delta R.T. 0.001 min
Lab File: u204171.D
Acq: 16 Mar 2016 11:53 am

Tgt Ion:151 Resp: 38214

Ion	Ratio	Lower	Upper
151	100		
101	117.1	91.7	151.7
116	10.7	0.0	40.6

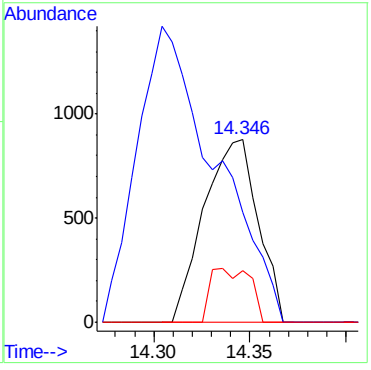


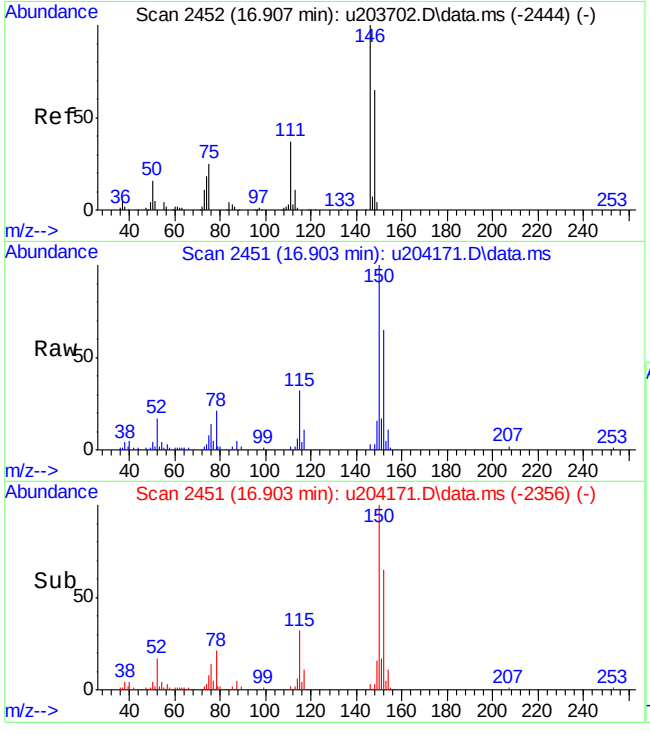


#105
chlorobenzene
Concen: 0.28 ug/L
RT: 14.346 min Scan# 1962
Delta R.T. 0.006 min
Lab File: u204171.D
Acq: 16 Mar 2016 11:53 am

Tgt Ion:112 Resp: 1706

Ion	Ratio	Lower	Upper
112	100		
77	60.2	30.1	90.1
114	28.1	2.0	62.0

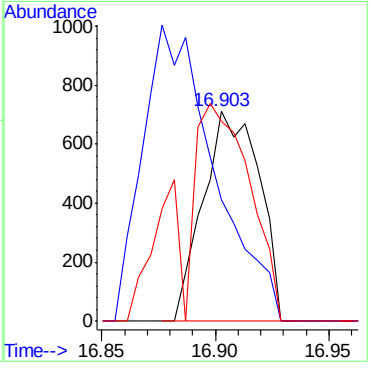


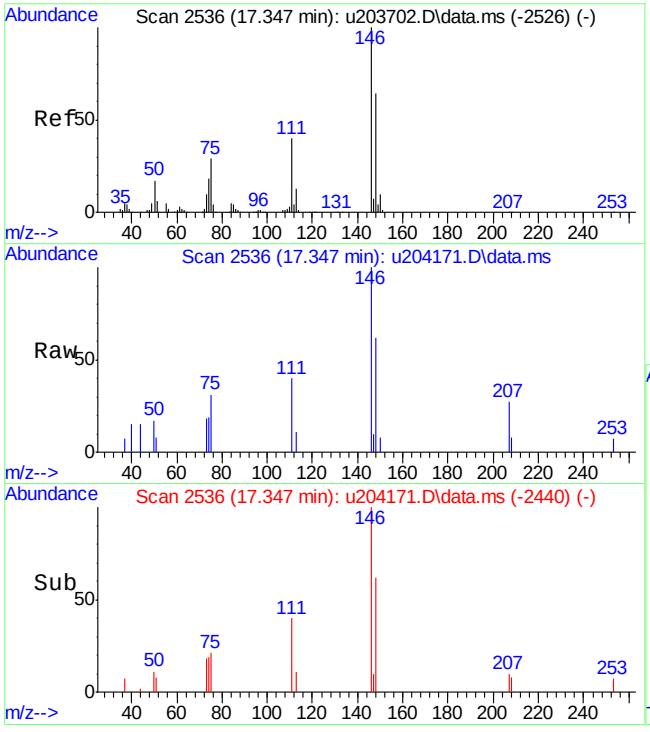


#131
1,4-dichlorobenzene
Concen: 0.23 ug/L
RT: 16.903 min Scan# 2451
Delta R.T. -0.005 min
Lab File: u204171.D
Acq: 16 Mar 2016 11:53 am

Tgt Ion:146 Resp: 1217

Ion	Ratio	Lower	Upper
146	100		
111	57.6	7.2	67.2
148	95.4	35.1	95.1#

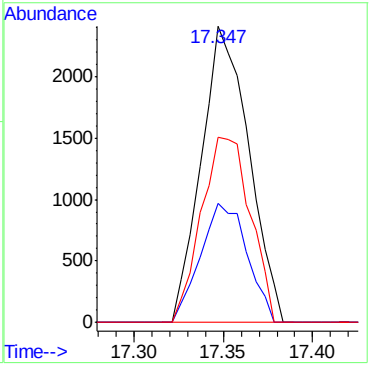




#133
1,2-dichlorobenzene
Concen: 0.90 ug/L
RT: 17.347 min Scan# 2536
Delta R.T. 0.001 min
Lab File: u204171.D
Acq: 16 Mar 2016 11:53 am

Tgt Ion:146 Resp: 4457

Ion	Ratio	Lower	Upper
146	100		
111	40.4	9.9	69.9
148	62.5	33.9	93.9



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204171r.d
Acq On : 16 Mar 2016 11:53 am
Operator : NicoleH1
Sample : jc16038-1r
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 08 11:40:49 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.858	65	107500	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	227356	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	334119	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	307433	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	160944	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.138	113	97734	52.92	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.84%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	121239	53.90	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.80%			
88) toluene-d8 (s)	12.663	98	399180	49.74	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.48%			
114) 4-bromofluorobenzene (s)	15.580	95	152385	51.74	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.48%			

Target Compounds Qvalue

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

7.1.2

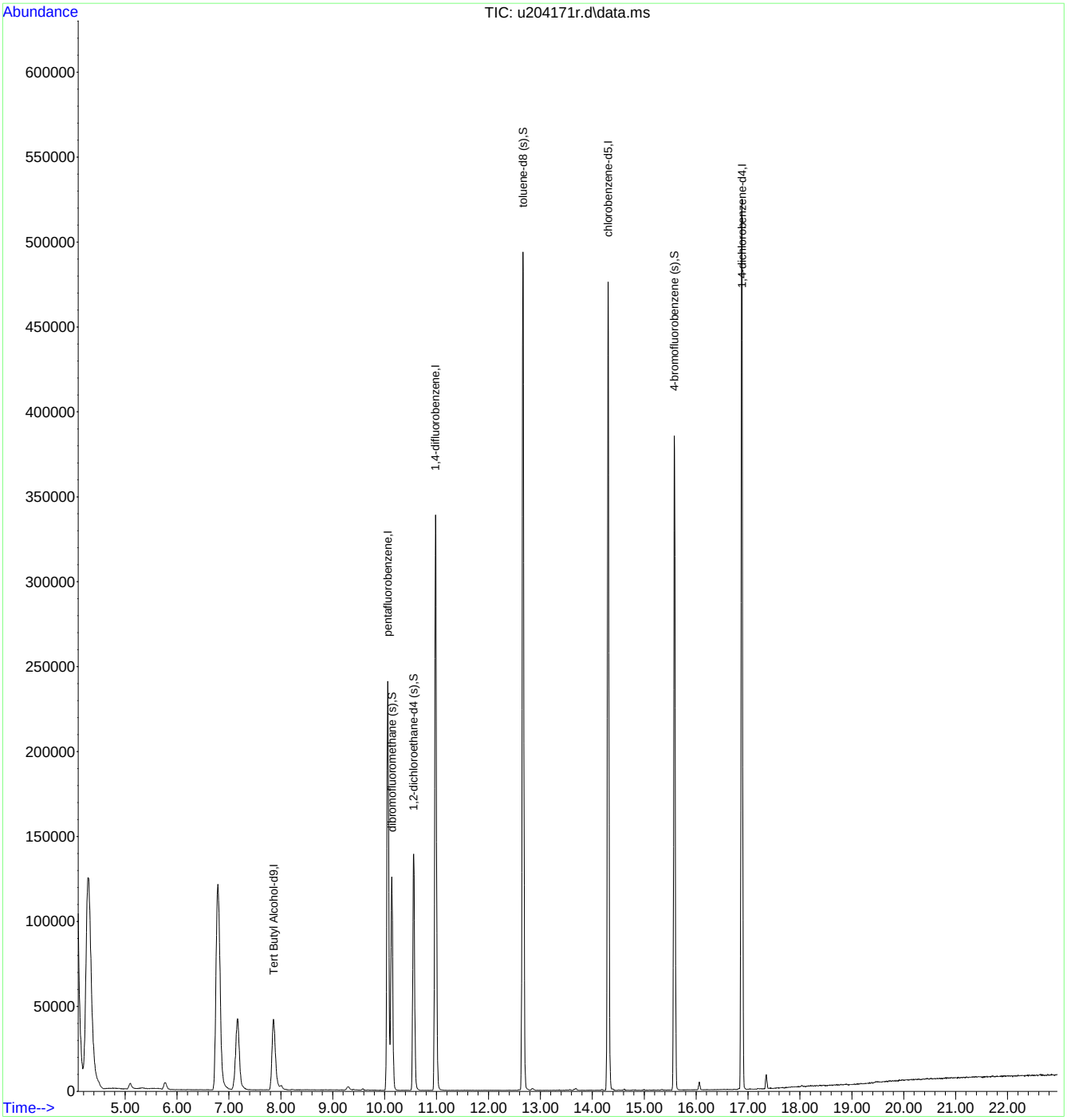
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204171r.d
Acq On : 16 Mar 2016 11:53 am
Operator : NicoleH1
Sample : jc16038-1r
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 08 11:40:49 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Apr 08 11:46:27 2016 T

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204139.D
Acq On : 15 Mar 2016 12:24 pm
Operator : NicoleH1
Sample : jc16038-2
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 11:49:33 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.862	65	112282	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	233708	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	341262	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	310454	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	161896	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	99247	52.28	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.56%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	123923	53.60	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.20%			
88) toluene-d8 (s)	12.667	98	408292	49.81	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.62%			
114) 4-bromofluorobenzene (s)	15.584	95	152330	51.42	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.84%			
Target Compounds						Qvalue
37) methyl tert butyl ether	8.223	73	3595	0.56	ug/L	88
48) cis-1,2-dichloroethene	9.582	96	3168	1.36	ug/L	90
78) trichloroethene	11.323	95	1505	0.66	ug/L	91
105) chlorobenzene	14.340	112	8505	1.36	ug/L	86
107) ethylbenzene	14.387	91	18840	1.72	ug/L	97
108) m,p-xylene	14.502	106	23901	5.82	ug/L	97
109) o-xylene	14.972	106	2002	0.50	ug/L	86
129) 1,3-dichlorobenzene	16.818	146	1599	0.30	ug/L	88
131) 1,4-dichlorobenzene	16.907	146	6205	1.14	ug/L	97
133) 1,2-dichlorobenzene	17.351	146	36277	7.31	ug/L	98

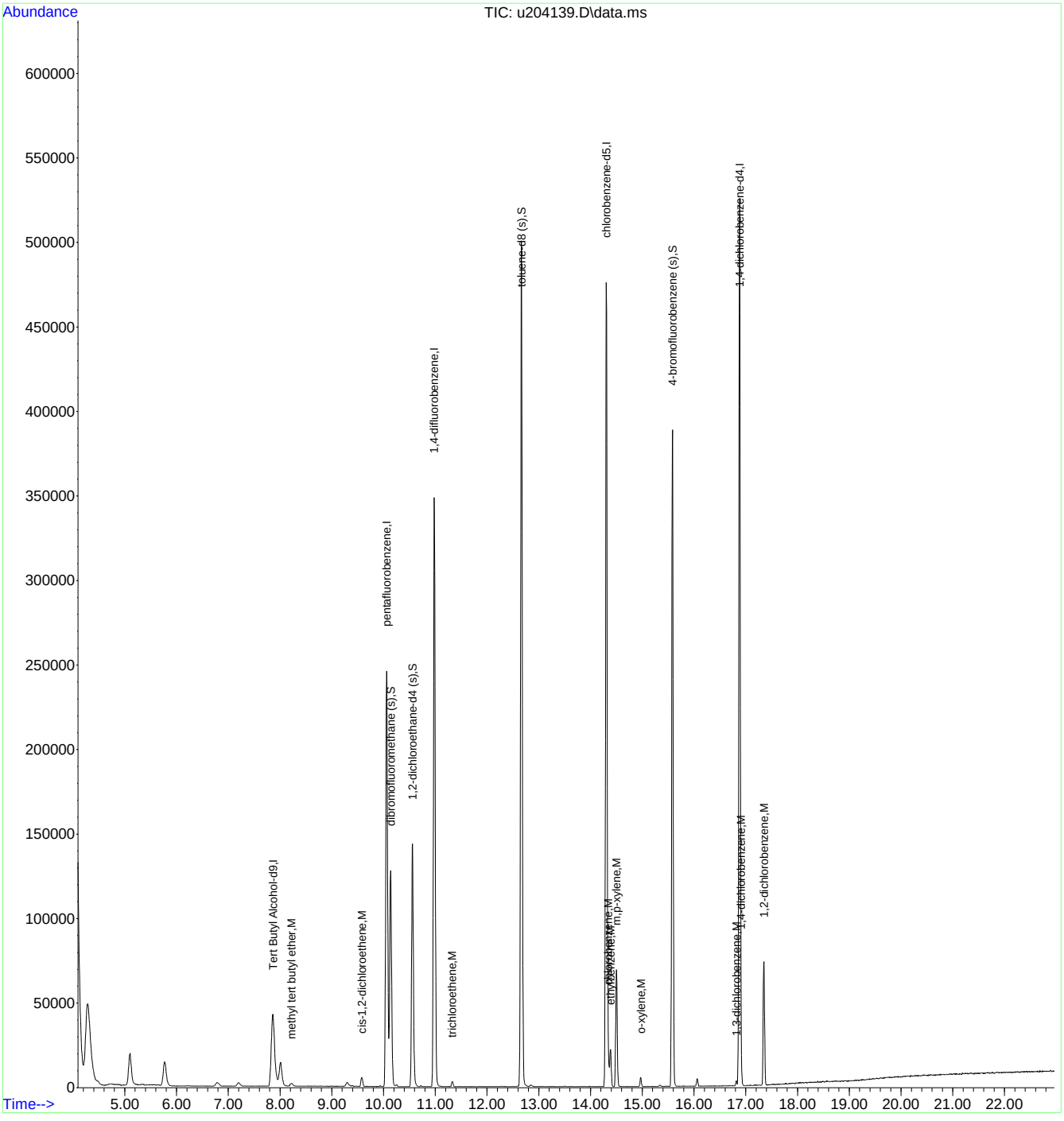
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

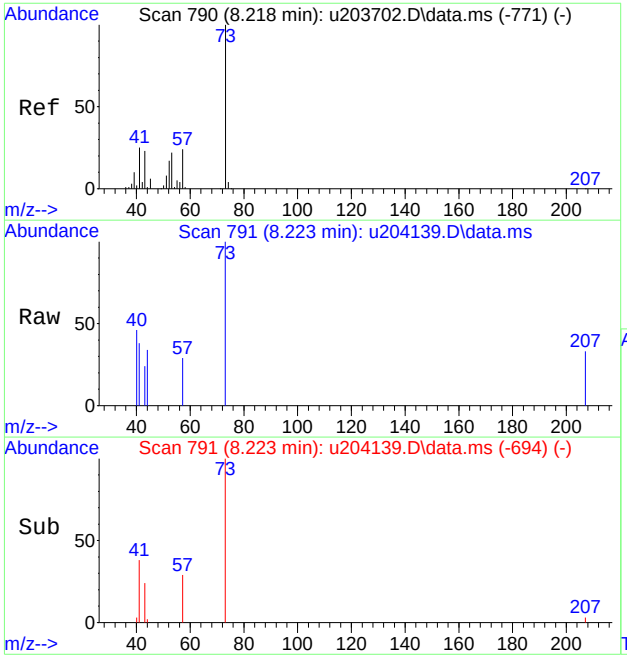
Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204139.D
Acq On : 15 Mar 2016 12:24 pm
Operator : NicoleH1
Sample : jc16038-2
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 11:49:33 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Mar 25 11:49:36 2016 T

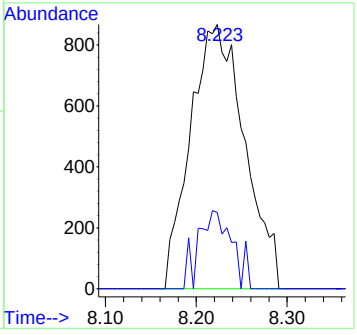
SGS ACCUTEST JC16038

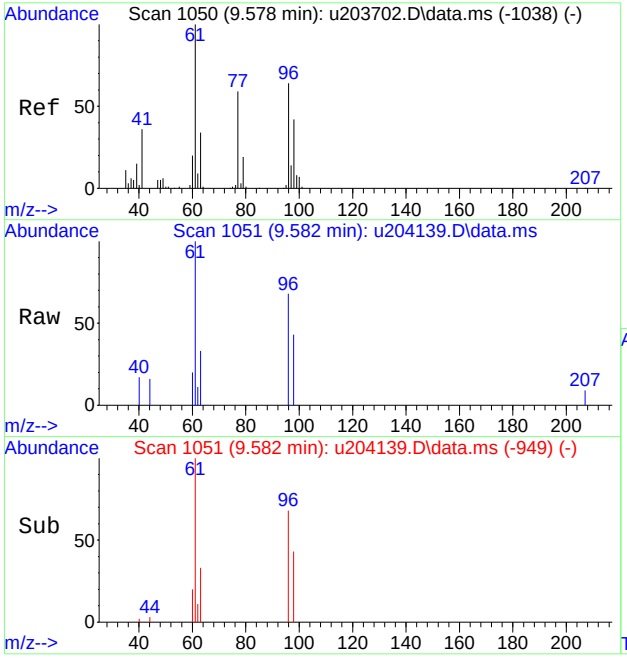


#37
methyl tert butyl ether
Concen: 0.56 ug/L
RT: 8.223 min Scan# 791
Delta R.T. 0.005 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion: 73 Resp: 3595

Ion	Ratio	Lower	Upper
73	100		
57	18.4	0.0	54.5

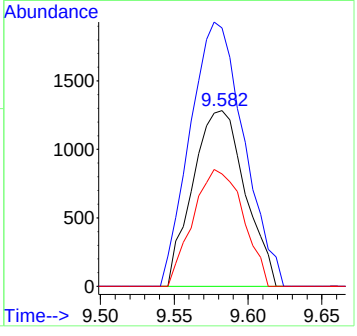


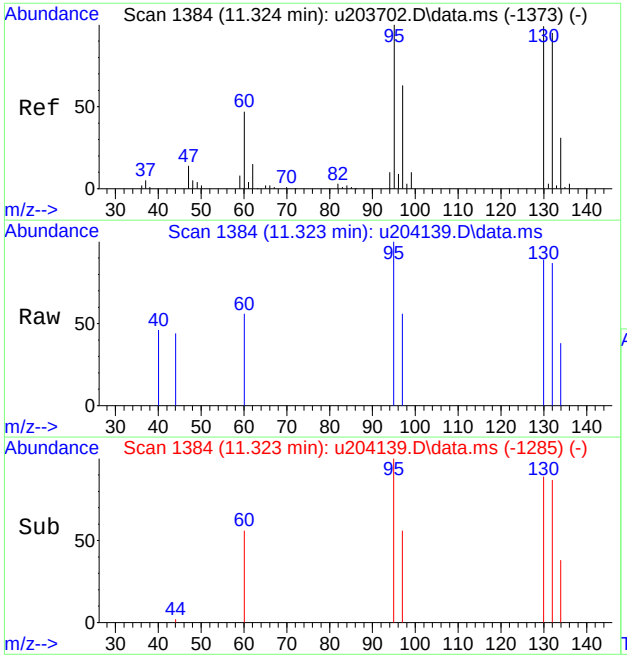


#48
cis-1,2-dichloroethene
Concen: 1.36 ug/L
RT: 9.582 min Scan# 1051
Delta R.T. 0.005 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion: 96 Resp: 3168

Ion	Ratio	Lower	Upper
96	100		
61	147.2	134.2	194.2
98	64.0	35.3	95.3

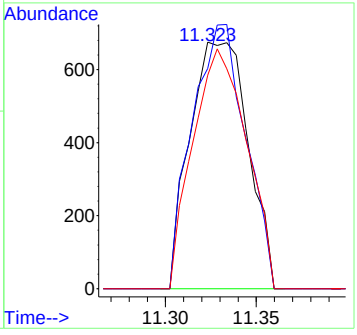


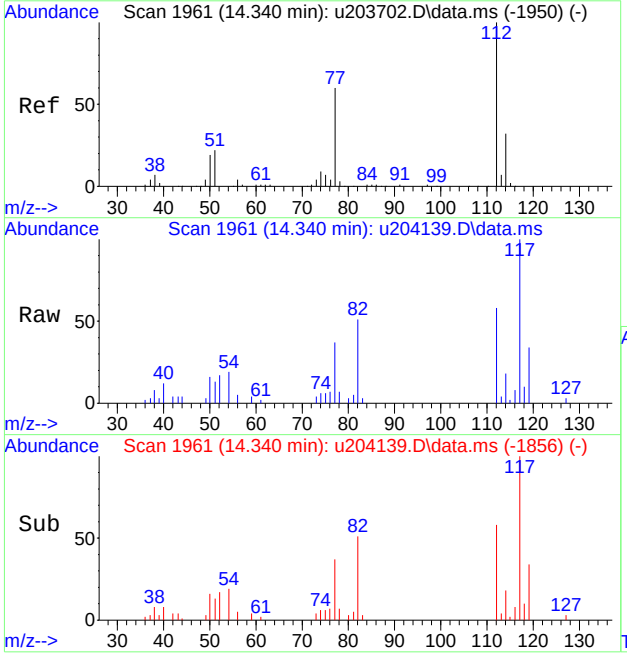


#78
trichloroethene
Concen: 0.66 ug/L
RT: 11.323 min Scan# 1384
Delta R.T. -0.001 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion: 95 Resp: 1505

Ion	Ratio	Lower	Upper
95	100		
130	89.3	68.5	128.5
132	86.7	65.1	125.1

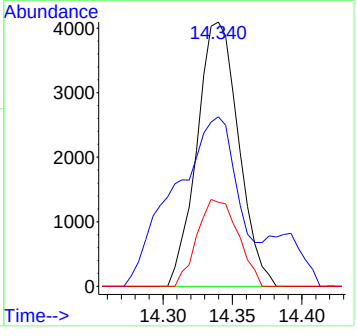


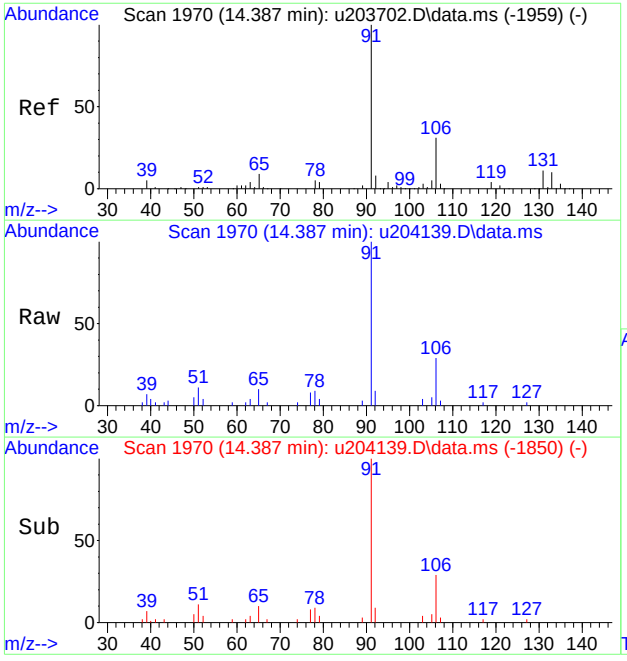


#105
chlorobenzene
Concen: 1.36 ug/L
RT: 14.340 min Scan# 1961
Delta R.T. -0.001 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion:112 Resp: 8505

Ion	Ratio	Lower	Upper
112	100		
77	44.5	30.1	90.1
114	31.9	2.0	62.0

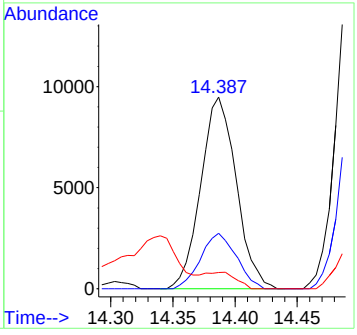


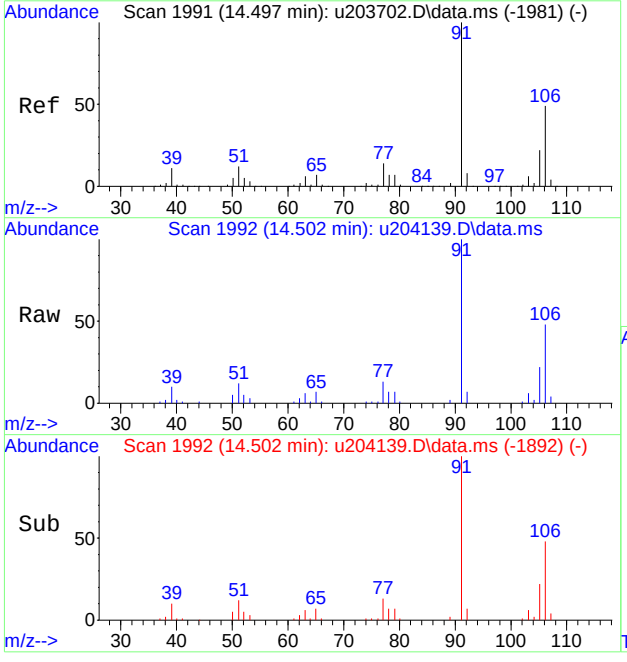


#107
ethylbenzene
Concen: 1.72 ug/L
RT: 14.387 min Scan# 1970
Delta R.T. -0.001 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion: 91 Resp: 18840

Ion	Ratio	Lower	Upper
91	100		
106	28.9	1.1	61.1
77	8.5	0.0	38.6

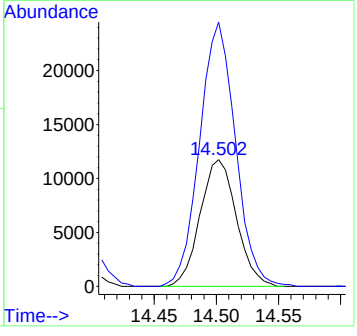




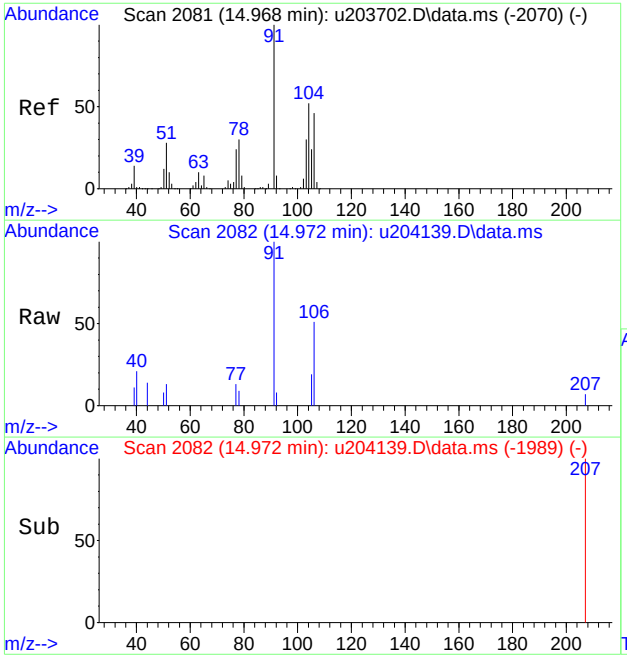
#108
m,p-xylene
Concen: 5.82 ug/L
RT: 14.502 min Scan# 1992
Delta R.T. 0.005 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion:106 Resp: 23901

Ion	Ratio	Lower	Upper
106	100		
91	208.7	173.9	233.9



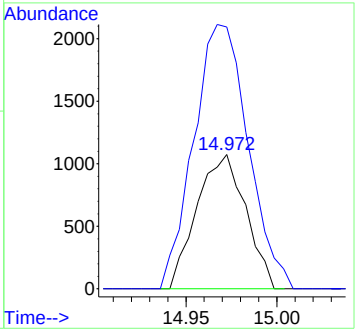
SGS ACCUTEST JC16038

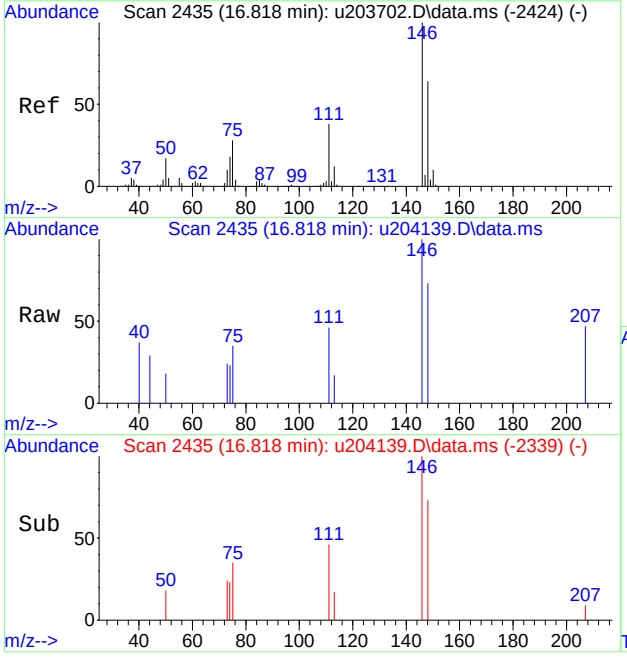


#109
o-xylene
Concen: 0.50 ug/L
RT: 14.972 min Scan# 2082
Delta R.T. 0.005 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion:106 Resp: 2002

Ion	Ratio	Lower	Upper
106	100		
91	194.7	186.5	246.5

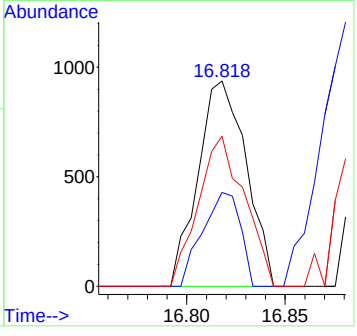


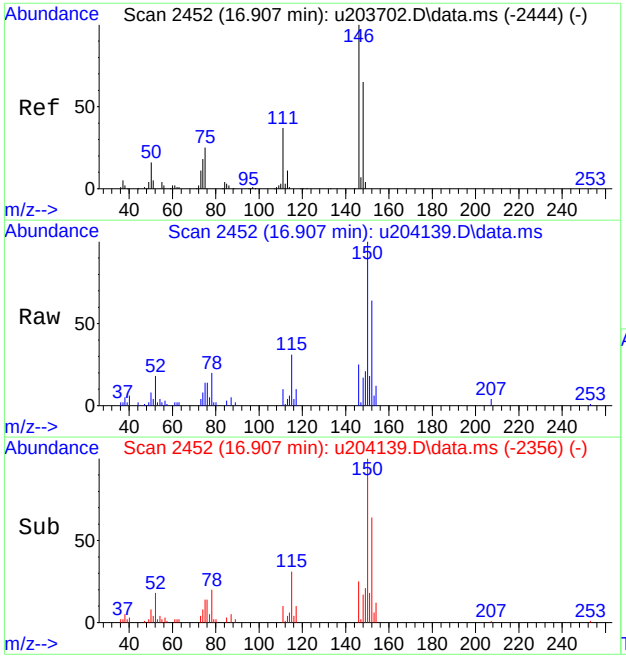


#129
1,3-dichlorobenzene
Concen: 0.30 ug/L
RT: 16.818 min Scan# 2435
Delta R.T. -0.001 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion:146 Resp: 1599

Ion	Ratio	Lower	Upper
146	100		
111	45.7	7.8	67.8
148	73.1	34.0	94.0

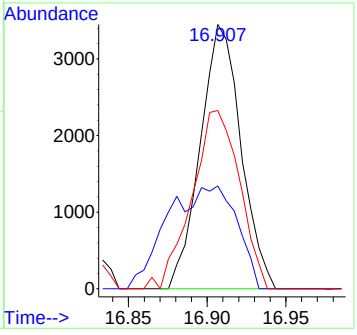


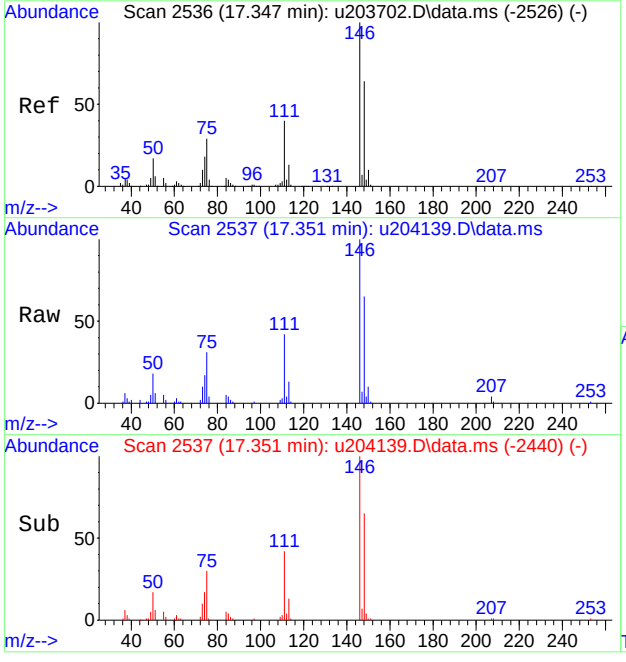


#131
1,4-dichlorobenzene
Concen: 1.14 ug/L
RT: 16.907 min Scan# 2452
Delta R.T. -0.001 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion:146 Resp: 6205

Ion	Ratio	Lower	Upper
146	100		
111	38.9	7.2	67.2
148	67.4	35.1	95.1

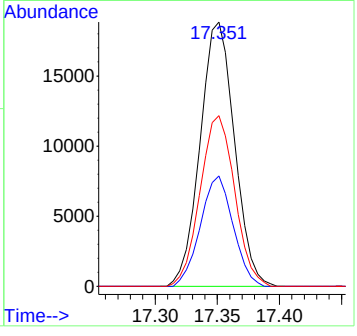




#133
1,2-dichlorobenzene
Concen: 7.31 ug/L
RT: 17.351 min Scan# 2537
Delta R.T. 0.005 min
Lab File: u204139.D
Acq: 15 Mar 2016 12:24 pm

Tgt Ion:146 Resp: 36277

Ion	Ratio	Lower	Upper
146	100		
111	41.8	9.9	69.9
148	64.5	33.9	93.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204139r.D
Acq On : 15 Mar 2016 12:24 pm
Operator : NicoleH1
Sample : jc16038-2r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:34:30 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.862	65	112282	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	233708	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	341262	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	310454	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	161896	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	99247	52.28	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	104.56%	
57) 1,2-dichloroethane-d4 (s)	10.560	65	123923	53.60	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery	=	107.20%	
88) toluene-d8 (s)	12.667	98	408292	49.81	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery	=	99.62%	
114) 4-bromofluorobenzene (s)	15.584	95	152330	51.42	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery	=	102.84%	
Target Compounds						Qvalue

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

7.1.4

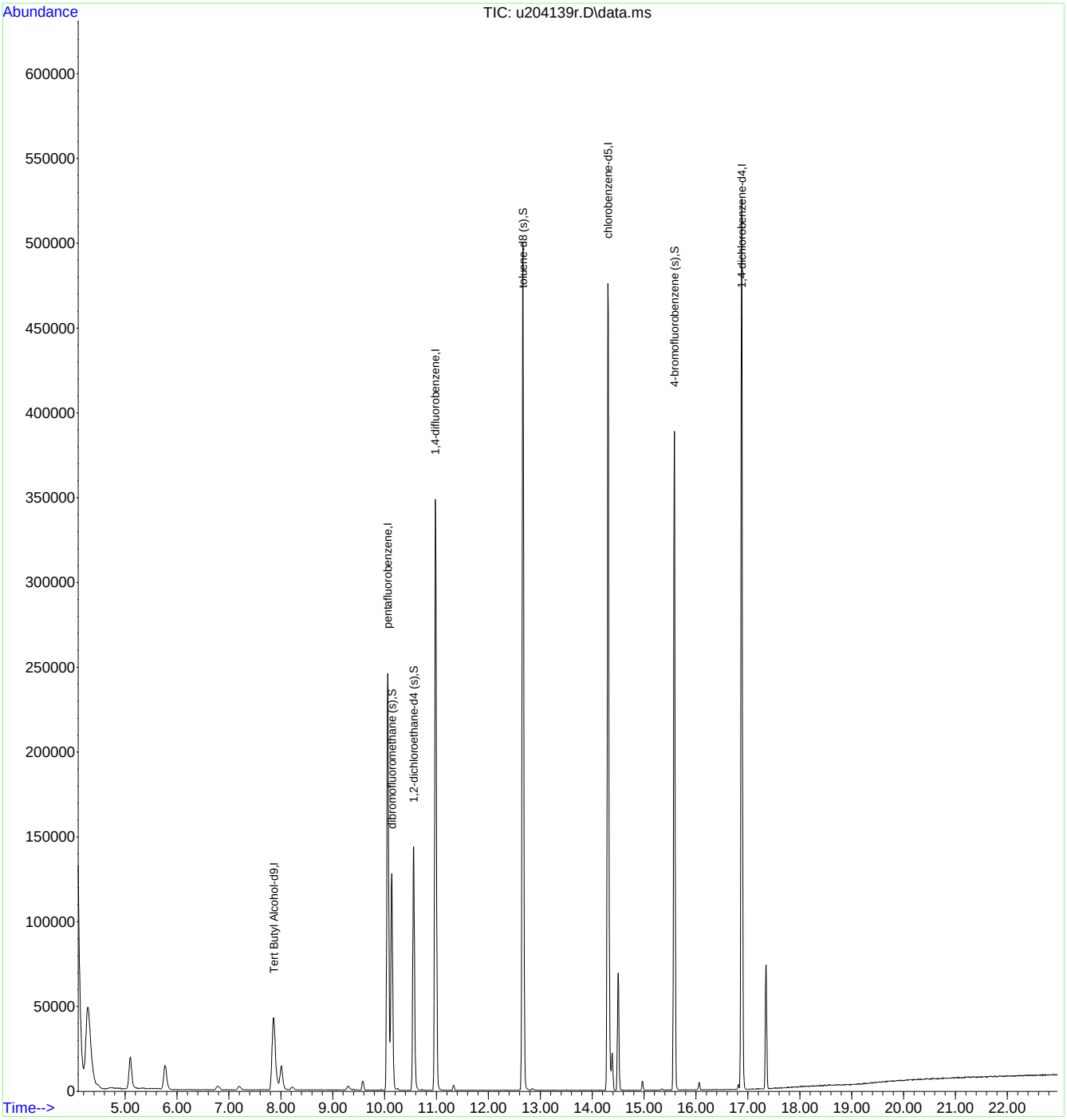
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204139r.D
Acq On : 15 Mar 2016 12:24 pm
Operator : NicoleH1
Sample : jc16038-2r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:34:30 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Apr 08 11:46:03 2016 T

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204147.D
Acq On : 15 Mar 2016 4:19 pm
Operator : NicoleH1
Sample : jc16038-3
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 13:14:41 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	112964	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	231109	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	340116	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	311795	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	171129	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	99010	52.74	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.48%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	123250	53.91	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.82%			
88) toluene-d8 (s)	12.667	98	403152	49.35	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.70%			
114) 4-bromofluorobenzene (s)	15.584	95	162838	52.00	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.00%			
Target Compounds						Qvalue
68) Cyclohexane	10.251	84	14749	3.97	ug/L #	25
72) benzene	10.628	78	2965	0.32	ug/L	98
79) methylcyclohexane	11.543	83	17509	4.88	ug/L	98
90) toluene	12.740	92	2358	0.42	ug/L	94
105) chlorobenzene	14.340	112	2251	0.36	ug/L	80
107) ethylbenzene	14.387	91	4913	0.45	ug/L	91
108) m,p-xylene	14.507	106	2536	0.61	ug/L	98
109) o-xylene	14.972	106	3955	0.98	ug/L	97
113) isopropylbenzene	15.338	105	198232	18.58	ug/L	99
133) 1,2-dichlorobenzene	17.351	146	1405	0.27	ug/L	95

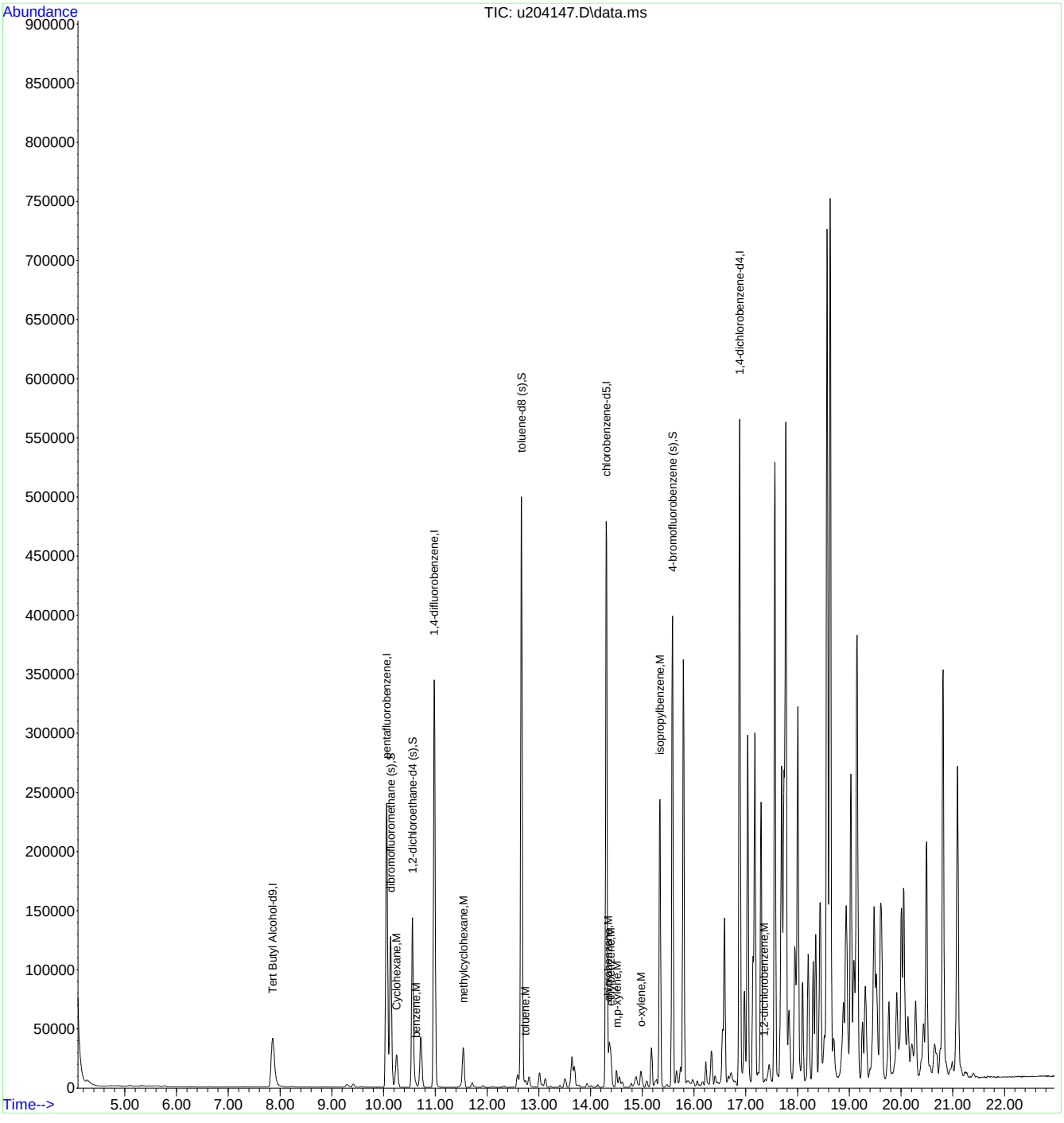
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

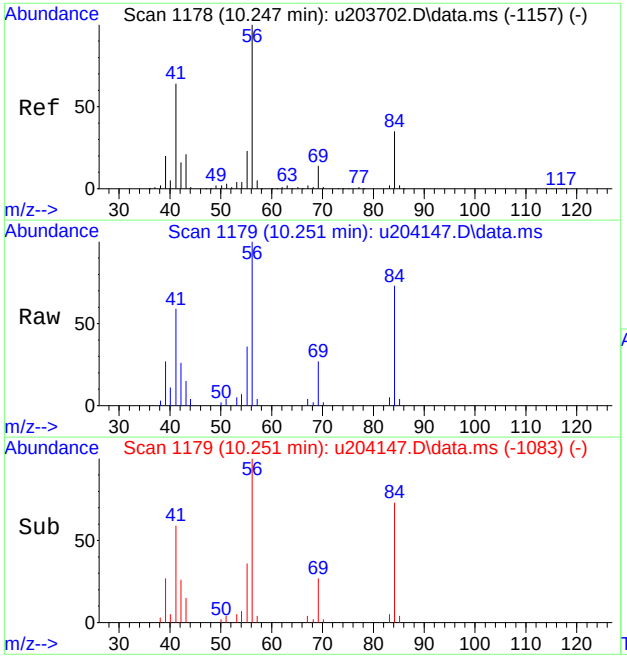
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204147.D
Acq On : 15 Mar 2016 4:19 pm
Operator : NicoleH1
Sample : jc16038-3
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 13:14:41 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



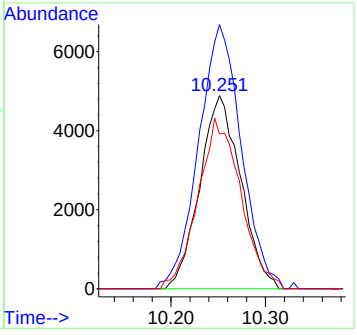
MU9367.M Wed Mar 16 13:29:59 2016 T

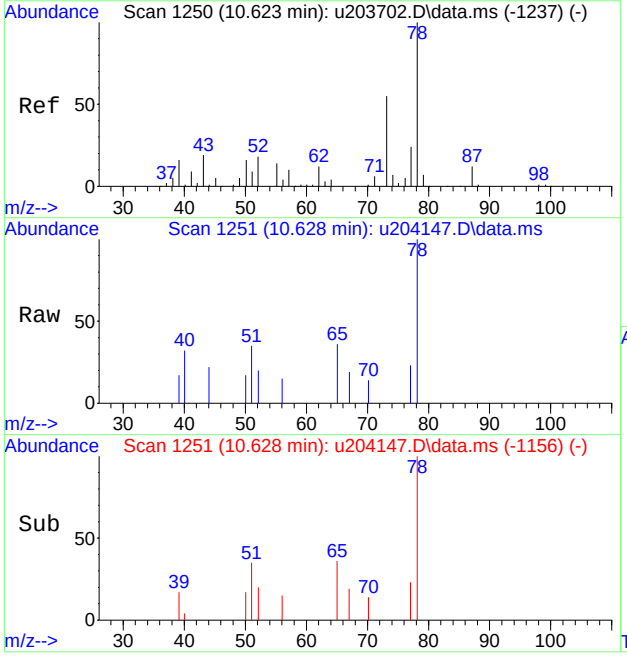


#68
Cyclohexane
Concen: 3.97 ug/L
RT: 10.251 min Scan# 1179
Delta R.T. 0.004 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion: 84 Resp: 14749

Ion	Ratio	Lower	Upper
84	100		
56	136.8	253.0	313.0#
41	80.1	150.0	210.0#

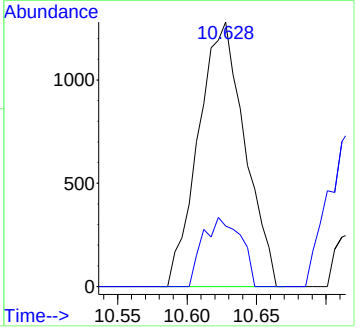


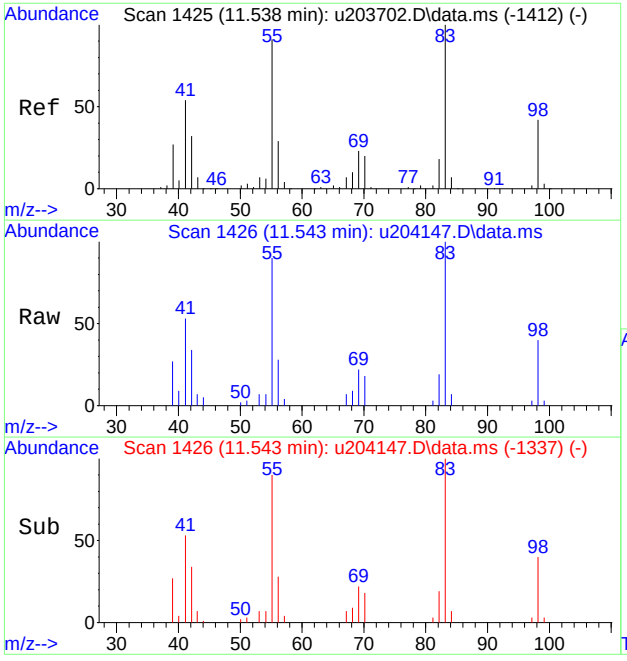


#72
benzene
Concen: 0.32 ug/L
RT: 10.628 min Scan# 1251
Delta R.T. 0.004 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion: 78 Resp: 2965

Ion	Ratio	Lower	Upper
78	100		
77	22.9	0.0	53.7

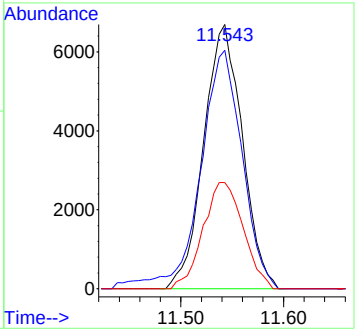


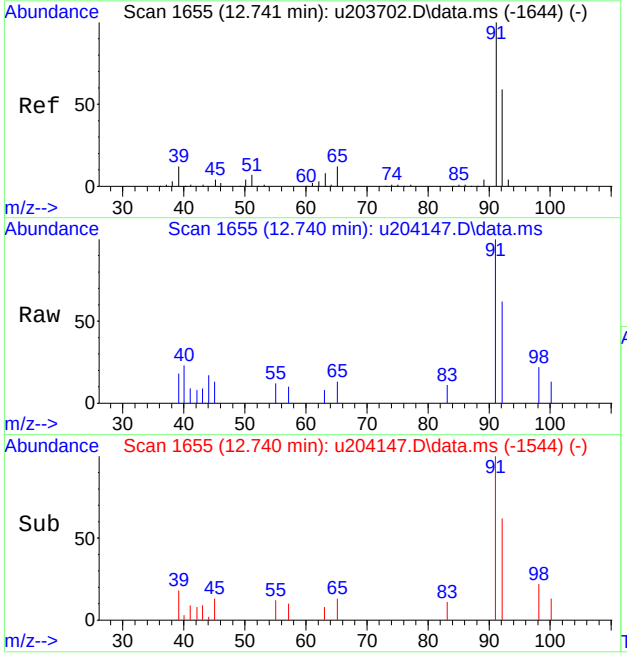


#79
methylcyclohexane
Concen: 4.88 ug/L
RT: 11.543 min Scan# 1426
Delta R.T. 0.004 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion: 83 Resp: 17509

Ion	Ratio	Lower	Upper
83	100		
55	90.2	61.5	121.5
98	40.2	11.7	71.7

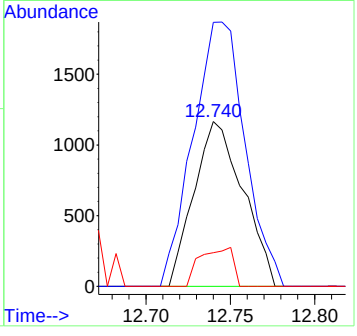


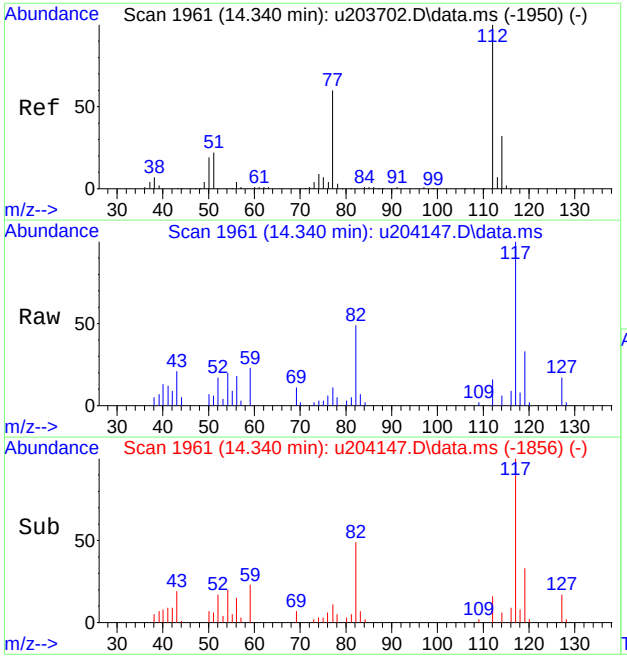


#90
toluene
Concen: 0.42 ug/L
RT: 12.740 min Scan# 1655
Delta R.T. -0.001 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion: 92 Resp: 2358

Ion	Ratio	Lower	Upper
92	100		
91	160.2	139.3	199.3
65	20.5	0.0	50.5

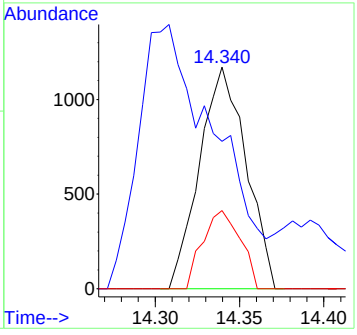


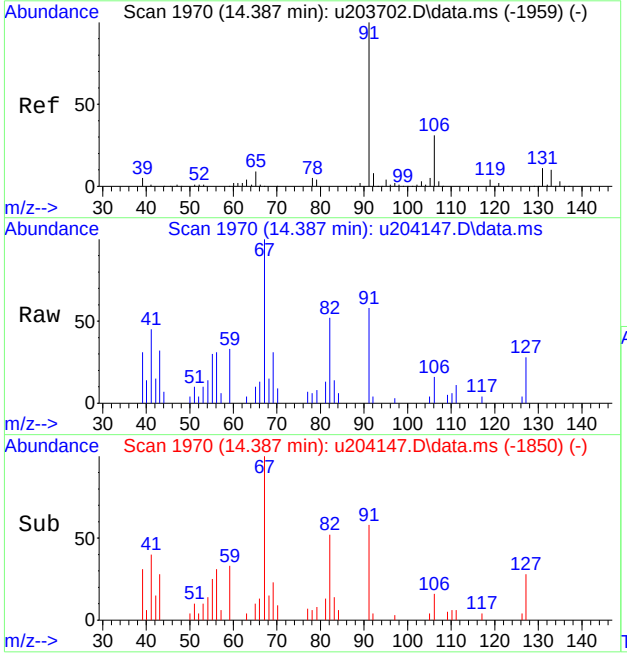


#105
chlorobenzene
Concen: 0.36 ug/L
RT: 14.340 min Scan# 1961
Delta R.T. -0.001 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion:112 Resp: 2251

Ion	Ratio	Lower	Upper
112	100		
77	39.1	30.1	90.1
114	35.3	2.0	62.0

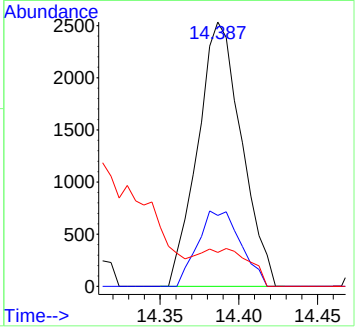


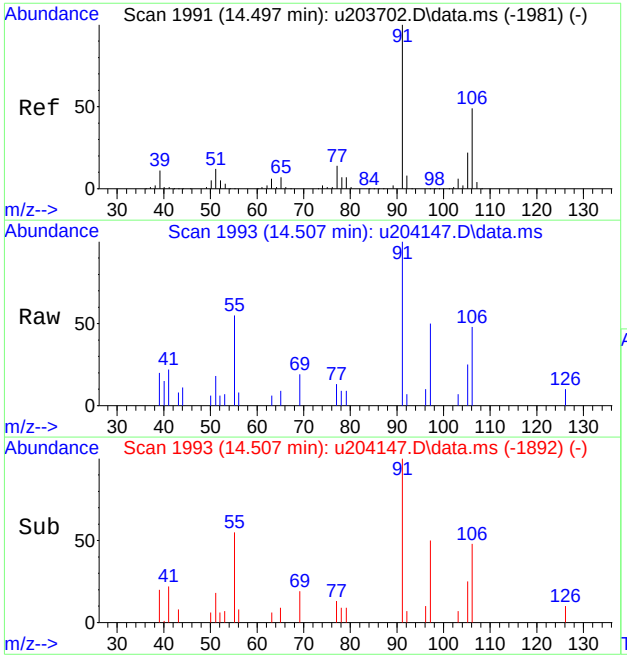


#107
ethylbenzene
Concen: 0.45 ug/L
RT: 14.387 min Scan# 1970
Delta R.T. -0.001 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion: 91 Resp: 4913

Ion	Ratio	Lower	Upper
91	100		
106	26.8	1.1	61.1
77	12.9	0.0	38.6

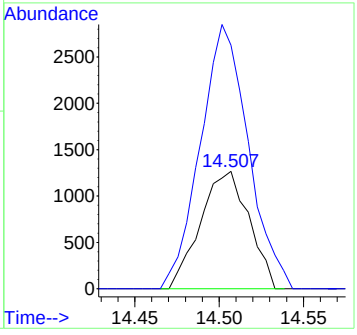


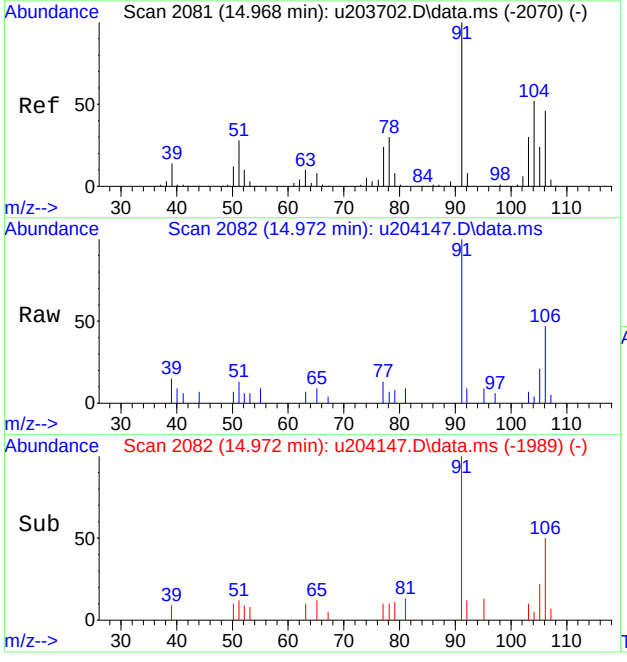


#108
m,p-xylene
Concen: 0.61 ug/L
RT: 14.507 min Scan# 1993
Delta R.T. 0.010 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion:106 Resp: 2536

Ion	Ratio	Lower	Upper
106	100		
91	207.3	173.9	233.9

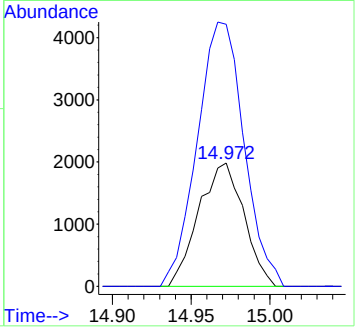


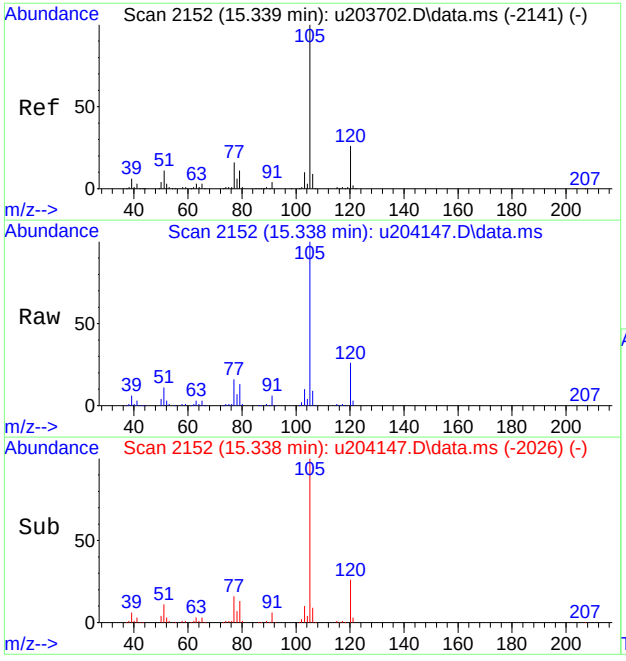


#109
o-xylene
Concen: 0.98 ug/L
RT: 14.972 min Scan# 2082
Delta R.T. 0.004 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion:106 Resp: 3955

Ion	Ratio	Lower	Upper
106	100		
91	212.3	186.5	246.5

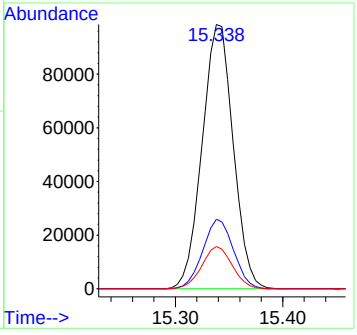


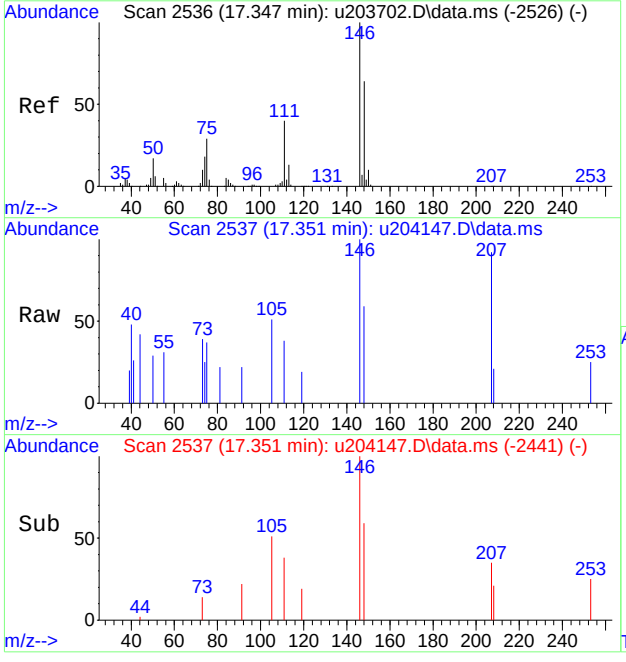


#113
isopropylbenzene
Concen: 18.58 ug/L
RT: 15.338 min Scan# 2152
Delta R.T. -0.001 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion:105 Resp: 198232

Ion	Ratio	Lower	Upper
105	100		
120	26.3	0.0	56.0
77	16.0	0.0	45.8

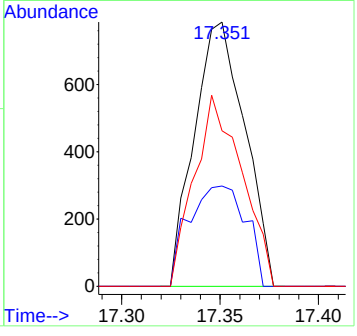




#133
1,2-dichlorobenzene
Concen: 0.27 ug/L
RT: 17.351 min Scan# 2537
Delta R.T. 0.004 min
Lab File: u204147.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion:146 Resp: 1405

Ion	Ratio	Lower	Upper
146	100		
111	37.9	9.9	69.9
148	58.8	33.9	93.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204147r.D
Acq On : 15 Mar 2016 4:19 pm
Operator : NicoleH1
Sample : jc16038-3r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 08 11:35:28 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

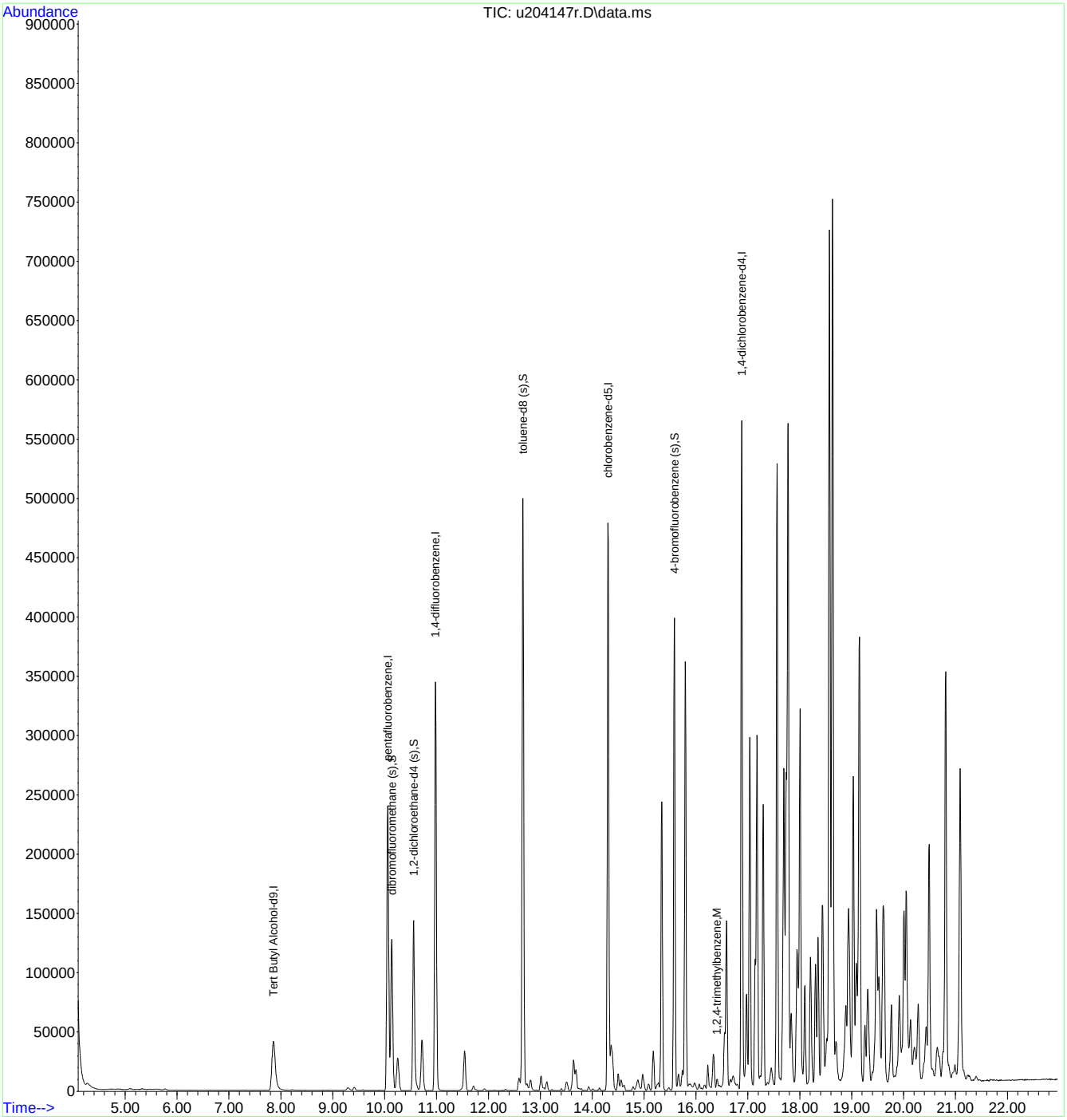
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	112964	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	231109	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	340116	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	311795	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	171129	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	99010	52.74	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	= 105.48%		
57) 1,2-dichloroethane-d4 (s)	10.560	65	123250	53.91	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery	= 107.82%		
88) toluene-d8 (s)	12.667	98	403212	49.36	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery	= 98.72%		
114) 4-bromofluorobenzene (s)	15.584	95	158148	50.50	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery	= 101.00%		
Target Compounds						Qvalue
126) 1,2,4-trimethylbenzene	16.399	105	5375	0.58	ug/L	99

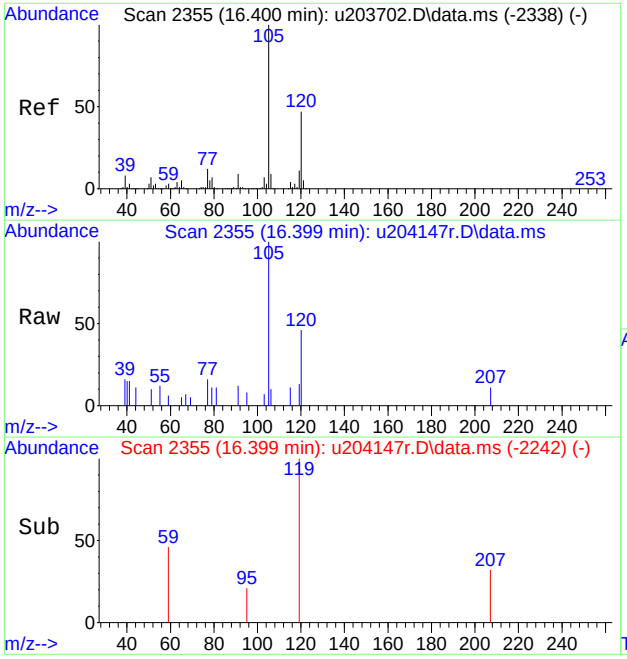
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204147r.D
Acq On : 15 Mar 2016 4:19 pm
Operator : NicoleH1
Sample : jc16038-3r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 08 11:35:28 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

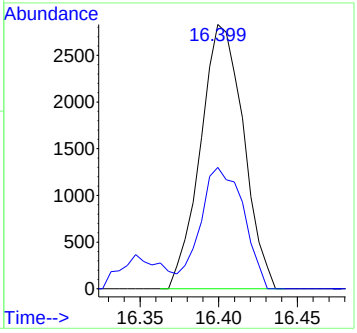




#126
1,2,4-trimethylbenzene
Concen: 0.58 ug/L
RT: 16.399 min Scan# 2355
Delta R.T. -0.001 min
Lab File: u204147r.D
Acq: 15 Mar 2016 4:19 pm

Tgt Ion:105 Resp: 5375

Ion	Ratio	Lower	Upper
105	100		
120	45.9	16.8	76.8



7.1.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221006.D
Acq On : 17 Mar 2016 12:30 pm
Operator : NicoleH1
Sample : jc16038-4
Misc : MS99610,VA8370,5,,,,20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 17:17:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.227	65	418768	500.00 ug/L	0.00
4) pentafluorobenzene	10.596	168	288328	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.538	114	439852	50.00 ug/L	0.00
84) chlorobenzene-d5	14.932	117	391266	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.531	152	218489	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.628	113	141649	51.77 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.54%		
48) 1,2-dichloroethane-d4 (s)	11.072	65	149506	50.87 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 101.74%		
76) toluene-d8 (s)	13.279	98	512541	49.96 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.92%		
102) 4-bromofluorobenzene (s)	16.224	95	186979	49.87 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.74%		

Target Compounds					Qvalue
28) methyl tert butyl ether	8.661	73	4759	0.52 ug/L	90
60) benzene	11.156	78	3818	0.38 ug/L	97
94) ethylbenzene	15.037	91	576001	51.83 ug/L	99
95) m,p-xylene	15.152	106	523832	123.81 ug/L	99
100) isopropylbenzene	16.009	105	10512	0.88 ug/L	95

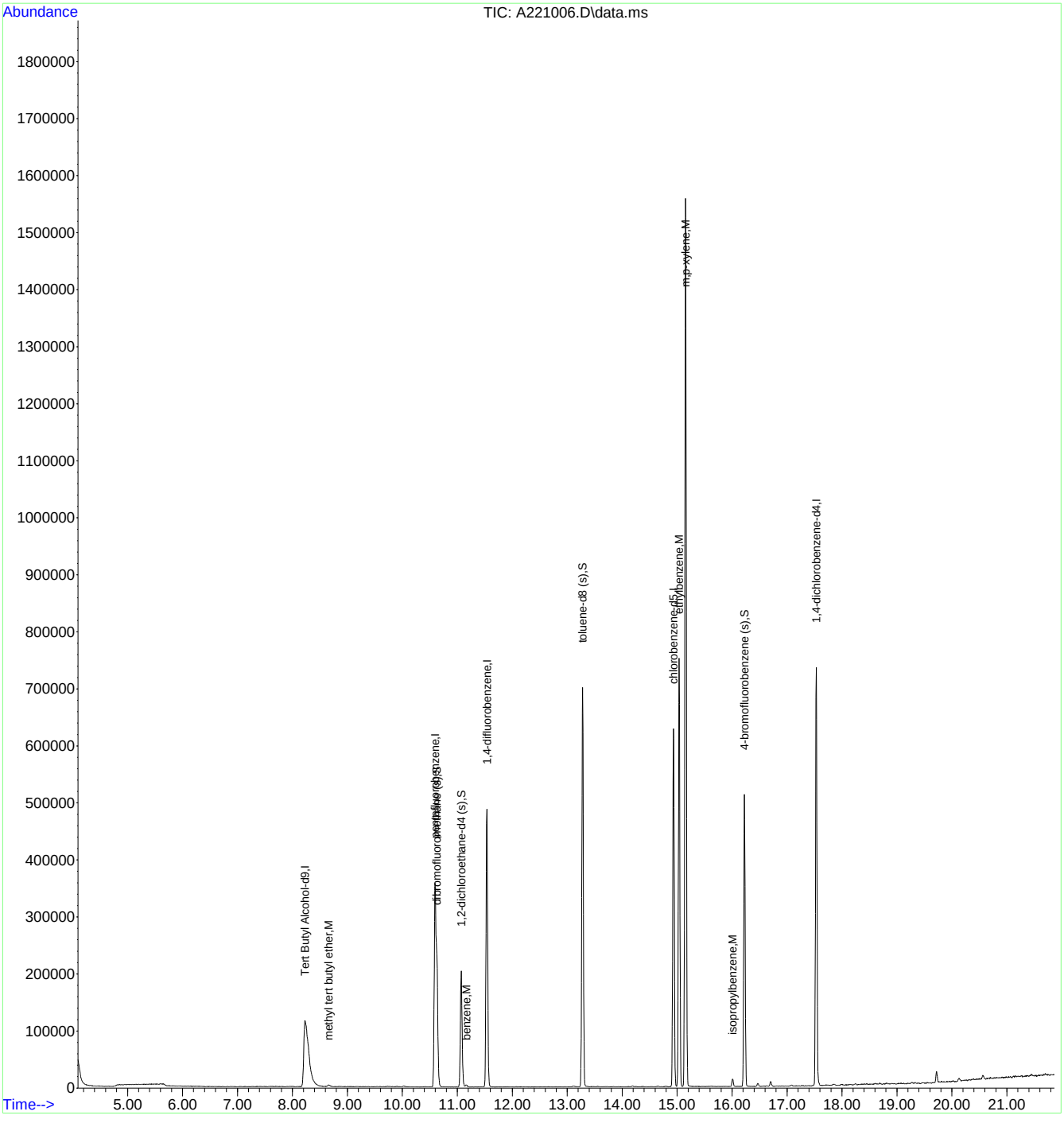
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

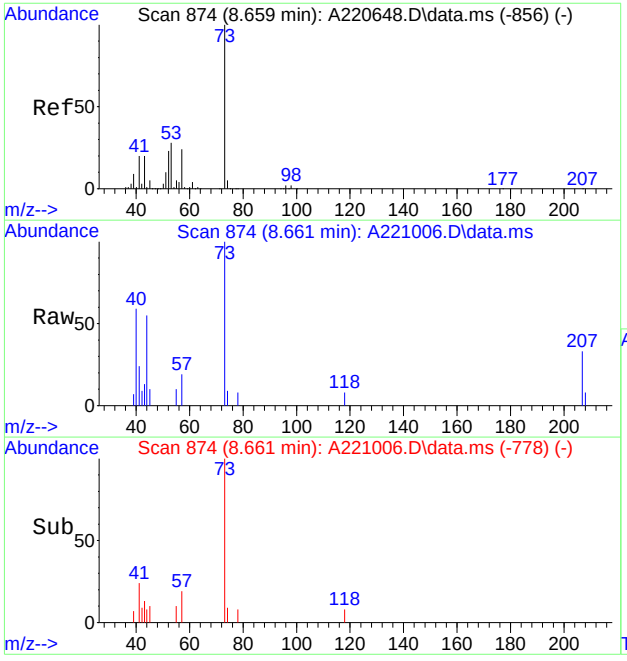
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221006.D
Acq On : 17 Mar 2016 12:30 pm
Operator : NicoleH1
Sample : jc16038-4
Misc : MS99610,VA8370,5,,,,20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 17:17:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration



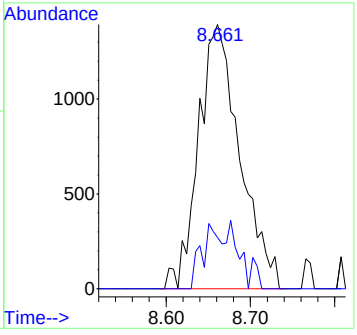
MA8353.M Thu Mar 17 17:18:01 2016 RPT1 Page: 2

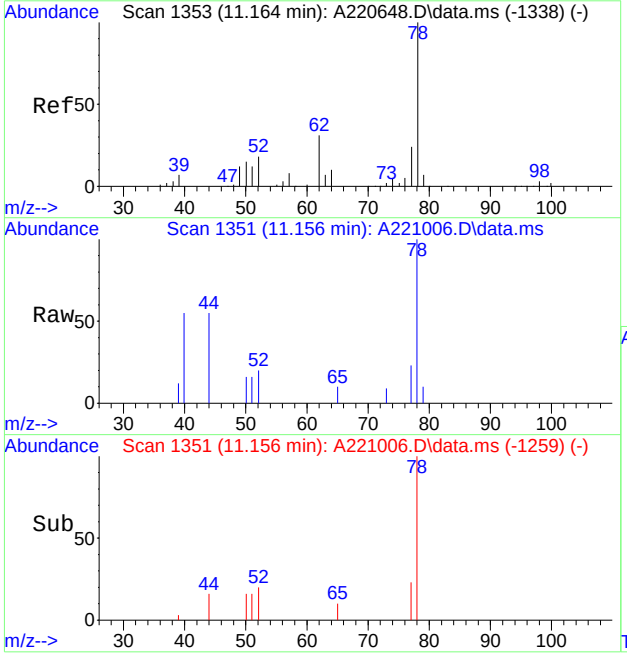


#28
methyl tert butyl ether
Concen: 0.52 ug/L
RT: 8.661 min Scan# 874
Delta R.T. 0.002 min
Lab File: A221006.D
Acq: 17 Mar 2016 12:30 pm

Tgt Ion: 73 Resp: 4759

Ion	Ratio	Lower	Upper
73	100		
57	18.8	0.0	53.6

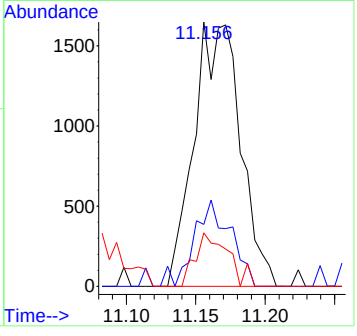


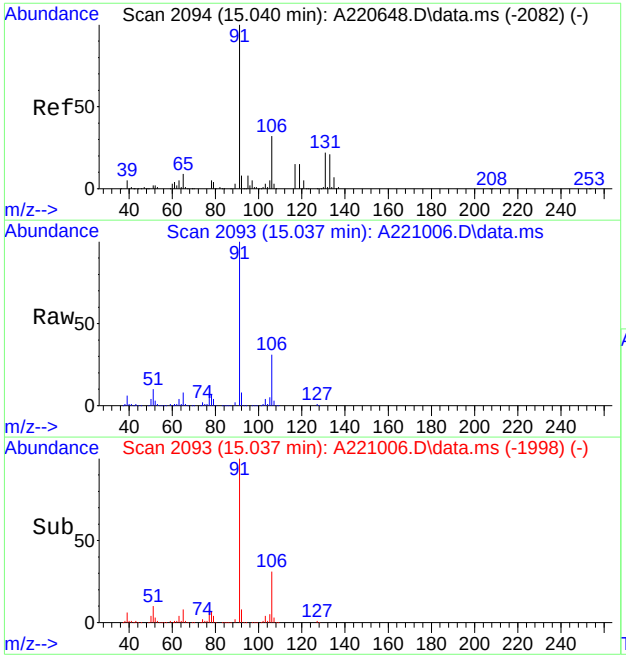


#60
benzene
Concen: 0.38 ug/L
RT: 11.156 min Scan# 1351
Delta R.T. -0.008 min
Lab File: A221006.D
Acq: 17 Mar 2016 12:30 pm

Tgt Ion: 78 Resp: 3818

Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	54.3
52	20.2	0.0	47.7

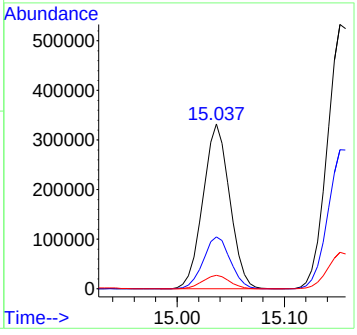


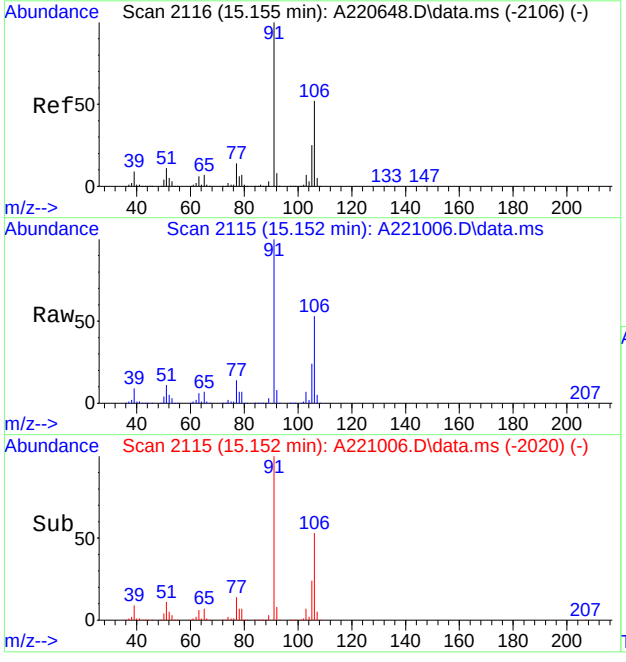


#94
ethylbenzene
Concen: 51.83 ug/L
RT: 15.037 min Scan# 2093
Delta R.T. -0.003 min
Lab File: A221006.D
Acq: 17 Mar 2016 12:30 pm

Tgt Ion: 91 Resp: 576001

Ion	Ratio	Lower	Upper
91	100		
106	31.4	1.9	61.9
77	8.2	0.0	38.4

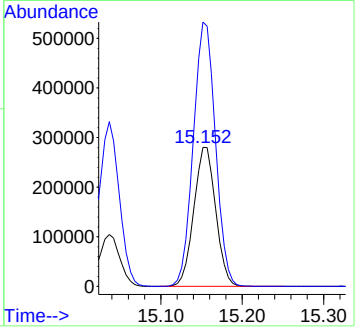


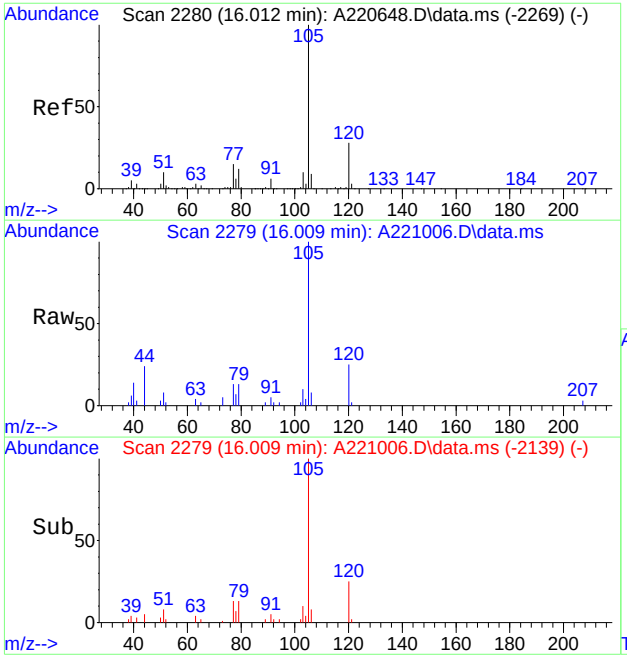


#95
m,p-xylene
Concen: 123.81 ug/L
RT: 15.152 min Scan# 2115
Delta R.T. -0.003 min
Lab File: A221006.D
Acq: 17 Mar 2016 12:30 pm

Tgt Ion:106 Resp: 523832

Ion	Ratio	Lower	Upper
106	100		
91	190.2	161.4	221.4

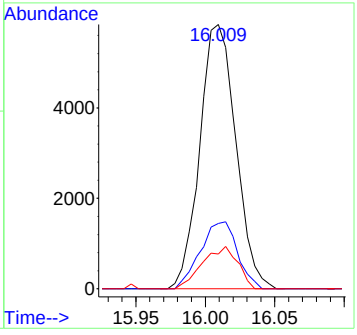




#100
isopropylbenzene
Concen: 0.88 ug/L
RT: 16.009 min Scan# 2279
Delta R.T. -0.003 min
Lab File: A221006.D
Acq: 17 Mar 2016 12:30 pm

Tgt Ion:105 Resp: 10512

Ion	Ratio	Lower	Upper
105	100		
120	24.7	0.0	57.6
77	13.2	0.0	45.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204148.D
Acq On : 15 Mar 2016 4:48 pm
Operator : NicoleH1
Sample : jc16038-4
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 13:16:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

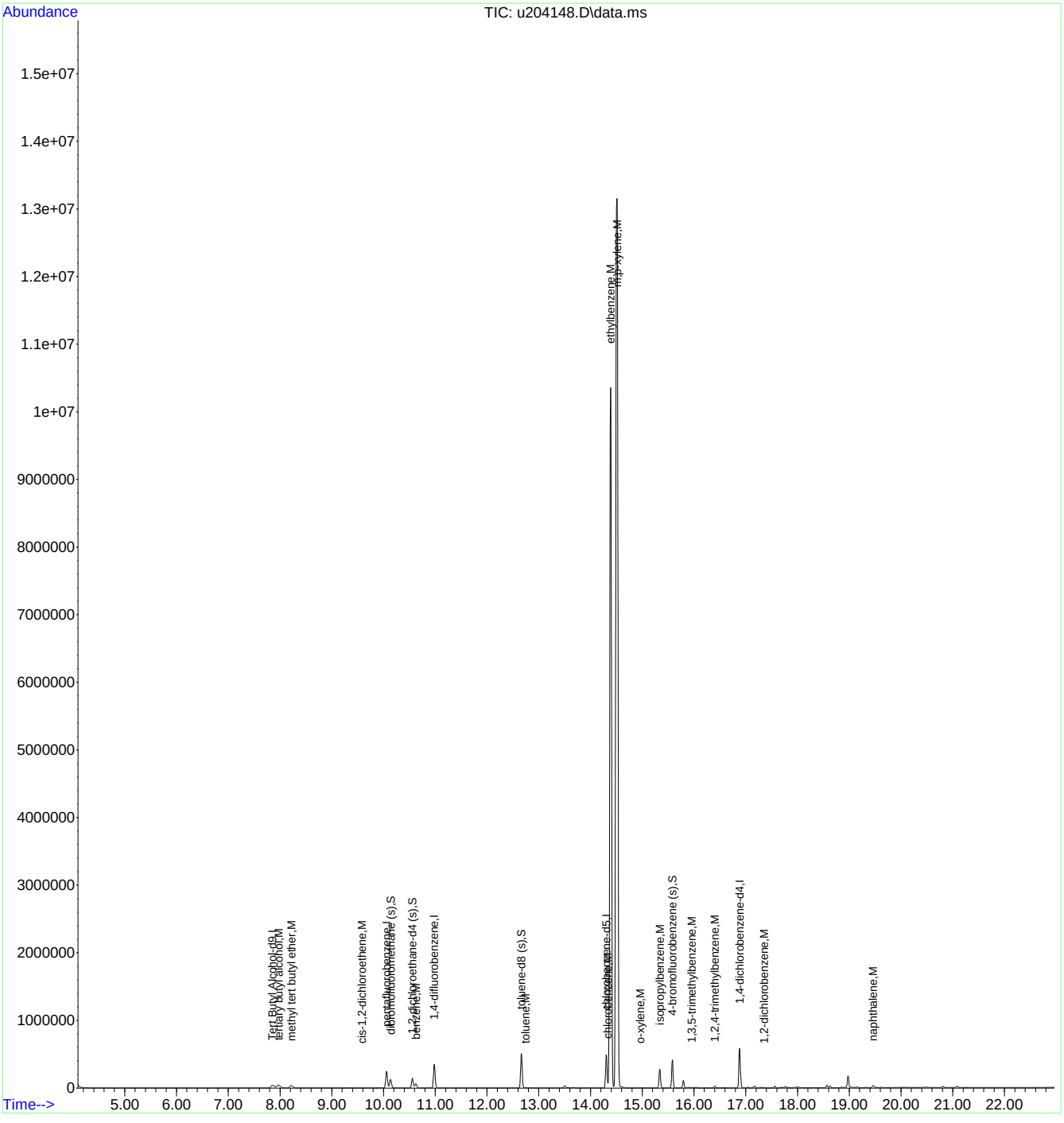
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.853	65	110407	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	233946	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	340262	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	316000	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	175776	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	99584	52.40	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	= 104.80%		
57) 1,2-dichloroethane-d4 (s)	10.556	65	124175	53.65	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery	= 107.30%		
88) toluene-d8 (s)	12.663	98	409814	50.15	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery	= 100.30%		
114) 4-bromofluorobenzene (s)	15.580	95	160080	49.76	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery	= 99.52%		
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.973	59	110976	451.07	ug/L #	52
37) methyl tert butyl ether	8.219	73	75949	11.84	ug/L	100
48) cis-1,2-dichloroethene	9.583	96	676	0.29	ug/L	84
72) benzene	10.624	78	69709	7.43	ug/L	100
90) toluene	12.746	92	1390	0.25	ug/L	78
105) chlorobenzene	14.335	112	2294	0.36	ug/L #	47
107) ethylbenzene	14.388	91	9970218	892.49	ug/L	96
108) m,p-xylene	14.513	106	6481211	1550.69	ug/L	94
109) o-xylene	14.963	106	1729	0.42	ug/L #	79
113) isopropylbenzene	15.339	105	227483	20.76	ug/L	100
123) 1,3,5-trimethylbenzene	15.956	105	5823	0.63	ug/L	91
126) 1,2,4-trimethylbenzene	16.401	105	17732	1.86	ug/L	96
133) 1,2-dichlorobenzene	17.352	146	2589	0.48	ug/L	96
141) naphthalene	19.459	128	31056	4.76	ug/L	98

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

Quantitation Report (QT Reviewed)

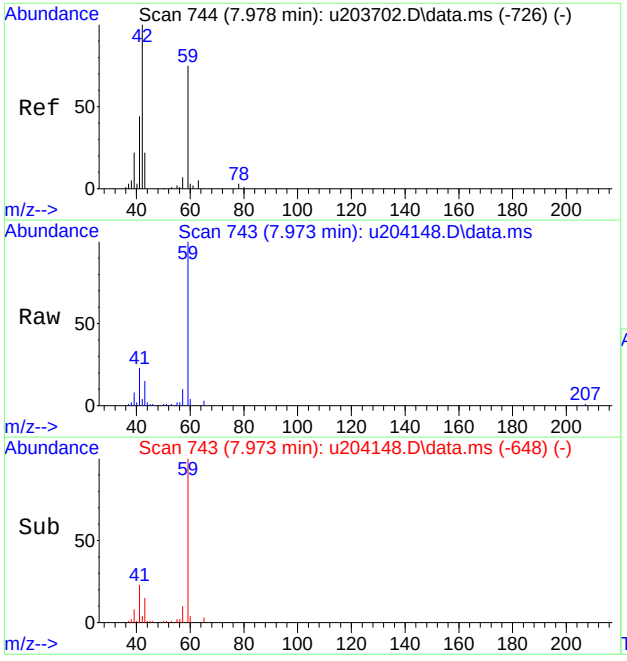
Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204148.D
Acq On : 15 Mar 2016 4:48 pm
Operator : NicoleH1
Sample : jc16038-4
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 13:16:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 13:30:02 2016 T

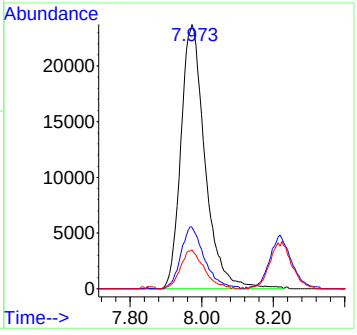
Page: 2

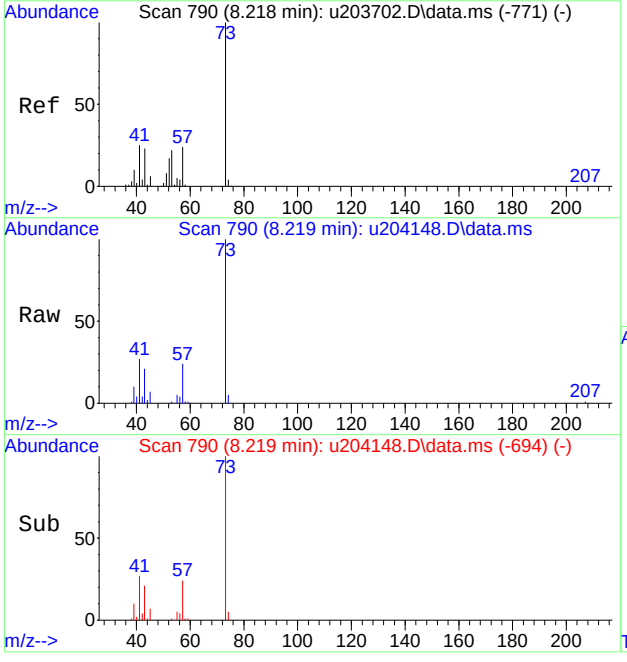


#2
tertiary butyl alcohol
Concen: 451.07 ug/L
RT: 7.973 min Scan# 743
Delta R.T. -0.005 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 59 Resp: 110976

Ion	Ratio	Lower	Upper
59	100		
41	23.2	38.3	98.3#
43	14.7	2.8	62.8

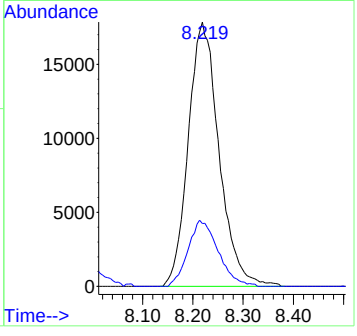


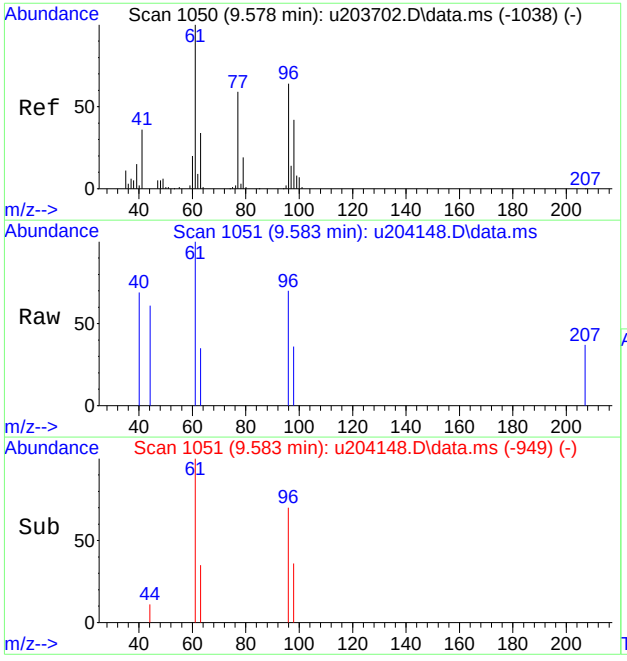


#37
methyl tert butyl ether
Concen: 11.84 ug/L
RT: 8.219 min Scan# 790
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 73 Resp: 75949

Ion	Ratio	Lower	Upper
73	100		
57	24.6	0.0	54.5

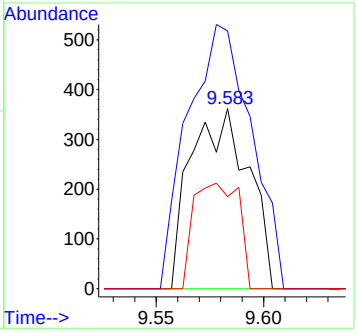


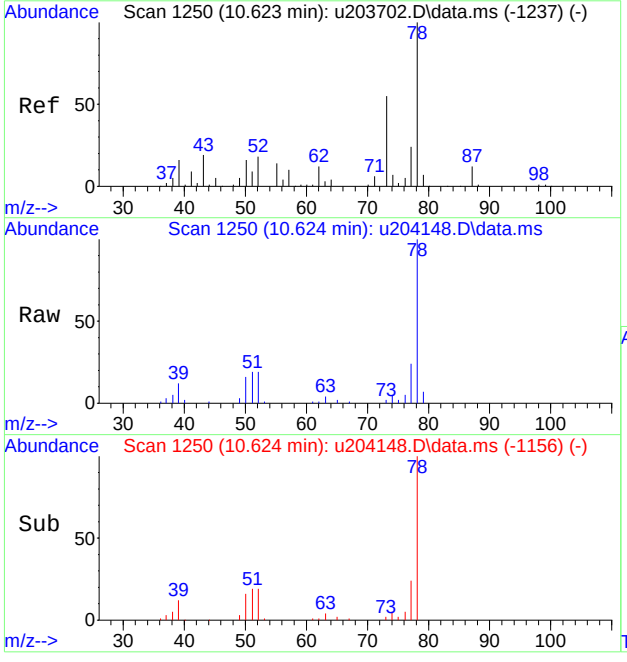


#48
cis-1,2-dichloroethene
Concen: 0.29 ug/L
RT: 9.583 min Scan# 1051
Delta R.T. 0.006 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 96 Resp: 676

Ion	Ratio	Lower	Upper
96	100		
61	143.1	134.2	194.2
98	51.1	35.3	95.3

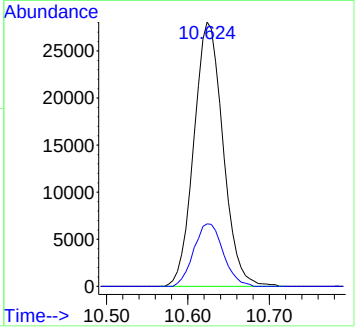


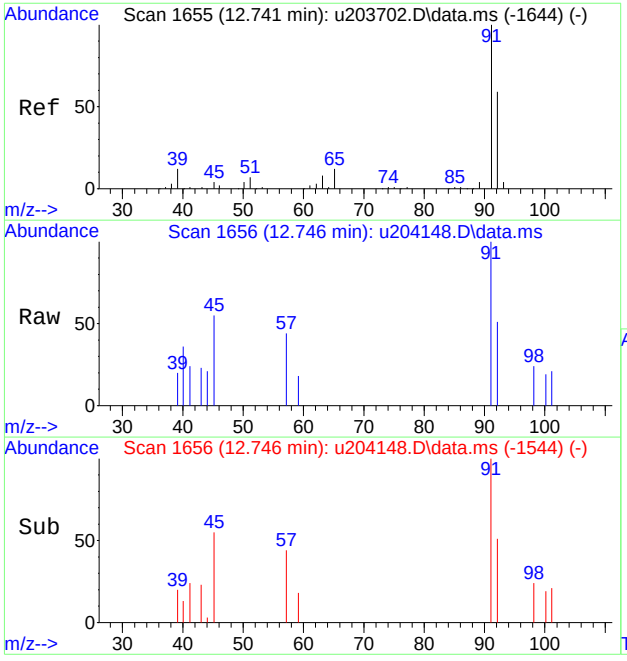


#72
benzene
Concen: 7.43 ug/L
RT: 10.624 min Scan# 1250
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 78 Resp: 69709

Ion	Ratio	Lower	Upper
78	100		
77	23.6	0.0	53.7

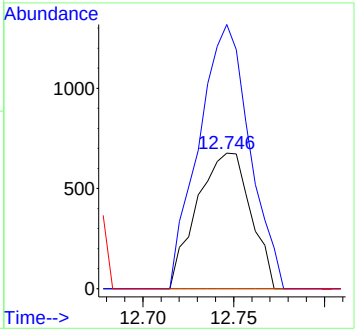


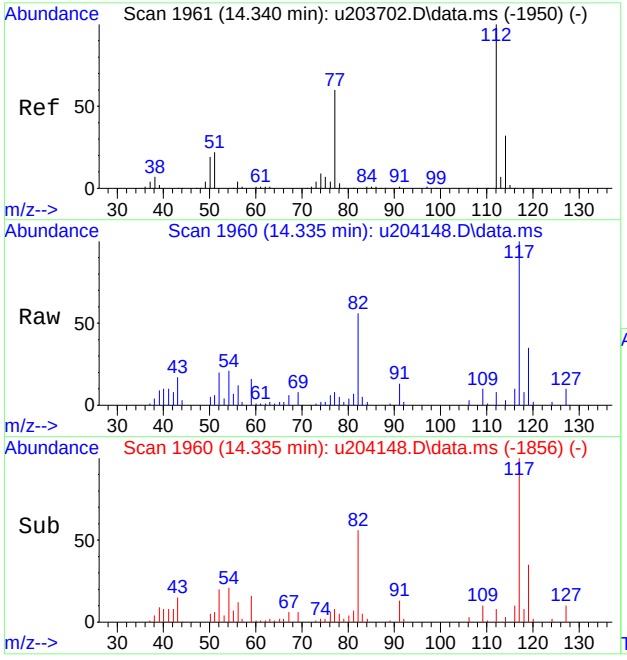


#90
toluene
Concen: 0.25 ug/L
RT: 12.746 min Scan# 1656
Delta R.T. 0.006 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 92 Resp: 1390

Ion	Ratio	Lower	Upper
92	100		
91	195.1	139.3	199.3
65	0.0	0.0	50.5

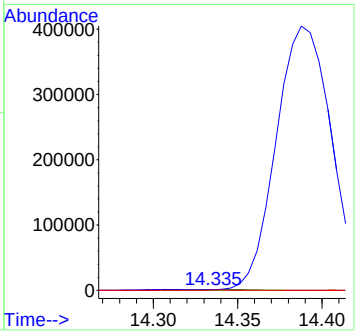


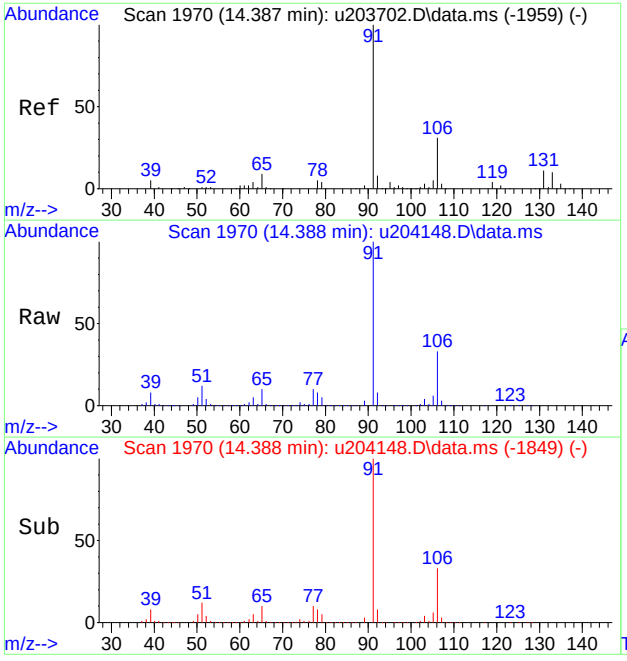


#105
chlorobenzene
Concen: 0.36 ug/L
RT: 14.335 min Scan# 1960
Delta R.T. -0.005 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:112 Resp: 2294

Ion	Ratio	Lower	Upper
112	100		
77	0.0	30.1	90.1#
114	33.5	2.0	62.0

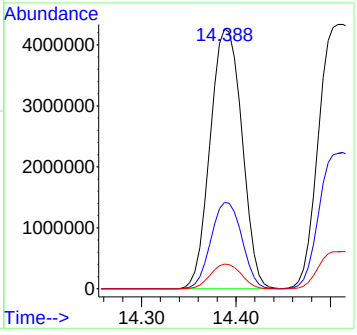


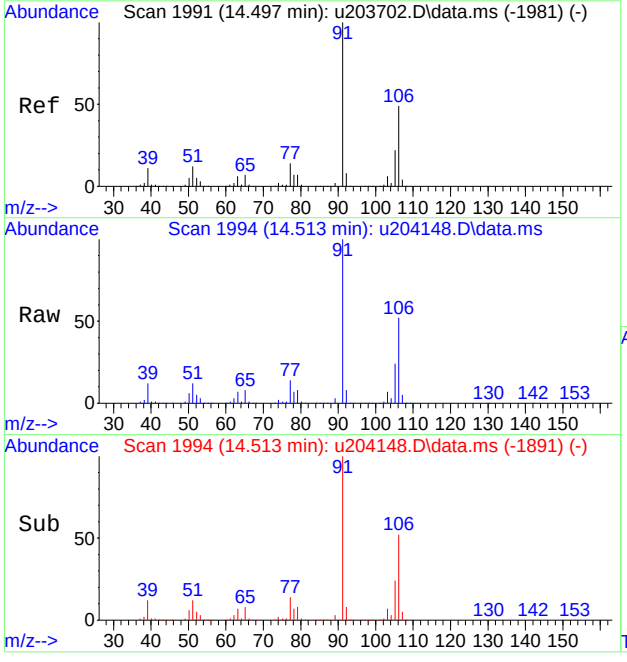


#107
ethylbenzene
Concen: 892.49 ug/L
RT: 14.388 min Scan# 1970
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 91 Resp: 9970218

Ion	Ratio	Lower	Upper
91	100		
106	33.3	1.1	61.1
77	9.5	0.0	38.6

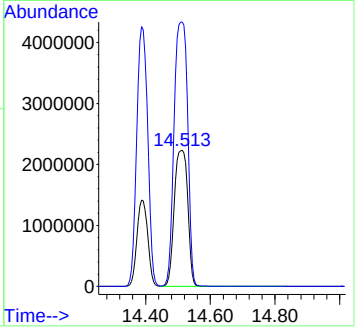


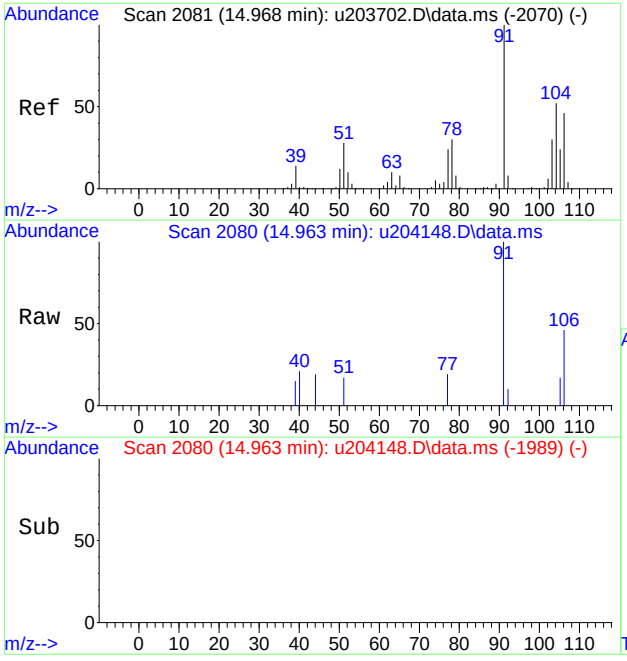


#108
m,p-xylene
Concen: 1550.69 ug/L
RT: 14.513 min Scan# 1994
Delta R.T. 0.016 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:106 Resp: 6481211

Ion	Ratio	Lower	Upper
106	100		
91	194.0	173.9	233.9

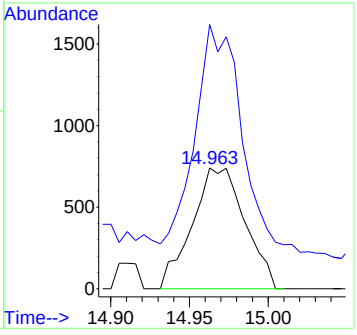


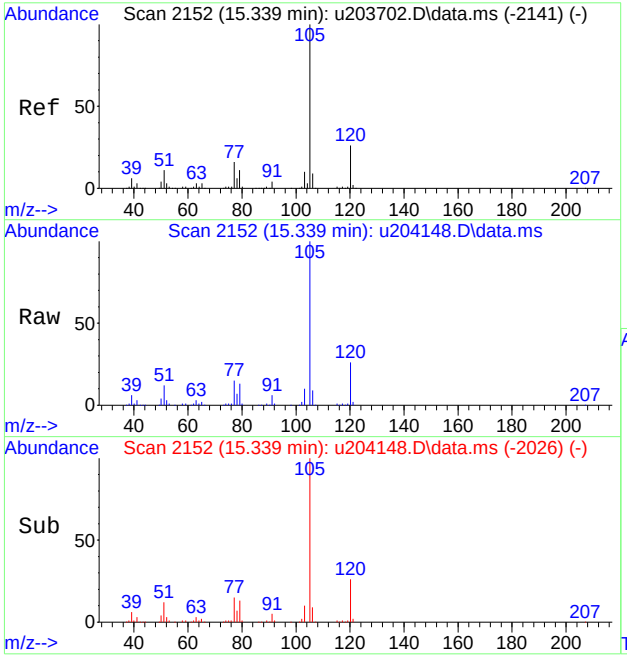


#109
o-xylene
Concen: 0.42 ug/L
RT: 14.963 min Scan# 2080
Delta R.T. -0.005 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:106 Resp: 1729

Ion	Ratio	Lower	Upper
106	100		
91	182.5	186.5	246.5#

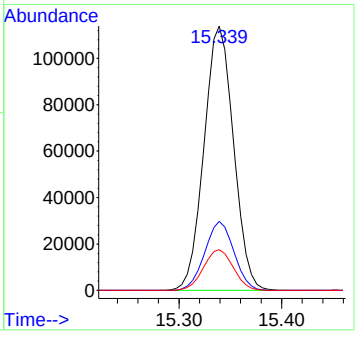


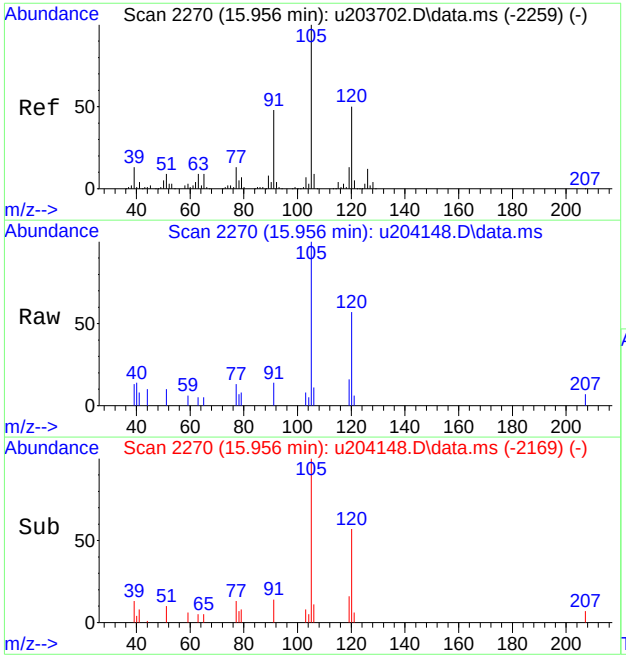


#113
isopropylbenzene
Concen: 20.76 ug/L
RT: 15.339 min Scan# 2152
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:105 Resp: 227483

Ion	Ratio	Lower	Upper
105	100		
120	26.1	0.0	56.0
77	15.4	0.0	45.8

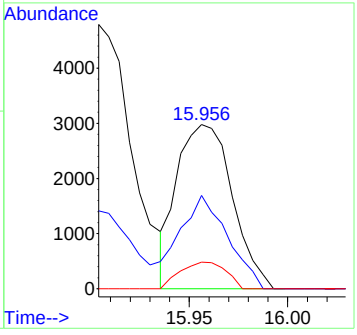


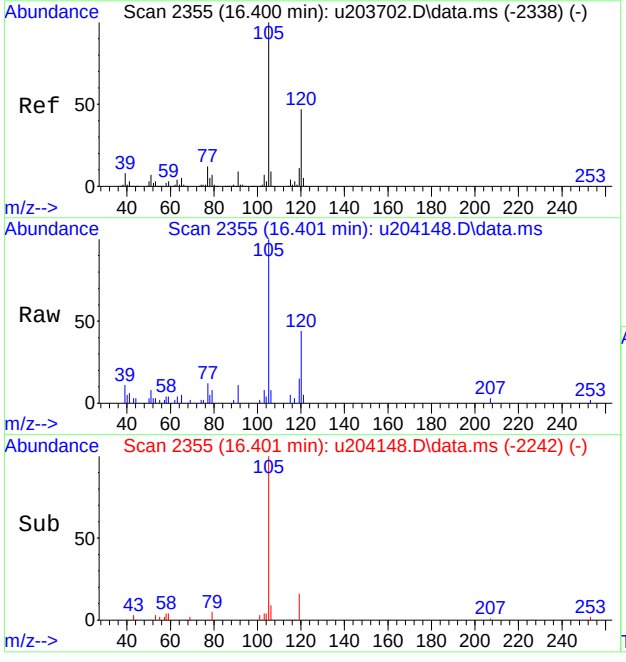


#123
1,3,5-trimethylbenzene
Concen: 0.63 ug/L
RT: 15.956 min Scan# 2270
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:105 Resp: 5823

Ion	Ratio	Lower	Upper
105	100		
120	56.8	20.2	80.2
119	16.2	0.0	42.9

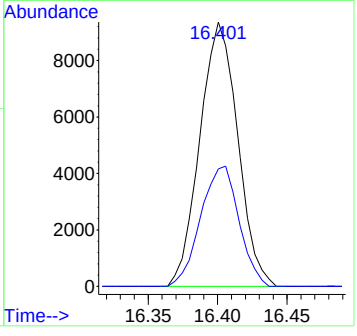


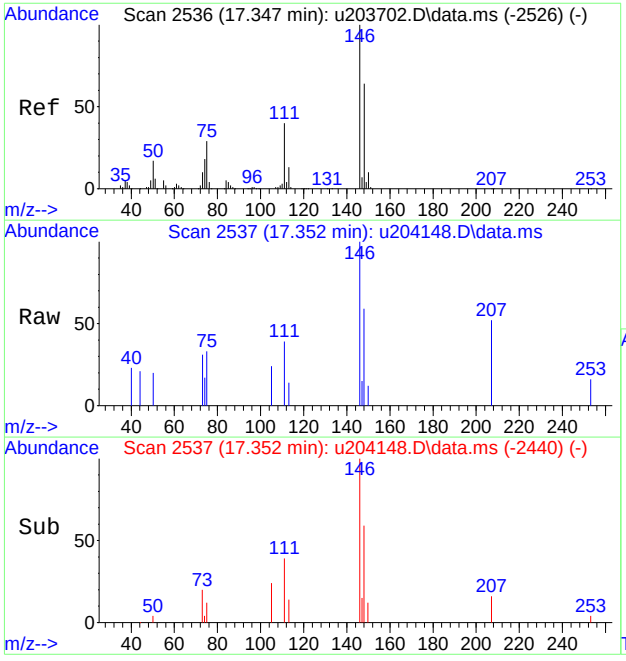


#126
1,2,4-trimethylbenzene
Concen: 1.86 ug/L
RT: 16.401 min Scan# 2355
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:105 Resp: 17732

Ion	Ratio	Lower	Upper
105	100		
120	44.4	16.8	76.8

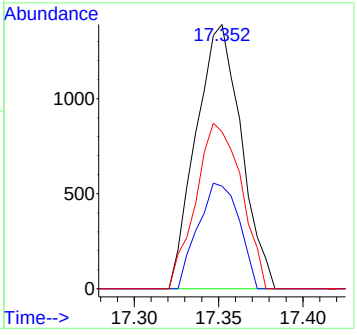


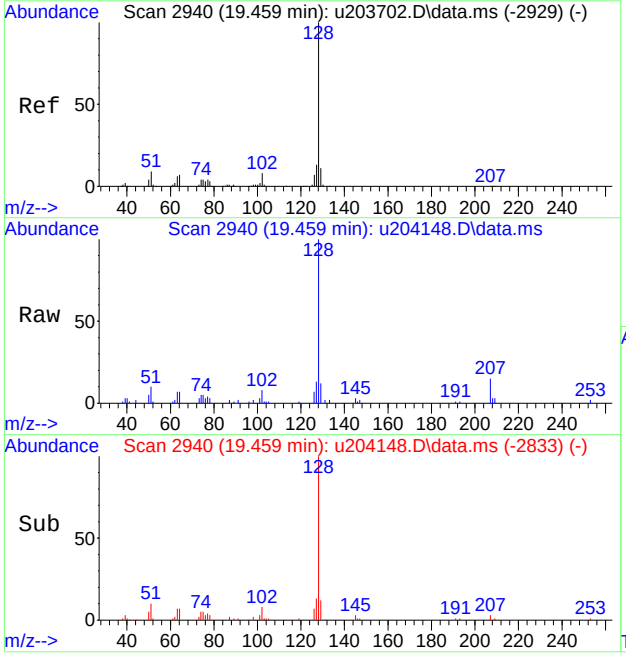


#133
1,2-dichlorobenzene
Concen: 0.48 ug/L
RT: 17.352 min Scan# 2537
Delta R.T. 0.006 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:146 Resp: 2589

Ion	Ratio	Lower	Upper
146	100		
111	38.8	9.9	69.9
148	59.3	33.9	93.9

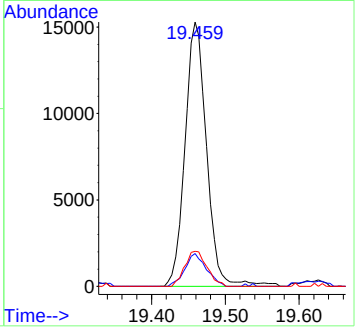




#141
naphthalene
Concen: 4.76 ug/L
RT: 19.459 min Scan# 2940
Delta R.T. 0.000 min
Lab File: u204148.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:128 Resp: 31056

Ion	Ratio	Lower	Upper
128	100		
129	12.4	0.0	40.9
127	13.3	0.0	43.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204148r.D
Acq On : 15 Mar 2016 4:48 pm
Operator : NicoleH1
Sample : jc16038-4r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 08 11:36:23 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.853	65	110407	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	233946	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	340262	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	316000	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	175776	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	99584	52.40	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	= 104.80%		
57) 1,2-dichloroethane-d4 (s)	10.556	65	124175	53.65	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery	= 107.30%		
88) toluene-d8 (s)	12.663	98	409814	50.15	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery	= 100.30%		
114) 4-bromofluorobenzene (s)	15.580	95	160080	49.76	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery	= 99.52%		
Target Compounds						Qvalue
52) tetrahydrofuran	9.918	42	2779	2.96	ug/L	94
126) 1,2,4-trimethylbenzene	16.401	105	17732	1.86	ug/L	96

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

7.1.9

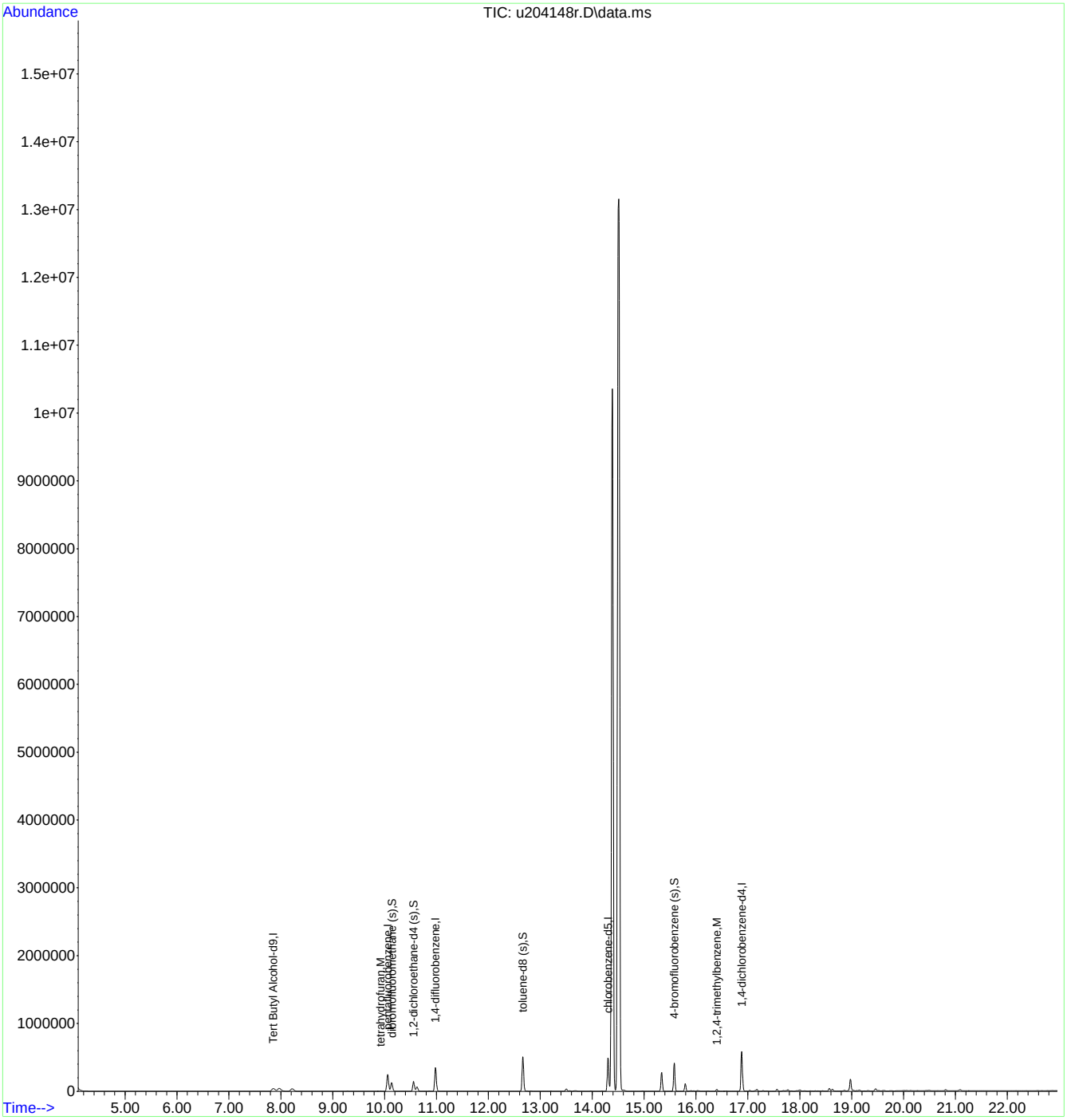
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

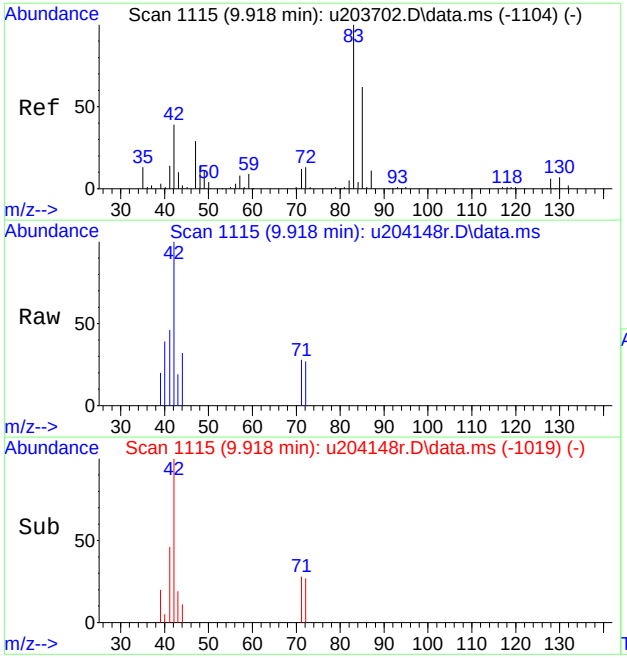
Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204148r.D
Acq On : 15 Mar 2016 4:48 pm
Operator : NicoleH1
Sample : jc16038-4r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 08 11:36:23 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Apr 08 11:46:09 2016 T

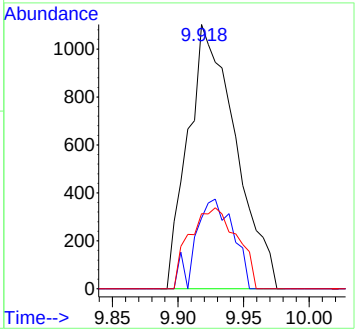
Page: 2

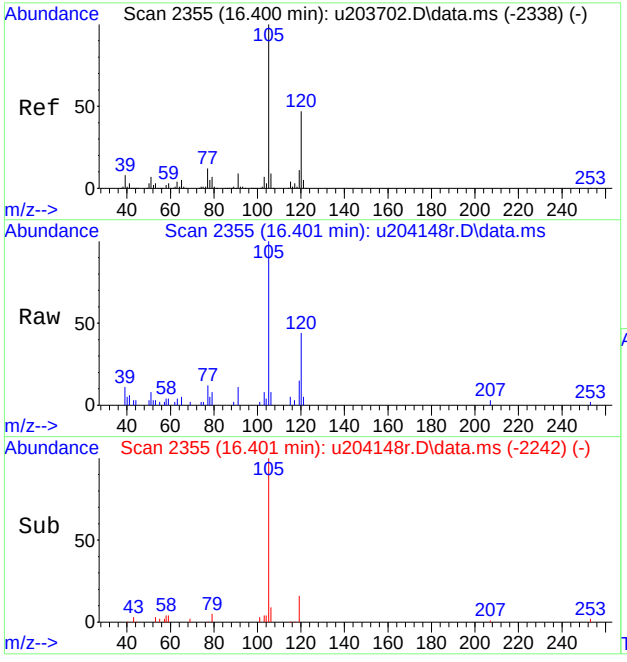


#52
tetrahydrofuran
Concen: 2.96 ug/L
RT: 9.918 min Scan# 1115
Delta R.T. 0.000 min
Lab File: u204148r.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion: 42 Resp: 2779

Ion	Ratio	Lower	Upper
42	100		
72	26.6	1.7	61.7
71	30.6	0.0	58.8

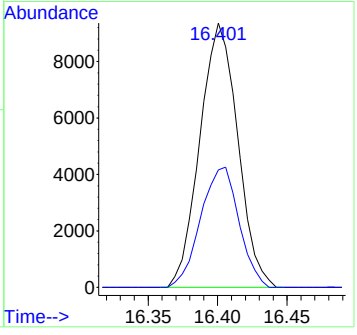




#126
1,2,4-trimethylbenzene
Concen: 1.86 ug/L
RT: 16.401 min Scan# 2355
Delta R.T. 0.000 min
Lab File: u204148r.D
Acq: 15 Mar 2016 4:48 pm

Tgt Ion:105 Resp: 17732

Ion	Ratio	Lower	Upper
105	100		
120	44.4	16.8	76.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221005.D
Acq On : 17 Mar 2016 12:00 pm
Operator : NicoleH1
Sample : jc16038-5
Misc : MS99610,VA8370,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 17:16:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.226	65	430715	500.00 ug/L	0.00
4) pentafluorobenzene	10.595	168	287490	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.537	114	433641	50.00 ug/L	0.00
84) chlorobenzene-d5	14.936	117	386323	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.530	152	216952	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.632	113	140998	51.68 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.36%		
48) 1,2-dichloroethane-d4 (s)	11.071	65	147052	50.18 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.36%		
76) toluene-d8 (s)	13.278	98	506861	50.11 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.22%		
102) 4-bromofluorobenzene (s)	16.223	95	185105	49.72 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.44%		

Target Compounds

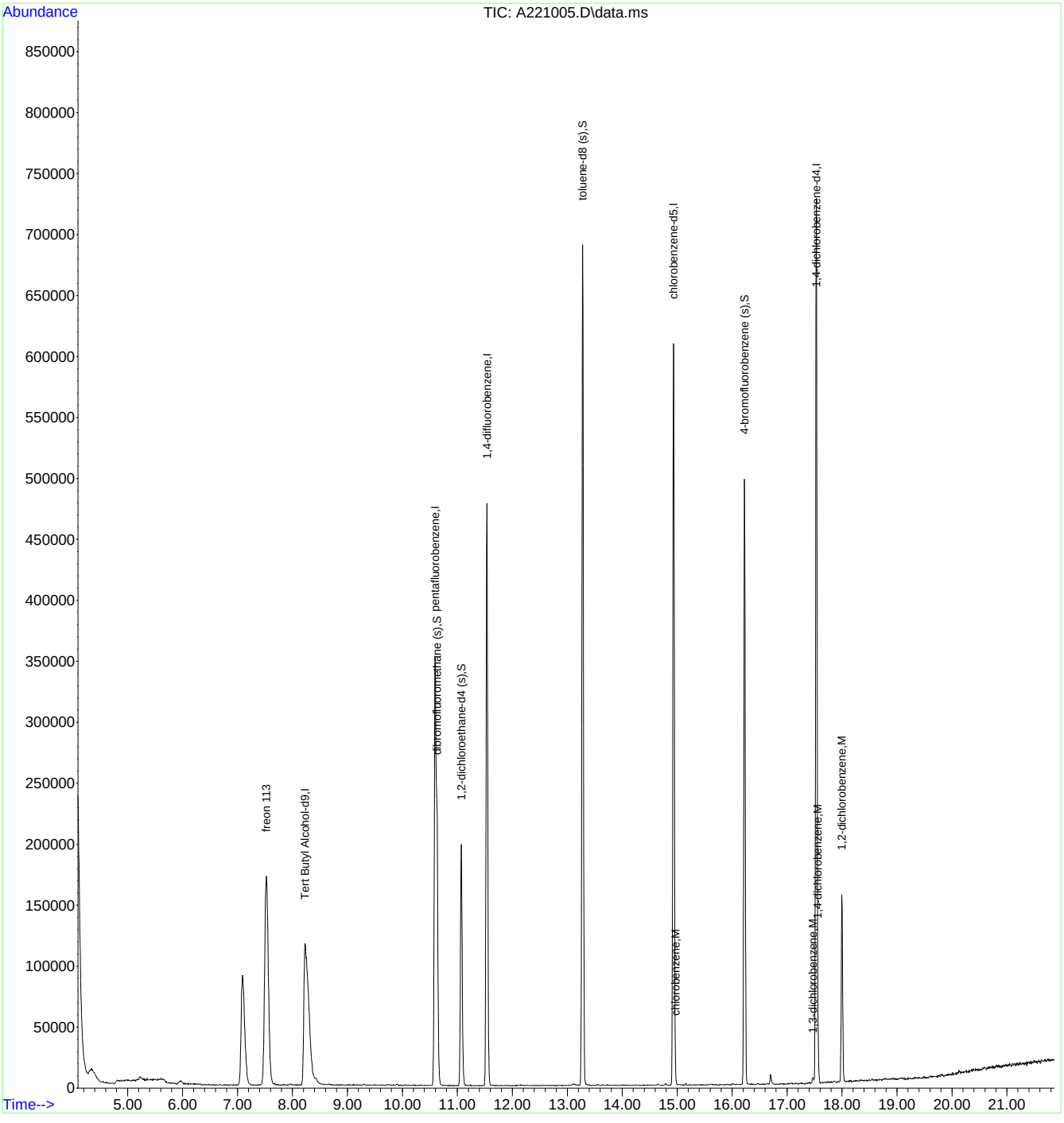
					Qvalue
19) freon 113	7.530	151	139592	58.48 ug/L	98
92) chlorobenzene	14.973	112	2172	0.34 ug/L	96
116) 1,3-dichlorobenzene	17.468	146	2763	0.49 ug/L	86
119) 1,4-dichlorobenzene	17.562	146	14367	2.53 ug/L	96
121) 1,2-dichlorobenzene	17.996	146	70969	12.20 ug/L	98

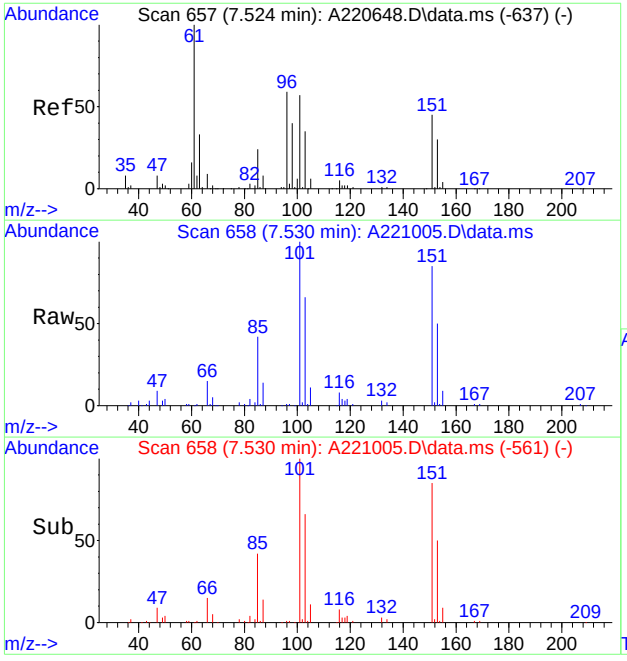
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221005.D
Acq On : 17 Mar 2016 12:00 pm
Operator : NicoleH1
Sample : jc16038-5
Misc : MS99610,VA8370,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 17:16:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

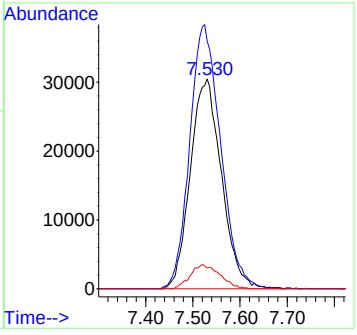


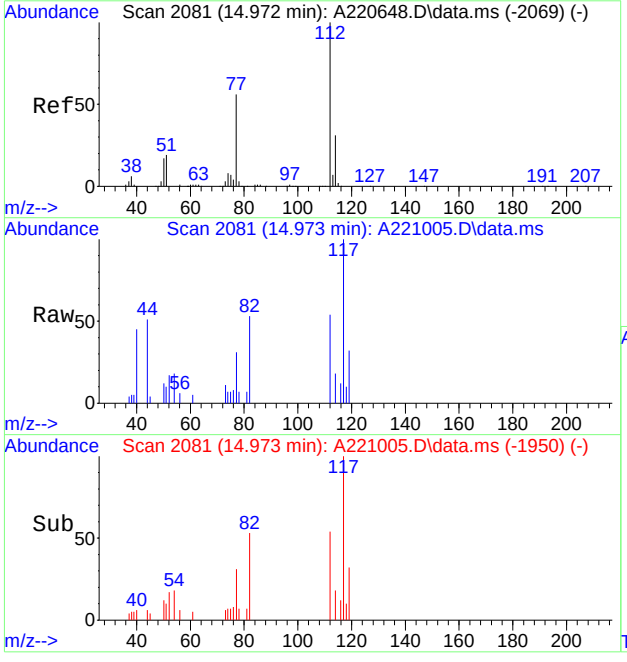


#19
freon 113
Concen: 58.48 ug/L
RT: 7.530 min Scan# 658
Delta R.T. 0.007 min
Lab File: A221005.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:151 Resp: 139592

Ion	Ratio	Lower	Upper
151	100		
101	125.3	89.7	166.7
116	11.0	8.2	15.2

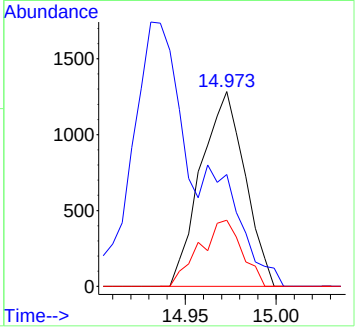


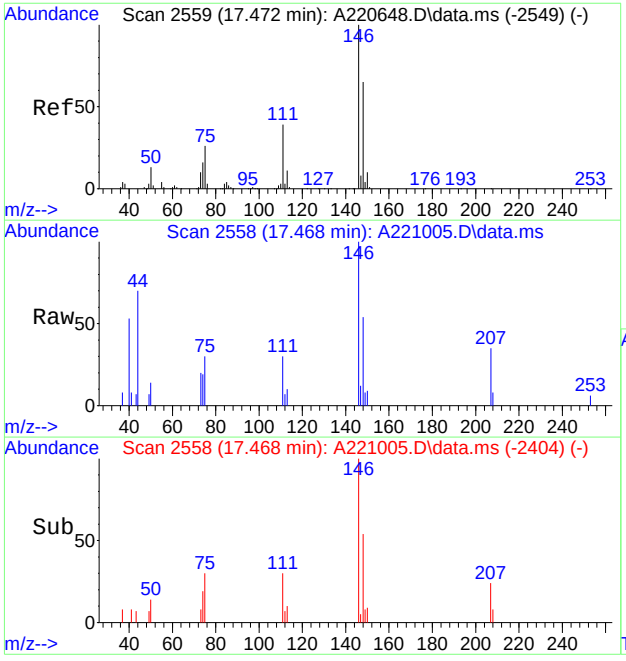


#92
chlorobenzene
Concen: 0.34 ug/L
RT: 14.973 min Scan# 2081
Delta R.T. 0.001 min
Lab File: A221005.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:112 Resp: 2172

Ion	Ratio	Lower	Upper
112	100		
77	57.5	25.5	85.5
114	34.0	1.2	61.2

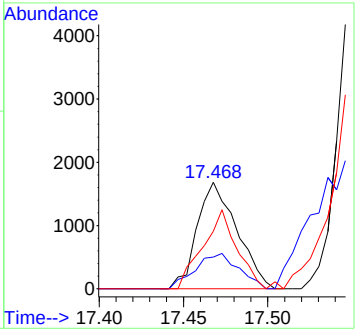


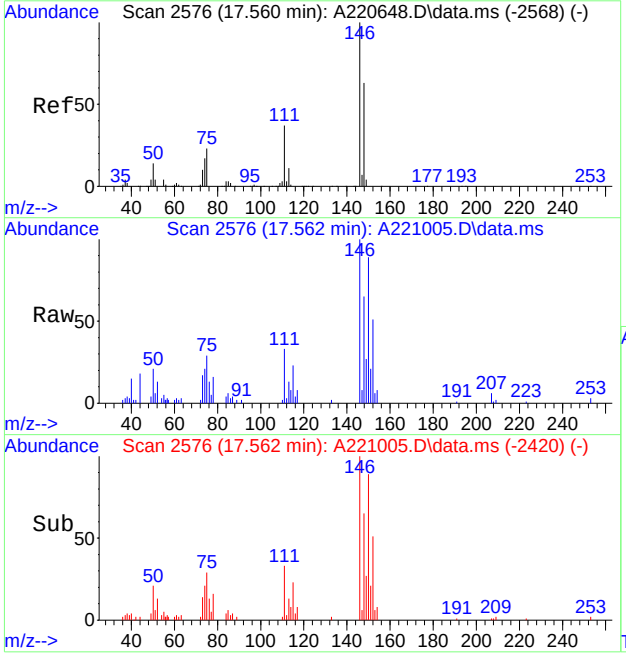


#116
1,3-dichlorobenzene
Concen: 0.49 ug/L
RT: 17.468 min Scan# 2558
Delta R.T. -0.004 min
Lab File: A221005.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:146 Resp: 2763

Ion	Ratio	Lower	Upper
146	100		
111	29.8	8.6	68.6
148	53.9	34.6	94.6

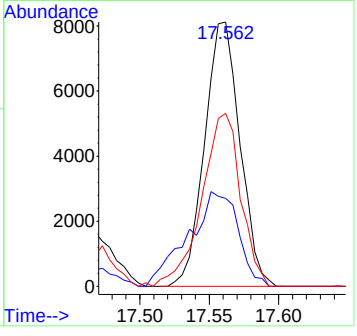


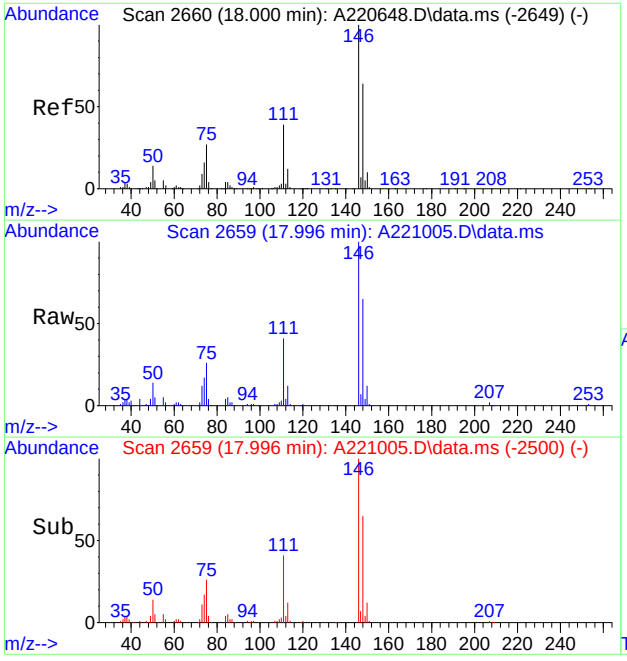


#119
1,4-dichlorobenzene
Concen: 2.53 ug/L
RT: 17.562 min Scan# 2576
Delta R.T. 0.001 min
Lab File: A221005.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:146 Resp: 14367

Ion	Ratio	Lower	Upper
146	100		
111	33.2	6.8	66.8
148	65.4	33.3	93.3

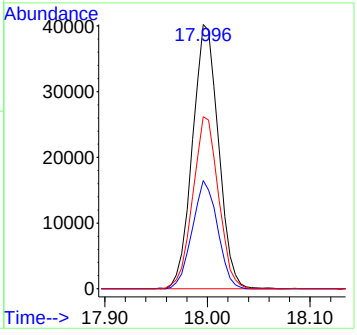




#121
1,2-dichlorobenzene
Concen: 12.20 ug/L
RT: 17.996 min Scan# 2659
Delta R.T. -0.004 min
Lab File: A221005.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:146 Resp: 70969

Ion	Ratio	Lower	Upper
146	100		
111	40.9	9.0	69.0
148	65.0	34.0	94.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\RELOG\
Data File : A221005r.D
Acq On : 17 Mar 2016 12:00 pm
Operator : NicoleH1
Sample : jc16038-5r
Misc : MS99610,VA8370,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 17:16:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.226	65	430715	500.00 ug/L	0.00
4) pentafluorobenzene	10.595	168	287490	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.537	114	433641	50.00 ug/L	0.00
84) chlorobenzene-d5	14.936	117	386323	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.530	152	216952	50.00 ug/L	0.00

System Monitoring Compounds					
47) dibromofluoromethane (s)	10.632	113	140998	51.68 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.36%		
48) 1,2-dichloroethane-d4 (s)	11.071	65	147052	50.18 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.36%		
76) toluene-d8 (s)	13.278	98	506861	50.11 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.22%		
102) 4-bromofluorobenzene (s)	16.223	95	185105	49.72 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.44%		

Target Compounds					Qvalue
19) freon 113	7.530	151	139592	58.48 ug/L	98
92) chlorobenzene	14.973	112	2172	0.34 ug/L	96
116) 1,3-dichlorobenzene	17.468	146	2763	0.49 ug/L	86
119) 1,4-dichlorobenzene	17.562	146	14367	2.53 ug/L	96
121) 1,2-dichlorobenzene	17.996	146	70969	12.20 ug/L	98

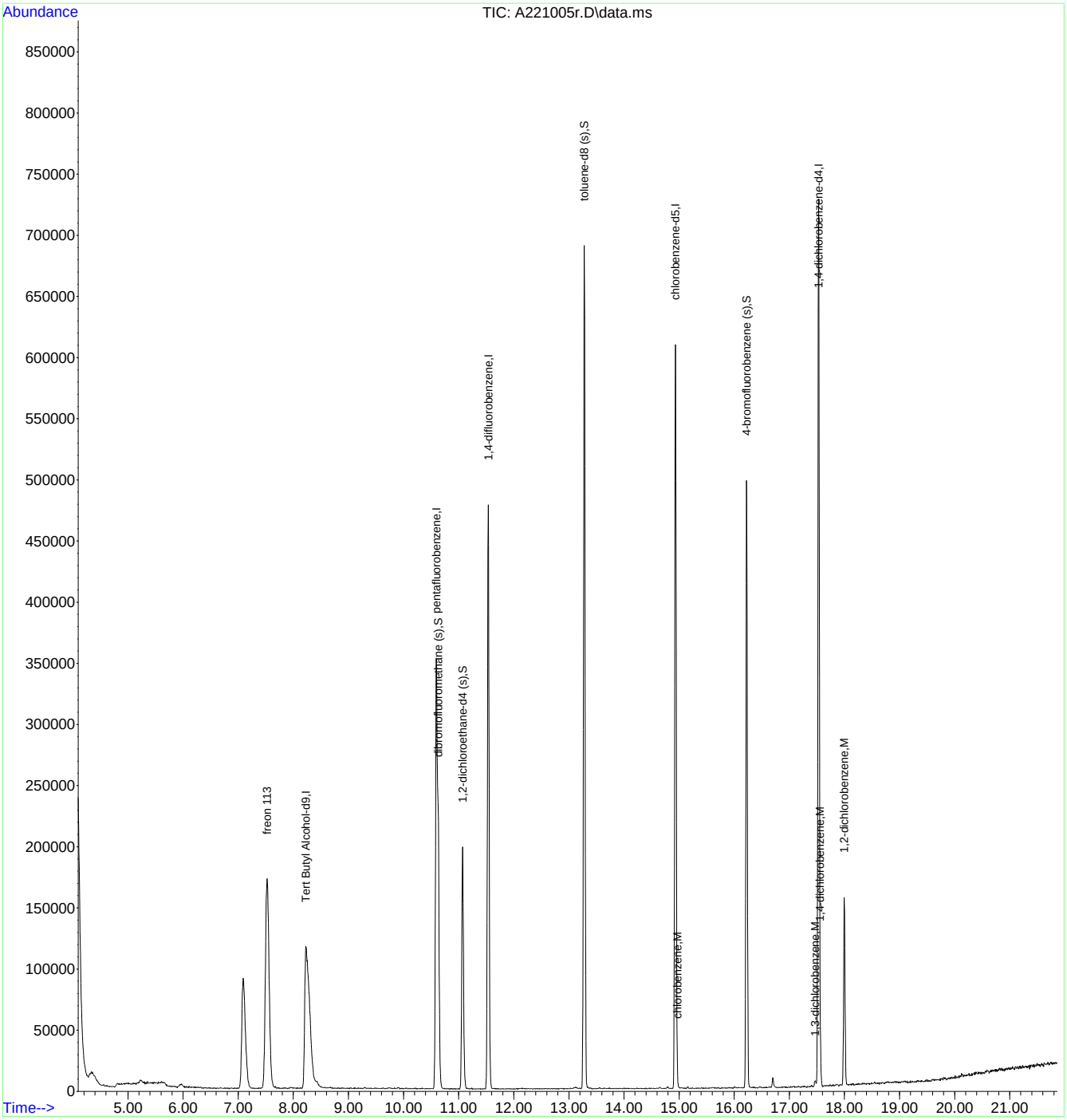
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\RELOG\
Data File : A221005r.D
Acq On : 17 Mar 2016 12:00 pm
Operator : NicoleH1
Sample : jc16038-5r
Misc : MS99610,VA8370,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 17:16:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration



MA8353.M Tue Apr 12 11:53:21 2016 RPT1

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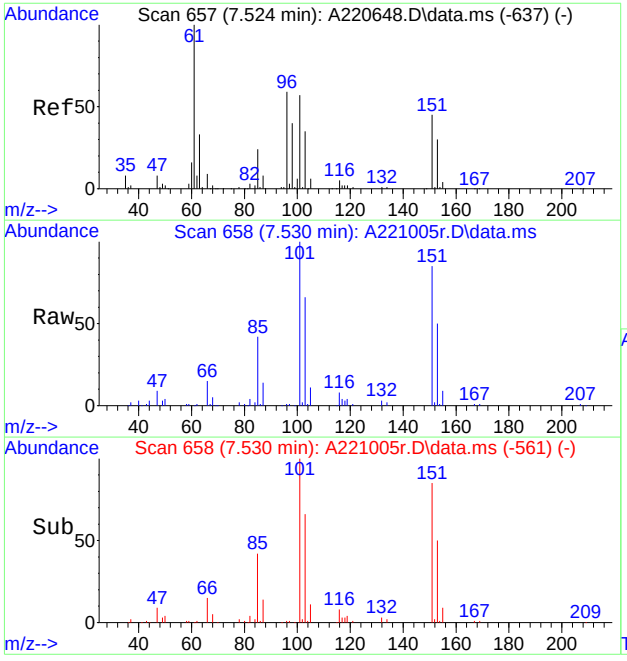
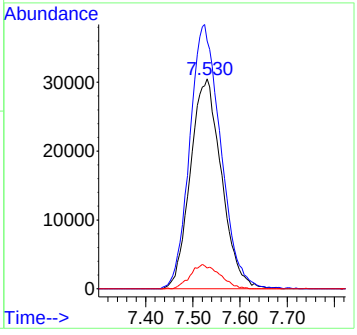
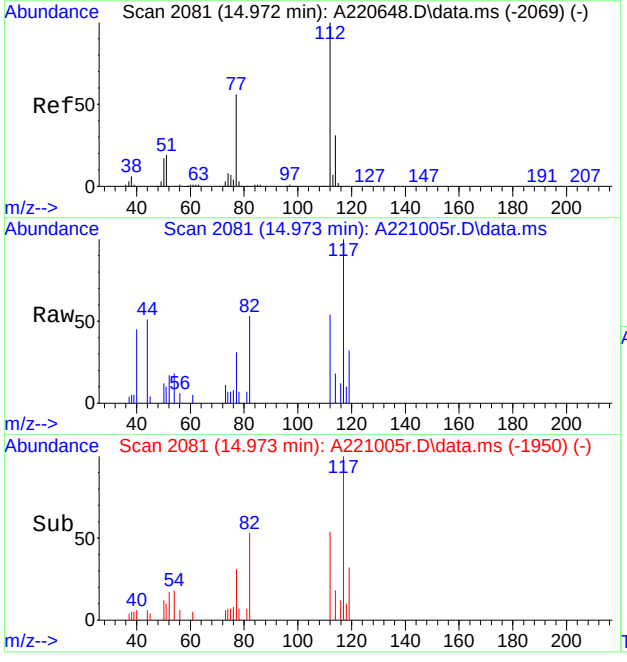


#19
freon 113
Concen: 58.48 ug/L
RT: 7.530 min Scan# 658
Delta R.T. 0.007 min
Lab File: A221005r.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:151 Resp: 139592

Ion	Ratio	Lower	Upper
151	100		
101	125.3	89.7	166.7
116	11.0	8.2	15.2

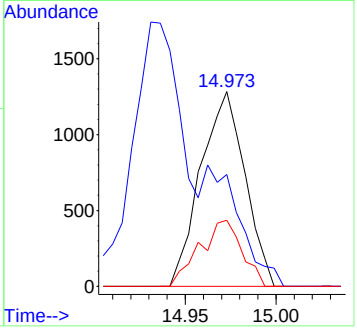


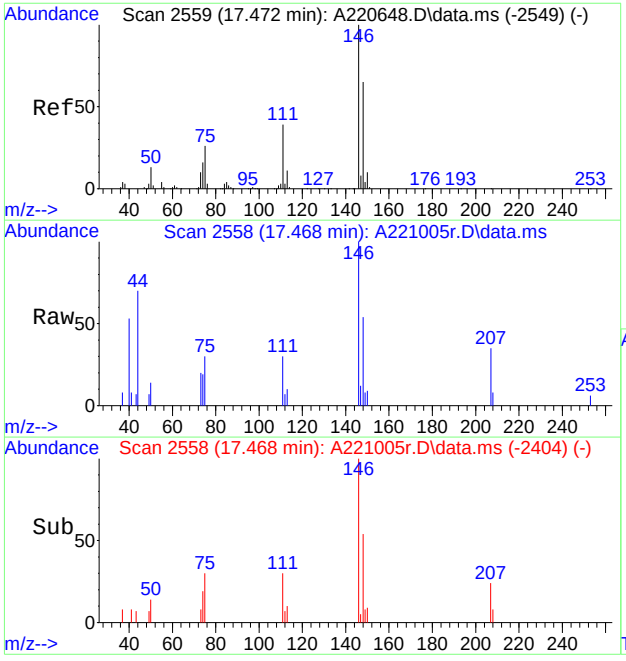


#92
chlorobenzene
Concen: 0.34 ug/L
RT: 14.973 min Scan# 2081
Delta R.T. 0.001 min
Lab File: A221005r.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:112 Resp: 2172

Ion	Ratio	Lower	Upper
112	100		
77	57.5	25.5	85.5
114	34.0	1.2	61.2

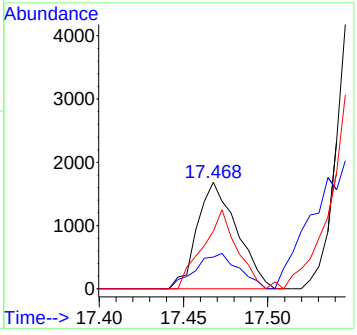


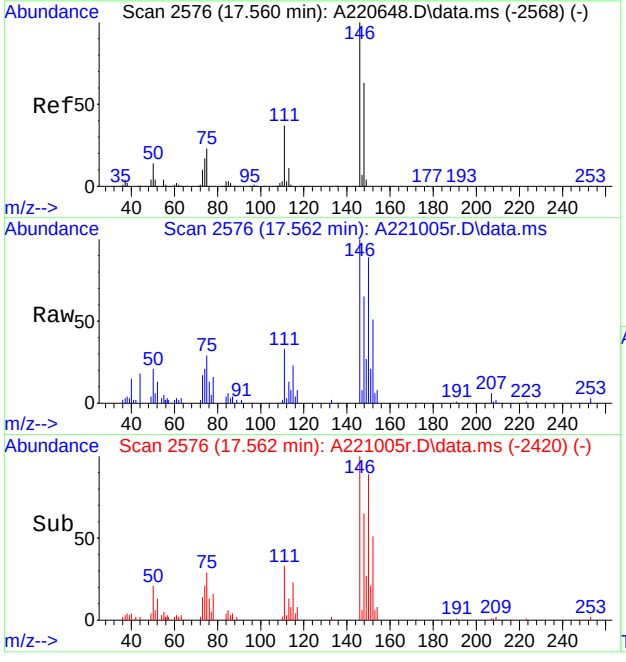


#116
1,3-dichlorobenzene
Concen: 0.49 ug/L
RT: 17.468 min Scan# 2558
Delta R.T. -0.004 min
Lab File: A221005r.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:146 Resp: 2763

Ion	Ratio	Lower	Upper
146	100		
111	29.8	8.6	68.6
148	53.9	34.6	94.6

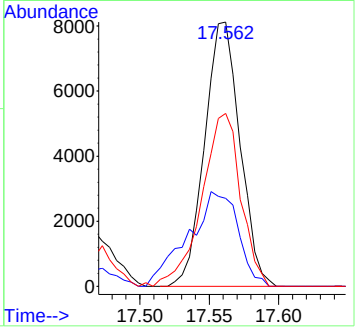


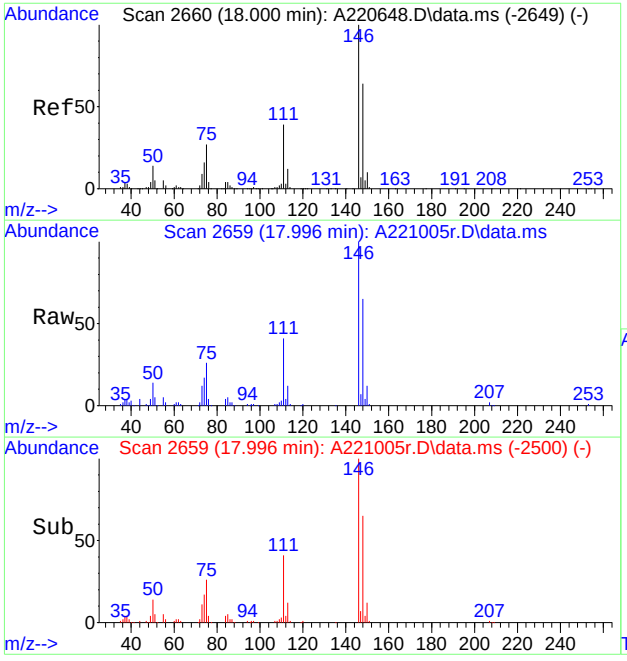


#119
1,4-dichlorobenzene
Concen: 2.53 ug/L
RT: 17.562 min Scan# 2576
Delta R.T. 0.001 min
Lab File: A221005r.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:146 Resp: 14367

Ion	Ratio	Lower	Upper
146	100		
111	33.2	6.8	66.8
148	65.4	33.3	93.3

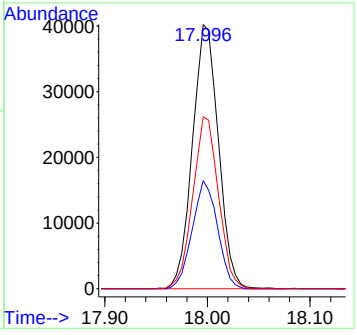




#121
1,2-dichlorobenzene
Concen: 12.20 ug/L
RT: 17.996 min Scan# 2659
Delta R.T. -0.004 min
Lab File: A221005r.D
Acq: 17 Mar 2016 12:00 pm

Tgt Ion:146 Resp: 70969

Ion	Ratio	Lower	Upper
146	100		
111	40.9	9.0	69.0
148	65.0	34.0	94.0



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204161.D
Acq On : 15 Mar 2016 11:08 pm
Operator : NicoleH1
Sample : jc16038-6
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 25 11:49:46 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

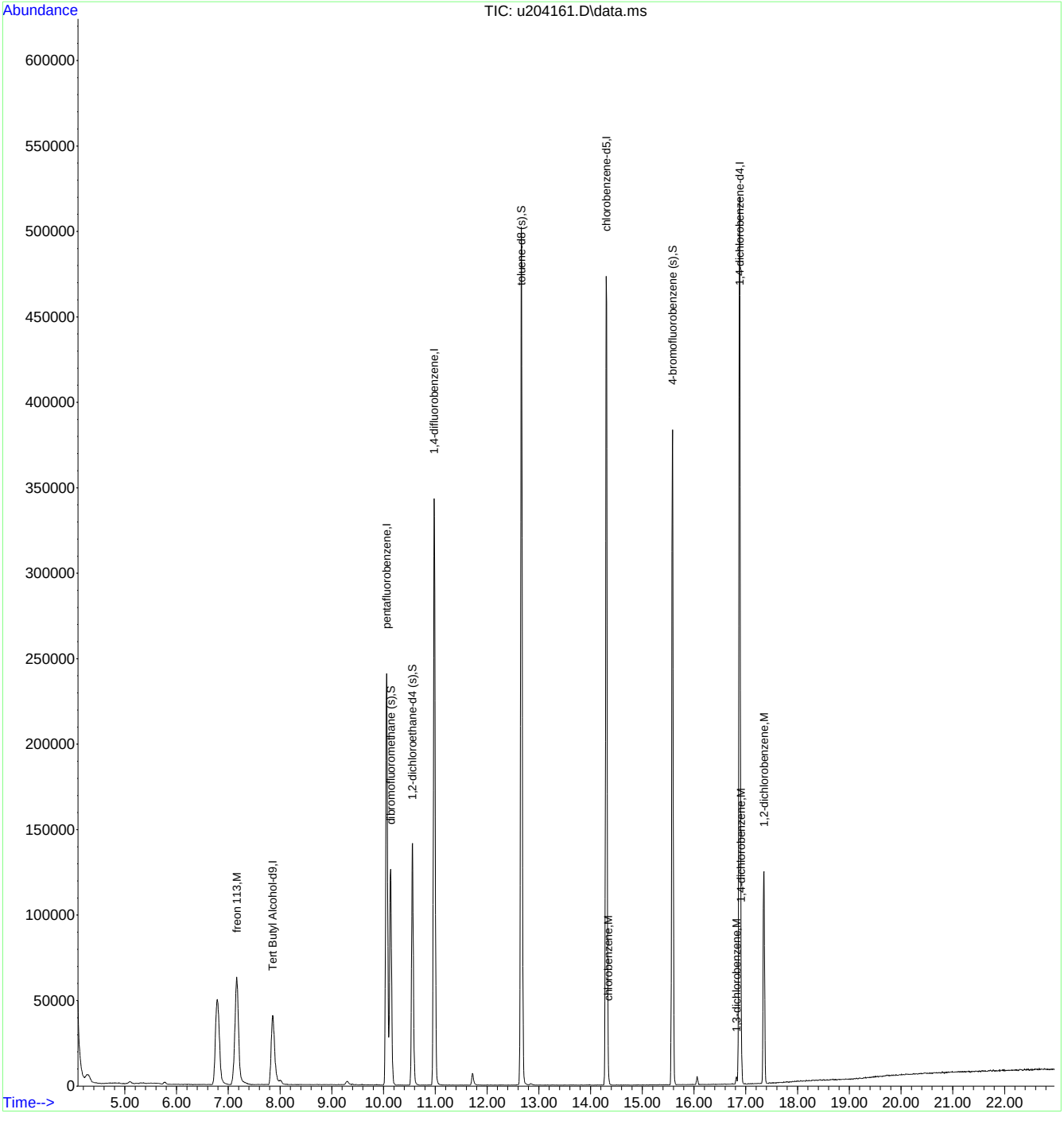
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	110288	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	229926	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	337055	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	307417	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	161884	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	98817	52.91	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.82%			
57) 1,2-dichloroethane-d4 (s)	10.554	65	121750	53.52	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.04%			
88) toluene-d8 (s)	12.661	98	401122	49.55	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.10%			
114) 4-bromofluorobenzene (s)	15.584	95	152283	51.40	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.80%			
Target Compounds						Qvalue
58) freon 113	7.161	151	56453	44.04	ug/L	96
105) chlorobenzene	14.339	112	1958	0.32	ug/L	92
129) 1,3-dichlorobenzene	16.818	146	2427	0.46	ug/L	88
131) 1,4-dichlorobenzene	16.906	146	13646	2.52	ug/L	97
133) 1,2-dichlorobenzene	17.351	146	63252	12.75	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204161.D
Acq On : 15 Mar 2016 11:08 pm
Operator : NicoleH1
Sample : jc16038-6
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 25 11:49:46 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Mar 25 11:49:49 2016 T

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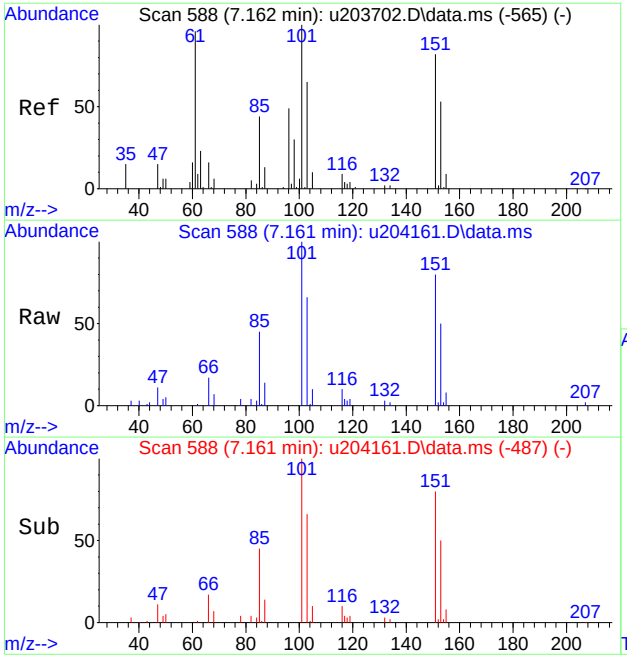
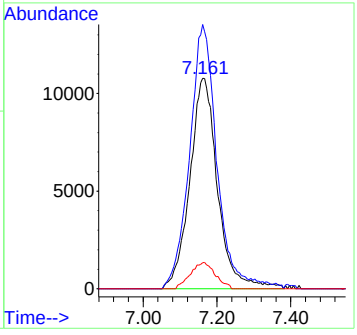
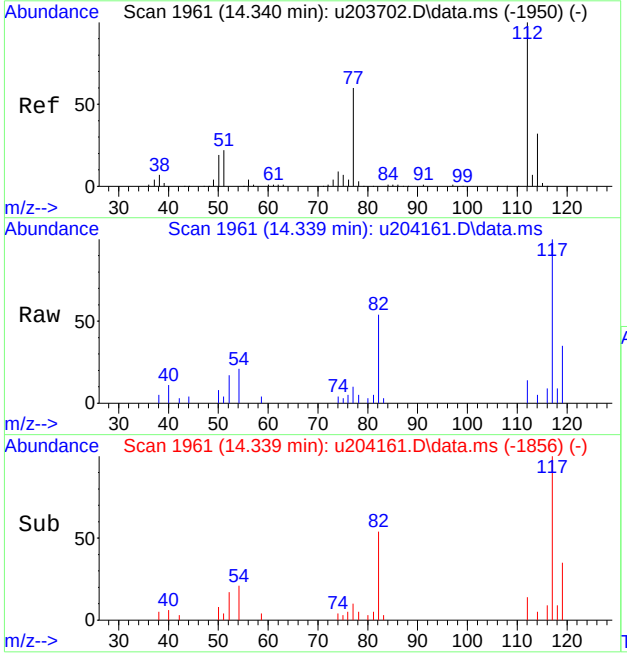


#58
freon 113
Concen: 44.04 ug/L
RT: 7.161 min Scan# 588
Delta R.T. -0.001 min
Lab File: u204161.D
Acq: 15 Mar 2016 11:08 pm

Tgt Ion:151 Resp: 56453

Ion	Ratio	Lower	Upper
151	100		
101	125.6	91.7	151.7
116	12.4	0.0	40.6

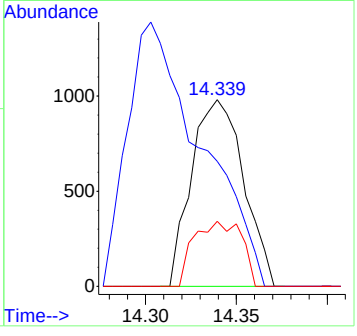


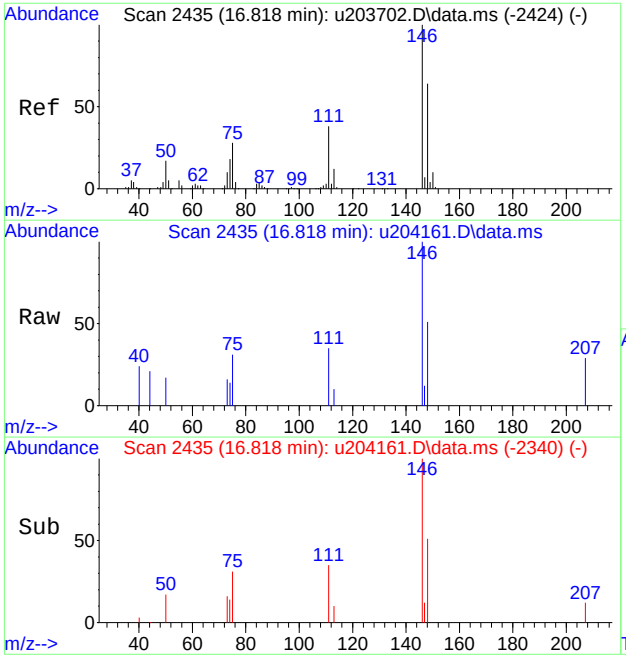


#105
chlorobenzene
Concen: 0.32 ug/L
RT: 14.339 min Scan# 1961
Delta R.T. -0.001 min
Lab File: u204161.D
Acq: 15 Mar 2016 11:08 pm

Tgt Ion:112 Resp: 1958

Ion	Ratio	Lower	Upper
112	100		
77	67.0	30.1	90.1
114	34.9	2.0	62.0

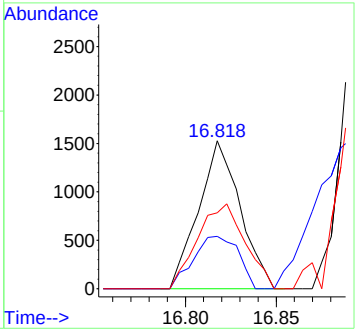


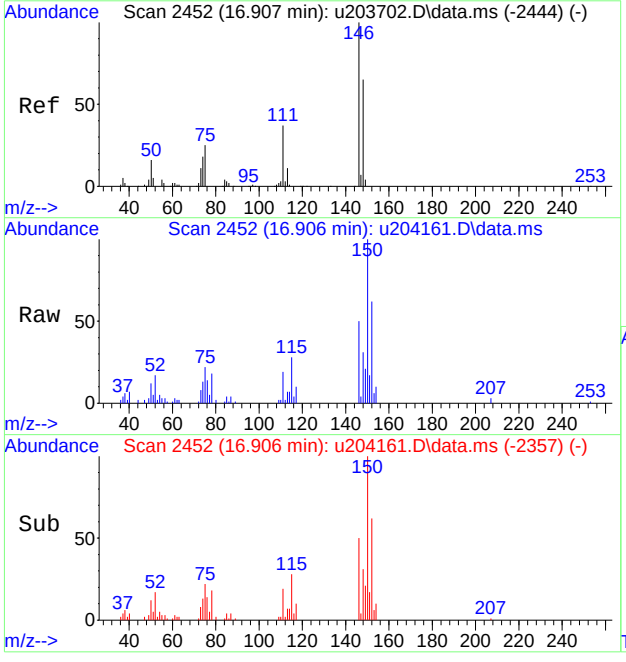


#129
1,3-dichlorobenzene
Concen: 0.46 ug/L
RT: 16.818 min Scan# 2435
Delta R.T. -0.001 min
Lab File: u204161.D
Acq: 15 Mar 2016 11:08 pm

Tgt Ion:146 Resp: 2427

Ion	Ratio	Lower	Upper
146	100		
111	35.4	7.8	67.8
148	51.4	34.0	94.0

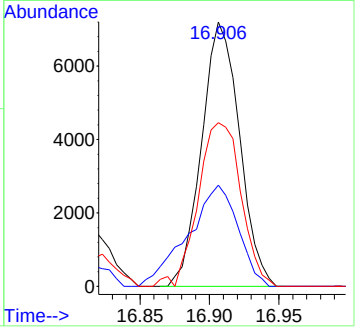


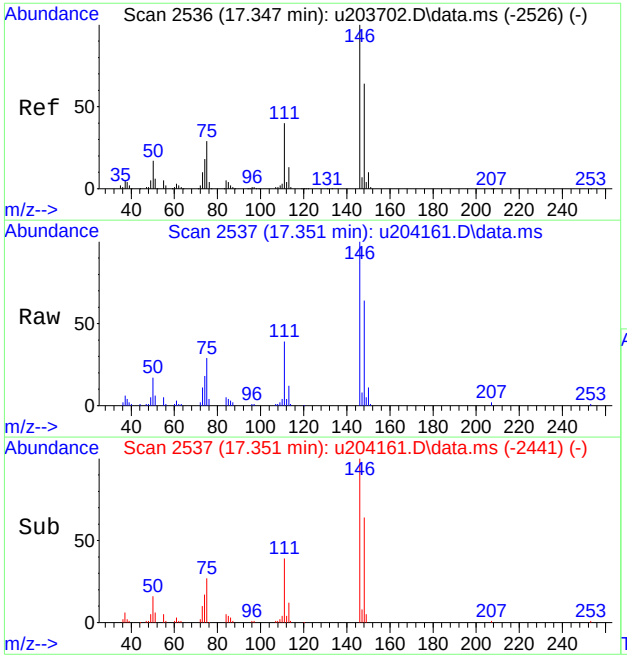


#131
1,4-dichlorobenzene
Concen: 2.52 ug/L
RT: 16.906 min Scan# 2452
Delta R.T. -0.001 min
Lab File: u204161.D
Acq: 15 Mar 2016 11:08 pm

Tgt Ion:146 Resp: 13646

Ion	Ratio	Lower	Upper
146	100		
111	38.2	7.2	67.2
148	61.9	35.1	95.1

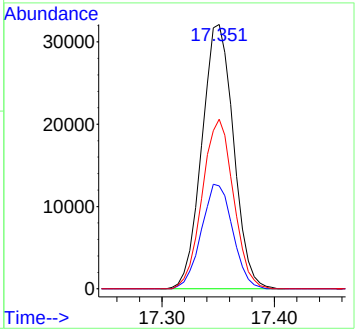




#133
1,2-dichlorobenzene
Concen: 12.75 ug/L
RT: 17.351 min Scan# 2537
Delta R.T. 0.004 min
Lab File: u204161.D
Acq: 15 Mar 2016 11:08 pm

Tgt Ion:146 Resp: 63252

Ion	Ratio	Lower	Upper
146	100		
111	38.9	9.9	69.9
148	64.1	33.9	93.9



7.1.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204161r.D
Acq On : 15 Mar 2016 11:08 pm
Operator : NicoleH1
Sample : jc16038-6r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Apr 08 11:38:05 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	110288	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	229926	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	337055	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	307417	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	161884	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	98817	52.91	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.82%			
57) 1,2-dichloroethane-d4 (s)	10.554	65	121750	53.52	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.04%			
88) toluene-d8 (s)	12.661	98	401122	49.55	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.10%			
114) 4-bromofluorobenzene (s)	15.584	95	152283	51.40	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.80%			

Target Compounds Qvalue

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

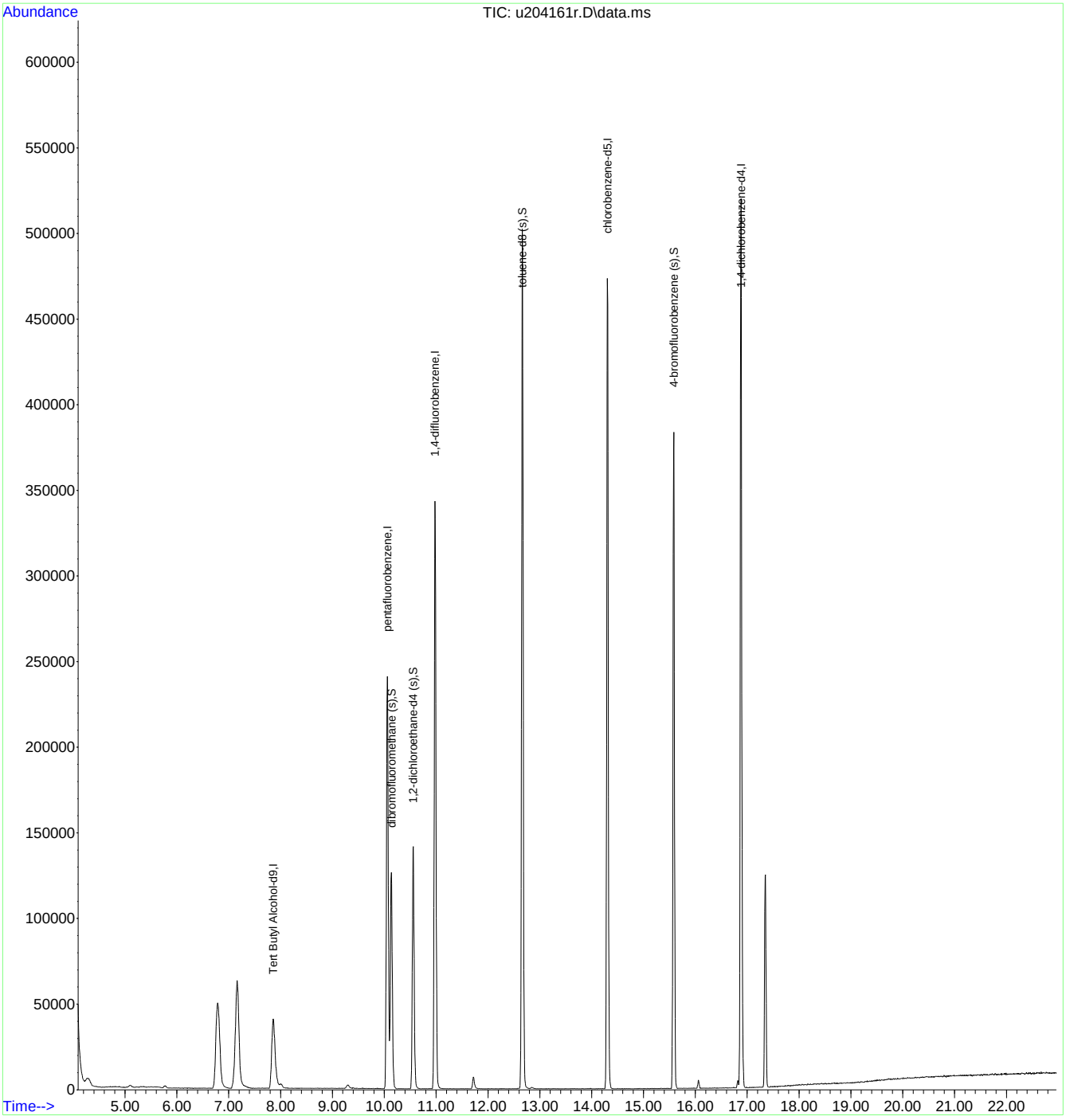
7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204161r.D
Acq On : 15 Mar 2016 11:08 pm
Operator : NicoleH1
Sample : jc16038-6r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Apr 08 11:38:05 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Apr 08 11:46:18 2016 T

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204159.D
Acq On : 15 Mar 2016 10:10 pm
Operator : NicoleH1
Sample : jc16038-7
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 16 13:20:20 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.858	65	113022	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	230464	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	335566	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	309194	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	160283	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	98412	52.57	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.14%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	122640	53.79	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.58%			
88) toluene-d8 (s)	12.663	98	403990	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
114) 4-bromofluorobenzene (s)	15.580	95	151372	51.61	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.22%			

Target Compounds Qvalue

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

7.1.14

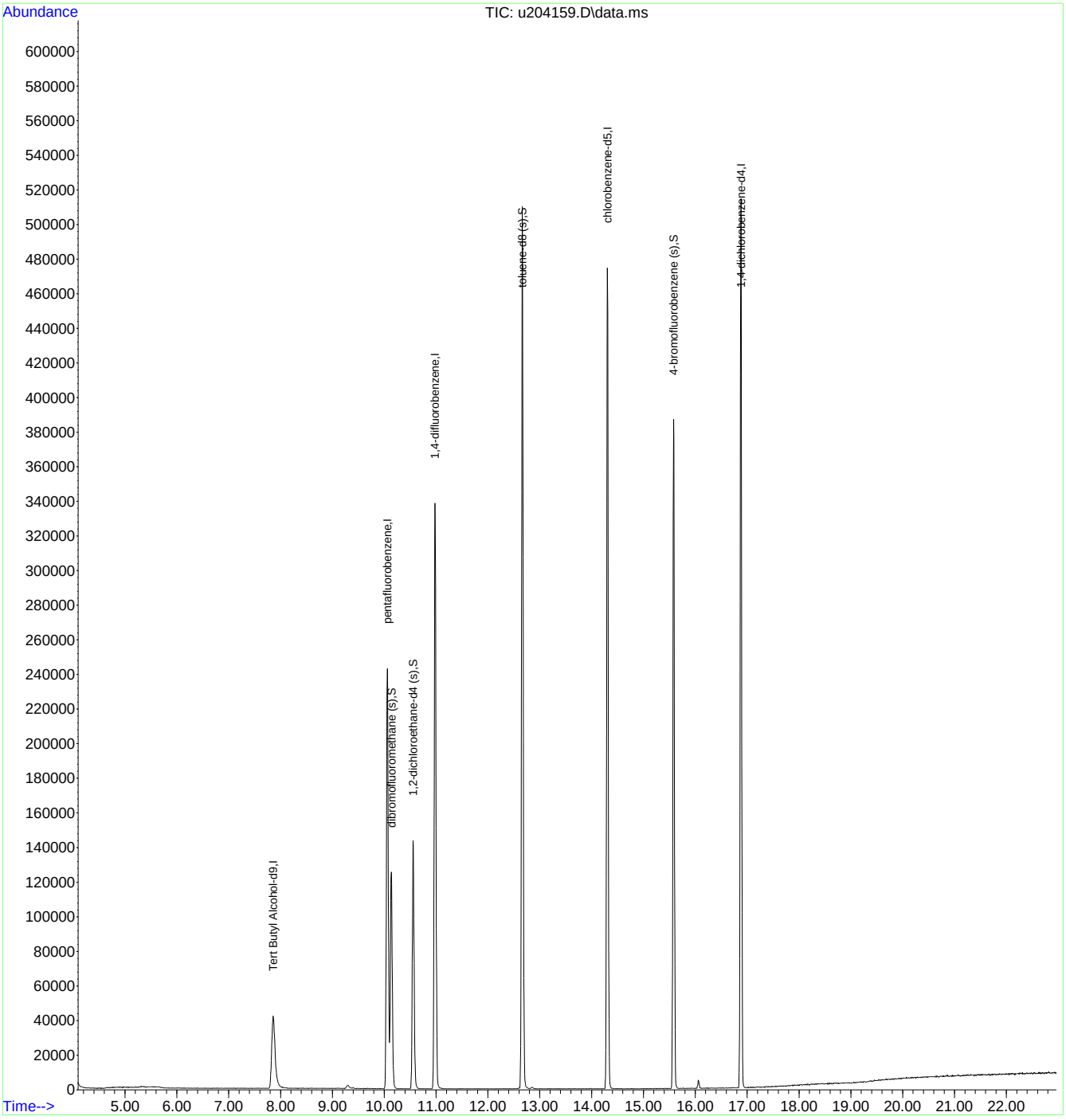
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204159.D
Acq On : 15 Mar 2016 10:10 pm
Operator : NicoleH1
Sample : jc16038-7
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 16 13:20:20 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 13:23:12 2016 T

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204159r.D
Acq On : 15 Mar 2016 10:10 pm
Operator : NicoleH1
Sample : jc16038-7r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Apr 08 11:36:57 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.858	65	113022	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	230464	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	335566	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	309194	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	160283	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	98412	52.57	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.14%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	122640	53.79	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.58%			
88) toluene-d8 (s)	12.663	98	403990	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
114) 4-bromofluorobenzene (s)	15.580	95	151372	51.61	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.22%			

Target Compounds Qvalue

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

7.1.15

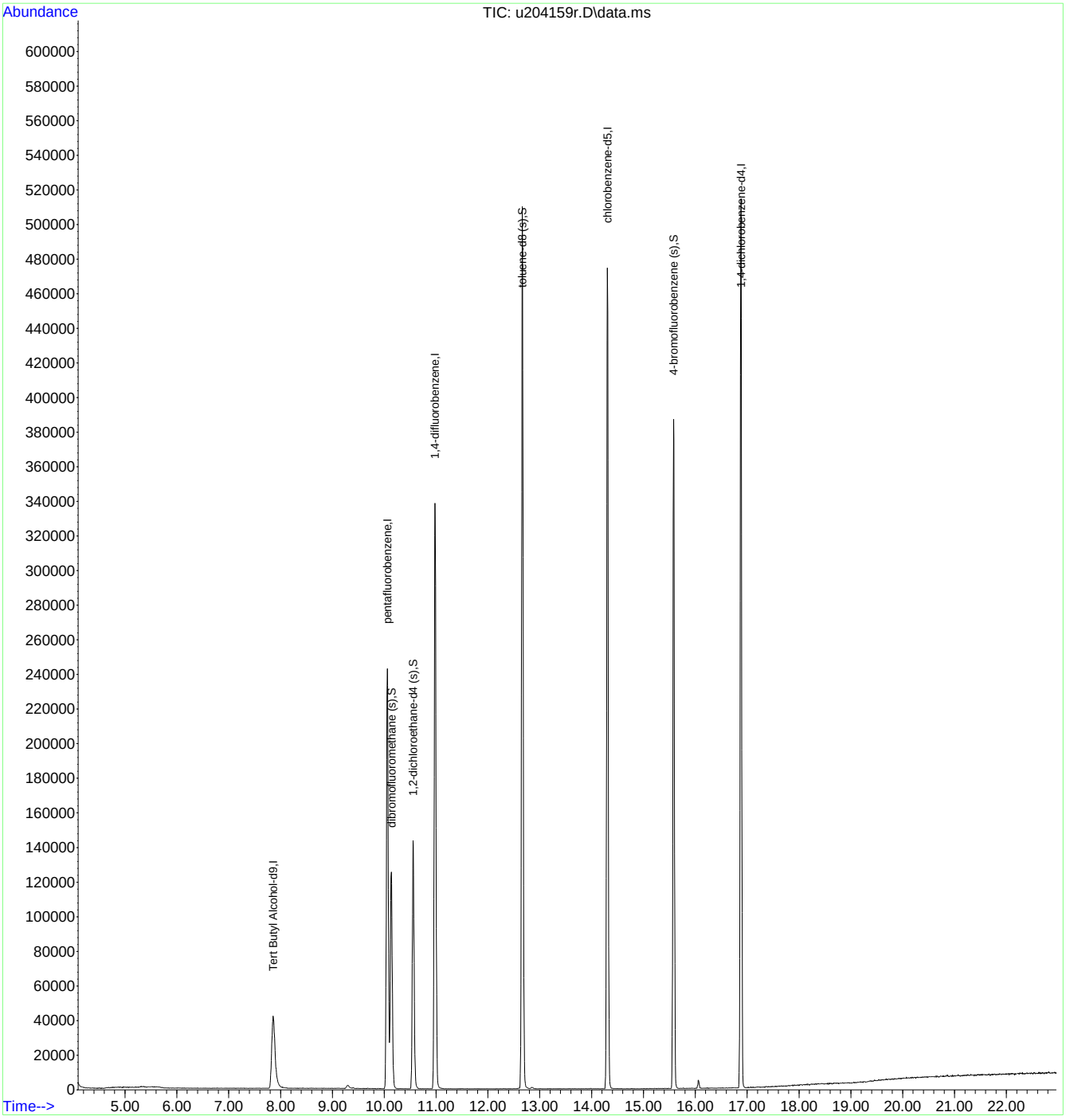
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204159r.D
Acq On : 15 Mar 2016 10:10 pm
Operator : NicoleH1
Sample : jc16038-7r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Apr 08 11:36:57 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204162.D
Acq On : 15 Mar 2016 11:37 pm
Operator : NicoleH1
Sample : jc16038-8
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 16 13:22:07 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.863	65	111905	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	231112	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	336227	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	308513	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	160141	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	98700	52.58	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.16%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	122113	53.41	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 106.82%			
88) toluene-d8 (s)	12.663	98	401432	49.71	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.42%			
114) 4-bromofluorobenzene (s)	15.580	95	152480	52.03	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.06%			

Target Compounds Qvalue

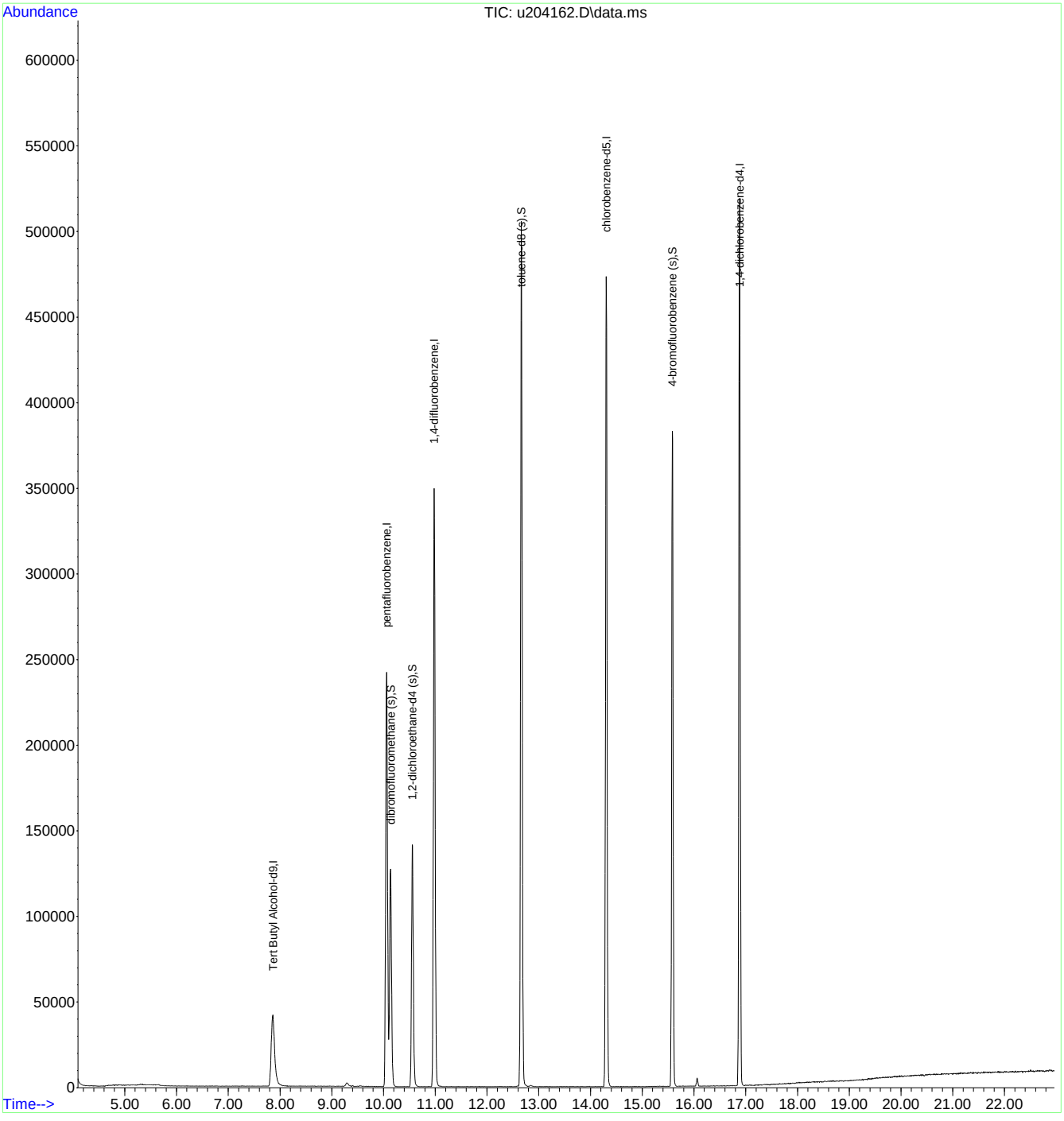
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204162.D
Acq On : 15 Mar 2016 11:37 pm
Operator : NicoleH1
Sample : jc16038-8
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 16 13:22:07 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 13:23:21 2016 T

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204162r.D
Acq On : 15 Mar 2016 11:37 pm
Operator : NicoleH1
Sample : jc16038-8r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Apr 08 11:38:29 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.863	65	111905	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	231112	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	336227	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	308513	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	160141	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	98700	52.58	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.16%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	122113	53.41	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 106.82%			
88) toluene-d8 (s)	12.663	98	401432	49.71	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.42%			
114) 4-bromofluorobenzene (s)	15.580	95	152480	52.03	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.06%			

Target Compounds Qvalue

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

7.1.17

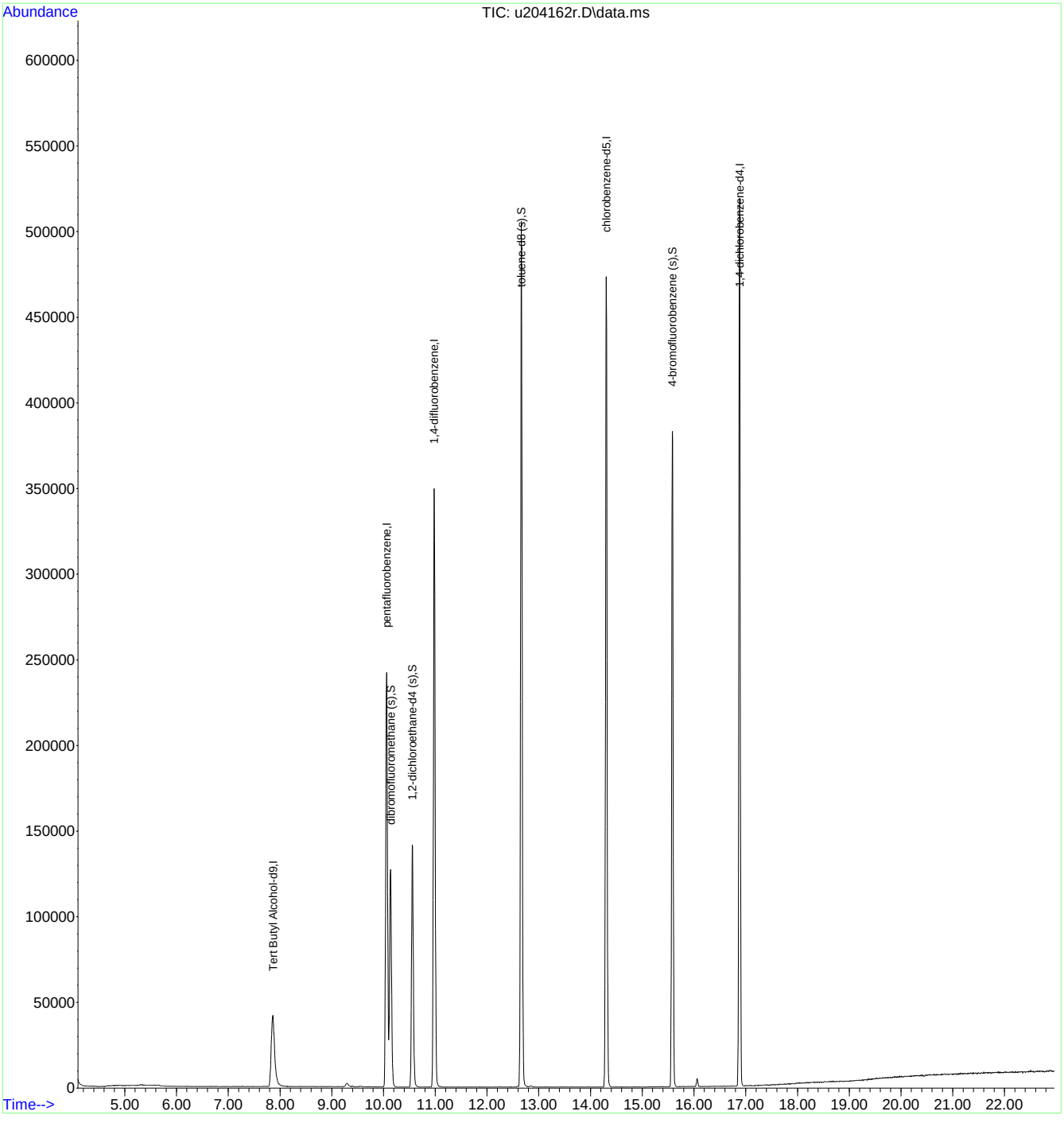
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204162r.D
Acq On : 15 Mar 2016 11:37 pm
Operator : NicoleH1
Sample : jc16038-8r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Apr 08 11:38:29 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Apr 08 11:46:21 2016 T

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204160.D
Acq On : 15 Mar 2016 10:39 pm
Operator : NicoleH1
Sample : jc16038-9
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 13:21:11 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	107365	500.00	ug/L	0.00
5) pentafluorobenzene	10.063	168	231914	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	338818	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	311180	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	161209	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	98749	52.42	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.84%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	123133	53.67	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.34%			
88) toluene-d8 (s)	12.662	98	403723	49.61	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.22%			
114) 4-bromofluorobenzene (s)	15.584	95	152587	51.72	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.44%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.972	59	9635	40.27	ug/L #	57
4) 1,4-dioxane	11.715	88	83086	4370.52	ug/L	98
37) methyl tert butyl ether	8.223	73	28697	4.51	ug/L	99
105) chlorobenzene	14.340	112	1900	0.30	ug/L	99
108) m,p-xylene	14.502	106	1495	0.36	ug/L	93
113) isopropylbenzene	15.338	105	9151	0.91	ug/L	97

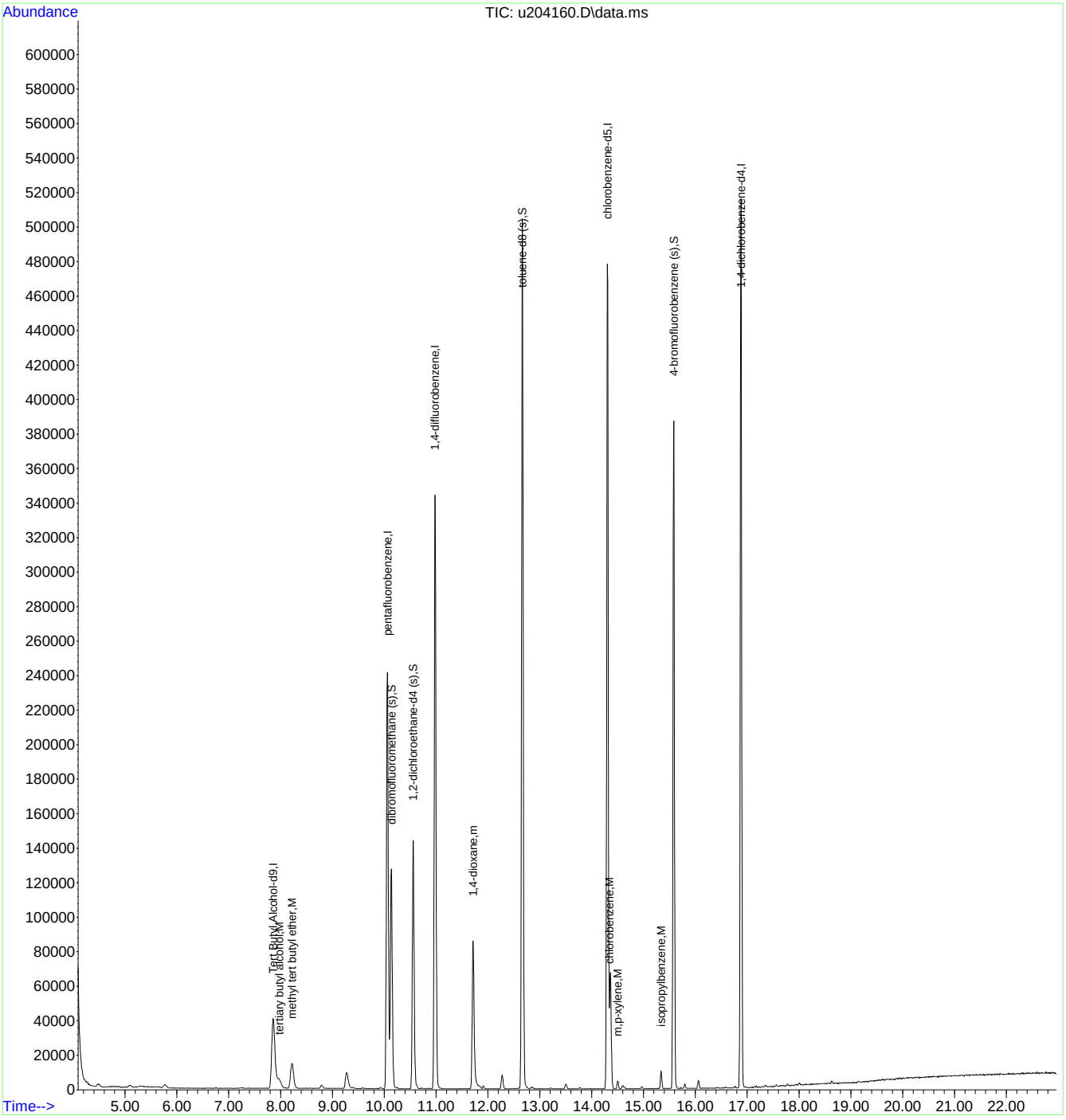
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

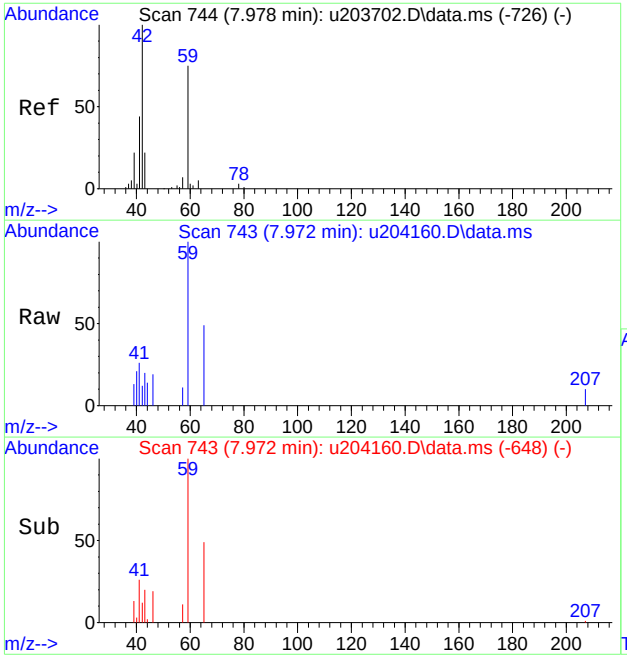
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204160.D
Acq On : 15 Mar 2016 10:39 pm
Operator : NicoleH1
Sample : jc16038-9
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 13:21:11 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



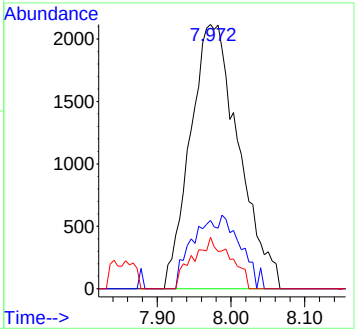
MU9367.M Wed Mar 16 13:23:15 2016 T

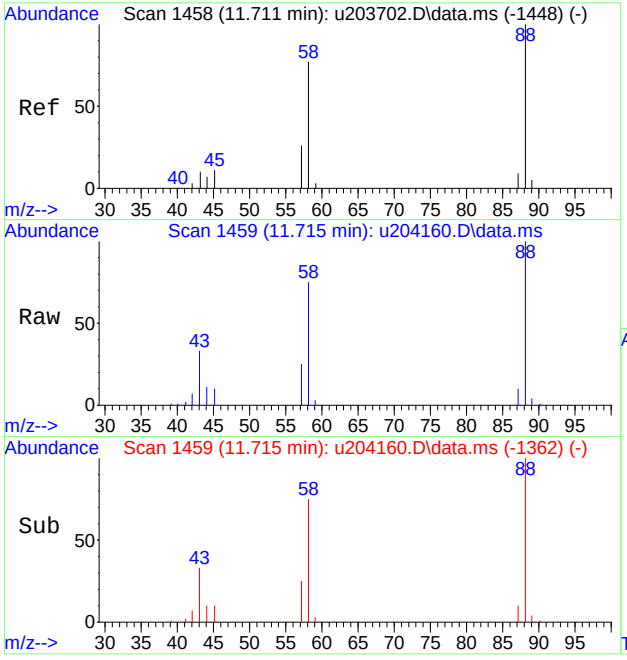


#2
tertiary butyl alcohol
Concen: 40.27 ug/L
RT: 7.972 min Scan# 743
Delta R.T. -0.006 min
Lab File: u204160.D
Acq: 15 Mar 2016 10:39 pm

Tgt Ion: 59 Resp: 9635

Ion	Ratio	Lower	Upper
59	100		
41	25.8	38.3	98.3#
43	19.5	2.8	62.8

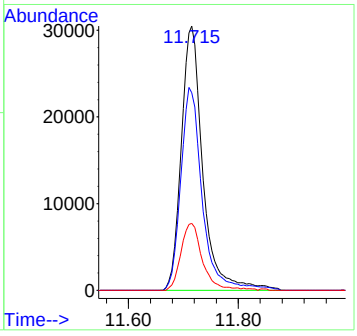


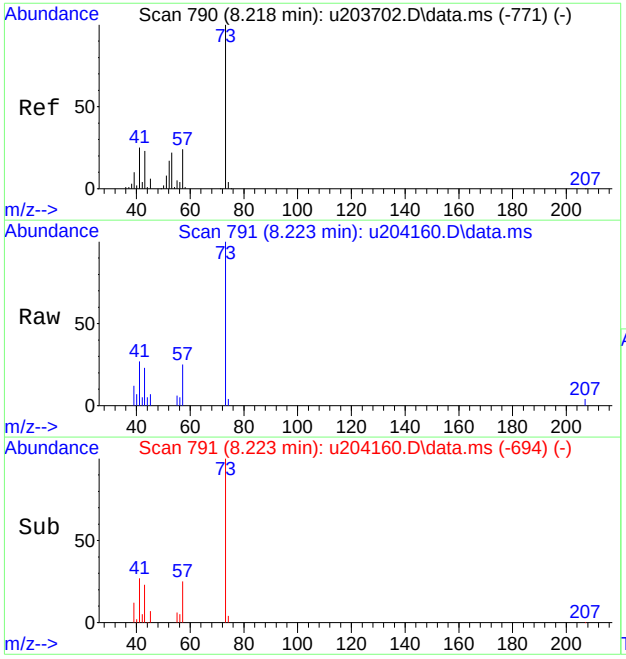


#4
1,4-dioxane
Concen: 4370.52 ug/L
RT: 11.715 min Scan# 1459
Delta R.T. 0.005 min
Lab File: u204160.D
Acq: 15 Mar 2016 10:39 pm

Tgt Ion: 88 Resp: 83086

Ion	Ratio	Lower	Upper
88	100		
58	76.6	52.3	97.1
57	25.5	17.1	31.9

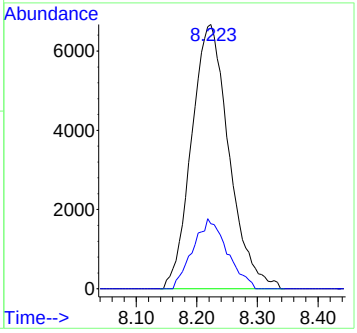


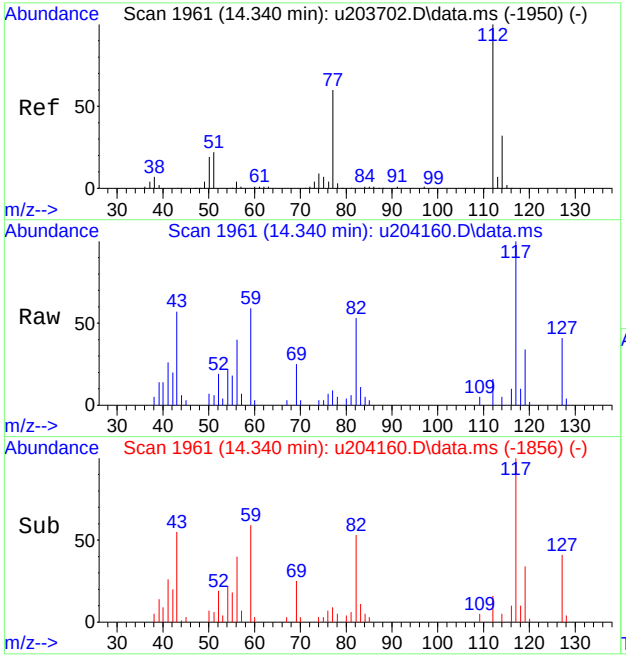


#37
methyl tert butyl ether
Concen: 4.51 ug/L
RT: 8.223 min Scan# 791
Delta R.T. 0.005 min
Lab File: u204160.D
Acq: 15 Mar 2016 10:39 pm

Tgt Ion: 73 Resp: 28697

Ion	Ratio	Lower	Upper
73	100		
57	24.2	0.0	54.5

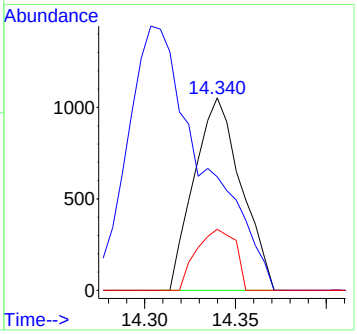


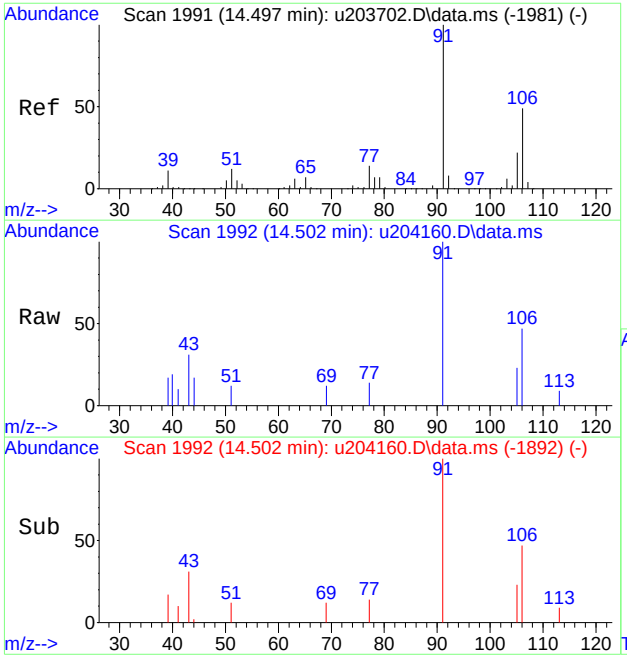


#105
chlorobenzene
Concen: 0.30 ug/L
RT: 14.340 min Scan# 1961
Delta R.T. -0.000 min
Lab File: u204160.D
Acq: 15 Mar 2016 10:39 pm

Tgt Ion:112 Resp: 1900

Ion	Ratio	Lower	Upper
112	100		
77	59.0	30.1	90.1
114	31.8	2.0	62.0

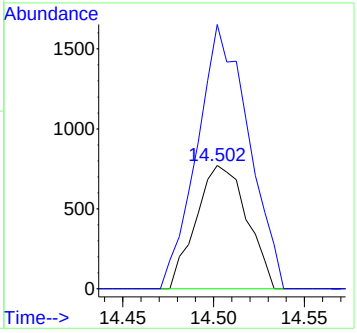


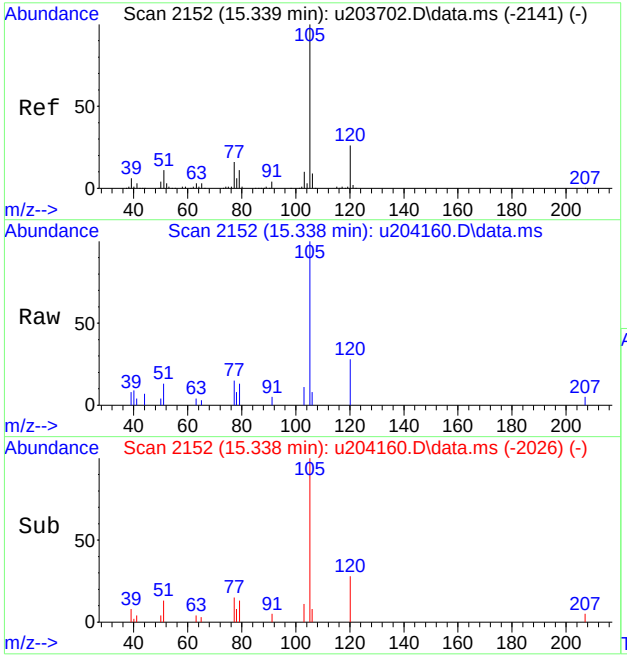


#108
m,p-xylene
Concen: 0.36 ug/L
RT: 14.502 min Scan# 1992
Delta R.T. 0.005 min
Lab File: u204160.D
Acq: 15 Mar 2016 10:39 pm

Tgt Ion:106 Resp: 1495

Ion	Ratio	Lower	Upper
106	100		
91	214.5	173.9	233.9

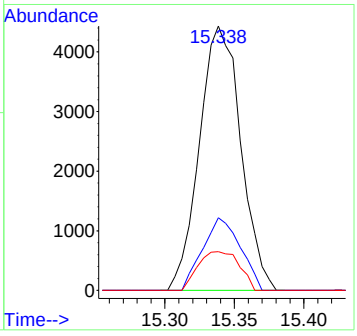




#113
isopropylbenzene
Concen: 0.91 ug/L
RT: 15.338 min Scan# 2152
Delta R.T. -0.000 min
Lab File: u204160.D
Acq: 15 Mar 2016 10:39 pm

Tgt Ion:105 Resp: 9151

Ion	Ratio	Lower	Upper
105	100		
120	27.5	0.0	56.0
77	14.6	0.0	45.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204160r.D
Acq On : 15 Mar 2016 10:39 pm
Operator : NicoleH1
Sample : jc16038-9r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Apr 08 11:37:34 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	107365	500.00	ug/L	0.00
5) pentafluorobenzene	10.063	168	231914	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	338818	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	311180	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	161209	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	98749	52.42	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.84%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	123133	53.67	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.34%			
88) toluene-d8 (s)	12.662	98	403723	49.61	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.22%			
114) 4-bromofluorobenzene (s)	15.584	95	152587	51.72	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.44%			

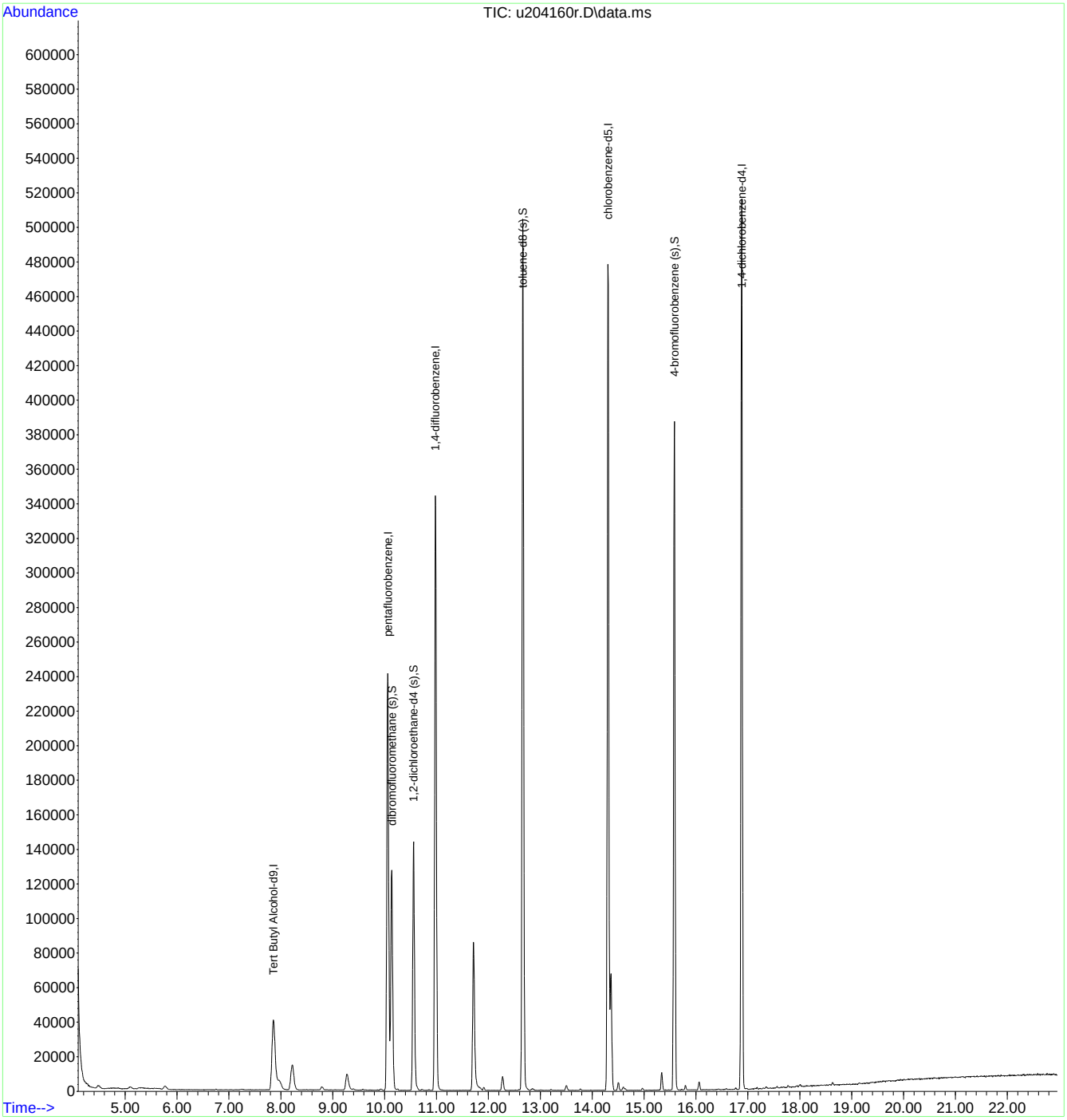
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204160r.D
Acq On : 15 Mar 2016 10:39 pm
Operator : NicoleH1
Sample : jc16038-9r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Apr 08 11:37:34 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Fri Apr 08 11:46:15 2016 T

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204163.D
Acq On : 16 Mar 2016 12:07 am
Operator : NicoleH1
Sample : jc16038-10
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 16 13:22:26 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.864	65	110037	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	229716	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	334372	50.00	ug/L	0.00
96) chlorobenzene-d5	14.305	117	304553	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	159540	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.138	113	97233	52.11	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.22%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	121675	53.54	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.08%			
88) toluene-d8 (s)	12.663	98	398577	49.63	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.26%			
114) 4-bromofluorobenzene (s)	15.580	95	150755	51.63	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.26%			
Target Compounds						Qvalue
4) 1,4-dioxane	11.722	88	14718	755.40	ug/L	99
37) methyl tert butyl ether	8.224	73	11798	1.87	ug/L	94

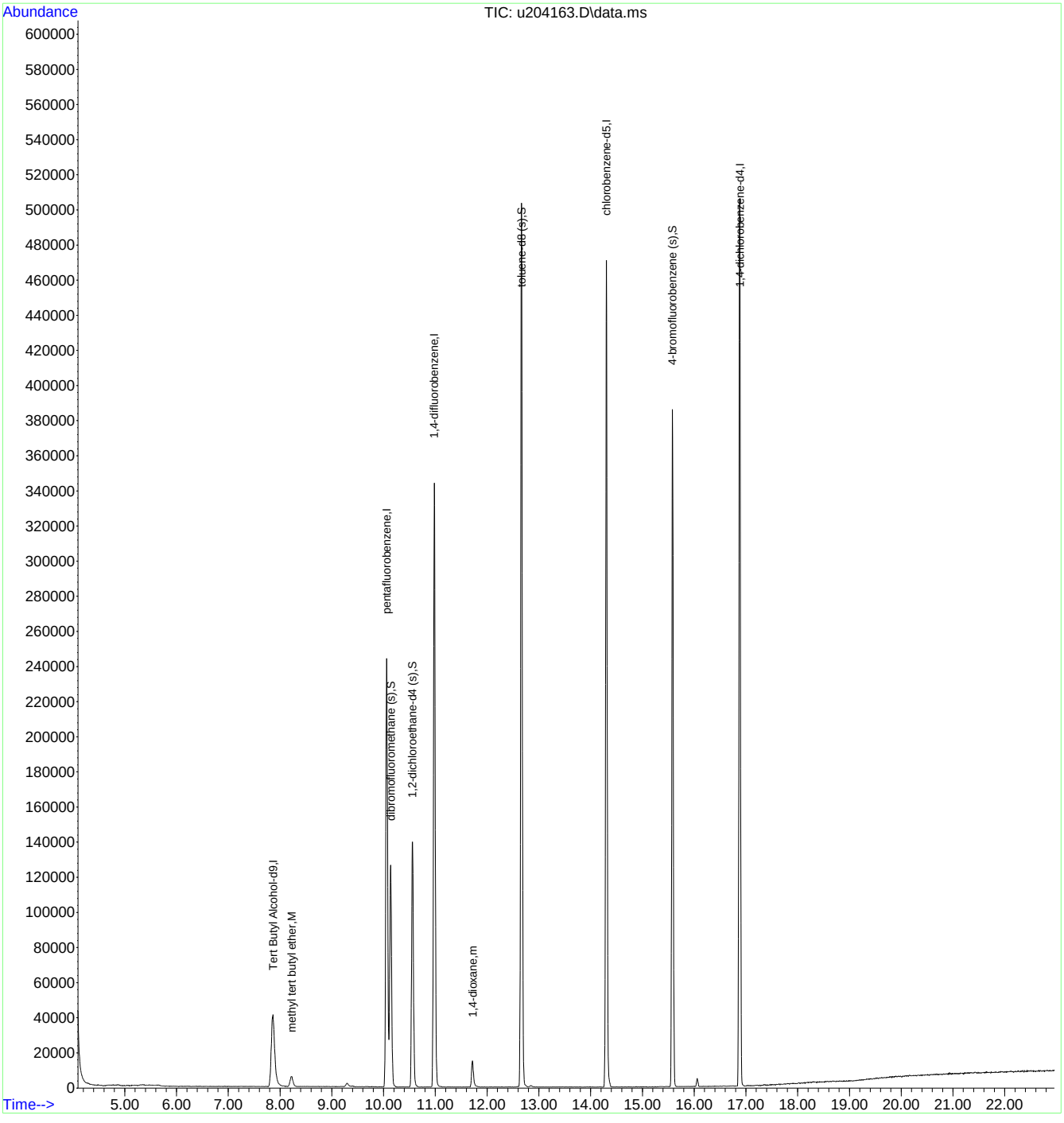
(#) = qualifier out of range (m) = manual integration (+) = signals summed

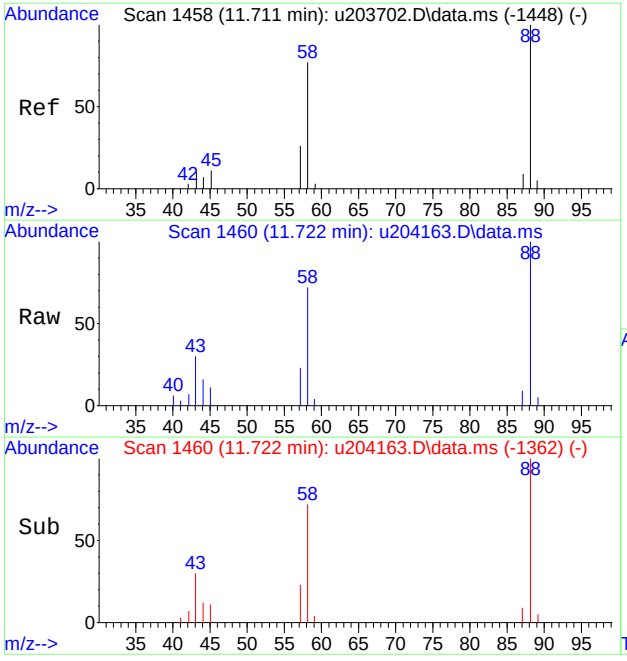
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204163.D
Acq On : 16 Mar 2016 12:07 am
Operator : NicoleH1
Sample : jc16038-10
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 16 13:22:26 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

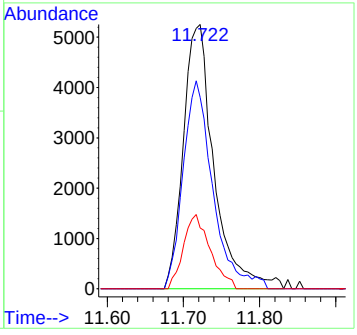


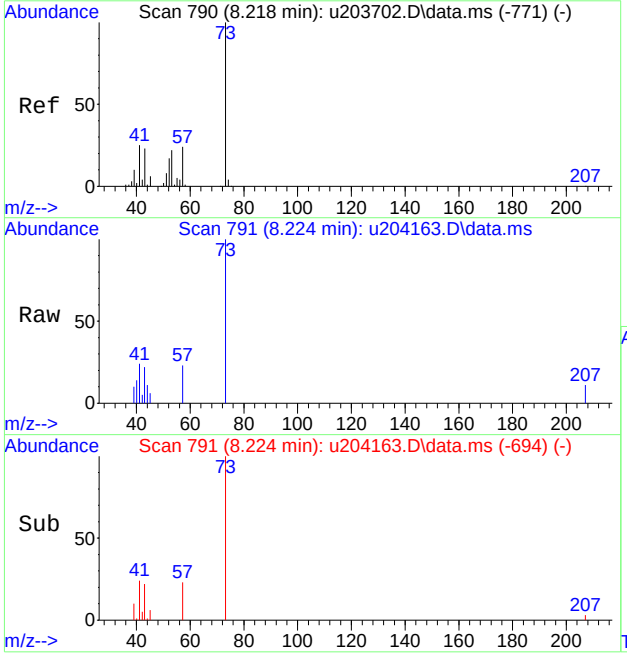


#4
1,4-dioxane
Concen: 755.40 ug/L
RT: 11.722 min Scan# 1460
Delta R.T. 0.011 min
Lab File: u204163.D
Acq: 16 Mar 2016 12:07 am

Tgt Ion: 88 Resp: 14718

Ion	Ratio	Lower	Upper
88	100		
58	76.1	52.3	97.1
57	24.5	17.1	31.9

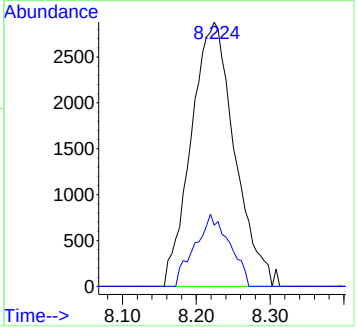




#37
methyl tert butyl ether
Concen: 1.87 ug/L
RT: 8.224 min Scan# 791
Delta R.T. 0.006 min
Lab File: u204163.D
Acq: 16 Mar 2016 12:07 am

Tgt Ion: 73 Resp: 11798

Ion	Ratio	Lower	Upper
73	100		
57	21.7	0.0	54.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204163r.D
Acq On : 16 Mar 2016 12:07 am
Operator : NicoleH1
Sample : jc16038-10r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Apr 08 11:38:52 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.864	65	110037	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	229716	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	334372	50.00	ug/L	0.00
96) chlorobenzene-d5	14.305	117	304553	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	159540	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.138	113	97233	52.11	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.22%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	121675	53.54	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.08%			
88) toluene-d8 (s)	12.663	98	398577	49.63	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.26%			
114) 4-bromofluorobenzene (s)	15.580	95	150755	51.63	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.26%			

Target Compounds Qvalue

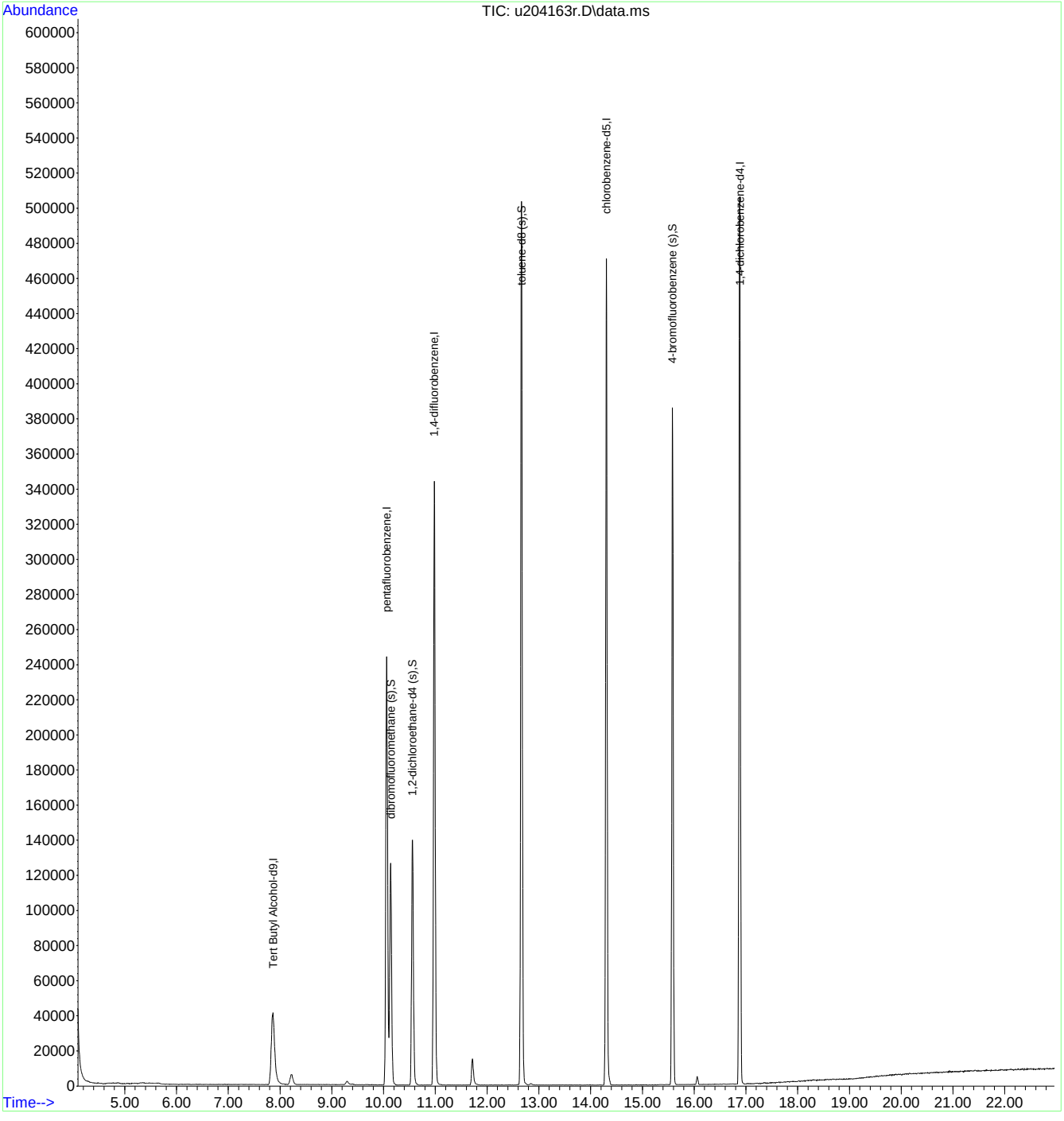
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204163r.D
Acq On : 16 Mar 2016 12:07 am
Operator : NicoleH1
Sample : jc16038-10r
Misc : ms99610,vu9383,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Apr 08 11:38:52 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204134.D
Acq On : 15 Mar 2016 9:57 am
Operator : NicoleH1
Sample : mb
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 13:08:37 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.863	65	116982	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	222194	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.984	114	323763	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	299466	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	161345	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	95021	52.65	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.30%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	117822	53.60	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.20%			
88) toluene-d8 (s)	12.668	98	388505	49.96	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.92%			
114) 4-bromofluorobenzene (s)	15.585	95	148632	50.34	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.68%			

Target Compounds Qvalue

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

7.2.1

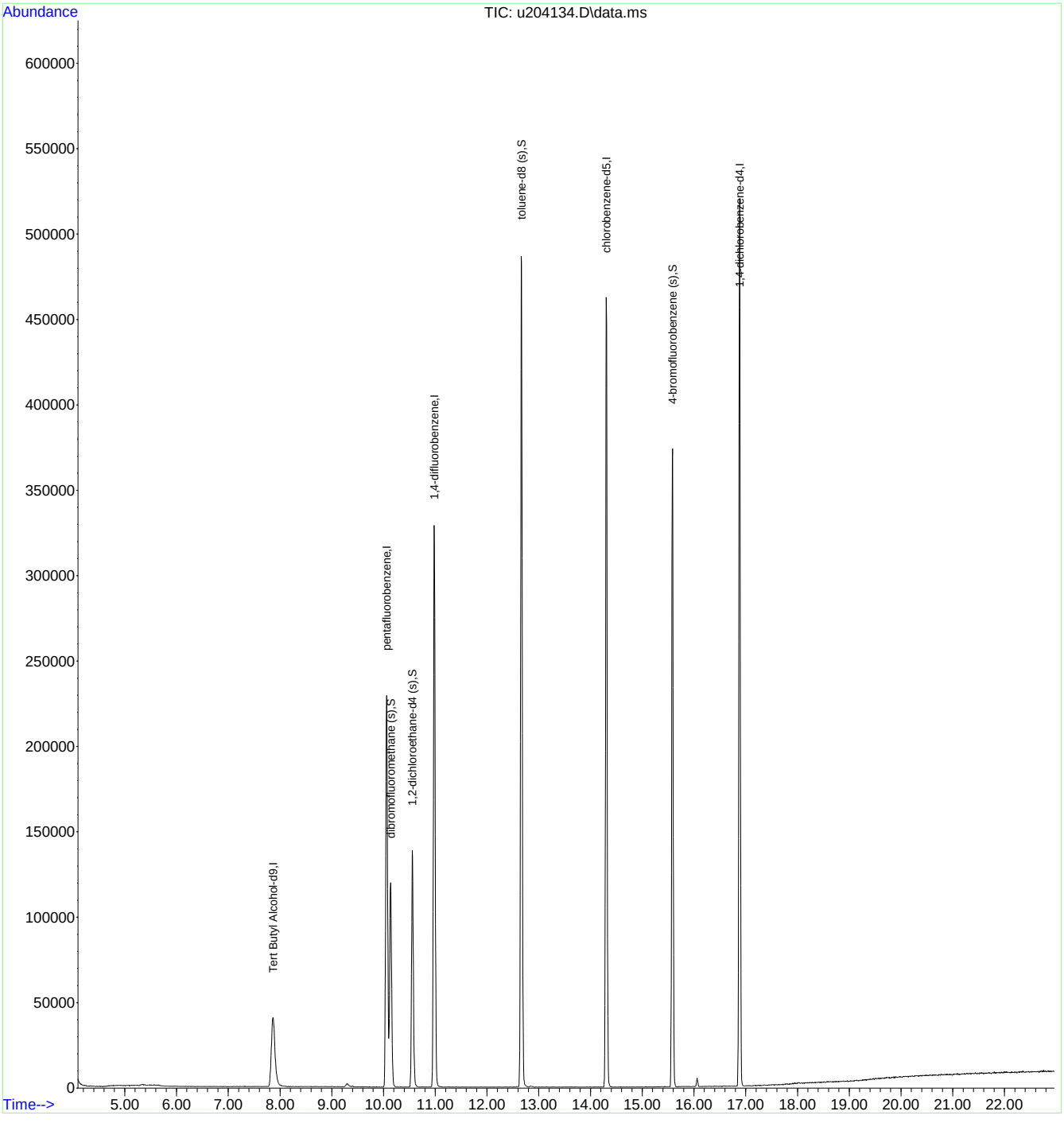
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204134.D
Acq On : 15 Mar 2016 9:57 am
Operator : NicoleH1
Sample : mb
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 13:08:37 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 13:22:42 2016 T

Page: 2

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204156.D
Acq On : 15 Mar 2016 8:42 pm
Operator : NicoleH1
Sample : mb2
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 16 13:19:38 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.863	65	121892	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	234602	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	340295	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	313123	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	164180	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	99167	52.04	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.08%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	124479	53.63	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.26%			
88) toluene-d8 (s)	12.663	98	405708	49.64	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.28%			
114) 4-bromofluorobenzene (s)	15.580	95	154267	51.34	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.68%			

Target Compounds Qvalue

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

7.2.2

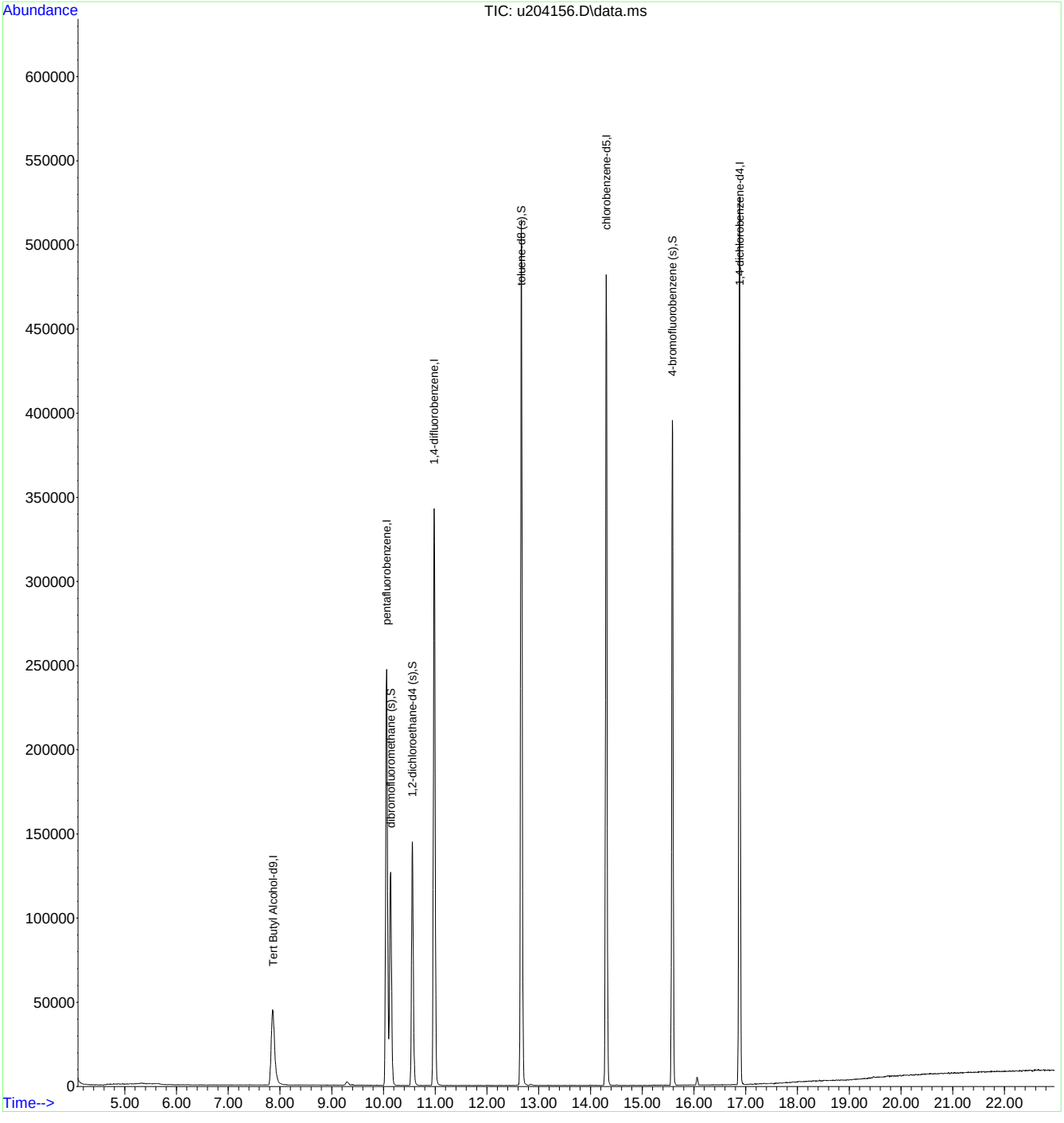
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204156.D
Acq On : 15 Mar 2016 8:42 pm
Operator : NicoleH1
Sample : mb2
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 16 13:19:38 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 13:22:56 2016 T

Page: 2

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204167.D
Acq On : 16 Mar 2016 9:55 am
Operator : NicoleH1
Sample : mb
Misc : ms99593,vu9384,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 14:44:12 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.863	65	116764	500.00	ug/L	0.00
5) pentafluorobenzene	10.064	168	232633	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.984	114	340869	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	309264	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	160350	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	99422	52.61	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.22%			
57) 1,2-dichloroethane-d4 (s)	10.561	65	123540	53.68	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.36%			
88) toluene-d8 (s)	12.663	98	404285	49.38	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.76%			
114) 4-bromofluorobenzene (s)	15.580	95	152334	51.91	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.82%			

Target Compounds Qvalue

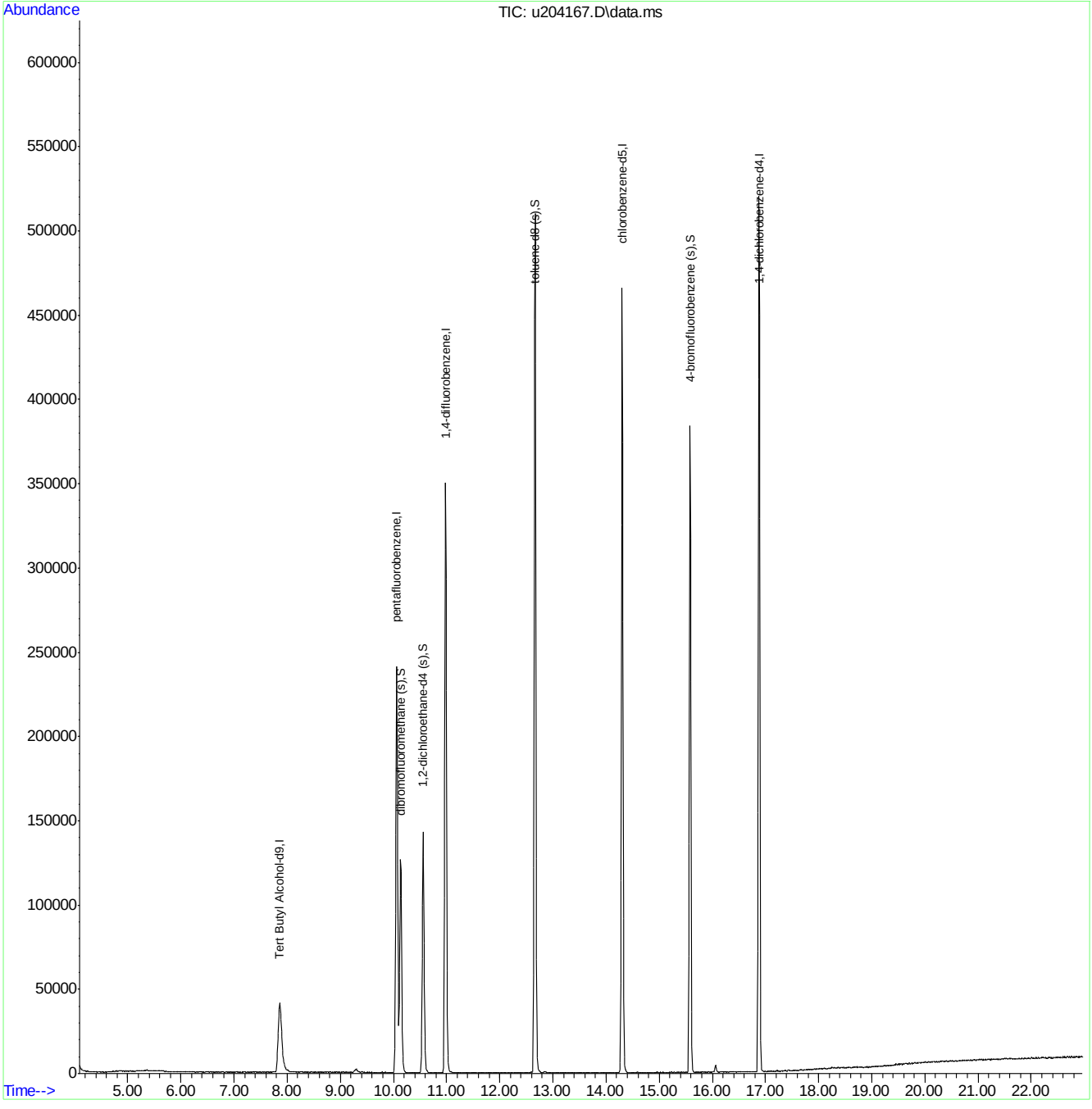
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204167.D
Acq On : 16 Mar 2016 9:55 am
Operator : NicoleH1
Sample : mb
Misc : ms99593,vu9384,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 14:44:12 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 14:52:55 2016 U_CORE

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221001.D
Acq On : 17 Mar 2016 10:01 am
Operator : NicoleH1
Sample : mb
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 17 17:09:08 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.223	65	433882	500.00	ug/L	-0.01
4) pentafluorobenzene	10.592	168	291257	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.534	114	437101	50.00	ug/L	0.00
84) chlorobenzene-d5	14.933	117	392967	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.533	152	219533	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.629	113	143382	51.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.76%			
48) 1,2-dichloroethane-d4 (s)	11.068	65	150819	50.80	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 101.60%			
76) toluene-d8 (s)	13.281	98	511418	50.17	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.34%			
102) 4-bromofluorobenzene (s)	16.225	95	184561	49.00	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.00%			

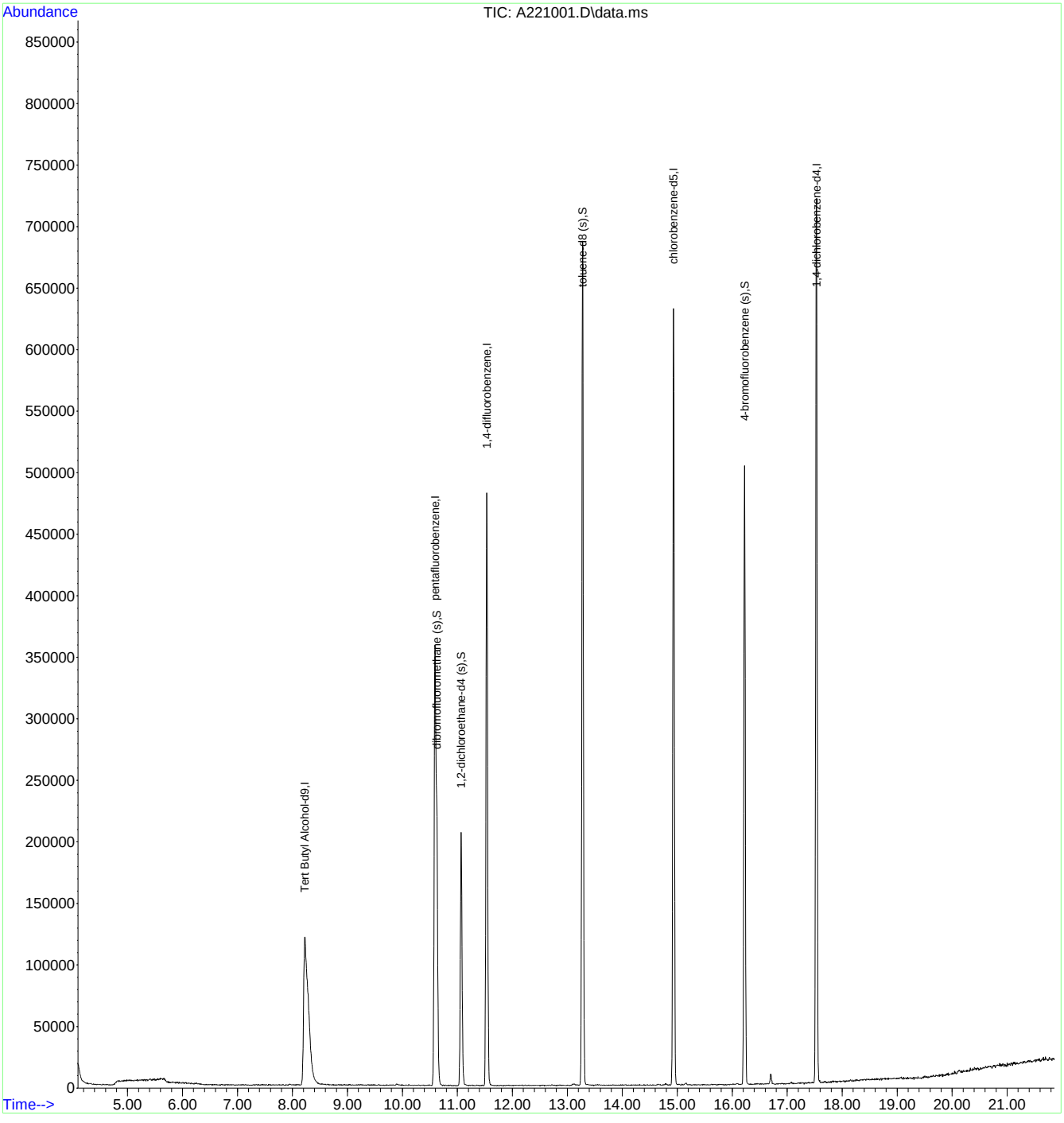
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221001.D
Acq On : 17 Mar 2016 10:01 am
Operator : NicoleH1
Sample : mb
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 17 17:09:08 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204135.D
Acq On : 15 Mar 2016 10:26 am
Operator : NicoleH1
Sample : bs
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 13:09:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.868	65	113981	500.00	ug/L	0.01
5) pentafluorobenzene	10.059	168	227449	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	331316	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	309383	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	172279	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	96445	52.20	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.40%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	121716	54.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.18%			
88) toluene-d8 (s)	12.667	98	398921	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
114) 4-bromofluorobenzene (s)	15.579	95	157223	49.87	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.74%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.978	59	71529	281.62	ug/L	88
4) 1,4-dioxane	11.716	88	28043	1389.50	ug/L	99
11) chlorodifluoromethane	4.407	51	134038	53.85	ug/L	98
12) dichlorodifluoromethane	4.376	85	103439	46.87	ug/L	100
15) chloromethane	4.757	50	169903	43.94	ug/L	99
16) vinyl chloride	5.040	62	140573	43.14	ug/L	99
18) bromomethane	5.709	94	84011	53.48	ug/L	97
19) chloroethane	5.887	64	85978	49.14	ug/L	99
20) trichlorofluoromethane	6.331	101	146948	50.14	ug/L	98
23) ethyl ether	6.749	74	66670	53.86	ug/L	99
24) 2-CHLOROPROPANE	6.969	43	254931	54.11	ug/L	99
27) acrolein	7.037	56	280781	525.64	ug/L	99
28) 1,1-dichloroethene	7.199	96	95963	55.11	ug/L	97
29) acetone	7.256	58	10986	57.70	ug/L	100
30) allyl chloride	7.722	76	77422	55.07	ug/L	96
31) acetonitrile	7.716	40	129947	520.69	ug/L	91
32) iodomethane	7.497	142	176713	52.35	ug/L	99
33) carbon disulfide	7.617	76	360930	54.04	ug/L	99
34) 1-CHLOROPROPANE	7.946	63	10317	51.42	ug/L	99
35) methylene chloride	7.920	84	116765	52.67	ug/L	96
36) methyl acetate	7.695	43	108813	54.81	ug/L	99
37) methyl tert butyl ether	8.218	73	697254	111.82	ug/L	91
38) trans-1,2-dichloroethene	8.281	96	104698	51.08	ug/L	96
39) di-isopropyl ether	8.793	45	493277	57.25	ug/L	85
40) ethyl tert-butyl ether	9.253	59	427034	58.13	ug/L	99
41) 2-butanone	9.536	72	14473	55.70	ug/L	98
42) 1,1-dichloroethane	8.846	63	225162	54.89	ug/L	99
43) chloroprene	8.945	53	183169	56.35	ug/L	99
44) acrylonitrile	8.250	53	250230	272.33	ug/L	99
45) vinyl acetate	8.814	86	21623	55.60	ug/L	96
46) ethyl acetate	9.536	45	22205	57.94	ug/L	98
47) 2,2-dichloropropane	9.578	77	177639	58.23	ug/L	99
48) cis-1,2-dichloroethene	9.578	96	120619	53.36	ug/L	97
49) methyl acrylate	9.619	85	17383	54.09	ug/L	97
50) propionitrile	9.656	54	192089	527.79	ug/L	96
51) bromochloromethane	9.891	128	57547	54.23	ug/L	99
52) tetrahydrofuran	9.917	42	50168	54.92	ug/L	99
53) chloroform	9.938	83	200386	57.38	ug/L	97
54) tert-butyl Formate	9.964	59	99074	50.89	ug/L	98
55) iso-butyl alcohol	10.351	43	69910	564.00	ug/L	97

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204135.D
Acq On : 15 Mar 2016 10:26 am
Operator : NicoleH1
Sample : bs
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 13:09:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
58)	freon 113	7.162	151	77228	60.91 ug/L	97
59)	methacrylonitrile	9.823	41	90087	55.79 ug/L	99
60)	1,1,1-trichloroethane	10.189	97	168937	57.48 ug/L	99
62)	tert-amyl methyl ether	10.628	87	82751	60.60 ug/L	98
63)	iso-octane	10.592	57	457157	60.03 ug/L	100
66)	epichlorohydrin	12.275	57	70706	289.47 ug/L	98
67)	n-butyl alcohol	11.094	56	206221	2724.20 ug/L	98
68)	Cyclohexane	10.252	84	192509	53.17 ug/L #	82
69)	carbon tetrachloride	10.383	117	149077	52.80 ug/L	100
70)	1,1-dichloropropene	10.357	75	165694	55.01 ug/L	99
71)	hexane	8.548	57	109851	37.96 ug/L	99
72)	benzene	10.623	78	466180	51.01 ug/L	100
73)	heptane	10.749	57	103052	56.13 ug/L	98
74)	isopropyl acetate	10.513	43	297182	58.44 ug/L	98
75)	1,2-dichloroethane	10.644	62	160041	52.38 ug/L	99
78)	trichloroethene	11.329	95	114570	51.55 ug/L	97
79)	methylcyclohexane	11.543	83	191229	54.67 ug/L	100
80)	2-nitropropane	12.129	41	55312	57.01 ug/L #	89
81)	2-chloroethyl vinyl ether	12.129	63	432614	308.42 ug/L	99
82)	methyl methacrylate	11.580	100	29586	52.48 ug/L	97
83)	1,2-dichloropropane	11.606	63	133750	51.74 ug/L	99
84)	propyl acetate	11.616	73	23906	56.58 ug/L	86
85)	dibromomethane	11.779	93	69090	52.49 ug/L	100
86)	bromodichloromethane	11.899	83	158767	53.50 ug/L	97
87)	cis-1,3-dichloropropene	12.364	75	213871	53.79 ug/L	99
89)	4-methyl-2-pentanone	12.453	58	53159	53.70 ug/L	99
90)	toluene	12.746	92	291672	52.87 ug/L	99
91)	3-methyl-1-butanol	12.469	55	133632	1103.90 ug/L	99
92)	trans-1,3-dichloropropene	12.955	75	190710	54.01 ug/L	99
93)	ethyl methacrylate	12.923	69	159420	52.53 ug/L	98
94)	1,1,2-trichloroethane	13.190	83	90377	52.07 ug/L	98
95)	2-hexanone	13.357	58	53440	51.39 ug/L	100
97)	cyclohexanone	15.558	55	62300	393.74 ug/L	98
98)	tetrachloroethene	13.363	164	103384	53.21 ug/L	99
99)	1,3-dichloropropane	13.389	76	183357	50.33 ug/L	99
100)	butyl acetate	13.420	56	98903	59.06 ug/L	98
101)	dibromochloromethane	13.682	129	123852	51.73 ug/L	99
102)	1,2-dibromoethane	13.849	107	104168	50.02 ug/L	98
103)	3,3-dimethyl-1-Butanol	13.540	57	138562	502.79 ug/L	99
104)	n-butyl ether	14.199	57	693755	60.32 ug/L	99
105)	chlorobenzene	14.340	112	326216	52.26 ug/L	99
106)	1,1,1,2-tetrachloroethane	14.403	131	120367	51.56 ug/L	96
107)	ethylbenzene	14.387	91	569638	52.08 ug/L	99
108)	m,p-xylene	14.502	106	433141	105.85 ug/L	98
109)	o-xylene	14.968	106	220905	54.92 ug/L	99
110)	styrene	14.983	104	367764	54.29 ug/L	97
111)	bromoform	15.297	173	90871	51.24 ug/L	100
113)	isopropylbenzene	15.339	105	570703	53.15 ug/L	99
115)	bromobenzene	15.809	156	149534	50.93 ug/L	94
116)	1,1,2,2-tetrachloroethane	15.700	83	147691	50.69 ug/L	99
117)	trans-1,4-dichloro-2-b...	15.741	53	50466	54.26 ug/L	99
118)	1,2,3-trichloropropane	15.788	110	36778	50.91 ug/L	97
119)	n-propylbenzene	15.794	91	709088	54.78 ug/L	99
120)	2-chlorotoluene	15.971	126	137713	50.79 ug/L	96
121)	4-chlorotoluene	16.081	91	428742	51.73 ug/L	99
123)	1,3,5-trimethylbenzene	15.956	105	486025	53.63 ug/L	99
124)	tert-butylbenzene	16.348	119	421754	53.81 ug/L	99
125)	pentachloroethane	16.463	167	97876	53.73 ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204135.D
Acq On : 15 Mar 2016 10:26 am
Operator : NicoleH1
Sample : bs
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 13:09:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
126) 1,2,4-trimethylbenzene	16.400	105	505677	54.01 ug/L	99
128) sec-butylbenzene	16.588	105	634466	54.10 ug/L	100
129) 1,3-dichlorobenzene	16.818	146	288858	51.11 ug/L	99
130) p-isopropyltoluene	16.714	119	549648	55.43 ug/L	99
131) 1,4-dichlorobenzene	16.907	146	292245	50.63 ug/L	99
132) benzyl chloride	17.038	91	333345	59.25 ug/L	98
133) 1,2-dichlorobenzene	17.352	146	272287	51.56 ug/L	99
135) n-butylbenzene	17.174	92	281295	55.19 ug/L	100
137) 1,2-dibromo-3-chloropr...	18.209	157	27869	52.60 ug/L	97
138) 1,3,5-trichlorobenzene	18.397	180	225070	53.54 ug/L	100
139) 1,2,4-trichlorobenzene	19.134	180	183553	55.10 ug/L	99
140) hexachlorobutadiene	19.244	225	108981	54.81 ug/L	99
141) naphthalene	19.458	128	328036	51.27 ug/L	100
143) 1,2,3-trichlorobenzene	19.736	180	147118	54.83 ug/L	99
144) hexachloroethane	17.629	201	100297	53.97 ug/L	100

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

7.3.1

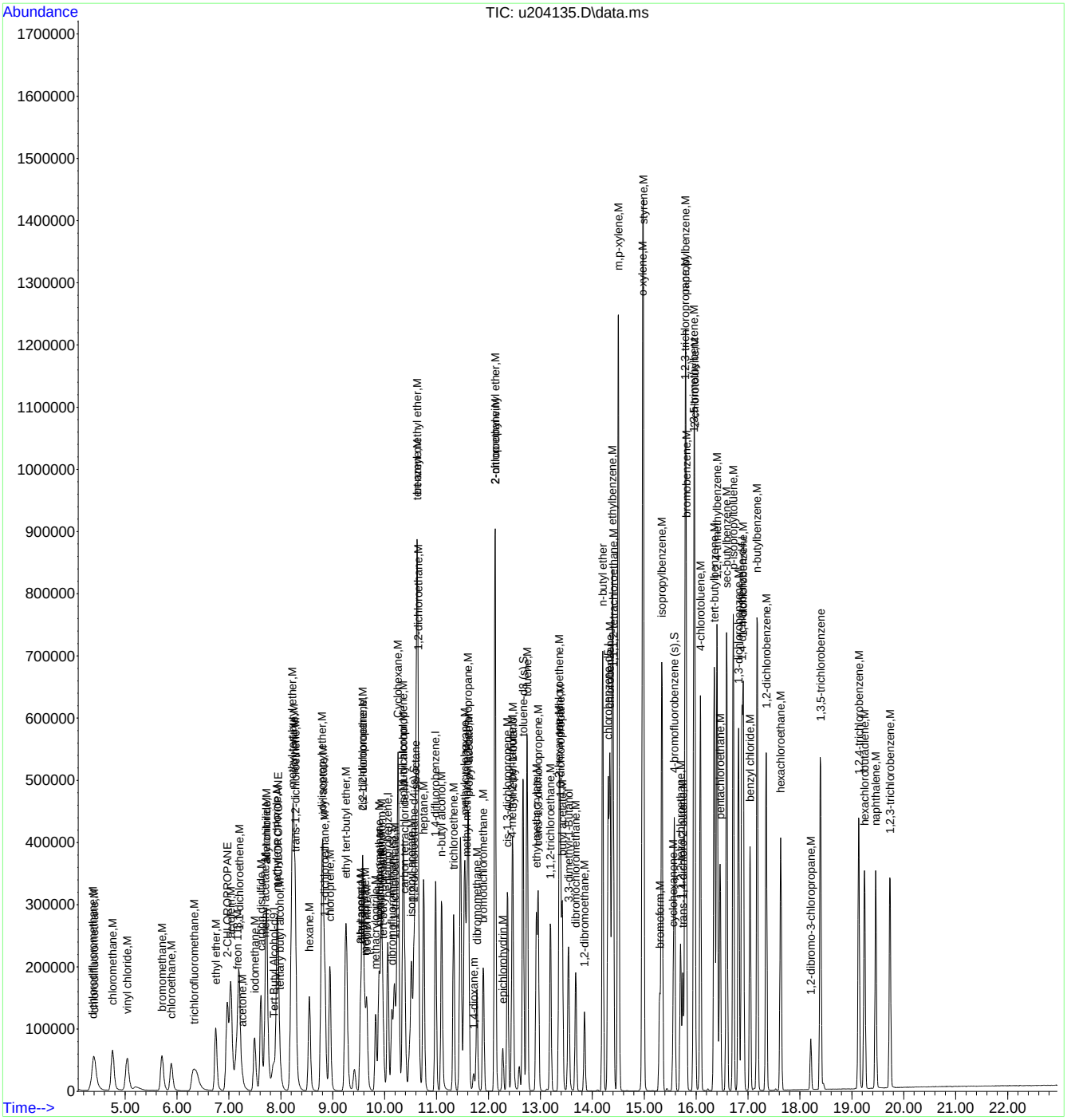
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204135.D
Acq On : 15 Mar 2016 10:26 am
Operator : NicoleH1
Sample : bs
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 13:09:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204168.D
Acq On : 16 Mar 2016 10:24 am
Operator : NicoleH1
Sample : bs
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 14:44:58 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	108146	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	226237	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	331881	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	308588	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	169565	50.00	ug/L	0.00

System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	96775	52.66	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.32%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	121663	54.36	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.72%			
88) toluene-d8 (s)	12.663	98	401550	50.38	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.76%			
114) 4-bromofluorobenzene (s)	15.580	95	156464	50.42	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.84%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.973	59	66281	275.04	ug/L #	63
4) 1,4-dioxane	11.716	88	24144	1260.86	ug/L	99
11) chlorodifluoromethane	4.408	51	125727	50.79	ug/L	98
12) dichlorodifluoromethane	4.381	85	104841	47.76	ug/L	97
15) chloromethane	4.753	50	155810	40.51	ug/L	100
16) vinyl chloride	5.030	62	138142	42.62	ug/L	98
18) bromomethane	5.709	94	81215	51.98	ug/L	97
19) chloroethane	5.892	64	81735	46.96	ug/L	97
20) trichlorofluoromethane	6.316	101	148305	50.87	ug/L	98
23) ethyl ether	6.750	74	68834	55.90	ug/L	100
24) 2-CHLOROPROPANE	6.969	43	264100	56.35	ug/L	99
27) acrolein	7.037	56	304886	573.82	ug/L	98
28) 1,1-dichloroethene	7.199	96	99340	57.35	ug/L	96
29) acetone	7.252	58	10567	55.79	ug/L	95
30) allyl chloride	7.722	76	81991	58.64	ug/L	97
31) acetonitrile	7.717	40	127981	515.56	ug/L	92
32) iodomethane	7.492	142	179759	53.53	ug/L	99
33) carbon disulfide	7.618	76	371259	55.89	ug/L	100
34) 1-CHLOROPROPANE	7.942	63	10533	52.78	ug/L	100
35) methylene chloride	7.921	84	119921	54.38	ug/L	97
36) methyl acetate	7.696	43	104936	53.14	ug/L	99
37) methyl tert butyl ether	8.219	73	681470	109.87	ug/L	91
38) trans-1,2-dichloroethene	8.282	96	107927	52.94	ug/L	95
39) di-isopropyl ether	8.794	45	480690	56.09	ug/L	89
40) ethyl tert-butyl ether	9.254	59	409930	56.10	ug/L	99
41) 2-butanone	9.536	72	14516	56.17	ug/L #	94
42) 1,1-dichloroethane	8.846	63	230089	56.39	ug/L	98
43) chloroprene	8.946	53	179603	55.55	ug/L	99
44) acrylonitrile	8.250	53	251443	275.12	ug/L	99
45) vinyl acetate	8.815	86	20933	54.11	ug/L #	93
46) ethyl acetate	9.536	45	21458	56.29	ug/L	96
47) 2,2-dichloropropane	9.578	77	180472	59.48	ug/L	99
48) cis-1,2-dichloroethene	9.578	96	122965	54.69	ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204168.D
Acq On : 16 Mar 2016 10:24 am
Operator : NicoleH1
Sample : bs
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 14:44:58 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.620	85	17521	54.82	ug/L	96
50) propionitrile	9.657	54	191557	529.14	ug/L	97
51) bromochloromethane	9.892	128	58100	55.04	ug/L	98
52) tetrahydrofuran	9.918	42	50465	55.54	ug/L	99
53) chloroform	9.939	83	205002	59.01	ug/L	99
54) tert-butyl Formate	9.965	59	95884	49.51	ug/L	98
55) iso-butyl alcohol	10.352	43	64356	521.97	ug/L	96
58) freon 113	7.163	151	77278	61.27	ug/L	98
59) methacrylonitrile	9.824	41	90595	56.40	ug/L	97
60) 1,1,1-trichloroethane	10.185	97	170548	58.34	ug/L	99
62) tert-amyl methyl ether	10.629	87	79294	58.38	ug/L	99
63) iso-octane	10.592	57	446349	58.93	ug/L	100
66) epichlorohydrin	12.276	57	67503	275.88	ug/L	99
67) n-butyl alcohol	11.094	56	183964	2426.04	ug/L	99
68) Cyclohexane	10.253	84	172423	47.54	ug/L	87
69) carbon tetrachloride	10.383	117	152740	54.00	ug/L	98
70) 1,1-dichloropropene	10.357	75	172009	57.01	ug/L	98
71) hexane	8.553	57	117262	40.45	ug/L	99
72) benzene	10.624	78	478053	52.22	ug/L	100
73) heptane	10.749	57	102076	55.50	ug/L	98
74) isopropyl acetate	10.514	43	287646	56.47	ug/L	99
75) 1,2-dichloroethane	10.650	62	163087	53.29	ug/L	98
78) trichloroethene	11.329	95	116946	52.53	ug/L	96
79) methylcyclohexane	11.539	83	190117	54.26	ug/L	99
80) 2-nitropropane	12.129	41	54949	56.54	ug/L #	90
81) 2-chloroethyl vinyl ether	12.124	63	415294	295.56	ug/L	98
82) methyl methacrylate	11.580	100	29916	52.98	ug/L	95
83) 1,2-dichloropropane	11.607	63	136136	52.57	ug/L	100
84) propyl acetate	11.617	73	23109	54.60	ug/L	87
85) dibromomethane	11.774	93	69847	52.97	ug/L	98
86) bromodichloromethane	11.899	83	161732	54.41	ug/L	98
87) cis-1,3-dichloropropene	12.365	75	217004	54.49	ug/L	98
89) 4-methyl-2-pentanone	12.454	58	52913	53.36	ug/L	96
90) toluene	12.741	92	298870	54.08	ug/L	100
91) 3-methyl-1-butanol	12.464	55	122432	1009.66	ug/L	98
92) trans-1,3-dichloropropene	12.955	75	195010	55.13	ug/L	99
93) ethyl methacrylate	12.924	69	160403	52.77	ug/L	100
94) 1,1,2-trichloroethane	13.196	83	91205	52.46	ug/L	99
95) 2-hexanone	13.358	58	53712	51.56	ug/L	100
97) cyclohexanone	15.559	55	68991	437.16	ug/L	98
98) tetrachloroethene	13.368	164	104544	53.95	ug/L	98
99) 1,3-dichloropropane	13.389	76	186919	51.44	ug/L	99
100) butyl acetate	13.421	56	94755	56.73	ug/L	98
101) dibromochloromethane	13.682	129	124471	52.12	ug/L	99
102) 1,2-dibromoethane	13.849	107	104396	50.26	ug/L	96
103) 3,3-dimethyl-1-Butanol	13.541	57	129273	470.29	ug/L	100
104) n-butyl ether	14.200	57	701651	61.17	ug/L	99
105) chlorobenzene	14.341	112	327834	52.66	ug/L	99
106) 1,1,1,2-tetrachloroethane	14.404	131	119541	51.34	ug/L	98
107) ethylbenzene	14.388	91	573527	52.57	ug/L	100

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204168.D
Acq On : 16 Mar 2016 10:24 am
Operator : NicoleH1
Sample : bs
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 14:44:58 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.503	106	436704	107.00	ug/L	99
109) o-xylene	14.968	106	221831	55.30	ug/L	99
110) styrene	14.979	104	370183	54.79	ug/L	99
111) bromoform	15.298	173	91413	51.68	ug/L	100
113) isopropylbenzene	15.339	105	572318	54.15	ug/L	99
115) bromobenzene	15.805	156	149798	51.83	ug/L	98
116) 1,1,2,2-tetrachloroethane	15.700	83	146804	51.19	ug/L	98
117) trans-1,4-dichloro-2-b...	15.742	53	52512	57.36	ug/L	98
118) 1,2,3-trichloropropane	15.789	110	36665	51.56	ug/L	97
119) n-propylbenzene	15.794	91	714697	56.09	ug/L	99
120) 2-chlorotoluene	15.972	126	137980	51.70	ug/L	100
121) 4-chlorotoluene	16.082	91	429643	52.67	ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	489408	54.87	ug/L	99
124) tert-butylbenzene	16.348	119	424681	55.05	ug/L	99
125) pentachloroethane	16.463	167	98052	54.69	ug/L	99
126) 1,2,4-trimethylbenzene	16.401	105	505138	54.81	ug/L	100
128) sec-butylbenzene	16.589	105	637069	55.19	ug/L	100
129) 1,3-dichlorobenzene	16.819	146	288847	51.93	ug/L	99
130) p-isopropyltoluene	16.714	119	551185	56.48	ug/L	99
131) 1,4-dichlorobenzene	16.908	146	291255	51.27	ug/L	99
132) benzyl chloride	17.038	91	323518	58.42	ug/L	98
133) 1,2-dichlorobenzene	17.352	146	275249	52.95	ug/L	99
135) n-butylbenzene	17.174	92	281685	56.15	ug/L	97
137) 1,2-dibromo-3-chloropr...	18.210	157	27171	52.11	ug/L	96
138) 1,3,5-trichlorobenzene	18.393	180	223610	54.05	ug/L	99
139) 1,2,4-trichlorobenzene	19.130	180	180568	55.07	ug/L	98
140) hexachlorobutadiene	19.245	225	107923	55.14	ug/L	99
141) naphthalene	19.459	128	322842	51.27	ug/L	100
143) 1,2,3-trichlorobenzene	19.731	180	143264	54.25	ug/L	99
144) hexachloroethane	17.629	201	101336	55.40	ug/L	100

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

7.3.2

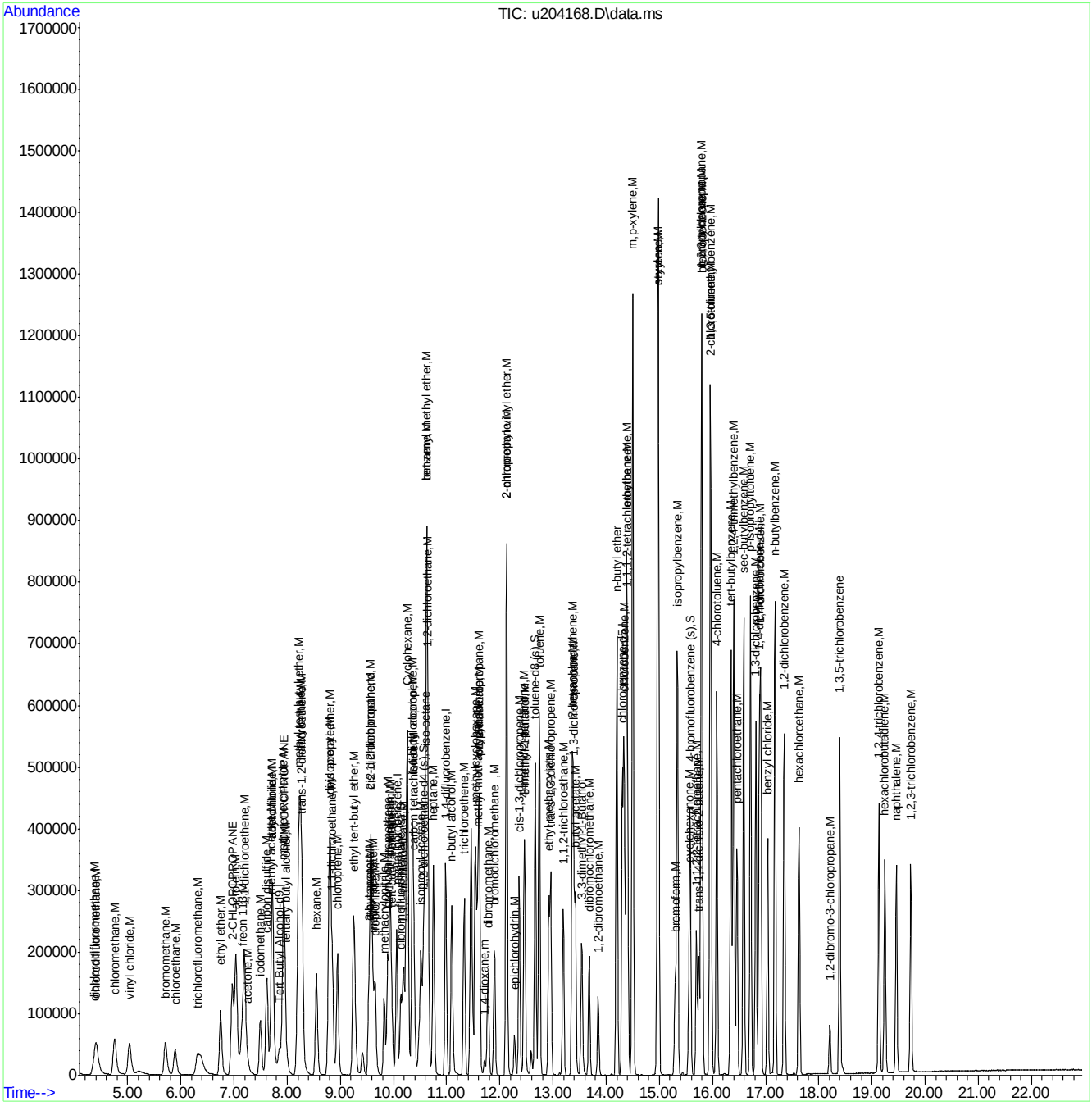
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204168.D
Acq On : 16 Mar 2016 10:24 am
Operator : NicoleH1
Sample : bs
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 14:44:58 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221002.D
Acq On : 17 Mar 2016 10:31 am
Operator : NicoleH1
Sample : bs
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 17:10:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.237	65	442203	500.00 ug/L	0.00
4) pentafluorobenzene	10.596	168	296217	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.537	114	450580	50.00 ug/L	0.00
84) chlorobenzene-d5	14.937	117	406077	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.531	152	225727	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.627	113	143387	51.01 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.02%		
48) 1,2-dichloroethane-d4 (s)	11.072	65	149275	49.44 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 98.88%		
76) toluene-d8 (s)	13.279	98	528576	50.30 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.60%		
102) 4-bromofluorobenzene (s)	16.223	95	190345	49.14 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.28%		

Target Compounds

					Qvalue
2) 1,4-dioxane	12.274	88	76845	1377.49 ug/L	91
3) tertiary butyl alcohol	8.362	59	210126	265.63 ug/L #	31
7) chlorodifluoromethane	4.476	51	258153	55.18 ug/L	99
8) dichlorodifluoromethane	4.476	85	246574	43.92 ug/L	98
9) chloromethane	4.848	50	242763	41.27 ug/L	98
10) vinyl chloride	5.161	62	317444	45.81 ug/L	98
11) bromomethane	5.883	94	148430	49.08 ug/L	98
12) chloroethane	6.082	64	123703	50.20 ug/L	99
14) trichlorofluoromethane	6.626	101	262505	49.81 ug/L	93
16) ethyl ether	7.081	74	72993	51.23 ug/L	98
18) acrolein	7.332	56	438153	546.03 ug/L	99
19) freon 113	7.526	151	141179	57.40 ug/L	98
20) 1,1-dichloroethene	7.526	61	209420	52.22 ug/L	97
21) acetone	7.583	58	18950	49.76 ug/L	95
22) allyl chloride	8.096	76	96945	50.57 ug/L	96
23) acetonitrile	8.043	40	195238	489.20 ug/L	95
24) iodomethane	7.824	142	255240	52.46 ug/L	99
25) carbon disulfide	7.954	76	480109	52.30 ug/L	98
26) methylene chloride	8.284	84	151326	48.76 ug/L	96
27) methyl acetate	8.085	43	124315	46.39 ug/L	99
28) methyl tert butyl ether	8.660	73	942851	99.88 ug/L	90
29) trans-1,2-dichloroethene	8.692	61	185103	50.39 ug/L	100
30) hexane	9.047	57	149268	49.62 ug/L	99
31) di-isopropyl ether	9.293	45	489901	51.96 ug/L	95
32) t-butyl formate	10.491	59	126587	46.25 ug/L	100
33) ethyl tert-butyl ether	9.780	59	479708	53.91 ug/L	99
34) 2-butanone	10.020	72	23382	55.72 ug/L #	76
35) 1,1-dichloroethane	9.288	63	234877	50.64 ug/L	99
36) chloroprene	9.408	53	164804	48.29 ug/L	97
37) acrylonitrile	8.629	53	350827	256.61 ug/L	99
38) vinyl acetate	9.278	86	26246	53.25 ug/L	76
39) ethyl acetate	10.046	45	25811	50.63 ug/L	97
41) 2,2-dichloropropane	10.078	77	262300	59.65 ug/L	98
42) cis-1,2-dichloroethene	10.046	96	141760	52.01 ug/L	100
43) propionitrile	10.114	54	309789	511.60 ug/L	99
44) bromochloromethane	10.371	128	71747	52.56 ug/L	90
45) tetrahydrofuran	10.418	42	68416	49.48 ug/L	97
46) chloroform	10.423	83	224067	53.93 ug/L	98
49) methacrylonitrile	10.308	67	67162	50.98 ug/L	98
50) cyclohexane	10.805	84	253584	53.00 ug/L #	86
51) 1,1,1-trichloroethane	10.716	97	233824	57.67 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221002.D
Acq On : 17 Mar 2016 10:31 am
Operator : NicoleH1
Sample : bs
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 17:10:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.862	41	99945	491.87 ug/L	95
53) tert-amyl methyl ether	11.213	73	489674	54.43 ug/L	98
56) epichlorohydrin	12.839	57	103318	265.43 ug/L	99
57) n-butyl alcohol	11.636	56	494162	2743.29 ug/L	99
58) carbon tetrachloride	10.930	117	205140	54.33 ug/L	97
59) 1,1-dichloropropene	10.894	75	177332	54.02 ug/L	97
60) benzene	11.166	78	517571	49.88 ug/L	98
61) Iso-octane	11.202	57	618970	53.32 ug/L	98
62) heptane	11.359	71	88751	47.95 ug/L	96
64) isopropyl acetate	11.082	87	33990	52.95 ug/L	98
65) 1,2-dichloroethane	11.166	62	160782	49.93 ug/L	97
66) trichloroethene	11.893	95	125786	51.12 ug/L	99
67) 2-nitropropane	12.698	41	56524	49.60 ug/L #	65
69) methylcyclohexane	12.154	83	249663	51.49 ug/L	99
70) 2-chloroethyl vinyl ether	12.714	63	476735	275.70 ug/L	100
71) methyl methacrylate	12.170	100	39356	54.03 ug/L	96
72) 1,2-dichloropropane	12.175	63	140611	50.61 ug/L	100
73) dibromomethane	12.322	93	83146	51.16 ug/L	98
74) bromodichloromethane	12.458	83	165958	49.78 ug/L	98
75) cis-1,3-dichloropropene	12.949	75	209922	51.98 ug/L	98
77) 4-methyl-2-pentanone	13.064	58	83529	53.99 ug/L	97
78) toluene	13.357	91	521377	52.40 ug/L	98
79) 3-methyl-1-butanol	13.059	55	315134	1085.58 ug/L	99
80) trans-1,3-dichloropropene	13.545	75	188119	52.27 ug/L	98
81) ethyl methacrylate	13.551	69	185695	53.02 ug/L	99
82) 1,1,2-trichloroethane	13.786	83	98889	51.79 ug/L	97
83) 2-hexanone	13.985	58	71746	52.28 ug/L	100
85) tetrachloroethene	13.995	166	136942	50.62 ug/L	96
86) 1,3-dichloropropane	13.990	76	195433	50.29 ug/L	97
87) butyl acetate	14.063	56	114415	50.71 ug/L	99
88) 3,3-dimethyl-1-butanol	14.157	57	402080	522.83 ug/L	99
89) dibromochloromethane	14.272	129	135144	51.24 ug/L	97
90) 1,2-dibromoethane	14.450	107	119843	49.42 ug/L	98
91) n-butyl ether	14.884	57	651874	56.96 ug/L	99
92) chlorobenzene	14.968	112	340944	51.39 ug/L	97
93) 1,1,1,2-tetrachloroethane	15.031	131	155026	53.16 ug/L	98
94) ethylbenzene	15.036	91	596073	51.68 ug/L	100
95) m,p-xylene	15.156	106	467790	106.53 ug/L	100
96) o-xylene	15.622	91	514900	53.23 ug/L	100
97) styrene	15.627	104	378748	52.72 ug/L	98
98) bromoform	15.909	173	104017	52.40 ug/L	99
100) isopropylbenzene	16.009	105	667287	54.29 ug/L	99
101) cyclohexanone	16.187	55	120116	441.41 ug/L	99
103) bromobenzene	16.448	156	155010	51.00 ug/L	94
104) 1,1,2,2-tetrachloroethane	16.317	83	200096	48.55 ug/L	98
105) trans-1,4-dichloro-2-b...	16.375	53	51082	69.23 ug/L	93
106) 1,2,3-trichloropropane	16.412	110	50609	51.18 ug/L	93
107) n-propylbenzene	16.469	91	752458	55.18 ug/L	99
108) 2-chlorotoluene	16.631	126	156425	52.15 ug/L	95
109) 4-chlorotoluene	16.741	91	418365	51.29 ug/L	99
111) 1,3,5-trimethylbenzene	16.631	105	568457	54.69 ug/L	99
112) tert-butylbenzene	17.034	134	127190	55.62 ug/L	98
113) pentachloroethane	17.112	167	132457	55.73 ug/L	96
114) 1,2,4-trimethylbenzene	17.076	105	577546	55.46 ug/L	100
115) sec-butylbenzene	17.274	105	800340	55.33 ug/L	100
116) 1,3-dichlorobenzene	17.468	146	300153	51.19 ug/L	98
117) p-isopropyltoluene	17.400	119	669773	57.17 ug/L	99
119) 1,4-dichlorobenzene	17.562	146	302949	51.26 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221002.D
Acq On : 17 Mar 2016 10:31 am
Operator : NicoleH1
Sample : bs
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 17:10:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

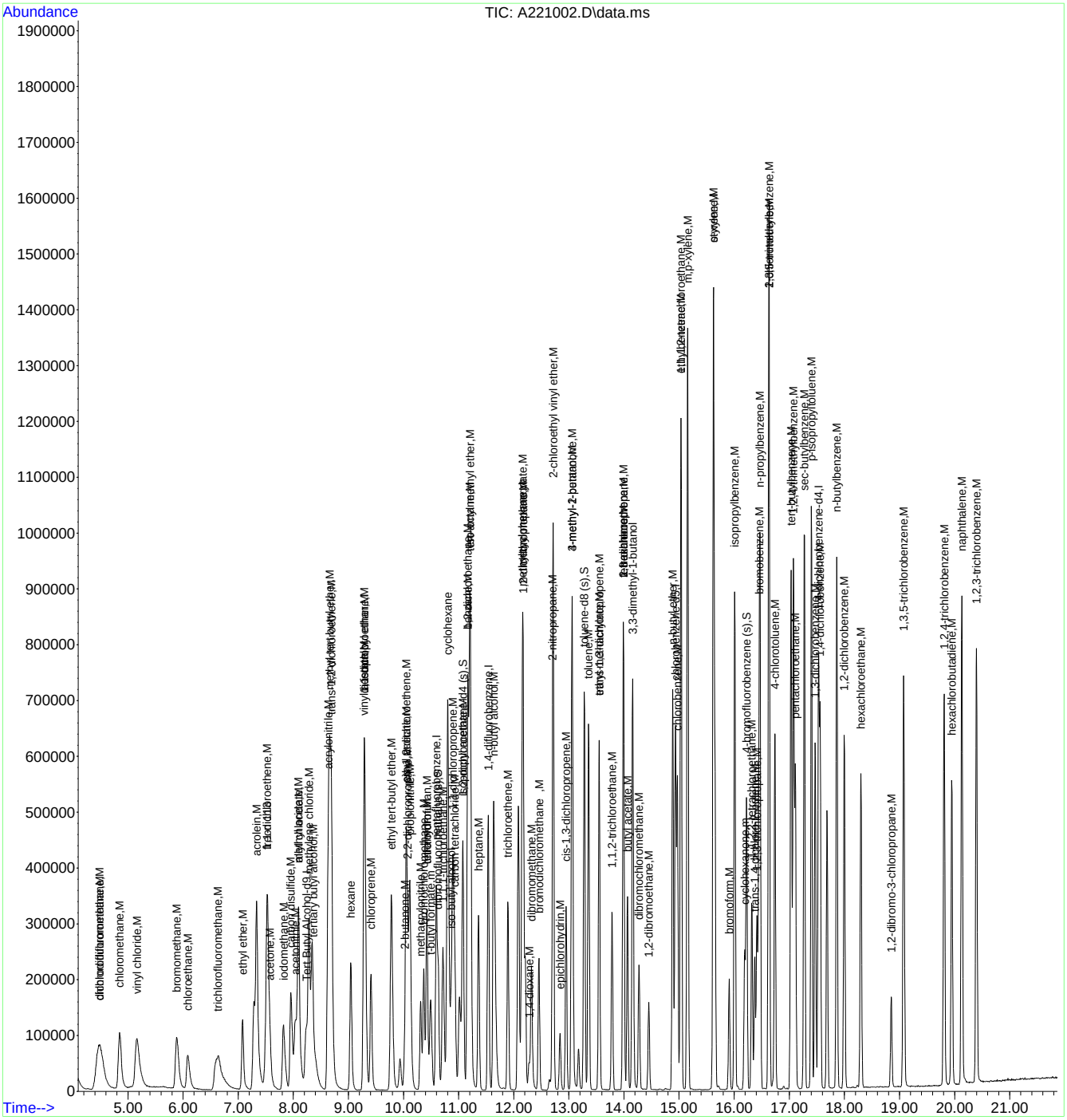
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	17.996	146	307078	50.72 ug/L	99
122) n-butylbenzene	17.860	92	328528	52.42 ug/L	98
124) 1,2-dibromo-3-chloropr...	18.854	157	57650	49.52 ug/L	99
125) 1,3,5-trichlorobenzene	19.074	180	291055	51.45 ug/L	99
126) 1,2,4-trichlorobenzene	19.811	180	277053	51.60 ug/L	98
127) hexachlorobutadiene	19.952	225	143654	53.72 ug/L	99
128) naphthalene	20.130	128	795670	49.38 ug/L	99
129) 1,2,3-trichlorobenzene	20.397	180	303379	50.55 ug/L	99
130) hexachloroethane	18.300	201	124961	55.18 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221002.D
Acq On : 17 Mar 2016 10:31 am
Operator : NicoleH1
Sample : bs
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 17:10:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration



MA8353.M Thu Mar 17 17:10:45 2016 RPT1 Page: 4

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204144.D
Acq On : 15 Mar 2016 2:51 pm
Operator : NicoleH1
Sample : jc16101-1ms
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:13:21 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.858	65	109551	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	226698	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	331746	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	308546	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	172982	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	96932	52.64	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.28%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	121858	54.33	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.66%			
88) toluene-d8 (s)	12.663	98	399428	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
114) 4-bromofluorobenzene (s)	15.580	95	156147	49.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.66%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.978	59	63489	260.07	ug/L	86
4) 1,4-dioxane	11.716	88	25984	1339.55	ug/L	98
11) chlorodifluoromethane	4.408	51	128415	51.77	ug/L	98
12) dichlorodifluoromethane	4.387	85	119404	54.28	ug/L	99
15) chloromethane	4.758	50	177915	46.16	ug/L	99
16) vinyl chloride	5.035	62	154433	47.55	ug/L	99
18) bromomethane	5.709	94	88124	56.29	ug/L	99
19) chloroethane	5.892	64	89286	51.20	ug/L	99
20) trichlorofluoromethane	6.326	101	161493	55.28	ug/L	99
23) ethyl ether	6.750	74	60575	49.09	ug/L	96
24) 2-CHLOROPROPANE	6.969	43	246368	52.46	ug/L	98
27) acrolein	7.037	56	270815	508.66	ug/L	98
28) 1,1-dichloroethene	7.194	96	94174	54.26	ug/L	99
29) acetone	7.257	58	9487	49.99	ug/L	96
30) allyl chloride	7.727	76	75201	53.67	ug/L	99
31) acetonitrile	7.717	40	120348	483.83	ug/L	90
32) iodomethane	7.497	142	166258	49.41	ug/L	98
33) carbon disulfide	7.618	76	347045	52.14	ug/L	100
34) 1-CHLOROPROPANE	7.947	63	9765	48.83	ug/L	99
35) methylene chloride	7.926	84	108222	48.98	ug/L	97
36) methyl acetate	7.696	43	98147	49.60	ug/L	99
37) methyl tert butyl ether	8.219	73	630135	101.39	ug/L	91
38) trans-1,2-dichloroethene	8.282	96	101235	49.56	ug/L	97
39) di-isopropyl ether	8.789	45	465613	54.22	ug/L	99
40) ethyl tert-butyl ether	9.254	59	394841	53.92	ug/L	99
41) 2-butanone	9.531	72	12445	48.05	ug/L #	93
42) 1,1-dichloroethane	8.846	63	214174	52.38	ug/L	99
43) chloroprene	8.946	53	183408	56.61	ug/L	98
44) acrylonitrile	8.250	53	219735	239.94	ug/L	99
45) vinyl acetate	8.810	86	19656	50.71	ug/L #	90
46) ethyl acetate	9.536	45	19858	51.99	ug/L	97
47) 2,2-dichloropropane	9.578	77	172517	56.74	ug/L	99
48) cis-1,2-dichloroethene	9.578	96	113414	50.34	ug/L	98
49) methyl acrylate	9.620	85	15209	47.49	ug/L	99
50) propionitrile	9.657	54	167539	461.86	ug/L	96
51) bromochloromethane	9.892	128	52603	49.73	ug/L	98
52) tetrahydrofuran	9.918	42	43658	47.95	ug/L	99
53) chloroform	9.939	83	189925	54.56	ug/L	99
54) tert-butyl Formate	9.960	59	83148	42.85	ug/L	96
55) iso-butyl alcohol	10.352	43	61031	494.00	ug/L	95

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204144.D
Acq On : 15 Mar 2016 2:51 pm
Operator : NicoleH1
Sample : jc16101-1ms
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:13:21 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
58)	freon 113	7.163	151	81632	64.59 ug/L	100
59)	methacrylonitrile	9.829	41	79310	49.28 ug/L	98
60)	1,1,1-trichloroethane	10.190	97	162253	55.39 ug/L	99
62)	tert-amyl methyl ether	10.629	87	76738	56.38 ug/L	98
63)	iso-octane	10.598	57	475348	62.63 ug/L	99
66)	epichlorohydrin	12.276	57	62981	257.51 ug/L	99
67)	n-butyl alcohol	11.094	56	180449	2380.66 ug/L	97
68)	Cyclohexane	10.253	84	165858	45.75 ug/L	85
69)	carbon tetrachloride	10.388	117	145891	51.60 ug/L	99
70)	1,1-dichloropropene	10.357	75	162509	53.88 ug/L	99
71)	hexane	8.548	57	105503	36.41 ug/L	99
72)	benzene	10.624	78	441944	48.30 ug/L	100
73)	heptane	10.749	57	107602	58.53 ug/L	97
74)	isopropyl acetate	10.514	43	266697	52.38 ug/L	99
75)	1,2-dichloroethane	10.650	62	147123	48.09 ug/L	99
78)	trichloroethene	11.329	95	109134	49.04 ug/L	96
79)	methylcyclohexane	11.539	83	200948	57.37 ug/L	99
80)	2-nitropropane	12.129	41	34638	35.66 ug/L #	1
81)	2-chloroethyl vinyl ether	12.124	63	69023	49.14 ug/L	97
82)	methyl methacrylate	11.580	100	25856	45.81 ug/L	98
83)	1,2-dichloropropane	11.607	63	124982	48.28 ug/L	99
84)	propyl acetate	11.612	73	21400	50.58 ug/L	90
85)	dibromomethane	11.774	93	62844	47.68 ug/L	99
86)	bromodichloromethane	11.899	83	146833	49.41 ug/L	99
87)	cis-1,3-dichloropropene	12.365	75	196447	49.34 ug/L	98
89)	4-methyl-2-pentanone	12.454	58	45571	45.97 ug/L	100
90)	toluene	12.741	92	275133	49.81 ug/L	98
91)	3-methyl-1-butanol	12.464	55	113378	935.38 ug/L	99
92)	trans-1,3-dichloropropene	12.955	75	174577	49.38 ug/L	100
93)	ethyl methacrylate	12.919	69	142777	46.99 ug/L	99
94)	1,1,2-trichloroethane	13.191	83	81310	46.79 ug/L	99
95)	2-hexanone	13.358	58	46391	44.55 ug/L	99
97)	cyclohexanone	15.559	55	37583	238.17 ug/L	97
98)	tetrachloroethene	13.363	164	99316	51.26 ug/L	100
99)	1,3-dichloropropane	13.389	76	167190	46.02 ug/L	99
100)	butyl acetate	13.421	56	88463	52.97 ug/L	97
101)	dibromochloromethane	13.682	129	111662	46.76 ug/L	100
102)	1,2-dibromoethane	13.849	107	93181	44.86 ug/L	98
103)	3,3-dimethyl-1-Butanol	13.541	57	113534	413.09 ug/L	99
104)	n-butyl ether	14.200	57	649378	56.62 ug/L	99
105)	chlorobenzene	14.341	112	303417	48.74 ug/L	100
106)	1,1,1,2-tetrachloroethane	14.404	131	111445	47.87 ug/L	97
107)	ethylbenzene	14.388	91	538536	49.37 ug/L	100
108)	m,p-xylene	14.498	106	408988	100.22 ug/L	99
109)	o-xylene	14.968	106	207847	51.82 ug/L	96
110)	styrene	14.979	104	342653	50.72 ug/L	100
111)	bromoform	15.298	173	79979	45.22 ug/L	100
113)	isopropylbenzene	15.339	105	541213	50.19 ug/L	100
115)	bromobenzene	15.805	156	138934	47.13 ug/L	100
116)	1,1,2,2-tetrachloroethane	15.700	83	130486	44.60 ug/L	99
117)	trans-1,4-dichloro-2-b...	15.742	53	44421	47.56 ug/L	97
118)	1,2,3-trichloropropane	15.789	110	32523	44.83 ug/L	99
119)	n-propylbenzene	15.794	91	677268	52.10 ug/L	99
120)	2-chlorotoluene	15.972	126	129462	47.55 ug/L	99
121)	4-chlorotoluene	16.082	91	401228	48.21 ug/L	100
123)	1,3,5-trimethylbenzene	15.956	105	458723	50.41 ug/L	99
124)	tert-butylbenzene	16.348	119	400356	50.87 ug/L	100
125)	pentachloroethane	16.463	167	90144	49.29 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204144.D
Acq On : 15 Mar 2016 2:51 pm
Operator : NicoleH1
Sample : jc16101-1ms
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:13:21 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
126) 1,2,4-trimethylbenzene	16.401	105	475183	50.55 ug/L	100
128) sec-butylbenzene	16.589	105	608993	51.71 ug/L	99
129) 1,3-dichlorobenzene	16.819	146	269357	47.47 ug/L	99
130) p-isopropyltoluene	16.714	119	522077	52.44 ug/L	100
131) 1,4-dichlorobenzene	16.908	146	270710	46.71 ug/L	99
132) benzyl chloride	17.038	91	310875	55.03 ug/L	100
133) 1,2-dichlorobenzene	17.347	146	251946	47.51 ug/L	100
135) n-butylbenzene	17.174	92	272002	53.15 ug/L	99
137) 1,2-dibromo-3-chloropr...	18.210	157	23841	44.82 ug/L	97
138) 1,3,5-trichlorobenzene	18.393	180	206787	48.99 ug/L	99
139) 1,2,4-trichlorobenzene	19.130	180	166190	49.68 ug/L	99
140) hexachlorobutadiene	19.239	225	103948	52.06 ug/L	99
141) naphthalene	19.459	128	290567	45.23 ug/L	100
143) 1,2,3-trichlorobenzene	19.736	180	133773	49.65 ug/L	99
144) hexachloroethane	17.629	201	95830	51.35 ug/L	99

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

7.4.1

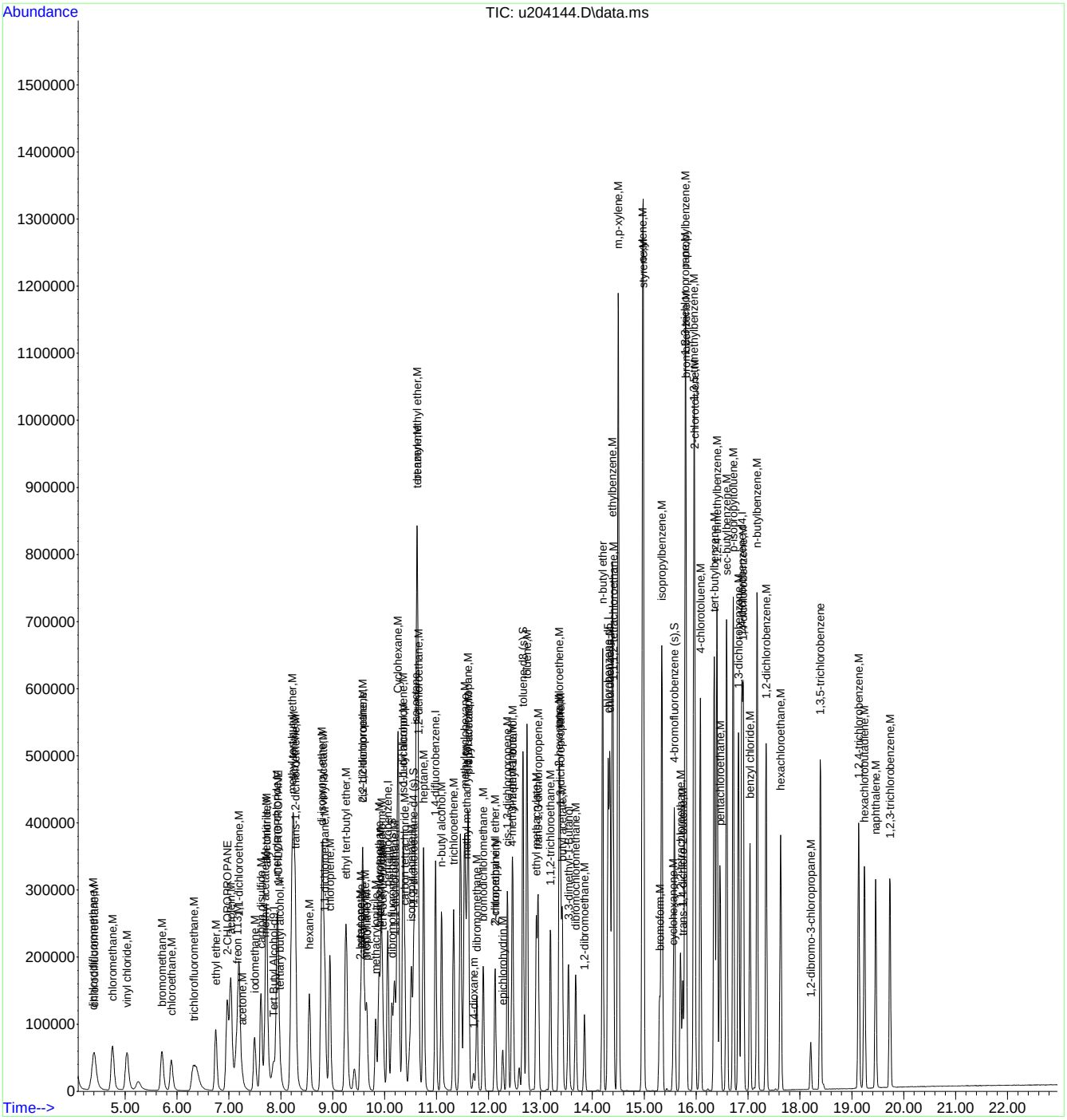
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204144.D
Acq On : 15 Mar 2016 2:51 pm
Operator : NicoleH1
Sample : jc16101-1ms
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:13:21 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204179.D
Acq On : 16 Mar 2016 3:19 pm
Operator : NicoleH1
Sample : jc16065-1ms
Misc : ms99613,vu9384,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:03:43 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.863	65	110385	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	223890	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	330532	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	306265	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	171576	50.00	ug/L	0.00

System Monitoring Compounds						
56) dibromofluoromethane (s)	10.137	113	95985	52.78	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.56%			
57) 1,2-dichloroethane-d4 (s)	10.561	65	120947	54.60	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.20%			
88) toluene-d8 (s)	12.662	98	396775	49.98	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.96%			
114) 4-bromofluorobenzene (s)	15.579	95	154547	49.22	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.44%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.978	59	62599	254.49	ug/L	80
4) 1,4-dioxane	11.716	88	25623	1310.95	ug/L	99
11) chlorodifluoromethane	4.407	51	80749	32.96	ug/L	95
12) dichlorodifluoromethane	4.381	85	109577	50.44	ug/L	99
15) chloromethane	4.763	50	176482	46.37	ug/L	99
16) vinyl chloride	5.035	62	153020	47.71	ug/L	98
18) bromomethane	5.709	94	87709	56.72	ug/L	99
19) chloroethane	5.892	64	88360	51.30	ug/L	98
20) trichlorofluoromethane	6.352	101	158355	54.89	ug/L	99
23) ethyl ether	6.749	74	61036	50.09	ug/L	98
24) 2-CHLOROPROPANE	6.969	43	246871	53.23	ug/L	99
27) acrolein	7.037	56	269518	512.57	ug/L	97
28) 1,1-dichloroethene	7.199	96	93110	54.32	ug/L	95
29) acetone	7.246	58	9695	51.72	ug/L	93
30) allyl chloride	7.727	76	76638	55.38	ug/L	99
31) acetonitrile	7.716	40	115546	470.35	ug/L #	85
32) iodomethane	7.492	142	164484	49.50	ug/L	99
33) carbon disulfide	7.617	76	341896	52.01	ug/L	99
34) 1-CHLOROPROPANE	7.947	63	9628	48.75	ug/L	96
35) methylene chloride	7.926	84	109479	50.17	ug/L	97
36) methyl acetate	7.696	43	93212	47.70	ug/L	98
37) methyl tert butyl ether	8.224	73	616803	100.49	ug/L	88
38) trans-1,2-dichloroethene	8.281	96	102081	50.60	ug/L	96
39) di-isopropyl ether	8.793	45	435652	51.37	ug/L	88
40) ethyl tert-butyl ether	9.254	59	371243	51.34	ug/L	100
41) 2-butanone	9.536	72	13217	51.68	ug/L #	91
42) 1,1-dichloroethane	8.851	63	219807	54.44	ug/L	99
43) chloroprene	8.945	53	170069	53.15	ug/L	97
44) acrylonitrile	8.255	53	230251	254.57	ug/L	99
45) vinyl acetate	8.814	86	18871	49.30	ug/L #	87
46) ethyl acetate	9.531	45	20298	53.80	ug/L	97
47) 2,2-dichloropropane	9.578	77	177228	59.02	ug/L	98
48) cis-1,2-dichloroethene	9.578	96	116709	52.45	ug/L	97

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204179.D
Acq On : 16 Mar 2016 3:19 pm
Operator : NicoleH1
Sample : jc16065-1ms
Misc : ms99613,vu9384,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:03:43 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) methyl acrylate	9.619	85	16200	51.21	ug/L		98
50) propionitrile	9.656	54	177587	495.70	ug/L		96
51) bromochloromethane	9.891	128	54159	51.84	ug/L		93
52) tetrahydrofuran	9.923	42	44888	49.92	ug/L		99
53) chloroform	9.938	83	203384	59.16	ug/L		97
54) tert-butyl Formate	9.965	59	72725	37.95	ug/L	#	95
55) iso-butyl alcohol	10.351	43	60092	492.50	ug/L		97
58) freon 113	7.168	151	68669	55.02	ug/L		95
59) methacrylonitrile	9.823	41	84155	52.94	ug/L		97
60) 1,1,1-trichloroethane	10.189	97	165674	57.27	ug/L		99
62) tert-amyl methyl ether	10.634	87	72642	54.04	ug/L		98
63) iso-octane	10.592	57	434120	57.92	ug/L		100
66) epichlorohydrin	12.275	57	59332	243.48	ug/L		98
67) n-butyl alcohol	11.094	56	177460	2349.82	ug/L		99
68) Cyclohexane	10.252	84	168042	46.52	ug/L		88
69) carbon tetrachloride	10.383	117	149928	53.23	ug/L		97
70) 1,1-dichloropropene	10.357	75	167640	55.79	ug/L		99
71) hexane	8.548	57	149891	51.92	ug/L		99
72) benzene	10.623	78	457617	50.19	ug/L		100
73) heptane	10.749	57	100932	55.10	ug/L		99
74) isopropyl acetate	10.513	43	256999	50.66	ug/L		99
75) 1,2-dichloroethane	10.644	62	154609	50.73	ug/L		99
78) trichloroethene	11.329	95	114731	51.75	ug/L		97
79) methylcyclohexane	11.543	83	185089	53.04	ug/L		100
80) 2-nitropropane	12.129	41	34706	35.86	ug/L	#	1
81) 2-chloroethyl vinyl ether	12.129	63	7511	5.37	ug/L		98
82) methyl methacrylate	11.580	100	27820	49.47	ug/L		96
83) 1,2-dichloropropane	11.606	63	130952	50.77	ug/L		99
84) propyl acetate	11.611	73	20724	49.16	ug/L		89
85) dibromomethane	11.773	93	66412	50.57	ug/L		97
86) bromodichloromethane	11.899	83	156677	52.92	ug/L		98
87) cis-1,3-dichloropropene	12.364	75	210338	53.03	ug/L		99
89) 4-methyl-2-pentanone	12.453	58	49663	50.29	ug/L		95
90) toluene	12.741	92	289924	52.68	ug/L		100
91) 3-methyl-1-butanol	12.464	55	113028	935.91	ug/L		100
92) trans-1,3-dichloropropene	12.955	75	187947	53.35	ug/L		99
93) ethyl methacrylate	12.918	69	154230	50.94	ug/L		98
94) 1,1,2-trichloroethane	13.190	83	86955	50.22	ug/L		99
95) 2-hexanone	13.358	58	50322	48.51	ug/L		97
97) cyclohexanone	15.559	55	41430	264.51	ug/L		98
98) tetrachloroethene	13.363	164	103607	53.87	ug/L		99
99) 1,3-dichloropropane	13.389	76	178829	49.59	ug/L		99
100) butyl acetate	13.420	56	85955	51.85	ug/L		99
101) dibromochloromethane	13.682	129	120359	50.78	ug/L		100
102) 1,2-dibromoethane	13.849	107	99487	48.26	ug/L		96
103) 3,3-dimethyl-1-Butanol	13.541	57	115017	421.60	ug/L		100
104) n-butyl ether	14.199	57	689267	60.54	ug/L		99
105) chlorobenzene	14.340	112	323420	52.34	ug/L		99
106) 1,1,1,2-tetrachloroethane	14.403	131	118314	51.19	ug/L		97
107) ethylbenzene	14.387	91	570386	52.68	ug/L		99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204179.D
Acq On : 16 Mar 2016 3:19 pm
Operator : NicoleH1
Sample : jc16065-1ms
Misc : ms99613,vu9384,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:03:43 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
108) m,p-xylene	14.497	106	433670	107.06 ug/L	100
109) o-xylene	14.968	106	218796	54.95 ug/L	97
110) styrene	14.978	104	364517	54.36 ug/L	99
111) bromoform	15.297	173	87115	49.63 ug/L	99
113) isopropylbenzene	15.339	105	577621	54.01 ug/L	100
115) bromobenzene	15.804	156	147205	50.34 ug/L	99
116) 1,1,2,2-tetrachloroethane	15.700	83	141263	48.68 ug/L	99
117) trans-1,4-dichloro-2-b...	15.741	53	49546	53.48 ug/L	98
118) 1,2,3-trichloropropane	15.783	110	35211	48.94 ug/L	97
119) n-propylbenzene	15.794	91	724796	56.22 ug/L	100
120) 2-chlorotoluene	15.972	126	138640	51.34 ug/L	96
121) 4-chlorotoluene	16.081	91	427700	51.81 ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	493418	54.67 ug/L	99
124) tert-butylbenzene	16.353	119	432450	55.40 ug/L	98
125) pentachloroethane	16.463	167	97393	53.68 ug/L	99
126) 1,2,4-trimethylbenzene	16.400	105	508687	54.55 ug/L	100
128) sec-butylbenzene	16.588	105	655116	56.08 ug/L	100
129) 1,3-dichlorobenzene	16.818	146	288395	51.24 ug/L	100
130) p-isopropyltoluene	16.714	119	564152	57.13 ug/L	100
131) 1,4-dichlorobenzene	16.907	146	290866	50.60 ug/L	100
132) benzyl chloride	17.038	91	300212	53.58 ug/L	100
133) 1,2-dichlorobenzene	17.352	146	272667	51.84 ug/L	99
135) n-butylbenzene	17.174	92	293794	57.88 ug/L	100
137) 1,2-dibromo-3-chloropr...	18.209	157	26645	50.50 ug/L	97
138) 1,3,5-trichlorobenzene	18.392	180	226093	54.01 ug/L	99
139) 1,2,4-trichlorobenzene	19.129	180	181985	54.85 ug/L	98
140) hexachlorobutadiene	19.244	225	111914	56.51 ug/L	100
141) naphthalene	19.459	128	322715	50.65 ug/L	100
143) 1,2,3-trichlorobenzene	19.730	180	147054	55.03 ug/L	100
144) hexachloroethane	17.629	201	104263	56.33 ug/L	100

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

7.4.2

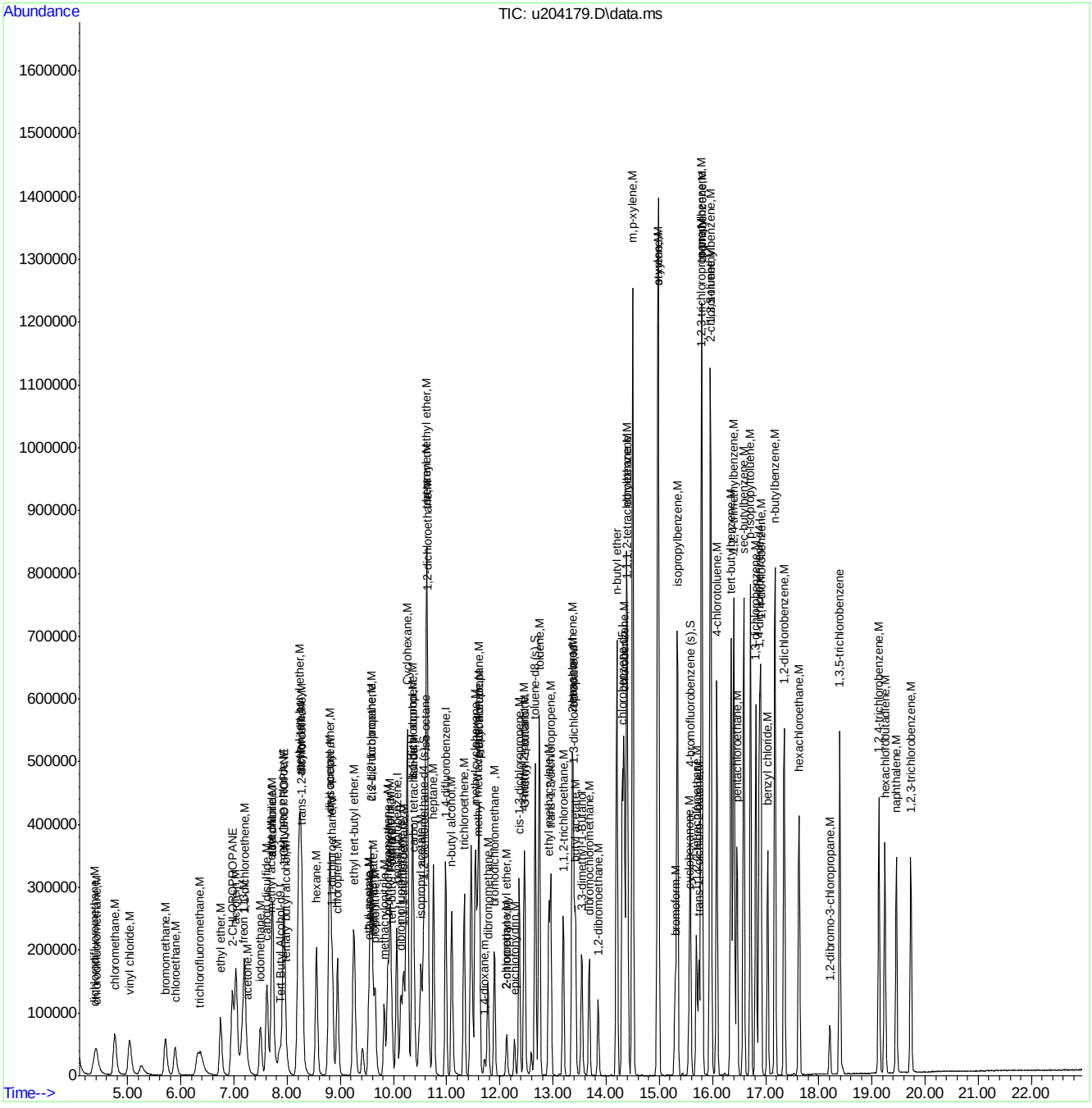
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204179.D
Acq On : 16 Mar 2016 3:19 pm
Operator : NicoleH1
Sample : jc16065-1ms
Misc : ms99613,vu9384,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 16:03:43 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221012.D
Acq On : 17 Mar 2016 3:31 pm
Operator : NicoleH1
Sample : jc16250-14ms
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 18 09:59:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 17 08:41:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.233	65	458809	500.00	ug/L	0.00
4) pentafluorobenzene	10.592	168	302426	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.539	114	466002	50.00	ug/L	0.00
84) chlorobenzene-d5	14.933	117	425761	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.532	152	239054	50.00	ug/L	0.00

System Monitoring Compounds						
47) dibromofluoromethane (s)	10.629	113	147970	51.56	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.12%			
48) 1,2-dichloroethane-d4 (s)	11.073	65	156559	50.78	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 101.56%			
76) toluene-d8 (s)	13.280	98	549224	50.53	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.06%			
102) 4-bromofluorobenzene (s)	16.225	95	201307	49.08	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.16%			

Target Compounds						Qvalue
2) 1,4-dioxane	12.276	88	65088	1124.51	ug/L	93
3) tertiary butyl alcohol	8.353	59	171415	208.85	ug/L #	56
7) chlorodifluoromethane	4.483	51	192204	40.24	ug/L	98
8) dichlorodifluoromethane	4.457	85	227682	39.73	ug/L	96
9) chloromethane	4.844	50	237798	39.60	ug/L	99
10) vinyl chloride	5.158	62	309393	43.73	ug/L	97
11) bromomethane	5.880	94	145274	47.05	ug/L	98
12) chloroethane	6.078	64	118671	47.17	ug/L	97
14) trichlorofluoromethane	6.627	101	265156	49.28	ug/L	100
16) ethyl ether	7.077	74	69989	48.11	ug/L	97
18) acrolein	7.334	56	437465	533.98	ug/L	99
19) freon 113	7.517	151	111226	44.29	ug/L	97
20) 1,1-dichloroethene	7.527	61	198150	48.40	ug/L	98
21) acetone	7.579	58	18399	47.32	ug/L #	75
22) allyl chloride	8.092	76	108100	55.23	ug/L #	74
23) acetonitrile	8.034	40	163992	402.47	ug/L	94
24) iodomethane	7.820	142	241517	48.62	ug/L	99
25) carbon disulfide	7.951	76	444894	47.47	ug/L	99
26) methylene chloride	8.285	84	147013	46.40	ug/L	93
27) methyl acetate	8.081	43	105117	38.42	ug/L	99
28) methyl tert butyl ether	8.657	73	819662	85.05	ug/L	79
29) trans-1,2-dichloroethene	8.688	61	173690	46.31	ug/L	99
30) hexane	9.044	57	163841	53.34	ug/L	99
31) di-isopropyl ether	9.295	45	394878	41.02	ug/L	89
32) t-butyl formate	10.493	59	102848	36.80	ug/L	99
33) ethyl tert-butyl ether	9.776	59	386622	42.56	ug/L	99
34) 2-butanone	10.017	72	22514	52.55	ug/L #	1
35) 1,1-dichloroethane	9.290	63	221919	46.86	ug/L	99
36) chloroprene	9.410	53	137722	39.53	ug/L	96
37) acrylonitrile	8.625	53	329068	235.75	ug/L	100
38) vinyl acetate	9.279	86	22142	44.00	ug/L	99
39) ethyl acetate	10.043	45	21718	41.73	ug/L	79
41) 2,2-dichloropropane	10.079	77	239203	53.28	ug/L	98
42) cis-1,2-dichloroethene	10.048	96	135430	48.66	ug/L	98
43) propionitrile	10.116	54	296971	480.36	ug/L	92
44) bromochloromethane	10.362	128	67926	48.74	ug/L	94
45) tetrahydrofuran	10.414	42	64323	45.57	ug/L	95
46) chloroform	10.419	83	209705	49.44	ug/L	98
49) methacrylonitrile	10.310	67	64391	47.87	ug/L	99
50) cyclohexane	10.801	84	267756	54.81	ug/L	84
51) 1,1,1-trichloroethane	10.717	97	214027	51.70	ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221012.D
Acq On : 17 Mar 2016 3:31 pm
Operator : NicoleH1
Sample : jc16250-14ms
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 18 09:59:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 17 08:41:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.859	41	82116	395.83 ug/L	96
53) tert-amyl methyl ether	11.209	73	396848	43.21 ug/L	100
56) epichlorohydrin	12.841	57	88100	218.85 ug/L	100
57) n-butyl alcohol	11.633	56	430488	2310.72 ug/L	98
58) carbon tetrachloride	10.927	117	184960	47.37 ug/L	99
59) 1,1-dichloropropene	10.890	75	169484	49.92 ug/L	99
60) benzene	11.167	78	738254	68.79 ug/L	99
61) Iso-octane	11.204	57	503161	41.91 ug/L	99
62) heptane	11.361	71	73521	38.41 ug/L	95
64) isopropyl acetate	11.078	87	29016	43.70 ug/L #	92
65) 1,2-dichloroethane	11.162	62	153313	46.03 ug/L	99
66) trichloroethene	11.889	95	119660	47.02 ug/L	97
67) 2-nitropropane	12.694	41	51606	43.78 ug/L #	16
69) methylcyclohexane	12.151	83	203349	40.55 ug/L	100
70) 2-chloroethyl vinyl ether	12.715	63	323787	181.05 ug/L	99
71) methyl methacrylate	12.166	100	38120	50.60 ug/L	91
72) 1,2-dichloropropane	12.171	63	132596	46.15 ug/L	97
73) dibromomethane	12.323	93	79968	47.57 ug/L	97
74) bromodichloromethane	12.454	83	158824	46.06 ug/L	96
75) cis-1,3-dichloropropene	12.951	75	204207	48.89 ug/L	98
77) 4-methyl-2-pentanone	13.066	58	78661	49.16 ug/L #	89
78) toluene	13.359	91	3184656	309.48 ug/L	93
79) 3-methyl-1-butanol	13.055	55	268957	895.84 ug/L	99
80) trans-1,3-dichloropropene	13.547	75	183924	49.41 ug/L	96
81) ethyl methacrylate	13.552	69	178236	49.21 ug/L	97
82) 1,1,2-trichloroethane	13.782	83	97516	49.38 ug/L	96
83) 2-hexanone	13.986	58	69788	49.17 ug/L	95
85) tetrachloroethene	13.997	166	134259	47.34 ug/L	98
86) 1,3-dichloropropane	13.986	76	188431	46.24 ug/L	99
87) butyl acetate	14.065	56	97395	41.17 ug/L	98
88) 3,3-dimethyl-1-butanol	14.159	57	338761	420.13 ug/L	99
89) dibromochloromethane	14.274	129	131306	47.48 ug/L	97
90) 1,2-dibromoethane	14.452	107	115548	45.44 ug/L	95
91) n-butyl ether	14.886	57	610397	50.87 ug/L	98
92) chlorobenzene	14.970	112	335860	48.29 ug/L	99
93) 1,1,1,2-tetrachloroethane	15.032	131	147580	48.27 ug/L	99
94) ethylbenzene	15.038	91	1648057	136.27 ug/L	97
95) m,p-xylene	15.158	106	1930765	419.37 ug/L	84
96) o-xylene	15.623	91	1612611	159.00 ug/L	96
97) styrene	15.629	104	416050	55.24 ug/L	80
98) bromoform	15.911	173	100722	48.39 ug/L	98
100) isopropylbenzene	16.010	105	683431	52.50 ug/L	100
101) cyclohexanone	16.193	55	105141	364.84 ug/L	99
103) bromobenzene	16.450	156	151612	47.10 ug/L	97
104) 1,1,2,2-tetrachloroethane	16.319	83	193125	44.25 ug/L	99
105) trans-1,4-dichloro-2-b...	16.371	53	48857	62.52 ug/L	95
106) 1,2,3-trichloropropane	16.413	110	48046	45.88 ug/L	99
107) n-propylbenzene	16.471	91	837547	57.99 ug/L	100
108) 2-chlorotoluene	16.628	126	150472	47.37 ug/L	94
109) 4-chlorotoluene	16.737	91	405755	46.97 ug/L	99
111) 1,3,5-trimethylbenzene	16.633	105	771254	70.07 ug/L	99
112) tert-butylbenzene	17.035	134	124553	51.43 ug/L	94
113) pentachloroethane	17.109	167	128589	51.08 ug/L	98
114) 1,2,4-trimethylbenzene	17.077	105	1335678	121.12 ug/L	98
115) sec-butylbenzene	17.271	105	769463	50.23 ug/L	100
116) 1,3-dichlorobenzene	17.470	146	289454	46.61 ug/L	100
117) p-isopropyltoluene	17.402	119	640828	51.65 ug/L	99
119) 1,4-dichlorobenzene	17.558	146	295123	47.15 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221012.D
Acq On : 17 Mar 2016 3:31 pm
Operator : NicoleH1
Sample : jc16250-14ms
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 18 09:59:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 17 08:41:28 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	17.998	146	298016	46.48 ug/L	99
122) n-butylbenzene	17.862	92	317472	47.83 ug/L	98
124) 1,2-dibromo-3-chloropr...	18.850	157	55313	44.86 ug/L	97
125) 1,3,5-trichlorobenzene	19.075	180	277332	46.29 ug/L	98
126) 1,2,4-trichlorobenzene	19.813	180	268965	47.30 ug/L	99
127) hexachlorobutadiene	19.949	225	138663	48.96 ug/L	98
128) naphthalene	20.132	128	914332	53.58 ug/L	99
129) 1,2,3-trichlorobenzene	20.398	180	285216	44.88 ug/L	97
130) hexachloroethane	18.301	201	120882	50.41 ug/L	99

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

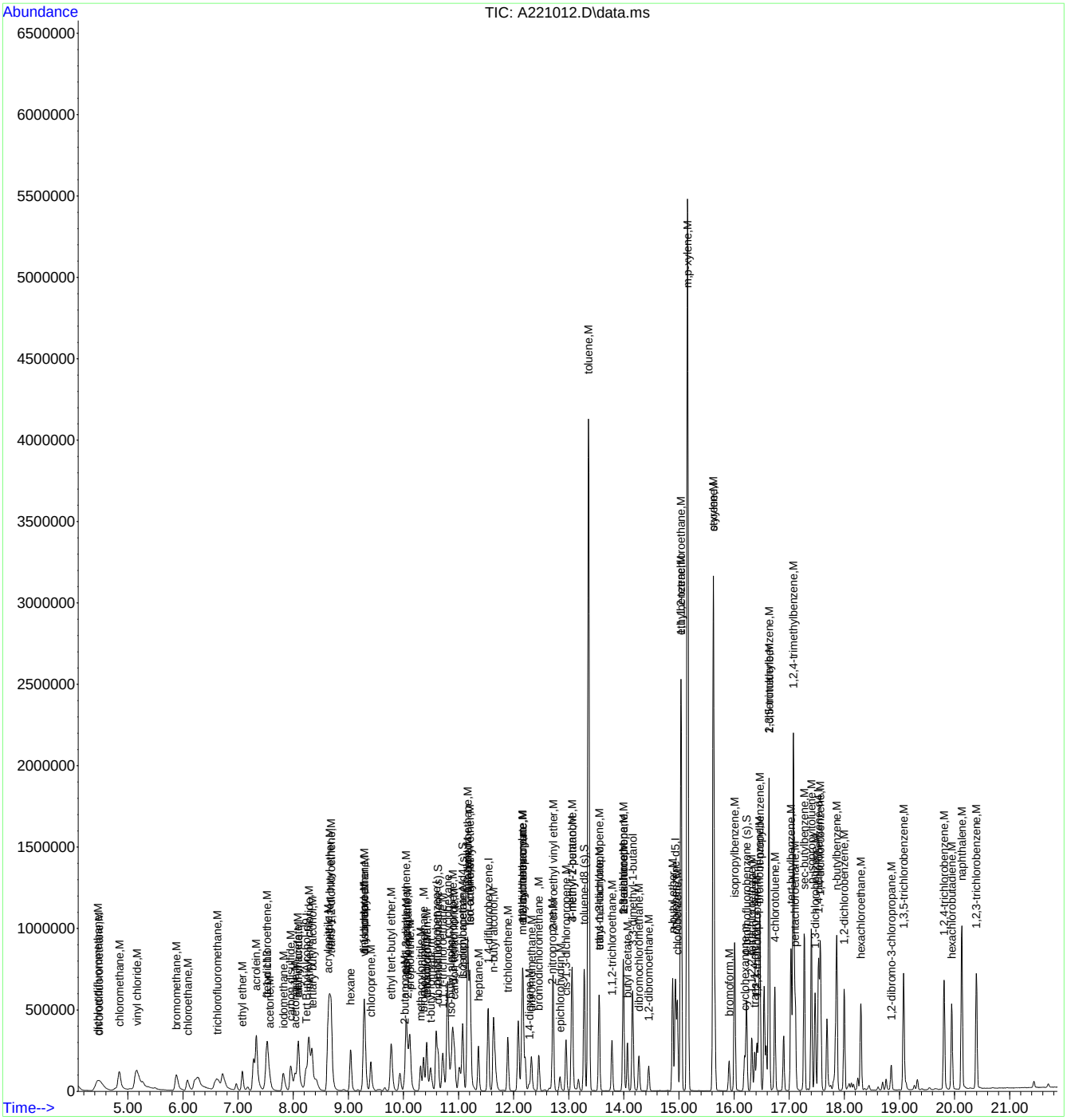
7.4.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221012.D
Acq On : 17 Mar 2016 3:31 pm
Operator : NicoleH1
Sample : jc16250-14ms
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 18 09:59:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 17 08:41:28 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221013.D
Acq On : 17 Mar 2016 4:01 pm
Operator : NicoleH1
Sample : jc16250-14msd
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 18 10:00:38 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 18 10:00:23 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.245	65	450504	500.00 ug/L	0.01
4) pentafluorobenzene	10.594	168	306866	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.535	114	470661	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	428527	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.534	152	238502	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.630	113	149636	51.39 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.78%		
48) 1,2-dichloroethane-d4 (s)	11.070	65	153443	49.05 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 98.10%		
76) toluene-d8 (s)	13.277	98	557587	50.79 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.58%		
102) 4-bromofluorobenzene (s)	16.227	95	199141	48.66 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.32%		

Target Compounds

					Qvalue
2) 1,4-dioxane	12.278	88	65363	1150.08 ug/L	95
3) tertiary butyl alcohol	8.361	59	177924	220.78 ug/L #	31
7) chlorodifluoromethane	4.485	51	206051	42.51 ug/L	94
8) dichlorodifluoromethane	4.448	85	241655	41.55 ug/L	100
9) chloromethane	4.851	50	253805	41.65 ug/L	98
10) vinyl chloride	5.160	62	331246	46.14 ug/L	99
11) bromomethane	5.881	94	154822	49.42 ug/L	99
12) chloroethane	6.085	64	126127	49.41 ug/L	98
14) trichlorofluoromethane	6.635	101	283277	51.88 ug/L	96
16) ethyl ether	7.079	74	70986	48.09 ug/L	99
18) acrolein	7.335	56	446436	537.04 ug/L	98
19) freon 113	7.524	151	121303	47.61 ug/L	96
20) 1,1-dichloroethene	7.529	61	209565	50.44 ug/L	95
21) acetone	7.581	58	18424	46.70 ug/L #	70
22) allyl chloride	8.094	76	110231	55.51 ug/L #	78
23) acetonitrile	8.042	40	165993	401.49 ug/L	95
24) iodomethane	7.822	142	263243	52.23 ug/L	96
25) carbon disulfide	7.958	76	463889	48.78 ug/L	99
26) methylene chloride	8.287	84	155390	48.33 ug/L	92
27) methyl acetate	8.083	43	102851	37.05 ug/L	99
28) methyl tert butyl ether	8.664	73	857903	87.73 ug/L	79
29) trans-1,2-dichloroethene	8.695	61	177286	46.59 ug/L	96
30) hexane	9.046	57	170005	54.55 ug/L	99
31) di-isopropyl ether	9.297	45	410858	42.06 ug/L	89
32) t-butyl formate	10.489	59	105504	37.21 ug/L	99
33) ethyl tert-butyl ether	9.783	59	404802	43.92 ug/L	99
34) 2-butanone	10.019	72	23316	53.64 ug/L #	56
35) 1,1-dichloroethane	9.286	63	231199	48.11 ug/L	98
36) chloroprene	9.407	53	143474	40.58 ug/L	97
37) acrylonitrile	8.627	53	330681	233.48 ug/L	97
38) vinyl acetate	9.276	86	22638	44.34 ug/L	77
39) ethyl acetate	10.045	45	20054	37.97 ug/L	93
41) 2,2-dichloropropane	10.076	77	252232	55.37 ug/L	97
42) cis-1,2-dichloroethene	10.050	96	141896	50.25 ug/L	95
43) propionitrile	10.113	54	297938	474.95 ug/L	97
44) bromochloromethane	10.369	128	70670	49.97 ug/L	93
45) tetrahydrofuran	10.421	42	66042	46.11 ug/L	95
46) chloroform	10.426	83	218367	50.74 ug/L	98
49) methacrylonitrile	10.311	67	64461	47.23 ug/L	97
50) cyclohexane	10.803	84	254130	51.27 ug/L	88
51) 1,1,1-trichloroethane	10.719	97	228554	54.41 ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221013.D
Acq On : 17 Mar 2016 4:01 pm
Operator : NicoleH1
Sample : jc16250-14msd
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 18 10:00:38 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 18 10:00:23 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.861	41	81746	388.35 ug/L	96
53) tert-amyl methyl ether	11.211	73	420439	45.11 ug/L	99
56) epichlorohydrin	12.843	57	89793	220.85 ug/L	98
57) n-butyl alcohol	11.635	56	429698	2283.65 ug/L	99
58) carbon tetrachloride	10.923	117	199185	50.50 ug/L	99
59) 1,1-dichloropropene	10.892	75	175699	51.24 ug/L	98
60) benzene	11.164	78	768939	70.94 ug/L	99
61) Iso-octane	11.201	57	547326	45.14 ug/L	99
62) heptane	11.363	71	78517	40.61 ug/L	96
64) isopropyl acetate	11.080	87	29641	44.20 ug/L #	90
65) 1,2-dichloroethane	11.164	62	157475	46.81 ug/L	95
66) trichloroethene	11.896	95	124342	48.38 ug/L	97
67) 2-nitropropane	12.696	41	48853	41.04 ug/L #	15
69) methylcyclohexane	12.152	83	216238	42.70 ug/L	98
70) 2-chloroethyl vinyl ether	12.717	63	240230	133.00 ug/L	98
71) methyl methacrylate	12.168	100	39440	51.83 ug/L	93
72) 1,2-dichloropropane	12.173	63	135793	46.79 ug/L	99
73) dibromomethane	12.320	93	81986	48.29 ug/L	98
74) bromodichloromethane	12.456	83	165362	47.49 ug/L	98
75) cis-1,3-dichloropropene	12.953	75	206091	48.86 ug/L	98
77) 4-methyl-2-pentanone	13.062	58	79020	48.89 ug/L #	88
78) toluene	13.361	91	3270689	314.70 ug/L	93
79) 3-methyl-1-butanol	13.057	55	271909	896.71 ug/L	98
80) trans-1,3-dichloropropene	13.549	75	187990	50.00 ug/L	97
81) ethyl methacrylate	13.554	69	183847	50.25 ug/L	97
82) 1,1,2-trichloroethane	13.784	83	98138	49.21 ug/L	96
83) 2-hexanone	13.983	58	70111	48.91 ug/L	95
85) tetrachloroethene	13.993	166	140109	49.08 ug/L	98
86) 1,3-dichloropropane	13.988	76	190345	46.41 ug/L	99
87) butyl acetate	14.061	56	97419	40.91 ug/L	99
88) 3,3-dimethyl-1-butanol	14.156	57	341485	420.78 ug/L	98
89) dibromochloromethane	14.276	129	132678	47.67 ug/L	98
90) 1,2-dibromoethane	14.448	107	116650	45.58 ug/L	94
91) n-butyl ether	14.883	57	634488	52.53 ug/L	98
92) chlorobenzene	14.971	112	344627	49.23 ug/L	98
93) 1,1,1,2-tetrachloroethane	15.034	131	154844	50.32 ug/L	100
94) ethylbenzene	15.039	91	1706637	140.20 ug/L	97
95) m,p-xylene	15.155	106	1961697	423.34 ug/L	84
96) o-xylene	15.625	91	1674451	164.03 ug/L	97
97) styrene	15.625	104	425993	56.19 ug/L	77
98) bromoform	15.908	173	102691	49.02 ug/L	98
100) isopropylbenzene	16.012	105	722486	55.63 ug/L	98
101) cyclohexanone	16.190	55	105209	365.92 ug/L	99
103) bromobenzene	16.452	156	156164	48.62 ug/L	97
104) 1,1,2,2-tetrachloroethane	16.321	83	193353	44.40 ug/L	98
105) trans-1,4-dichloro-2-b...	16.373	53	48707	62.48 ug/L	92
106) 1,2,3-trichloropropane	16.415	110	48657	46.57 ug/L	97
107) n-propylbenzene	16.467	91	872604	60.56 ug/L	100
108) 2-chlorotoluene	16.629	126	159901	50.45 ug/L	99
109) 4-chlorotoluene	16.739	91	420572	48.80 ug/L	97
111) 1,3,5-trimethylbenzene	16.635	105	803829	73.20 ug/L	98
112) tert-butylbenzene	17.032	134	131456	54.41 ug/L	95
113) pentachloroethane	17.111	167	134584	53.59 ug/L	96
114) 1,2,4-trimethylbenzene	17.074	105	1386621	126.03 ug/L	99
115) sec-butylbenzene	17.273	105	809737	52.99 ug/L	100
116) 1,3-dichlorobenzene	17.471	146	301278	48.63 ug/L	99
117) p-isopropyltoluene	17.403	119	667296	53.91 ug/L	99
119) 1,4-dichlorobenzene	17.560	146	303679	48.63 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221013.D
Acq On : 17 Mar 2016 4:01 pm
Operator : NicoleH1
Sample : jc16250-14msd
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 18 10:00:38 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 18 10:00:23 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	18.000	146	306216	47.87 ug/L	99
122) n-butylbenzene	17.864	92	333121	50.30 ug/L	98
124) 1,2-dibromo-3-chloropr...	18.852	157	55226	44.90 ug/L	96
125) 1,3,5-trichlorobenzene	19.077	180	289050	48.36 ug/L	99
126) 1,2,4-trichlorobenzene	19.809	180	277664	48.94 ug/L	98
127) hexachlorobutadiene	19.951	225	147641	52.25 ug/L	98
128) naphthalene	20.128	128	947827	55.67 ug/L	99
129) 1,2,3-trichlorobenzene	20.395	180	298734	47.11 ug/L	97
130) hexachloroethane	18.298	201	127142	53.14 ug/L	100

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

7.4.4

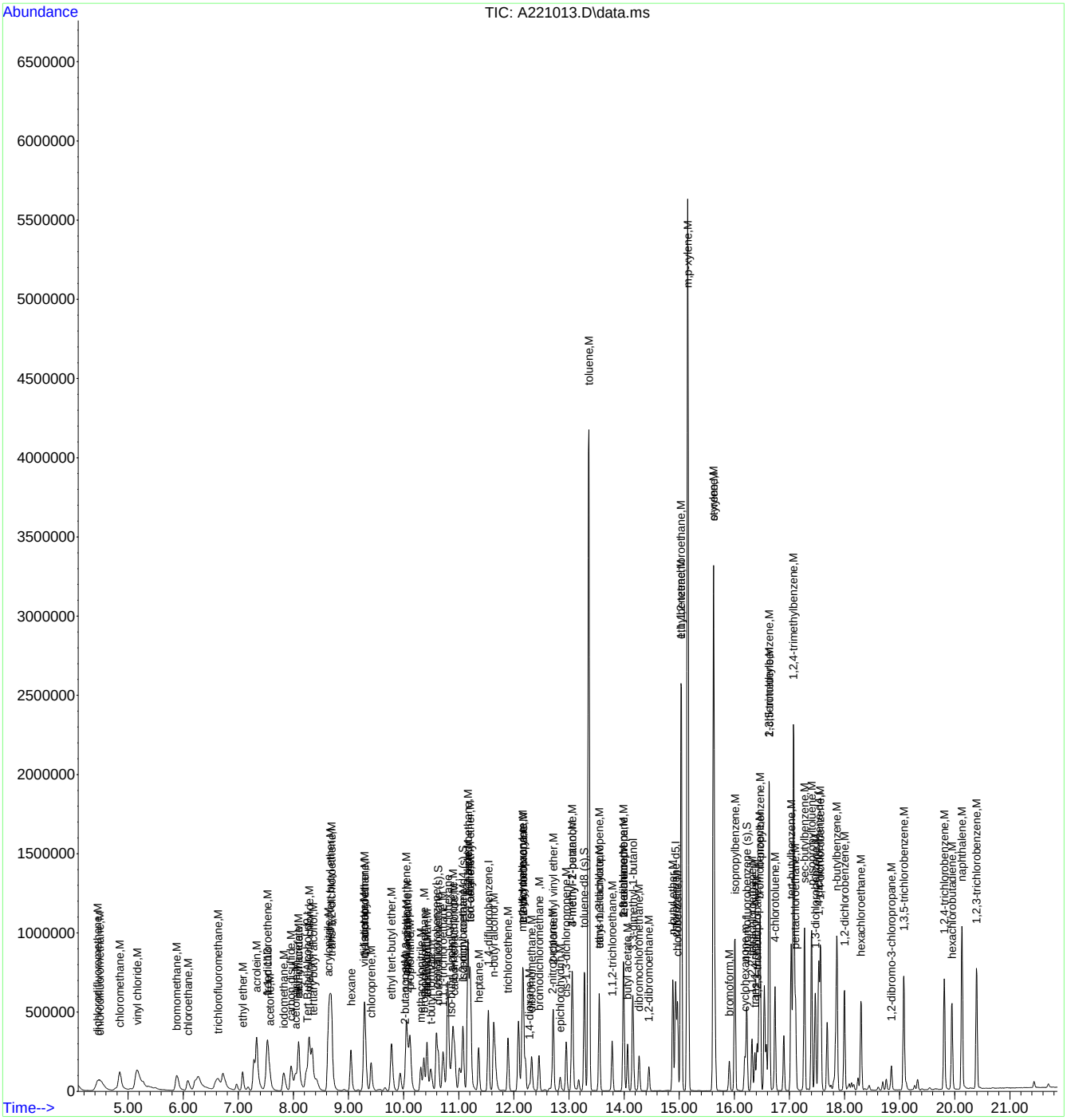
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A221013.D
Acq On : 17 Mar 2016 4:01 pm
Operator : NicoleH1
Sample : jc16250-14msd
Misc : MS99717,VA8370,5,,,,25
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 18 10:00:38 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 18 10:00:23 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204146.D
Acq On : 15 Mar 2016 3:49 pm
Operator : NicoleH1
Sample : jc16101-2dup
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 13:13:45 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.857	65	114250	500.00	ug/L	0.00
5) pentafluorobenzene	10.063	168	232892	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.983	114	339672	50.00	ug/L	0.00
96) chlorobenzene-d5	14.308	117	311770	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	165486	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.141	113	99709	52.71	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.42%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	123275	53.50	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.00%			
88) toluene-d8 (s)	12.667	98	405714	49.73	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.46%			
114) 4-bromofluorobenzene (s)	15.584	95	154719	51.09	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.18%			

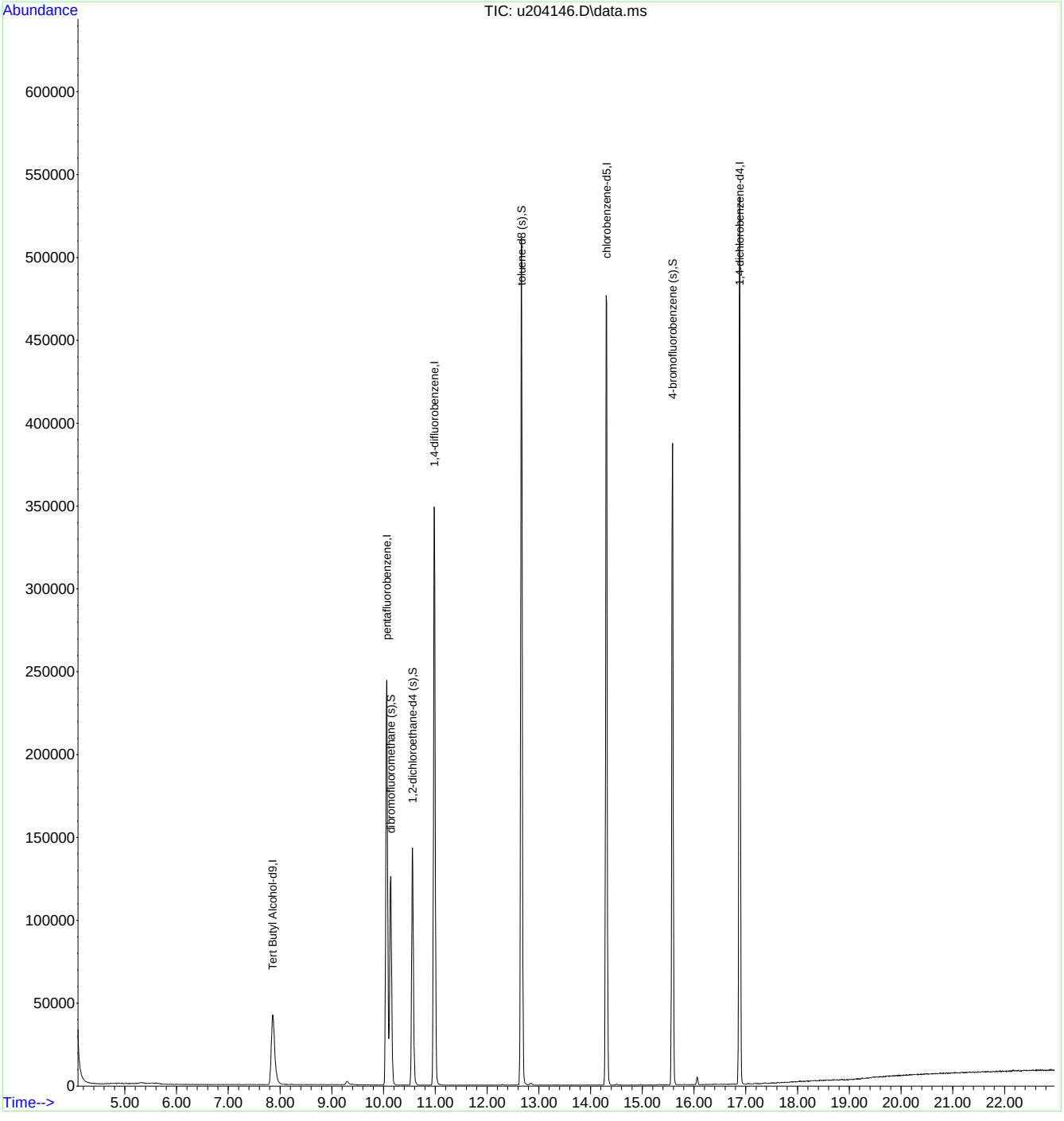
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204146.D
Acq On : 15 Mar 2016 3:49 pm
Operator : NicoleH1
Sample : jc16101-2dup
Misc : ms99593,vu9383,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 13:13:45 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Wed Mar 16 13:29:56 2016 T

Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-core\
Data File : u204181.D
Acq On : 16 Mar 2016 4:18 pm
Operator : NicoleH1
Sample : jc16065-2dup
Misc : ms99613,vu9384,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 09:33:23 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	115365	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	231980	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	339495	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	310465	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	163381	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	99125	52.60	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.20%			
57) 1,2-dichloroethane-d4 (s)	10.561	65	124748	54.36	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.72%			
88) toluene-d8 (s)	12.662	98	407257	49.95	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.90%			
114) 4-bromofluorobenzene (s)	15.580	95	155203	51.91	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.82%			

Target Compounds Qvalue

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

7.5.2

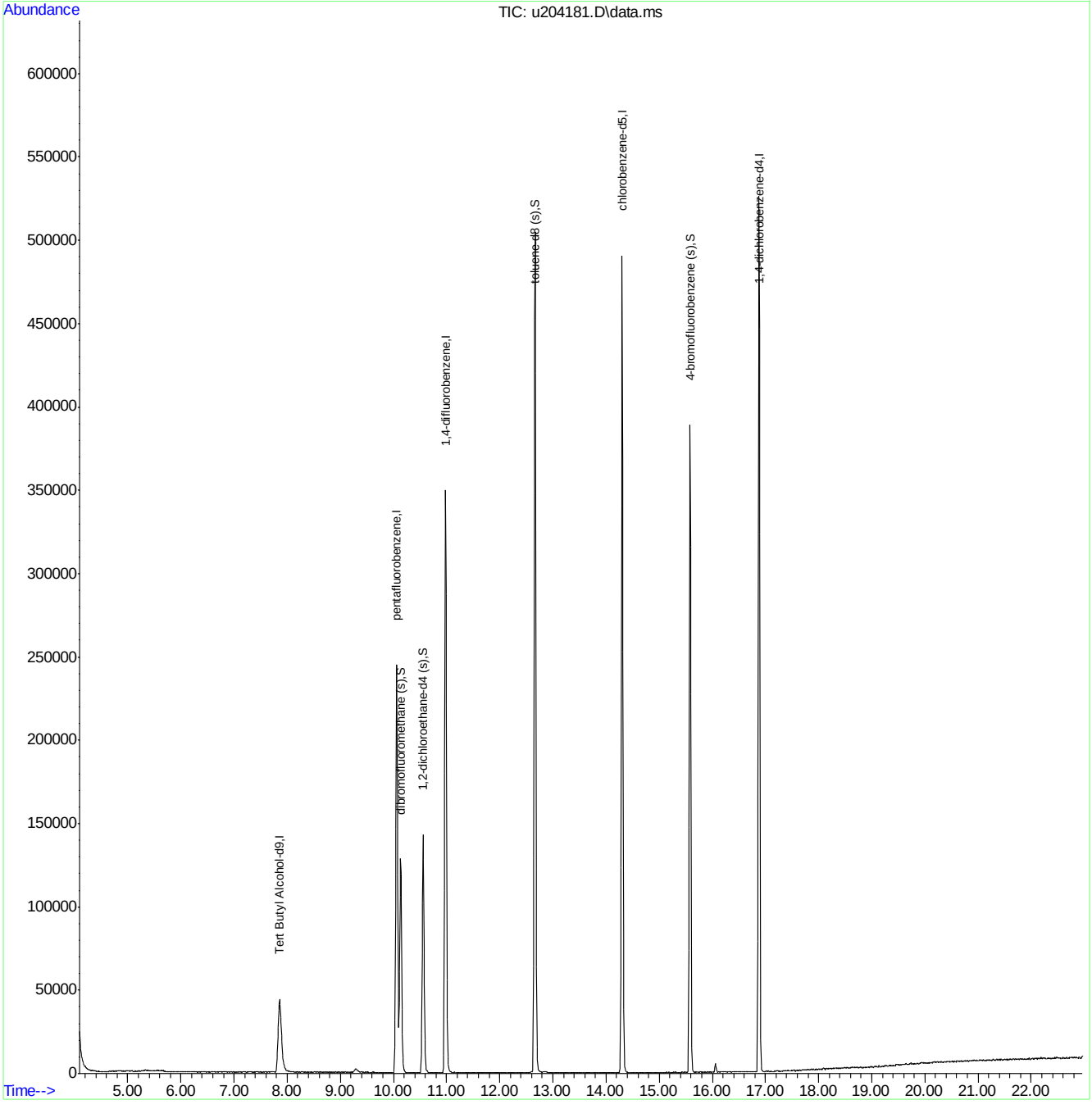
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-core\
Data File : u204181.D
Acq On : 16 Mar 2016 4:18 pm
Operator : NicoleH1
Sample : jc16065-2dup
Misc : ms99613,vu9384,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 09:33:23 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

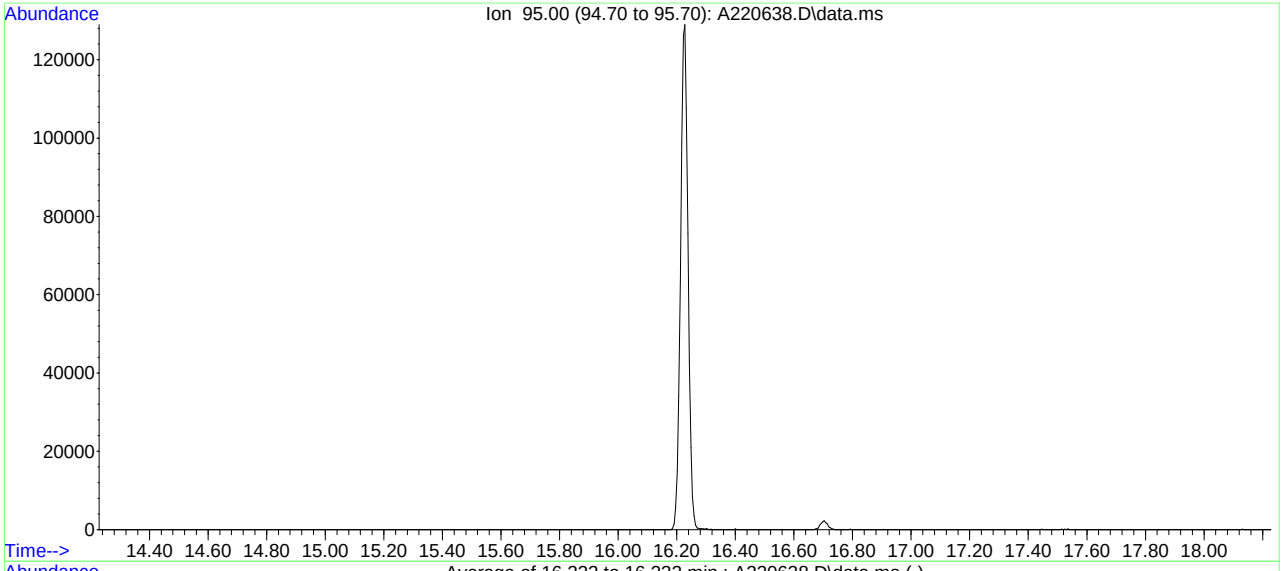


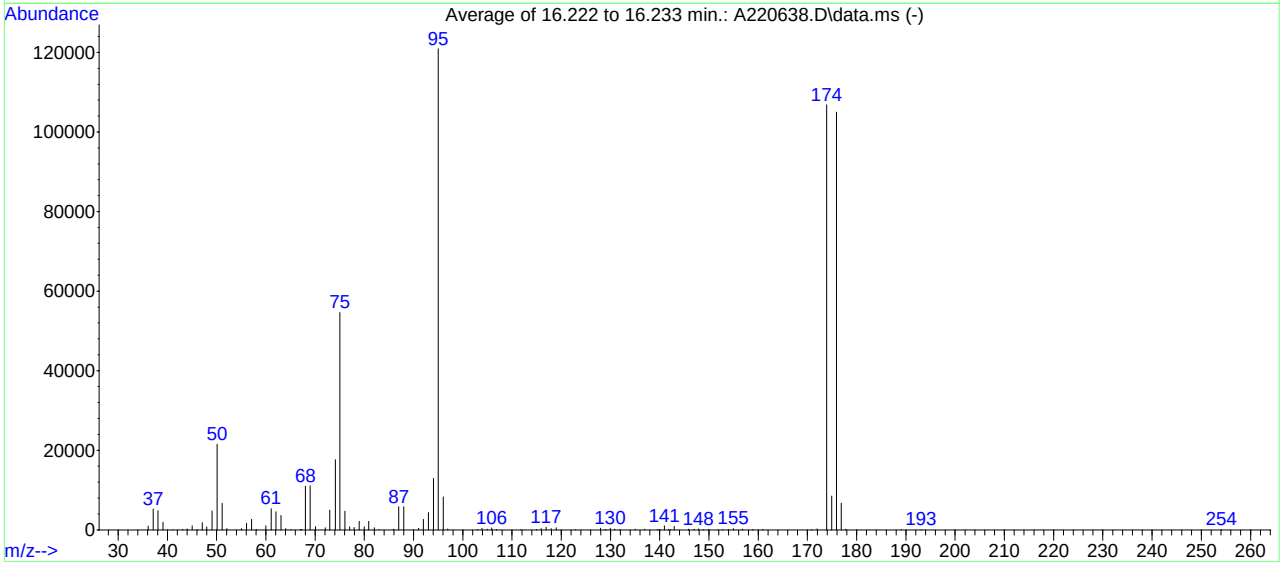
MU9367.M Thu Mar 17 09:35:22 2016 RPT1 Page: 2

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A220638.D Vial: 1
Acq On : 4 Mar 2016 12:30 pm Operator: NicoleH1
Sample : bfb Inst : MSA
Misc : MS99098,VA8353,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA8353.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2320, 2321, 2322; Background Corrected with Scan 2310

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	21546	PASS
75	95	30	60	45.2	54610	PASS
95	95	100	100	100.0	120898	PASS
96	95	5	9	6.8	8278	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.4	106842	PASS
175	174	5	9	8.0	8506	PASS
176	174	95	101	98.3	104973	PASS
177	176	5	9	6.4	6700	PASS

A220638.D MA8353.M Fri Mar 04 14:37:49 2016 RPT1

Average of 16.222 to 16.233 min.: A220638.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	972	49.05	4747	63.05	3635	75.05	54610
37.10	5259	50.10	21546	64.05	315	76.05	4669
38.10	4859	51.10	6655	65.10	57	77.00	779
39.10	1944	52.10	355	67.00	118	77.95	599
41.10	37	55.05	310	67.20	101	78.95	2174
43.10	77	56.05	1685	68.00	10934	80.00	741
44.00	280	57.10	2629	69.00	11099	80.90	2154
45.05	1056	58.05	139	70.05	780	82.00	546
46.10	49	60.00	1037	72.05	567	83.00	35
47.05	1825	61.05	5291	73.00	4977	85.95	193
48.00	776	62.05	4565	74.10	17661	87.00	5837

Average of 16.222 to 16.233 min.: A220638.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.00	5787	105.90	480	129.10	70	142.20	34
91.00	411	106.85	119	129.95	405	142.95	892
92.00	2633	111.80	46	130.85	179	145.85	147
93.00	4362	115.00	99	131.90	34	146.95	147
94.05	12920	115.90	354	135.00	211	147.90	247
95.00	120898	116.90	647	136.95	146	148.90	75
96.05	8278	117.95	339	139.60	91	149.90	54
96.95	277	118.95	537	139.90	36	151.90	34
103.05	101	122.90	39	140.10	49	152.85	120
103.90	390	127.95	385	140.95	1002	153.90	122
104.95	175	128.90	129	141.80	83	154.95	324

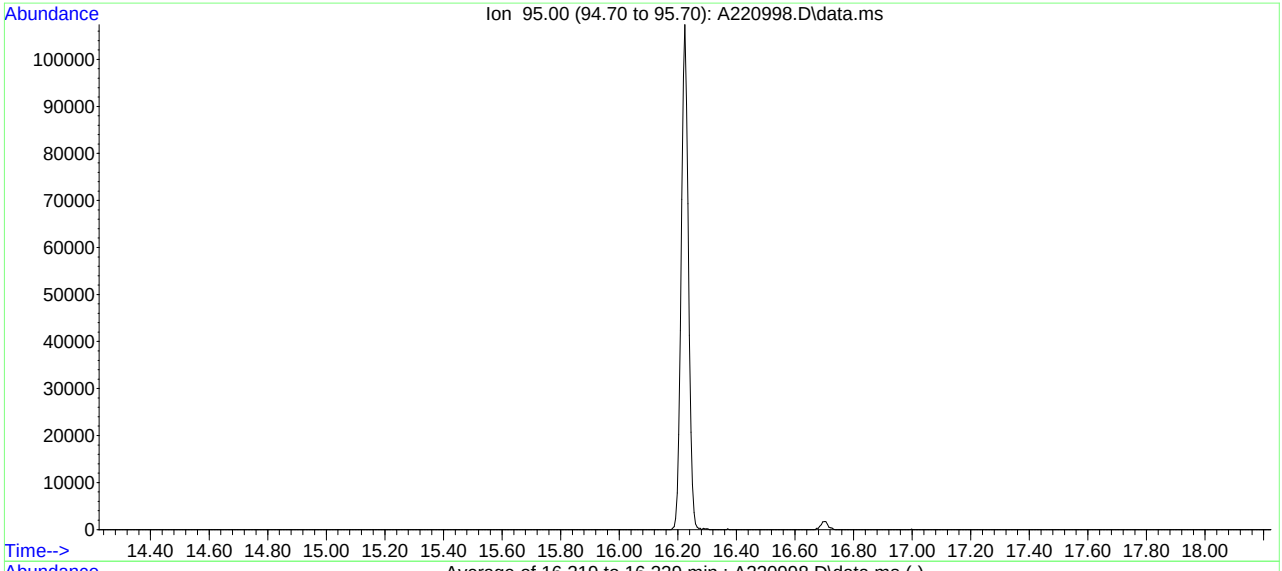
Average of 16.222 to 16.233 min.: A220638.D\data.ms
bfb
Modified:subtracted

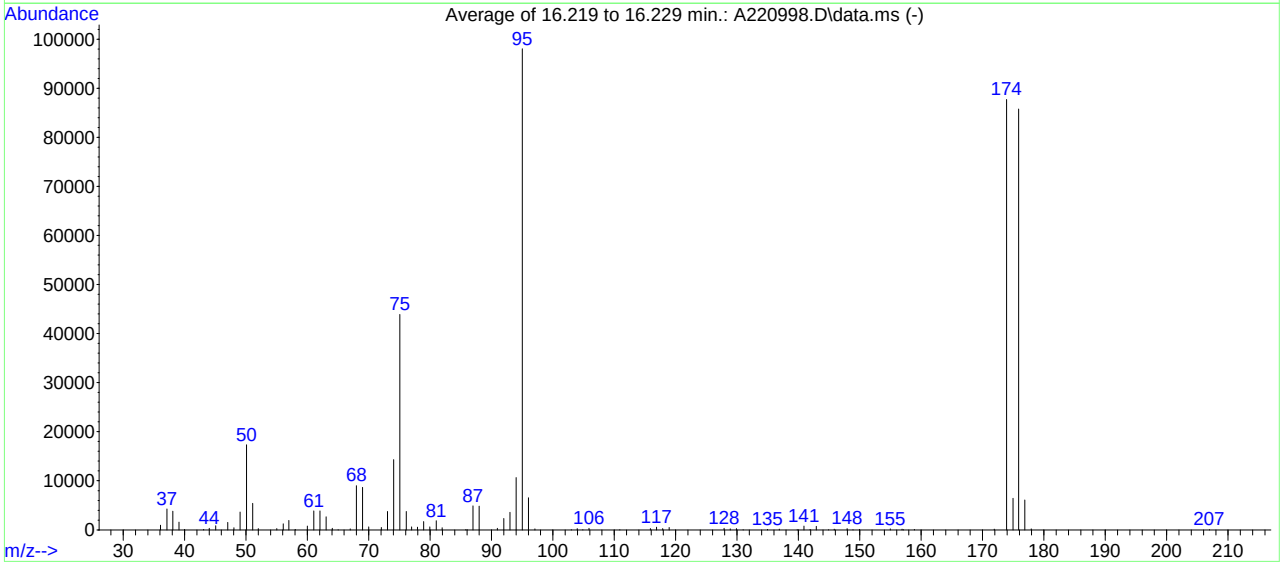
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
156.85	206	193.10	43				
158.90	135	254.10	34				
160.95	139						
170.80	67						
171.95	249						
173.90	106842						
174.95	8506						
175.90	104973						
176.85	6700						
177.80	159						
189.10	38						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A220998.D Vial: 1
Acq On : 17 Mar 2016 8:07 am Operator: NicoleH1
Sample : bfb Inst : MSA
Misc : MS99717,VA8370,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA8353.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2319, 2320, 2321; Background Corrected with Scan 2309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	17336	PASS
75	95	30	60	44.8	43914	PASS
95	95	100	100	100.0	98050	PASS
96	95	5	9	6.7	6527	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	89.4	87701	PASS
175	174	5	9	7.3	6442	PASS
176	174	95	101	97.8	85762	PASS
177	176	5	9	7.1	6069	PASS

A220998.D MA8353.M Thu Mar 17 17:06:02 2016 RPT1

Average of 16.219 to 16.229 min.: A220998.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	937	50.10	17336	64.05	298	77.00	601
37.10	4272	51.10	5409	65.00	46	77.95	535
38.10	3803	52.00	232	67.00	217	78.95	1692
39.10	1552	55.00	258	68.00	8996	79.95	616
40.00	116	56.05	1219	69.00	8645	81.00	1874
43.10	85	57.00	1942	70.00	616	81.95	443
44.00	321	58.05	74	72.05	491	85.80	41
45.05	825	60.00	766	73.05	3762	86.00	48
47.05	1532	61.05	3877	74.05	14335	87.00	4875
48.05	413	62.05	3835	75.05	43914	88.00	4832
49.05	3605	63.05	2672	76.10	3757	90.95	328

Average of 16.219 to 16.229 min.: A220998.D\data.ms
bfb
Modified:subtracted

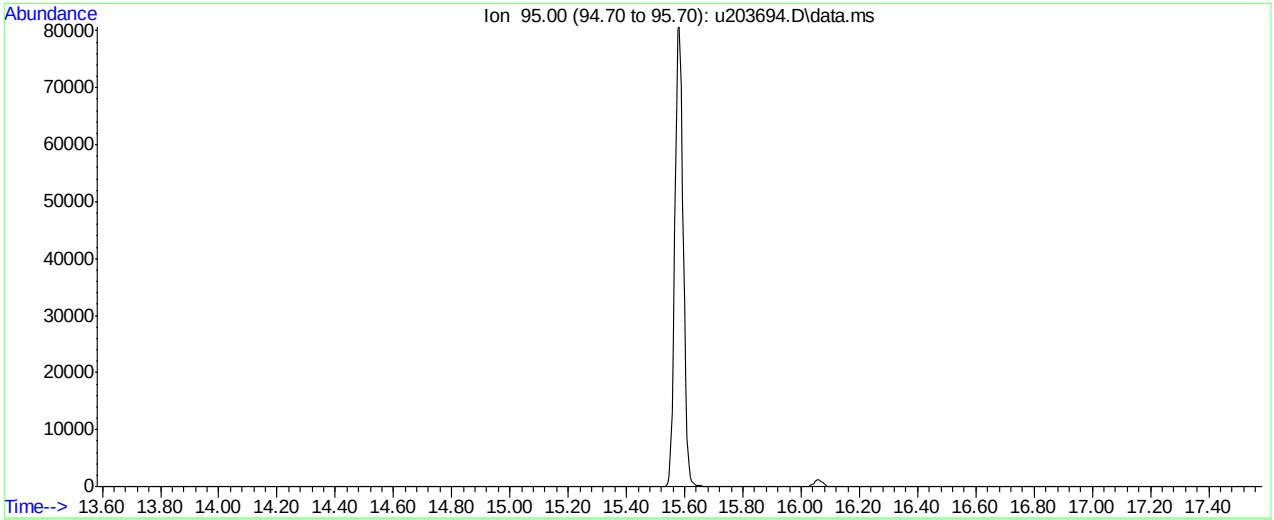
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	2327	115.90	277	140.90	764	158.90	87
93.00	3546	116.90	557	141.90	67	171.90	127
94.00	10636	117.90	268	142.90	706	173.90	87701
95.00	98050	118.95	484	144.90	35	174.95	6442
96.00	6527	127.90	311	145.85	132	175.90	85762
97.05	191	128.90	184	147.95	251	176.90	6069
103.00	35	129.90	274	148.90	37	177.95	182
103.95	284	131.00	47	149.95	70	206.95	33
104.90	49	134.95	105	154.95	219		
105.90	324	136.90	173	156.90	130		
110.90	37	139.80	37	157.10	34		

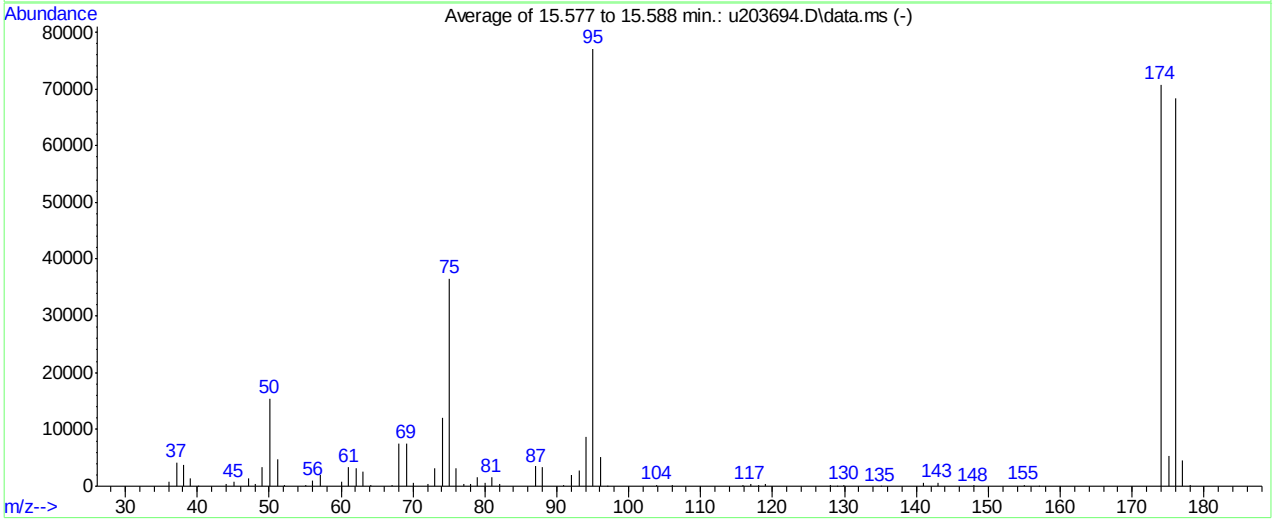
BFB

Data File : C:\msdchem\1\DATA\u203694.D
Acq On : 26 Feb 2016 10:26 am
Sample : bfb
Misc : ms98802,vu9367,5.0,,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: NicoleH1
Inst : MSU
Multiplr: 1.00

Method : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title : SW-846 8260C, ZB624 60m x 250um x 1.40um





AutoFind: Scans 2197, 2198, 2199; Background Corrected with Scan 2187

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	15488	PASS
75	95	30	60	47.5	36613	PASS
95	95	100	100	100.0	77106	PASS
96	95	5	9	6.7	5147	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.7	70741	PASS
175	174	5	9	7.5	5299	PASS
176	174	95	101	96.5	68253	PASS
177	176	5	9	6.7	4560	PASS

u203694.D MU9367.M Mon Feb 29 09:09:53 2016 U_CORE

Average of 15.577 to 15.588 min.: u203694.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	810	51.15	4741	68.05	7472	80.00	562
37.10	4198	52.15	222	69.05	7520	80.95	1679
38.15	3787	55.10	207	70.05	555	82.00	364
39.10	1449	56.10	1064	72.05	405	87.05	3542
40.05	14	57.10	1909	73.05	3205	88.05	3415
44.05	463	60.05	717	74.05	12011	91.00	259
45.10	705	61.05	3435	75.05	36613	92.05	1940
47.10	1349	62.10	3241	76.05	3176	93.05	2861
48.10	483	63.05	2501	77.05	477	94.10	8706
49.05	3330	64.10	248	78.00	317	95.05	77106
50.10	15488	67.15	180	78.95	1617	96.05	5147

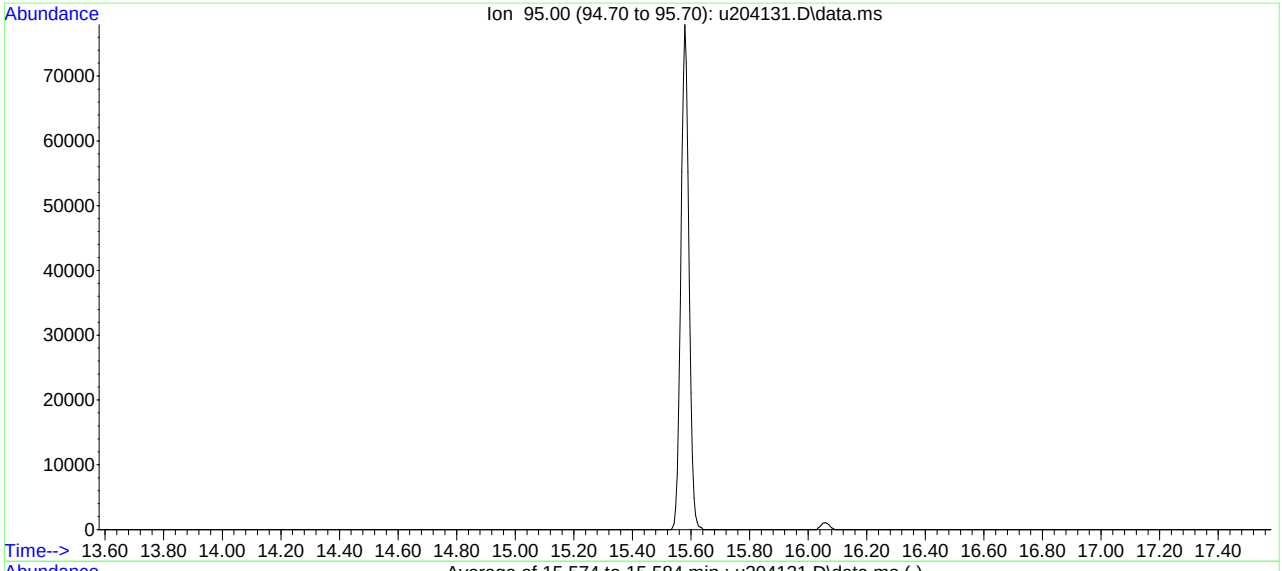
Average of 15.577 to 15.588 min.: u203694.D\data.ms
bfb
Modified:subtracted

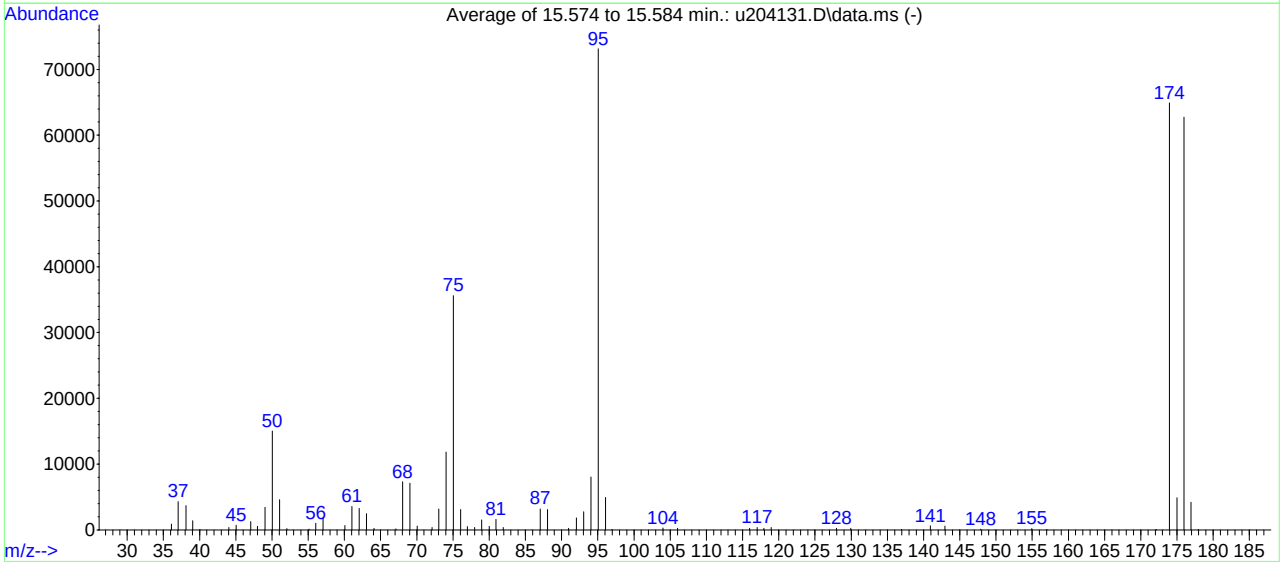
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.05	63	140.95	621				
103.95	265	142.95	658				
106.00	235	147.95	179				
115.95	247	154.95	218				
116.95	363	156.95	52				
118.00	227	174.00	70741				
119.00	350	175.05	5299				
128.00	254	176.00	68253				
128.95	56	176.95	4560				
129.95	299	178.05	111				
135.05	51						

BFB

Data File : C:\msdchem\1\DATA\U\vu9383\u204131.D Vial: 1
Acq On : 15 Mar 2016 8:20 am Operator: NicoleH1
Sample : bfb Inst : MSU
Misc : ms99574,vu9383,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title : SW-846 8260C, ZB624 60m x 250um x 1.40um





AutoFind: Scans 2197, 2198, 2199; Background Corrected with Scan 2187

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	15023	PASS
75	95	30	60	48.7	35597	PASS
95	95	100	100	100.0	73128	PASS
96	95	5	9	6.7	4918	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.8	64920	PASS
175	174	5	9	7.5	4887	PASS
176	174	95	101	96.7	62757	PASS
177	176	5	9	6.7	4215	PASS

u204131.D MU9367.M Wed Mar 16 13:07:47 2016 T

Average of 15.574 to 15.584 min.: u204131.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	872	51.05	4583	68.05	7302	80.00	529
37.05	4264	52.05	209	69.05	7101	80.95	1581
38.10	3673	55.10	123	70.05	575	81.95	386
39.05	1390	56.05	1018	72.10	378	87.05	3197
40.05	16	57.05	1869	73.05	3174	88.05	3103
44.05	346	60.05	649	74.05	11812	90.95	227
45.05	695	61.05	3552	75.05	35597	92.05	1812
47.05	1240	62.05	3277	76.05	3099	93.05	2762
48.00	532	63.05	2432	77.00	477	94.05	8042
49.05	3439	64.10	256	78.00	356	95.05	73128
50.05	15023	67.10	170	78.95	1506	96.05	4918

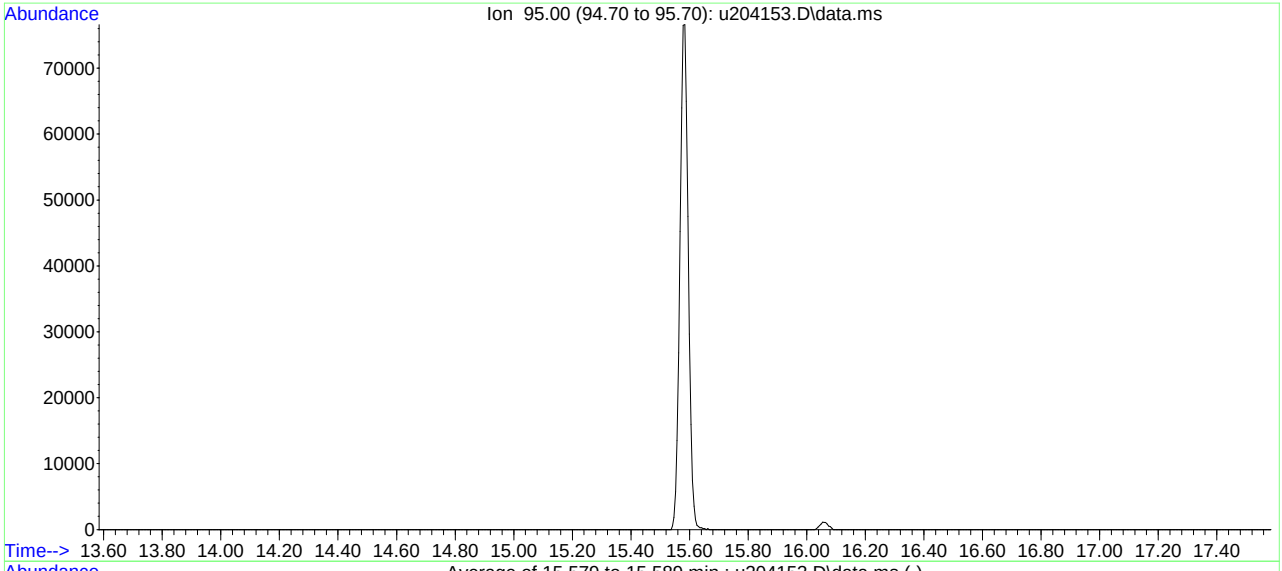
Average of 15.574 to 15.584 min.: u204131.D\data.ms
bfb
Modified:subtracted

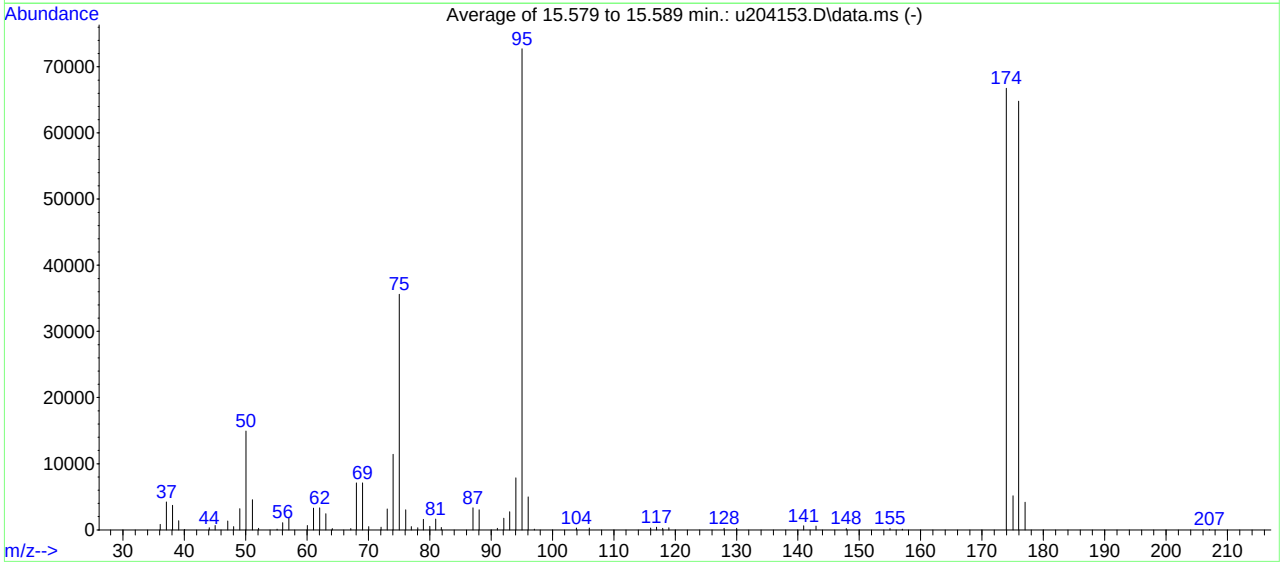
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	50	142.95	584				
104.00	265	147.90	125				
106.00	243	154.95	184				
115.95	239	157.05	55				
117.00	376	172.15	55				
117.95	232	173.95	64920				
118.95	350	175.00	4887				
127.95	252	175.95	62757				
129.95	248	176.95	4215				
136.95	50	177.95	53				
140.95	600						

BFB

Data File : C:\msdchem\1\DATA\U\vu9383\u204153.D Vial: 23
Acq On : 15 Mar 2016 7:14 pm Operator: NicoleH1
Sample : bfb2 Inst : MSU
Misc : ms99574,vu9383,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title : SW-846 8260C, ZB624 60m x 250um x 1.40um





AutoFind: Scans 2198, 2199, 2200; Background Corrected with Scan 2188

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	14935	PASS
75	95	30	60	49.0	35597	PASS
95	95	100	100	100.0	72712	PASS
96	95	5	9	6.9	4983	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.8	66765	PASS
175	174	5	9	7.7	5138	PASS
176	174	95	101	97.0	64787	PASS
177	176	5	9	6.4	4156	PASS

u204153.D MU9367.M Wed Mar 16 13:18:38 2016 T

Average of 15.579 to 15.589 min.: u204153.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	816	51.10	4571	68.05	7082	80.00	516
37.10	4217	52.10	229	69.05	7095	80.95	1612
38.10	3707	55.10	126	70.05	501	81.90	381
39.10	1379	56.05	1089	72.05	421	87.05	3331
40.05	62	57.05	1846	73.05	3177	88.05	3043
44.05	338	60.05	669	74.05	11428	91.00	230
45.05	679	61.05	3302	75.05	35597	92.05	1755
47.10	1316	62.05	3321	76.10	3019	93.05	2740
48.05	494	63.05	2431	77.00	481	94.05	7847
49.05	3218	64.10	213	78.05	328	95.05	72712
50.05	14935	67.15	178	78.95	1605	96.05	4983

Average of 15.579 to 15.589 min.: u204153.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.05	105	147.90	175				
103.90	272	155.00	187				
106.00	257	157.00	107				
116.00	279	173.95	66765				
116.95	395	175.05	5138				
117.95	233	175.95	64787				
118.95	320	177.00	4156				
127.95	225	207.05	12				
130.00	221						
140.95	601						
142.95	590						

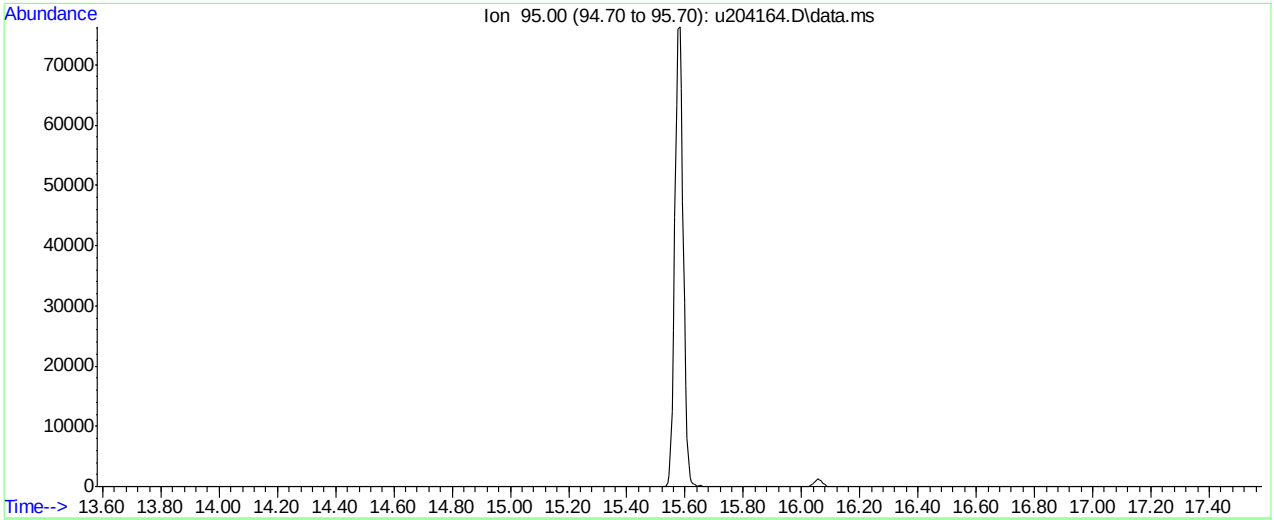
SGS ACCUTEST JC16038

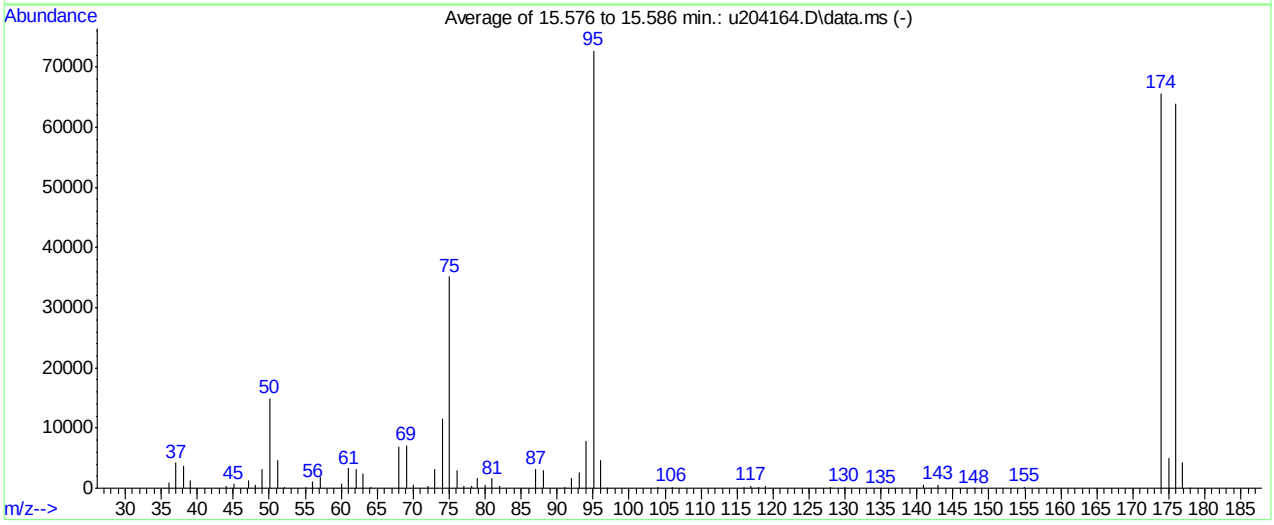
BFB

Data File : C:\msdchem\1\DATA\u204164.D
Acq On : 16 Mar 2016 8:21 am
Sample : bfb
Misc : ms99610,vu9384,5.0,,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: NicoleH1
Inst : MSU
Multiplr: 1.00

Method : C:\msdchem\1\METHODS\MU9367.M (RTE Integrator)
Title : SW-846 8260C, ZB624 60m x 250um x 1.40um





AutoFind: Scans 2197, 2198, 2199; Background Corrected with Scan 2187

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	14989	PASS
75	95	30	60	48.3	35176	PASS
95	95	100	100	100.0	72778	PASS
96	95	5	9	6.5	4736	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.2	65642	PASS
175	174	5	9	7.5	4951	PASS
176	174	95	101	97.5	64005	PASS
177	176	5	9	6.6	4242	PASS

u204164.D MU9367.M Wed Mar 16 14:42:35 2016 U_CORE

Average of 15.576 to 15.586 min.: u204164.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	849	52.05	215	70.05	518	81.95	346
37.05	4239	55.05	202	72.05	416	87.05	3189
38.05	3765	56.05	1063	73.05	3259	88.05	3042
39.10	1373	57.05	1880	74.05	11501	91.00	252
44.05	347	60.05	718	75.05	35176	92.05	1769
45.10	662	61.05	3290	76.05	2910	93.05	2680
47.05	1246	62.05	3180	77.05	458	94.05	7899
48.10	519	63.05	2371	78.05	323	95.05	72778
49.05	3157	64.05	237	78.95	1610	96.05	4736
50.05	14989	68.05	6968	80.00	507	97.05	54
51.10	4592	69.05	7100	80.95	1595	103.95	239

Average of 15.576 to 15.586 min.: u204164.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
106.00	271	154.95	193				
115.95	207	173.95	65642				
116.95	392	175.05	4951				
117.95	219	175.95	64005				
118.95	328	176.95	4242				
128.00	246	177.95	59				
130.00	261						
135.05	52						
140.95	548						
142.95	641						
147.95	54						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220641.D
Acq On : 4 Mar 2016 2:40 pm
Operator : NicoleH1
Sample : ic8353-1
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 10:16:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.225	65	563531	500.00 ug/L	-0.01
4) pentafluorobenzene	10.594	168	377208	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.536	114	566803	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	492875	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.535	152	275221	50.00 ug/L	0.00

System Monitoring Compounds					
47) dibromofluoromethane (s)	10.631	113	183833	51.36 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.72%		
48) 1,2-dichloroethane-d4 (s)	11.070	65	199655	51.92 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 103.84%		
76) toluene-d8 (s)	13.277	98	655594	49.59 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.18%		
102) 4-bromofluorobenzene (s)	16.227	95	237564	50.31 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.62%		

Target Compounds					Qvalue
7) chlorodifluoromethane	4.470	51	4866	0.82 ug/L	66
8) dichlorodifluoromethane	4.428	85	7765	1.09 ug/L	89
9) chloromethane	4.836	50	8951	1.20 ug/L	84
10) vinyl chloride	5.144	62	9225	1.02 ug/L	93
11) bromomethane	5.871	94	5467	1.58 ug/L	88
12) chloroethane	6.086	64	3877	1.21 ug/L	93
14) trichlorofluoromethane	6.635	101	6177	0.92 ug/L	91
16) ethyl ether	7.085	74	1554	0.87 ug/L #	84
18) acrolein	7.331	56	1127686	1103.58 ug/L	98
20) 1,1-dichloroethene	7.524	61	3743	0.75 ug/L	88
22) allyl chloride	8.089	76	2158	0.88 ug/L #	69
24) iodomethane	7.822	142	4754	0.77 ug/L	92
25) carbon disulfide	7.958	76	10329	0.88 ug/L	93
26) methylene chloride	8.293	84	3293	0.88 ug/L	78
27) methyl acetate	8.073	43	3031	0.87 ug/L #	88
28) methyl tert butyl ether	8.659	73	9491	0.81 ug/L	95
29) trans-1,2-dichloroethene	8.690	61	3765	0.80 ug/L	87
30) hexane	9.046	57	2676	0.72 ug/L #	89
31) di-isopropyl ether	9.292	45	9621	0.80 ug/L	92
32) t-butyl formate	10.484	59	2767	0.75 ug/L	88
33) ethyl tert-butyl ether	9.778	59	9007	0.79 ug/L	97
35) 1,1-dichloroethane	9.287	63	4889	0.83 ug/L	95
36) chloroprene	9.412	53	3451	0.79 ug/L	90
37) acrylonitrile	8.628	53	6937	3.98 ug/L	98
41) 2,2-dichloropropane	10.071	77	5009	0.89 ug/L	94
42) cis-1,2-dichloroethene	10.056	96	2914	0.84 ug/L #	79
43) propionitrile	10.118	54	5960	7.99 ug/L	86
44) bromochloromethane	10.380	128	1418	0.82 ug/L #	52
45) tetrahydrofuran	10.416	42	1492	0.83 ug/L	61
46) chloroform	10.422	83	4108	0.80 ug/L	97
49) methacrylonitrile	10.307	67	1393	0.86 ug/L #	62
51) 1,1,1-trichloroethane	10.714	97	3930	0.76 ug/L	92
53) tert-amyl methyl ether	11.201	73	10227	0.91 ug/L	94
57) n-butyl alcohol	11.645	56	8162	34.64 ug/L	95
58) carbon tetrachloride	10.929	117	3558	0.77 ug/L	81
59) 1,1-dichloropropene	10.892	75	3194	0.77 ug/L	94
60) benzene	11.164	78	10785	0.83 ug/L	98
64) isopropyl acetate	11.075	87	510	0.60 ug/L #	1
65) 1,2-dichloroethane	11.159	62	3289	0.81 ug/L	96
66) trichloroethene	11.897	95	2407	0.81 ug/L	80
69) methylcyclohexane	12.148	83	4136	0.63 ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220641.D
Acq On : 4 Mar 2016 2:40 pm
Operator : NicoleH1
Sample : ic8353-1
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 10:16:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
70) 2-chloroethyl vinyl ether	12.712	63	8689	4.04 ug/L	94
71) methyl methacrylate	12.168	100	661	0.70 ug/L #	27
72) 1,2-dichloropropane	12.174	63	2801	0.80 ug/L	86
73) dibromomethane	12.325	93	1548	0.76 ug/L	88
74) bromodichloromethane	12.456	83	3326	0.79 ug/L	98
75) cis-1,3-dichloropropene	12.958	75	3916	0.80 ug/L	91
77) 4-methyl-2-pentanone	13.063	58	1455	0.74 ug/L	97
78) toluene	13.356	91	9370	0.78 ug/L	86
80) trans-1,3-dichloropropene	13.549	75	3386	0.77 ug/L	99
81) ethyl methacrylate	13.554	69	3234	0.75 ug/L	97
82) 1,1,2-trichloroethane	13.785	83	1649	0.70 ug/L	89
85) tetrachloroethene	13.999	166	2580	0.79 ug/L	86
86) 1,3-dichloropropane	13.994	76	3773	0.80 ug/L	88
87) butyl acetate	14.072	56	2366	0.89 ug/L	64
88) 3,3-dimethyl-1-butanol	14.161	57	6592	7.06 ug/L	94
89) dibromochloromethane	14.271	129	2353	0.74 ug/L	98
90) 1,2-dibromoethane	14.454	107	2331	0.79 ug/L	92
91) n-butyl ether	14.888	57	10522	0.78 ug/L	94
92) chlorobenzene	14.972	112	6094	0.76 ug/L	93
93) 1,1,1,2-tetrachloroethane	15.029	131	2529	0.72 ug/L	89
94) ethylbenzene	15.040	91	10703	0.76 ug/L	96
95) m,p-xylene	15.155	106	7805	1.46 ug/L	95
96) o-xylene	15.626	91	8898	0.76 ug/L	91
97) styrene	15.631	104	6519	0.75 ug/L	90
98) bromoform	15.913	173	1874	0.78 ug/L	77
100) isopropylbenzene	16.018	105	10632	0.71 ug/L	93
101) cyclohexanone	16.185	55	4112	12.39 ug/L	91
103) bromobenzene	16.452	156	2766	0.75 ug/L	78
104) 1,1,2,2-tetrachloroethane	16.321	83	4086	0.81 ug/L	90
106) 1,2,3-trichloropropane	16.415	110	935	0.76 ug/L	84
107) n-propylbenzene	16.468	91	12274	0.74 ug/L	96
108) 2-chlorotoluene	16.630	126	2662	0.73 ug/L	97
109) 4-chlorotoluene	16.740	91	7723	0.78 ug/L	99
111) 1,3,5-trimethylbenzene	16.640	105	9212	0.73 ug/L	94
112) tert-butylbenzene	17.027	134	1912	0.66 ug/L #	59
113) pentachloroethane	17.106	167	1885	0.62 ug/L	91
114) 1,2,4-trimethylbenzene	17.080	105	9034	0.71 ug/L	88
115) sec-butylbenzene	17.273	105	12229	0.71 ug/L	98
116) 1,3-dichlorobenzene	17.472	146	5470	0.80 ug/L	96
117) p-isopropyltoluene	17.404	119	9691	0.69 ug/L	94
119) 1,4-dichlorobenzene	17.561	146	5314	0.77 ug/L	98
121) 1,2-dichlorobenzene	18.000	146	5153	0.72 ug/L	95
124) 1,2-dibromo-3-chloropr...	18.858	157	1181	0.81 ug/L #	69
125) 1,3,5-trichlorobenzene	19.077	180	5180	0.78 ug/L	98
126) 1,2,4-trichlorobenzene	19.815	180	4878	0.75 ug/L	89
127) hexachlorobutadiene	19.956	225	2363	0.72 ug/L	94
128) naphthalene	20.134	128	15873	0.81 ug/L	99
129) 1,2,3-trichlorobenzene	20.401	180	5893	0.81 ug/L #	75
130) hexachloroethane	18.298	201	1413	0.51 ug/L	94

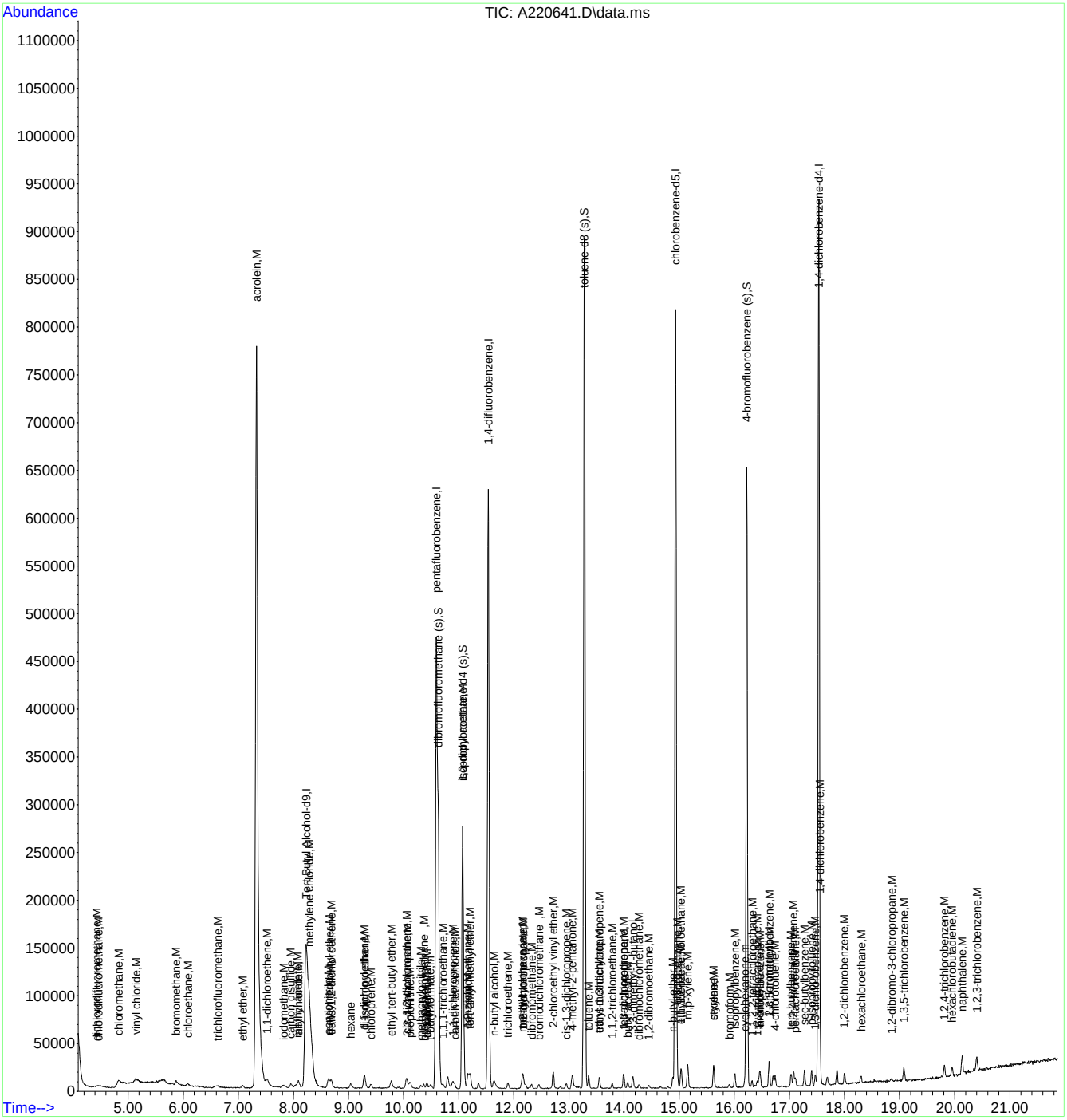
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220641.D
Acq On : 4 Mar 2016 2:40 pm
Operator : NicoleH1
Sample : ic8353-1
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 10:16:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration



MA8353.M Fri Mar 11 11:27:36 2016 RPT1

SGS ACCUTEST JC16038

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
03/11/16 10:32

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220642.D
Acq On : 4 Mar 2016 3:10 pm
Operator : NicoleH1
Sample : ic8353-2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 10:16:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.236	65	566714	500.00 ug/L	0.00
4) pentafluorobenzene	10.595	168	376581	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.536	114	551659	50.00 ug/L	0.00
84) chlorobenzene-d5	14.936	117	478169	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.535	152	267570	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.631	113	178150	49.85 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.70%		
48) 1,2-dichloroethane-d4 (s)	11.071	65	192298	50.09 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.18%		
76) toluene-d8 (s)	13.283	98	643335	50.00 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.00%		
102) 4-bromofluorobenzene (s)	16.227	95	229007	49.88 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.76%		

Target Compounds

					Qvalue
2) 1,4-dioxane	12.289	88	2922	40.87 ug/L	83
3) tertiary butyl alcohol	8.361	59	8236	8.12 ug/L	76
7) chlorodifluoromethane	4.470	51	10171	1.71 ug/L	91
8) dichlorodifluoromethane	4.475	85	11408	1.60 ug/L	75
9) chloromethane	4.831	50	11959	1.60 ug/L	87
10) vinyl chloride	5.150	62	14165	1.57 ug/L	93
11) bromomethane	5.877	94	6575	1.90 ug/L	91
12) chloroethane	6.081	64	5207	1.63 ug/L	89
14) trichlorofluoromethane	6.620	101	10677	1.59 ug/L	71
16) ethyl ether	7.085	74	2994	1.67 ug/L	91
18) acrolein	7.331	56	2127573	2085.56 ug/L	98
19) freon 113	7.519	151	4885	1.56 ug/L #	97
20) 1,1-dichloroethene	7.530	61	8230	1.66 ug/L	91
22) allyl chloride	8.095	76	4068	1.67 ug/L #	84
24) iodomethane	7.828	142	9966	1.61 ug/L	96
25) carbon disulfide	7.959	76	20098	1.72 ug/L	99
26) methylene chloride	8.283	84	6736	1.79 ug/L	96
27) methyl acetate	8.084	43	5931	1.71 ug/L	88
28) methyl tert butyl ether	8.665	73	19090	1.63 ug/L	96
29) trans-1,2-dichloroethene	8.696	61	7492	1.60 ug/L	95
30) hexane	9.041	57	6087	1.64 ug/L	95
31) di-isopropyl ether	9.292	45	20068	1.67 ug/L	88
32) t-butyl formate	10.495	59	5344	1.46 ug/L	90
33) ethyl tert-butyl ether	9.784	59	17754	1.57 ug/L	98
34) 2-butanone	10.014	72	742	1.32 ug/L #	48
35) 1,1-dichloroethane	9.298	63	9542	1.62 ug/L	96
36) chloroprene	9.413	53	6783	1.56 ug/L	84
37) acrylonitrile	8.633	53	14687	8.45 ug/L	96
38) vinyl acetate	9.271	86	901	1.37 ug/L	56
39) ethyl acetate	10.061	45	1214	1.85 ug/L #	1
41) 2,2-dichloropropane	10.077	77	9765	1.75 ug/L	95
42) cis-1,2-dichloroethene	10.045	96	5947	1.72 ug/L	89
43) propionitrile	10.119	54	12822	17.21 ug/L	93
44) bromochloromethane	10.365	128	2882	1.66 ug/L	93
45) tetrahydrofuran	10.438	42	3270	1.82 ug/L	94
46) chloroform	10.427	83	8424	1.65 ug/L	96
49) methacrylonitrile	10.312	67	2707	1.67 ug/L	91
50) cyclohexane	10.804	84	9287	1.53 ug/L	98
51) 1,1,1-trichloroethane	10.710	97	8219	1.59 ug/L	99
52) iso-butyl alcohol	10.867	41	5031m	19.39 ug/L	
53) tert-amyl methyl ether	11.212	73	18878	1.68 ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220642.D
Acq On : 4 Mar 2016 3:10 pm
Operator : NicoleH1
Sample : ic8353-2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 10:16:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) epichlorohydrin	12.844	57	3806	7.99 ug/L	88
57) n-butyl alcohol	11.641	56	18728	81.66 ug/L	91
58) carbon tetrachloride	10.919	117	7190	1.61 ug/L	86
59) 1,1-dichloropropene	10.893	75	6518	1.62 ug/L	91
60) benzene	11.165	78	21456	1.69 ug/L	93
61) Iso-octane	11.196	57	19961	1.34 ug/L	99
62) heptane	11.358	71	3474	1.53 ug/L	96
64) isopropyl acetate	11.081	87	1515	1.83 ug/L #	58
65) 1,2-dichloroethane	11.159	62	6542	1.66 ug/L	94
66) trichloroethene	11.892	95	4577	1.58 ug/L	91
67) 2-nitropropane	12.702	41	2706	1.94 ug/L #	52
69) methylcyclohexane	12.158	83	8699	1.36 ug/L	96
70) 2-chloroethyl vinyl ether	12.713	63	17535	8.38 ug/L	96
71) methyl methacrylate	12.164	100	1405	1.52 ug/L	78
72) 1,2-dichloropropane	12.174	63	5280	1.55 ug/L	98
73) dibromomethane	12.326	93	3241	1.63 ug/L	88
74) bromodichloromethane	12.451	83	6340	1.55 ug/L	95
75) cis-1,3-dichloropropene	12.953	75	7856	1.64 ug/L	95
77) 4-methyl-2-pentanone	13.068	58	2773	1.44 ug/L #	81
78) toluene	13.356	91	19340	1.65 ug/L	95
79) 3-methyl-1-butanol	13.058	55	11182	31.46 ug/L	98
80) trans-1,3-dichloropropene	13.544	75	7263	1.70 ug/L	90
81) ethyl methacrylate	13.555	69	6703	1.60 ug/L	93
82) 1,1,2-trichloroethane	13.785	83	3819	1.66 ug/L	81
83) 2-hexanone	13.979	58	2695	1.60 ug/L #	69
85) tetrachloroethene	13.994	166	5220	1.64 ug/L	91
86) 1,3-dichloropropane	13.989	76	7366	1.61 ug/L	97
87) butyl acetate	14.073	56	4296	1.66 ug/L	71
88) 3,3-dimethyl-1-butanol	14.156	57	13956	15.41 ug/L	93
89) dibromochloromethane	14.277	129	4898	1.58 ug/L	94
90) 1,2-dibromoethane	14.449	107	4660	1.63 ug/L	97
91) n-butyl ether	14.883	57	21662	1.66 ug/L	94
92) chlorobenzene	14.977	112	12740	1.63 ug/L	95
93) 1,1,1,2-tetrachloroethane	15.035	131	5226	1.54 ug/L	88
94) ethylbenzene	15.035	91	21711	1.60 ug/L	95
95) m,p-xylene	15.155	106	16186	3.13 ug/L	88
96) o-xylene	15.626	91	18181	1.60 ug/L	88
97) styrene	15.631	104	13053	1.54 ug/L	96
98) bromoform	15.914	173	3518	1.50 ug/L	91
100) isopropylbenzene	16.013	105	22952	1.58 ug/L	97
101) cyclohexanone	16.186	55	7463	23.14 ug/L	94
103) bromobenzene	16.452	156	6008	1.67 ug/L	97
104) 1,1,2,2-tetrachloroethane	16.322	83	8012	1.64 ug/L	94
106) 1,2,3-trichloropropane	16.416	110	2124	1.78 ug/L	90
107) n-propylbenzene	16.473	91	26072	1.61 ug/L	95
108) 2-chlorotoluene	16.630	126	5524	1.55 ug/L	95
109) 4-chlorotoluene	16.740	91	15318	1.58 ug/L	89
111) 1,3,5-trimethylbenzene	16.630	105	18669	1.52 ug/L	95
112) tert-butylbenzene	17.033	134	3883	1.38 ug/L	96
113) pentachloroethane	17.111	167	4493	1.52 ug/L	92
114) 1,2,4-trimethylbenzene	17.080	105	19146	1.55 ug/L	90
115) sec-butylbenzene	17.273	105	26175	1.57 ug/L	99
116) 1,3-dichlorobenzene	17.472	146	10647	1.60 ug/L	89
117) p-isopropyltoluene	17.404	119	20533	1.51 ug/L	99
119) 1,4-dichlorobenzene	17.561	146	10934	1.63 ug/L	85
121) 1,2-dichlorobenzene	18.000	146	11987	1.72 ug/L	97
122) n-butylbenzene	17.865	92	11376	1.60 ug/L	93
124) 1,2-dibromo-3-chloropr...	18.848	157	2222	1.57 ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220642.D
Acq On : 4 Mar 2016 3:10 pm
Operator : NicoleH1
Sample : ic8353-2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 10:16:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
125) 1,3,5-trichlorobenzene	19.073	180	10693	1.65 ug/L	93
126) 1,2,4-trichlorobenzene	19.810	180	10778	1.69 ug/L	93
127) hexachlorobutadiene	19.951	225	5104	1.61 ug/L	92
128) naphthalene	20.129	128	32955	1.73 ug/L	97
129) 1,2,3-trichlorobenzene	20.401	180	11831	1.66 ug/L	98
130) hexachloroethane	18.299	201	3667	1.37 ug/L	96

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

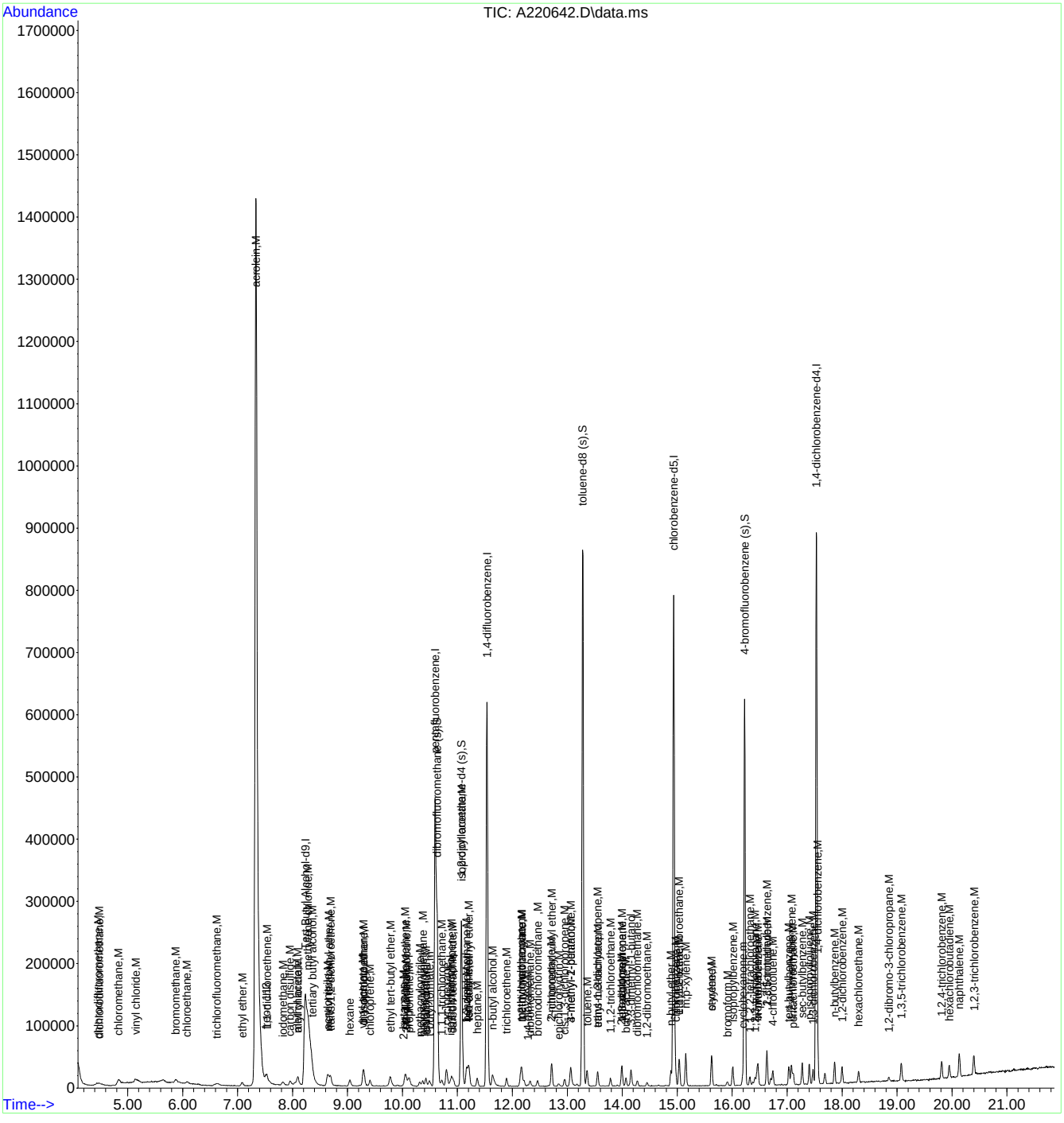
7.7.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220642.D
Acq On : 4 Mar 2016 3:10 pm
Operator : NicoleH1
Sample : ic8353-2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 10:16:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Manual Integration Approval Summary

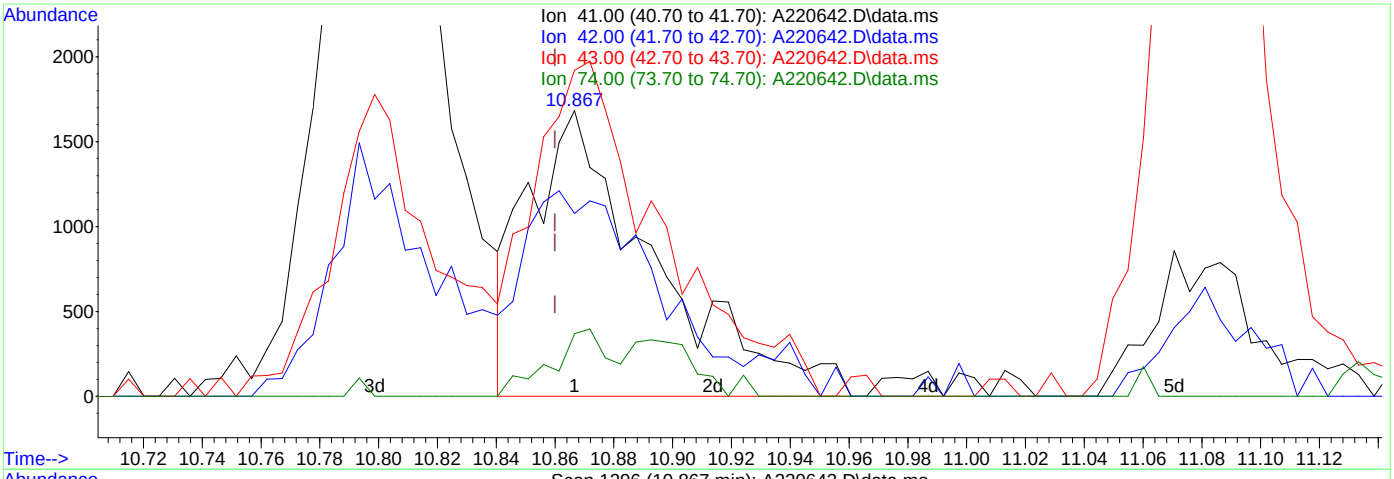
Sample Number:	VA8353-IC8353	**Method:**	SW846 8260C
Lab FileID:	A220642.D	**Analyst approved:**	03/08/16 10:22 Ying Li
Injection Time:	03/04/16 15:10	**Supervisor approved:**	03/11/16 10:32 Jessica Reitan-Chu

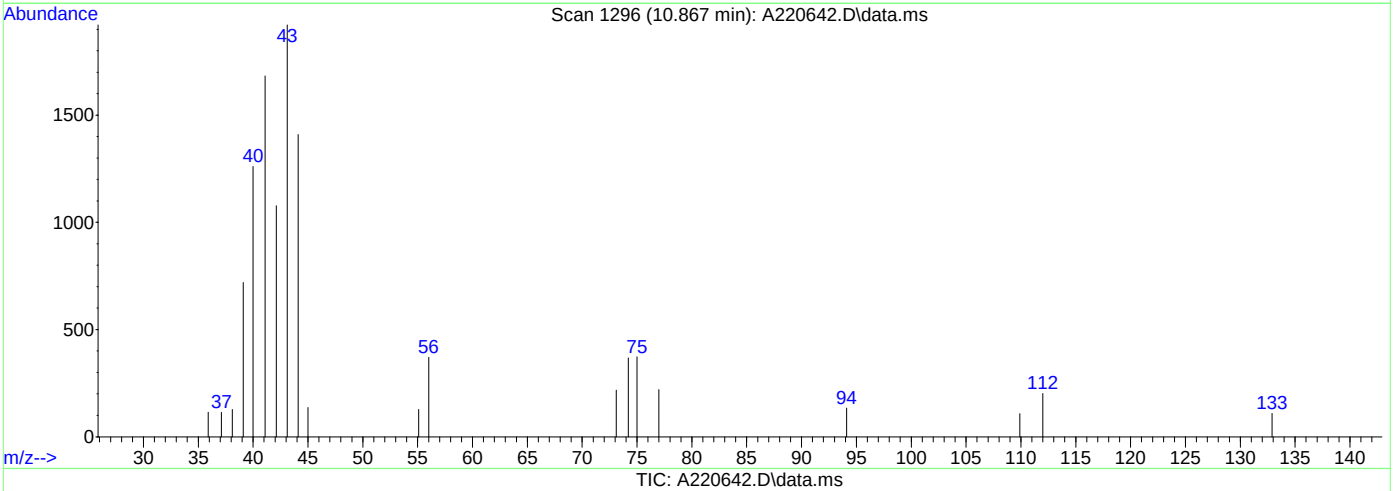
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		10.87	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A220642.D
Acq On : 4 Mar 2016 3:10 pm
Operator : NicoleH1
Sample : ic8353-2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 09:14:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration





TIC: A220642.D\data.ms

(52) iso-butyl alcohol

10.867min (+0.007) 19.39ug/L m

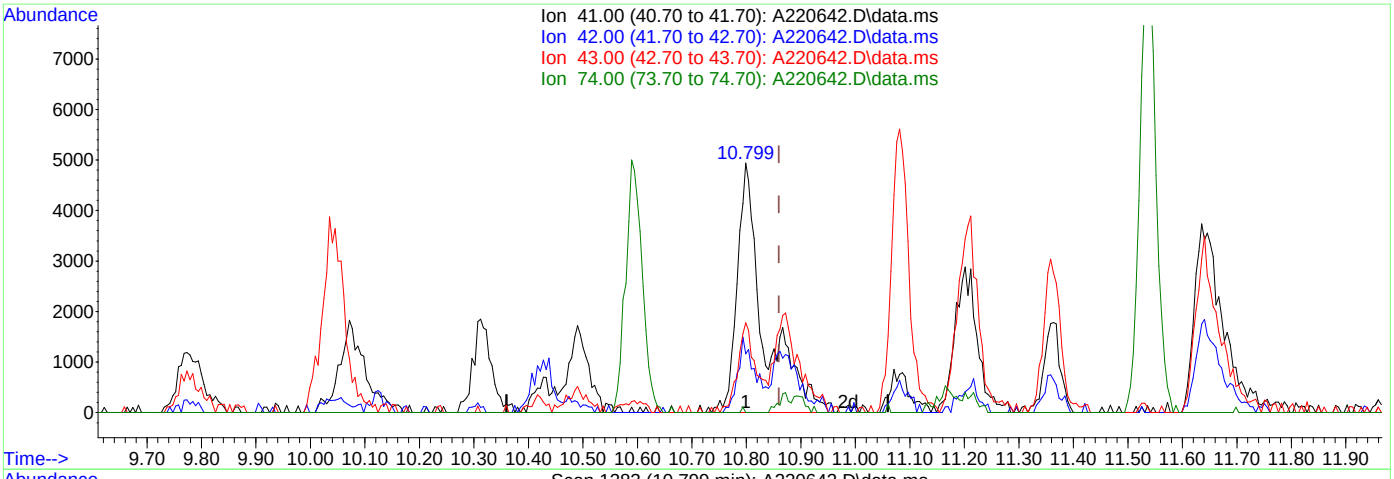
response 5031

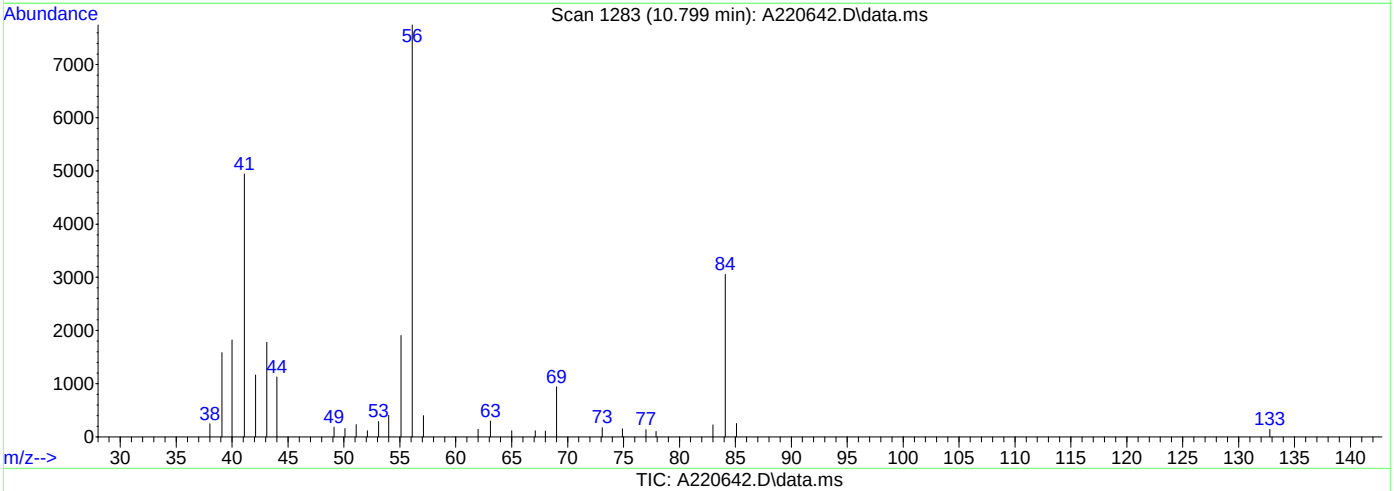
Ion	Exp%	Act%
41.00	100	100
42.00	85.70	63.99
43.00	136.50	114.14
74.00	12.70	21.87#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\Snapshot\
Data File : A220642.D
Acq On : 4 Mar 2016 3:10 pm
Operator : NicoleH1
Sample : ic8353-2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 11:25:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 09:15:46 2016
Response via : Initial Calibration





TIC: A220642.D\data.ms

(52) iso-butyl alcohol

10.799min (-0.061) 66.09ug/L

response 17072

Ion	Exp%	Act%
41.00	100	100
42.00	85.70	23.51#
43.00	136.50	35.98#
74.00	12.70	0.00#

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220643.D
Acq On : 4 Mar 2016 3:39 pm
Operator : NicoleH1
Sample : ic8353-5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 09:17:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.231	65	527112	500.00 ug/L	0.00
4) pentafluorobenzene	10.595	168	367495	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.536	114	538535	50.00 ug/L	0.00
84) chlorobenzene-d5	14.936	117	461698	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.530	152	256266	50.00 ug/L	0.00

System Monitoring Compounds					
47) dibromofluoromethane (s)	10.632	113	173821	49.84 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.68%		
48) 1,2-dichloroethane-d4 (s)	11.071	65	186748	49.85 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.70%		
76) toluene-d8 (s)	13.283	98	628211	50.01 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.02%		
102) 4-bromofluorobenzene (s)	16.228	95	221726	50.42 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.84%		

Target Compounds					Qvalue
2) 1,4-dioxane	12.274	88	7574	113.90 ug/L	96
3) tertiary butyl alcohol	8.362	59	22236	23.58 ug/L	86
7) chlorodifluoromethane	4.460	51	26733	4.61 ug/L	98
8) dichlorodifluoromethane	4.455	85	30739	4.43 ug/L	91
9) chloromethane	4.847	50	32208	4.41 ug/L	96
10) vinyl chloride	5.145	62	35882	4.08 ug/L	96
11) bromomethane	5.888	94	15442	4.57 ug/L	97
12) chloroethane	6.092	64	13677	4.39 ug/L	89
14) trichlorofluoromethane	6.636	101	28535	4.36 ug/L	91
16) ethyl ether	7.085	74	8438	4.83 ug/L	95
18) acrolein	7.342	56	49289	49.51 ug/L	98
19) freon 113	7.535	151	13428	4.40 ug/L #	1
20) 1,1-dichloroethene	7.535	61	22178	4.59 ug/L	87
21) acetone	7.582	58	2146	4.54 ug/L	95
22) allyl chloride	8.100	76	10672	4.49 ug/L #	80
23) acetonitrile	8.048	40	21892	45.39 ug/L	82
24) iodomethane	7.828	142	27823	4.61 ug/L	97
25) carbon disulfide	7.959	76	53485	4.70 ug/L	97
26) methylene chloride	8.283	84	17686	4.82 ug/L	90
27) methyl acetate	8.079	43	15988	4.73 ug/L	98
28) methyl tert butyl ether	8.655	73	53325	4.68 ug/L	99
29) trans-1,2-dichloroethene	8.691	61	20960	4.60 ug/L	99
30) hexane	9.042	57	17032	4.70 ug/L	98
31) di-isopropyl ether	9.293	45	54555	4.66 ug/L	92
32) t-butyl formate	10.496	59	15077	4.22 ug/L	95
33) ethyl tert-butyl ether	9.774	59	52654	4.77 ug/L	97
34) 2-butanone	10.025	72	2440	4.46 ug/L	97
35) 1,1-dichloroethane	9.293	63	27025	4.70 ug/L	95
36) chloroprene	9.413	53	19485	4.60 ug/L	98
37) acrylonitrile	8.634	53	40813	24.06 ug/L	98
38) vinyl acetate	9.282	86	2843	4.44 ug/L #	81
39) ethyl acetate	10.030	45	2708	4.24 ug/L #	67
41) 2,2-dichloropropane	10.082	77	26748	4.90 ug/L	96
42) cis-1,2-dichloroethene	10.051	96	16031	4.74 ug/L	97
43) propionitrile	10.119	54	35009	48.15 ug/L	98
44) bromochloromethane	10.365	128	7765	4.59 ug/L	98
45) tetrahydrofuran	10.422	42	8544	4.87 ug/L	90
46) chloroform	10.428	83	24248	4.86 ug/L	98
49) methacrylonitrile	10.318	67	7316	4.61 ug/L	98
50) cyclohexane	10.809	84	26973	4.54 ug/L	96
51) 1,1,1-trichloroethane	10.715	97	24509	4.87 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220643.D
Acq On : 4 Mar 2016 3:39 pm
Operator : NicoleH1
Sample : ic8353-5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 09:17:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.856	41	12702	50.17 ug/L #	72
53) tert-amyl methyl ether	11.207	73	50913	4.65 ug/L	97
56) epichlorohydrin	12.844	57	10500	22.57 ug/L	96
57) n-butyl alcohol	11.636	56	48024	214.49 ug/L	94
58) carbon tetrachloride	10.930	117	20385	4.67 ug/L	100
59) 1,1-dichloropropene	10.893	75	17907	4.56 ug/L	93
60) benzene	11.165	78	57974	4.67 ug/L	97
61) Iso-octane	11.202	57	58569	4.02 ug/L	96
62) heptane	11.364	71	9748	4.41 ug/L	89
64) isopropyl acetate	11.087	87	3673	4.55 ug/L #	89
65) 1,2-dichloroethane	11.165	62	18481	4.80 ug/L	92
66) trichloroethene	11.897	95	13499	4.78 ug/L	95
67) 2-nitropropane	12.703	41	6464	4.75 ug/L #	82
69) methylcyclohexane	12.148	83	26521	4.25 ug/L	99
70) 2-chloroethyl vinyl ether	12.718	63	48926	23.95 ug/L	98
71) methyl methacrylate	12.169	100	4160	4.61 ug/L	96
72) 1,2-dichloropropane	12.174	63	16041	4.83 ug/L	95
73) dibromomethane	12.321	93	9367	4.82 ug/L	90
74) bromodichloromethane	12.457	83	19291	4.84 ug/L	96
75) cis-1,3-dichloropropene	12.954	75	22089	4.74 ug/L	95
77) 4-methyl-2-pentanone	13.063	58	8767	4.67 ug/L	94
78) toluene	13.362	91	57116	4.99 ug/L	94
79) 3-methyl-1-butanol	13.053	55	30474	87.83 ug/L	97
80) trans-1,3-dichloropropene	13.550	75	20320	4.86 ug/L	97
81) ethyl methacrylate	13.555	69	19652	4.81 ug/L	98
82) 1,1,2-trichloroethane	13.785	83	10982	4.89 ug/L	97
83) 2-hexanone	13.989	58	7674	4.68 ug/L	91
85) tetrachloroethene	14.000	166	14267	4.64 ug/L	95
86) 1,3-dichloropropane	13.994	76	21745	4.92 ug/L	97
87) butyl acetate	14.062	56	11541	4.62 ug/L	99
88) 3,3-dimethyl-1-butanol	14.162	57	37741	43.16 ug/L	95
89) dibromochloromethane	14.277	129	14489	4.83 ug/L	96
90) 1,2-dibromoethane	14.449	107	13003	4.72 ug/L	86
91) n-butyl ether	14.884	57	62609	4.98 ug/L	98
92) chlorobenzene	14.973	112	35884	4.76 ug/L	99
93) 1,1,1,2-tetrachloroethane	15.035	131	15398	4.71 ug/L	95
94) ethylbenzene	15.035	91	63688	4.86 ug/L	98
95) m,p-xylene	15.156	106	46990	9.41 ug/L	97
96) o-xylene	15.626	91	51115	4.65 ug/L	96
97) styrene	15.632	104	37502	4.59 ug/L	97
98) bromoform	15.909	173	10450	4.63 ug/L	91
100) isopropylbenzene	16.013	105	65171	4.67 ug/L	99
101) cyclohexanone	16.191	55	14226	46.05 ug/L	97
103) bromobenzene	16.453	156	16672	4.83 ug/L	88
104) 1,1,2,2-tetrachloroethane	16.327	83	22751	4.86 ug/L	96
105) trans-1,4-dichloro-2-b...	16.374	53	3170	3.78 ug/L	95
106) 1,2,3-trichloropropane	16.416	110	5696	4.99 ug/L	86
107) n-propylbenzene	16.468	91	75201	4.86 ug/L	97
108) 2-chlorotoluene	16.630	126	15626	4.59 ug/L	98
109) 4-chlorotoluene	16.740	91	43844	4.73 ug/L	98
111) 1,3,5-trimethylbenzene	16.636	105	55818	4.73 ug/L	96
112) tert-butylbenzene	17.033	134	11805	4.37 ug/L	99
113) pentachloroethane	17.112	167	12617	4.46 ug/L	98
114) 1,2,4-trimethylbenzene	17.075	105	56426	4.77 ug/L	95
115) sec-butylbenzene	17.274	105	76077	4.77 ug/L	97
116) 1,3-dichlorobenzene	17.473	146	31016	4.87 ug/L	97
117) p-isopropyltoluene	17.405	119	62403	4.81 ug/L	98
119) 1,4-dichlorobenzene	17.561	146	31767	4.95 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220643.D
Acq On : 4 Mar 2016 3:39 pm
Operator : NicoleH1
Sample : ic8353-5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 09:17:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	18.001	146	33921	5.10 ug/L	97
122) n-butylbenzene	17.865	92	33050	4.85 ug/L	96
124) 1,2-dibromo-3-chloropr...	18.853	157	6670	4.93 ug/L	90
125) 1,3,5-trichlorobenzene	19.078	180	29946	4.81 ug/L	99
126) 1,2,4-trichlorobenzene	19.810	180	29869	4.90 ug/L	98
127) hexachlorobutadiene	19.952	225	13405	4.42 ug/L	95
128) naphthalene	20.135	128	96088	5.25 ug/L	99
129) 1,2,3-trichlorobenzene	20.396	180	33456	4.91 ug/L	97
130) hexachloroethane	18.299	201	10464	4.07 ug/L	99

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

7.7.3

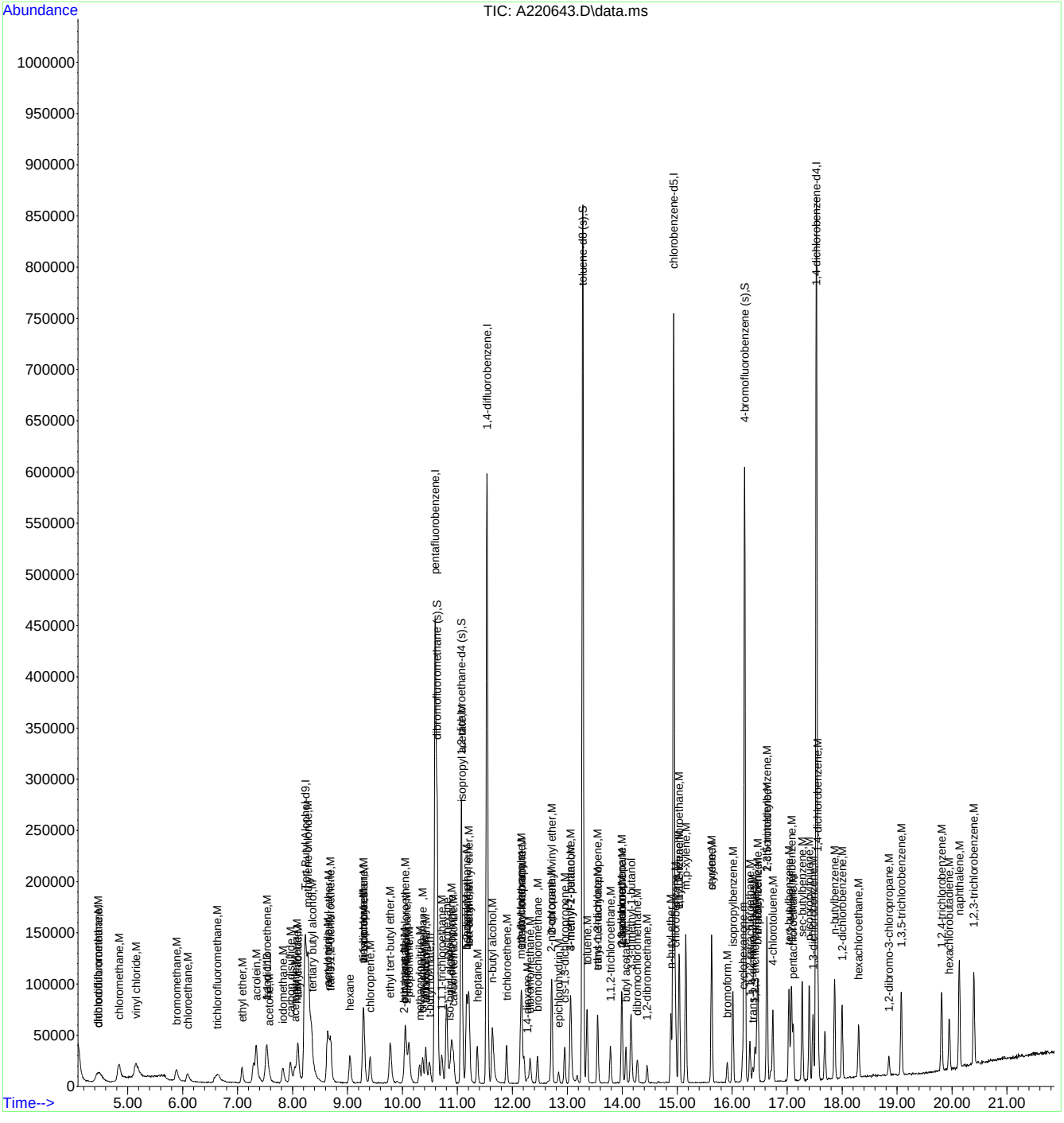
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220643.D
Acq On : 4 Mar 2016 3:39 pm
Operator : NicoleH1
Sample : ic8353-5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 09:17:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220644.D
Acq On : 4 Mar 2016 4:09 pm
Operator : NicoleH1
Sample : ic8353-10
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 09:18:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.230	65	549308	500.00 ug/L	0.00
4) pentafluorobenzene	10.599	168	376239	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.540	114	551312	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	470409	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.534	152	260880	50.00 ug/L	0.00

System Monitoring Compounds					
47) dibromofluoromethane (s)	10.630	113	178709	50.05 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.10%		
48) 1,2-dichloroethane-d4 (s)	11.075	65	190934	49.78 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.56%		
76) toluene-d8 (s)	13.282	98	636047	49.47 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.94%		
102) 4-bromofluorobenzene (s)	16.227	95	226594	50.62 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.24%		

Target Compounds					Qvalue
2) 1,4-dioxane	12.278	88	16588	239.37 ug/L	96
3) tertiary butyl alcohol	8.360	59	48681	49.54 ug/L	90
7) chlorodifluoromethane	4.469	51	61633	10.37 ug/L	94
8) dichlorodifluoromethane	4.453	85	77107	10.85 ug/L	94
9) chloromethane	4.840	50	72391	9.69 ug/L	96
10) vinyl chloride	5.149	62	90787	10.08 ug/L	96
11) bromomethane	5.887	94	36950	10.68 ug/L	95
12) chloroethane	6.091	64	32570	10.21 ug/L	99
14) trichlorofluoromethane	6.634	101	71035	10.61 ug/L	96
16) ethyl ether	7.079	74	20124	11.24 ug/L	91
18) acrolein	7.341	56	100901	99.00 ug/L	97
19) freon 113	7.529	151	30865	9.88 ug/L	96
20) 1,1-dichloroethene	7.534	61	54061	10.93 ug/L	98
21) acetone	7.586	58	4819	9.96 ug/L #	79
22) allyl chloride	8.094	76	25492	10.47 ug/L	95
23) acetonitrile	8.047	40	47940	97.09 ug/L	88
24) iodomethane	7.822	142	65381	10.58 ug/L	98
25) carbon disulfide	7.958	76	126180	10.82 ug/L	99
26) methylene chloride	8.292	84	40447	10.78 ug/L	92
27) methyl acetate	8.083	43	35337	10.22 ug/L	99
28) methyl tert butyl ether	8.659	73	123896	10.61 ug/L	100
29) trans-1,2-dichloroethene	8.695	61	50330	10.79 ug/L	95
30) hexane	9.046	57	39240	10.57 ug/L	99
31) di-isopropyl ether	9.297	45	120034	10.02 ug/L	92
32) t-butyl formate	10.494	59	34055	9.31 ug/L	97
33) ethyl tert-butyl ether	9.778	59	113431	10.04 ug/L	98
34) 2-butanone	10.024	72	5704	10.19 ug/L #	84
35) 1,1-dichloroethane	9.291	63	62350	10.58 ug/L	96
36) chloroprene	9.412	53	43388	10.01 ug/L	98
37) acrylonitrile	8.632	53	93362	53.76 ug/L	100
38) vinyl acetate	9.276	86	5571	8.50 ug/L	96
39) ethyl acetate	10.044	45	5925	9.05 ug/L	88
41) 2,2-dichloropropane	10.076	77	61491	11.01 ug/L	99
42) cis-1,2-dichloroethene	10.050	96	37654	10.88 ug/L	96
43) propionitrile	10.118	54	81322	109.25 ug/L	100
44) bromochloromethane	10.369	128	17904	10.33 ug/L	98
45) tetrahydrofuran	10.421	42	19197	10.70 ug/L	96
46) chloroform	10.426	83	55550	10.87 ug/L	98
49) methacrylonitrile	10.311	67	17882	11.01 ug/L	97
50) cyclohexane	10.803	84	62909	10.35 ug/L	98
51) 1,1,1-trichloroethane	10.714	97	56246	10.92 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220644.D
Acq On : 4 Mar 2016 4:09 pm
Operator : NicoleH1
Sample : ic8353-10
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 09:18:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.866	41	21538	83.09 ug/L	93
53) tert-amyl methyl ether	11.211	73	110812	9.88 ug/L	99
56) epichlorohydrin	12.837	57	22837	47.95 ug/L	98
57) n-butyl alcohol	11.634	56	107196	467.68 ug/L	99
58) carbon tetrachloride	10.928	117	48665	10.88 ug/L	97
59) 1,1-dichloropropene	10.892	75	42146	10.49 ug/L	95
60) benzene	11.169	78	134311	10.58 ug/L	98
61) Iso-octane	11.200	57	140824	9.45 ug/L	97
62) heptane	11.368	71	22356	9.87 ug/L	96
64) isopropyl acetate	11.085	87	7872	9.52 ug/L #	94
65) 1,2-dichloroethane	11.164	62	41965	10.65 ug/L	97
66) trichloroethene	11.891	95	31232	10.80 ug/L	93
67) 2-nitropropane	12.701	41	14269	10.23 ug/L #	68
69) methylcyclohexane	12.152	83	61791	9.67 ug/L	100
70) 2-chloroethyl vinyl ether	12.717	63	105823	50.61 ug/L	96
71) methyl methacrylate	12.168	100	9544	10.33 ug/L	80
72) 1,2-dichloropropane	12.173	63	36708	10.80 ug/L	93
73) dibromomethane	12.320	93	21323	10.72 ug/L	94
74) bromodichloromethane	12.456	83	43302	10.62 ug/L	98
75) cis-1,3-dichloropropene	12.947	75	52272	10.95 ug/L	95
77) 4-methyl-2-pentanone	13.068	58	20244	10.54 ug/L	95
78) toluene	13.360	91	129492	11.04 ug/L	99
79) 3-methyl-1-butanol	13.057	55	68053	191.60 ug/L	98
80) trans-1,3-dichloropropene	13.549	75	46784	10.94 ug/L	97
81) ethyl methacrylate	13.554	69	44922	10.74 ug/L	97
82) 1,1,2-trichloroethane	13.784	83	25595	11.14 ug/L	93
83) 2-hexanone	13.983	58	17830	10.62 ug/L	91
85) tetrachloroethene	13.998	166	33010	10.53 ug/L	98
86) 1,3-dichloropropane	13.993	76	50189	11.15 ug/L	97
87) butyl acetate	14.066	56	25955	10.20 ug/L	99
88) 3,3-dimethyl-1-butanol	14.155	57	86601	97.21 ug/L	98
89) dibromochloromethane	14.276	129	33327	10.91 ug/L	96
90) 1,2-dibromoethane	14.448	107	30052	10.70 ug/L	97
91) n-butyl ether	14.888	57	147175	11.50 ug/L	99
92) chlorobenzene	14.971	112	83852	10.91 ug/L	100
93) 1,1,1,2-tetrachloroethane	15.034	131	37282	11.18 ug/L	99
94) ethylbenzene	15.039	91	144520	10.82 ug/L	98
95) m,p-xylene	15.154	106	111191	21.86 ug/L	95
96) o-xylene	15.625	91	120005	10.71 ug/L	99
97) styrene	15.630	104	89255	10.73 ug/L	99
98) bromoform	15.907	173	24766	10.77 ug/L	96
100) isopropylbenzene	16.012	105	156335	11.00 ug/L	99
101) cyclohexanone	16.190	55	33162	105.45 ug/L	99
103) bromobenzene	16.451	156	37560	10.69 ug/L	95
104) 1,1,2,2-tetrachloroethane	16.321	83	50957	10.70 ug/L	97
105) trans-1,4-dichloro-2-b...	16.373	53	8008	9.39 ug/L	97
106) 1,2,3-trichloropropane	16.415	110	13057	11.25 ug/L	92
107) n-propylbenzene	16.467	91	172848	10.97 ug/L	96
108) 2-chlorotoluene	16.629	126	36624	10.56 ug/L	97
109) 4-chlorotoluene	16.739	91	101134	10.73 ug/L	100
111) 1,3,5-trimethylbenzene	16.634	105	130776	10.89 ug/L	99
112) tert-butylbenzene	17.032	134	27629	10.04 ug/L	96
113) pentachloroethane	17.110	167	28930	10.05 ug/L	95
114) 1,2,4-trimethylbenzene	17.079	105	131427	10.92 ug/L	96
115) sec-butylbenzene	17.273	105	182383	11.23 ug/L	97
116) 1,3-dichlorobenzene	17.471	146	72162	11.12 ug/L	98
117) p-isopropyltoluene	17.403	119	149958	11.34 ug/L	97
119) 1,4-dichlorobenzene	17.560	146	73000	11.17 ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220644.D
Acq On : 4 Mar 2016 4:09 pm
Operator : NicoleH1
Sample : ic8353-10
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 09:18:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	18.000	146	76081	11.23 ug/L	99
122) n-butylbenzene	17.864	92	77489	11.18 ug/L	97
124) 1,2-dibromo-3-chloropr...	18.852	157	15150	11.00 ug/L	97
125) 1,3,5-trichlorobenzene	19.077	180	69770	11.02 ug/L	98
126) 1,2,4-trichlorobenzene	19.809	180	69296	11.17 ug/L	99
127) hexachlorobutadiene	19.950	225	33394	10.80 ug/L	97
128) naphthalene	20.133	128	213197	11.45 ug/L	100
129) 1,2,3-trichlorobenzene	20.395	180	75901	10.94 ug/L	98
130) hexachloroethane	18.303	201	25912	9.90 ug/L	99

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

7.7.4

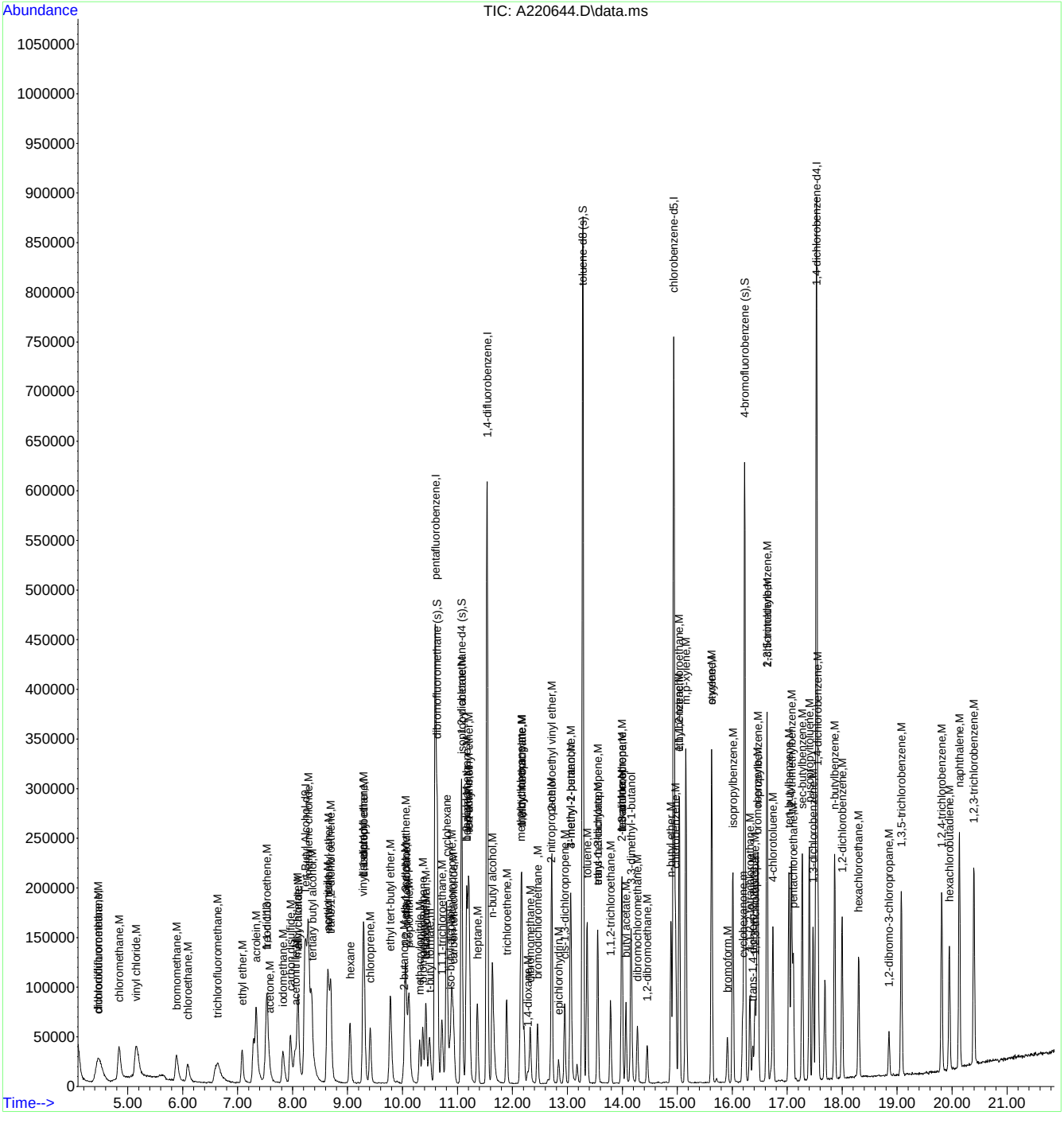
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220644.D
Acq On : 4 Mar 2016 4:09 pm
Operator : NicoleH1
Sample : ic8353-10
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 09:18:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 11:27:06 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220645.D
Acq On : 4 Mar 2016 4:39 pm
Operator : NicoleH1
Sample : ic8353-0.5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 10:18:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.235	65	541144	500.00 ug/L	0.00
4) pentafluorobenzene	10.594	168	376093	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.536	114	550444	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	476882	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.535	152	278054	50.00 ug/L	0.00

System Monitoring Compounds					
47) dibromofluoromethane (s)	10.631	113	179827	50.39 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.78%		
48) 1,2-dichloroethane-d4 (s)	11.070	65	196660	51.30 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 102.60%		
76) toluene-d8 (s)	13.277	98	636477	49.58 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.16%		
102) 4-bromofluorobenzene (s)	16.227	95	234133	49.07 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.14%		

Target Compounds					Qvalue
14) trichlorofluoromethane	6.614	101	3533	0.53 ug/L	75
16) ethyl ether	7.080	74	983	0.55 ug/L #	66
20) 1,1-dichloroethene	7.535	61	3140	0.64 ug/L	88
22) allyl chloride	8.099	76	1328	0.55 ug/L #	50
24) iodomethane	7.817	142	3660	0.59 ug/L	87
26) methylene chloride	8.283	84	2725	0.73 ug/L	86
28) methyl tert butyl ether	8.649	73	7567	0.65 ug/L	97
29) trans-1,2-dichloroethene	8.696	61	2910	0.62 ug/L	88
30) hexane	9.046	57	2352	0.63 ug/L #	86
31) di-isopropyl ether	9.297	45	7138	0.60 ug/L	85
32) t-butyl formate	10.495	59	1950	0.53 ug/L #	88
33) ethyl tert-butyl ether	9.784	59	6183	0.55 ug/L	91
35) 1,1-dichloroethane	9.281	63	3664	0.62 ug/L	90
36) chloroprene	9.407	53	2499	0.58 ug/L	94
37) acrylonitrile	8.633	53	5462	3.15 ug/L	98
43) propionitrile	10.129	54	4833	6.50 ug/L	76
44) bromochloromethane	10.369	128	1080	0.62 ug/L #	81
46) chloroform	10.427	83	3309	0.65 ug/L	98
49) methacrylonitrile	10.312	67	1036	0.64 ug/L #	58
50) cyclohexane	10.793	84	3675	0.60 ug/L	95
51) 1,1,1-trichloroethane	10.720	97	3306	0.64 ug/L	80
53) tert-amyl methyl ether	11.206	73	6574	0.59 ug/L	94
58) carbon tetrachloride	10.924	117	2892	0.65 ug/L	82
59) 1,1-dichloropropene	10.892	75	2474	0.62 ug/L	88
60) benzene	11.164	78	8218	0.65 ug/L	94
65) 1,2-dichloroethane	11.159	62	2535	0.64 ug/L	82
66) trichloroethene	11.886	95	1978	0.69 ug/L #	68
69) methylcyclohexane	12.153	83	3341	0.52 ug/L	92
70) 2-chloroethyl vinyl ether	12.712	63	5775	2.77 ug/L	97
71) methyl methacrylate	12.163	100	456	0.49 ug/L	77
72) 1,2-dichloropropane	12.174	63	2032	0.60 ug/L	94
73) dibromomethane	12.320	93	1163	0.59 ug/L	93
74) bromodichloromethane	12.461	83	2522	0.62 ug/L	74
75) cis-1,3-dichloropropene	12.953	75	3130	0.66 ug/L	98
77) 4-methyl-2-pentanone	13.068	58	1086	0.57 ug/L #	78
78) toluene	13.361	91	7869	0.67 ug/L	96
80) trans-1,3-dichloropropene	13.555	75	2701	0.63 ug/L	95
81) ethyl methacrylate	13.555	69	2546	0.61 ug/L	83
82) 1,1,2-trichloroethane	13.785	83	1317	0.57 ug/L #	73
85) tetrachloroethene	13.999	166	1905	0.60 ug/L	91
86) 1,3-dichloropropane	13.989	76	2583	0.57 ug/L	97

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220645.D
Acq On : 4 Mar 2016 4:39 pm
Operator : NicoleH1
Sample : ic8353-0.5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 10:18:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
87) butyl acetate	14.072	56	1750	0.68 ug/L #	64
89) dibromochloromethane	14.271	129	1797	0.58 ug/L	84
90) 1,2-dibromoethane	14.454	107	1776	0.62 ug/L	99
91) n-butyl ether	14.888	57	8568	0.66 ug/L	95
92) chlorobenzene	14.972	112	4825	0.62 ug/L	98
93) 1,1,1,2-tetrachloroethane	15.040	131	1890	0.56 ug/L	87
94) ethylbenzene	15.035	91	8479	0.63 ug/L	98
95) m,p-xylene	15.160	106	6285	1.22 ug/L	90
96) o-xylene	15.620	91	7210	0.63 ug/L	93
97) styrene	15.636	104	5109	0.61 ug/L	83
98) bromoform	15.913	173	1393	0.60 ug/L	73
100) isopropylbenzene	16.007	105	9185	0.61 ug/L	92
103) bromobenzene	16.447	156	2366	0.63 ug/L #	78
104) 1,1,2,2-tetrachloroethane	16.321	83	3218	0.63 ug/L	96
107) n-propylbenzene	16.473	91	10491	0.62 ug/L	95
108) 2-chlorotoluene	16.630	126	2323	0.63 ug/L	83
109) 4-chlorotoluene	16.740	91	6616	0.66 ug/L	96
111) 1,3,5-trimethylbenzene	16.635	105	7367	0.58 ug/L	87
112) tert-butylbenzene	17.033	134	1445	0.49 ug/L #	68
113) pentachloroethane	17.111	167	1489	0.49 ug/L	84
114) 1,2,4-trimethylbenzene	17.074	105	7600	0.59 ug/L	83
115) sec-butylbenzene	17.273	105	10962	0.63 ug/L	92
116) 1,3-dichlorobenzene	17.472	146	4846	0.70 ug/L	81
117) p-isopropyltoluene	17.404	119	8582	0.61 ug/L	92
119) 1,4-dichlorobenzene	17.566	146	4885	0.70 ug/L	98
121) 1,2-dichlorobenzene	18.005	146	4671	0.65 ug/L	95
124) 1,2-dibromo-3-chloropr...	18.853	157	1031	0.70 ug/L	83
125) 1,3,5-trichlorobenzene	19.083	180	4362	0.65 ug/L	92

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

7.7.5

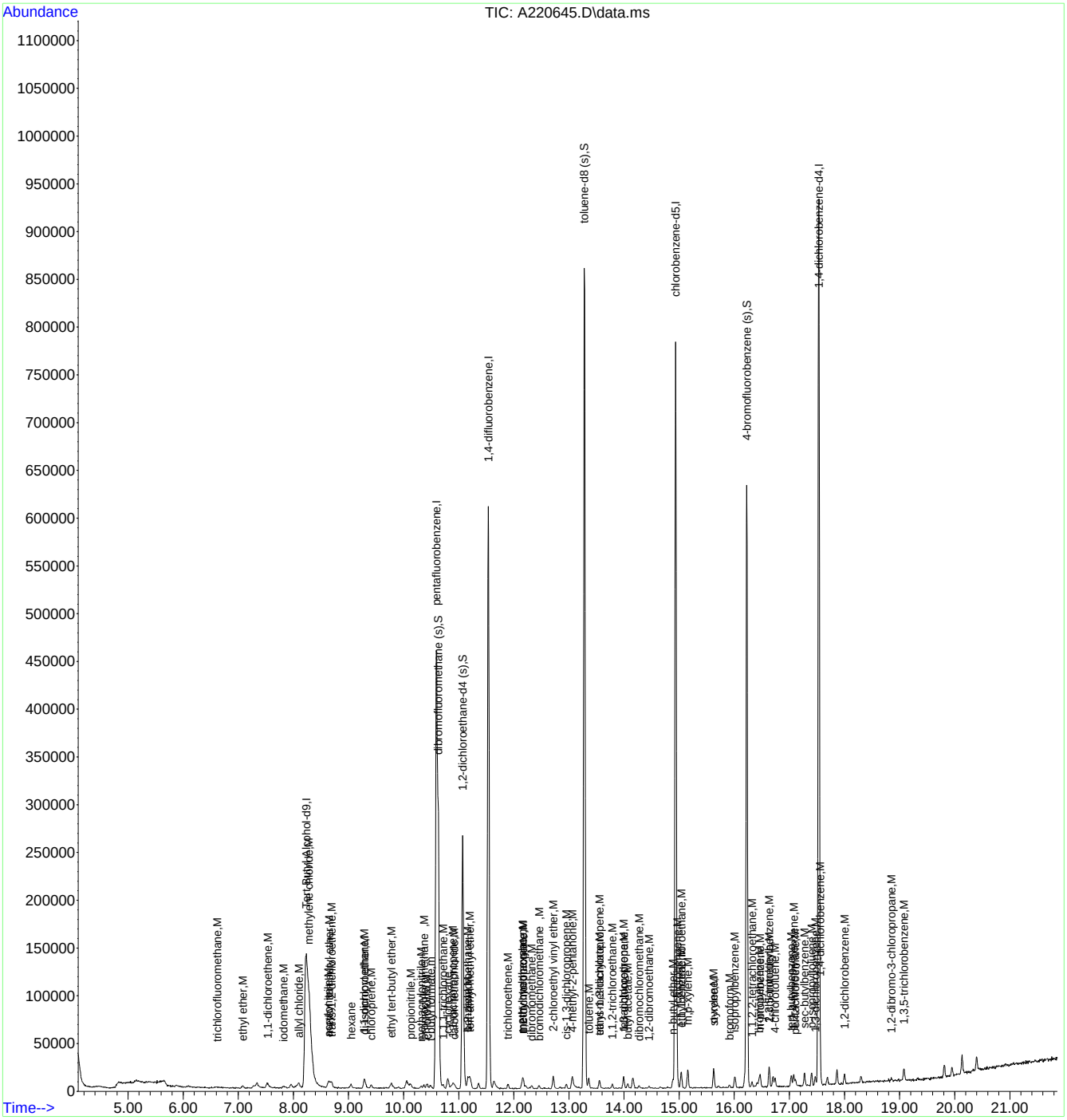
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220645.D
Acq On : 4 Mar 2016 4:39 pm
Operator : NicoleH1
Sample : ic8353-0.5
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 10:18:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration



MA8353.M Fri Mar 11 11:28:09 2016 RPT1 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220646.D
Acq On : 4 Mar 2016 5:09 pm
Operator : NicoleH1
Sample : ic8353-0.2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 09:46:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 10:54:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.233	65	535482	500.00 ug/L	0.00
4) pentafluorobenzene	10.597	168	374694	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.539	114	546856	50.00 ug/L	0.00
84) chlorobenzene-d5	14.938	117	471580	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.533	152	253596	50.00 ug/L	0.00
System Monitoring Compounds					
47) dibromofluoromethane (s)	10.634	113	179682	50.53 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.06%		
48) 1,2-dichloroethane-d4 (s)	11.073	65	190865	49.96 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.92%		
76) toluene-d8 (s)	13.280	98	632462	49.58 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.16%		
102) 4-bromofluorobenzene (s)	16.225	95	228373	52.48 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.96%		
Target Compounds					Qvalue
28) methyl tert butyl ether	8.662	73	2955	0.25 ug/L	87

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

7.7.6

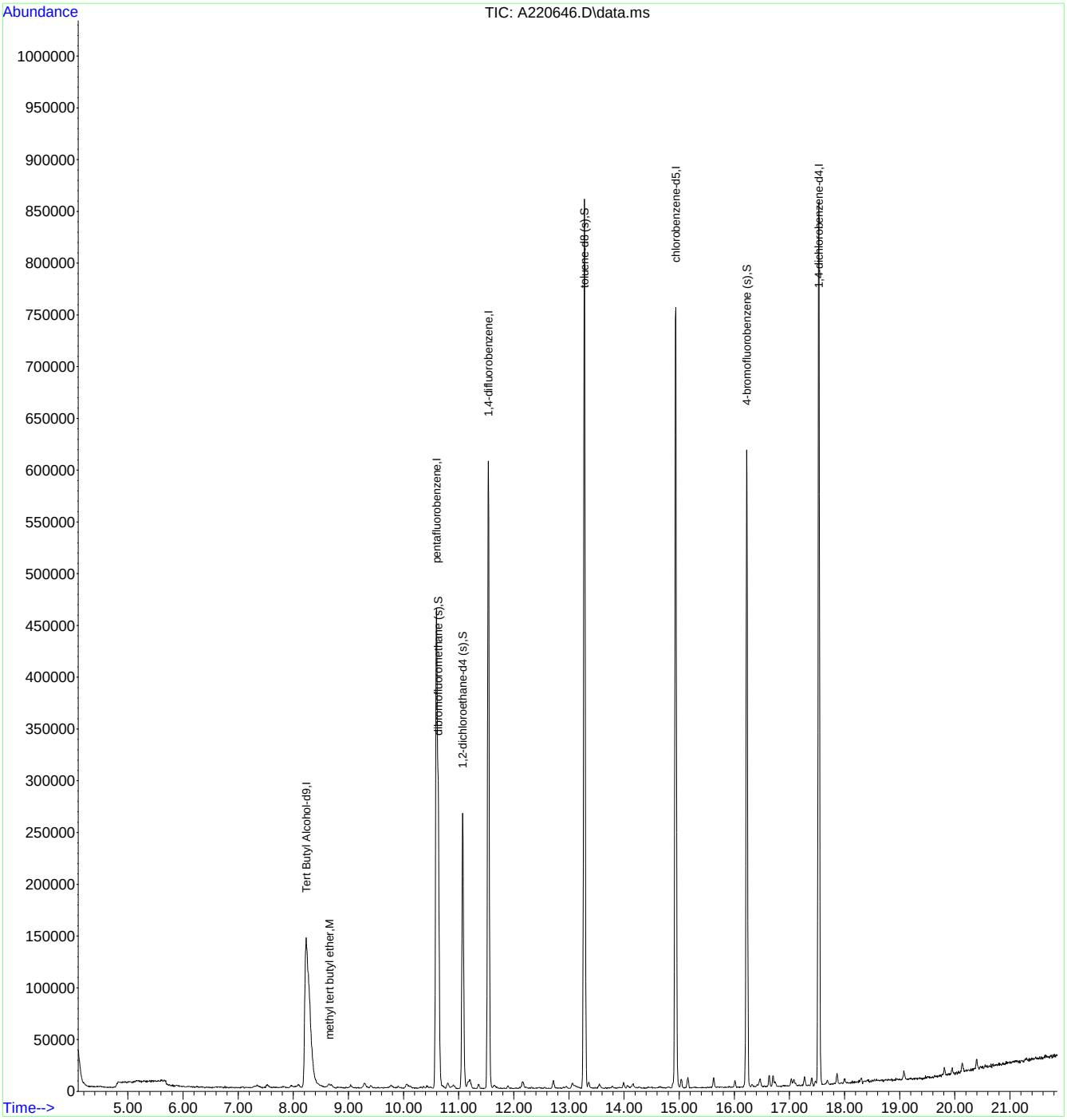
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220646.D
Acq On : 4 Mar 2016 5:09 pm
Operator : NicoleH1
Sample : ic8353-0.2
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 09:46:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 07 10:54:51 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220647.D
Acq On : 4 Mar 2016 5:38 pm
Operator : NicoleH1
Sample : ic8353-20
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 09:23:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.230	65	552811	500.00 ug/L	0.00
4) pentafluorobenzene	10.594	168	382374	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.540	114	559759	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	481741	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.534	152	262759	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.630	113	179494	49.47 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.94%		
48) 1,2-dichloroethane-d4 (s)	11.075	65	192208	49.31 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 98.62%		
76) toluene-d8 (s)	13.282	98	651999	49.94 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.88%		
102) 4-bromofluorobenzene (s)	16.227	95	228536	50.69 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.38%		

Target Compounds

					Qvalue
2) 1,4-dioxane	12.278	88	33458	479.75 ug/L	95
3) tertiary butyl alcohol	8.366	59	102302	103.45 ug/L	88
7) chlorodifluoromethane	4.469	51	129616	21.46 ug/L	96
8) dichlorodifluoromethane	4.480	85	149184	20.65 ug/L	93
9) chloromethane	4.846	50	146052	19.24 ug/L	98
10) vinyl chloride	5.160	62	179037	19.56 ug/L	96
11) bromomethane	5.897	94	73372	20.86 ug/L	93
12) chloroethane	6.091	64	64450	19.87 ug/L	99
14) trichlorofluoromethane	6.624	101	141028	20.73 ug/L	97
16) ethyl ether	7.079	74	38488	21.16 ug/L	98
18) acrolein	7.335	56	190054	183.48 ug/L	95
19) freon 113	7.529	151	66996	21.10 ug/L	98
20) 1,1-dichloroethene	7.534	61	110714	22.03 ug/L	95
21) acetone	7.576	58	9541	19.41 ug/L	96
22) allyl chloride	8.094	76	49949	20.19 ug/L	96
23) acetonitrile	8.036	40	103015	205.27 ug/L	89
24) iodomethane	7.827	142	132491	21.10 ug/L	96
25) carbon disulfide	7.958	76	254766	21.50 ug/L	99
26) methylene chloride	8.287	84	80388	21.08 ug/L	99
27) methyl acetate	8.078	43	71462	20.33 ug/L	99
28) methyl tert butyl ether	8.659	73	242627	20.45 ug/L	100
29) trans-1,2-dichloroethene	8.695	61	99696	21.03 ug/L	98
30) hexane	9.046	57	82531	21.88 ug/L	99
31) di-isopropyl ether	9.297	45	250954	20.62 ug/L	89
32) t-butyl formate	10.489	59	72354	19.45 ug/L	99
33) ethyl tert-butyl ether	9.778	59	242659	21.13 ug/L	97
34) 2-butanone	10.024	72	11255	19.78 ug/L #	90
35) 1,1-dichloroethane	9.291	63	124018	20.71 ug/L	99
36) chloroprene	9.412	53	91713	20.82 ug/L	99
37) acrylonitrile	8.632	53	183179	103.79 ug/L	97
38) vinyl acetate	9.281	86	13088	19.65 ug/L	75
39) ethyl acetate	10.045	45	12393	18.63 ug/L	91
41) 2,2-dichloropropane	10.076	77	119392	21.03 ug/L	97
42) cis-1,2-dichloroethene	10.055	96	75292	21.40 ug/L	94
43) propionitrile	10.113	54	161617	213.63 ug/L	94
44) bromochloromethane	10.369	128	37019	21.01 ug/L	95
45) tetrahydrofuran	10.421	42	36408	19.96 ug/L	98
46) chloroform	10.432	83	112604	21.69 ug/L	98
49) methacrylonitrile	10.317	67	34520	20.92 ug/L	98
50) cyclohexane	10.808	84	130624	21.15 ug/L	98
51) 1,1,1-trichloroethane	10.714	97	114502	21.88 ug/L	96

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220647.D
Acq On : 4 Mar 2016 5:38 pm
Operator : NicoleH1
Sample : ic8353-20
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 09:23:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.861	41	49605	188.30 ug/L	93
53) tert-amyl methyl ether	11.211	73	234578	20.59 ug/L	97
56) epichlorohydrin	12.843	57	48245	99.77 ug/L	99
57) n-butyl alcohol	11.635	56	233319	1002.57 ug/L	99
58) carbon tetrachloride	10.928	117	100395	22.11 ug/L	100
59) 1,1-dichloropropene	10.897	75	86496	21.21 ug/L	98
60) benzene	11.169	78	266571	20.68 ug/L	99
61) Iso-octane	11.200	57	302940	20.01 ug/L	99
62) heptane	11.363	71	47388	20.61 ug/L	96
64) isopropyl acetate	11.080	87	16498	19.65 ug/L	94
65) 1,2-dichloroethane	11.164	62	83237	20.81 ug/L	99
66) trichloroethene	11.896	95	63516	21.63 ug/L	99
67) 2-nitropropane	12.701	41	28286	19.98 ug/L #	84
69) methylcyclohexane	12.152	83	129449	19.96 ug/L	99
70) 2-chloroethyl vinyl ether	12.717	63	224369	105.68 ug/L	99
71) methyl methacrylate	12.168	100	18973	20.23 ug/L	68
72) 1,2-dichloropropane	12.173	63	71249	20.64 ug/L	97
73) dibromomethane	12.320	93	42562	21.08 ug/L	97
74) bromodichloromethane	12.456	83	84524	20.41 ug/L	100
75) cis-1,3-dichloropropene	12.953	75	103479	21.34 ug/L	97
77) 4-methyl-2-pentanone	13.062	58	40792	20.91 ug/L	95
78) toluene	13.361	91	256569	21.55 ug/L	98
79) 3-methyl-1-butanol	13.057	55	146324	405.74 ug/L	98
80) trans-1,3-dichloropropene	13.549	75	91547	21.08 ug/L	98
81) ethyl methacrylate	13.554	69	91556	21.56 ug/L	98
82) 1,1,2-trichloroethane	13.784	83	48841	20.93 ug/L	98
83) 2-hexanone	13.988	58	34836	20.43 ug/L	94
85) tetrachloroethene	13.999	166	67693	21.09 ug/L	97
86) 1,3-dichloropropane	13.988	76	97910	21.24 ug/L	99
87) butyl acetate	14.067	56	53369	20.48 ug/L	94
88) 3,3-dimethyl-1-butanol	14.161	57	190306	208.60 ug/L	98
89) dibromochloromethane	14.271	129	65521	20.94 ug/L	95
90) 1,2-dibromoethane	14.448	107	59217	20.58 ug/L	99
91) n-butyl ether	14.882	57	296483	22.61 ug/L	99
92) chlorobenzene	14.971	112	165591	21.04 ug/L	99
93) 1,1,1,2-tetrachloroethane	15.034	131	73429	21.50 ug/L	98
94) ethylbenzene	15.039	91	292893	21.40 ug/L	99
95) m,p-xylene	15.154	106	222101	42.64 ug/L	97
96) o-xylene	15.625	91	244516	21.31 ug/L	98
97) styrene	15.630	104	183142	21.49 ug/L	99
98) bromoform	15.913	173	48689	20.67 ug/L	97
100) isopropylbenzene	16.012	105	320234	22.38 ug/L	99
101) cyclohexanone	16.190	55	62296	196.67 ug/L	98
103) bromobenzene	16.451	156	74031	20.92 ug/L	95
104) 1,1,2,2-tetrachloroethane	16.321	83	103439	21.56 ug/L	98
105) trans-1,4-dichloro-2-b...	16.373	53	17225	20.05 ug/L	96
106) 1,2,3-trichloropropane	16.415	110	24454	20.91 ug/L	96
107) n-propylbenzene	16.467	91	356610	22.46 ug/L	99
108) 2-chlorotoluene	16.629	126	75684	21.68 ug/L	97
109) 4-chlorotoluene	16.739	91	204708	21.56 ug/L	99
111) 1,3,5-trimethylbenzene	16.635	105	270648	22.37 ug/L	98
112) tert-butylbenzene	17.032	134	58100	20.96 ug/L	96
113) pentachloroethane	17.110	167	60076	20.73 ug/L	92
114) 1,2,4-trimethylbenzene	17.079	105	273476	22.56 ug/L	97
115) sec-butylbenzene	17.273	105	381169	23.31 ug/L	99
116) 1,3-dichlorobenzene	17.471	146	145111	22.21 ug/L	96
117) p-isopropyltoluene	17.403	119	312417	23.47 ug/L	98
119) 1,4-dichlorobenzene	17.560	146	147941	22.47 ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220647.D
Acq On : 4 Mar 2016 5:38 pm
Operator : NicoleH1
Sample : ic8353-20
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 09:23:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	18.000	146	152705	22.37 ug/L	99
122) n-butylbenzene	17.864	92	160324	22.97 ug/L	98
124) 1,2-dibromo-3-chloropr...	18.852	157	29671	21.38 ug/L	95
125) 1,3,5-trichlorobenzene	19.077	180	141984	22.26 ug/L	99
126) 1,2,4-trichlorobenzene	19.809	180	138848	22.22 ug/L	96
127) hexachlorobutadiene	19.950	225	67815	21.78 ug/L	99
128) naphthalene	20.134	128	432654	23.07 ug/L	100
129) 1,2,3-trichlorobenzene	20.400	180	155963	22.33 ug/L	99
130) hexachloroethane	18.303	201	55900	21.21 ug/L	98

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

7.2.7

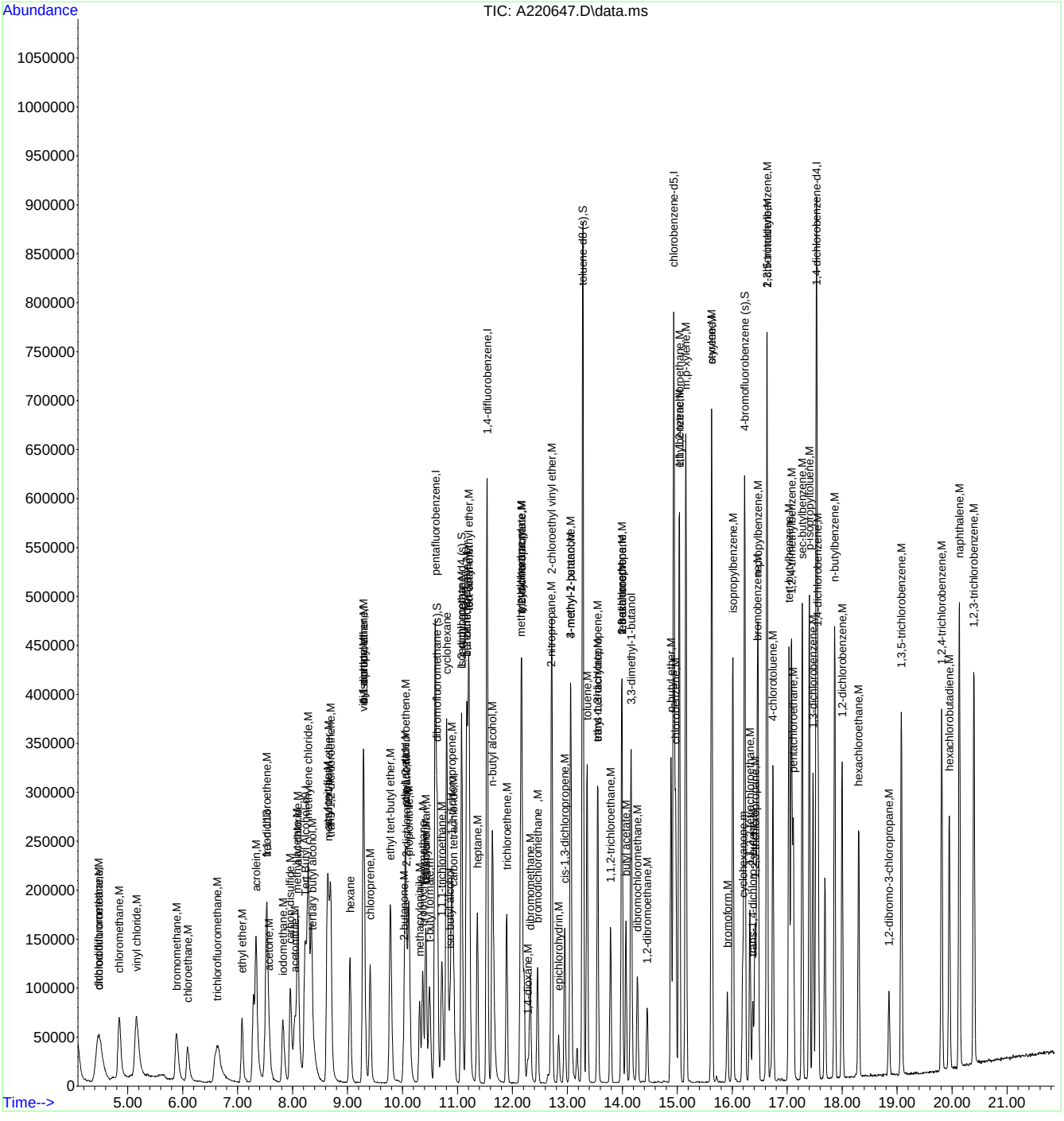
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220647.D
Acq On : 4 Mar 2016 5:38 pm
Operator : NicoleH1
Sample : ic8353-20
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 09:23:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration



MA8353.M Fri Mar 11 11:28:19 2016 RPT1 Page: 4

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220648.D
Acq On : 4 Mar 2016 6:08 pm
Operator : NicoleH1
Sample : icc8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 09:22:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.235	65	567194	500.00 ug/L	0.00
4) pentafluorobenzene	10.594	168	388425	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.541	114	581539	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	501682	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.534	152	277191	50.00 ug/L	0.00
System Monitoring Compounds					
47) dibromofluoromethane (s)	10.631	113	182700	49.57 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.14%		
48) 1,2-dichloroethane-d4 (s)	11.070	65	197228	49.81 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.62%		
76) toluene-d8 (s)	13.282	98	672284	49.57 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.14%		
102) 4-bromofluorobenzene (s)	16.227	95	239160	50.28 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.56%		
Target Compounds					Qvalue
2) 1,4-dioxane	12.278	88	94693	1323.36 ug/L	100
3) tertiary butyl alcohol	8.355	59	266745	262.90 ug/L	100
7) chlorodifluoromethane	4.464	51	331966	54.11 ug/L	100
8) dichlorodifluoromethane	4.443	85	385116	52.47 ug/L	100
9) chloromethane	4.846	50	388627	50.39 ug/L	100
10) vinyl chloride	5.149	62	481677	51.80 ug/L	100
11) bromomethane	5.887	94	190831	53.40 ug/L	100
12) chloroethane	6.086	64	169065	51.31 ug/L	100
14) trichlorofluoromethane	6.629	101	370617	53.62 ug/L	100
16) ethyl ether	7.079	74	97971	53.01 ug/L	100
18) acrolein	7.330	56	502989	478.02 ug/L	100
19) freon 113	7.524	151	166474	51.62 ug/L	100
20) 1,1-dichloroethene	7.529	61	274336	53.74 ug/L	100
21) acetone	7.581	58	25231	50.52 ug/L	100
22) allyl chloride	8.094	76	128637	51.17 ug/L	100
23) acetonitrile	8.036	40	268659	527.00 ug/L	100
24) iodomethane	7.822	142	325073	50.95 ug/L	100
25) carbon disulfide	7.958	76	620488	51.55 ug/L	100
26) methylene chloride	8.282	84	196810	50.79 ug/L	100
27) methyl acetate	8.078	43	185663	52.00 ug/L	100
28) methyl tert butyl ether	8.659	73	602425	49.99 ug/L	100
29) trans-1,2-dichloroethene	8.690	61	247880	51.46 ug/L	100
30) hexane	9.041	57	212994	55.60 ug/L	100
31) di-isopropyl ether	9.292	45	649457	52.53 ug/L	100
32) t-butyl formate	10.489	59	192661	50.99 ug/L	100
33) ethyl tert-butyl ether	9.778	59	627284	53.76 ug/L	100
34) 2-butanone	10.019	72	28415	49.15 ug/L	100
35) 1,1-dichloroethane	9.286	63	315677	51.90 ug/L	100
36) chloroprene	9.407	53	245352	54.83 ug/L	100
37) acrylonitrile	8.627	53	449460	250.71 ug/L	100
38) vinyl acetate	9.276	86	35024	51.77 ug/L	100
39) ethyl acetate	10.045	45	36841	54.53 ug/L	100
41) 2,2-dichloropropane	10.076	77	292844	50.79 ug/L	100
42) cis-1,2-dichloroethene	10.050	96	188809	52.82 ug/L	100
43) propionitrile	10.113	54	400779	521.51 ug/L	100
44) bromochloromethane	10.364	128	89703	50.11 ug/L	100
45) tetrahydrofuran	10.421	42	91352	49.31 ug/L	100
46) chloroform	10.427	83	283380	53.73 ug/L	100
49) methacrylonitrile	10.311	67	89116	53.17 ug/L	100
50) cyclohexane	10.803	84	321125	51.18 ug/L	100
51) 1,1,1-trichloroethane	10.714	97	280022	52.67 ug/L	100

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220648.D
Acq On : 4 Mar 2016 6:08 pm
Operator : NicoleH1
Sample : icc8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 09:22:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.861	41	132161	493.86 ug/L	100
53) tert-amyl methyl ether	11.211	73	606226	52.38 ug/L	100
56) epichlorohydrin	12.838	57	131747	262.25 ug/L	100
57) n-butyl alcohol	11.635	56	631992	2613.95 ug/L	100
58) carbon tetrachloride	10.929	117	250518	53.09 ug/L	100
59) 1,1-dichloropropene	10.892	75	220556	52.06 ug/L	100
60) benzene	11.164	78	678306	50.65 ug/L	100
61) Iso-octane	11.201	57	807668	51.36 ug/L	100
62) heptane	11.363	71	128740	53.89 ug/L	100
64) isopropyl acetate	11.080	87	44729	51.29 ug/L	100
65) 1,2-dichloroethane	11.164	62	207238	49.86 ug/L	100
66) trichloroethene	11.896	95	163492	53.60 ug/L	100
67) 2-nitropropane	12.702	41	73001	49.63 ug/L	100
69) methylcyclohexane	12.152	83	337759	50.13 ug/L	100
70) 2-chloroethyl vinyl ether	12.717	63	609911	276.52 ug/L	100
71) methyl methacrylate	12.173	100	49535	50.84 ug/L	100
72) 1,2-dichloropropane	12.173	63	185494	51.73 ug/L	100
73) dibromomethane	12.320	93	108584	51.76 ug/L	100
74) bromodichloromethane	12.456	83	221948	51.58 ug/L	100
75) cis-1,3-dichloropropene	12.953	75	269222	53.45 ug/L	100
77) 4-methyl-2-pentanone	13.068	58	103446	51.05 ug/L	100
78) toluene	13.361	91	661241	53.46 ug/L	100
79) 3-methyl-1-butanol	13.057	55	393947	1051.47 ug/L	100
80) trans-1,3-dichloropropene	13.549	75	239930	53.17 ug/L	100
81) ethyl methacrylate	13.554	69	236108	53.51 ug/L	100
82) 1,1,2-trichloroethane	13.784	83	132153	54.51 ug/L	100
83) 2-hexanone	13.983	58	89288	50.42 ug/L	100
85) tetrachloroethene	13.993	166	170418	50.99 ug/L	100
86) 1,3-dichloropropane	13.988	76	247433	51.53 ug/L	100
87) butyl acetate	14.067	56	144770	53.34 ug/L	100
88) 3,3-dimethyl-1-butanol	14.156	57	513174	540.14 ug/L	100
89) dibromochloromethane	14.276	129	170437	52.31 ug/L	100
90) 1,2-dibromoethane	14.454	107	154635	51.61 ug/L	100
91) n-butyl ether	14.888	57	739133	54.14 ug/L	100
92) chlorobenzene	14.972	112	430044	52.47 ug/L	100
93) 1,1,1,2-tetrachloroethane	15.034	131	193326	54.37 ug/L	100
94) ethylbenzene	15.040	91	747190	52.43 ug/L	100
95) m,p-xylene	15.155	106	575989	106.17 ug/L	100
96) o-xylene	15.625	91	622823	52.12 ug/L	100
97) styrene	15.631	104	474959	53.52 ug/L	100
98) bromoform	15.913	173	129829	52.94 ug/L	100
100) isopropylbenzene	16.012	105	824041	54.59 ug/L	100
101) cyclohexanone	16.190	55	149125	446.27 ug/L	100
103) bromobenzene	16.452	156	195983	52.51 ug/L	100
104) 1,1,2,2-tetrachloroethane	16.321	83	258946	51.16 ug/L	100
105) trans-1,4-dichloro-2-b...	16.373	53	48742	53.79 ug/L	100
106) 1,2,3-trichloropropane	16.415	110	64455	52.25 ug/L	100
107) n-propylbenzene	16.473	91	908266	54.24 ug/L	100
108) 2-chlorotoluene	16.629	126	196337	53.30 ug/L	100
109) 4-chlorotoluene	16.739	91	526622	52.58 ug/L	100
111) 1,3,5-trimethylbenzene	16.635	105	700202	54.86 ug/L	100
112) tert-butylbenzene	17.032	134	160442	54.86 ug/L	100
113) pentachloroethane	17.111	167	160342	52.44 ug/L	100
114) 1,2,4-trimethylbenzene	17.079	105	691528	54.08 ug/L	100
115) sec-butylbenzene	17.273	105	976515	56.61 ug/L	100
116) 1,3-dichlorobenzene	17.472	146	373344	54.16 ug/L	100
117) p-isopropyltoluene	17.404	119	793263	56.48 ug/L	100
119) 1,4-dichlorobenzene	17.560	146	373961	53.83 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220648.D
Acq On : 4 Mar 2016 6:08 pm
Operator : NicoleH1
Sample : icc8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 09:22:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	18.000	146	383927	53.32 ug/L	100
122) n-butylbenzene	17.864	92	411578	55.89 ug/L	100
124) 1,2-dibromo-3-chloropr...	18.852	157	73770	50.39 ug/L	100
125) 1,3,5-trichlorobenzene	19.077	180	357758	53.17 ug/L	100
126) 1,2,4-trichlorobenzene	19.809	180	343707	52.13 ug/L	100
127) hexachlorobutadiene	19.951	225	179796	54.75 ug/L	100
128) naphthalene	20.134	128	1044893	52.80 ug/L	100
129) 1,2,3-trichlorobenzene	20.395	180	384668	52.20 ug/L	100
130) hexachloroethane	18.303	201	154218	55.46 ug/L	100

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

7.7.8

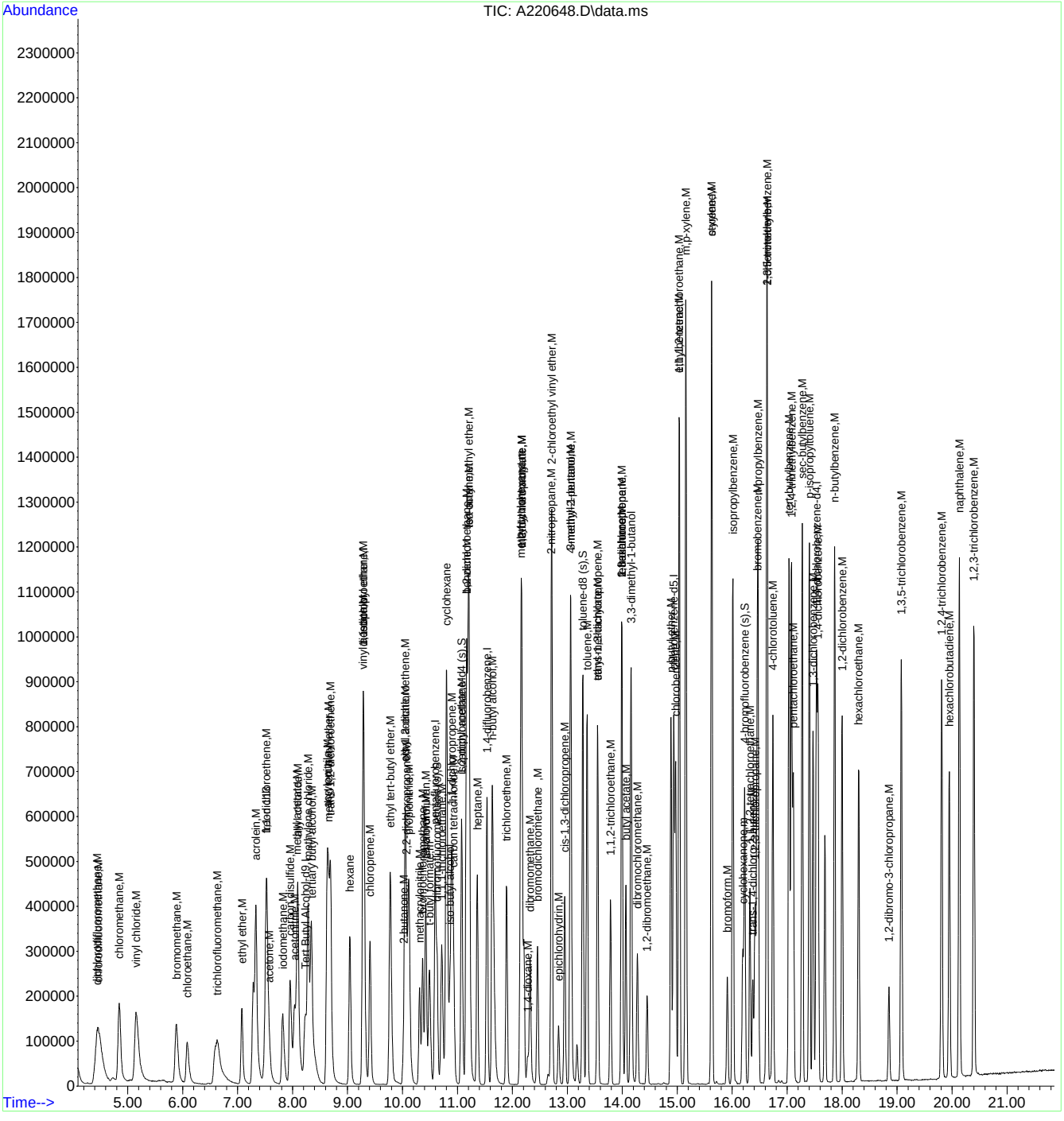
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220648.D
Acq On : 4 Mar 2016 6:08 pm
Operator : NicoleH1
Sample : icc8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 09:22:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220649.D
Acq On : 4 Mar 2016 6:37 pm
Operator : NicoleH1
Sample : ic8353-100
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 09:53:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.238	65	615098	500.00	ug/L	0.00
4) pentafluorobenzene	10.597	168	393460	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.538	114	591670	50.00	ug/L	0.00
84) chlorobenzene-d5	14.938	117	523706	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.532	152	299779	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	10.634	113	186483	49.94	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.88%			
48) 1,2-dichloroethane-d4 (s)	11.073	65	199119	49.65	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.30%			
76) toluene-d8 (s)	13.280	98	705894	51.15	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.30%			
102) 4-bromofluorobenzene (s)	16.225	95	250445	48.69	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.38%			

Target Compounds						Qvalue
2) 1,4-dioxane	12.281	88	230790	2974.17	ug/L	93
3) tertiary butyl alcohol	8.358	59	628015	570.76	ug/L	96
7) chlorodifluoromethane	4.478	51	755548	121.58	ug/L	98
8) dichlorodifluoromethane	4.462	85	832710	111.99	ug/L	96
9) chloromethane	4.854	50	899477	115.13	ug/L	99
10) vinyl chloride	5.163	62	1092341	115.97	ug/L	99
11) bromomethane	5.890	94	417110	115.23	ug/L	99
12) chloroethane	6.083	64	362816	108.71	ug/L	98
14) trichlorofluoromethane	6.627	101	810481	115.77	ug/L	98
16) ethyl ether	7.077	74	202008	107.91	ug/L	98
19) freon 113	7.527	151	399083	122.15	ug/L	98
20) 1,1-dichloroethene	7.532	61	598304	115.70	ug/L	98
21) acetone	7.579	58	55694	110.10	ug/L	93
22) allyl chloride	8.097	76	277959	109.16	ug/L	98
23) acetonitrile	8.039	40	615556	1192.02	ug/L	96
24) iodomethane	7.825	142	733035	113.43	ug/L	97
25) carbon disulfide	7.956	76	1368722	112.26	ug/L	100
26) methylene chloride	8.285	84	428302	109.12	ug/L	98
27) methyl acetate	8.081	43	410782	113.59	ug/L	100
28) methyl tert butyl ether	8.662	73	1317158	107.90	ug/L	99
29) trans-1,2-dichloroethene	8.693	61	528084	108.23	ug/L	98
30) hexane	9.044	57	466391	120.19	ug/L	100
31) di-isopropyl ether	9.295	45	1482317	118.35	ug/L	94
32) t-butyl formate	10.492	59	459199	119.98	ug/L	99
33) ethyl tert-butyl ether	9.776	59	1439328	121.79	ug/L	99
34) 2-butanone	10.016	72	63440	108.32	ug/L	95
35) 1,1-dichloroethane	9.289	63	661019	107.29	ug/L	100
36) chloroprene	9.410	53	531842	117.33	ug/L	97
37) acrylonitrile	8.630	53	968176	533.14	ug/L	98
38) vinyl acetate	9.279	86	81175	118.45	ug/L	91
39) ethyl acetate	10.043	45	80582	117.75	ug/L	87
41) 2,2-dichloropropane	10.079	77	641214	109.79	ug/L	100
42) cis-1,2-dichloroethene	10.048	96	399159	110.24	ug/L	99
43) propionitrile	10.116	54	877323	1127.00	ug/L	96
44) bromochloromethane	10.367	128	194507	107.27	ug/L	97
45) tetrahydrofuran	10.419	42	201445	107.35	ug/L	99
46) chloroform	10.424	83	600384	112.37	ug/L	99
49) methacrylonitrile	10.309	67	190211	112.03	ug/L	99
50) cyclohexane	10.806	84	729551	114.80	ug/L	92
51) 1,1,1-trichloroethane	10.717	97	629110	116.81	ug/L	98
52) iso-butyl alcohol	10.869	41	310184	1144.27	ug/L	97

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220649.D
Acq On : 4 Mar 2016 6:37 pm
Operator : NicoleH1
Sample : ic8353-100
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 09:53:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
53) tert-amyl methyl ether	11.209	73	1426807	121.70 ug/L	98
56) epichlorohydrin	12.841	57	305483	597.67 ug/L	99
57) n-butyl alcohol	11.638	56	1524667	6198.12 ug/L	100
58) carbon tetrachloride	10.926	117	560200	116.69 ug/L	99
59) 1,1-dichloropropene	10.895	75	470207	109.09 ug/L	98
60) benzene	11.167	78	1425117	104.59 ug/L	99
61) Iso-octane	11.204	57	1919957	120.01 ug/L	99
62) heptane	11.366	71	289799	119.24 ug/L	96
64) isopropyl acetate	11.083	87	103872	117.06 ug/L	94
65) 1,2-dichloroethane	11.167	62	439676	103.97 ug/L	97
66) trichloroethene	11.894	95	353341	113.86 ug/L	98
67) 2-nitropropane	12.699	41	159712	106.72 ug/L #	64
69) methylcyclohexane	12.155	83	799015	116.55 ug/L	99
70) 2-chloroethyl vinyl ether	12.715	63	1331746	593.43 ug/L	98
71) methyl methacrylate	12.171	100	111620	112.60 ug/L	91
72) 1,2-dichloropropane	12.176	63	395162	108.32 ug/L	99
73) dibromomethane	12.323	93	231985	108.70 ug/L	98
74) bromodichloromethane	12.459	83	477488	109.07 ug/L	99
75) cis-1,3-dichloropropene	12.950	75	577775	112.75 ug/L	98
77) 4-methyl-2-pentanone	13.066	58	232749	112.90 ug/L	98
78) toluene	13.358	91	1416739	112.58 ug/L	98
79) 3-methyl-1-butanol	13.060	55	926185	2429.71 ug/L	99
80) trans-1,3-dichloropropene	13.547	75	512299	111.58 ug/L	98
81) ethyl methacrylate	13.552	69	513602	114.40 ug/L	100
82) 1,1,2-trichloroethane	13.787	83	279856	113.45 ug/L	95
83) 2-hexanone	13.986	58	195758	108.64 ug/L	98
85) tetrachloroethene	13.996	166	385062	110.38 ug/L	97
86) 1,3-dichloropropane	13.991	76	536757	107.09 ug/L	99
87) butyl acetate	14.064	56	323016	114.01 ug/L	98
88) 3,3-dimethyl-1-butanol	14.159	57	1209597	1219.61 ug/L	99
89) dibromochloromethane	14.274	129	375873	110.50 ug/L	97
90) 1,2-dibromoethane	14.451	107	333221	106.54 ug/L	98
91) n-butyl ether	14.886	57	1553685	109.01 ug/L	99
92) chlorobenzene	14.969	112	907799	106.11 ug/L	95
93) 1,1,1,2-tetrachloroethane	15.032	131	437870	117.96 ug/L	98
94) ethylbenzene	15.037	91	1584672	106.52 ug/L	98
95) m,p-xylene	15.158	106	1250439	220.81 ug/L	92
96) o-xylene	15.623	91	1359119	108.94 ug/L	99
97) styrene	15.628	104	1025265	110.67 ug/L	96
98) bromoform	15.911	173	286511	111.91 ug/L	100
100) isopropylbenzene	16.010	105	1807035	110.70 ug/L	97
101) cyclohexanone	16.193	55	336285	930.54 ug/L	100
103) bromobenzene	16.449	156	419672	103.96 ug/L	96
104) 1,1,2,2-tetrachloroethane	16.324	83	560972	102.49 ug/L	99
105) trans-1,4-dichloro-2-b...	16.376	53	111352	113.63 ug/L	91
106) 1,2,3-trichloropropane	16.418	110	138808	104.04 ug/L	95
107) n-propylbenzene	16.470	91	1898242	104.81 ug/L	97
108) 2-chlorotoluene	16.632	126	436141	109.48 ug/L	96
109) 4-chlorotoluene	16.742	91	1116124	103.03 ug/L	97
111) 1,3,5-trimethylbenzene	16.632	105	1554035	112.59 ug/L	97
112) tert-butylbenzene	17.035	134	369622	116.85 ug/L	92
113) pentachloroethane	17.114	167	380442	115.05 ug/L	96
114) 1,2,4-trimethylbenzene	17.077	105	1517304	109.72 ug/L	98
115) sec-butylbenzene	17.276	105	2162014	115.89 ug/L	96
116) 1,3-dichlorobenzene	17.469	146	819857	109.98 ug/L	100
117) p-isopropyltoluene	17.401	119	1741906	114.68 ug/L	97
119) 1,4-dichlorobenzene	17.563	146	827259	110.11 ug/L	98
121) 1,2-dichlorobenzene	17.998	146	845130	108.53 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220649.D
Acq On : 4 Mar 2016 6:37 pm
Operator : NicoleH1
Sample : ic8353-100
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 09:53:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
122) n-butylbenzene	17.862	92	890851	111.85 ug/L	97
124) 1,2-dibromo-3-chloropr...	18.855	157	167283	105.66 ug/L	97
125) 1,3,5-trichlorobenzene	19.075	180	808213	111.07 ug/L	99
126) 1,2,4-trichlorobenzene	19.812	180	789999	110.79 ug/L	99
127) hexachlorobutadiene	19.948	225	409637	115.34 ug/L	99
128) naphthalene	20.131	128	2250263	105.15 ug/L	97
129) 1,2,3-trichlorobenzene	20.398	180	876367	109.96 ug/L	98
130) hexachloroethane	18.301	201	353900	117.68 ug/L	99

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

7.7.9

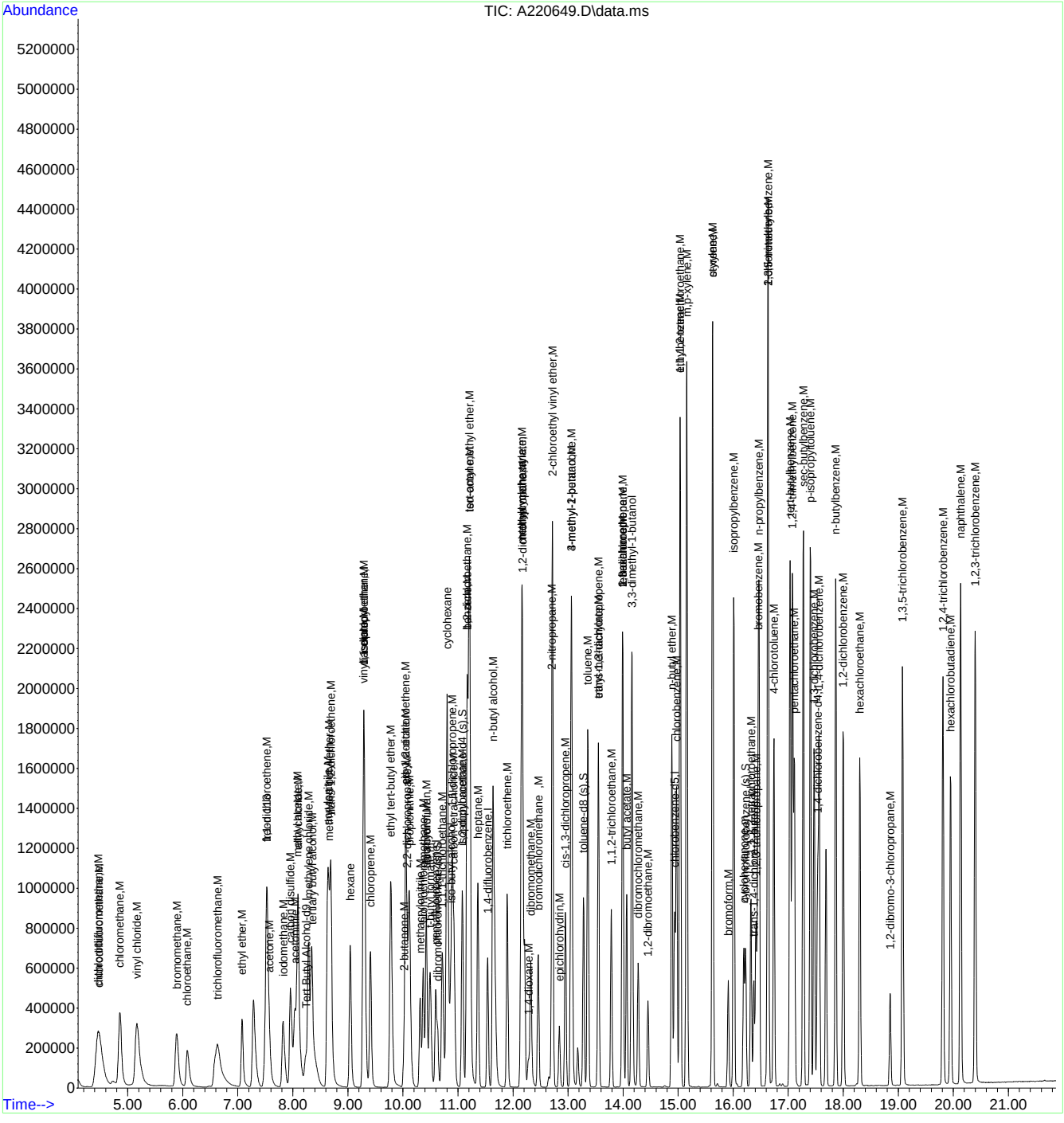
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220649.D
Acq On : 4 Mar 2016 6:37 pm
Operator : NicoleH1
Sample : ic8353-100
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 09:53:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220650.D
Acq On : 4 Mar 2016 7:07 pm
Operator : NicoleH1
Sample : ic8353-200
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 09:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.246	65	653119	500.00 ug/L	0.01
4) pentafluorobenzene	10.594	168	430867	50.00 ug/L	0.00
54) 1,4-difluorobenzene	11.535	114	650595	50.00 ug/L	0.00
84) chlorobenzene-d5	14.935	117	597750	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.534	152	348563	50.00 ug/L	0.00

System Monitoring Compounds					
47) dibromofluoromethane (s)	10.631	113	200342	49.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.00%		
48) 1,2-dichloroethane-d4 (s)	11.070	65	212198	48.31 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.62%		
76) toluene-d8 (s)	13.282	98	775467	51.10 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.20%		
102) 4-bromofluorobenzene (s)	16.227	95	284408	47.55 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 95.10%		

Target Compounds					Qvalue
2) 1,4-dioxane	12.283	88	455669	5530.32 ug/L	96
3) tertiary butyl alcohol	8.371	59	1198515	1025.84 ug/L #	37
7) chlorodifluoromethane	4.464	51	1359628	199.79 ug/L	98
8) dichlorodifluoromethane	4.454	85	1564028	192.09 ug/L	97
9) chloromethane	4.862	50	1767566	206.59 ug/L	100
10) vinyl chloride	5.170	62	2091372	202.76 ug/L	99
12) chloroethane	6.075	64	595302	162.89 ug/L	100
14) trichlorofluoromethane	6.630	101	1574028	205.31 ug/L	99
16) ethyl ether	7.079	74	414935	202.41 ug/L	98
19) freon 113	7.513	151	745522	208.38 ug/L	97
20) 1,1-dichloroethene	7.529	61	1210666	213.78 ug/L	95
21) acetone	7.581	58	112283	202.70 ug/L	94
22) allyl chloride	8.094	76	625328	224.26 ug/L #	75
23) acetonitrile	8.037	40	1140389	2016.64 ug/L	97
24) iodomethane	7.822	142	1491882	210.81 ug/L	98
25) carbon disulfide	7.953	76	2684212	201.03 ug/L	99
26) methylene chloride	8.282	84	880888	204.95 ug/L	94
27) methyl acetate	8.078	43	777958	196.44 ug/L	99
28) methyl tert butyl ether	8.659	73	2612129	195.40 ug/L	99
29) trans-1,2-dichloroethene	8.690	61	1051225	196.74 ug/L	94
30) hexane	9.041	57	897341	211.17 ug/L	99
31) di-isopropyl ether	9.297	45	2658867	193.86 ug/L	89
32) t-butyl formate	10.495	59	866273	206.70 ug/L	98
33) ethyl tert-butyl ether	9.778	59	2635982	203.68 ug/L	96
34) 2-butanone	10.013	72	132670	206.87 ug/L #	81
35) 1,1-dichloroethane	9.287	63	1315507	194.98 ug/L	99
36) chloroprene	9.407	53	1030800	207.66 ug/L	96
37) acrylonitrile	8.627	53	1898326	954.59 ug/L	99
38) vinyl acetate	9.281	86	158945	211.80 ug/L	78
39) ethyl acetate	10.045	45	156960	209.45 ug/L	99
41) 2,2-dichloropropane	10.076	77	1259714	196.96 ug/L	97
42) cis-1,2-dichloroethene	10.050	96	823095	207.60 ug/L	96
43) propionitrile	10.118	54	1785563	2094.58 ug/L	89
44) bromochloromethane	10.369	128	410041	206.51 ug/L	90
45) tetrahydrofuran	10.421	42	405596	197.38 ug/L	97
46) chloroform	10.427	83	1208548	206.56 ug/L	96
49) methacrylonitrile	10.312	67	393204	211.48 ug/L	99
50) cyclohexane	10.803	84	1480206	212.69 ug/L	88
51) 1,1,1-trichloroethane	10.720	97	1250145	211.97 ug/L	97
52) iso-butyl alcohol	10.866	41	648464	2184.50 ug/L	97
53) tert-amyl methyl ether	11.211	73	2661862	207.33 ug/L	96

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220650.D
Acq On : 4 Mar 2016 7:07 pm
Operator : NicoleH1
Sample : ic8353-200
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 09:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) epichlorohydrin	12.843	57	616822	1097.50 ug/L	97
57) n-butyl alcohol	11.640	56	2981722	11023.54 ug/L	99
58) carbon tetrachloride	10.929	117	1127592	213.61 ug/L	99
59) 1,1-dichloropropene	10.892	75	973343	205.36 ug/L	98
60) benzene	11.164	78	2839250	189.49 ug/L	96
61) Iso-octane	11.206	57	3598731	204.57 ug/L	96
62) heptane	11.363	71	568941	212.88 ug/L	97
64) isopropyl acetate	11.080	87	203715	208.78 ug/L #	85
65) 1,2-dichloroethane	11.164	62	899575	193.46 ug/L	98
66) trichloroethene	11.896	95	730967	214.22 ug/L	98
67) 2-nitropropane	12.702	41	328896	199.86 ug/L #	78
69) methylcyclohexane	12.153	83	1532940	203.35 ug/L	99
70) 2-chloroethyl vinyl ether	12.717	63	2550579	1033.62 ug/L	94
71) methyl methacrylate	12.174	100	246348	226.01 ug/L	87
72) 1,2-dichloropropane	12.174	63	825158	205.71 ug/L	100
73) dibromomethane	12.320	93	490002	208.80 ug/L	99
74) bromodichloromethane	12.456	83	981113	203.82 ug/L	96
75) cis-1,3-dichloropropene	12.953	75	1210975	214.91 ug/L	98
77) 4-methyl-2-pentanone	13.068	58	496344	218.95 ug/L #	89
78) toluene	13.361	91	2834313	204.84 ug/L	94
79) 3-methyl-1-butanol	13.063	55	1838361	4385.88 ug/L	98
80) trans-1,3-dichloropropene	13.549	75	1093232	216.55 ug/L	98
81) ethyl methacrylate	13.554	69	1105680	223.97 ug/L	98
82) 1,1,2-trichloroethane	13.784	83	601563	221.79 ug/L	98
83) 2-hexanone	13.988	58	429463	216.75 ug/L	93
85) tetrachloroethene	13.999	166	825051	207.20 ug/L	97
86) 1,3-dichloropropane	13.988	76	1145159	200.18 ug/L	99
87) butyl acetate	14.067	56	643573	199.01 ug/L	94
88) 3,3-dimethyl-1-butanol	14.161	57	2380266	2102.68 ug/L	98
89) dibromochloromethane	14.276	129	823562	212.13 ug/L	98
90) 1,2-dibromoethane	14.454	107	717888	201.09 ug/L	97
91) n-butyl ether	14.888	57	3037585	186.72 ug/L	95
92) chlorobenzene	14.972	112	1921629	196.78 ug/L	93
93) 1,1,1,2-tetrachloroethane	15.034	131	935498	220.79 ug/L	98
94) ethylbenzene	15.040	91	3218119	189.53 ug/L	90
95) m,p-xylene	15.160	106	2587002	400.23 ug/L #	76
96) o-xylene	15.625	91	2783067	195.45 ug/L	93
97) styrene	15.631	104	2172453	205.44 ug/L	93
98) bromoform	15.913	173	619783	212.09 ug/L	99
100) isopropylbenzene	16.012	105	3557861	187.45 ug/L	89
101) cyclohexanone	16.190	55	690746	1643.86 ug/L	99
103) bromobenzene	16.452	156	924509	196.97 ug/L	97
104) 1,1,2,2-tetrachloroethane	16.321	83	1184829	186.17 ug/L	98
105) trans-1,4-dichloro-2-b...	16.373	53	248192	217.83 ug/L	96
106) 1,2,3-trichloropropane	16.415	110	299165	192.84 ug/L	98
107) n-propylbenzene	16.473	91	3715997	176.46 ug/L	88
108) 2-chlorotoluene	16.630	126	944156	203.84 ug/L #	85
109) 4-chlorotoluene	16.739	91	2355038	186.97 ug/L	93
111) 1,3,5-trimethylbenzene	16.635	105	3171222	197.60 ug/L	90
112) tert-butylbenzene	17.038	134	823383	223.88 ug/L #	78
113) pentachloroethane	17.111	167	849636	220.99 ug/L	96
114) 1,2,4-trimethylbenzene	17.079	105	3133690	194.88 ug/L	91
115) sec-butylbenzene	17.273	105	4189271	193.14 ug/L	85
116) 1,3-dichlorobenzene	17.472	146	1771062	204.32 ug/L	97
117) p-isopropyltoluene	17.404	119	3540949	200.49 ug/L	86
119) 1,4-dichlorobenzene	17.561	146	1760435	201.52 ug/L	96
121) 1,2-dichlorobenzene	18.000	146	1819162	200.92 ug/L	95
122) n-butylbenzene	17.864	92	1930043	208.42 ug/L	87

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220650.D
Acq On : 4 Mar 2016 7:07 pm
Operator : NicoleH1
Sample : ic8353-200
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 09:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration

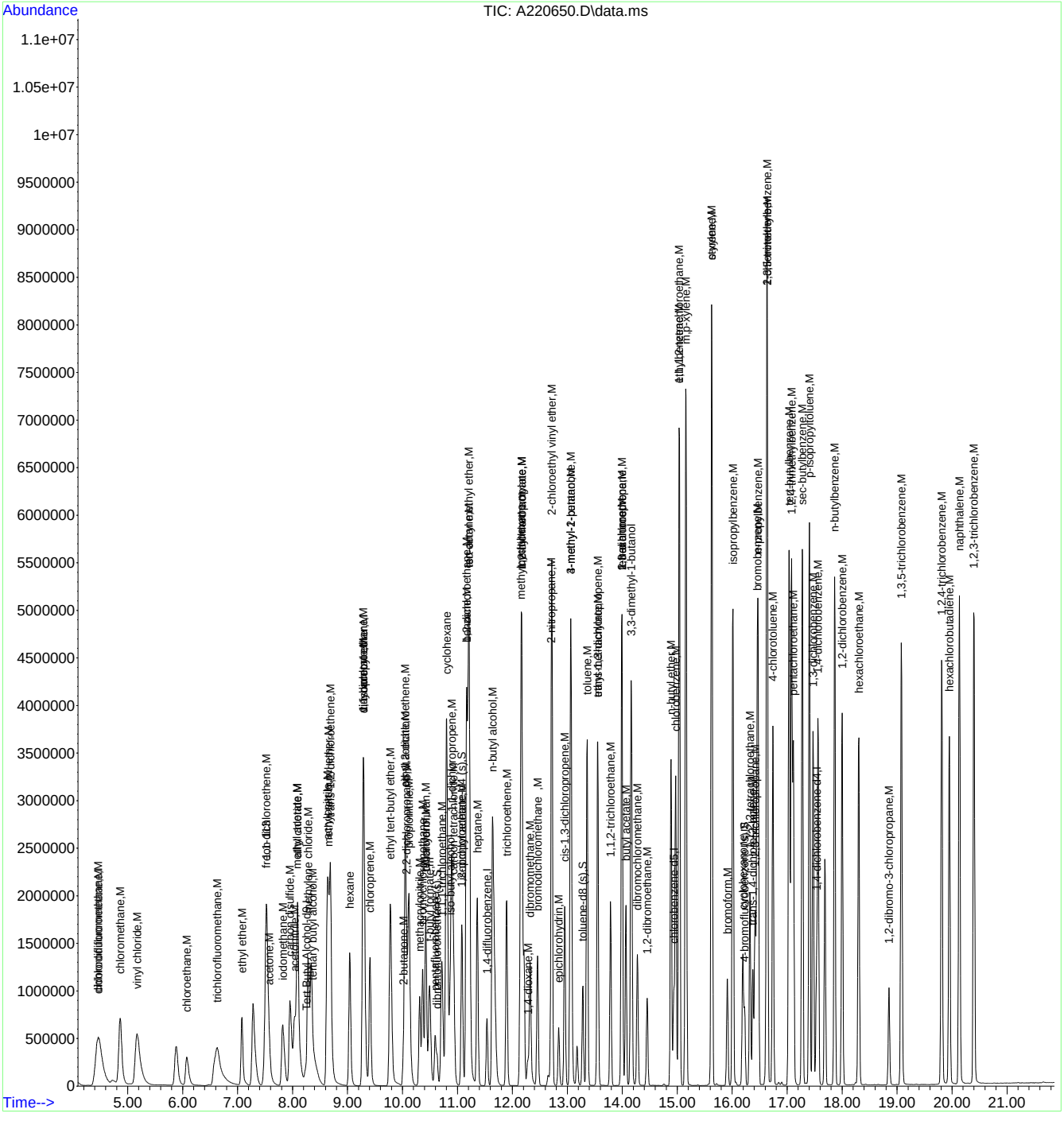
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dibromo-3-chloropr...	18.852	157	366247	198.96 ug/L	98
125) 1,3,5-trichlorobenzene	19.077	180	1775901	209.90 ug/L	98
126) 1,2,4-trichlorobenzene	19.815	180	1741184	210.01 ug/L	98
127) hexachlorobutadiene	19.951	225	965834	233.88 ug/L	98
128) naphthalene	20.134	128	4346807	174.69 ug/L	87
129) 1,2,3-trichlorobenzene	20.401	180	1903205	205.37 ug/L	97
130) hexachloroethane	18.303	201	815754	233.29 ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220650.D
Acq On : 4 Mar 2016 7:07 pm
Operator : NicoleH1
Sample : ic8353-200
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 09:53:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 09:21:51 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220653.D
Acq On : 4 Mar 2016 8:35 pm
Operator : NicoleH1
Sample : icv8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 08 10:07:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 10:06:22 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.234	65	602499	500.00	ug/L	0.00
4) pentafluorobenzene	10.598	168	401334	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.539	114	590686	50.00	ug/L	0.00
84) chlorobenzene-d5	14.939	117	514068	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.533	152	295082	50.00	ug/L	0.00

System Monitoring Compounds						
47) dibromofluoromethane (s)	10.629	113	187141	49.14	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.28%			
48) 1,2-dichloroethane-d4 (s)	11.074	65	198220	48.45	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.90%			
76) toluene-d8 (s)	13.281	98	683513	49.61	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.22%			
102) 4-bromofluorobenzene (s)	16.225	95	247336	48.85	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.70%			

Target Compounds						Qvalue
2) 1,4-dioxane	12.277	88	99959	1315.10	ug/L	92
3) tertiary butyl alcohol	8.359	59	267648	248.33	ug/L	95
7) chlorodifluoromethane	4.473	51	357772	56.44	ug/L	98
8) dichlorodifluoromethane	4.463	85	346582	45.57	ug/L	98
9) chloromethane	4.845	50	330374	41.46	ug/L	97
10) vinyl chloride	5.153	62	424382	45.20	ug/L	99
11) bromomethane	5.885	94	193847	47.31	ug/L	99
12) chloroethane	6.079	64	158496	47.47	ug/L	97
14) trichlorofluoromethane	6.628	101	345932	48.44	ug/L	98
16) ethyl ether	7.083	74	99413	51.50	ug/L	99
18) acrolein	7.334	56	441230	405.84	ug/L	97
19) freon 113	7.522	151	183053	54.93	ug/L	97
20) 1,1-dichloroethene	7.528	61	276309	50.85	ug/L	97
21) acetone	7.580	58	26167	50.71	ug/L	98
22) allyl chloride	8.098	76	120664	46.46	ug/L	96
23) acetonitrile	8.035	40	260068	480.97	ug/L	98
24) iodomethane	7.820	142	337631	51.22	ug/L	99
25) carbon disulfide	7.956	76	669790	53.86	ug/L	99
26) methylene chloride	8.281	84	199854	47.53	ug/L	98
27) methyl acetate	8.077	43	168001	46.27	ug/L	100
28) methyl tert butyl ether	8.657	73	1201703	93.96	ug/L	91
29) trans-1,2-dichloroethene	8.694	61	241113	48.45	ug/L	95
30) hexane	9.044	57	184128	45.17	ug/L	99
31) di-isopropyl ether	9.295	45	623171	48.78	ug/L	91
32) t-butyl formate	10.493	59	164004	44.22	ug/L	99
33) ethyl tert-butyl ether	9.777	59	621541	51.56	ug/L	99
34) 2-butanone	10.017	72	30559	53.75	ug/L #	78
35) 1,1-dichloroethane	9.290	63	312755	49.77	ug/L	97
36) chloroprene	9.410	53	227878	49.29	ug/L	97
37) acrylonitrile	8.626	53	470565	254.04	ug/L	97
38) vinyl acetate	9.274	86	34384	51.49	ug/L	88
39) ethyl acetate	10.049	45	34110	49.38	ug/L	89
41) 2,2-dichloropropane	10.075	77	295282	49.57	ug/L	100
42) cis-1,2-dichloroethene	10.049	96	187513	50.77	ug/L	96
43) propionitrile	10.116	54	418731	510.39	ug/L	97
44) bromochloromethane	10.368	128	92386	49.95	ug/L	96
45) tetrahydrofuran	10.420	42	92902	49.59	ug/L	98
46) chloroform	10.425	83	288982	51.34	ug/L	98
49) methacrylonitrile	10.310	67	88608	49.64	ug/L	90
50) cyclohexane	10.807	84	327830	50.57	ug/L	96
51) 1,1,1-trichloroethane	10.718	97	300199	54.65	ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220653.D
Acq On : 4 Mar 2016 8:35 pm
Operator : NicoleH1
Sample : icv8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 08 10:07:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 10:06:22 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.864	41	136119	494.44 ug/L	99
53) tert-amyl methyl ether	11.210	73	623094	51.12 ug/L	99
56) epichlorohydrin	12.841	57	132263	259.20 ug/L	99
57) n-butyl alcohol	11.638	56	637863	2701.13 ug/L	99
58) carbon tetrachloride	10.927	117	255828	51.69 ug/L	97
59) 1,1-dichloropropene	10.896	75	231199	53.73 ug/L	99
60) benzene	11.163	78	679471	49.95 ug/L	98
61) Iso-octane	11.204	57	806670	53.01 ug/L	99
62) heptane	11.361	71	120515	49.67 ug/L	97
64) isopropyl acetate	11.079	87	44820	53.26 ug/L	96
65) 1,2-dichloroethane	11.163	62	205736	48.73 ug/L	98
66) trichloroethene	11.895	95	163595	50.72 ug/L	98
67) 2-nitropropane	12.695	41	75346	50.43 ug/L #	27
69) methylcyclohexane	12.151	83	339904	53.48 ug/L	99
70) 2-chloroethyl vinyl ether	12.716	63	613524	270.64 ug/L	100
71) methyl methacrylate	12.172	100	53171	55.68 ug/L	99
72) 1,2-dichloropropane	12.172	63	183675	50.43 ug/L	100
73) dibromomethane	12.318	93	107537	50.47 ug/L	95
74) bromodichloromethane	12.454	83	219178	50.15 ug/L	97
75) cis-1,3-dichloropropene	12.951	75	270534	51.10 ug/L	98
77) 4-methyl-2-pentanone	13.066	58	110254	54.36 ug/L	95
78) toluene	13.359	91	669463	51.33 ug/L	99
79) 3-methyl-1-butanol	13.061	55	403802	1061.08 ug/L	99
80) trans-1,3-dichloropropene	13.547	75	235163	49.84 ug/L	99
81) ethyl methacrylate	13.553	69	238100	51.86 ug/L	99
82) 1,1,2-trichloroethane	13.783	83	131047	52.36 ug/L	100
83) 2-hexanone	13.987	58	94539	52.55 ug/L	96
85) tetrachloroethene	13.997	166	180387	52.68 ug/L	98
86) 1,3-dichloropropane	13.992	76	249341	50.68 ug/L	98
87) butyl acetate	14.065	56	145547	50.95 ug/L	99
88) 3,3-dimethyl-1-butanol	14.159	57	521966	536.14 ug/L	99
89) dibromochloromethane	14.274	129	171262	51.29 ug/L	98
90) 1,2-dibromoethane	14.452	107	155131	50.53 ug/L	96
91) n-butyl ether	14.886	57	752424	51.93 ug/L	100
92) chlorobenzene	14.970	112	439780	52.37 ug/L	99
93) 1,1,1,2-tetrachloroethane	15.033	131	195358	52.92 ug/L	100
94) ethylbenzene	15.038	91	753957	51.63 ug/L	99
95) m,p-xylene	15.158	106	583140	104.90 ug/L	100
96) o-xylene	15.624	91	640658	52.32 ug/L	98
97) styrene	15.629	104	471279	51.82 ug/L	96
98) bromoform	15.911	173	131786	52.44 ug/L	99
100) isopropylbenzene	16.011	105	828239	51.54 ug/L	99
101) cyclohexanone	16.189	55	153288	430.92 ug/L	99
103) bromobenzene	16.450	156	194859	49.04 ug/L	93
104) 1,1,2,2-tetrachloroethane	16.319	83	260408	48.33 ug/L	99
105) trans-1,4-dichloro-2-b...	16.377	53	51251	53.13 ug/L	93
106) 1,2,3-trichloropropane	16.414	110	64844	50.17 ug/L	95
107) n-propylbenzene	16.471	91	929797	52.16 ug/L	99
108) 2-chlorotoluene	16.628	126	194151	49.51 ug/L	96
109) 4-chlorotoluene	16.738	91	531840	49.88 ug/L	99
111) 1,3,5-trimethylbenzene	16.633	105	705081	51.90 ug/L	99
112) tert-butylbenzene	17.036	134	160677	53.75 ug/L	98
113) pentachloroethane	17.109	167	165287	53.19 ug/L	96
114) 1,2,4-trimethylbenzene	17.078	105	708964	52.08 ug/L	100
115) sec-butylbenzene	17.271	105	985027	52.10 ug/L	99
116) 1,3-dichlorobenzene	17.470	146	382121	49.85 ug/L	99
117) p-isopropyltoluene	17.402	119	820793	53.60 ug/L	100
119) 1,4-dichlorobenzene	17.564	146	389282	50.39 ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220653.D
Acq On : 4 Mar 2016 8:35 pm
Operator : NicoleH1
Sample : icv8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 08 10:07:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 10:06:22 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	17.998	146	399070	50.42 ug/L	99
122) n-butylbenzene	17.862	92	405975	49.55 ug/L	99
124) 1,2-dibromo-3-chloropr...	18.856	157	78356	51.49 ug/L	94
125) 1,3,5-trichlorobenzene	19.076	180	364894	49.34 ug/L	99
126) 1,2,4-trichlorobenzene	19.813	180	370692	52.81 ug/L	100
127) hexachlorobutadiene	19.949	225	179518	51.35 ug/L	98
128) naphthalene	20.132	128	1095559	52.01 ug/L	99
129) 1,2,3-trichlorobenzene	20.399	180	397430	50.66 ug/L	97
130) hexachloroethane	18.302	201	156987	53.03 ug/L	99

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

7.7.11

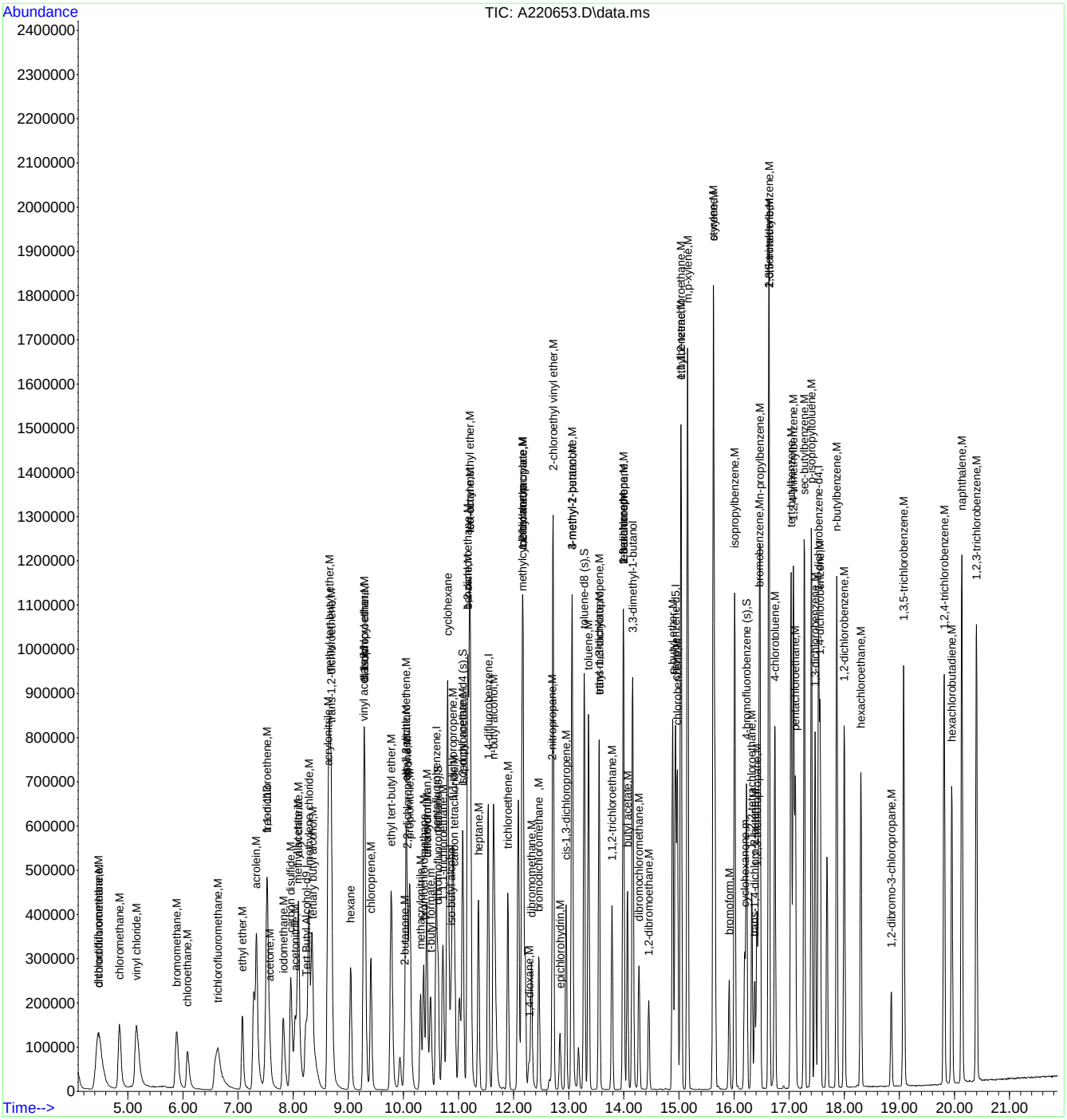
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220653.D
Acq On : 4 Mar 2016 8:35 pm
Operator : NicoleH1
Sample : icv8353-50
Misc : MS99098,VA8353,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 08 10:07:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 08 10:06:22 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220999.D
Acq On : 17 Mar 2016 9:00 am
Operator : NicoleH1
Sample : cc8353-20
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 17:06:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.257	65	395901	500.00 ug/L	0.02
4) pentafluorobenzene	10.611	168	244577	50.00 ug/L	0.02
54) 1,4-difluorobenzene	11.547	114	373504	50.00 ug/L	0.00
84) chlorobenzene-d5	14.936	117	333044	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.535	152	179655	50.00 ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	10.642	113	119375	51.43 ug/L	0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.86%		
48) 1,2-dichloroethane-d4 (s)	11.081	65	125053	50.16 ug/L	0.01
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.32%		
76) toluene-d8 (s)	13.283	98	436562	50.11 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.22%		
102) 4-bromofluorobenzene (s)	16.228	95	157583	51.12 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.24%		

Target Compounds

					Qvalue
2) 1,4-dioxane	12.284	88	25580	512.16 ug/L	93
3) tertiary butyl alcohol	8.393	59	68621	96.89 ug/L	90
7) chlorodifluoromethane	4.523	51	89326	23.12 ug/L	99
8) dichlorodifluoromethane	4.528	85	92125	19.88 ug/L	97
9) chloromethane	4.899	50	85054	17.51 ug/L	99
10) vinyl chloride	5.208	62	115472	20.18 ug/L	98
11) bromomethane	5.940	94	45963	18.41 ug/L	92
12) chloroethane	6.144	64	40539	19.92 ug/L	94
14) trichlorofluoromethane	6.646	101	92787	21.32 ug/L	97
16) ethyl ether	7.122	74	23511	19.99 ug/L	94
18) acrolein	7.373	56	125308	189.13 ug/L	100
19) freon 113	7.556	151	44504	21.91 ug/L	98
20) 1,1-dichloroethene	7.567	61	66418	20.06 ug/L	97
21) acetone	7.619	58	5895	18.75 ug/L	94
22) allyl chloride	8.132	76	29813	18.84 ug/L #	88
23) acetonitrile	8.069	40	64720	196.41 ug/L	94
24) iodomethane	7.860	142	82260	20.48 ug/L	95
25) carbon disulfide	7.990	76	163322	21.55 ug/L	98
26) methylene chloride	8.315	84	49310	19.24 ug/L	92
27) methyl acetate	8.111	43	44017	19.89 ug/L	98
28) methyl tert butyl ether	8.686	73	156596	20.09 ug/L	100
29) trans-1,2-dichloroethene	8.723	61	62853	20.72 ug/L	99
30) hexane	9.068	57	55494	22.34 ug/L	98
31) di-isopropyl ether	9.314	45	155501	19.97 ug/L	99
32) t-butyl formate	10.506	59	53682	23.75 ug/L	99
33) ethyl tert-butyl ether	9.795	59	151490	20.62 ug/L	98
34) 2-butanone	10.035	72	7636	22.04 ug/L #	77
35) 1,1-dichloroethane	9.314	63	74941	19.57 ug/L	98
36) chloroprene	9.434	53	57407	20.37 ug/L	96
37) acrylonitrile	8.655	53	110306	97.72 ug/L	98
38) vinyl acetate	9.298	86	7823	19.22 ug/L	99
39) ethyl acetate	10.056	45	8576	20.37 ug/L	85
41) 2,2-dichloropropane	10.093	77	86201	23.74 ug/L	98
42) cis-1,2-dichloroethene	10.067	96	47804	21.24 ug/L	96
43) propionitrile	10.129	54	98027	196.07 ug/L	92
44) bromochloromethane	10.386	128	22890	20.31 ug/L	88
45) tetrahydrofuran	10.433	42	22351	19.58 ug/L	98
46) chloroform	10.438	83	69154	20.16 ug/L	98
49) methacrylonitrile	10.333	67	20569	18.91 ug/L	94
50) cyclohexane	10.820	84	81817	20.71 ug/L	85
51) 1,1,1-trichloroethane	10.731	97	73304	21.90 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220999.D
Acq On : 17 Mar 2016 9:00 am
Operator : NicoleH1
Sample : cc8353-20
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 17:06:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) iso-butyl alcohol	10.872	41	33142	197.54 ug/L	96
53) tert-amyl methyl ether	11.223	73	144509	19.45 ug/L	98
56) epichlorohydrin	12.844	57	32780	101.59 ug/L	97
57) n-butyl alcohol	11.641	56	158354	1060.49 ug/L	98
58) carbon tetrachloride	10.940	117	64724	20.68 ug/L	97
59) 1,1-dichloropropene	10.903	75	54835	20.15 ug/L	97
60) benzene	11.181	78	165983	19.30 ug/L	97
61) Iso-octane	11.212	57	196866	20.46 ug/L	99
62) heptane	11.369	71	33965	22.14 ug/L	93
64) isopropyl acetate	11.087	87	10420	19.58 ug/L	96
65) 1,2-dichloroethane	11.170	62	51164	19.17 ug/L	90
66) trichloroethene	11.902	95	40261	19.74 ug/L	97
67) 2-nitropropane	12.703	41	17765	18.80 ug/L #	56
69) methylcyclohexane	12.159	83	84089	20.92 ug/L	100
70) 2-chloroethyl vinyl ether	12.718	63	148224	103.41 ug/L	98
71) methyl methacrylate	12.174	100	11709	19.39 ug/L	82
72) 1,2-dichloropropane	12.180	63	44447	19.30 ug/L	99
73) dibromomethane	12.331	93	26301	19.52 ug/L	95
74) bromodichloromethane	12.462	83	52452	18.98 ug/L	96
75) cis-1,3-dichloropropene	12.954	75	66955	20.00 ug/L	99
77) 4-methyl-2-pentanone	13.069	58	25455	19.85 ug/L	98
78) toluene	13.362	91	167051	20.25 ug/L	98
79) 3-methyl-1-butanol	13.058	55	100933	419.44 ug/L	97
80) trans-1,3-dichloropropene	13.550	75	60208	20.18 ug/L	97
81) ethyl methacrylate	13.555	69	56951	19.62 ug/L	99
82) 1,1,2-trichloroethane	13.791	83	31682	20.02 ug/L	97
83) 2-hexanone	13.989	58	21530	18.93 ug/L	94
85) tetrachloroethene	14.000	166	43169	19.46 ug/L	93
86) 1,3-dichloropropane	13.994	76	61654	19.34 ug/L	99
87) butyl acetate	14.068	56	33550	18.13 ug/L	96
88) 3,3-dimethyl-1-butanol	14.162	57	127629	202.35 ug/L	99
89) dibromochloromethane	14.277	129	42121	19.47 ug/L	98
90) 1,2-dibromoethane	14.455	107	38432	19.32 ug/L	98
91) n-butyl ether	14.884	57	171904	18.31 ug/L	98
92) chlorobenzene	14.973	112	108826	20.00 ug/L	98
93) 1,1,1,2-tetrachloroethane	15.035	131	48602	20.32 ug/L	98
94) ethylbenzene	15.041	91	187954	19.87 ug/L	100
95) m,p-xylene	15.156	106	146257	40.61 ug/L	98
96) o-xylene	15.626	91	157246	19.82 ug/L	97
97) styrene	15.632	104	118212	20.06 ug/L	99
98) bromoform	15.909	173	32476	19.95 ug/L	97
100) isopropylbenzene	16.008	105	208503	21.31 ug/L	98
101) cyclohexanone	16.191	55	73280	338.36 ug/L	99
103) bromobenzene	16.453	156	50046	20.69 ug/L	93
104) 1,1,2,2-tetrachloroethane	16.322	83	64433	19.64 ug/L	99
105) trans-1,4-dichloro-2-b...	16.374	53	15613	26.59 ug/L	94
106) 1,2,3-trichloropropane	16.416	110	16582	21.07 ug/L	95
107) n-propylbenzene	16.468	91	231029	21.29 ug/L	97
108) 2-chlorotoluene	16.630	126	49032	20.54 ug/L	97
109) 4-chlorotoluene	16.740	91	133743	20.60 ug/L	99
111) 1,3,5-trimethylbenzene	16.636	105	175054	21.16 ug/L	99
112) tert-butylbenzene	17.033	134	38802	21.32 ug/L	94
113) pentachloroethane	17.112	167	39759	21.02 ug/L	94
114) 1,2,4-trimethylbenzene	17.075	105	175754	21.21 ug/L	97
115) sec-butylbenzene	17.274	105	249431	21.67 ug/L	99
116) 1,3-dichlorobenzene	17.473	146	97629	20.92 ug/L	96
117) p-isopropyltoluene	17.405	119	202853	21.76 ug/L	98
119) 1,4-dichlorobenzene	17.561	146	97332	20.69 ug/L	100

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220999.D
Acq On : 17 Mar 2016 9:00 am
Operator : NicoleH1
Sample : cc8353-20
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 17:06:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 1,2-dichlorobenzene	18.001	146	98262	20.39 ug/L	99
122) n-butylbenzene	17.865	92	104104	20.87 ug/L	99
124) 1,2-dibromo-3-chloropr...	18.848	157	18766	20.25 ug/L	95
125) 1,3,5-trichlorobenzene	19.078	180	92669	20.58 ug/L	99
126) 1,2,4-trichlorobenzene	19.810	180	91149	21.33 ug/L	100
127) hexachlorobutadiene	19.952	225	45172	21.22 ug/L	98
128) naphthalene	20.129	128	266623	20.79 ug/L	100
129) 1,2,3-trichlorobenzene	20.396	180	99379	20.81 ug/L	96
130) hexachloroethane	18.299	201	36602	20.31 ug/L	99

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

7.7.12

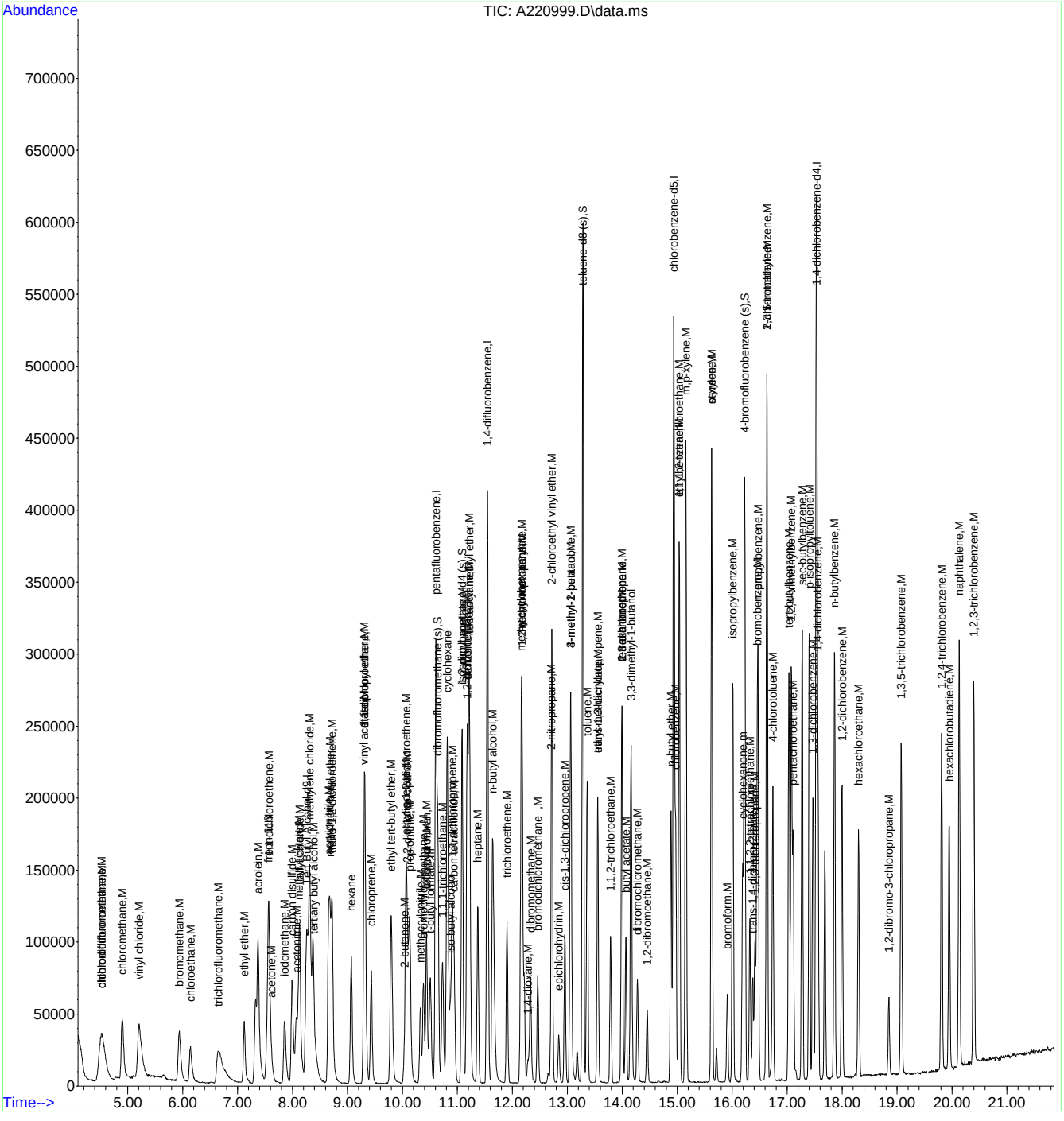
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A220999.D
Acq On : 17 Mar 2016 9:00 am
Operator : NicoleH1
Sample : cc8353-20
Misc : MS99717,VA8370,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 17:06:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\MA8353.M
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Fri Mar 11 15:22:02 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203695.D
Acq On : 26 Feb 2016 11:10 am
Operator : NicoleH1
Sample : ic9367-0.2
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 29 09:14:20 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.862	65	124319	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	253177	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	349455	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	322032	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	173963	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.131	113	103970	53.50	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 107.00%			
57) 1,2-dichloroethane-d4 (s)	10.554	65	125070	52.90	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.80%			
88) toluene-d8 (s)	12.661	98	417646	44.83	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 89.66%			
114) 4-bromofluorobenzene (s)	15.579	95	160573	44.14	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 88.28%			

Target Compounds

						Qvalue
33) carbon disulfide	7.627	76	1311	0.20	ug/L	77
37) methyl tert butyl ether	8.217	73	1169	0.18	ug/L #	51
39) di-isopropyl ether	8.787	45	1852	0.22	ug/L #	51
53) chloroform	9.927	83	641	0.18	ug/L	79
72) benzene	10.628	78	1913	0.18	ug/L	98
81) 2-chloroethyl vinyl ether	12.128	63	1104	0.68	ug/L	79
86) bromodichloromethane	11.893	83	456	0.14	ug/L	91
90) toluene	12.740	92	1003	0.16	ug/L	92
92) trans-1,3-dichloropropene	12.959	75	620	0.16	ug/L	82
105) chlorobenzene	14.334	112	1215	0.17	ug/L	80
107) ethylbenzene	14.381	91	2244	0.19	ug/L	87
108) m,p-xylene	14.502	106	1507	0.33	ug/L	85
109) o-xylene	14.967	106	700	0.15	ug/L	90
110) styrene	14.983	104	1227	0.17	ug/L	88
113) isopropylbenzene	15.338	105	1798	0.15	ug/L	84
115) bromobenzene	15.809	156	540	0.17	ug/L	95
116) 1,1,2,2-tetrachloroethane	15.699	83	458	0.14	ug/L	96
119) n-propylbenzene	15.798	91	2332	0.16	ug/L	93
121) 4-chlorotoluene	16.080	91	1664	0.18	ug/L	85
123) 1,3,5-trimethylbenzene	15.955	105	1544	0.15	ug/L	85
124) tert-butylbenzene	16.347	119	1267	0.14	ug/L	96
126) 1,2,4-trimethylbenzene	16.405	105	1756	0.17	ug/L	96
128) sec-butylbenzene	16.588	105	1955	0.15	ug/L	94
129) 1,3-dichlorobenzene	16.818	146	1071	0.17	ug/L	95
130) p-isopropyltoluene	16.713	119	1672	0.15	ug/L	96
132) benzyl chloride	17.042	91	1112	0.18	ug/L	56
133) 1,2-dichlorobenzene	17.351	146	999	0.17	ug/L	92
135) n-butylbenzene	17.178	92	829	0.15	ug/L	91
141) naphthalene	19.463	128	1460	0.20	ug/L	74

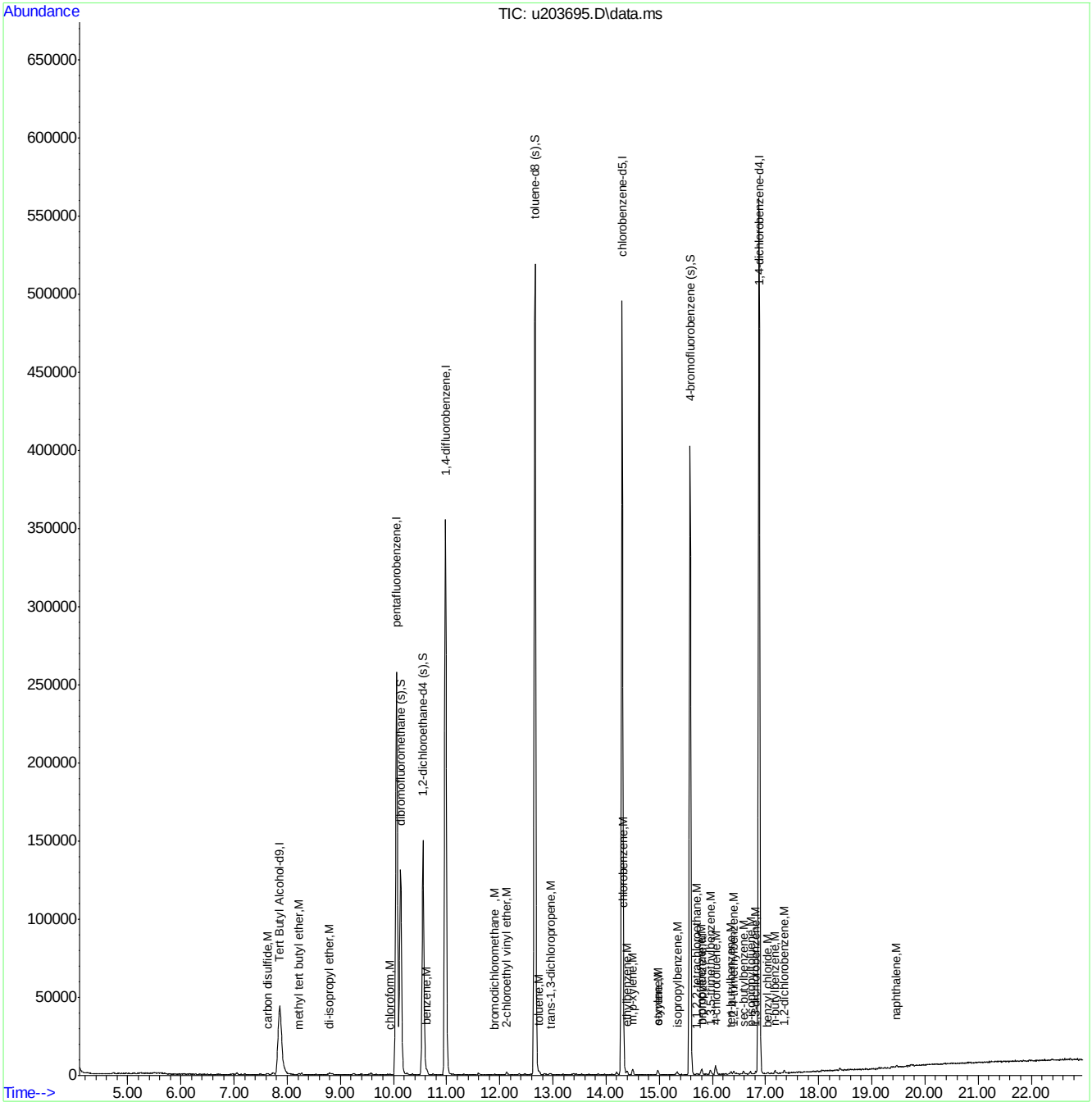
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203695.D
Acq On : 26 Feb 2016 11:10 am
Operator : NicoleH1
Sample : ic9367-0.2
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 29 09:14:20 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203696.D
Acq On : 26 Feb 2016 11:39 am
Operator : NicoleH1
Sample : ic9367-0.5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 29 09:18:06 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.862	65	122337	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	255312	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	352633	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	325272	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	175004	50.00	ug/L	0.00

System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	103546	52.84	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.68%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	124341	52.15	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.30%			
88) toluene-d8 (s)	12.661	98	422744	44.97	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 89.94%			
114) 4-bromofluorobenzene (s)	15.578	95	160563	43.88	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.76%			

Target Compounds						Qvalue
28) 1,1-dichloroethene	7.198	96	724	0.42	ug/L #	69
33) carbon disulfide	7.606	76	3621	0.55	ug/L	80
37) methyl tert butyl ether	8.223	73	3359	0.53	ug/L	62
39) di-isopropyl ether	8.787	45	5078	0.59	ug/L #	64
40) ethyl tert-butyl ether	9.252	59	4200	0.57	ug/L	95
42) 1,1-dichloroethane	8.839	63	2064	0.50	ug/L	79
44) acrylonitrile	8.259	53	2323	2.54	ug/L	92
53) chloroform	9.932	83	1805	0.50	ug/L	94
55) iso-butyl alcohol	10.361	43	540	4.69	ug/L	81
59) methacrylonitrile	9.828	41	681	0.40	ug/L #	32
62) tert-amyl methyl ether	10.633	87	645	0.45	ug/L #	63
66) epichlorohydrin	12.285	57	465	1.69	ug/L	54
72) benzene	10.627	78	4671	0.44	ug/L	88
74) isopropyl acetate	10.518	43	2692	0.46	ug/L	88
75) 1,2-dichloroethane	10.643	62	1560	0.46	ug/L	93
80) 2-nitropropane	12.128	41	433	0.39	ug/L #	58
81) 2-chloroethyl vinyl ether	12.128	63	3597	2.19	ug/L	97
83) 1,2-dichloropropane	11.605	63	1319	0.45	ug/L	93
85) dibromomethane	11.778	93	511	0.34	ug/L	82
86) bromodichloromethane	11.898	83	1488	0.45	ug/L	86
87) cis-1,3-dichloropropene	12.368	75	1840	0.41	ug/L	82
90) toluene	12.745	92	2717	0.43	ug/L	98
92) trans-1,3-dichloropropene	12.959	75	1640	0.41	ug/L	89
94) 1,1,2-trichloroethane	13.189	83	747	0.38	ug/L	95
98) tetrachloroethene	13.367	164	809	0.36	ug/L	91
99) 1,3-dichloropropane	13.388	76	1796	0.46	ug/L	84
100) butyl acetate	13.424	56	695	0.37	ug/L #	63
101) dibromochloromethane	13.681	129	1056	0.40	ug/L	87
104) n-butyl ether	14.203	57	5113	0.40	ug/L #	94
105) chlorobenzene	14.334	112	3102	0.44	ug/L	82
107) ethylbenzene	14.386	91	5547	0.45	ug/L	98
108) m,p-xylene	14.507	106	4051	0.87	ug/L	94
109) o-xylene	14.967	106	1864	0.41	ug/L	96

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203696.D
Acq On : 26 Feb 2016 11:39 am
Operator : NicoleH1
Sample : ic9367-0.5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 29 09:18:06 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
110) styrene	14.982	104	2980	0.40 ug/L	90
113) isopropylbenzene	15.338	105	5053	0.42 ug/L	99
115) bromobenzene	15.808	156	1438	0.44 ug/L	95
116) 1,1,2,2-tetrachloroethane	15.704	83	1405	0.43 ug/L	89
119) n-propylbenzene	15.798	91	6191	0.42 ug/L	93
120) 2-chlorotoluene	15.976	126	1226	0.41 ug/L #	72
121) 4-chlorotoluene	16.086	91	3952	0.43 ug/L	98
123) 1,3,5-trimethylbenzene	15.955	105	4385	0.43 ug/L	95
124) tert-butylbenzene	16.347	119	3962	0.44 ug/L	98
125) pentachloroethane	16.462	167	678	0.33 ug/L #	70
126) 1,2,4-trimethylbenzene	16.404	105	4392	0.42 ug/L	92
128) sec-butylbenzene	16.587	105	5621	0.43 ug/L	97
129) 1,3-dichlorobenzene	16.823	146	2804	0.44 ug/L	97
130) p-isopropyltoluene	16.713	119	4759	0.43 ug/L	96
131) 1,4-dichlorobenzene	16.912	146	2913	0.45 ug/L	90
132) benzyl chloride	17.042	91	3056	0.49 ug/L	95
133) 1,2-dichlorobenzene	17.351	146	2516	0.42 ug/L	98
135) n-butylbenzene	17.178	92	2419	0.42 ug/L	91
138) 1,3,5-trichlorobenzene	18.396	180	1927	0.40 ug/L	99
139) 1,2,4-trichlorobenzene	19.133	180	1449	0.38 ug/L	96
141) naphthalene	19.463	128	2683	0.36 ug/L	73

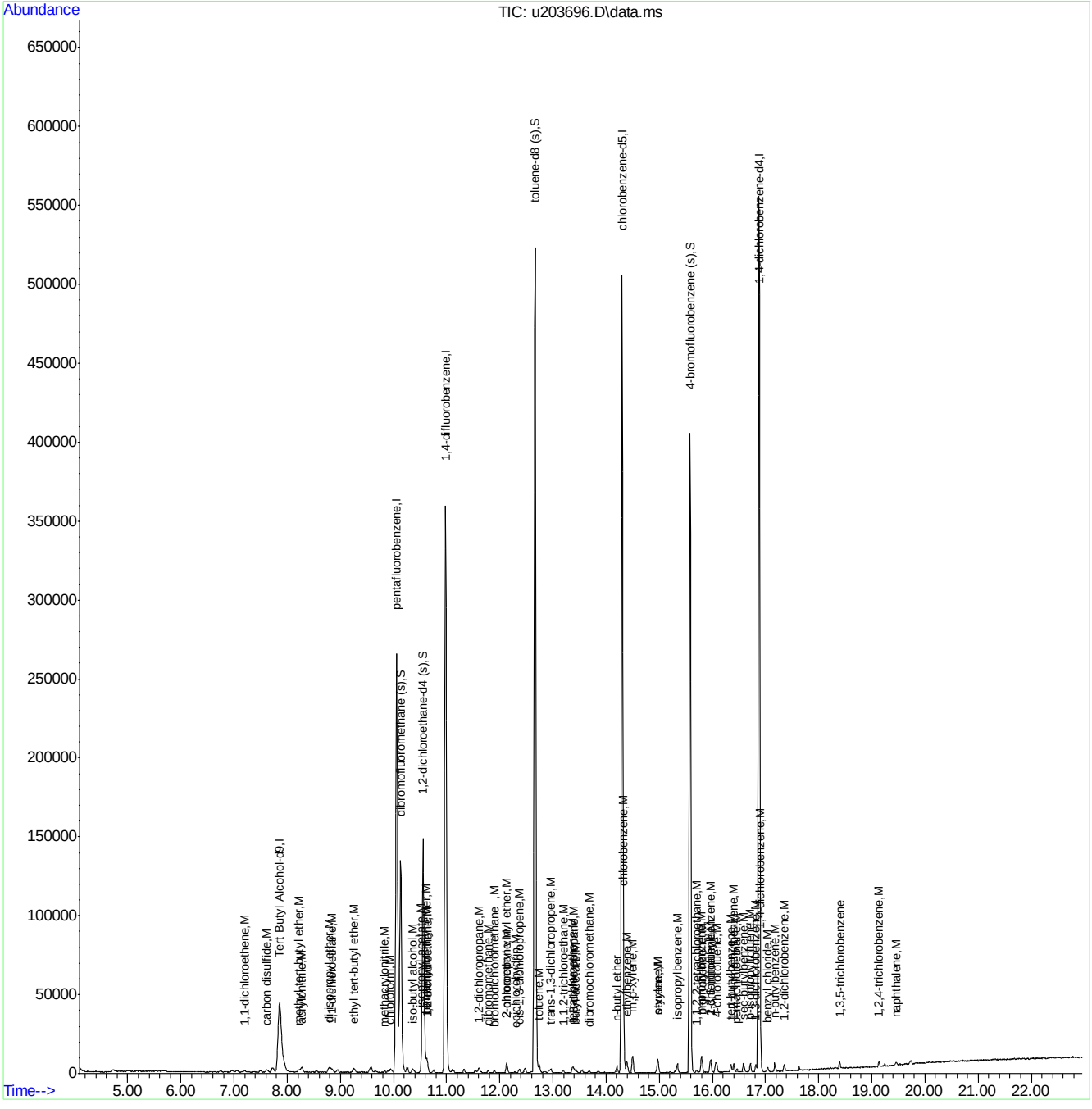
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203696.D
Acq On : 26 Feb 2016 11:39 am
Operator : NicoleH1
Sample : ic9367-0.5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 29 09:18:06 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



MU9367.M Thu Mar 03 10:06:50 2016 U_CORE

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203697.D
Acq On : 26 Feb 2016 12:08 pm
Operator : NicoleH1
Sample : ic9367-1
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 29 09:21:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.857	65	127332	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	260422	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	361342	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	329743	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	174229	50.00	ug/L	0.00

System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	104943	52.50	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.00%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	127614	52.47	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.94%			
88) toluene-d8 (s)	12.661	98	432864	44.93	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 89.86%			
114) 4-bromofluorobenzene (s)	15.584	95	162303	44.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 89.10%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.951	59	1241	4.35	ug/L #	5
11) chlorodifluoromethane	4.401	51	2956	1.14	ug/L	66
12) dichlorodifluoromethane	4.364	85	2875	1.25	ug/L #	48
15) chloromethane	4.736	50	6167	1.60	ug/L	90
16) vinyl chloride	5.007	62	4894	1.57	ug/L	90
19) chloroethane	5.896	64	2543	1.50	ug/L	98
23) ethyl ether	6.738	74	1455	1.18	ug/L	91
24) 2-CHLOROPROPANE	6.968	43	5651	1.19	ug/L #	47
27) acrolein	7.036	56	641894	1223.40	ug/L	98
28) 1,1-dichloroethene	7.198	96	2031	1.15	ug/L	96
30) allyl chloride	7.726	76	1541	1.07	ug/L	95
32) iodomethane	7.496	142	3961	1.15	ug/L	99
33) carbon disulfide	7.616	76	7950	1.17	ug/L	93
35) methylene chloride	7.930	84	2656	1.18	ug/L	99
36) methyl acetate	7.710	43	2149	1.04	ug/L #	65
37) methyl tert butyl ether	8.223	73	7882	1.21	ug/L	91
38) trans-1,2-dichloroethene	8.280	96	2489	1.19	ug/L	92
39) di-isopropyl ether	8.793	45	10301	1.17	ug/L #	72
40) ethyl tert-butyl ether	9.253	59	8689	1.15	ug/L	97
42) 1,1-dichloroethane	8.850	63	4981	1.18	ug/L	99
43) chloroprene	8.949	53	3595	1.04	ug/L	94
44) acrylonitrile	8.259	53	5739	6.16	ug/L	91
47) 2,2-dichloropropane	9.572	77	3571	1.15	ug/L	98
48) cis-1,2-dichloroethene	9.577	96	2669	1.15	ug/L	94
50) propionitrile	9.666	54	4337	12.11	ug/L	94
51) bromochloromethane	9.890	128	1188	1.11	ug/L #	81
52) tetrahydrofuran	9.932	42	1004	1.11	ug/L	68
53) chloroform	9.943	83	4297	1.17	ug/L	92
54) tert-butyl Formate	9.969	59	2176	1.07	ug/L #	79
55) iso-butyl alcohol	10.361	43	1425	12.13	ug/L	83
59) methacrylonitrile	9.838	41	1871	1.08	ug/L	97
60) 1,1,1-trichloroethane	10.178	97	3312	1.08	ug/L	93
62) tert-amyl methyl ether	10.633	87	1554	1.07	ug/L #	66

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203697.D
Acq On : 26 Feb 2016 12:08 pm
Operator : NicoleH1
Sample : ic9367-1
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 29 09:21:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
63) iso-octane	10.591	57	8641	1.09 ug/L	98
66) epichlorohydrin	12.280	57	1308	4.65 ug/L	93
67) n-butyl alcohol	11.109	56	3450	46.34 ug/L	86
69) carbon tetrachloride	10.382	117	2940	0.91 ug/L	95
70) 1,1-dichloropropene	10.356	75	3294	0.97 ug/L	95
72) benzene	10.622	78	10987	1.02 ug/L	96
73) heptane	10.748	57	1898	0.89 ug/L	94
74) isopropyl acetate	10.518	43	5747	0.97 ug/L	98
75) 1,2-dichloroethane	10.649	62	3571	1.02 ug/L	92
78) trichloroethene	11.328	95	2517	1.00 ug/L	96
79) methylcyclohexane	11.542	83	3625	0.88 ug/L	96
80) 2-nitropropane	12.128	41	1143	1.00 ug/L #	85
81) 2-chloroethyl vinyl ether	12.128	63	7748	4.60 ug/L	98
83) 1,2-dichloropropane	11.600	63	3051	1.02 ug/L	86
84) propyl acetate	11.621	73	368	0.75 ug/L	41
85) dibromomethane	11.778	93	1538	0.98 ug/L	90
86) bromodichloromethane	11.903	83	3557	1.04 ug/L	95
87) cis-1,3-dichloropropene	12.363	75	4676	1.02 ug/L	94
90) toluene	12.745	92	6590	1.01 ug/L	98
91) 3-methyl-1-butanol	12.478	55	2314	18.11 ug/L	93
92) trans-1,3-dichloropropene	12.964	75	4130	1.01 ug/L	94
93) ethyl methacrylate	12.923	69	3227	0.92 ug/L	98
94) 1,1,2-trichloroethane	13.195	83	2067	1.02 ug/L	95
97) cyclohexanone	15.563	55	2198	20.93 ug/L	97
98) tetrachloroethene	13.367	164	2174	0.97 ug/L	96
99) 1,3-dichloropropane	13.388	76	4278	1.07 ug/L	96
100) butyl acetate	13.425	56	1804	0.96 ug/L #	81
101) dibromochloromethane	13.681	129	2674	1.00 ug/L	95
102) 1,2-dibromoethane	13.848	107	2272	0.97 ug/L	93
104) n-butyl ether	14.198	57	12753	0.98 ug/L #	97
105) chlorobenzene	14.339	112	7221	1.00 ug/L	84
106) 1,1,1,2-tetrachloroethane	14.402	131	2582	0.97 ug/L	93
107) ethylbenzene	14.387	91	12376	1.00 ug/L	98
108) m,p-xylene	14.502	106	9474	2.00 ug/L	94
109) o-xylene	14.967	106	4661	1.01 ug/L	88
110) styrene	14.983	104	7486	0.99 ug/L	98
111) bromoform	15.301	173	1775	0.88 ug/L	92
113) isopropylbenzene	15.338	105	12001	0.99 ug/L	98
115) bromobenzene	15.809	156	3414	1.05 ug/L	91
116) 1,1,2,2-tetrachloroethane	15.699	83	3311	1.02 ug/L	98
118) 1,2,3-trichloropropane	15.788	110	677	0.83 ug/L	98
119) n-propylbenzene	15.793	91	14112	0.97 ug/L	98
120) 2-chlorotoluene	15.976	126	3124	1.06 ug/L	87
121) 4-chlorotoluene	16.080	91	9245	1.01 ug/L	95
123) 1,3,5-trimethylbenzene	15.960	105	10006	0.98 ug/L	97
124) tert-butylbenzene	16.352	119	8622	0.95 ug/L	98
125) pentachloroethane	16.462	167	2002	0.96 ug/L	96
126) 1,2,4-trimethylbenzene	16.405	105	10266	0.98 ug/L	94
128) sec-butylbenzene	16.587	105	12636	0.97 ug/L	98
129) 1,3-dichlorobenzene	16.818	146	6077	0.96 ug/L	97

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203697.D
Acq On : 26 Feb 2016 12:08 pm
Operator : NicoleH1
Sample : ic9367-1
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 29 09:21:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
130) p-isopropyltoluene	16.718	119	10494	0.94 ug/L	99
131) 1,4-dichlorobenzene	16.906	146	6417	1.00 ug/L	90
132) benzyl chloride	17.042	91	6015	0.96 ug/L	98
133) 1,2-dichlorobenzene	17.351	146	5811	0.97 ug/L	98
135) n-butylbenzene	17.178	92	5156	0.90 ug/L	92
137) 1,2-dibromo-3-chloropr...	18.203	157	430	0.72 ug/L	92
138) 1,3,5-trichlorobenzene	18.396	180	4385	0.92 ug/L	96
139) 1,2,4-trichlorobenzene	19.134	180	3328	0.88 ug/L	88
140) hexachlorobutadiene	19.243	225	1980	0.94 ug/L	92
141) naphthalene	19.463	128	6345	0.86 ug/L	98
143) 1,2,3-trichlorobenzene	19.735	180	2517	0.86 ug/L	96
144) hexachloroethane	17.633	201	1761	0.88 ug/L	97

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

7.7.15

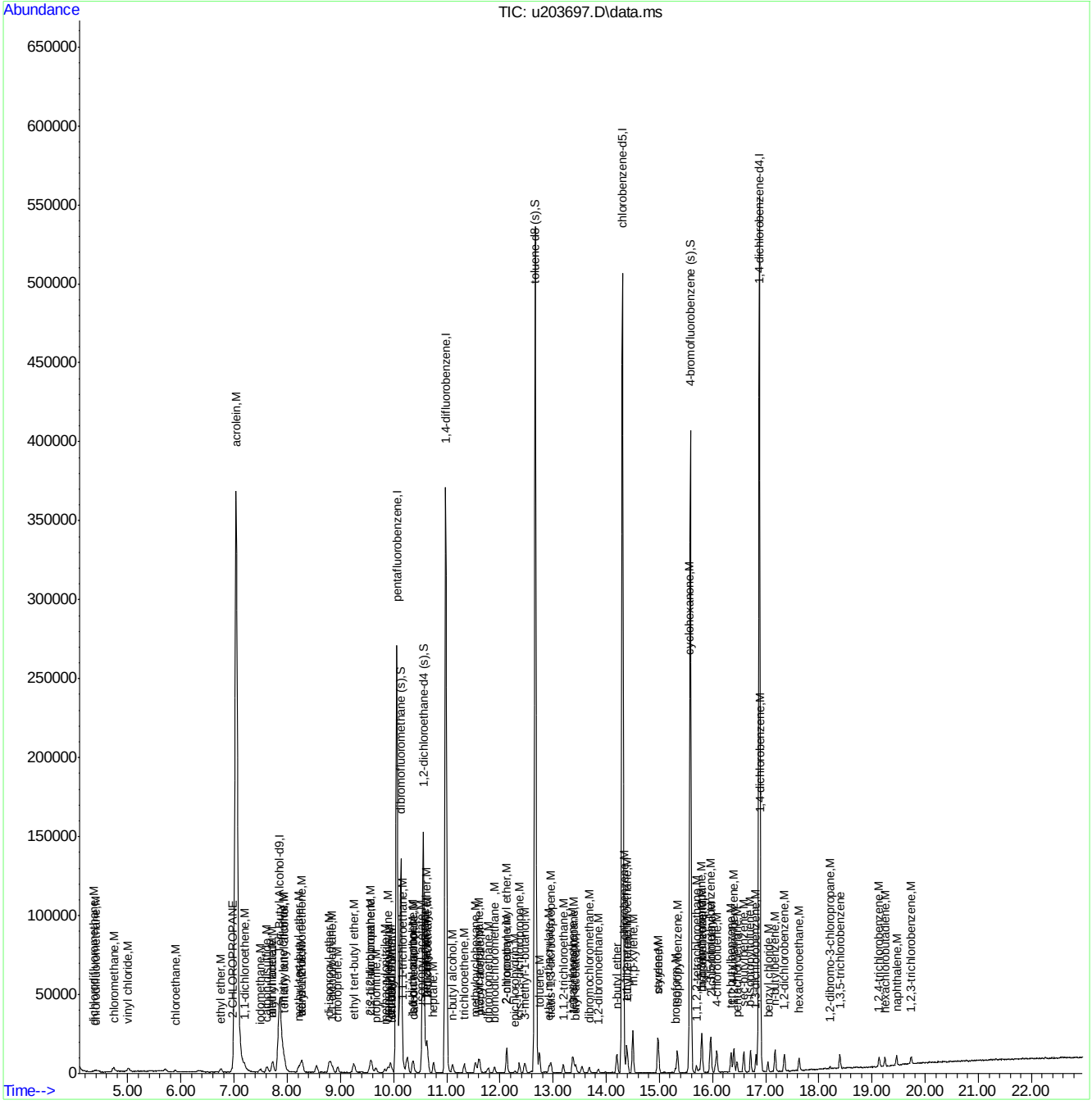
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203697.D
Acq On : 26 Feb 2016 12:08 pm
Operator : NicoleH1
Sample : ic9367-1
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 29 09:21:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203698.D
Acq On : 26 Feb 2016 12:38 pm
Operator : NicoleH1
Sample : ic9367-2
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 29 09:25:39 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.863	65	124239	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	253524	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	351067	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	322600	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.882	152	175210	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.138	113	102546	52.70	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.40%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	123581	52.20	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.40%			
88) toluene-d8 (s)	12.663	98	419906	44.86	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 89.72%			
114) 4-bromofluorobenzene (s)	15.580	95	161938	44.20	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 88.40%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.963	59	2457	8.82	ug/L	99
4) 1,4-dioxane	11.722	88	762	40.93	ug/L #	84
11) chlorodifluoromethane	4.402	51	4474	1.77	ug/L	78
12) dichlorodifluoromethane	4.366	85	4073	1.82	ug/L	93
15) chloromethane	4.732	50	8192	2.19	ug/L	95
16) vinyl chloride	5.009	62	6949	2.29	ug/L	91
18) bromomethane	5.694	94	3626	2.16	ug/L	88
19) chloroethane	5.892	64	3848	2.33	ug/L	91
20) trichlorofluoromethane	6.332	101	6212	2.15	ug/L	81
23) ethyl ether	6.750	74	1993	1.66	ug/L	91
24) 2-CHLOROPROPANE	6.969	43	7541	1.63	ug/L #	47
27) acrolein	7.032	56	1254718	2456.45	ug/L	100
28) 1,1-dichloroethene	7.194	96	2710	1.57	ug/L	88
29) acetone	7.267	58	379	2.03	ug/L #	1
30) allyl chloride	7.717	76	2013	1.44	ug/L	79
31) acetonitrile	7.712	40	5684	23.94	ug/L #	39
32) iodomethane	7.492	142	5161	1.53	ug/L	98
33) carbon disulfide	7.612	76	10495	1.59	ug/L	97
35) methylene chloride	7.916	84	3844	1.76	ug/L	90
36) methyl acetate	7.701	43	3669	1.82	ug/L #	82
37) methyl tert butyl ether	8.224	73	10988	1.73	ug/L	97
38) trans-1,2-dichloroethene	8.276	96	3133	1.54	ug/L	99
39) di-isopropyl ether	8.789	45	16605	1.93	ug/L #	66
40) ethyl tert-butyl ether	9.259	59	13938	1.90	ug/L	98
42) 1,1-dichloroethane	8.846	63	6545	1.59	ug/L	96
43) chloroprene	8.940	53	5997	1.77	ug/L	96
44) acrylonitrile	8.256	53	8102	8.93	ug/L	97
47) 2,2-dichloropropane	9.578	77	4863	1.62	ug/L	98
48) cis-1,2-dichloroethene	9.578	96	3587	1.59	ug/L	93
50) propionitrile	9.657	54	6430	18.44	ug/L	86
51) bromochloromethane	9.892	128	1658	1.60	ug/L	97
52) tetrahydrofuran	9.934	42	1475	1.68	ug/L	83
53) chloroform	9.939	83	5782	1.62	ug/L	88

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203698.D
Acq On : 26 Feb 2016 12:38 pm
Operator : NicoleH1
Sample : ic9367-2
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 29 09:25:39 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) tert-butyl Formate	9.960	59	3471	1.76 ug/L #	94
55) iso-butyl alcohol	10.357	43	2302	20.13 ug/L	90
58) freon 113	7.158	151	1951	1.47 ug/L #	45
59) methacrylonitrile	9.840	41	2847	1.68 ug/L	97
60) 1,1,1-trichloroethane	10.190	97	4387	1.47 ug/L	89
62) tert-amyl methyl ether	10.624	87	2663	1.88 ug/L #	80
63) iso-octane	10.587	57	14154	1.84 ug/L	97
66) epichlorohydrin	12.276	57	2216	8.11 ug/L	99
67) n-butyl alcohol	11.105	56	6337	87.61 ug/L	99
69) carbon tetrachloride	10.389	117	4040	1.29 ug/L	96
70) 1,1-dichloropropene	10.357	75	4254	1.28 ug/L	93
71) hexane	8.548	57	4916	1.40 ug/L	94
72) benzene	10.624	78	14423	1.38 ug/L	96
73) heptane	10.755	57	2916	1.40 ug/L	97
74) isopropyl acetate	10.519	43	9126	1.58 ug/L	99
75) 1,2-dichloroethane	10.645	62	5019	1.48 ug/L	99
78) trichloroethene	11.330	95	3122	1.28 ug/L	85
79) methylcyclohexane	11.539	83	6147	1.54 ug/L	98
80) 2-nitropropane	12.129	41	1622	1.47 ug/L #	85
81) 2-chloroethyl vinyl ether	12.129	63	12543	7.66 ug/L	98
82) methyl methacrylate	11.586	100	841	1.33 ug/L #	37
83) 1,2-dichloropropane	11.607	63	4075	1.41 ug/L	98
84) propyl acetate	11.622	73	758	1.59 ug/L	94
85) dibromomethane	11.774	93	2159	1.42 ug/L	92
86) bromodichloromethane	11.899	83	4646	1.40 ug/L	99
87) cis-1,3-dichloropropene	12.365	75	6210	1.40 ug/L	99
89) 4-methyl-2-pentanone	12.459	58	1471	1.32 ug/L #	79
90) toluene	12.741	92	8563	1.35 ug/L	95
91) 3-methyl-1-butanol	12.475	55	4026	32.43 ug/L	95
92) trans-1,3-dichloropropene	12.961	75	5760	1.45 ug/L	97
93) ethyl methacrylate	12.929	69	4673	1.37 ug/L	99
94) 1,1,2-trichloroethane	13.191	83	2826	1.44 ug/L	96
97) cyclohexanone	15.564	55	2991	29.11 ug/L	97
98) tetrachloroethene	13.363	164	2817	1.28 ug/L	88
99) 1,3-dichloropropane	13.389	76	5850	1.50 ug/L	95
100) butyl acetate	13.426	56	2963	1.60 ug/L	90
101) dibromochloromethane	13.677	129	3683	1.41 ug/L	94
102) 1,2-dibromoethane	13.849	107	3242	1.41 ug/L	92
103) 3,3-dimethyl-1-Butanol	13.541	57	4425	16.33 ug/L #	98
104) n-butyl ether	14.200	57	16889	1.33 ug/L #	99
105) chlorobenzene	14.336	112	9698	1.38 ug/L	90
106) 1,1,1,2-tetrachloroethane	14.404	131	3553	1.37 ug/L	96
107) ethylbenzene	14.388	91	16197	1.34 ug/L	100
108) m,p-xylene	14.498	106	12376	2.67 ug/L	98
109) o-xylene	14.974	106	6203	1.37 ug/L	92
110) styrene	14.984	104	10179	1.37 ug/L	99
111) bromoform	15.298	173	2764	1.41 ug/L	95
113) isopropylbenzene	15.339	105	15884	1.30 ug/L	98
115) bromobenzene	15.810	156	4401	1.34 ug/L	93
116) 1,1,2,2-tetrachloroethane	15.700	83	4837	1.48 ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203698.D
Acq On : 26 Feb 2016 12:38 pm
Operator : NicoleH1
Sample : ic9367-2
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 29 09:25:39 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
118) 1,2,3-trichloropropane	15.789	110	1155	1.40 ug/L	95
119) n-propylbenzene	15.794	91	18894	1.29 ug/L	97
120) 2-chlorotoluene	15.972	126	4070	1.37 ug/L	96
121) 4-chlorotoluene	16.082	91	12852	1.40 ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	13347	1.30 ug/L	97
124) tert-butylbenzene	16.354	119	11430	1.26 ug/L	99
125) pentachloroethane	16.463	167	2663	1.28 ug/L	90
126) 1,2,4-trimethylbenzene	16.401	105	13764	1.30 ug/L	99
128) sec-butylbenzene	16.589	105	16668	1.27 ug/L	99
129) 1,3-dichlorobenzene	16.819	146	8510	1.34 ug/L	95
130) p-isopropyltoluene	16.714	119	14394	1.28 ug/L	99
131) 1,4-dichlorobenzene	16.908	146	8820	1.36 ug/L	94
132) benzyl chloride	17.039	91	9408	1.49 ug/L	100
133) 1,2-dichlorobenzene	17.352	146	8186	1.37 ug/L	97
135) n-butylbenzene	17.180	92	7107	1.24 ug/L	95
137) 1,2-dibromo-3-chloropr...	18.215	157	836	1.39 ug/L	87
138) 1,3,5-trichlorobenzene	18.398	180	6139	1.29 ug/L	98
139) 1,2,4-trichlorobenzene	19.135	180	4935	1.30 ug/L	92
140) hexachlorobutadiene	19.245	225	2758	1.30 ug/L	92
141) naphthalene	19.459	128	9324	1.25 ug/L	96
143) 1,2,3-trichlorobenzene	19.736	180	3885	1.33 ug/L	99
144) hexachloroethane	17.629	201	2564	1.28 ug/L	96

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

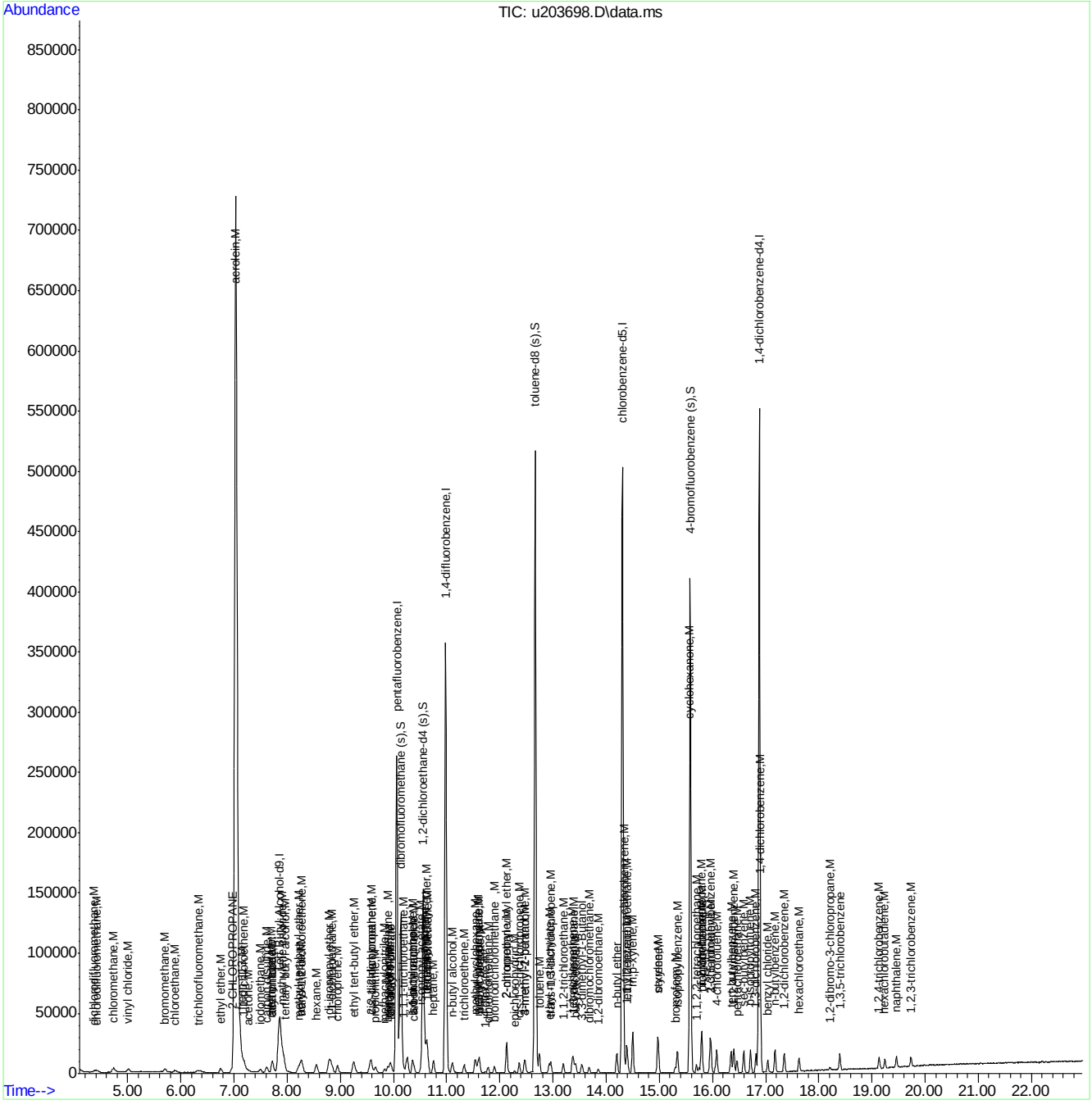
7.7.16

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203698.D
Acq On : 26 Feb 2016 12:38 pm
Operator : NicoleH1
Sample : ic9367-2
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 29 09:25:39 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



MU9367.M Thu Mar 03 10:06:55 2016 U_CORE

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203699.D
Acq On : 26 Feb 2016 1:07 pm
Operator : NicoleH1
Sample : ic9367-5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 29 09:27:54 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	130628	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	257829	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	358120	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	328955	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	179090	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	104840	52.97	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.94%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	127092	52.78	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.56%			
88) toluene-d8 (s)	12.662	98	428265	44.85	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 89.70%			
114) 4-bromofluorobenzene (s)	15.579	95	163454	43.65	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.30%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.967	59	6753	23.06	ug/L #	72
4) 1,4-dioxane	11.716	88	2423	123.78	ug/L	97
11) chlorodifluoromethane	4.412	51	12510	4.87	ug/L	98
12) dichlorodifluoromethane	4.391	85	12410	5.46	ug/L	94
15) chloromethane	4.737	50	20842	5.47	ug/L	98
16) vinyl chloride	5.008	62	18279	5.93	ug/L	96
18) bromomethane	5.704	94	9310	5.46	ug/L	97
19) chloroethane	5.897	64	9694	5.77	ug/L	99
20) trichlorofluoromethane	6.331	101	16851	5.74	ug/L	95
23) ethyl ether	6.744	74	6464	5.28	ug/L	97
24) 2-CHLOROPROPANE	6.969	43	25928	5.50	ug/L	98
27) acrolein	7.037	56	29351	56.50	ug/L	97
28) 1,1-dichloroethene	7.194	96	10222	5.82	ug/L	99
29) acetone	7.251	58	848	4.48	ug/L #	85
30) allyl chloride	7.727	76	7572	5.32	ug/L	96
31) acetonitrile	7.716	40	13732	56.87	ug/L	93
32) iodomethane	7.492	142	18300	5.35	ug/L	99
33) carbon disulfide	7.617	76	37663	5.62	ug/L	98
34) 1-CHLOROPROPANE	7.947	63	1018	4.94	ug/L #	47
35) methylene chloride	7.920	84	12140	5.47	ug/L	97
36) methyl acetate	7.706	43	9918	4.83	ug/L	93
37) methyl tert butyl ether	8.218	73	34392	5.33	ug/L	99
38) trans-1,2-dichloroethene	8.281	96	11351	5.50	ug/L	99
39) di-isopropyl ether	8.788	45	43604	5.00	ug/L	75
40) ethyl tert-butyl ether	9.254	59	36790	4.93	ug/L	99
41) 2-butanone	9.541	72	1239	4.89	ug/L #	90
42) 1,1-dichloroethane	8.846	63	22868	5.47	ug/L	96
43) chloroprene	8.940	53	16177	4.71	ug/L	99
44) acrylonitrile	8.255	53	25143	27.26	ug/L	96
45) vinyl acetate	8.814	86	1687	4.12	ug/L #	52
46) ethyl acetate	9.531	45	1635	4.45	ug/L #	96
47) 2,2-dichloropropane	9.578	77	17357	5.67	ug/L	97
48) cis-1,2-dichloroethene	9.578	96	12521	5.44	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203699.D
Acq On : 26 Feb 2016 1:07 pm
Operator : NicoleH1
Sample : ic9367-5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 29 09:27:54 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) methyl acrylate	9.625	85	1501	4.68 ug/L #	47
50) propionitrile	9.656	54	19609	55.29 ug/L	92
51) bromochloromethane	9.886	128	5789	5.49 ug/L	96
52) tetrahydrofuran	9.917	42	4983	5.58 ug/L	93
53) chloroform	9.933	83	19630	5.42 ug/L	98
54) tert-butyl Formate	9.959	59	9777	4.87 ug/L #	85
55) iso-butyl alcohol	10.357	43	6304	54.21 ug/L	88
58) freon 113	7.152	151	6597	4.88 ug/L	89
59) methacrylonitrile	9.829	41	8994	5.22 ug/L	98
60) 1,1,1-trichloroethane	10.184	97	16509	5.45 ug/L	99
62) tert-amyl methyl ether	10.628	87	7065	4.91 ug/L	93
63) iso-octane	10.592	57	42284	5.41 ug/L	100
66) epichlorohydrin	12.281	57	5832	20.92 ug/L	96
67) n-butyl alcohol	11.104	56	17562	238.00 ug/L	98
68) Cyclohexane	10.252	84	17981	4.55 ug/L	99
69) carbon tetrachloride	10.388	117	15238	4.77 ug/L	98
70) 1,1-dichloropropene	10.357	75	16172	4.78 ug/L	96
71) hexane	8.542	57	14889	4.16 ug/L	99
72) benzene	10.623	78	48784	4.57 ug/L	100
73) heptane	10.749	57	9262	4.37 ug/L	95
74) isopropyl acetate	10.513	43	24344	4.13 ug/L	97
75) 1,2-dichloroethane	10.644	62	15918	4.59 ug/L	98
78) trichloroethene	11.329	95	11732	4.72 ug/L	97
79) methylcyclohexane	11.538	83	17627	4.32 ug/L	100
80) 2-nitropropane	12.129	41	4769	4.23 ug/L #	93
81) 2-chloroethyl vinyl ether	12.124	63	33460	20.04 ug/L	99
82) methyl methacrylate	11.580	100	2753	4.28 ug/L #	58
83) 1,2-dichloropropane	11.606	63	13370	4.53 ug/L	98
84) propyl acetate	11.617	73	2141	4.42 ug/L	95
85) dibromomethane	11.773	93	6914	4.46 ug/L	95
86) bromodichloromethane	11.899	83	15752	4.65 ug/L	98
87) cis-1,3-dichloropropene	12.364	75	20781	4.58 ug/L	98
89) 4-methyl-2-pentanone	12.453	58	4989	4.37 ug/L	97
90) toluene	12.741	92	29493	4.56 ug/L	94
91) 3-methyl-1-butanol	12.469	55	11254	88.85 ug/L	100
92) trans-1,3-dichloropropene	12.955	75	18463	4.55 ug/L	97
93) ethyl methacrylate	12.924	69	14650	4.20 ug/L	98
94) 1,1,2-trichloroethane	13.195	83	8977	4.48 ug/L	98
95) 2-hexanone	13.363	58	4755	4.21 ug/L	99
97) cyclohexanone	15.558	55	7779	74.25 ug/L	92
98) tetrachloroethene	13.363	164	10298	4.58 ug/L	98
99) 1,3-dichloropropane	13.389	76	18697	4.70 ug/L	100
100) butyl acetate	13.425	56	8165	4.33 ug/L	92
101) dibromochloromethane	13.682	129	11955	4.48 ug/L	94
102) 1,2-dibromoethane	13.849	107	10310	4.41 ug/L	100
103) 3,3-dimethyl-1-Butanol	13.546	57	11937	43.19 ug/L #	99
104) n-butyl ether	14.199	57	58396	4.51 ug/L	98
105) chlorobenzene	14.340	112	32106	4.47 ug/L	91
106) 1,1,1,2-tetrachloroethane	14.403	131	11842	4.47 ug/L	93
107) ethylbenzene	14.387	91	56774	4.59 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203699.D
Acq On : 26 Feb 2016 1:07 pm
Operator : NicoleH1
Sample : ic9367-5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 29 09:27:54 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
108) m,p-xylene	14.502	106	42484	8.98 ug/L	99
109) o-xylene	14.968	106	21396	4.63 ug/L	97
110) styrene	14.978	104	35152	4.64 ug/L	99
111) bromoform	15.297	173	8571	4.28 ug/L	99
113) isopropylbenzene	15.339	105	55796	4.48 ug/L	99
115) bromobenzene	15.809	156	14823	4.41 ug/L	97
116) 1,1,2,2-tetrachloroethane	15.694	83	14889	4.47 ug/L	94
117) trans-1,4-dichloro-2-b...	15.741	53	3748	3.74 ug/L	98
118) 1,2,3-trichloropropane	15.783	110	3505	4.17 ug/L	94
119) n-propylbenzene	15.794	91	67797	4.53 ug/L	100
120) 2-chlorotoluene	15.971	126	13790	4.54 ug/L	98
121) 4-chlorotoluene	16.081	91	41498	4.41 ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	46664	4.43 ug/L	99
124) tert-butylbenzene	16.348	119	40260	4.33 ug/L	100
125) pentachloroethane	16.463	167	9175	4.30 ug/L	95
126) 1,2,4-trimethylbenzene	16.400	105	47250	4.37 ug/L	100
128) sec-butylbenzene	16.588	105	60203	4.49 ug/L	100
129) 1,3-dichlorobenzene	16.818	146	28407	4.36 ug/L	98
130) p-isopropyltoluene	16.714	119	50546	4.41 ug/L	99
131) 1,4-dichlorobenzene	16.907	146	28559	4.32 ug/L	99
132) benzyl chloride	17.038	91	24871	3.86 ug/L	97
133) 1,2-dichlorobenzene	17.352	146	26174	4.27 ug/L	98
135) n-butylbenzene	17.174	92	25941	4.42 ug/L	100
137) 1,2-dibromo-3-chloropr...	18.209	157	2403	3.92 ug/L	88
138) 1,3,5-trichlorobenzene	18.392	180	20469	4.20 ug/L	99
139) 1,2,4-trichlorobenzene	19.129	180	15438	3.97 ug/L	98
140) hexachlorobutadiene	19.244	225	10068	4.63 ug/L	96
141) naphthalene	19.459	128	29163	3.84 ug/L	99
143) 1,2,3-trichlorobenzene	19.736	180	12135	4.05 ug/L	99
144) hexachloroethane	17.629	201	9119	4.46 ug/L	96

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

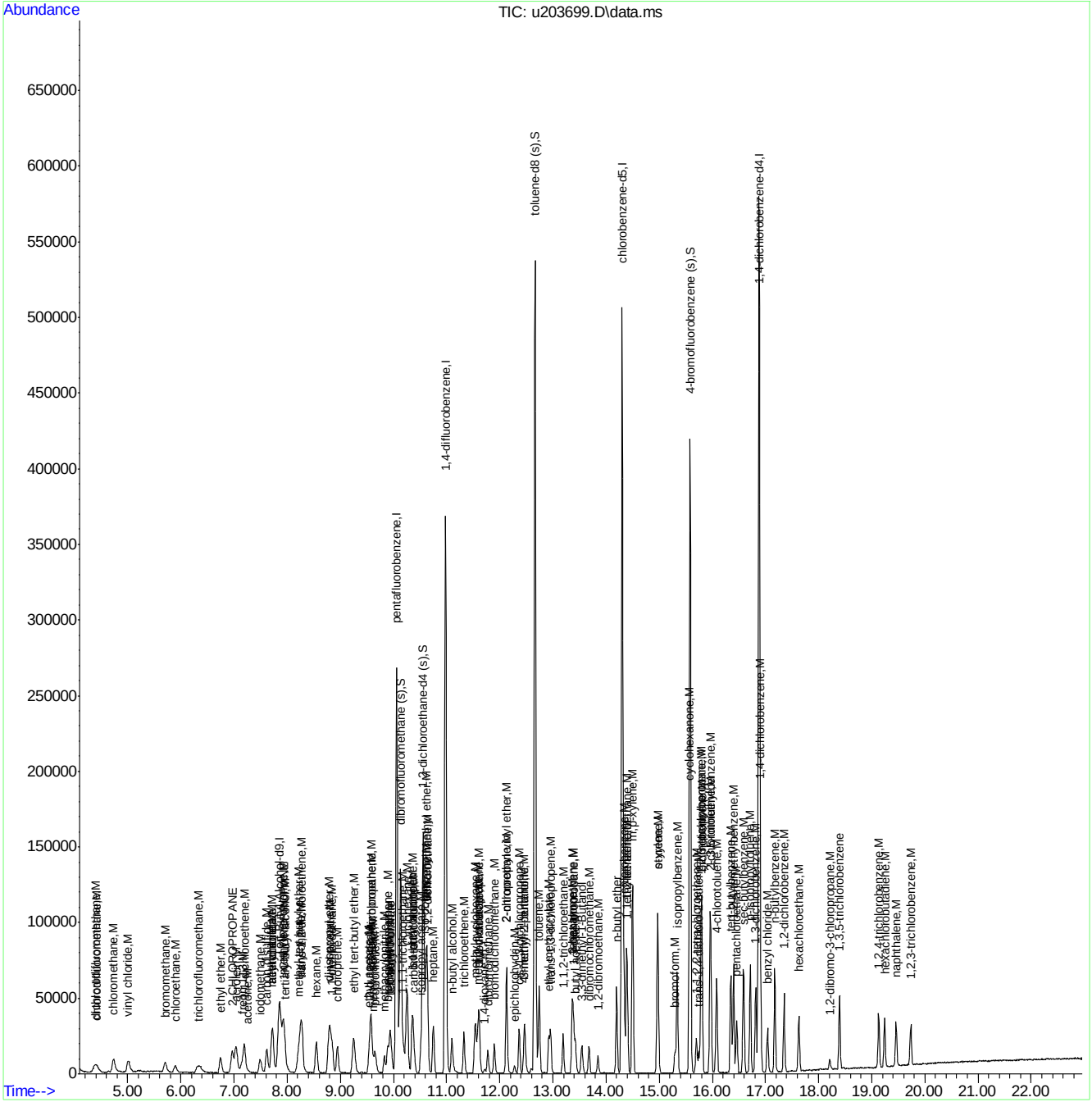
7.7.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203699.D
Acq On : 26 Feb 2016 1:07 pm
Operator : NicoleH1
Sample : ic9367-5
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 29 09:27:54 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



MU9367.M Thu Mar 03 10:06:58 2016 U_CORE

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203700.D
Acq On : 26 Feb 2016 1:37 pm
Operator : NicoleH1
Sample : ic9367-10
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 29 09:29:00 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.852	65	132708	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	255503	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	353951	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	327890	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	179845	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.136	113	104439	53.25	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.50%			
57) 1,2-dichloroethane-d4 (s)	10.554	65	126383	52.97	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.94%			
88) toluene-d8 (s)	12.667	98	426638	45.21	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 90.42%			
114) 4-bromofluorobenzene (s)	15.579	95	163966	43.60	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.20%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.972	59	16038	53.91	ug/L	97
4) 1,4-dioxane	11.720	88	6146	309.06	ug/L	99
11) chlorodifluoromethane	4.401	51	30080	11.81	ug/L	97
12) dichlorodifluoromethane	4.375	85	24131	10.71	ug/L	99
15) chloromethane	4.736	50	38895	10.30	ug/L	98
16) vinyl chloride	5.013	62	33357	10.92	ug/L	99
18) bromomethane	5.708	94	17511	10.36	ug/L	94
19) chloroethane	5.896	64	17968	10.80	ug/L	99
20) trichlorofluoromethane	6.335	101	31453	10.80	ug/L	96
23) ethyl ether	6.748	74	14303	11.80	ug/L	97
24) 2-CHLOROPROPANE	6.968	43	55487	11.88	ug/L	99
27) acrolein	7.036	56	53550	104.03	ug/L	96
28) 1,1-dichloroethene	7.198	96	21352	12.28	ug/L	97
29) acetone	7.256	58	2062	10.98	ug/L #	83
30) allyl chloride	7.721	76	16576	11.75	ug/L	98
31) acetonitrile	7.716	40	30073	125.69	ug/L	93
32) iodomethane	7.486	142	39633	11.68	ug/L	100
33) carbon disulfide	7.616	76	81583	12.28	ug/L	98
34) 1-CHLOROPROPANE	7.951	63	2280	11.16	ug/L	89
35) methylene chloride	7.925	84	26165	11.89	ug/L	95
36) methyl acetate	7.695	43	25126	12.34	ug/L	96
37) methyl tert butyl ether	8.217	73	73794	11.54	ug/L	100
38) trans-1,2-dichloroethene	8.280	96	24596	12.03	ug/L	98
39) di-isopropyl ether	8.787	45	102686	11.87	ug/L	76
40) ethyl tert-butyl ether	9.253	59	87005	11.76	ug/L	99
41) 2-butanone	9.540	72	2731	10.87	ug/L #	81
42) 1,1-dichloroethane	8.850	63	49520	11.96	ug/L	99
43) chloroprene	8.944	53	39178	11.50	ug/L	100
44) acrylonitrile	8.249	53	53907	58.97	ug/L	99
45) vinyl acetate	8.813	86	4310	10.63	ug/L #	75
46) ethyl acetate	9.535	45	4131	11.35	ug/L	91
47) 2,2-dichloropropane	9.572	77	37024	12.20	ug/L	97
48) cis-1,2-dichloroethene	9.577	96	26599	11.66	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203700.D
Acq On : 26 Feb 2016 1:37 pm
Operator : NicoleH1
Sample : ic9367-10
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 29 09:29:00 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.619	85	3500	11.02	ug/L #	68
50) propionitrile	9.655	54	42297	120.34	ug/L	98
51) bromochloromethane	9.890	128	12627	12.07	ug/L	95
52) tetrahydrofuran	9.922	42	11005	12.44	ug/L	97
53) chloroform	9.932	83	42462	11.83	ug/L	99
54) tert-butyl Formate	9.964	59	22934	11.53	ug/L	98
55) iso-butyl alcohol	10.351	43	16003	138.86	ug/L	96
58) freon 113	7.161	151	15685	11.70	ug/L	92
59) methacrylonitrile	9.828	41	19324	11.33	ug/L	99
60) 1,1,1-trichloroethane	10.183	97	34639	11.54	ug/L	98
62) tert-amyl methyl ether	10.633	87	16713	11.71	ug/L	97
63) iso-octane	10.591	57	99228	12.81	ug/L	99
66) epichlorohydrin	12.274	57	14254	51.74	ug/L	98
67) n-butyl alcohol	11.098	56	43908	602.06	ug/L	99
68) Cyclohexane	10.251	84	37543	9.61	ug/L	99
69) carbon tetrachloride	10.382	117	32039	10.15	ug/L	99
70) 1,1-dichloropropene	10.356	75	34287	10.26	ug/L	100
71) hexane	8.547	57	35027	9.91	ug/L	96
72) benzene	10.622	78	103156	9.79	ug/L	99
73) heptane	10.748	57	22078	10.55	ug/L	98
74) isopropyl acetate	10.513	43	57489	9.87	ug/L	99
75) 1,2-dichloroethane	10.643	62	34173	9.98	ug/L	100
78) trichloroethene	11.328	95	24387	9.93	ug/L	98
79) methylcyclohexane	11.543	83	41286	10.23	ug/L	97
80) 2-nitropropane	12.128	41	11019	9.88	ug/L	95
81) 2-chloroethyl vinyl ether	12.128	63	82101	49.74	ug/L	98
82) methyl methacrylate	11.579	100	6081	9.57	ug/L #	79
83) 1,2-dichloropropane	11.605	63	29149	9.99	ug/L	97
84) propyl acetate	11.616	73	4943	10.31	ug/L	92
85) dibromomethane	11.778	93	14886	9.73	ug/L	95
86) bromodichloromethane	11.898	83	33837	10.11	ug/L	96
87) cis-1,3-dichloropropene	12.363	75	44008	9.82	ug/L	100
89) 4-methyl-2-pentanone	12.457	58	11019	9.77	ug/L	93
90) toluene	12.740	92	63265	9.89	ug/L	97
91) 3-methyl-1-butanol	12.468	55	28322	226.25	ug/L	99
92) trans-1,3-dichloropropene	12.954	75	40034	9.97	ug/L	99
93) ethyl methacrylate	12.923	69	32581	9.45	ug/L	98
94) 1,1,2-trichloroethane	13.189	83	19241	9.72	ug/L	98
95) 2-hexanone	13.362	58	10932	9.79	ug/L	94
97) cyclohexanone	15.558	55	14084	134.88	ug/L	97
98) tetrachloroethene	13.362	164	22110	9.88	ug/L	97
99) 1,3-dichloropropane	13.388	76	39878	10.05	ug/L	98
100) butyl acetate	13.425	56	19173	10.21	ug/L	97
101) dibromochloromethane	13.681	129	26118	9.82	ug/L	99
102) 1,2-dibromoethane	13.848	107	22386	9.61	ug/L	99
103) 3,3-dimethyl-1-Butanol	13.545	57	30439	110.49	ug/L	99
104) n-butyl ether	14.198	57	127650	9.90	ug/L	99
105) chlorobenzene	14.339	112	69524	9.72	ug/L	100
106) 1,1,1,2-tetrachloroethane	14.402	131	25835	9.78	ug/L	98
107) ethylbenzene	14.387	91	122816	9.97	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203700.D
Acq On : 26 Feb 2016 1:37 pm
Operator : NicoleH1
Sample : ic9367-10
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 29 09:29:00 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
108) m,p-xylene	14.502	106	92958	19.72 ug/L	99
109) o-xylene	14.967	106	45636	9.91 ug/L	99
110) styrene	14.977	104	76619	10.15 ug/L	98
111) bromoform	15.296	173	18736	9.38 ug/L	98
113) isopropylbenzene	15.338	105	120770	9.66 ug/L	100
115) bromobenzene	15.803	156	32090	9.52 ug/L	94
116) 1,1,2,2-tetrachloroethane	15.699	83	32159	9.62 ug/L	98
117) trans-1,4-dichloro-2-b...	15.741	53	9389	9.32 ug/L	98
118) 1,2,3-trichloropropane	15.788	110	8279	9.81 ug/L	95
119) n-propylbenzene	15.793	91	146129	9.73 ug/L	99
120) 2-chlorotoluene	15.971	126	29908	9.80 ug/L	98
121) 4-chlorotoluene	16.080	91	90088	9.53 ug/L	100
123) 1,3,5-trimethylbenzene	15.955	105	102230	9.66 ug/L	100
124) tert-butylbenzene	16.347	119	87340	9.36 ug/L	97
125) pentachloroethane	16.462	167	20228	9.44 ug/L	98
126) 1,2,4-trimethylbenzene	16.399	105	104110	9.59 ug/L	100
128) sec-butylbenzene	16.588	105	133492	9.91 ug/L	99
129) 1,3-dichlorobenzene	16.818	146	61723	9.44 ug/L	99
130) p-isopropyltoluene	16.713	119	111995	9.74 ug/L	100
131) 1,4-dichlorobenzene	16.906	146	62136	9.35 ug/L	99
132) benzyl chloride	17.037	91	61072	9.43 ug/L	99
133) 1,2-dichlorobenzene	17.351	146	57421	9.33 ug/L	99
135) n-butylbenzene	17.178	92	58214	9.87 ug/L	98
137) 1,2-dibromo-3-chloropr...	18.213	157	5711	9.28 ug/L	95
138) 1,3,5-trichlorobenzene	18.396	180	45228	9.23 ug/L	99
139) 1,2,4-trichlorobenzene	19.134	180	35544	9.11 ug/L	95
140) hexachlorobutadiene	19.243	225	21821	9.99 ug/L	98
141) naphthalene	19.458	128	67323	8.83 ug/L	99
143) 1,2,3-trichlorobenzene	19.735	180	28181	9.37 ug/L	99
144) hexachloroethane	17.628	201	20215	9.84 ug/L	98

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

7.7.18

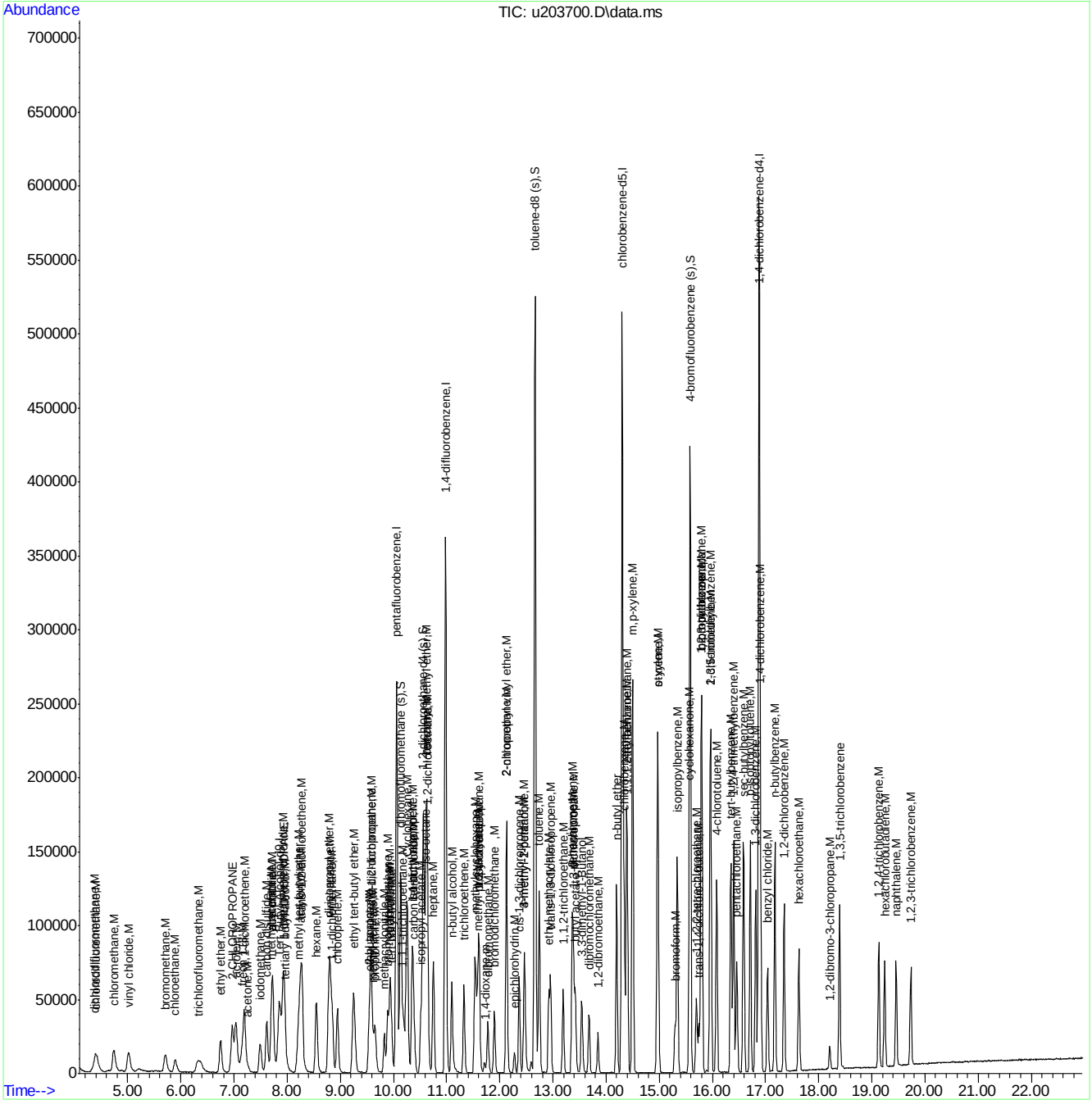
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203700.D
Acq On : 26 Feb 2016 1:37 pm
Operator : NicoleH1
Sample : ic9367-10
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 29 09:29:00 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



MU9367.M Thu Mar 03 10:07:01 2016 U_CORE Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203701.D
Acq On : 26 Feb 2016 2:06 pm
Operator : NicoleH1
Sample : ic9367-20
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 29 09:30:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.862	65	135206	500.00	ug/L	0.00
5) pentafluorobenzene	10.058	168	255557	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.978	114	352149	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	327466	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.880	152	181314	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.136	113	103296	52.66	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.32%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	125772	52.70	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.40%			
88) toluene-d8 (s)	12.667	98	428280	45.62	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 91.24%			
114) 4-bromofluorobenzene (s)	15.584	95	164952	43.51	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.02%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.977	59	32169	106.13	ug/L	85
4) 1,4-dioxane	11.715	88	12900	636.70	ug/L	98
11) chlorodifluoromethane	4.406	51	59957	23.54	ug/L	97
12) dichlorodifluoromethane	4.380	85	49097	21.79	ug/L	95
15) chloromethane	4.751	50	81299	21.53	ug/L	100
16) vinyl chloride	5.023	62	70188	22.97	ug/L	99
18) bromomethane	5.708	94	36595	21.64	ug/L	97
19) chloroethane	5.886	64	38030	22.85	ug/L	99
20) trichlorofluoromethane	6.341	101	66609	22.87	ug/L	94
23) ethyl ether	6.749	74	28712	23.68	ug/L	96
24) 2-CHLOROPROPANE	6.968	43	111747	23.93	ug/L	99
27) acrolein	7.031	56	120311	233.67	ug/L	98
28) 1,1-dichloroethene	7.193	96	43243	24.86	ug/L	99
29) acetone	7.250	58	4422	23.54	ug/L	92
30) allyl chloride	7.721	76	34492	24.44	ug/L	95
31) acetonitrile	7.716	40	57416	239.91	ug/L	93
32) iodomethane	7.491	142	79975	23.57	ug/L	99
33) carbon disulfide	7.616	76	162171	24.40	ug/L	100
34) 1-CHLOROPROPANE	7.951	63	4633	22.67	ug/L	91
35) methylene chloride	7.920	84	52062	23.66	ug/L	96
36) methyl acetate	7.695	43	48615	23.87	ug/L	98
37) methyl tert butyl ether	8.218	73	149091	23.31	ug/L	100
38) trans-1,2-dichloroethene	8.280	96	48701	23.82	ug/L	98
39) di-isopropyl ether	8.787	45	202738	23.43	ug/L	78
40) ethyl tert-butyl ether	9.248	59	171651	23.20	ug/L	99
41) 2-butanone	9.535	72	6131	24.40	ug/L #	93
42) 1,1-dichloroethane	8.845	63	98463	23.78	ug/L	98
43) chloroprene	8.944	53	77929	22.87	ug/L	98
44) acrylonitrile	8.249	53	110566	120.93	ug/L	99
45) vinyl acetate	8.814	86	8837	21.79	ug/L #	77
46) ethyl acetate	9.535	45	9258	25.44	ug/L	97
47) 2,2-dichloropropane	9.577	77	72211	23.79	ug/L	100
48) cis-1,2-dichloroethene	9.577	96	53270	23.35	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203701.D
Acq On : 26 Feb 2016 2:06 pm
Operator : NicoleH1
Sample : ic9367-20
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 29 09:30:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) methyl acrylate	9.619	85	7257	22.84 ug/L #	79
50) propionitrile	9.655	54	86418	245.82 ug/L	99
51) bromochloromethane	9.891	128	24874	23.78 ug/L	95
52) tetrahydrofuran	9.917	42	22293	25.20 ug/L	98
53) chloroform	9.938	83	84484	23.54 ug/L	99
54) tert-butyl Formate	9.959	59	45945	23.10 ug/L	98
55) iso-butyl alcohol	10.351	43	30443	264.10 ug/L	97
58) freon 113	7.156	151	30589	22.81 ug/L	98
59) methacrylonitrile	9.828	41	38751	22.71 ug/L	94
60) 1,1,1-trichloroethane	10.189	97	69494	23.15 ug/L	99
62) tert-amyl methyl ether	10.633	87	33289	23.32 ug/L	95
63) iso-octane	10.591	57	179094	23.12 ug/L	99
66) epichlorohydrin	12.275	57	29284	106.85 ug/L	98
67) n-butyl alcohol	11.098	56	91934	1267.03 ug/L	100
68) Cyclohexane	10.251	84	73826	19.00 ug/L	98
69) carbon tetrachloride	10.382	117	64772	20.62 ug/L	98
70) 1,1-dichloropropene	10.356	75	68049	20.46 ug/L	99
71) hexane	8.547	57	64325	18.30 ug/L	97
72) benzene	10.623	78	205389	19.58 ug/L	99
73) heptane	10.748	57	40423	19.41 ug/L	98
74) isopropyl acetate	10.513	43	113599	19.60 ug/L	98
75) 1,2-dichloroethane	10.643	62	67747	19.88 ug/L	99
78) trichloroethene	11.328	95	49646	20.31 ug/L	99
79) methylcyclohexane	11.537	83	79378	19.78 ug/L	100
80) 2-nitropropane	12.128	41	22411	20.20 ug/L	95
81) 2-chloroethyl vinyl ether	12.128	63	167068	101.74 ug/L	99
82) methyl methacrylate	11.579	100	12798	20.24 ug/L #	90
83) 1,2-dichloropropane	11.605	63	57386	19.77 ug/L	98
84) propyl acetate	11.616	73	9921	20.81 ug/L	93
85) dibromomethane	11.778	93	30491	20.02 ug/L	98
86) bromodichloromethane	11.898	83	68343	20.52 ug/L	98
87) cis-1,3-dichloropropene	12.363	75	89043	19.98 ug/L	99
89) 4-methyl-2-pentanone	12.458	58	22838	20.36 ug/L	94
90) toluene	12.740	92	125510	19.72 ug/L	98
91) 3-methyl-1-butanol	12.468	55	58719	471.47 ug/L	99
92) trans-1,3-dichloropropene	12.954	75	81094	20.30 ug/L	98
93) ethyl methacrylate	12.923	69	68318	19.91 ug/L	99
94) 1,1,2-trichloroethane	13.189	83	39279	19.95 ug/L	98
95) 2-hexanone	13.357	58	23005	20.71 ug/L	98
97) cyclohexanone	15.558	55	32522	311.85 ug/L	98
98) tetrachloroethene	13.367	164	44133	19.74 ug/L	95
99) 1,3-dichloropropane	13.388	76	80338	20.28 ug/L	99
100) butyl acetate	13.419	56	39060	20.83 ug/L	98
101) dibromochloromethane	13.681	129	53108	19.99 ug/L	97
102) 1,2-dibromoethane	13.848	107	45431	19.53 ug/L	100
103) 3,3-dimethyl-1-Butanol	13.540	57	65512	238.12 ug/L	100
104) n-butyl ether	14.198	57	261201	20.28 ug/L	100
105) chlorobenzene	14.340	112	138850	19.43 ug/L	99
106) 1,1,1,2-tetrachloroethane	14.402	131	51151	19.39 ug/L	99
107) ethylbenzene	14.387	91	243531	19.79 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203701.D
Acq On : 26 Feb 2016 2:06 pm
Operator : NicoleH1
Sample : ic9367-20
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 29 09:30:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
108) m,p-xylene	14.502	106	186892	39.69 ug/L	97
109) o-xylene	14.967	106	92921	20.20 ug/L	99
110) styrene	14.983	104	157522	20.90 ug/L	99
111) bromoform	15.296	173	38831	19.47 ug/L	97
113) isopropylbenzene	15.338	105	243040	19.29 ug/L	99
115) bromobenzene	15.809	156	64600	19.00 ug/L	97
116) 1,1,2,2-tetrachloroethane	15.699	83	65582	19.46 ug/L	98
117) trans-1,4-dichloro-2-b...	15.741	53	19926	19.62 ug/L	98
118) 1,2,3-trichloropropane	15.788	110	16163	18.99 ug/L	96
119) n-propylbenzene	15.793	91	294548	19.44 ug/L	99
120) 2-chlorotoluene	15.976	126	59709	19.40 ug/L	95
121) 4-chlorotoluene	16.081	91	181029	18.99 ug/L	100
123) 1,3,5-trimethylbenzene	15.955	105	204596	19.18 ug/L	100
124) tert-butylbenzene	16.352	119	176677	18.77 ug/L	100
125) pentachloroethane	16.462	167	40964	18.97 ug/L	97
126) 1,2,4-trimethylbenzene	16.399	105	210270	19.21 ug/L	99
128) sec-butylbenzene	16.588	105	268438	19.76 ug/L	100
129) 1,3-dichlorobenzene	16.818	146	124302	18.85 ug/L	97
130) p-isopropyltoluene	16.713	119	227087	19.58 ug/L	99
131) 1,4-dichlorobenzene	16.907	146	123484	18.43 ug/L	100
132) benzyl chloride	17.037	91	122873	18.82 ug/L	99
133) 1,2-dichlorobenzene	17.351	146	116353	18.76 ug/L	98
135) n-butylbenzene	17.178	92	117871	19.83 ug/L	100
137) 1,2-dibromo-3-chloropr...	18.214	157	11949	19.26 ug/L	94
138) 1,3,5-trichlorobenzene	18.397	180	92141	18.66 ug/L	100
139) 1,2,4-trichlorobenzene	19.134	180	73725	18.74 ug/L	99
140) hexachlorobutadiene	19.243	225	44022	19.98 ug/L	99
141) naphthalene	19.458	128	142156	18.48 ug/L	99
143) 1,2,3-trichlorobenzene	19.735	180	59003	19.45 ug/L	98
144) hexachloroethane	17.628	201	41044	19.82 ug/L	99

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

7.7.19

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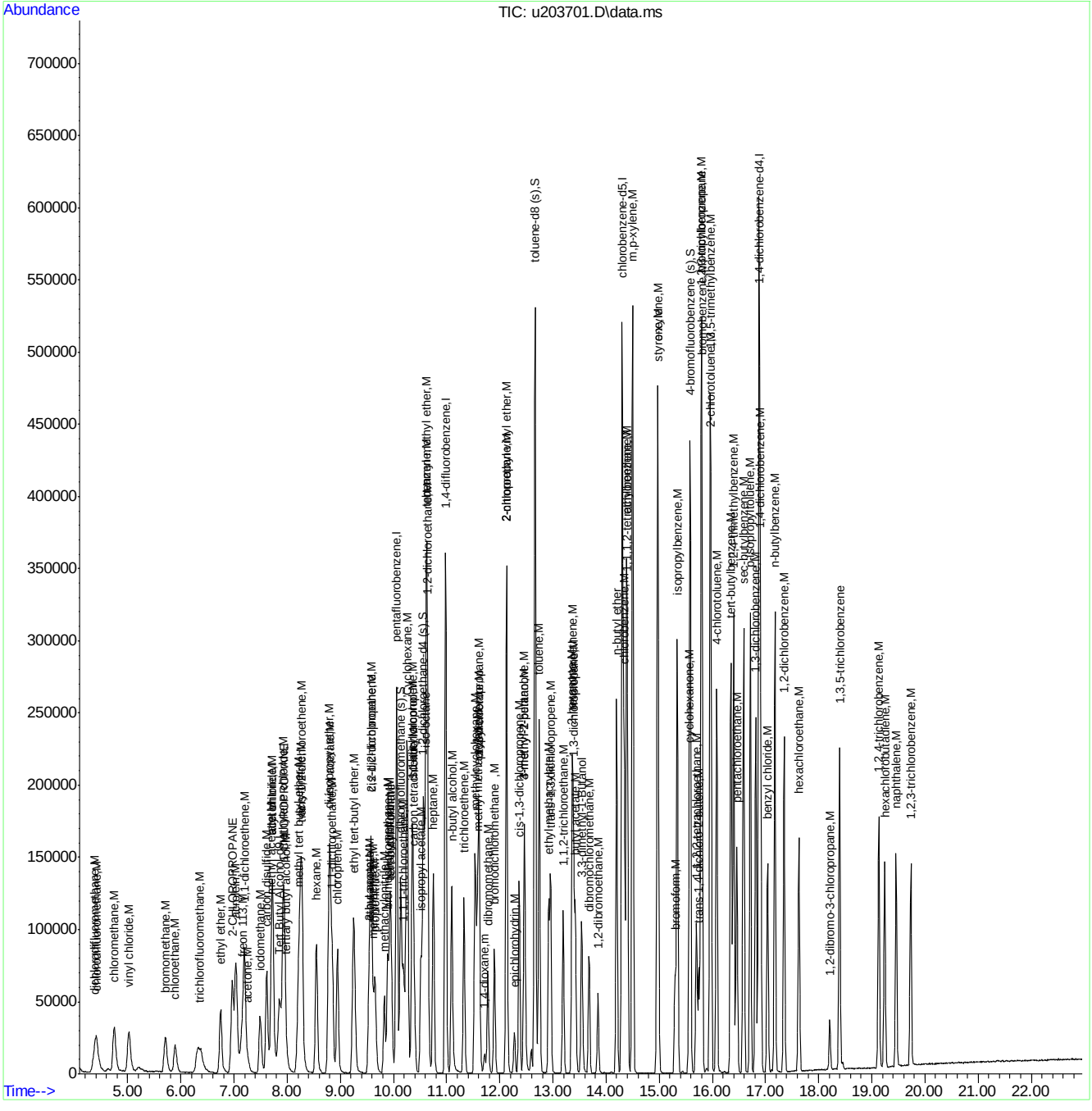
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203701.D
Acq On : 26 Feb 2016 2:06 pm
Operator : NicoleH1
Sample : ic9367-20
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 29 09:30:03 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203702.D
Acq On : 26 Feb 2016 2:35 pm
Operator : NicoleH1
Sample : icc9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 29 09:30:44 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	134498	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	256268	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	357544	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	329500	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	184877	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	104631	53.19	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.38%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	128690	53.77	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.54%			
88) toluene-d8 (s)	12.662	98	430222	45.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 90.26%			
114) 4-bromofluorobenzene (s)	15.579	95	166742	43.13	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 86.26%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.978	59	82270	272.85	ug/L	79
4) 1,4-dioxane	11.711	88	34209	1697.32	ug/L	98
11) chlorodifluoromethane	4.402	51	154558	60.52	ug/L	98
12) dichlorodifluoromethane	4.386	85	133352	59.02	ug/L	98
15) chloromethane	4.757	50	222697	58.81	ug/L	100
16) vinyl chloride	5.035	62	189109	61.72	ug/L	98
18) bromomethane	5.714	94	97359	57.41	ug/L	99
19) chloroethane	5.892	64	101915	61.06	ug/L	95
20) trichlorofluoromethane	6.315	101	179578	61.49	ug/L	95
23) ethyl ether	6.744	74	77203	63.51	ug/L	96
24) 2-CHLOROPROPANE	6.964	43	291417	62.23	ug/L	99
27) acrolein	7.032	56	310769	601.90	ug/L	100
28) 1,1-dichloroethene	7.194	96	111955	64.18	ug/L	98
29) acetone	7.251	58	12181	64.68	ug/L	96
30) allyl chloride	7.722	76	90086	63.65	ug/L	97
31) acetonitrile	7.711	40	145120	604.69	ug/L	94
32) iodomethane	7.492	142	209467	61.55	ug/L	100
33) carbon disulfide	7.612	76	421939	63.31	ug/L	100
34) 1-CHLOROPROPANE	7.941	63	12024	58.66	ug/L	92
35) methylene chloride	7.920	84	133976	60.71	ug/L	99
36) methyl acetate	7.696	43	122670	60.07	ug/L	99
37) methyl tert butyl ether	8.218	73	384803	59.98	ug/L	100
38) trans-1,2-dichloroethene	8.276	96	126141	61.53	ug/L	99
39) di-isopropyl ether	8.788	45	521820	60.15	ug/L	85
40) ethyl tert-butyl ether	9.254	59	447740	60.34	ug/L	100
41) 2-butanone	9.531	72	15658	62.15	ug/L	95
42) 1,1-dichloroethane	8.846	63	257030	61.89	ug/L	100
43) chloroprene	8.945	53	204197	59.75	ug/L	99
44) acrylonitrile	8.250	53	282503	308.12	ug/L	99
45) vinyl acetate	8.809	86	24595	60.46	ug/L	99
46) ethyl acetate	9.531	45	23978	65.71	ug/L	88
47) 2,2-dichloropropane	9.578	77	186762	61.36	ug/L	99
48) cis-1,2-dichloroethene	9.578	96	139439	60.96	ug/L	96

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203702.D
Acq On : 26 Feb 2016 2:35 pm
Operator : NicoleH1
Sample : icc9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 29 09:30:44 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) methyl acrylate	9.620	85	19444	61.02 ug/L	97
50) propionitrile	9.651	54	220915	626.66 ug/L	97
51) bromochloromethane	9.891	128	66044	62.96 ug/L	100
52) tetrahydrofuran	9.918	42	56452	63.65 ug/L	100
53) chloroform	9.938	83	221680	61.59 ug/L	98
54) tert-butyl Formate	9.959	59	121817	61.07 ug/L	99
55) iso-butyl alcohol	10.346	43	80228	694.08 ug/L	96
58) freon 113	7.162	151	79324	58.98 ug/L	99
59) methacrylonitrile	9.823	41	102790	60.08 ug/L	98
60) 1,1,1-trichloroethane	10.184	97	182723	60.69 ug/L	98
62) tert-amyl methyl ether	10.629	87	85685	59.87 ug/L	97
63) iso-octane	10.592	57	445010	57.29 ug/L	99
66) epichlorohydrin	12.275	57	76596	275.25 ug/L	98
67) n-butyl alcohol	11.094	56	241045	3271.95 ug/L	99
68) Cyclohexane	10.247	84	222609	56.44 ug/L	92
69) carbon tetrachloride	10.383	117	169037	52.99 ug/L	99
70) 1,1-dichloropropene	10.357	75	180402	53.42 ug/L	100
71) hexane	8.548	57	165165	46.27 ug/L	98
72) benzene	10.623	78	535263	50.27 ug/L	100
73) heptane	10.749	57	106383	50.32 ug/L	98
74) isopropyl acetate	10.514	43	295541	50.22 ug/L	99
75) 1,2-dichloroethane	10.644	62	178139	51.49 ug/L	98
78) trichloroethene	11.324	95	132674	53.47 ug/L	97
79) methylcyclohexane	11.538	83	203555	49.95 ug/L	99
80) 2-nitropropane	12.129	41	58319	51.78 ug/L	99
81) 2-chloroethyl vinyl ether	12.124	63	440453	264.18 ug/L	99
82) methyl methacrylate	11.580	100	33754	52.58 ug/L	94
83) 1,2-dichloropropane	11.606	63	151362	51.35 ug/L	99
84) propyl acetate	11.617	73	25708	53.10 ug/L	92
85) dibromomethane	11.773	93	78871	51.01 ug/L	99
86) bromodichloromethane	11.899	83	181125	53.55 ug/L	97
87) cis-1,3-dichloropropene	12.364	75	237278	52.43 ug/L	100
89) 4-methyl-2-pentanone	12.453	58	59420	52.18 ug/L	95
90) toluene	12.741	92	331746	51.33 ug/L	100
91) 3-methyl-1-butanol	12.464	55	155289	1228.03 ug/L	99
92) trans-1,3-dichloropropene	12.955	75	216094	53.28 ug/L	99
93) ethyl methacrylate	12.918	69	183349	52.62 ug/L	100
94) 1,1,2-trichloroethane	13.190	83	103724	51.88 ug/L	98
95) 2-hexanone	13.358	58	59929	53.14 ug/L	99
97) cyclohexanone	15.559	55	91207	869.18 ug/L	99
98) tetrachloroethene	13.363	164	116982	52.00 ug/L	99
99) 1,3-dichloropropane	13.389	76	208631	52.33 ug/L	100
100) butyl acetate	13.420	56	100090	53.05 ug/L	100
101) dibromochloromethane	13.676	129	142560	53.34 ug/L	100
102) 1,2-dibromoethane	13.849	107	120462	51.46 ug/L	98
103) 3,3-dimethyl-1-Butanol	13.541	57	174969	632.04 ug/L	99
104) n-butyl ether	14.199	57	699688	53.99 ug/L	100
105) chlorobenzene	14.340	112	366496	50.97 ug/L	100
106) 1,1,1,2-tetrachloroethane	14.403	131	135038	50.87 ug/L	98
107) ethylbenzene	14.387	91	639386	51.64 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203702.D
Acq On : 26 Feb 2016 2:35 pm
Operator : NicoleH1
Sample : icc9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 29 09:30:44 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.497	106	488939	103.20	ug/L	99
109) o-xylene	14.968	106	240388	51.92	ug/L	98
110) styrene	14.978	104	419011	55.24	ug/L	98
111) bromoform	15.297	173	104450	52.04	ug/L	100
113) isopropylbenzene	15.339	105	640955	49.89	ug/L	100
115) bromobenzene	15.804	156	169563	48.92	ug/L	96
116) 1,1,2,2-tetrachloroethane	15.700	83	170366	49.57	ug/L	99
117) trans-1,4-dichloro-2-b...	15.742	53	53735	51.89	ug/L	99
118) 1,2,3-trichloropropane	15.789	110	42466	48.93	ug/L	99
119) n-propylbenzene	15.794	91	773312	50.07	ug/L	100
120) 2-chlorotoluene	15.972	126	156477	49.87	ug/L	98
121) 4-chlorotoluene	16.081	91	475881	48.96	ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	543024	49.93	ug/L	100
124) tert-butylbenzene	16.348	119	470809	49.06	ug/L	97
125) pentachloroethane	16.463	167	110002	49.95	ug/L	100
126) 1,2,4-trimethylbenzene	16.400	105	557945	49.99	ug/L	100
128) sec-butylbenzene	16.588	105	713995	51.55	ug/L	99
129) 1,3-dichlorobenzene	16.818	146	332282	49.43	ug/L	99
130) p-isopropyltoluene	16.714	119	604286	51.10	ug/L	99
131) 1,4-dichlorobenzene	16.907	146	330759	48.42	ug/L	99
132) benzyl chloride	17.038	91	327917	49.27	ug/L	100
133) 1,2-dichlorobenzene	17.347	146	310511	49.09	ug/L	100
135) n-butylbenzene	17.174	92	320905	52.95	ug/L	99
137) 1,2-dibromo-3-chloropr...	18.209	157	32138	50.80	ug/L	97
138) 1,3,5-trichlorobenzene	18.392	180	255021	50.65	ug/L	100
139) 1,2,4-trichlorobenzene	19.134	180	206641	51.52	ug/L	99
140) hexachlorobutadiene	19.244	225	119174	53.06	ug/L	99
141) naphthalene	19.459	128	390586	49.81	ug/L	100
143) 1,2,3-trichlorobenzene	19.736	180	165908	53.64	ug/L	99
144) hexachloroethane	17.629	201	112172	53.12	ug/L	99

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

7.7.20

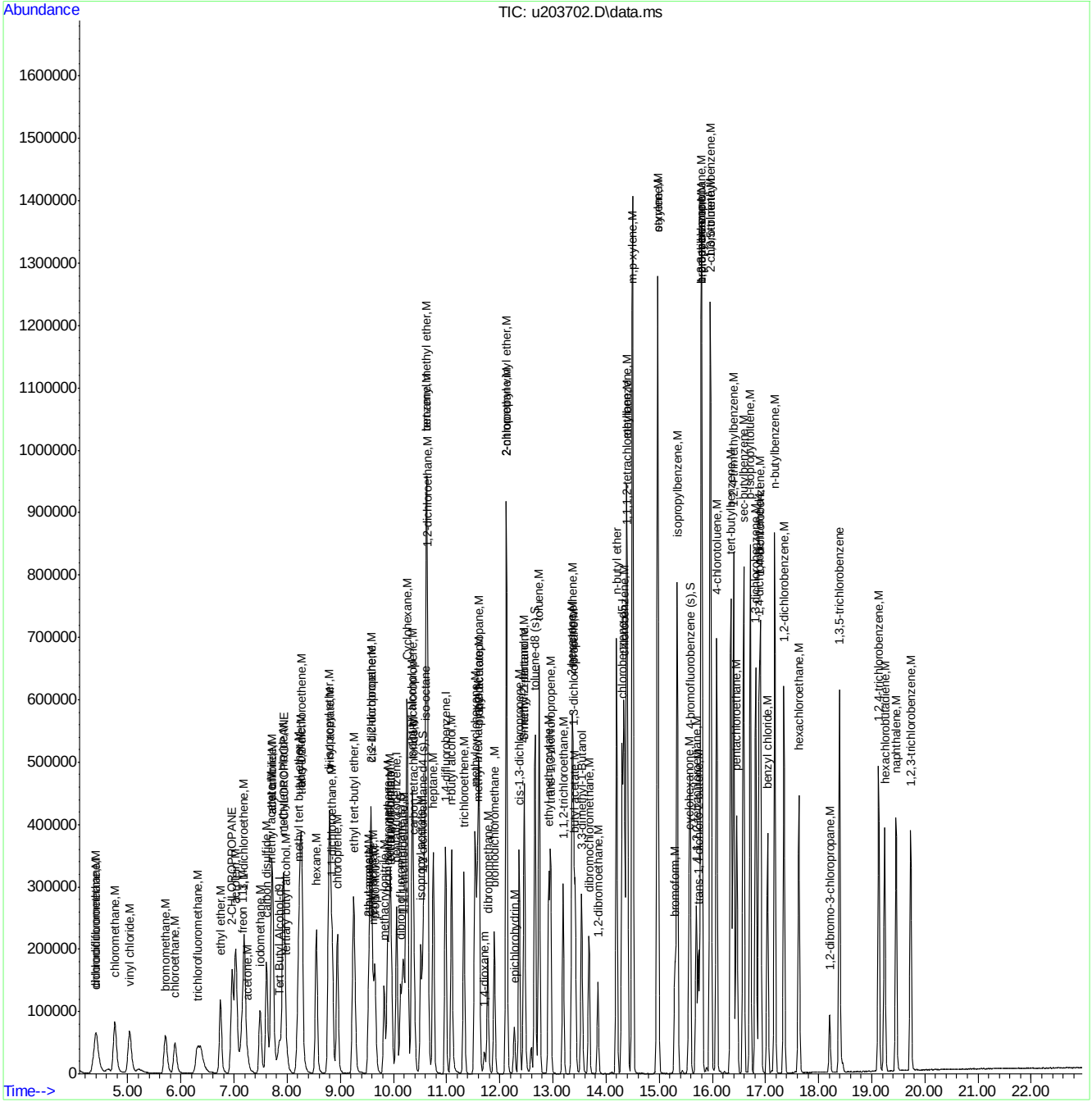
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203702.D
Acq On : 26 Feb 2016 2:35 pm
Operator : NicoleH1
Sample : icc9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 29 09:30:44 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



MU9367.M Thu Mar 03 10:07:07 2016 U_CORE Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203703.D
Acq On : 26 Feb 2016 3:05 pm
Operator : NicoleH1
Sample : ic9367-100
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 29 09:31:26 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	132422	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	260574	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	365395	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	330209	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	187670	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	105197	52.60	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.20%			
57) 1,2-dichloroethane-d4 (s)	10.561	65	130792	53.75	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.50%			
88) toluene-d8 (s)	12.663	98	434320	44.58	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 89.16%			
114) 4-bromofluorobenzene (s)	15.580	95	168757	43.01	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 86.02%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.978	59	158610	534.28	ug/L	81
4) 1,4-dioxane	11.711	88	67331	3393.09	ug/L	98
11) chlorodifluoromethane	4.407	51	301927	116.28	ug/L	94
12) dichlorodifluoromethane	4.376	85	256571	111.69	ug/L	99
15) chloromethane	4.763	50	410275	106.56	ug/L	99
16) vinyl chloride	5.045	62	346049	111.08	ug/L	100
18) bromomethane	5.709	94	174397	101.14	ug/L	99
19) chloroethane	5.887	64	186934	110.15	ug/L	96
20) trichlorofluoromethane	6.337	101	332852	112.10	ug/L	99
23) ethyl ether	6.744	74	153835	124.45	ug/L	99
24) 2-CHLOROPROPANE	6.964	43	557751	117.13	ug/L #	94
28) 1,1-dichloroethene	7.194	96	214462	120.91	ug/L	99
29) acetone	7.246	58	23668	123.59	ug/L	95
30) allyl chloride	7.722	76	174453	121.22	ug/L	98
31) acetonitrile	7.712	40	274763	1125.98	ug/L	95
32) iodomethane	7.492	142	406443	117.46	ug/L	99
33) carbon disulfide	7.612	76	808302	119.27	ug/L	100
34) 1-CHLOROPROPANE	7.947	63	23089	110.79	ug/L	96
35) methylene chloride	7.921	84	257337	114.68	ug/L	98
36) methyl acetate	7.696	43	239364	115.28	ug/L	100
37) methyl tert butyl ether	8.219	73	752598	115.38	ug/L	100
38) trans-1,2-dichloroethene	8.281	96	241618	115.92	ug/L	99
39) di-isopropyl ether	8.789	45	1015616	115.14	ug/L	87
40) ethyl tert-butyl ether	9.254	59	875123	115.98	ug/L	100
41) 2-butanone	9.531	72	31479	122.89	ug/L #	91
42) 1,1-dichloroethane	8.846	63	491760	116.46	ug/L	99
43) chloroprene	8.945	53	399117	114.86	ug/L	100
44) acrylonitrile	8.250	53	542005	581.39	ug/L	100
45) vinyl acetate	8.809	86	48812	118.02	ug/L	99
46) ethyl acetate	9.536	45	47587	128.25	ug/L	92
47) 2,2-dichloropropane	9.578	77	359344	116.11	ug/L	98
48) cis-1,2-dichloroethene	9.573	96	270243	116.20	ug/L	98
49) methyl acrylate	9.620	85	39112	120.72	ug/L	97

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203703.D
Acq On : 26 Feb 2016 3:05 pm
Operator : NicoleH1
Sample : ic9367-100
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 29 09:31:26 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) propionitrile	9.656	54	426535	1189.95	ug/L		96
51) bromochloromethane	9.892	128	129875	121.76	ug/L		98
52) tetrahydrofuran	9.918	42	109944	121.91	ug/L		99
53) chloroform	9.939	83	431783	117.98	ug/L		99
54) tert-butyl Formate	9.960	59	241161	118.90	ug/L		98
55) iso-butyl alcohol	10.352	43	156031	1327.56	ug/L		98
58) freon 113	7.157	151	159474	116.61	ug/L		99
59) methacrylonitrile	9.824	41	202827	116.58	ug/L		98
60) 1,1,1-trichloroethane	10.184	97	360881	117.89	ug/L		99
62) tert-amyl methyl ether	10.629	87	167877	115.36	ug/L		98
63) iso-octane	10.592	57	908271	114.99	ug/L		99
66) epichlorohydrin	12.276	57	149507	525.72	ug/L		98
67) n-butyl alcohol	11.094	56	462757	6146.52	ug/L		99
68) Cyclohexane	10.247	84	376369	93.37	ug/L		91
69) carbon tetrachloride	10.383	117	329026	100.93	ug/L		100
70) 1,1-dichloropropene	10.357	75	351030	101.70	ug/L		100
71) hexane	8.548	57	340155	93.24	ug/L		99
72) benzene	10.624	78	1027860	94.45	ug/L		99
73) heptane	10.749	57	226879	105.02	ug/L		99
74) isopropyl acetate	10.514	43	590799	98.23	ug/L		99
75) 1,2-dichloroethane	10.644	62	348565	98.58	ug/L		98
78) trichloroethene	11.324	95	260974	102.92	ug/L		99
79) methylcyclohexane	11.538	83	408887	98.17	ug/L		98
80) 2-nitropropane	12.129	41	115824	100.63	ug/L	#	91
81) 2-chloroethyl vinyl ether	12.124	63	878179	515.41	ug/L		100
82) methyl methacrylate	11.580	100	68508	104.43	ug/L		97
83) 1,2-dichloropropane	11.606	63	297774	98.85	ug/L		99
84) propyl acetate	11.612	73	50320	101.71	ug/L		92
85) dibromomethane	11.774	93	157976	99.98	ug/L		99
86) bromodichloromethane	11.899	83	360261	104.23	ug/L		99
87) cis-1,3-dichloropropene	12.365	75	472687	102.21	ug/L		100
89) 4-methyl-2-pentanone	12.453	58	116755	100.33	ug/L		98
90) toluene	12.741	92	652012	98.72	ug/L		99
91) 3-methyl-1-butanol	12.464	55	291904	2258.79	ug/L		99
92) trans-1,3-dichloropropene	12.955	75	429009	103.51	ug/L		99
93) ethyl methacrylate	12.919	69	370969	104.18	ug/L		99
94) 1,1,2-trichloroethane	13.191	83	205095	100.38	ug/L		100
95) 2-hexanone	13.358	58	118569	102.88	ug/L		99
97) cyclohexanone	15.559	55	167565	1593.42	ug/L		99
98) tetrachloroethene	13.363	164	229282	101.69	ug/L		100
99) 1,3-dichloropropane	13.389	76	410452	102.73	ug/L		99
100) butyl acetate	13.421	56	199379	105.45	ug/L		98
101) dibromochloromethane	13.682	129	284445	106.19	ug/L		100
102) 1,2-dibromoethane	13.849	107	240036	102.32	ug/L		99
103) 3,3-dimethyl-1-Butanol	13.541	57	330411	1190.97	ug/L		99
104) n-butyl ether	14.200	57	1375650	105.93	ug/L		100
105) chlorobenzene	14.341	112	710958	98.66	ug/L		99
106) 1,1,1,2-tetrachloroethane	14.403	131	264137	99.29	ug/L		98
107) ethylbenzene	14.388	91	1241836	100.08	ug/L		100
108) m,p-xylene	14.503	106	941546	198.31	ug/L		98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203703.D
Acq On : 26 Feb 2016 3:05 pm
Operator : NicoleH1
Sample : ic9367-100
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 29 09:31:26 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
109) o-xylene	14.968	106	471922	101.72 ug/L	99
110) styrene	14.979	104	817297	107.52 ug/L	98
111) bromoform	15.297	173	211725	105.26 ug/L	98
113) isopropylbenzene	15.339	105	1257858	96.46 ug/L	100
115) bromobenzene	15.805	156	333657	94.83 ug/L	96
116) 1,1,2,2-tetrachloroethane	15.700	83	335201	96.08 ug/L	99
117) trans-1,4-dichloro-2-b...	15.742	53	107737	102.50 ug/L	99
118) 1,2,3-trichloropropane	15.789	110	82571	93.73 ug/L	99
119) n-propylbenzene	15.794	91	1496831	95.46 ug/L	100
120) 2-chlorotoluene	15.972	126	307956	96.69 ug/L	97
121) 4-chlorotoluene	16.082	91	937646	95.03 ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	1068272	96.77 ug/L	99
124) tert-butylbenzene	16.348	119	931409	95.61 ug/L	97
125) pentachloroethane	16.458	167	220650	98.70 ug/L	99
126) 1,2,4-trimethylbenzene	16.401	105	1096764	96.80 ug/L	99
128) sec-butylbenzene	16.589	105	1408852	100.21 ug/L	99
129) 1,3-dichlorobenzene	16.819	146	656243	96.17 ug/L	99
130) p-isopropyltoluene	16.714	119	1197983	99.80 ug/L	99
131) 1,4-dichlorobenzene	16.908	146	658723	94.99 ug/L	100
132) benzyl chloride	17.038	91	650021	96.21 ug/L	99
133) 1,2-dichlorobenzene	17.347	146	619766	96.52 ug/L	100
135) n-butylbenzene	17.174	92	634314	103.10 ug/L	99
137) 1,2-dibromo-3-chloropr...	18.209	157	65369	101.79 ug/L	95
138) 1,3,5-trichlorobenzene	18.398	180	511284	100.03 ug/L	100
139) 1,2,4-trichlorobenzene	19.130	180	420618	103.31 ug/L	99
140) hexachlorobutadiene	19.245	225	237524	104.17 ug/L	97
141) naphthalene	19.459	128	792883	99.61 ug/L	99
143) 1,2,3-trichlorobenzene	19.736	180	337893	107.62 ug/L	100
144) hexachloroethane	17.629	201	226645	105.74 ug/L	99

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

7.7.21

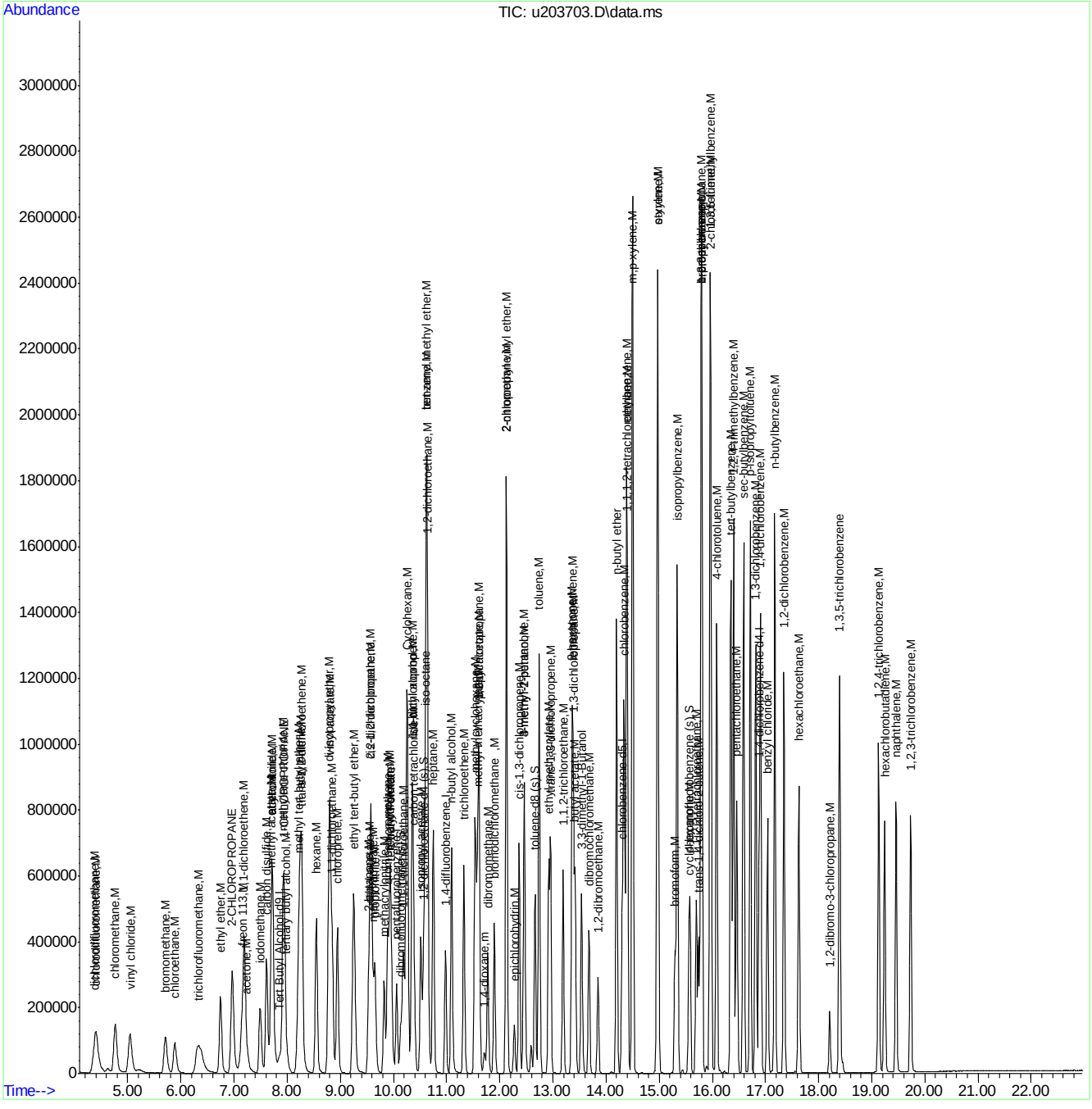
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203703.D
Acq On : 26 Feb 2016 3:05 pm
Operator : NicoleH1
Sample : ic9367-100
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 29 09:31:26 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203704.D
Acq On : 26 Feb 2016 3:34 pm
Operator : NicoleH1
Sample : ic9367-200
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 29 09:32:05 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.868	65	133591	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	263519	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	368594	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	343657	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	190608	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	107036	52.92	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.84%			
57) 1,2-dichloroethane-d4 (s)	10.561	65	132882	54.00	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.00%			
88) toluene-d8 (s)	12.668	98	446550	45.44	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 90.88%			
114) 4-bromofluorobenzene (s)	15.580	95	175084	43.93	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.86%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.983	59	293071	978.57	ug/L #	70
4) 1,4-dioxane	11.711	88	123884	6188.40	ug/L	98
11) chlorodifluoromethane	4.402	51	553918	210.95	ug/L	92
12) dichlorodifluoromethane	4.376	85	507293	218.36	ug/L	98
15) chloromethane	4.779	50	829769	213.11	ug/L	99
16) vinyl chloride	5.050	62	690620	219.21	ug/L	99
18) bromomethane	5.704	94	298629	171.25	ug/L	99
19) chloroethane	5.876	64	372536	217.05	ug/L	97
20) trichlorofluoromethane	6.352	101	671922	223.76	ug/L	97
23) ethyl ether	6.744	74	309140	247.29	ug/L	100
24) 2-CHLOROPROPANE	6.964	43	1123119	233.22	ug/L #	95
28) 1,1-dichloroethene	7.194	96	441438	246.10	ug/L	99
29) acetone	7.251	58	48686	251.39	ug/L	95
30) allyl chloride	7.722	76	354285	243.43	ug/L	98
31) acetonitrile	7.711	40	530756	2150.73	ug/L	94
32) iodomethane	7.492	142	845777	241.70	ug/L	99
33) carbon disulfide	7.612	76	1650801	240.86	ug/L	100
34) 1-CHLOROPROPANE	7.947	63	46348	219.91	ug/L	99
35) methylene chloride	7.921	84	528018	232.69	ug/L	99
36) methyl acetate	7.696	43	449983	214.29	ug/L	100
37) methyl tert butyl ether	8.219	73	1537929	233.14	ug/L	100
38) trans-1,2-dichloroethene	8.276	96	488773	231.87	ug/L	99
39) di-isopropyl ether	8.794	45	1937547	217.20	ug/L	98
40) ethyl tert-butyl ether	9.254	59	1699189	222.68	ug/L	99
41) 2-butanone	9.531	72	62970	243.08	ug/L #	83
42) 1,1-dichloroethane	8.846	63	990671	231.99	ug/L	99
43) chloroprene	8.945	53	754324	214.66	ug/L	99
44) acrylonitrile	8.250	53	1080026	1145.55	ug/L	100
45) vinyl acetate	8.815	86	91804	219.48	ug/L #	84
46) ethyl acetate	9.531	45	90445	241.02	ug/L	85
47) 2,2-dichloropropane	9.578	77	713737	228.05	ug/L	99
48) cis-1,2-dichloroethene	9.573	96	547400	232.74	ug/L	98
49) methyl acrylate	9.620	85	79298	242.01	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203704.D
Acq On : 26 Feb 2016 3:34 pm
Operator : NicoleH1
Sample : ic9367-200
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 29 09:32:05 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) propionitrile	9.656	54	864017	2383.50 ug/L	97
51) bromochloromethane	9.892	128	266578	247.13 ug/L	98
52) tetrahydrofuran	9.918	42	221602	242.97 ug/L	99
53) chloroform	9.933	83	874701	236.32 ug/L	100
54) tert-butyl Formate	9.965	59	472707	230.46 ug/L	97
55) iso-butyl alcohol	10.352	43	287076	2415.24 ug/L	98
58) freon 113	7.157	151	296427	214.32 ug/L	96
59) methacrylonitrile	9.824	41	412860	234.66 ug/L	98
60) 1,1,1-trichloroethane	10.184	97	733973	237.09 ug/L	99
62) tert-amyl methyl ether	10.634	87	321517	218.46 ug/L	96
63) iso-octane	10.592	57	1606327	201.10 ug/L	98
66) epichlorohydrin	12.275	57	290795	1013.67 ug/L	98
67) n-butyl alcohol	11.099	56	840804	11070.95 ug/L	99
68) Cyclohexane	10.252	84	861198	211.79 ug/L	97
69) carbon tetrachloride	10.383	117	668407	203.25 ug/L	100
70) 1,1-dichloropropene	10.352	75	698793	200.71 ug/L	99
71) hexane	8.548	57	608212	165.27 ug/L	98
72) benzene	10.623	78	2019797	183.99 ug/L	99
73) heptane	10.749	57	414040	189.98 ug/L	100
74) isopropyl acetate	10.514	43	1127696	185.87 ug/L	100
75) 1,2-dichloroethane	10.644	62	696303	195.21 ug/L	98
78) trichloroethene	11.329	95	530304	207.32 ug/L	100
79) methylcyclohexane	11.538	83	760870	181.10 ug/L	100
80) 2-nitropropane	12.129	41	223739	192.70 ug/L	99
81) 2-chloroethyl vinyl ether	12.129	63	1615045	939.65 ug/L	98
82) methyl methacrylate	11.580	100	138359	209.07 ug/L	99
83) 1,2-dichloropropane	11.606	63	592040	194.83 ug/L	98
84) propyl acetate	11.612	73	94968	190.29 ug/L	90
85) dibromomethane	11.774	93	324159	203.37 ug/L	99
86) bromodichloromethane	11.899	83	744131	213.42 ug/L	99
87) cis-1,3-dichloropropene	12.364	75	950506	203.74 ug/L	99
89) 4-methyl-2-pentanone	12.453	58	232895	198.39 ug/L	96
90) toluene	12.741	92	1308854	196.46 ug/L	99
91) 3-methyl-1-butanol	12.464	55	517706	3971.31 ug/L	98
92) trans-1,3-dichloropropene	12.955	75	870150	208.13 ug/L	99
93) ethyl methacrylate	12.924	69	751352	209.18 ug/L	98
94) 1,1,2-trichloroethane	13.190	83	422081	204.78 ug/L	98
95) 2-hexanone	13.358	58	237666	204.42 ug/L	98
97) cyclohexanone	15.559	55	344396	3146.81 ug/L	98
98) tetrachloroethene	13.363	164	467219	199.11 ug/L	99
99) 1,3-dichloropropane	13.389	76	824877	198.38 ug/L	99
100) butyl acetate	13.420	56	377115	191.65 ug/L	100
101) dibromochloromethane	13.682	129	599839	215.18 ug/L	99
102) 1,2-dibromoethane	13.849	107	503465	206.22 ug/L	98
103) 3,3-dimethyl-1-Butanol	13.541	57	572179	1981.72 ug/L	99
104) n-butyl ether	14.199	57	2737073	202.51 ug/L	99
105) chlorobenzene	14.341	112	1455486	194.08 ug/L	99
106) 1,1,1,2-tetrachloroethane	14.403	131	546147	197.27 ug/L	99
107) ethylbenzene	14.388	91	2498986	193.51 ug/L	99
108) m,p-xylene	14.503	106	1883396	381.15 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203704.D
Acq On : 26 Feb 2016 3:34 pm
Operator : NicoleH1
Sample : ic9367-200
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 29 09:32:05 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
109) o-xylene	14.968	106	956928	198.18 ug/L	99
110) styrene	14.984	104	1657778	209.56 ug/L	99
111) bromoform	15.297	173	452351	216.10 ug/L	100
113) isopropylbenzene	15.339	105	2548138	192.39 ug/L	99
115) bromobenzene	15.804	156	685784	191.91 ug/L	95
116) 1,1,2,2-tetrachloroethane	15.700	83	693928	195.83 ug/L	100
117) trans-1,4-dichloro-2-b...	15.742	53	226435	212.10 ug/L	100
118) 1,2,3-trichloropropane	15.789	110	167677	187.40 ug/L	100
119) n-propylbenzene	15.794	91	2939837	184.61 ug/L	99
120) 2-chlorotoluene	15.977	126	619970	191.65 ug/L	97
121) 4-chlorotoluene	16.081	91	1927919	192.38 ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	2095986	186.94 ug/L	99
124) tert-butylbenzene	16.353	119	1843426	186.32 ug/L	98
125) pentachloroethane	16.463	167	452716	199.38 ug/L	99
126) 1,2,4-trimethylbenzene	16.400	105	2179432	189.39 ug/L	100
128) sec-butylbenzene	16.589	105	2763119	193.51 ug/L	98
129) 1,3-dichlorobenzene	16.819	146	1327453	191.54 ug/L	99
130) p-isopropyltoluene	16.719	119	2334727	191.50 ug/L	98
131) 1,4-dichlorobenzene	16.907	146	1329331	188.75 ug/L	99
132) benzyl chloride	17.038	91	1242339	181.05 ug/L	100
133) 1,2-dichlorobenzene	17.352	146	1239506	190.07 ug/L	99
135) n-butylbenzene	17.179	92	1225672	196.14 ug/L	97
137) 1,2-dibromo-3-chloropr...	18.209	157	138527	212.39 ug/L	97
138) 1,3,5-trichlorobenzene	18.397	180	1015399	195.59 ug/L	99
139) 1,2,4-trichlorobenzene	19.135	180	845853	204.55 ug/L	100
140) hexachlorobutadiene	19.244	225	458944	198.18 ug/L	98
141) naphthalene	19.459	128	1600966	198.03 ug/L	100
143) 1,2,3-trichlorobenzene	19.736	180	671843	210.68 ug/L	100
144) hexachloroethane	17.629	201	454587	208.81 ug/L	99

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

7.7.22

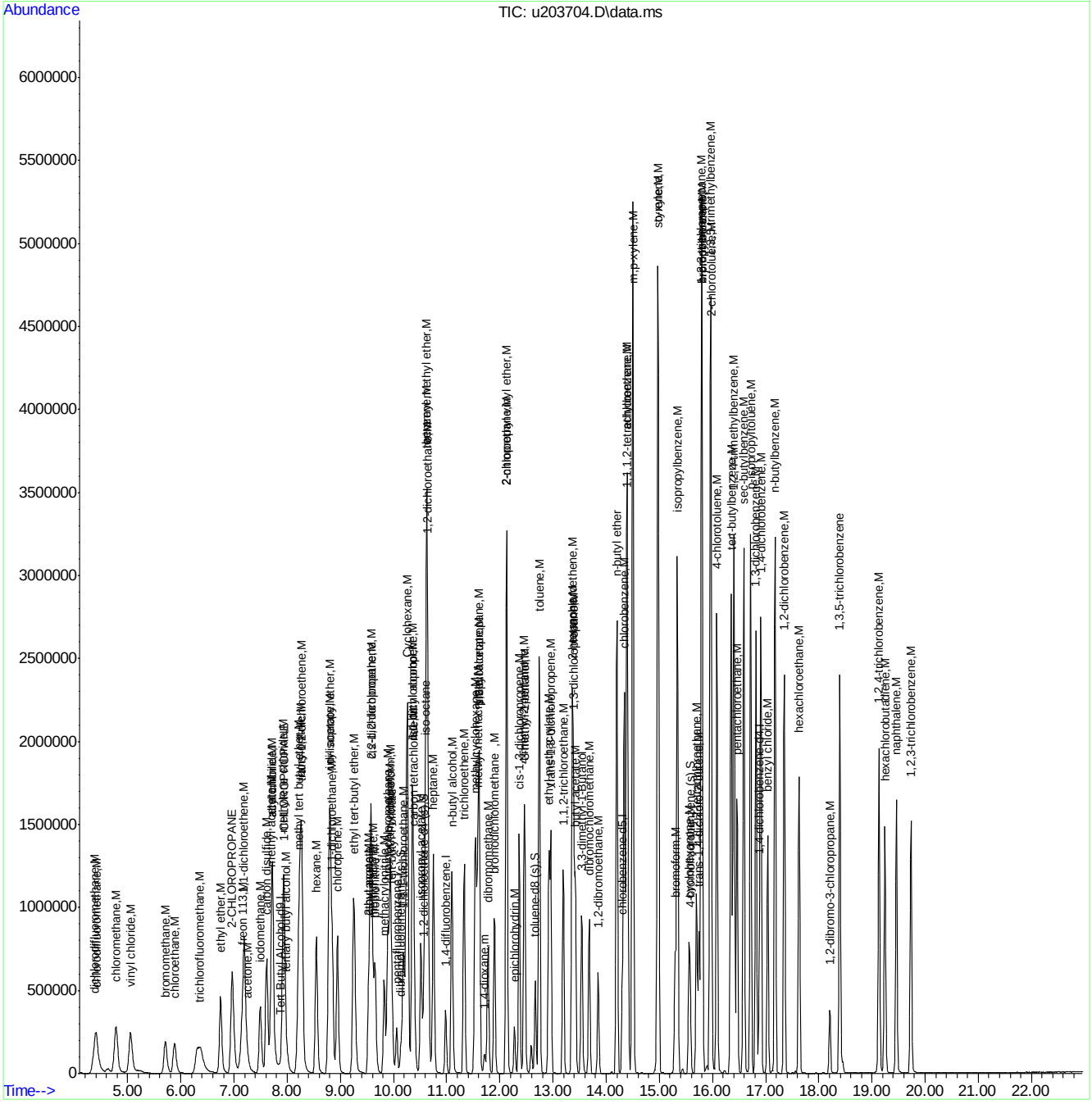
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203704.D
Acq On : 26 Feb 2016 3:34 pm
Operator : NicoleH1
Sample : ic9367-200
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 29 09:32:05 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:00:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203707.D
Acq On : 26 Feb 2016 5:02 pm
Operator : NicoleH1
Sample : icv9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 29 09:34:56 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.863	65	132439	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	255536	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	350375	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	324652	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	185650	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.137	113	101667	48.98	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 97.96%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	125693	49.72	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.44%			
88) toluene-d8 (s)	12.662	98	422415	50.20	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.40%			
114) 4-bromofluorobenzene (s)	15.579	95	165137	48.61	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.22%			

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.978	59	80427	272.52	ug/L	97
4) 1,4-dioxane	11.711	88	31319	1335.55	ug/L	98
11) chlorodifluoromethane	4.397	51	159421	57.01	ug/L	99
12) dichlorodifluoromethane	4.376	85	127790	51.54	ug/L	99
15) chloromethane	4.757	50	187244	43.10	ug/L	98
16) vinyl chloride	5.034	62	164573	44.96	ug/L	99
18) bromomethane	5.704	94	98049	55.56	ug/L	97
19) chloroethane	5.887	64	95077	48.37	ug/L	97
20) trichlorofluoromethane	6.320	101	165629	50.30	ug/L	99
23) ethyl ether	6.744	74	75009	53.93	ug/L	97
24) 2-CHLOROPROPANE	6.969	43	285967	54.02	ug/L	99
27) acrolein	7.037	56	321470	535.66	ug/L	100
28) 1,1-dichloroethene	7.194	96	108697	55.56	ug/L	98
29) acetone	7.246	58	12001	56.10	ug/L	98
30) allyl chloride	7.722	76	85023	53.83	ug/L	97
31) acetonitrile	7.716	40	138693	494.66	ug/L	88
32) iodomethane	7.492	142	201989	53.26	ug/L	99
33) carbon disulfide	7.612	76	412532	54.98	ug/L	100
34) 1-CHLOROPROPANE	7.946	63	11508	51.06	ug/L	99
35) methylene chloride	7.920	84	128020	51.40	ug/L	99
36) methyl acetate	7.695	43	118567	53.16	ug/L	100
37) methyl tert butyl ether	8.218	73	745947	106.48	ug/L	90
38) trans-1,2-dichloroethene	8.281	96	120140	52.18	ug/L	97
39) di-isopropyl ether	8.788	45	513388	53.04	ug/L	99
40) ethyl tert-butyl ether	9.253	59	445333	53.96	ug/L	99
41) 2-butanone	9.536	72	15551	53.27	ug/L	98
42) 1,1-dichloroethane	8.851	63	248345	53.89	ug/L	99
43) chloroprene	8.940	53	205162	56.18	ug/L	100
44) acrylonitrile	8.250	53	277559	268.87	ug/L	99
45) vinyl acetate	8.814	86	24092	55.14	ug/L #	80
46) ethyl acetate	9.530	45	23386	54.31	ug/L	93
47) 2,2-dichloropropane	9.578	77	182504	53.25	ug/L	100
48) cis-1,2-dichloroethene	9.572	96	132718	52.26	ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203707.D
Acq On : 26 Feb 2016 5:02 pm
Operator : NicoleH1
Sample : icv9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 29 09:34:56 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) methyl acrylate	9.619	85	19565	54.19	ug/L		96
50) propionitrile	9.656	54	214530	524.66	ug/L		95
51) bromochloromethane	9.891	128	63621	53.36	ug/L		97
52) tetrahydrofuran	9.912	42	55078	53.67	ug/L		99
53) chloroform	9.933	83	217180	55.35	ug/L		98
54) tert-butyl Formate	9.959	59	103691	47.40	ug/L		99
55) iso-butyl alcohol	10.351	43	76279	547.74	ug/L		98
58) freon 113	7.157	151	86908	61.01	ug/L		99
59) methacrylonitrile	9.823	41	96968	53.45	ug/L		99
60) 1,1,1-trichloroethane	10.184	97	186036	56.35	ug/L		99
62) tert-amyl methyl ether	10.628	87	86243	56.21	ug/L		96
63) iso-octane	10.592	57	461657	53.96	ug/L		99
66) epichlorohydrin	12.275	57	75225	291.22	ug/L		99
67) n-butyl alcohol	11.094	56	230851	2883.68	ug/L		99
68) Cyclohexane	10.247	84	214380	55.99	ug/L		100
69) carbon tetrachloride	10.383	117	165799	55.53	ug/L		99
70) 1,1-dichloropropene	10.357	75	183741	57.68	ug/L		99
71) hexane	8.548	57	156295	51.07	ug/L		99
72) benzene	10.623	78	513497	53.13	ug/L		99
73) heptane	10.749	57	109401	56.35	ug/L		97
74) isopropyl acetate	10.513	43	310674	57.77	ug/L		99
75) 1,2-dichloroethane	10.644	62	171999	53.24	ug/L		100
78) trichloroethene	11.324	95	128078	54.50	ug/L		98
79) methylcyclohexane	11.538	83	211767	57.25	ug/L		99
80) 2-nitropropane	12.129	41	58077	56.61	ug/L	#	90
81) 2-chloroethyl vinyl ether	12.124	63	447450	301.64	ug/L		99
82) methyl methacrylate	11.580	100	33653	56.45	ug/L	#	92
83) 1,2-dichloropropane	11.601	63	146455	53.57	ug/L		100
84) propyl acetate	11.611	73	25730	57.58	ug/L		98
85) dibromomethane	11.773	93	75728	54.40	ug/L		100
86) bromodichloromethane	11.899	83	175489	55.92	ug/L		98
87) cis-1,3-dichloropropene	12.364	75	229245	54.52	ug/L		99
89) 4-methyl-2-pentanone	12.453	58	58954	56.31	ug/L		99
90) toluene	12.740	92	322567	55.29	ug/L		99
91) 3-methyl-1-butanol	12.463	55	154941	1210.31	ug/L		98
92) trans-1,3-dichloropropene	12.955	75	203820	54.58	ug/L		99
93) ethyl methacrylate	12.918	69	178830	55.73	ug/L		99
94) 1,1,2-trichloroethane	13.190	83	99960	54.46	ug/L		100
95) 2-hexanone	13.357	58	60212	54.75	ug/L		99
97) cyclohexanone	15.558	55	82244	495.35	ug/L		99
98) tetrachloroethene	13.363	164	115241	56.53	ug/L		98
99) 1,3-dichloropropane	13.389	76	199902	52.29	ug/L		98
100) butyl acetate	13.420	56	104694	59.58	ug/L		99
101) dibromochloromethane	13.682	129	137728	54.82	ug/L		99
102) 1,2-dibromoethane	13.849	107	116606	53.36	ug/L		98
103) 3,3-dimethyl-1-Butanol	13.540	57	175044	605.30	ug/L		100
104) n-butyl ether	14.199	57	687775	56.99	ug/L		100
105) chlorobenzene	14.340	112	359990	54.96	ug/L		100
106) 1,1,1,2-tetrachloroethane	14.403	131	129496	52.86	ug/L		98
107) ethylbenzene	14.382	91	625532	54.50	ug/L		99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203707.D
Acq On : 26 Feb 2016 5:02 pm
Operator : NicoleH1
Sample : icv9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 29 09:34:56 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

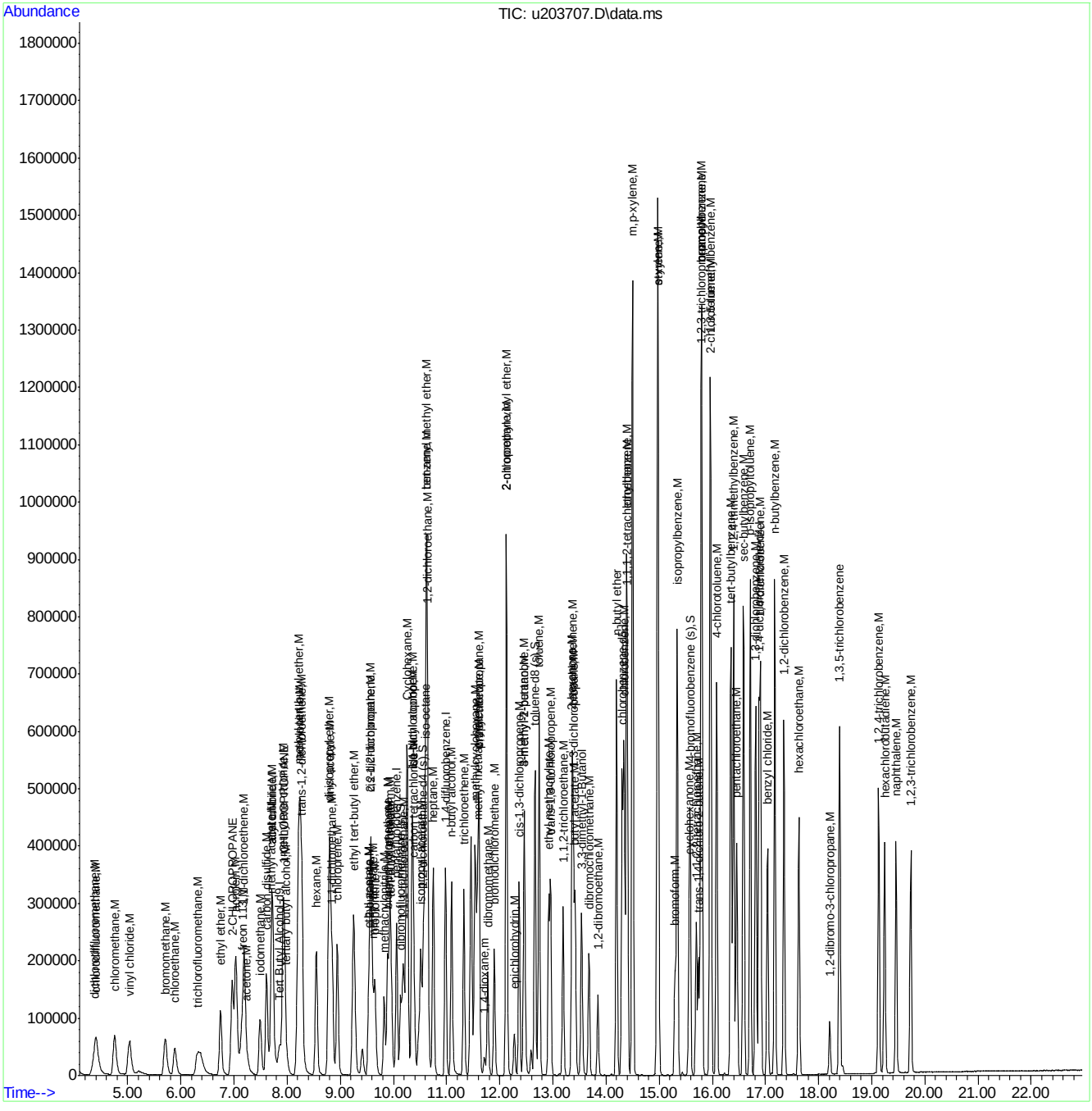
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
108) m,p-xylene	14.497	106	476984	111.08 ug/L	99
109) o-xylene	14.968	106	241112	57.13 ug/L	96
110) styrene	14.978	104	403922	56.82 ug/L	99
111) bromoform	15.297	173	103976	55.88 ug/L	98
113) isopropylbenzene	15.339	105	627037	54.19 ug/L	99
115) bromobenzene	15.804	156	167303	52.88 ug/L	98
116) 1,1,2,2-tetrachloroethane	15.700	83	165368	52.67 ug/L	99
117) trans-1,4-dichloro-2-b...	15.741	53	54472	54.34 ug/L	99
118) 1,2,3-trichloropropane	15.783	110	41282	53.02 ug/L	97
119) n-propylbenzene	15.794	91	777502	55.73 ug/L	100
120) 2-chlorotoluene	15.971	126	152985	52.36 ug/L	98
121) 4-chlorotoluene	16.081	91	472351	52.89 ug/L	100
123) 1,3,5-trimethylbenzene	15.956	105	538163	55.11 ug/L	100
124) tert-butylbenzene	16.348	119	472536	55.95 ug/L	99
125) pentachloroethane	16.458	167	110897	56.49 ug/L	99
126) 1,2,4-trimethylbenzene	16.400	105	562154	55.72 ug/L	100
128) sec-butylbenzene	16.588	105	706951	55.93 ug/L	100
129) 1,3-dichlorobenzene	16.818	146	329161	54.05 ug/L	99
130) p-isopropyltoluene	16.714	119	616783	57.72 ug/L	100
131) 1,4-dichlorobenzene	16.907	146	330492	53.13 ug/L	100
132) benzyl chloride	17.038	91	336288	55.47 ug/L	100
133) 1,2-dichlorobenzene	17.346	146	313228	55.04 ug/L	99
135) n-butylbenzene	17.174	92	320012	58.26 ug/L	100
137) 1,2-dibromo-3-chloropr...	18.209	157	32985	57.78 ug/L	99
138) 1,3,5-trichlorobenzene	18.397	180	253449	55.95 ug/L	99
139) 1,2,4-trichlorobenzene	19.129	180	210922	58.75 ug/L	99
140) hexachlorobutadiene	19.244	225	122577	57.20 ug/L	100
141) naphthalene	19.458	128	391193	56.74 ug/L	99
143) 1,2,3-trichlorobenzene	19.736	180	167626	57.97 ug/L	100
144) hexachloroethane	17.629	201	115633	57.74 ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\vu9361-9370\
Data File : u203707.D
Acq On : 26 Feb 2016 5:02 pm
Operator : NicoleH1
Sample : icv9367-50
Misc : ms98802,vu9367,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 29 09:34:56 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



MU9367.M Thu Mar 03 10:07:16 2016 U_CORE

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204132.D
Acq On : 15 Mar 2016 8:57 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 13:08:16 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.863	65	115005	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	216574	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	314082	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	292228	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	161522	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.132	113	92382	52.51	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.02%			
57) 1,2-dichloroethane-d4 (s)	10.555	65	114802	53.58	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.16%			
88) toluene-d8 (s)	12.662	98	375872	49.83	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.66%			
114) 4-bromofluorobenzene (s)	15.579	95	148399	50.20	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.40%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.978	59	26862	104.82	ug/L	85
4) 1,4-dioxane	11.716	88	11041	542.20	ug/L	97
11) chlorodifluoromethane	4.412	51	56560	23.87	ug/L	98
12) dichlorodifluoromethane	4.386	85	43983	20.93	ug/L	98
15) chloromethane	4.757	50	70993	19.28	ug/L	98
16) vinyl chloride	5.029	62	61219	19.73	ug/L	99
18) bromomethane	5.714	94	32657	21.83	ug/L	98
19) chloroethane	5.902	64	34155	20.50	ug/L	96
20) trichlorofluoromethane	6.362	101	61874	22.17	ug/L	97
23) ethyl ether	6.749	74	25723	21.82	ug/L	98
24) 2-CHLOROPROPANE	6.974	43	104133	23.21	ug/L	99
27) acrolein	7.037	56	108757	213.82	ug/L	98
28) 1,1-dichloroethene	7.199	96	38697	23.34	ug/L	99
29) acetone	7.251	58	4053	22.35	ug/L	87
30) allyl chloride	7.732	76	28443	21.25	ug/L	94
31) acetonitrile	7.716	40	53861	226.66	ug/L	98
32) iodomethane	7.497	142	71814	22.34	ug/L	100
33) carbon disulfide	7.617	76	148629	23.37	ug/L	99
34) 1-CHLOROPROPANE	7.946	63	4230	22.14	ug/L	99
35) methylene chloride	7.926	84	46714	22.13	ug/L	96
36) methyl acetate	7.696	43	44983	23.80	ug/L	98
37) methyl tert butyl ether	8.218	73	135070	22.75	ug/L	100
38) trans-1,2-dichloroethene	8.281	96	43005	22.04	ug/L	92
39) di-isopropyl ether	8.793	45	187158	22.81	ug/L	84
40) ethyl tert-butyl ether	9.253	59	153413	21.93	ug/L	99
41) 2-butanone	9.531	72	5409	21.86	ug/L #	94
42) 1,1-dichloroethane	8.846	63	89363	22.88	ug/L	99
43) chloroprene	8.945	53	73994	23.91	ug/L	99
44) acrylonitrile	8.255	53	97082	110.96	ug/L	98
45) vinyl acetate	8.809	86	7909	21.36	ug/L	96
46) ethyl acetate	9.536	45	8044	22.04	ug/L	95
47) 2,2-dichloropropane	9.583	77	71108	24.48	ug/L	97
48) cis-1,2-dichloroethene	9.578	96	47440	22.04	ug/L	98
49) methyl acrylate	9.625	85	6345	20.74	ug/L	96
50) propionitrile	9.656	54	74827	215.92	ug/L	96
51) bromochloromethane	9.891	128	22238	22.01	ug/L	93
52) tetrahydrofuran	9.917	42	20033	23.03	ug/L	95
53) chloroform	9.938	83	75799	22.79	ug/L	97
54) tert-butyl Formate	9.964	59	49679	26.80	ug/L #	88
55) iso-butyl alcohol	10.351	43	26146	221.52	ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204132.D
Acq On : 15 Mar 2016 8:57 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 13:08:16 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
58)	freon 113	7.167	151	30900	25.59	ug/L	97
59)	methacrylonitrile	9.823	41	34430	22.39	ug/L	97
60)	1,1,1-trichloroethane	10.189	97	64225	22.95	ug/L	98
62)	tert-amyl methyl ether	10.628	87	28984	22.29	ug/L	95
63)	iso-octane	10.592	57	191838	26.46	ug/L	98
66)	epichlorohydrin	12.270	57	24750	106.89	ug/L	98
67)	n-butyl alcohol	11.094	56	76405	1064.70	ug/L	99
68)	Cyclohexane	10.252	84	67402	19.64	ug/L	85
69)	carbon tetrachloride	10.383	117	60019	22.42	ug/L	98
70)	1,1-dichloropropene	10.357	75	60882	21.32	ug/L	98
71)	hexane	8.548	57	74244	27.06	ug/L	97
72)	benzene	10.623	78	182077	21.02	ug/L	99
73)	heptane	10.749	57	42796	24.59	ug/L	98
74)	isopropyl acetate	10.513	43	99391	20.62	ug/L	99
75)	1,2-dichloroethane	10.644	62	61515	21.24	ug/L	97
78)	trichloroethene	11.324	95	44545	21.14	ug/L	100
79)	methylcyclohexane	11.543	83	79531	23.98	ug/L	98
80)	2-nitropropane	12.129	41	20195	21.96	ug/L	95
81)	2-chloroethyl vinyl ether	12.124	63	144934	108.99	ug/L	98
82)	methyl methacrylate	11.580	100	10770	20.15	ug/L	95
83)	1,2-dichloropropane	11.606	63	52234	21.31	ug/L	99
84)	propyl acetate	11.617	73	8662	21.63	ug/L	84
85)	dibromomethane	11.773	93	26625	21.34	ug/L	98
86)	bromodichloromethane	11.899	83	60670	21.57	ug/L	98
87)	cis-1,3-dichloropropene	12.364	75	79646	21.13	ug/L	98
89)	4-methyl-2-pentanone	12.453	58	19536	20.82	ug/L	100
90)	toluene	12.741	92	111346	21.29	ug/L	98
91)	3-methyl-1-butanol	12.463	55	47770	416.27	ug/L	98
92)	trans-1,3-dichloropropene	12.955	75	72363	21.62	ug/L	100
93)	ethyl methacrylate	12.918	69	58199	20.23	ug/L	98
94)	1,1,2-trichloroethane	13.190	83	34092	20.72	ug/L	100
95)	2-hexanone	13.357	58	19210	19.49	ug/L	96
97)	cyclohexanone	15.558	55	21709	145.26	ug/L	98
98)	tetrachloroethene	13.363	164	39119	21.32	ug/L	99
99)	1,3-dichloropropane	13.389	76	70200	20.40	ug/L	98
100)	butyl acetate	13.420	56	33720	21.32	ug/L	98
101)	dibromochloromethane	13.682	129	46593	20.60	ug/L	98
102)	1,2-dibromoethane	13.849	107	39573	20.12	ug/L	100
103)	3,3-dimethyl-1-Butanol	13.540	57	48065	184.65	ug/L	99
104)	n-butyl ether	14.199	57	217506	20.02	ug/L	99
105)	chlorobenzene	14.340	112	122249	20.74	ug/L	99
106)	1,1,1,2-tetrachloroethane	14.403	131	46329	21.01	ug/L	98
107)	ethylbenzene	14.387	91	215063	20.82	ug/L	100
108)	m,p-xylene	14.497	106	163972	42.42	ug/L	100
109)	o-xylene	14.968	106	81847	21.54	ug/L	98
110)	styrene	14.978	104	137477	21.49	ug/L	100
111)	bromoform	15.297	173	34198	20.42	ug/L	100
113)	isopropylbenzene	15.339	105	219542	21.81	ug/L	99
115)	bromobenzene	15.804	156	56619	20.57	ug/L	96
116)	1,1,2,2-tetrachloroethane	15.700	83	56866	20.82	ug/L	98
117)	trans-1,4-dichloro-2-b...	15.741	53	17523	20.09	ug/L	98
118)	1,2,3-trichloropropane	15.788	110	14296	21.11	ug/L	98
119)	n-propylbenzene	15.794	91	262510	21.63	ug/L	99
120)	2-chlorotoluene	15.971	126	53629	21.10	ug/L	97
121)	4-chlorotoluene	16.081	91	159884	20.57	ug/L	100
123)	1,3,5-trimethylbenzene	15.956	105	184542	21.72	ug/L	100
124)	tert-butylbenzene	16.348	119	158382	21.55	ug/L	98
125)	pentachloroethane	16.458	167	36683	21.48	ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204132.D
Acq On : 15 Mar 2016 8:57 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 13:08:16 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
126) 1,2,4-trimethylbenzene	16.400	105	189086	21.54	ug/L	99
128) sec-butylbenzene	16.588	105	241533	21.96	ug/L	99
129) 1,3-dichlorobenzene	16.818	146	110725	20.90	ug/L	100
130) p-isopropyltoluene	16.714	119	201977	21.73	ug/L	99
131) 1,4-dichlorobenzene	16.907	146	109931	20.31	ug/L	99
132) benzyl chloride	17.038	91	115934	21.98	ug/L	99
133) 1,2-dichlorobenzene	17.346	146	103064	20.81	ug/L	99
135) n-butylbenzene	17.179	92	106681	22.32	ug/L	97
137) 1,2-dibromo-3-chloropr...	18.209	157	10502	21.14	ug/L	97
138) 1,3,5-trichlorobenzene	18.397	180	82601	20.96	ug/L	99
139) 1,2,4-trichlorobenzene	19.134	180	66216	21.20	ug/L	100
140) hexachlorobutadiene	19.244	225	41382	22.20	ug/L	98
141) naphthalene	19.458	128	119902	19.99	ug/L	99
143) 1,2,3-trichlorobenzene	19.736	180	52575	20.90	ug/L	99
144) hexachloroethane	17.629	201	37557	21.55	ug/L	99

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

7.7.24

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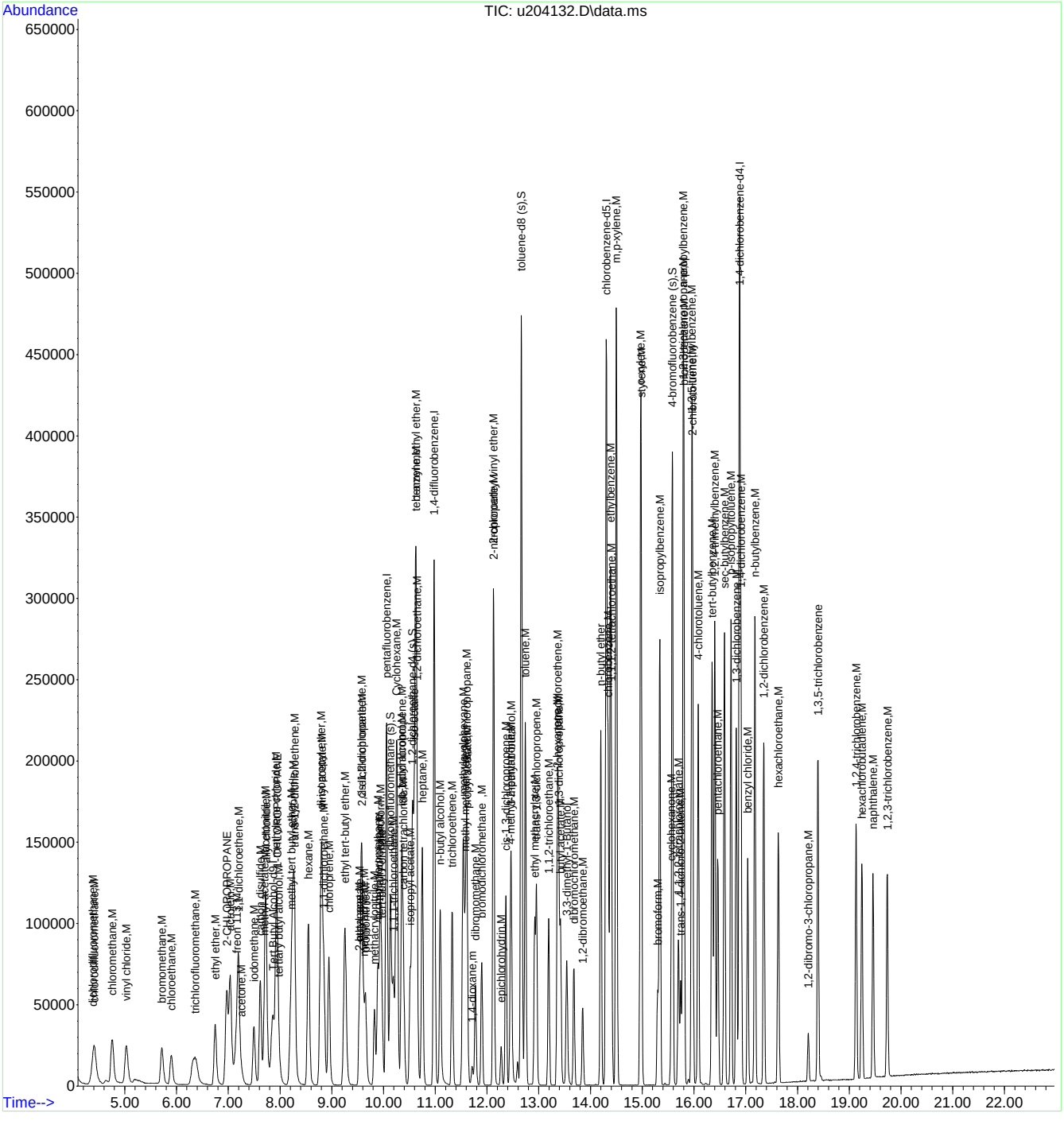
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204132.D
Acq On : 15 Mar 2016 8:57 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 13:08:16 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204154.D
Acq On : 15 Mar 2016 7:43 pm
Operator : NicoleH1
Sample : cc9367-50
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 16 13:19:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.862	65	119426	500.00	ug/L	0.00
5) pentafluorobenzene	10.063	168	227785	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.983	114	333225	50.00	ug/L	0.00
96) chlorobenzene-d5	14.303	117	306994	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.881	152	169831	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.136	113	96922	52.38	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.76%			
57) 1,2-dichloroethane-d4 (s)	10.560	65	122664	54.43	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.86%			
88) toluene-d8 (s)	12.667	98	398335	49.77	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.54%			
114) 4-bromofluorobenzene (s)	15.579	95	156291	50.29	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.58%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.977	59	70939	266.56	ug/L	86
4) 1,4-dioxane	11.715	88	27625	1306.38	ug/L	99
11) chlorodifluoromethane	4.401	51	91037	36.52	ug/L	96
12) dichlorodifluoromethane	4.380	85	112967	51.11	ug/L	100
15) chloromethane	4.757	50	179739	46.42	ug/L	99
16) vinyl chloride	5.034	62	156937	48.09	ug/L	100
18) bromomethane	5.708	94	78915	50.16	ug/L	99
19) chloroethane	5.886	64	86264	49.23	ug/L	97
20) trichlorofluoromethane	6.320	101	157332	53.60	ug/L	96
23) ethyl ether	6.749	74	69310	55.91	ug/L	100
24) 2-CHLOROPROPANE	6.968	43	268908	56.99	ug/L	99
27) acrolein	7.036	56	288625	539.52	ug/L	98
28) 1,1-dichloroethene	7.198	96	99842	57.25	ug/L	97
29) acetone	7.256	58	12753	66.88	ug/L	96
30) allyl chloride	7.726	76	77426	55.00	ug/L	95
31) acetonitrile	7.716	40	130003	520.15	ug/L	98
32) iodomethane	7.496	142	185573	54.89	ug/L	99
33) carbon disulfide	7.617	76	370469	55.39	ug/L	100
34) 1-CHLOROPROPANE	7.946	63	10968	54.59	ug/L	99
35) methylene chloride	7.925	84	120153	54.12	ug/L	95
36) methyl acetate	7.700	43	111867	56.27	ug/L	99
37) methyl tert butyl ether	8.218	73	351239	56.24	ug/L	100
38) trans-1,2-dichloroethene	8.280	96	111463	54.30	ug/L	98
39) di-isopropyl ether	8.793	45	468077	54.25	ug/L	93
40) ethyl tert-butyl ether	9.253	59	401647	54.59	ug/L	99
41) 2-butanone	9.535	72	14138	54.33	ug/L	97
42) 1,1-dichloroethane	8.850	63	232723	56.65	ug/L	99
43) chloroprene	8.944	53	184821	56.78	ug/L	98
44) acrylonitrile	8.249	53	254082	276.12	ug/L	99
45) vinyl acetate	8.814	86	20719	53.20	ug/L	97
46) ethyl acetate	9.535	45	22175	57.77	ug/L	97
47) 2,2-dichloropropane	9.577	77	103268	33.80	ug/L	99
48) cis-1,2-dichloroethene	9.577	96	123937	54.75	ug/L	99
49) methyl acrylate	9.619	85	17669	54.90	ug/L	97
50) propionitrile	9.655	54	198427	544.40	ug/L	97
51) bromochloromethane	9.891	128	58760	55.29	ug/L	98
52) tetrahydrofuran	9.922	42	52457	57.34	ug/L	99
53) chloroform	9.938	83	200371	57.29	ug/L	97
54) tert-butyl Formate	9.959	59	108513	55.65	ug/L	99
55) iso-butyl alcohol	10.351	43	69236	557.74	ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204154.D
Acq On : 15 Mar 2016 7:43 pm
Operator : NicoleH1
Sample : cc9367-50
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 16 13:19:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
58)	freon 113	7.162	151	69667	54.86	ug/L	99
59)	methacrylonitrile	9.828	41	94170	58.23	ug/L	97
60)	1,1,1-trichloroethane	10.189	97	167973	57.07	ug/L	99
62)	tert-amyl methyl ether	10.628	87	76230	55.74	ug/L	92
63)	iso-octane	10.591	57	389872	51.12	ug/L	99
66)	epichlorohydrin	12.275	57	59771	243.30	ug/L	99
67)	n-butyl alcohol	11.098	56	199664	2622.47	ug/L	98
68)	Cyclohexane	10.251	84	172288	47.31	ug/L	91
69)	carbon tetrachloride	10.382	117	154034	54.24	ug/L	99
70)	1,1-dichloropropene	10.356	75	162345	53.59	ug/L	99
71)	hexane	8.547	57	139045	47.77	ug/L	100
72)	benzene	10.623	78	479877	52.21	ug/L	99
73)	heptane	10.753	57	77369	41.90	ug/L	97
74)	isopropyl acetate	10.518	43	268940	52.58	ug/L	100
75)	1,2-dichloroethane	10.649	62	163862	53.33	ug/L	99
78)	trichloroethene	11.328	95	118287	52.92	ug/L	98
79)	methylcyclohexane	11.543	83	190821	54.24	ug/L	100
80)	2-nitropropane	12.128	41	54580	55.93	ug/L	99
81)	2-chloroethyl vinyl ether	12.128	63	386185	273.74	ug/L	99
82)	methyl methacrylate	11.579	100	30319	53.48	ug/L	93
83)	1,2-dichloropropane	11.605	63	137104	52.73	ug/L	100
84)	propyl acetate	11.616	73	22856	53.78	ug/L	96
85)	dibromomethane	11.778	93	71528	54.03	ug/L	100
86)	bromodichloromethane	11.898	83	163010	54.61	ug/L	100
87)	cis-1,3-dichloropropene	12.364	75	195905	48.99	ug/L	98
89)	4-methyl-2-pentanone	12.458	58	53533	53.77	ug/L	98
90)	toluene	12.740	92	296939	53.52	ug/L	99
91)	3-methyl-1-butanol	12.468	55	127092	1043.86	ug/L	98
92)	trans-1,3-dichloropropene	12.954	75	179235	50.47	ug/L	99
93)	ethyl methacrylate	12.923	69	165499	54.23	ug/L	100
94)	1,1,2-trichloroethane	13.195	83	92909	53.22	ug/L	100
95)	2-hexanone	13.357	58	54386	52.00	ug/L	99
97)	cyclohexanone	15.558	55	47142	300.26	ug/L	98
98)	tetrachloroethene	13.362	164	103848	53.87	ug/L	98
99)	1,3-dichloropropane	13.388	76	189200	52.34	ug/L	99
100)	butyl acetate	13.420	56	90531	54.48	ug/L	98
101)	dibromochloromethane	13.681	129	127277	53.57	ug/L	99
102)	1,2-dibromoethane	13.848	107	107879	52.20	ug/L	96
103)	3,3-dimethyl-1-Butanol	13.540	57	135310	494.81	ug/L	99
104)	n-butyl ether	14.199	57	592092	51.88	ug/L	99
105)	chlorobenzene	14.340	112	327133	52.82	ug/L	100
106)	1,1,1,2-tetrachloroethane	14.402	131	121914	52.63	ug/L	96
107)	ethylbenzene	14.387	91	572265	52.73	ug/L	99
108)	m,p-xylene	14.502	106	435350	107.22	ug/L	98
109)	o-xylene	14.967	106	215539	54.01	ug/L	99
110)	styrene	14.978	104	369058	54.91	ug/L	99
111)	bromoform	15.296	173	93336	53.04	ug/L	99
113)	isopropylbenzene	15.338	105	577937	54.59	ug/L	99
115)	bromobenzene	15.804	156	151410	52.31	ug/L	99
116)	1,1,2,2-tetrachloroethane	15.699	83	154161	53.68	ug/L	100
117)	trans-1,4-dichloro-2-b...	15.741	53	40241	43.89	ug/L	96
118)	1,2,3-trichloropropane	15.783	110	38128	53.54	ug/L	96
119)	n-propylbenzene	15.793	91	686907	53.83	ug/L	99
120)	2-chlorotoluene	15.971	126	140158	52.43	ug/L	97
121)	4-chlorotoluene	16.081	91	420343	51.45	ug/L	99
123)	1,3,5-trimethylbenzene	15.955	105	485920	54.39	ug/L	100
124)	tert-butylbenzene	16.347	119	423836	54.85	ug/L	99
125)	pentachloroethane	16.462	167	96847	53.93	ug/L	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204154.D
Acq On : 15 Mar 2016 7:43 pm
Operator : NicoleH1
Sample : cc9367-50
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 16 13:19:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
126) 1,2,4-trimethylbenzene	16.400	105	497252	53.87 ug/L	99
128) sec-butylbenzene	16.588	105	636118	55.02 ug/L	100
129) 1,3-dichlorobenzene	16.818	146	289773	52.01 ug/L	100
130) p-isopropyltoluene	16.713	119	530962	54.32 ug/L	100
131) 1,4-dichlorobenzene	16.907	146	288649	50.73 ug/L	99
132) benzyl chloride	17.037	91	124358	22.42 ug/L	98
133) 1,2-dichlorobenzene	17.346	146	276072	53.03 ug/L	99
135) n-butylbenzene	17.173	92	273949	54.52 ug/L	100
137) 1,2-dibromo-3-chloropr...	18.208	157	29500	56.48 ug/L	98
138) 1,3,5-trichlorobenzene	18.397	180	219010	52.85 ug/L	100
139) 1,2,4-trichlorobenzene	19.134	180	180048	54.83 ug/L	99
140) hexachlorobutadiene	19.244	225	104060	53.08 ug/L	97
141) naphthalene	19.458	128	339775	53.88 ug/L	100
143) 1,2,3-trichlorobenzene	19.735	180	147423	55.73 ug/L	99
144) hexachloroethane	17.628	201	100233	54.71 ug/L	100

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

7.7.25

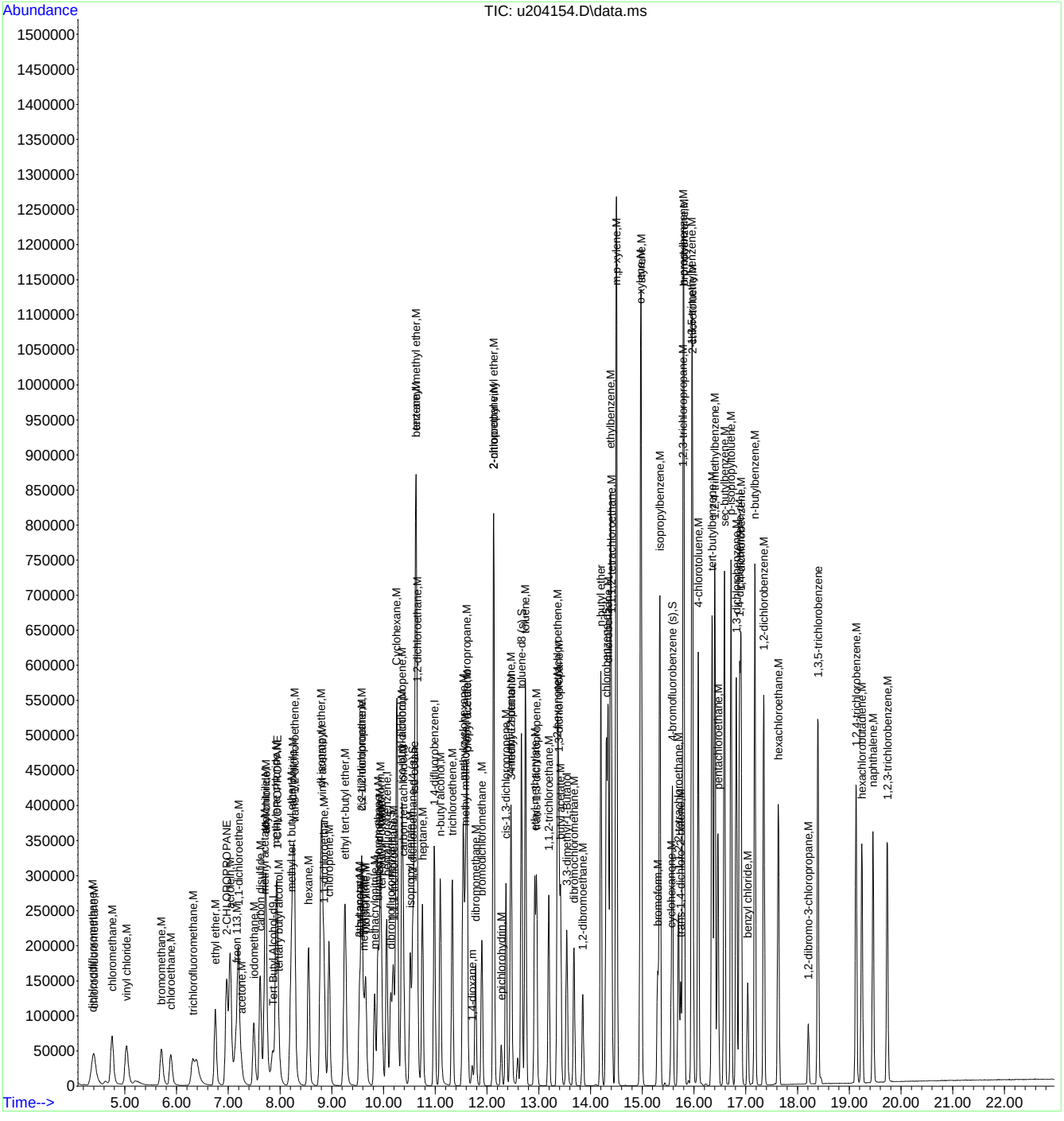
7

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U\vu9383\
Data File : u204154.D
Acq On : 15 Mar 2016 7:43 pm
Operator : NicoleH1
Sample : cc9367-50
Misc : ms99574,vu9383,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 16 13:19:13 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204165.D
Acq On : 16 Mar 2016 8:56 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 14:43:12 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.858	65	112875	500.00	ug/L	0.00
5) pentafluorobenzene	10.059	168	217356	50.00	ug/L	0.00
64) 1,4-difluorobenzene	10.979	114	317546	50.00	ug/L	0.00
96) chlorobenzene-d5	14.304	117	295349	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	16.877	152	162758	50.00	ug/L	0.00

System Monitoring Compounds						
56) dibromofluoromethane (s)	10.132	113	94402	53.47	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.94%			
57) 1,2-dichloroethane-d4 (s)	10.556	65	116669	54.26	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.52%			
88) toluene-d8 (s)	12.663	98	380704	49.92	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.84%			
114) 4-bromofluorobenzene (s)	15.580	95	149239	50.11	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.22%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	7.979	59	26224	104.26	ug/L	89
4) 1,4-dioxane	11.717	88	10294	515.06	ug/L	99
11) chlorodifluoromethane	4.413	51	56502	23.76	ug/L	98
12) dichlorodifluoromethane	4.392	85	42721	20.26	ug/L	96
15) chloromethane	4.748	50	68662	18.58	ug/L	98
16) vinyl chloride	5.025	62	60123	19.31	ug/L	97
18) bromomethane	5.720	94	31500	20.98	ug/L	95
19) chloroethane	5.898	64	33808	20.22	ug/L	97
20) trichlorofluoromethane	6.353	101	61431	21.93	ug/L	97
23) ethyl ether	6.745	74	25473	21.53	ug/L	96
24) 2-CHLOROPROPANE	6.970	43	106286	23.61	ug/L	99
27) acrolein	7.037	56	109665	214.83	ug/L	97
28) 1,1-dichloroethene	7.194	96	39887	23.97	ug/L	99
29) acetone	7.257	58	3976	21.85	ug/L	92
30) allyl chloride	7.722	76	29945	22.29	ug/L	95
31) acetonitrile	7.717	40	53030	222.36	ug/L	97
32) iodomethane	7.492	142	72346	22.43	ug/L	100
33) carbon disulfide	7.618	76	148844	23.32	ug/L	99
34) 1-CHLOROPROPANE	7.947	63	4336	22.62	ug/L	97
35) methylene chloride	7.926	84	46635	22.01	ug/L	98
36) methyl acetate	7.696	43	44405	23.41	ug/L	98
37) methyl tert butyl ether	8.219	73	133692	22.44	ug/L	100
38) trans-1,2-dichloroethene	8.282	96	43989	22.46	ug/L	98
39) di-isopropyl ether	8.794	45	187117	22.73	ug/L	85
40) ethyl tert-butyl ether	9.254	59	152347	21.70	ug/L	99
41) 2-butanone	9.536	72	5491	22.11	ug/L	97
42) 1,1-dichloroethane	8.846	63	91475	23.34	ug/L	99
43) chloroprene	8.946	53	74226	23.90	ug/L	98
44) acrylonitrile	8.250	53	96000	109.33	ug/L	99
45) vinyl acetate	8.815	86	7579	20.39	ug/L	96
46) ethyl acetate	9.531	45	7431	20.29	ug/L	96
47) 2,2-dichloropropane	9.578	77	72274	24.79	ug/L	99
48) cis-1,2-dichloroethene	9.578	96	48590	22.49	ug/L	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204165.D
Acq On : 16 Mar 2016 8:56 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 14:43:12 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) methyl acrylate	9.620	85	6375	20.76	ug/L		94
50) propionitrile	9.651	54	72520	208.51	ug/L		99
51) bromochloromethane	9.892	128	22357	22.04	ug/L		97
52) tetrahydrofuran	9.923	42	19802	22.69	ug/L		97
53) chloroform	9.934	83	77211	23.14	ug/L		97
54) tert-butyl Formate	9.960	59	49255	26.47	ug/L		98
55) iso-butyl alcohol	10.352	43	24992	210.99	ug/L		94
58) freon 113	7.168	151	28843	23.80	ug/L		98
59) methacrylonitrile	9.824	41	34720	22.50	ug/L		97
60) 1,1,1-trichloroethane	10.190	97	65082	23.17	ug/L		99
62) tert-amyl methyl ether	10.624	87	28499	21.84	ug/L		94
63) iso-octane	10.587	57	179704	24.69	ug/L		99
66) epichlorohydrin	12.271	57	24515	104.72	ug/L		98
67) n-butyl alcohol	11.094	56	72841	1003.96	ug/L		99
68) Cyclohexane	10.247	84	67311	19.40	ug/L		96
69) carbon tetrachloride	10.383	117	60051	22.19	ug/L		98
70) 1,1-dichloropropene	10.352	75	63494	21.99	ug/L		97
71) hexane	8.548	57	70186	25.30	ug/L		99
72) benzene	10.624	78	186632	21.31	ug/L		100
73) heptane	10.749	57	40339	22.92	ug/L		97
74) isopropyl acetate	10.514	43	99207	20.36	ug/L		99
75) 1,2-dichloroethane	10.645	62	62783	21.44	ug/L		99
78) trichloroethene	11.324	95	45080	21.16	ug/L		97
79) methylcyclohexane	11.539	83	74463	22.21	ug/L		98
80) 2-nitropropane	12.124	41	20162	21.68	ug/L		100
81) 2-chloroethyl vinyl ether	12.124	63	141007	104.88	ug/L		97
82) methyl methacrylate	11.581	100	10803	19.99	ug/L	#	81
83) 1,2-dichloropropane	11.607	63	53155	21.45	ug/L		99
84) propyl acetate	11.612	73	8595	21.22	ug/L		83
85) dibromomethane	11.774	93	26967	21.37	ug/L		98
86) bromodichloromethane	11.894	83	61454	21.61	ug/L		99
87) cis-1,3-dichloropropene	12.365	75	80684	21.17	ug/L		99
89) 4-methyl-2-pentanone	12.454	58	18921	19.94	ug/L		97
90) toluene	12.741	92	112969	21.36	ug/L		98
91) 3-methyl-1-butanol	12.464	55	46856	403.85	ug/L		99
92) trans-1,3-dichloropropene	12.956	75	73069	21.59	ug/L		98
93) ethyl methacrylate	12.919	69	58557	20.13	ug/L		100
94) 1,1,2-trichloroethane	13.191	83	34909	20.98	ug/L		97
95) 2-hexanone	13.358	58	18594	18.66	ug/L		98
97) cyclohexanone	15.559	55	17631	116.73	ug/L		97
98) tetrachloroethene	13.363	164	39618	21.36	ug/L		98
99) 1,3-dichloropropane	13.389	76	70467	20.26	ug/L		99
100) butyl acetate	13.421	56	33125	20.72	ug/L		98
101) dibromochloromethane	13.677	129	47404	20.74	ug/L		99
102) 1,2-dibromoethane	13.850	107	39627	19.93	ug/L		98
103) 3,3-dimethyl-1-Butanol	13.541	57	47086	178.98	ug/L		99
104) n-butyl ether	14.200	57	223592	20.37	ug/L		99
105) chlorobenzene	14.336	112	124613	20.91	ug/L		99
106) 1,1,1,2-tetrachloroethane	14.404	131	46193	20.73	ug/L		98
107) ethylbenzene	14.383	91	219719	21.04	ug/L		98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204165.D
Acq On : 16 Mar 2016 8:56 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 14:43:12 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
108) m,p-xylene	14.498	106	166716	42.68 ug/L	100
109) o-xylene	14.963	106	83240	21.68 ug/L	95
110) styrene	14.979	104	139636	21.59 ug/L	98
111) bromoform	15.298	173	33972	20.07 ug/L	99
113) isopropylbenzene	15.340	105	221095	21.79 ug/L	99
115) bromobenzene	15.805	156	57223	20.63 ug/L	99
116) 1,1,2,2-tetrachloroethane	15.700	83	56177	20.41 ug/L	99
117) trans-1,4-dichloro-2-b...	15.742	53	17935	20.41 ug/L	98
118) 1,2,3-trichloropropane	15.789	110	14137	20.71 ug/L	96
119) n-propylbenzene	15.794	91	266367	21.78 ug/L	99
120) 2-chlorotoluene	15.972	126	54114	21.12 ug/L	98
121) 4-chlorotoluene	16.082	91	162049	20.70 ug/L	99
123) 1,3,5-trimethylbenzene	15.956	105	186360	21.77 ug/L	100
124) tert-butylbenzene	16.349	119	162479	21.94 ug/L	99
125) pentachloroethane	16.458	167	37046	21.53 ug/L	97
126) 1,2,4-trimethylbenzene	16.401	105	191394	21.64 ug/L	99
128) sec-butylbenzene	16.589	105	244347	22.05 ug/L	99
129) 1,3-dichlorobenzene	16.819	146	110765	20.75 ug/L	99
130) p-isopropyltoluene	16.714	119	205635	21.95 ug/L	100
131) 1,4-dichlorobenzene	16.908	146	110675	20.30 ug/L	100
132) benzyl chloride	17.039	91	114305	21.51 ug/L	99
133) 1,2-dichlorobenzene	17.347	146	104857	21.02 ug/L	99
135) n-butylbenzene	17.175	92	108391	22.51 ug/L	99
137) 1,2-dibromo-3-chloropr...	18.210	157	10362	20.70 ug/L	97
138) 1,3,5-trichlorobenzene	18.393	180	82772	20.84 ug/L	99
139) 1,2,4-trichlorobenzene	19.130	180	66059	20.99 ug/L	99
140) hexachlorobutadiene	19.245	225	41686	22.19 ug/L	99
141) naphthalene	19.459	128	117762	19.48 ug/L	99
143) 1,2,3-trichlorobenzene	19.731	180	52827	20.84 ug/L	99
144) hexachloroethane	17.629	201	37881	21.57 ug/L	99

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

7.7.26

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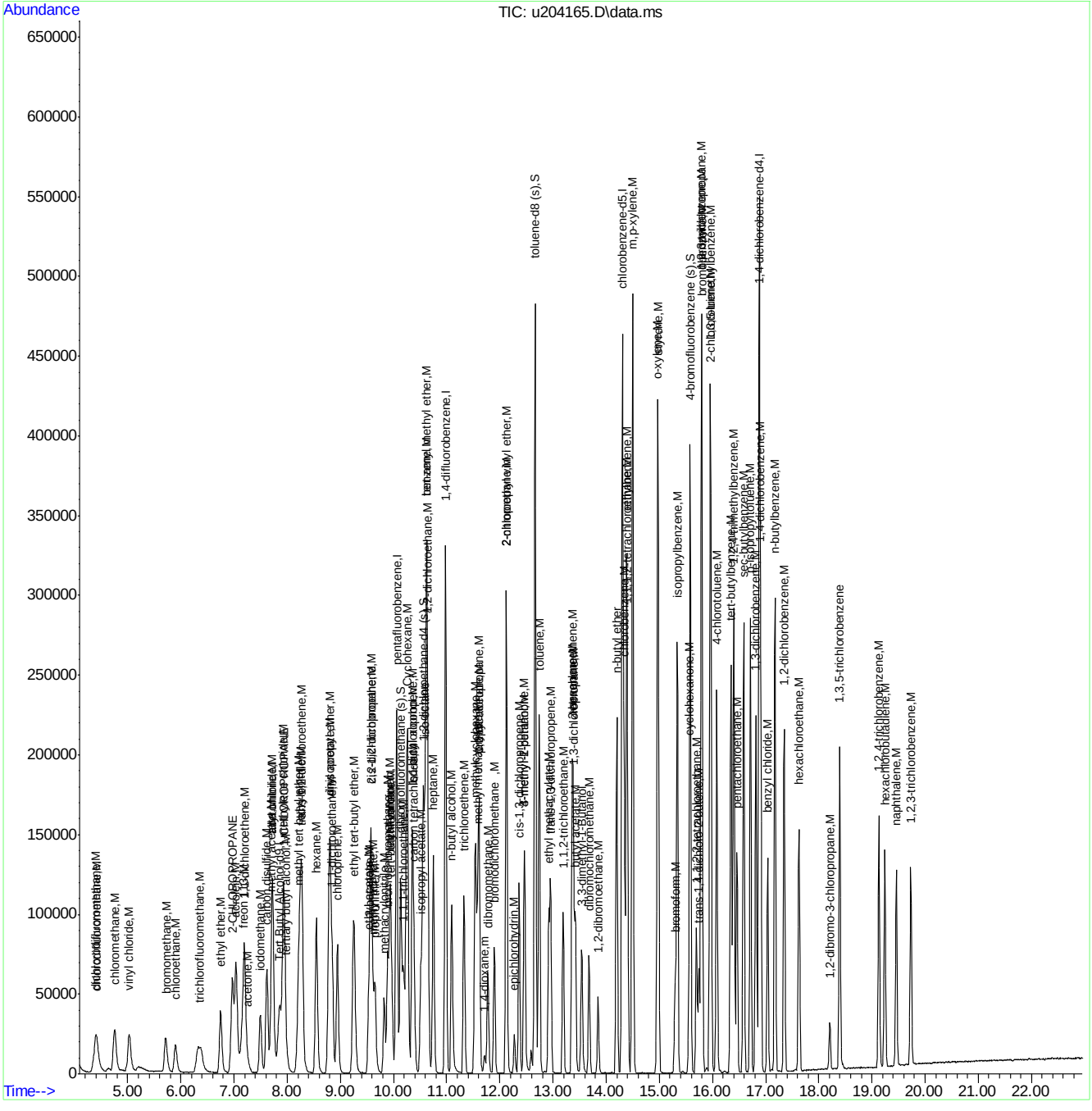
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : u204165.D
Acq On : 16 Mar 2016 8:56 am
Operator : NicoleH1
Sample : cc9367-20
Misc : ms99610,vu9384,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 14:43:12 2016
Quant Method : C:\msdchem\1\METHODS\MU9367.M
Quant Title : SW-846 8260C, ZB624 60m x 250um x 1.40um
QLast Update : Mon Feb 29 09:33:35 2016
Response via : Initial Calibration



ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA8353

Print Analyst Name: Nicole Horvath

Analyst Signature: [signature]

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method VA8353

Date: 3/4/16

pH PPPP 216814 6/15/17

Standard Data

Lot #	Description	Conc.
VOIS 2254	108.36 Ext A	100ppm
VOIS 2284	107.17 Ext B	100ppm
VOIS 2258	217 Ext C	100ppm
VOIS 2258	141.3 Acrolein	1000ppm
VOIS 2258	14.2 Hexane	100ppm

Standard Data

Lot #	Description	Conc.
VOIS 2258	109.72 Std A	100ppm
VOIS 2284	130.61 Std B	100ppm
VOIS 2284	292 Std C	100ppm
VOIS 2258	116.40 Acrolein	1000ppm
VOIS 2284	92 115	250/2000ppm

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:** 3/8/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	A 220638	BFB		A Q			5		1x				ok		
	220639	IC8353-0.2	8260 initial	A Q			5		1x				NG	0.2ul Std ABC, ACR → 1000mL	
	220640	IC8353-0.5	↓	A Q			5		1x				NG	0.5ul Std ABC, ACR → 1000mL	
	220641	IC8353-1	↓	A Q			5		1x				ok	1ul Std ABC, 100ul ACR → 100mL	
	220642	IC8353-2	↓	A Q			5		1x				ok	2ul Std ABC, ~~100ul~~ ACR 200 → 100mL	
	220643	IC8353-5	↓	A Q			5		1x				ok	5ul Std ABC, ACR → 100mL	
	220644	IC8358-10	↓	A Q			5		1x				ok	10ul Std ABC, ACR → 100mL	
	220645	IC8358-0.5	↓	A Q			5		1x				ok	5ul Std ABC ACR → 1000mL	
	220646	IC8358-0.1	↓	A Q			5		1x				ok	2ul Std ABC ACR → 1000mL	
	220647	IC8358-20	↓	A Q			5		1x				ok	20ul Std ABC, ACR → 100mL	
	220648	IC8358-50	↓	A Q			5		1x				ok	50ul Std ABC ACR → 100mL	
	220649	IC8353-100		A Q			5		1x				ok	100ul Std ABC, ~~ACR~~ → 100mL	
	220650	IC8353-200		A Q			5		1x				ok	200ul Std ABC ~~ACR~~ → 100mL	
	220651	IB		A Q			5		1x				[illegible]		
	220652	IB					5		1x				[illegible]	CXT	
	220653	ICV8353-50		A Q			5		1x				ok	250ul ~~Std~~ ABC, ACR Hex → 100mL	
														3/8/2016	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VA8370

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method MA8353

Date: 3/17/16

pH paper 216814 exp 5/16/17

Standard Data

Lot #	Description	Conc.
W162284	31.24 StdA	100ppm
W162284	37.39 StdB	100ppm
W162284	38.5 StdC	100ppm
W162284	30.7 Acrolein	100ppm
W162284	41.9 Hexane	100ppm

Standard Data

Lot #	Description	Conc.
W162284	33.3 StdA	100ppm
W162284	37.30 StdB	100ppm
W162284	46.4 StdC	100ppm
W162284	32.4 Acrolein	100ppm
W162284	52 IS	200ppm

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:** 3/18/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	A 220998	BFB											ok	8:01AM	
	220999	CC8353-20									✓	✓	ok	10ul Std ABC, ACR → 50ml	
	220 ~~000~~ 1 NR 3/17	IB									✓	✓	clip		
	221001	MB								✓	✓	✓	ok		
	221002	BS									✓	✓	ok	25ul Ext ABC, ACR → 50ml	
	221003	IB									✓	✓	clip		
R	221004	JC16038-9	99610 TCL20	W	8		5		1X				Not needed		✓
R	221005	JC16038-5	✓	W	7		5		1X		✓	✓	ok		✓
E	221006	JC16038-4	✓	W	6		25/50		20X		✓	✓	ok		✓
	221007	JC16250-13	~~A9610~~ ~~TCL20~~	W	1		12.5/50		4X	✓	✓	✓	ok	~~99716~~ NR 3/17 99717 TCL20+TBA	✓
	221008	JC16250-14	99717 BTXMT	W	1		2/50		25X		✓	✓	ok/FD	250X	✓
E	221009	JC16250-14	✓	W	1		0.2/50		250X		✓	✓	ok		✓
	221010	JC16250-11	✓	W	2		5/50		10X		✓	✓	ok		✓
	221011	JC16250-11	✓	W	2		0.5/50		100X		✓	✓	ok		✓
	221012	JC16250-14MS	✓	W	1		2/50		25X		✓	✓	ok	25ul Ext ABC, ACR → 50ml	✓
	221013	JC16250-14MSD	✓	W	1		2/50		25X		✓	✓	ok		
	221014	IB									✓	✓	clip		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VA8370

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Columns: ZB624 (60mx0.25mmx1.4um)

Method V8260C

Initial Cal. Method MA8353

Date: 3/17/16

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	See P6	
	B	

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: 3/18/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	A 221015	JC16232-6	99716 TC120+	GW	1		5		1X	✓	✓	✓	ok		✓
	221016	JC16232-7	✓	GW	1		5		1X	✓	✓	✓	ok		✓
	221017	JC16232-8	✓	GW	1		5		1X	✓	✓	✓	ok		✓
	221018	JC16250-16	99717 BTXMT	GW	1		5		1X	✓	✓	✓	ok		✓
	221019	JC16250-20	✓	GW	1		5		1X		✓	✓	ok		✓
	221020	JC16250-21	✓	GW	2		5		1X		✓	✓	ok	7:31 pm	✓
	221021	BFB2											ok	8:01pm	
	221022	CC8353-50									✓	✓	ok	25ul Std ABC, ACR 50ml	
	221023	IB									✓	✓	clip.		
	221024	MB2								✓	✓	✓	ok		
	221025	JC16303-4	99743 NPTCL1H+	WB	1		5		1X	✓	✓	✓	ok		✓
	221026	JC16303-1	✓	GW	1		5		1X	✓	✓	✓	ok		✓ Tn
	221027	JC16303-2	✓	GW	1		5		1X	✓	✓	✓	ok		✓
	221028	JC16303-3	✓	GW	1		5		1X	✓	✓	✓	ok		✓
	221029	JC16250-15	99717 BTXMT	GW	1		5		1X		✓	✓	ok		✓
	221031	JC16250-15	✓	GW	1		5/50		10X		✓	✓	Not Heel		✓
	221032	JC16250-18	✓	GW	1		1/50		50X		✓	✓	ok		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VA8370

Print Analyst Name: Nicole Horvath

Analyst Signature: [signature]

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method MA8353

Date: 3/17/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Pg 15	

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:** 3/18/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	221033	JC16250-18	9971 BTXMT	W	1		0.01/50		500X		✓	✓	ok		✓
	221034	JC16250-19	SL1+	S	1		25/50		20X		✓	✓	NA	RR10X 600 diluted do not report EPA TCL compounds	✓
	221035	JC16250-12	BTXMT	W			5		1X		✓	✓	ok		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VU9367

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method MU9367

Date: 2/26/16

Standard Data

Lot #	Description	Conc.
V015258	108.77 Ext A	100ppm
V015284	07.4 Ext B	100ppm
V015284	03.4 Ext C	100ppm
V015258	141.5 Acrolein	1000ppm
V015258	139.4 Hexane	1000ppm

Standard Data

Lot #	Description	Conc.
V01522	109.43 Std A	100ppm
V01522	130.36 Std B	100ppm
V01522	146.5 Std C	100ppm
V01522	116.2 Acrolein	1000ppm
V015284	02 1/5	250/1250ppm

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:** 2/29/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	~~Secondary~~ dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	4 203694	BFB					5		1x				ok	10:26AM	
	203695	IC9367-0.2	8260 initial	AQ			5		1x		✓		ok	2ul Std ABC ACR ⇒ 1000mL	
	203696	IC9367-0.5	✓	AQ			5		1x		✓		ok	5ul Std ABC, ACR ⇒ 1000mL	
	203697	IC9367-1	✓	AQ			5		1x		✓		ok	1ul Std ABC, 100ul ACR ⇒ 100mL	
	203698	IC9367-2	✓	AQ			5		1x		✓		ok	2ul Std ABC, 200ul ACR ⇒ ~~200~~ 100mL	
	203699	IC9367-5	✓	AQ			5		1x		✓		ok	5ul Std ABC, ACR ⇒ 100mL	
	203700	IC9367-10	✓	AQ			5		1x		✓		ok	10 ul Std ABC ACR ⇒ 100mL	
	203701	IC9367-20	✓	AQ			5		1x		✓		ok	20 Std ABC, ACR ⇒ 100mL	
	203702	IC9367-50	✓	AQ			5		1x		✓		ok	50 Std ABC, ACR ⇒ 100mL	
	203703	IC9367-100	✓	AQ			5		1x		✓		ok	100 Std ABC ⇒ 100mL	
	203704	IC9367-200	✓	AQ			5		1x		✓		ok	200 Std ABC ⇒ 100mL	
	203705	IB					5		1x						
	203706	IB					5		1x						
	203707	ICV9367-50	✓	AQ			5		1x		✓		ok	⇒ 50 mL 25ul ext ABC Also hex	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

SGS ACCUTEST JC16038

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VU9383

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method MU9367

Date: 3/15/16

Standard Data

Lot #	Description	Conc.
V0162284	31.9 ExtA	100ppm
V0162284	07.34 ExtB	100ppm
V0162284	38.3 ExtC	100ppm
V0152258	141.9 Acrolein	1000ppm
V0162284	14.7 Hexane	100ppm

Standard Data

Lot #	Description	Conc.
V0162284	33.3 StdA	100ppm
V0162284	37.30 StdB	100ppm
V0162284	43.5 StdC	100ppm
V0162284	32.4 Acrolein	1000ppm
V0162283	30 IS	250/2500ppm

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: HA **Date:** 3/16/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	U 204131	BFB											OC	8:20 AM	
	204132	CC9367-20									✓	✓	OC	10ul Std ABC, ACR ⇒50mL 47.58	
	204133	IB									✓	✓			
	204134	MB									✓	✓	OC		
	204135	BS									✓	✓	OC	25ul Ext ABC, ACR HCX⇒50mL	
	204136	IB									✓	✓			
	204137	JC16038-5	99610 TCL20	GW	8		5		1X		✓	✓	RR	1X Freon113↑inCC	✓
	204138	JC16038-1	↓	GW	6		5		1X		✓	✓	RR	1X F113↑inCC	✓
	204139	JC16038-2	↓	GW	7		5		1X		✓	✓	OC		✓
	204140	JC16101-1 ~~JC16038-3~~	99593 NJPTCLH	GW	74	3/15	5		1X		✓	✓	OC		✓
	204141	JC16101-2 ~~JC16038-4~~	↓	GW	74	3	5		1X		✓	✓	OC		✓
	204142	JC16100-3	99593 NJPTCLH	GW	6		5/50		10X		✓	✓	RR	2X	5
R	204143	JC16100-2	99593 NJPTCLH	GW	7		10/50		5X		✓	✓	OC		✓
	204144	JC16101-1MS	↓	GW	73		5		1X		✓	✓	OC		✓
	204145	IB					5		1X		✓	✓			
	204146	JC16101-2DUP MB	↓	GW	34		5		1X		✓	✓	OC		✓
	204147	JC16038-3 ~~JC16101-1~~	~~99593 NJPTCLH~~	GW	47		5		1X		✓	✓	OC	99610 TCL20	✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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7.8.4

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ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VU9383

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Columns: ZB624(60mx0.25mmx1.4um)

Method V8260C

Initial Cal. Method CCU9367

Date: 3/15/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Pg 103	

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: HO **Date:** 3/16/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	U 204148	JC16038-4 ~~JC16101-2~~	~~99593 NPTCL1~~	GW	37		5		1X		✓	✓	FD	99610 TCL20 20X/200X	✓
	204149	JC16101-3	✓	GW	3		5		1X		✓	✓	R	C10	✓
	204150	JC16017-9	99574 TCL20+	GW	1		5		1X		✓	✓	~~CC~~ RR	C10. RL3UP	✓
	204151	JC16017-10	✓	GW	1		5		1X		✓	✓	CC		✓
	204152	JC16017-11	✓	GW	4		5		1X		✓	✓	CC	6:45pm	✓
	204153	BFB2					5		1X				CC	7:14pm	
	204154	CC9367-50					5		1X		✓	✓	CC	25ul Std ABC, AIR ≥50mL 29m	
	204155	IB					5		1X		✓	✓			
	204156	MB2					5		1X		✓	✓	CC		
	204157	JC16088-1	99609 TCL20	SFB	3		5		1X		✓	✓	CC		✓
	204158	JC16088-2	✓	SFB	3		5		1X		✓	✓	CC		✓
	204159	JC16038-7	99610 TCL20	WTB	4		5		1X		✓	✓	CC		✓
	204160	JC16038-9	✓	WTB	9		5		1X		✓	✓	CC	Checked client ID	✓
	204161	JC16038-6	✓	GW	5		5		1X		✓	✓	CC		✓
	204162	JC16038-8	✓	GW	9		5		1X		✓	✓	CC		✓
	204163	JC16038-10	✓	GW	5		5		1X		✓	✓	CC	12:07AM	✓
														NP 3/15	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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7.8.4

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VU9384

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Columns: ZB624(60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method MU9367

Date: 3/16/18

pH paper 216315 exp 6/15/18

Standard Data

Lot #	Description	Conc.
N0162284	31.23 Ext A	100ppm
N0162284	07.33 Ext B	100ppm
N0162284	38.6 Ext C	100ppm
N0162284	50.3 Acrolein	100ppm
N0162284	41.8 Hexane	100ppm

Standard Data

Lot #	Description	Conc.
N0162284	33.3 Std A	100ppm
N0162284	37.30 Std B	100ppm
N0162284	43.5 Std C	100ppm
N0162284	37.4 Acrolein	100ppm
N0162284	30 IS	250/125ppm

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: HW Date: 3/17/18

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	U 204164	BFB											OC	8:21AM	
	204165	EC9367-20											OC	10ul Std ABC, ACR ⇒50ml	
	204166	IB									✓	✓			
	204167	MB									✓	✓	OC		
	204168	BS									✓	✓	OC	25ul Ext ABC, ACR Hex⇒50ml	
	204169	IB									✓	✓			
R	204170	JC16101-3	99593 NJPTCL11+	GW	4		5		1X		✓	✓	OC		✓
R	204171	JC16038-1	99610 TCL20	GW	5		5		1X		✓	✓	OC		✓
R	204172	JC16038-5	✓	GW	7		5		1X					Not loaded	
	204173	JC16065-1	99613 TCL11+TBA	GW	2		5		1X		✓	✓	OC		✓
	204174	JC16065-2	✓	GW	2		5		1X		✓	✓	OC		✓
	204175	JC16065-3	✓	GW	1		5		1X		✓	✓	OC		✓
R	204176	JC15301-40	99184 TCL11+	GW	9		5		1X		✓	✓	OC		✓
R	204177	JC15301-37	✓	GW	12		10/50		5X		✓	✓	OC	dilution due to foaming	3
R	204178	JC16100-3	99593 NJPTCL11+	GW	7		25/50		2X		✓	✓	OC		5
	204179	JC16065-1MS	99613 TCL11+TBA	GW	1		5		1X		✓	✓	OC	25ul Ext ABC, ACR Hex⇒50ml	✓
	204180	IB					5		1X		✓	✓			✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VU9384

Print Analyst Name: Nicole Horvath

Analyst Signature: Nicole H

Date: 3/16/16

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method MU9367

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See P6 207	

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: HO Date: 3/17/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
U	204181	JC16065-2Dup	9963 TCL1HTBA	CW	1		5		1X		✓	✓	OK		✓
	204182	JC16065-6	↓	SB	1		5		1X		✓	✓	OK		✓
	204183	JC16065-7	↓	SB	1		5		1X		✓	✓	OK		✓
	204184	JC16065-4	↓	CD	1		5		1X		✓	✓	OK		✓
	204185	JC16065-5	↓	CD	1		5		1X		✓	✓	OK		✓
	204186	JC16249-1	9973 TCL20t	SW	3		5		1X		✓	✓	OK	6:46PM	✓
	204187 (90)	BFB2					5		1X				OK	10:05PM	
	204188 (91)	CC9367-50					5		1X		✓	✓	OK	25ul Std ABC, ACR ⇒50ml	
	204189 (92)	IB					5		1X		✓	✓			
	204190 (93)	MB2					5		1X		✓	✓	OK		
	204191 (94)	JC16249-2	9973 TCL20t	SW	4		5		1X		✓	✓	OK		✓
	204192 (95)	JC16249-3	↓	SW	4		5		1X		✓	✓	OK		✓
	204193 (96)	JC16249-4	↓	SW	4		5		1X		✓	✓	OK	1:17AM	✓
	↑ AU TL 160316														
														~~NP 3/4~~	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9
Rev. Date: 2/14/2007

GC/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: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MB1	F155573.D	1	03/15/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

8.1.1

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CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MB1	F155573.D	1	03/15/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.72	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MB1	F155573.D	1	03/15/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	14-88%
4165-62-2	Phenol-d5	35%	10-110%
118-79-6	2,4,6-Tribromophenol	86%	39-149%
4165-60-0	Nitrobenzene-d5	87%	32-128%
321-60-8	2-Fluorobiphenyl	77%	35-119%
1718-51-0	Terphenyl-d14	74%	10-126%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MB1	P103370.D	1	03/16/16	LK	03/15/16	OP92078	EP4542

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.93	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.87	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.82	ug/l	
	3&4-Methylphenol	ND	2.0	0.67	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.4	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.31	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.5	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.29	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.24	ug/l	
98-86-2	Acetophenone	ND	2.0	0.28	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
1912-24-9	Atrazine	ND	2.0	0.42	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.34	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.32	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.33	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.32	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.41	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.37	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.37	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.27	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.26	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.23	ug/l	
86-74-8	Carbazole	ND	1.0	0.29	ug/l	
105-60-2	Caprolactam	ND	2.0	0.43	ug/l	
218-01-9	Chrysene	ND	1.0	0.35	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.34	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MB1	P103370.D	1	03/16/16	LK	03/15/16	OP92078	EP4542

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.28	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.27	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.26	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.32	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.53	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.72	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.37	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.79	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.29	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.24	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.31	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.77	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.23	ug/l	
86-73-7	Fluorene	ND	1.0	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.42	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.36	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.29	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.38	ug/l	
78-59-1	Isophorone	ND	2.0	0.29	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.29	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.21	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.24	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.28	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.46	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.31	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.29	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.23	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.36	ug/l	

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MB1	P103370.D	1	03/16/16	LK	03/15/16	OP92078	EP4542

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	60%	14-88%
4165-62-2	Phenol-d5	43%	10-110%
118-79-6	2,4,6-Tribromophenol	95%	39-149%
4165-60-0	Nitrobenzene-d5	98%	32-128%
321-60-8	2-Fluorobiphenyl	92%	35-119%
1718-51-0	Terphenyl-d14	89%	10-126%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078A-MB1	4P15632.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	ND	0.10	0.013	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.053	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	89%	24-125%
321-60-8	2-Fluorobiphenyl	82%	19-127%
1718-51-0	Terphenyl-d14	88%	10-119%

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-BS1	F155574.D	1	03/15/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	36.7	73	48-106
59-50-7	4-Chloro-3-methyl phenol	50	34.0	68	49-113
120-83-2	2,4-Dichlorophenol	50	38.3	77	49-111
105-67-9	2,4-Dimethylphenol	50	40.4	81	42-117
51-28-5	2,4-Dinitrophenol	100	108	108	37-132
534-52-1	4,6-Dinitro-o-cresol	50	49.0	98	49-119
95-48-7	2-Methylphenol	50	38.4	77	42-103
	3&4-Methylphenol	50	36.4	73	39-110
88-75-5	2-Nitrophenol	50	36.9	74	49-114
100-02-7	4-Nitrophenol	50	26.6	53	16-95
87-86-5	Pentachlorophenol	50	33.0	66	30-136
108-95-2	Phenol	50	20.6	41	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	36.8	74	47-118
95-95-4	2,4,5-Trichlorophenol	50	36.7	73	55-116
88-06-2	2,4,6-Trichlorophenol	50	41.3	83	56-115
83-32-9	Acenaphthene	50	34.3	69	54-112
208-96-8	Acenaphthylene	50	33.7	67	49-99
98-86-2	Acetophenone	50	39.7	79	52-111
120-12-7	Anthracene	50	36.5	73	58-112
1912-24-9	Atrazine	50	49.2	98	62-134
100-52-7	Benzaldehyde	50	41.1	82	40-129
56-55-3	Benzo(a)anthracene	50	38.4	77	44-120
50-32-8	Benzo(a)pyrene	50	40.3	81	41-127
205-99-2	Benzo(b)fluoranthene	50	42.2	84	41-129
191-24-2	Benzo(g,h,i)perylene	50	38.6	77	34-128
207-08-9	Benzo(k)fluoranthene	50	40.1	80	42-122
101-55-3	4-Bromophenyl phenyl ether	50	37.1	74	54-121
85-68-7	Butyl benzyl phthalate	50	39.1	78	20-143
92-52-4	1,1'-Biphenyl	50	35.2	70	51-106
91-58-7	2-Chloronaphthalene	50	31.7	63	48-104
106-47-8	4-Chloroaniline	50	17.5	35	10-110
86-74-8	Carbazole	50	36.8	74	56-110
105-60-2	Caprolactam	50	10.3	21	10-110
218-01-9	Chrysene	50	37.1	74	45-125
111-91-1	bis(2-Chloroethoxy)methane	50	34.7	69	47-117
111-44-4	bis(2-Chloroethyl)ether	50	39.6	79	48-115

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-BS1	F155574.D	1	03/15/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	bis(2-Chloroisopropyl)ether	50	35.0	70	44-112
7005-72-3	4-Chlorophenyl phenyl ether	50	37.4	75	50-117
121-14-2	2,4-Dinitrotoluene	50	44.2	88	57-122
606-20-2	2,6-Dinitrotoluene	50	44.6	89	58-122
91-94-1	3,3'-Dichlorobenzidine	100	44.9	45	10-110
123-91-1	1,4-Dioxane	50	19.3	39	10-110
53-70-3	Dibenzo(a,h)anthracene	50	41.6	83	36-130
132-64-9	Dibenzofuran	50	37.7	75	55-108
84-74-2	Di-n-butyl phthalate	50	38.6	77	45-123
117-84-0	Di-n-octyl phthalate	50	42.7	85	37-144
84-66-2	Diethyl phthalate	50	39.4	79	23-130
131-11-3	Dimethyl phthalate	50	38.9	78	10-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	38.8	78	36-138
206-44-0	Fluoranthene	50	39.2	78	58-116
86-73-7	Fluorene	50	37.1	74	57-113
118-74-1	Hexachlorobenzene	50	36.9	74	49-122
87-68-3	Hexachlorobutadiene	50	27.5	55	24-112
77-47-4	Hexachlorocyclopentadiene	100	51.6	52	14-119
67-72-1	Hexachloroethane	50	31.3	63	31-107
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.4	83	34-128
78-59-1	Isophorone	50	39.0	78	52-119
90-12-0	1-Methylnaphthalene	50	29.9	60	46-103
91-57-6	2-Methylnaphthalene	50	30.5	61	45-107
88-74-4	2-Nitroaniline	50	51.1	102	51-127
99-09-2	3-Nitroaniline	50	25.0	50	10-110
100-01-6	4-Nitroaniline	50	38.0	76	50-112
91-20-3	Naphthalene	50	29.7	59	40-102
98-95-3	Nitrobenzene	50	36.8	74	44-116
621-64-7	N-Nitroso-di-n-propylamine	50	42.6	85	49-117
86-30-6	N-Nitrosodiphenylamine	50	36.1	72	51-113
85-01-8	Phenanthrene	50	36.6	73	56-111
129-00-0	Pyrene	50	38.9	78	47-120
95-94-3	1,2,4,5-Tetrachlorobenzene	50	33.7	67	36-114

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-BS1	F155574.D	1	03/15/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	51%	14-88%
4165-62-2	Phenol-d5	39%	10-110%
118-79-6	2,4,6-Tribromophenol	81%	39-149%
4165-60-0	Nitrobenzene-d5	76%	32-128%
321-60-8	2-Fluorobiphenyl	77%	35-119%
1718-51-0	Terphenyl-d14	76%	10-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078A-BS12	4P15633.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-20-3	Naphthalene	1	0.827	83	40-119
123-91-1	1,4-Dioxane	1	0.374	37	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	89%	24-125%
321-60-8	2-Fluorobiphenyl	87%	19-127%
1718-51-0	Terphenyl-d14	90%	10-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MS	F155593.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
OP92078-MSD	F155594.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
JC16090-1	F155585.D	1	03/16/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	JC16090-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		100	71.0	71	100	74.3	74	5	49-110/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	66.2	66	100	66.9	67	1	44-121/18
120-83-2	2,4-Dichlorophenol	ND		100	74.2	74	100	75.2	75	1	42-120/19
105-67-9	2,4-Dimethylphenol	ND		100	78.8	79	100	80.9	81	3	33-132/23
51-28-5	2,4-Dinitrophenol	ND		200	199	100	200	209	105	5	21-145/26
534-52-1	4,6-Dinitro-o-cresol	ND		100	93.8	94	100	102	102	8	25-134/27
95-48-7	2-Methylphenol	ND		100	79.3	79	100	82.6	83	4	47-112/18
	3&4-Methylphenol	ND		100	79.8	80	100	83.6	84	5	44-113/19
88-75-5	2-Nitrophenol	ND		100	71.0	71	100	73.8	74	4	45-118/20
100-02-7	4-Nitrophenol	ND		100	77.0	77	100	80.3	80	4	23-144/28
87-86-5	Pentachlorophenol	ND		100	55.6	56	100	60.3	60	8	25-151/25
108-95-2	Phenol	ND		100	59.6	60	100	62.2	62	4	22-100/22
58-90-2	2,3,4,6-Tetrachlorophenol	ND		100	66.6	67	100	71.2	71	7	44-122/21
95-95-4	2,4,5-Trichlorophenol	ND		100	69.4	69	100	74.8	75	7	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		100	78.4	78	100	80.4	80	3	53-120/21
83-32-9	Acenaphthene	ND		100	70.7	71	100	73.0	73	3	52-120/23
208-96-8	Acenaphthylene	ND		100	67.7	68	100	70.9	71	5	50-101/22
98-86-2	Acetophenone	ND		100	75.9	76	100	77.7	78	2	31-141/23
120-12-7	Anthracene	ND		100	69.6	70	100	72.4	72	4	54-117/22
1912-24-9	Atrazine	ND		100	94.6	95	100	96.6	97	2	42-152/23
100-52-7	Benzaldehyde	ND		100	71.6	72	100	73.7	74	3	10-164/30
56-55-3	Benzo(a)anthracene	ND		100	70.7	71	100	76.3	76	8	40-123/24
50-32-8	Benzo(a)pyrene	ND		100	74.0	74	100	79.9	80	8	41-127/25
205-99-2	Benzo(b)fluoranthene	ND		100	76.4	76	100	83.1	83	8	39-127/27
191-24-2	Benzo(g,h,i)perylene	ND		100	68.6	69	100	76.0	76	10	34-128/28
207-08-9	Benzo(k)fluoranthene	ND		100	73.5	74	100	78.4	78	6	39-122/26
101-55-3	4-Bromophenyl phenyl ether	ND		100	72.5	73	100	76.7	77	6	51-124/23
85-68-7	Butyl benzyl phthalate	ND		100	76.4	76	100	79.2	79	4	21-146/28
92-52-4	1,1'-Biphenyl	ND		100	69.8	70	100	72.2	72	3	27-142/23
91-58-7	2-Chloronaphthalene	ND		100	68.4	68	100	71.7	72	5	51-109/23
106-47-8	4-Chloroaniline	ND		100	53.0	53	100	47.7	48	11	10-110/55
86-74-8	Carbazole	ND		100	69.2	69	100	70.6	71	2	52-116/22
105-60-2	Caprolactam	ND		100	33.6	34	100	35.5	36	5	10-106/34
218-01-9	Chrysene	ND		100	68.2	68	100	72.7	73	6	41-128/24
111-91-1	bis(2-Chloroethoxy)methane	ND		100	65.6	66	100	67.4	67	3	46-120/24
111-44-4	bis(2-Chloroethyl)ether	ND		100	75.6	76	100	77.0	77	2	42-123/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MS	F155593.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
OP92078-MSD	F155594.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
JC16090-1	F155585.D	1	03/16/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Compound	JC16090-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-60-1	bis(2-Chloroisopropyl)ether	ND		100	65.8	66	100	68.9	69	5	41-117/25
7005-72-3	4-Chlorophenyl phenyl ether	ND		100	76.8	77	100	80.2	80	4	48-121/21
121-14-2	2,4-Dinitrotoluene	ND		100	82.0	82	100	87.0	87	6	54-123/27
606-20-2	2,6-Dinitrotoluene	ND		100	84.7	85	100	89.1	89	5	55-125/26
91-94-1	3,3'-Dichlorobenzidine	ND		200	118	59	200	112	56	5	10-107/47
123-91-1	1,4-Dioxane	ND		100	49.1	49	100	53.5	54	9	10-119/31
53-70-3	Dibenzo(a,h)anthracene	ND		100	74.5	75	100	80.2	80	7	35-130/27
132-64-9	Dibenzofuran	ND		100	72.9	73	100	76.2	76	4	53-112/22
84-74-2	Di-n-butyl phthalate	ND		100	73.9	74	100	77.2	77	4	38-129/23
117-84-0	Di-n-octyl phthalate	ND		100	83.5	84	100	86.6	87	4	35-145/26
84-66-2	Diethyl phthalate	ND		100	75.0	75	100	77.6	78	3	16-136/30
131-11-3	Dimethyl phthalate	ND		100	72.6	73	100	76.8	77	6	10-143/39
117-81-7	bis(2-Ethylhexyl)phthalate	ND		100	74.5	75	100	77.3	77	4	34-141/28
206-44-0	Fluoranthene	ND		100	73.4	73	100	76.8	77	5	47-123/24
86-73-7	Fluorene	ND		100	72.4	72	100	76.5	77	6	56-117/22
118-74-1	Hexachlorobenzene	ND		100	70.9	71	100	74.3	74	5	46-125/24
87-68-3	Hexachlorobutadiene	ND		100	59.4	59	100	60.5	61	2	26-121/24
77-47-4	Hexachlorocyclopentadiene	ND		200	111	56	200	115	58	4	10-133/31
67-72-1	Hexachloroethane	ND		100	63.8	64	100	64.5	65	1	35-111/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		100	73.1	73	100	81.1	81	10	32-130/30
78-59-1	Isophorone	ND		100	73.3	73	100	74.4	74	1	47-126/23
90-12-0	1-Methylnaphthalene	ND		100	58.6	59	100	60.3	60	3	34-124/25
91-57-6	2-Methylnaphthalene	ND		100	59.8	60	100	60.4	60	1	34-123/24
88-74-4	2-Nitroaniline	ND		100	95.2	95	100	101	101	6	46-137/23
99-09-2	3-Nitroaniline	ND		100	64.2	64	100	64.2	64	0	10-110/50
100-01-6	4-Nitroaniline	ND		100	72.4	72	100	75.3	75	4	38-118/25
91-20-3	Naphthalene	ND		100	60.8	61	100	62.5	63	3	30-121/23
98-95-3	Nitrobenzene	ND		100	71.0	71	100	72.1	72	2	35-130/25
621-64-7	N-Nitroso-di-n-propylamine	ND		100	81.4	81	100	82.2	82	1	45-123/22
86-30-6	N-Nitrosodiphenylamine	ND		100	70.1	70	100	72.9	73	4	46-123/24
85-01-8	Phenanthrene	ND		100	69.4	69	100	73.1	73	5	48-121/23
129-00-0	Pyrene	ND		100	73.6	74	100	77.5	78	5	43-124/26
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		100	74.3	74	100	78.0	78	5	25-142/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078-MS	F155593.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
OP92078-MSD	F155594.D	1	03/16/16	SD	03/15/16	OP92078	EF6543
JC16090-1	F155585.D	1	03/16/16	SD	03/15/16	OP92078	EF6543

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10, JC16038-1R, JC16038-2R, JC16038-3R, JC16038-4R, JC16038-5R, JC16038-6R, JC16038-8R, JC16038-9R, JC16038-10R

CAS No.	Surrogate Recoveries	MS	MSD	JC16090-1	Limits
367-12-4	2-Fluorophenol	62%	64%	53%	14-88%
4165-62-2	Phenol-d5	56%	59%	38%	10-110%
118-79-6	2,4,6-Tribromophenol	77%	82%	92%	39-149%
4165-60-0	Nitrobenzene-d5	73%	74%		32-128%
321-60-8	2-Fluorobiphenyl	75%	79%		35-119%
1718-51-0	Terphenyl-d14	73%	77%		10-126%

8.3.1

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* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92078A-MS	4P15634.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
OP92078A-MSD	4P15635.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804
JC16038-2	4P15637.D	1	03/17/16	JJ	03/15/16	OP92078A	E4P804

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	JC16038-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
91-20-3	Naphthalene	ND		1	0.698	70	1	0.774	77	10	23-140/36
123-91-1	1,4-Dioxane	1.72		1	1.35	-37* [a]	1	1.65	-7* [a]	20	20-160/30

CAS No.	Surrogate Recoveries	MS	MSD	JC16038-2	Limits
4165-60-0	Nitrobenzene-d5	75%	82%	79%	24-125%
321-60-8	2-Fluorobiphenyl	73%	82%	74%	19-127%
1718-51-0	Terphenyl-d14	92%	83%	89%	10-119%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4P767-DFTPP
Lab File ID: 4P14945.D
Instrument ID: GCMS4P
Injection Date: 02/01/16
Injection Time: 16:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	44967	42.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	59960	56.0		Pass
70	Less than 2.0% of mass 69	24	0.02	(0.04) [a]	Pass
127	40.0 - 60.0% of mass 198	50540	47.2		Pass
197	Less than 1.0% of mass 198	542	0.51		Pass
198	Base peak, 100% relative abundance	106984	100.0		Pass
199	5.0 - 9.0% of mass 198	7920	7.40		Pass
275	10.0 - 30.0% of mass 198	27999	26.2		Pass
365	1.0 - 100.0% of mass 198	3301	3.09		Pass
441	Present, but less than mass 443	13533	12.6	(73.8) [b]	Pass
442	40.0 - 100.0% of mass 198	93328	87.2		Pass
443	17.0 - 23.0% of mass 442	18332	17.1	(19.6) [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
E4P767-IC767	4P14948.D	02/01/16	17:52	01:46	Initial cal 0.5
E4P767-ICC767	4P14949.D	02/01/16	18:22	02:16	Initial cal 1.0
E4P767-IC767	4P14950.D	02/01/16	18:52	02:46	Initial cal 0.2
E4P767-IC767	4P14951.D	02/01/16	19:22	03:16	Initial cal 0.1
E4P767-IC767	4P14952.D	02/01/16	19:53	03:47	Initial cal 0.05
E4P767-IC767	4P14953.D	02/01/16	20:23	04:17	Initial cal 0.02
E4P767-IC767	4P14954.D	02/01/16	20:53	04:47	Initial cal 0.01
E4P767-IC767	4P14955.D	02/01/16	21:23	05:17	Initial cal 5
E4P767-IC767	4P14956.D	02/01/16	21:54	05:48	Initial cal 2.5
E4P767-ICV767	4P14957.D	02/01/16	22:24	06:18	Initial cal verification 1.0
E4P767-ICV767	4P14958.D	02/01/16	22:54	06:48	Initial cal verification 1.0
E4P767-ICV767	4P14959.D	02/01/16	23:24	07:18	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4P804-DFTPP
Lab File ID: 4P15626.D
Instrument ID: GCMS4P
Injection Date: 03/16/16
Injection Time: 21:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	56457	39.1		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	74560	51.6		Pass
70	Less than 2.0% of mass 69	315	0.22	(0.42) [a]	Pass
127	40.0 - 60.0% of mass 198	68560	47.5		Pass
197	Less than 1.0% of mass 198	38	0.03		Pass
198	Base peak, 100% relative abundance	144445	100.0		Pass
199	5.0 - 9.0% of mass 198	10092	6.99		Pass
275	10.0 - 30.0% of mass 198	38805	26.9		Pass
365	1.0 - 100.0% of mass 198	4609	3.19		Pass
441	Present, but less than mass 443	19356	13.4	(75.8) [b]	Pass
442	40.0 - 100.0% of mass 198	136554	94.5		Pass
443	17.0 - 23.0% of mass 442	25547	17.7	(18.7) [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
E4P804-CC767	4P15627.D	03/16/16	21:42	00:12	Continuing cal 1.0
OP92131A-MB1	4P15628.D	03/16/16	22:23	00:53	Method Blank
OP92131A-BS12	4P15629.D	03/16/16	22:54	01:24	Blank Spike
OP92131A-BSD12	4P15630A.D	03/16/16	23:28	01:58	Blank Spike Duplicate
ZZZZZZ	4P15631.D	03/16/16	23:58	02:28	(unrelated sample)
OP92078A-MB1	4P15632.D	03/17/16	00:29	02:59	Method Blank
OP92078A-BS12	4P15633.D	03/17/16	00:59	03:29	Blank Spike
OP92078A-MS	4P15634.D	03/17/16	01:30	04:00	Matrix Spike
OP92078A-MSD	4P15635.D	03/17/16	02:00	04:30	Matrix Spike Duplicate
JC16038-1	4P15636.D	03/17/16	02:30	05:00	MW-13
JC16038-2	4P15637.D	03/17/16	03:01	05:31	MW-7
JC16038-3	4P15638.D	03/17/16	03:31	06:01	MW-3
JC16038-4	4P15639.D	03/17/16	04:01	06:31	MW-5
JC16038-5	4P15640.D	03/17/16	04:31	07:01	MW-16
JC16038-6	4P15641.D	03/17/16	05:01	07:31	MW-16D
JC16038-8	4P15642.D	03/17/16	05:31	08:01	S-30
JC16038-9	4P15643.D	03/17/16	06:01	08:31	FB030816
JC16038-10	4P15644.D	03/17/16	06:31	09:01	MW-11

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EF6483-DFTPP
Lab File ID: F154195.D
Instrument ID: GCMSF
Injection Date: 01/30/16
Injection Time: 08:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	68961	40.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	72644	42.7		Pass
70	Less than 2.0% of mass 69	503	0.30	(0.69) [a]	Pass
127	40.0 - 60.0% of mass 198	101830	59.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	170213	100.0		Pass
199	5.0 - 9.0% of mass 198	12081	7.10		Pass
275	10.0 - 30.0% of mass 198	33976	20.0		Pass
365	1.0 - 100.0% of mass 198	3723	2.19		Pass
441	Present, but less than mass 443	19732	11.6	(81.9) [b]	Pass
442	40.0 - 100.0% of mass 198	125080	73.5		Pass
443	17.0 - 23.0% of mass 442	24098	14.2	(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
EF6483-IC6483	F154196.D	01/30/16	08:34	00:12	Initial cal 100
EF6483-IC6483	F154197.D	01/30/16	09:06	00:44	Initial cal 1
EF6483-IC6483	F154199.D	01/30/16	09:41	01:19	Initial cal 2
EF6483-IC6483	F154200.D	01/30/16	10:08	01:46	Initial cal 80
EF6483-IC6483	F154201.D	01/30/16	10:40	02:18	Initial cal 5
EF6483-ICC6483	F154202.D	01/30/16	11:08	02:46	Initial cal 50
EF6483-IC6483	F154203.D	01/30/16	11:37	03:15	Initial cal 10
EF6483-IC6483	F154204.D	01/30/16	12:06	03:44	Initial cal 25
EF6483-ICV6483	F154205.D	01/30/16	12:42	04:20	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EF6484-DFTPP
Lab File ID: F154207.D
Instrument ID: GCMSF
Injection Date: 01/30/16
Injection Time: 13:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	67425	38.4		Pass
68	Less than 2.0% of mass 69	442	0.25	(0.63) [a]	Pass
69	Mass 69 relative abundance	70239	40.0		Pass
70	Less than 2.0% of mass 69	227	0.13	(0.32) [a]	Pass
127	40.0 - 60.0% of mass 198	102158	58.2		Pass
197	Less than 1.0% of mass 198	353	0.20		Pass
198	Base peak, 100% relative abundance	175661	100.0		Pass
199	5.0 - 9.0% of mass 198	11743	6.69		Pass
275	10.0 - 30.0% of mass 198	34941	19.9		Pass
365	1.0 - 100.0% of mass 198	4023	2.29		Pass
441	Present, but less than mass 443	20031	11.4	(73.7) [b]	Pass
442	40.0 - 100.0% of mass 198	137840	78.5		Pass
443	17.0 - 23.0% of mass 442	27179	15.5	(19.7) [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
EF6484-ICV6483	F154208.D	01/30/16	14:06	00:13	Initial cal verification 50
EF6484-ICV6483	F154209.D	01/30/16	14:36	00:43	Initial cal verification 50
EF6484-ICV6483	F154210.D	01/30/16	15:05	01:12	Initial cal verification 50
EF6484-ICV6483	F154211.D	01/30/16	15:33	01:40	Initial cal verification 50
EF6484-ICV6483	F154213.D	01/30/16	16:02	02:09	Initial cal verification 50
EF6484-ICV6483	F154212.D	01/30/16	16:31	02:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EF6489-DFTPP
Lab File ID: F154267.D
Instrument ID: GCMSF
Injection Date: 02/01/16
Injection Time: 17:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	74861	36.1		Pass
68	Less than 2.0% of mass 69	664	0.32	(0.82) [a]	Pass
69	Mass 69 relative abundance	81365	39.3		Pass
70	Less than 2.0% of mass 69	493	0.24	(0.61) [a]	Pass
127	40.0 - 60.0% of mass 198	118728	57.3		Pass
197	Less than 1.0% of mass 198	603	0.29		Pass
198	Base peak, 100% relative abundance	207296	100.0		Pass
199	5.0 - 9.0% of mass 198	14099	6.80		Pass
275	10.0 - 30.0% of mass 198	43376	20.9		Pass
365	1.0 - 100.0% of mass 198	5114	2.47		Pass
441	Present, but less than mass 443	25733	12.4	(76.4) [b]	Pass
442	40.0 - 100.0% of mass 198	176808	85.3		Pass
443	17.0 - 23.0% of mass 442	33672	16.2	(19.0) [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
EF6489-IC6489	F154268.D	02/01/16	18:08	00:14	Initial cal 100
EF6489-IC6489	F154269.D	02/01/16	18:40	00:46	Initial cal 80
EF6489-ICC6489	F154270.D	02/01/16	19:09	01:15	Initial cal 50
EF6489-IC6489	F154271.D	02/01/16	19:38	01:44	Initial cal 25
EF6489-IC6489	F154272.D	02/01/16	20:06	02:12	Initial cal 10
EF6489-IC6489	F154273.D	02/01/16	20:35	02:41	Initial cal 5
EF6489-IC6489	F154274.D	02/01/16	21:04	03:10	Initial cal 2
EF6489-IC6489	F154275.D	02/01/16	21:33	03:39	Initial cal 1
EF6489-ICV6489	F154276.D	02/01/16	22:02	04:08	Initial cal verification 50
EF6489-ICV6489	F154277.D	02/01/16	22:31	04:37	Initial cal verification 50
EF6489-ICV6489	F154278.D	02/01/16	23:00	05:06	Initial cal verification 50
EF6489-ICV6489	F154279.D	02/01/16	23:29	05:35	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EF6543-DFTPP
Lab File ID: F155570.D
Instrument ID: GCMSF
Injection Date: 03/15/16
Injection Time: 21:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	58915	40.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	58568	40.7		Pass
70	Less than 2.0% of mass 69	306	0.21	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	80719	56.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	143973	100.0		Pass
199	5.0 - 9.0% of mass 198	9626	6.69		Pass
275	10.0 - 30.0% of mass 198	30952	21.5		Pass
365	1.0 - 100.0% of mass 198	4233	2.94		Pass
441	Present, but less than mass 443	19915	13.8	(82.3) [b]	Pass
442	40.0 - 100.0% of mass 198	134306	93.3		Pass
443	17.0 - 23.0% of mass 442	24197	16.8	(18.0) [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
EF6543-CC6483	F155571.D	03/15/16	21:18	00:12	Continuing cal 25
EF6543-CC6489	F155572.D	03/15/16	21:46	00:40	Continuing cal 25
OP92078-MB1	F155573.D	03/15/16	22:15	01:09	Method Blank
OP92078-BS1	F155574.D	03/15/16	22:44	01:38	Blank Spike
ZZZZZZ	F155575.D	03/15/16	23:12	02:06	(unrelated sample)
JC16038-9R	F155576.D	03/15/16	23:40	02:34	FB030816
JC16038-9	F155576.D	03/15/16	23:40	02:34	FB030816
JC16038-1R	F155577.D	03/16/16	00:09	03:03	MW-13
JC16038-1	F155577.D	03/16/16	00:09	03:03	MW-13
JC16038-2R	F155578.D	03/16/16	00:37	03:31	MW-7
JC16038-2	F155578.D	03/16/16	00:37	03:31	MW-7
JC16038-3R	F155579R.D	03/16/16	01:06	04:00	MW-3
JC16038-3	F155579.D	03/16/16	01:06	04:00	MW-3
JC16038-4R	F155580R.D	03/16/16	01:35	04:29	MW-5
JC16038-4	F155580.D	03/16/16	01:35	04:29	MW-5
JC16038-5	F155581.D	03/16/16	02:04	04:58	MW-16
JC16038-5R	F155581.D	03/16/16	02:04	04:58	MW-16
JC16038-6	F155582.D	03/16/16	02:32	05:26	MW-16D
JC16038-6R	F155582R.D	03/16/16	02:32	05:26	MW-16D

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EF6543-DFTPP
Lab File ID: F155570.D
Instrument ID: GCMSF
Injection Date: 03/15/16
Injection Time: 21:06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC16090-1	F155585.D	03/16/16	03:57	06:51	(used for QC only; not part of job JC16038)
ZZZZZZ	F155586.D	03/16/16	04:25	07:19	(unrelated sample)
ZZZZZZ	F155587.D	03/16/16	04:53	07:47	(unrelated sample)
ZZZZZZ	F155588.D	03/16/16	05:22	08:16	(unrelated sample)
ZZZZZZ	F155589.D	03/16/16	05:50	08:44	(unrelated sample)
ZZZZZZ	F155590.D	03/16/16	06:18	09:12	(unrelated sample)
ZZZZZZ	F155591.D	03/16/16	06:46	09:40	(unrelated sample)
ZZZZZZ	F155592.D	03/16/16	07:14	10:08	(unrelated sample)
OP92078-MS	F155593.D	03/16/16	07:42	10:36	Matrix Spike
OP92078-MSD	F155594.D	03/16/16	08:10	11:04	Matrix Spike Duplicate

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4514-DFTPP
Lab File ID: P102786.D
Instrument ID: GCMSP
Injection Date: 02/24/16
Injection Time: 01:55

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	18668	34.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	23706	44.0		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	30563	56.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	53930	100.0		Pass
199	5.0 - 9.0% of mass 198	3929	7.29		Pass
275	10.0 - 30.0% of mass 198	11130	20.6		Pass
365	1.0 - 100.0% of mass 198	1487	2.76		Pass
441	Present, but less than mass 443	6594	12.2	(77.6) [b]	Pass
442	40.0 - 100.0% of mass 198	42661	79.1		Pass
443	17.0 - 23.0% of mass 442	8492	15.7	(19.9) [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
EP4514-IC4514	P102787.D	02/24/16	02:07	00:12	Initial cal 100
EP4514-IC4514	P102788.D	02/24/16	02:36	00:41	Initial cal 80
EP4514-IC4514	P102789.D	02/24/16	03:06	01:11	Initial cal 10
EP4514-IC4514	P102790.D	02/24/16	03:35	01:40	Initial cal 5
EP4514-IC4514	P102791.D	02/24/16	04:05	02:10	Initial cal 2
EP4514-IC4514	P102792.D	02/24/16	04:34	02:39	Initial cal 1
EP4514-IC4514	P102793.D	02/24/16	05:04	03:09	Initial cal 25
EP4514-ICC4514	P102794.D	02/24/16	05:33	03:38	Initial cal 50
EP4514-ICV4513	P102795.D	02/24/16	06:02	04:07	Initial cal verification 50
EP4514-ICV4513	P102796.D	02/24/16	06:32	04:37	Initial cal verification 50
EP4514-ICV4513	P102797.D	02/24/16	07:01	05:06	Initial cal verification 50
EP4514-ICV4514	P102798A.D	02/24/16	07:31	05:36	Initial cal verification 50
EP4514-ICV4513	P102798.D	02/24/16	07:31	05:36	Initial cal verification 50
EP4514-ICV4513	P102799.D	02/24/16	08:00	06:05	Initial cal verification 50
EP4514-ICV4514	P102799A.D	02/24/16	08:00	06:05	Initial cal verification 50
EP4514-ICV4514	P102800.D	02/24/16	08:29	06:34	Initial cal verification 50
EP4514-ICV4514	P102801A.D	02/24/16	08:58	07:03	Initial cal verification 50
EP4514-ICV4513	P102801.D	02/24/16	08:58	07:03	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4524-DFTPP
Lab File ID: P103010.D
Instrument ID: GCMSP
Injection Date: 03/02/16
Injection Time: 16:56

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	29961	34.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	38523	44.2		Pass
70	Less than 2.0% of mass 69	119	0.14	(0.31) [a]	Pass
127	40.0 - 60.0% of mass 198	48031	55.2		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	87088	100.0		Pass
199	5.0 - 9.0% of mass 198	5993	6.88		Pass
275	10.0 - 30.0% of mass 198	19109	21.9		Pass
365	1.0 - 100.0% of mass 198	2328	2.67		Pass
441	Present, but less than mass 443	9869	11.3	(79.2) [b]	Pass
442	40.0 - 100.0% of mass 198	65456	75.2		Pass
443	17.0 - 23.0% of mass 442	12454	14.3	(19.0) [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
EP4524-IC4524	P103011.D	03/02/16	17:10	00:14	Initial cal 100
EP4524-IC4524	P103012.D	03/02/16	17:40	00:44	Initial cal 80
EP4524-IC4524	P103013.D	03/02/16	18:09	01:13	Initial cal 10
EP4524-IC4524	P103014.D	03/02/16	18:39	01:43	Initial cal 5
EP4524-IC4524	P103015.D	03/02/16	19:08	02:12	Initial cal 2
EP4524-IC4524	P103016.D	03/02/16	19:37	02:41	Initial cal 1
EP4524-ICC4524	P103017.D	03/02/16	20:06	03:10	Initial cal 50
EP4524-IC4524	P103018.D	03/02/16	20:36	03:40	Initial cal 25
EP4524-ICV4524	P103019.D	03/02/16	21:05	04:09	Initial cal verification 50
EP4524-ICV4524	P103020.D	03/02/16	21:34	04:38	Initial cal verification 50
EP4524-ICV4524	P103021.D	03/02/16	22:03	05:07	Initial cal verification 50
EP4524-ICV4524	P103022.D	03/02/16	22:32	05:36	Initial cal verification 50
EP4524-ICV4524	P103023.D	03/02/16	23:02	06:06	Initial cal verification 50
EP4524-ICV4524	P103024.D	03/02/16	23:31	06:35	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4542-DFTPP
Lab File ID: P103359.D
Instrument ID: GCMSP
Injection Date: 03/16/16
Injection Time: 12:03

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	33749	37.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	44592	49.2		Pass
70	Less than 2.0% of mass 69	161	0.18	(0.36) [a]	Pass
127	40.0 - 60.0% of mass 198	51339	56.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	90720	100.0		Pass
199	5.0 - 9.0% of mass 198	6388	7.04		Pass
275	10.0 - 30.0% of mass 198	19523	21.5		Pass
365	1.0 - 100.0% of mass 198	2532	2.79		Pass
441	Present, but less than mass 443	10706	11.8	(75.4) [b]	Pass
442	40.0 - 100.0% of mass 198	68501	75.5		Pass
443	17.0 - 23.0% of mass 442	14207	15.7	(20.7) [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
EP4542-CC4524	P103360.D	03/16/16	12:14	00:11	Continuing cal 50
EP4542-CC4514	P103361.D	03/16/16	12:45	00:42	Continuing cal 50
ZZZZZZ	P103365.D	03/16/16	14:42	02:39	(unrelated sample)
ZZZZZZ	P103366.D	03/16/16	15:11	03:08	(unrelated sample)
ZZZZZZ	P103367.D	03/16/16	15:40	03:37	(unrelated sample)
ZZZZZZ	P103368.D	03/16/16	16:10	04:07	(unrelated sample)
ZZZZZZ	P103369.D	03/16/16	16:39	04:36	(unrelated sample)
OP92078-MB1	P103370.D	03/16/16	17:08	05:05	Method Blank
JC16038-10R	P103372.D	03/16/16	18:07	06:04	MW-11
JC16038-10	P103372.D	03/16/16	18:07	06:04	MW-11
JC16038-10	P103374.D	03/16/16	19:06	07:03	MW-11
JC16038-8	P103375.D	03/16/16	19:35	07:32	S-30

Instrument Performance Check (DFTPP)

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4545-DFTPP
Lab File ID: P103407.D
Instrument ID: GCMSP
Injection Date: 03/17/16
Injection Time: 21:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	32816	38.0		Pass
68	Less than 2.0% of mass 69	581	0.67	(1.38) [a]	Pass
69	Mass 69 relative abundance	42064	48.7		Pass
70	Less than 2.0% of mass 69	337	0.39	(0.80) [a]	Pass
127	40.0 - 60.0% of mass 198	49832	57.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	86325	100.0		Pass
199	5.0 - 9.0% of mass 198	6007	6.96		Pass
275	10.0 - 30.0% of mass 198	18719	21.7		Pass
365	1.0 - 100.0% of mass 198	2293	2.66		Pass
441	Present, but less than mass 443	10246	11.9	(78.8) [b]	Pass
442	40.0 - 100.0% of mass 198	63856	74.0		Pass
443	17.0 - 23.0% of mass 442	12995	15.1	(20.4) [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
EP4545-CC4524	P103409.D	03/17/16	22:42	00:43	Continuing cal 25
EP4545-CC4514	P103410.D	03/17/16	23:12	01:13	Continuing cal 25
JC16038-8	P103411.D	03/17/16	23:41	01:42	S-30
JC16038-8R	P103411.D	03/17/16	23:41	01:42	S-30
ZZZZZZ	P103412.D	03/18/16	00:10	02:11	(unrelated sample)
ZZZZZZ	P103413.D	03/18/16	02:07	04:08	(unrelated sample)
ZZZZZZ	P103414.D	03/18/16	02:37	04:38	(unrelated sample)
ZZZZZZ	P103415.D	03/18/16	03:06	05:07	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E4P804-CC767	**Injection Date:**	03/16/16
Lab File ID:	4P15627.D	**Injection Time:**	21:42
Instrument ID:	GCMS4P	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	122238	8.49	184919	11.51	286052	15.76	233590	20.40
Upper Limit [a]	244476	8.99	369838	12.01	572104	16.26	467180	20.90
Lower Limit [b]	61119	7.99	92460	11.01	143026	15.26	116795	19.90

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
OP92131A-MB1	122871	8.51	193810	11.51	307765	15.76	245186	20.40
OP92131A-BS12	110486	8.51	173550	11.51	258841	15.75	208438	20.40
OP92131A-BSD12	122778	8.51	190019	11.51	280517	15.75	223009	20.40
ZZZZZZ	112221	8.49	182799	11.51	272527	15.75	220453	20.40
OP92078A-MB1	129169	8.49	194420	11.51	306830	15.75	242357	20.40
OP92078A-BS12	122230	8.49	171385	11.51	276699	15.74	221714	20.40
OP92078A-MS	119099	8.49	175724	11.51	265963	15.75	212537	20.40
OP92078A-MSD	123488	8.49	163092	11.51	274794	15.74	214658	20.39
JC16038-1	130498	8.49	173578	11.51	316777	15.74	235925	20.40
JC16038-2	122787	8.49	173007	11.51	279760	15.75	220301	20.40
JC16038-3	135417	8.49	189935	11.51	308988	15.74	240102	20.40
JC16038-4	129918	8.49	190433	11.51	314557	15.75	242772	20.40
JC16038-5	133229	8.49	174322	11.51	303028	15.74	244145	20.40
JC16038-6	132854	8.49	191707	11.51	308728	15.75	242772	20.40
JC16038-8	123833	8.49	162760	11.51	285364	15.74	216665	20.39
JC16038-9	120424	8.49	153065	11.51	270227	15.74	216127	20.39
JC16038-10	108644	8.49	139734	11.51	246305	15.74	190171	20.40

IS 1 = 1-Methylnaphthalene-d10
IS 2 = Fluorene-d10
IS 3 = Fluoranthene-d10
IS 4 = Benzo(a)pyrene-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.

Semivolatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	EF6543-CC6483	**Injection Date:**	03/15/16
Lab File ID:	F155571.D	**Injection Time:**	21:18
Instrument ID:	GCMSF	**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	170489	4.78	680978	5.71	422144	7.14	676792	9.06	653539	14.36	550977	17.41
Upper Limit [a]	340978	5.28	1361956	6.21	844288	7.64	1353584	9.56	1307078	14.86	1101954	17.91
Lower Limit [b]	85245	4.28	340489	5.21	211072	6.64	338396	8.56	326770	13.86	275489	16.91

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
OP92078-MB1	166086	4.78	646169	5.71	395240	7.14	643195	9.06	609486	14.34	536212	17.40
OP92078-BS1	151777	4.78	663485	5.71	350011	7.14	562749	9.06	511604	14.35	436354	17.40
ZZZZZZ	174221	4.78	672458	5.71	404110	7.14	664122	9.06	628546	14.34	555397	17.40
JC16038-9R	159184	4.78	610601	5.71	376969	7.14	614415	9.06	571810	14.34	505349	17.40
JC16038-9	159184	4.78	610601	5.71	376969	7.14	614415	9.06	571810	14.34	505349	17.40
JC16038-1	161793	4.78	619224	5.71	377158	7.14	626390	9.06	589408	14.34	526502	17.40
JC16038-1R	161793	4.78	619224	5.71	377158	7.14	626390	9.06	589408	14.34	526502	17.40
JC16038-2R	158470	4.78	623252	5.71	373409	7.14	605493	9.06	575042	14.34	514361	17.40
JC16038-2	158470	4.78	623252	5.71	373409	7.14	605493	9.06	575042	14.34	514361	17.40
JC16038-3R	154528	4.78	591079	5.71	353350	7.14	572106	9.06	544868	14.34	479804	17.40
JC16038-3	154528	4.78	591079	5.71	353350	7.14	572106	9.06	544868	14.34	479804	17.40
JC16038-4	157949	4.78	621449	5.71	368866	7.14	610131	9.06	584035	14.34	513702	17.40
JC16038-4R	157949	4.78	621449	5.71	368866	7.14	610131	9.06	584035	14.34	513702	17.40
JC16038-5	156055	4.78	630707	5.71	378018	7.14	627337	9.06	585313	14.34	516529	17.40
JC16038-5R	156055	4.78	630707	5.71	378018	7.14	627337	9.06	585313	14.34	516529	17.40
JC16038-6	154551	4.78	604475	5.71	353821	7.14	589326	9.06	568125	14.34	504521	17.40
JC16038-6R	154551	4.78	604475	5.71	353821	7.14	589326	9.06	568125	14.34	504521	17.40
JC16090-1	153572	4.78	607518	5.71	363351	7.14	584330	9.06	538759	14.34	485953	17.40
ZZZZZZ	156969	4.78	603589	5.71	356002	7.14	578267	9.06	541164	14.34	482324	17.40
ZZZZZZ	142284	4.78	557686	5.71	327425	7.14	531847	9.05	502028	14.34	443456	17.40
ZZZZZZ	154866	4.78	590320	5.71	353584	7.14	585432	9.06	552531	14.34	492165	17.40
ZZZZZZ	164487	4.78	652719	5.71	380704	7.14	607251	9.06	570874	14.34	510366	17.40
ZZZZZZ	155301	4.78	582296	5.71	371572	7.15	577994	9.07	534427	14.36	459269	17.41
ZZZZZZ	154367	4.78	594951	5.71	354257	7.14	555886	9.06	520271	14.35	457856	17.40
ZZZZZZ	141528	4.78	547325	5.71	326100	7.15	527131	9.06	493518	14.35	437552	17.41
OP92078-MS	151106	4.79	648160	5.71	340885	7.14	537229	9.06	475570	14.35	391400	17.40
OP92078-MSD	157111	4.79	676048	5.71	348517	7.15	551788	9.06	490416	14.35	408888	17.40

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

Semivolatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	EF6543-CC6483	**Injection Date:**	03/15/16
Lab File ID:	F155571.D	**Injection Time:**	21:18
Instrument ID:	GCMSF	**Method:**	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(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.

Semivolatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	EP4542-CC4524	**Injection Date:**	03/16/16
Lab File ID:	P103360.D	**Injection Time:**	12:14
Instrument ID:	GCMSP	**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	111501	4.19	396816	5.93	228415	8.64	342027	11.00	306829	15.68	288710	18.23
Upper Limit [a]	223002	4.69	793632	6.43	456830	9.14	684054	11.50	613658	16.18	577420	18.73
Lower Limit [b]	55751	3.69	198408	5.43	114208	8.14	171014	10.50	153415	15.18	144355	17.73

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
ZZZZZZ	167220	4.19	597930	5.92	301180	8.64	497957	10.99	455273	15.67	435358	18.23
ZZZZZZ	137575	4.19	455319	5.92	255081	8.64	383537	11.00	383458	15.68	334848	18.23
ZZZZZZ	170725	4.19	596294	5.92	319851	8.64	481035	11.00	459662	15.68	414802	18.23
ZZZZZZ	143317	4.19	516893	5.92	268181	8.64	449727	10.99	423767	15.67	396572	18.23
ZZZZZZ	119533	4.18	437809	5.92	225124	8.64	381179	10.99	353372	15.67	330446	18.22
OP92078-MB1	156592	4.19	544956	5.92	315929	8.64	495536	10.99	431319	15.67	376375	18.23
JC16038-10	138199	4.19	500016	5.92	285301	8.64	440334	10.99	394228	15.67	345546	18.22
JC16038-10R	138199	4.19	500016	5.92	285301	8.64	440334	10.99	394228	15.67	345546	18.22
JC16038-10	130108	4.18	462119	5.92	245199	8.64	404377	10.99	373785	15.67	347548	18.22
JC16038-8	115395	4.18	415118	5.92	212472	8.64	361890	10.99	341810	15.67	320504	18.22

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.

Semivolatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	EP4545-CC4524	**Injection Date:**	03/17/16
Lab File ID:	P103409.D	**Injection Time:**	22:42
Instrument ID:	GCMSP	**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	224794	4.17	763285	5.91	454447	8.62	682115	10.98	628774	15.66	593654	18.21
Upper Limit [a]	449588	4.67	1526570	6.41	908894	9.12	1364230	11.48	1257548	16.16	1187308	18.71
Lower Limit [b]	112397	3.67	381643	5.41	227224	8.12	341058	10.48	314387	15.16	296827	17.71

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
JC16038-8	187566	4.16	656126	5.90	379852	8.62	586230	10.97	506042	15.65	430473	18.20
JC16038-8R	187566	4.16	656126	5.90	379852	8.62	586230	10.97	506042	15.65	430473	18.20
ZZZZZZ	185441	4.17	650058	5.90	364240	8.62	558413	10.97	509696	15.65	460092	18.20
ZZZZZZ	171118	4.17	595259	5.90	328477	8.62	503507	10.97	477203	15.65	438711	18.21
ZZZZZZ	121208	4.17	427460	5.90	234660	8.62	367526	10.97	340606	15.65	311060	18.20
ZZZZZZ	162277	4.17	573318	5.90	318057	8.62	500529	10.97	461463	15.65	423902	18.20

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.

Semivolatile Surrogate Recovery Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC16038-1	F155577.D	42	30	78	75	68	73
JC16038-2	F155578.D	44	33	85	73	68	76
JC16038-3	F155579.D	42	32	71	67	64	68
JC16038-4	F155580.D	42	32	83	71	70	73
JC16038-5	F155581.D	42	32	77	72	66	71
JC16038-6	F155582.D	55	39	97	97	89	86
JC16038-8	P103411.D	67	45	105	101	95	96
JC16038-8	P103375.D	61	34	55	93	120* [a]	84
JC16038-9	F155576.D	51	36	87	90	83	83
JC16038-10	P103374.D	63	46	90	104	113	99
JC16038-10	P103372.D	65	46	99	97	95	93
JC16038-1R	F155577.D				75	68	73
JC16038-2R	F155578.D				73	68	76
JC16038-3R	F155579R.D				67	64	68
JC16038-4R	F155580R.D				71	70	73
JC16038-5R	F155581.D				72	66	71
JC16038-6R	F155582R.D				97	89	86
JC16038-8R	P103411.D				101	95	96
JC16038-9R	F155576.D				90	83	83
JC16038-10R	P103372.D				97	95	93
OP92078-BS1	F155574.D	51	39	81	76	77	76
OP92078-MB1	F155573.D	49	35	86	87	77	74
OP92078-MB1	P103370.D	60	43	95	98	92	89
OP92078-MS	F155593.D	62	56	77	73	75	73
OP92078-MSD	F155594.D	64	59	82	74	79	77

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

(a) Outside control limits due to dilution.

Semivolatile Surrogate Recovery Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Method: SW846 8270D BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC16038-1	4P15636.D	77	77	77
JC16038-2	4P15637.D	79	74	89
JC16038-3	4P15638.D	63	68	75
JC16038-4	4P15639.D	73	73	80
JC16038-5	4P15640.D	74	73	79
JC16038-6	4P15641.D	93	92	97
JC16038-8	4P15642.D	94	96	93
JC16038-9	4P15643.D	90	96	92
JC16038-10	4P15644.D	110	115	111
OP92078A-BS12	4P15633.D	89	87	90
OP92078A-MB1	4P15632.D	89	82	88
OP92078A-MS	4P15634.D	75	73	92
OP92078A-MSD	4P15635.D	82	82	83

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	24-125%
S2 = 2-Fluorobiphenyl	19-127%
S3 = Terphenyl-d14	10-119%

Initial Calibration Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E4P767-ICC767
Lab FileID: 4P14949.D

```
                        Response Factor Report  MS4P

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Feb 02 08:55:09 2016
Response via : Initial Calibration

Calibration Files
2.5 =4p14956.D   1.0 =4p14949.D   0.5 =4p14948.D   0.2 =4p14950.D
0.1 =4p14951.D   0.05=4p14952.D   0.02=4p14953.D   0.01=4p14954.D
5   =4p14955.D       =                =                =

Compound
            2.5   1.0   0.5   0.2   0.1   0.05  0.02  0.01  5            Avg    %RSD
-----------------------------------------------------------------------------

1) I   1-Methylnaphthalene-d ----------------ISTD---------------------
2)  1,4-Dioxane
          0.397 0.422 0.463 0.544 0.643                   0.360        0.471   22.27
           ---- Quadratic regression ----  Coefficient =  1.0000
             Response Ratio = 0.00593 + 0.41624 *A + -0.04843 *A^2

3)  2-Fluorophenol
          0.672 0.703 0.715 0.834 0.725 0.652 0.706       0.612        0.702    9.27
4)  Phenol-d5
          1.198 1.206 1.215 1.355 1.068 0.979 0.970       1.064        1.132   11.78
5)  Phenol
          1.364 1.425 1.422 1.544 1.318 1.119 1.111       1.436        1.342   11.52
6)  bis(2-Chloroethyl)ether
          1.198 1.124 1.126 1.313 1.142 1.025 1.708 0.947 1.039        1.180   19.00
7)  Nitrobenzene-d5
          1.141 1.142 1.130 1.314 1.119 0.983 1.029       1.054        1.114    8.96
8)  Naphthalene
          2.563 2.595 2.484 3.016 2.730 2.488 2.840 2.669 2.394        2.642    7.40
9)  Hexachlorobutadiene
          0.607 0.596 0.574 0.697 0.635 0.573 0.672 0.676 0.564        0.622    8.08
10)  2-Methylnaphthalene
          1.349 1.325 1.305 1.519 1.322 1.278 1.195 1.272 1.253        1.313    6.83
11)  1-Methylnaphthalene
          1.372 1.406 1.430 1.700 1.426 1.361 1.350 1.447 1.280        1.419    8.25
12)  Hexachlorocyclopentadiene
          0.628 0.542 0.513 0.507 0.361                   0.632        0.531   18.75

13) I   Fluorene-d10          ----------------ISTD---------------------
14)  2-Fluorobiphenyl
          1.019 1.031 1.213 1.477 1.087 1.066 1.079                    1.139   14.22
15)  Acenaphthylene
          1.461 1.391 1.352 1.531 1.444 1.287             1.331        1.400    6.03
16)  Acenaphthene
          0.978 1.003 1.052 1.286 1.024 0.949 1.014 1.067 0.887        1.029   10.77
17)  Dibenzofuran
          1.237 1.210 1.483 1.637 1.331 1.306             1.094        1.328   13.65
18)  Fluorene
          1.219 1.217 1.319 1.515 1.174 1.117             1.114        1.239   11.31
19)  4,6-dinitro-2-methylphenol
          0.124 0.095 0.098 0.086 0.053 0.042             0.142        0.091   39.08
           ---- Quadratic regression ----  Coefficient =  0.9996
             Response Ratio = -0.00728 + 0.10435 *A + 0.00626 *A^2

20)  n-nitrosodiphenylamine
```

Initial Calibration Summary

Job Number: JC16038 **Sample:** E4P767-ICC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P14949.D
Project: BMSMC, Building 5 Area, PR

```
          0.625 0.592 0.655 0.724 0.572 0.520            0.545        0.605   11.53
21)  1,2-Diphenylhydrazine
          1.390 1.316 1.185 1.360 1.169 0.981            1.218        1.231   11.39
22)  2,4,6-Tribromophenol
          0.157 0.154 0.158 0.173 0.135 0.117            0.148        0.149   12.34

23)     Fluoranthene-d10      ----------------ISTD---------------------
24)  Hexachlorobenzene
          0.325 0.305 0.320 0.376 0.318 0.291 0.323 0.332 0.307        0.322    7.37
25)  Pentachlorophenol
          0.147 0.119 0.124 0.110 0.078 0.067            0.149        0.113   27.93
           ---- Quadratic regression ----  Coefficient =  0.9991
             Response Ratio = -0.01083 + 0.14227 *A + 0.00146 *A^2

26)  Phenanthrene
          1.242 1.180 1.238 1.407 1.160 1.062 1.130 1.176 1.166        1.196    8.01
27)  Anthracene
          1.155 1.051 1.147 1.257 1.009 0.939 0.993 0.884 1.148        1.065   11.29
28)  Fluoranthene
          1.263 1.232 1.325 1.496 1.243 1.167            1.187        1.273    8.71
29)  Pyrene
          1.275 1.231 1.333 1.433 1.246 1.120 1.257      1.243        1.267    7.05
30)  Terphenyl-d14
          0.607 0.595 0.632 0.730 0.626 0.563 0.593 0.571 0.581        0.611    8.22
31)  Benzo[a]anthracene
          1.132 1.097 1.174 1.236 1.077 0.917            1.124        1.108    8.96
32)  Chrysene
          1.286 1.285 1.315 1.507 1.324 1.207            1.246        1.310    7.31

33) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
34)  Benzo[b]fluoranthene
          1.610 1.601 1.669 2.013 1.672 1.337            1.689        1.656   11.97
35)  Benzo[k]fluoranthene
          1.682 1.478 1.501 1.644 1.319 1.443            1.436        1.501    8.35
36)  Benzo[a]pyrene
          1.527 1.486 1.576 1.904 1.639 1.898            1.429        1.637   11.73
37)  Indeno[1,2,3-cd]pyrene
          1.714 1.655 1.720 2.018 1.706 1.645            1.613        1.725    7.87
38)  Dibenz[a,h]anthracene
          1.425 1.365 1.430 1.660 1.405 1.312            1.358        1.422    7.94
39)  Benzo[g,h,i]perylene
          1.520 1.462 1.514 1.819 1.559 1.514            1.413        1.543    8.46
-----------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

         M4P767SIM.M        Tue Feb 02 09:03:27 2016
```

8.7.1

8

Initial Calibration Verification

Job Number: JC16038 **Sample:** E4P767-ICV767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P14957.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e4p767\4p14957.D Vial: 12
Acq On : 1 Feb 2016 10:24 pm Operator: juliusj
Sample : icv767-1.0 Inst : MS4P
Misc : op90759a,e4p767 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Feb 02 08:55:09 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	97	0.00	8.75
		----------	AvgRF	CCRF	% Dev	----------		
6	t	bis(2-Chloroethyl)ether	1.180	1.334	-13.1	115	-0.02	4.65
8	t	Naphthalene	2.642	2.526	4.4	94	-0.02	7.27
9	t	Hexachlorobutadiene	0.622	0.617	0.8	100	0.00	7.57
10	t	2-Methylnaphthalene	1.313	1.247	5.0	91	0.00	8.62
13	I	Fluorene-d10	1.000	1.000	0.0	92	0.00	11.74
15	t	Acenaphthylene	1.400	1.421	-1.5	94	0.00	10.38
16	t	Acenaphthene	1.029	1.019	1.0	93	0.00	10.74
17		Dibenzofuran	1.328	1.289	2.9	98	0.00	11.11
18	t	Fluorene	1.239	1.176	5.1	89	0.00	11.79
		----------	AvgRF	CCRF	% Dev	----------		
20		n-nitrosodiphenylamine	0.605	0.590	2.5	92	0.00	12.08
21		1,2-Diphenylhydrazine	1.231	1.287	-4.5	90	0.00	12.13
23		Fluoranthene-d10	1.000	1.000	0.0	100	0.00	15.95
24	t	Hexachlorobenzene	0.322	0.301	6.5	99	0.00	12.90
		----------	AvgRF	CCRF	% Dev	----------		
26	t	Phenanthrene	1.196	1.203	-0.6	102	-0.02	13.69
27	t	Anthracene	1.065	0.948	11.0	91	-0.02	13.80
28	t	Fluoranthene	1.273	1.232	3.2	100	-0.02	15.97
29	t	Pyrene	1.267	1.163	8.2	95	-0.02	16.36
31	t	Benzo[a]anthracene	1.108	1.017	8.2	93	0.00	18.47
32	t	Chrysene	1.310	1.314	-0.3	103	0.00	18.52
33	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	92	0.00	20.57
34	t	Benzo[b]fluoranthene	1.656	1.410	14.9	81	0.00	20.13
35	t	Benzo[k]fluoranthene	1.501	1.567	-4.4	97	0.00	20.18
36	t	Benzo[a]pyrene	1.637	1.411	13.8	87	0.00	20.59
37	t	Indeno[1,2,3-cd]pyrene	1.725	1.573	8.8	87	0.00	22.13
38	t	Dibenz[a,h]anthracene	1.422	1.310	7.9	88	0.00	22.17
39	t	Benzo[g,h,i]perylene	1.543	1.460	5.4	92	0.00	22.52

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

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E4P767-ICV767
Lab FileID: 4P14957.D

```
4p14949.D  M4P767SIM.M       Tue Feb 02 09:03:11 2016
```

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E4P767-ICV767
Lab FileID: 4P14958.D

```
                    Evaluate Continuing Calibration Report

 Data File : C:\msdchem\1\DATA\e4p767\4p14958.D          Vial: 13
 Acq On    :  1 Feb 2016  10:54 pm                   Operator: juliusj
 Sample    : icv767-1.0                              Inst    : MS4P
 Misc      : op90759a,e4p767                         Multiplr: 1.00
 MS Integration Params: lscint.p

 Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
 Title        : Semi Volatile Extractables by GC/MS
 Last Update  : Tue Feb 02 08:55:09 2016
 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-Methylnaphthalene-d10     1.000   1.000      0.0   81  -0.02    8.73

           ----------------------- True    Calc.   % Drift  ------------
 2 t   1,4-Dioxane                 1.000   0.940      6.0   77   0.00    1.94

           ----------------------- AvgRF   CCRF     % Dev   -------------
11 t   1-Methylnaphthalene         1.419   1.289      9.2   74  -0.02    8.79

---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    4p14949.D  M4P767SIM.M       Tue Feb 02 09:03:13 2016
```

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E4P767-ICV767
Lab FileID: 4P14959.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e4p767\4p14959.D          Vial: 14
Acq On    :  1 Feb 2016  11:24 pm                   Operator: juliusj
Sample    : icv767-1.0                              Inst    : MS4P
Misc      : op90759a,e4p767                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Feb 02 08:55:09 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	129	-0.02	8.73
	----------	AvgRF	CCRF	% Dev	----------		
5	Phenol	1.342	1.347	-0.4	121	0.00	4.54
13 I	Fluorene-d10	1.000	1.000	0.0	99	0.00	11.74
	----------	True	Calc.	% Drift	----------		
19	4,6-dinitro-2-methylpheno	5.000	6.227	-24.5	141	-0.02	11.94
	----------	AvgRF	CCRF	% Dev	----------		
23	Fluoranthene-d10	1.000	1.000	0.0	121	0.00	15.95
	----------	True	Calc.	% Drift	----------		
25 t	Pentachlorophenol	5.000	5.339	-6.8	148	-0.02	13.32

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4p14949.D M4P767SIM.M Tue Feb 02 09:03:15 2016

Continuing Calibration Summary

Job Number: JC16038 **Sample:** E4P804-CC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P15627.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e4p804\4p15627.D          Vial: 2
Acq On    : 16 Mar 2016   9:42 pm                   Operator: juliusj
Sample    : cc767-1.0                               Inst    : MS4P
Misc      : op91877a,e4p804                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M4P767SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Mar 14 09:09:23 2016
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-Methylnaphthalene-d10	1.000	1.000	0.0	99	0.00	8.49
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	1.000	0.942	5.8	95	0.00	1.79
		----------	AvgRF	CCRF	% Dev	----------		
3	S	2-Fluorophenol	0.702	0.689	1.9	97	-0.05	3.13
4	S	Phenol-d5	1.132	1.187	-4.9	98	-0.04	4.32
5		Phenol	1.342	1.378	-2.7	96	0.00	4.34
6	t	bis(2-Chloroethyl)ether	1.180	1.041	11.8	92	0.02	4.44
7	S	Nitrobenzene-d5	1.114	1.100	1.3	95	0.00	5.72
8	t	Naphthalene	2.642	2.456	7.0	94	0.00	7.03
9	t	Hexachlorobutadiene	0.622	0.571	8.2	95	0.02	7.34
10	t	2-Methylnaphthalene	1.313	1.223	6.9	91	0.02	8.39
11	t	1-Methylnaphthalene	1.419	1.331	6.2	94	0.02	8.58
12		Hexachlorocyclopentadiene	0.531	0.174	67.2#	32#	0.02	8.74
13	I	Fluorene-d10	1.000	1.000	0.0	91	0.03	11.51
14	S	2-Fluorobiphenyl	1.139	1.079	5.3	96	0.00	9.17
15	t	Acenaphthylene	1.400	1.617	-15.5	106	0.00	10.14
16	t	Acenaphthene	1.029	1.030	-0.1	94	0.00	10.51
17		Dibenzofuran	1.328	1.422	-7.1	107	0.03	10.88
18	t	Fluorene	1.239	1.207	2.6	91	0.03	11.56
		----------	True	Calc.	% Drift	----------		
19		4,6-dinitro-2-methylpheno	5.000	4.531	9.4	91	0.03	11.76
		----------	AvgRF	CCRF	% Dev	----------		
20		n-nitrosodiphenylamine	0.605	0.720	-19.0	111	0.03	11.88
21		1,2-Diphenylhydrazine	1.231	1.634	-32.7#	113	0.03	11.93
22	S	2,4,6-Tribromophenol	0.149	0.178	-19.5	106	-0.02	12.06
23		Fluoranthene-d10	1.000	1.000	0.0	102	0.04	15.76
24	t	Hexachlorobenzene	0.322	0.300	6.8	101	0.01	12.68
		----------	True	Calc.	% Drift	----------		
25	t	Pentachlorophenol	5.000	3.751	25.0#	85	0.05	13.12
		----------	AvgRF	CCRF	% Dev	----------		
26	t	Phenanthrene	1.196	1.166	2.5	101	0.03	13.48
27	t	Anthracene	1.065	1.119	-5.1	109	0.03	13.59
28	t	Fluoranthene	1.273	1.257	1.3	104	0.04	15.77

Continuing Calibration Summary

Job Number: JC16038 **Sample:** E4P804-CC767
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4P15627.D
Project: BMSMC, Building 5 Area, PR

29	t	Pyrene	1.267	1.269	-0.2	106	0.04	16.17
30	S	Terphenyl-d14	0.611	0.647	-5.9	111	0.06	16.57
31	t	Benzo[a]anthracene	1.108	1.185	-6.9	111	0.03	18.30
32	t	Chrysene	1.310	1.336	-2.0	106	0.03	18.36
33	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	109	0.04	20.40
34	t	Benzo[b]fluoranthene	1.656	1.797	-8.5	123	0.04	19.98
35	t	Benzo[k]fluoranthene	1.501	1.365	9.1	101	0.04	20.01
36	t	Benzo[a]pyrene	1.637	1.475	9.9	109	0.05	20.44
37	t	Indeno[1,2,3-cd]pyrene	1.725	1.676	2.8	111	0.05	21.94
38	t	Dibenz[a,h]anthracene	1.422	1.411	0.8	113	0.04	21.97
39	t	Benzo[g,h,i]perylene	1.543	1.455	5.7	109	0.04	22.32

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4p14949.D M4P767SIM.M Thu Mar 17 15:09:36 2016

8.7.5

8

Initial Calibration Summary

Job Number: JC16038 **Sample:** EF6483-ICC6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154202.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MSF

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration

Calibration Files
2 =F154199.D 5 =F154201.D 25 =F154204.D 80 =F154200.D
100 =F154196.D 50 =F154202.D 10 =F154203.D 1 =F154197.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	1.007	0.795	0.620	0.581	0.545	0.602	0.695	1.275	0.765	33.29
----- Quadratic regression ----- Coefficient = 0.9996										
Response Ratio = 0.01514 + 0.64291 *A + -0.03981 *A^2										
3) Pyridine	1.640	1.768	1.475	1.471	1.372	1.510	1.517	1.987	1.592	12.52
4) N-Nitrosodim	0.711	0.641	0.551	0.550	0.549	0.562	0.581	0.740	0.611	12.67
5) 2-Fluorophen	1.617	1.597	1.399	1.394	1.328	1.432	1.433	1.863	1.508	11.61
6) Indene	3.257	3.288	2.691	2.490	2.300	2.663	2.888	3.871	2.931	17.50
7) Cumene	4.220	4.246	3.538	3.321	3.052	3.512	3.695	4.891	3.809	15.74
8) Phenol-d5	1.681	1.776	1.622	1.697	1.605	1.701	1.619	1.938	1.705	6.44
9) Phenol	1.811	1.988	1.841	1.867	1.760	1.929	1.847	2.013	1.882	4.64
10) Aniline	2.457	2.461	1.737	1.747	1.644	1.699	2.138		1.983	18.29
11) bis(2-Chloro	1.490	1.492	1.305	1.254	1.183	1.334	1.340	1.744	1.393	12.73
12) 2-Chlorophen	1.614	1.738	1.514	1.538	1.447	1.561	1.578	1.862	1.607	8.29
13) Decane	1.629	1.583	1.267	1.158	1.095	1.229	1.326	1.868	1.394	19.35
14) 1,3-Dichloro	1.978	1.954	1.672	1.573	1.475	1.677	1.734	2.175	1.780	13.20
15) 1,4-Dichloro	2.024	1.961	1.687	1.595	1.481	1.689	1.733	2.178	1.794	13.20
16) Benzyl alcoh	1.021	0.993	0.922	0.947	0.913	0.974	0.932	1.080	0.973	5.86
17) 1,2-Dichloro	1.890	1.867	1.566	1.479	1.373	1.588	1.648	2.147	1.695	15.00
18) Acetophenone	2.246	2.298	1.952	1.817	1.699	1.956	2.099	2.724	2.099	15.42
19) 2-Methylphen	1.193	1.347	1.291	1.274	1.188	1.326	1.245	1.255	1.265	4.53
20) 2,2'-oxybis(	0.581	0.589	0.490	0.462	0.433	0.490	0.533	0.719	0.537	17.07
21) 3&4-Methylph	1.213	1.370	1.312	1.317	1.227	1.373	1.292	1.250	1.294	4.69
22) n-Nitroso-di	0.994	1.050	0.880	0.825	0.780	0.866	0.925	1.063	0.923	11.27
23) Hexachloroet	0.532	0.549	0.492	0.476	0.446	0.497	0.505	0.669	0.521	13.06
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.396	0.407	0.357	0.352	0.351	0.357	0.360	0.492	0.384	12.61
26) Nitrobenzene	0.398	0.419	0.368	0.344	0.344	0.365	0.374	0.489	0.387	12.41
27) Quinoline	0.931	0.978	0.825	0.804	0.790	0.829	0.876	1.210	0.905	15.39
28) Isophorone	0.697	0.732	0.641	0.608	0.605	0.632	0.673	0.871	0.682	12.85
29) 2-Nitropheno	0.198	0.203	0.192	0.191	0.197	0.195	0.196	0.244	0.202	8.60
30) 2,4-Dimethyl	0.298	0.337	0.323	0.350	0.355	0.347	0.313	0.396	0.340	8.88
31) Benzoic acid	0.192	0.221	0.258	0.297	0.314	0.289	0.210	0.197	0.247	19.65
32) bis(2-Chloro	0.446	0.449	0.400	0.375	0.374	0.404	0.415	0.495	0.420	9.85
33) 2,4-Dichloro	0.277	0.290	0.291	0.302	0.302	0.313	0.283	0.289	0.293	3.93
34) 2,6-Dichloro	0.332	0.356	0.303	0.285	0.287	0.299	0.296	0.353	0.314	9.16
35) 1,3,5-Trichl	0.399	0.412	0.331	0.298	0.290	0.317	0.354	0.475	0.359	17.95
36) 1,2,4-Trichl	0.375	0.376	0.321	0.291	0.283	0.312	0.338	0.435	0.341	14.97
37) 1,2,3-Trichl	0.369	0.382	0.318	0.290	0.280	0.308	0.335	0.447	0.341	16.33
38) Naphthalene	1.398	1.403	1.187	1.093	1.047	1.157	1.254	1.702	1.280	16.73
39) 4-Chloroanil	0.523	0.540	0.444	0.440	0.427	0.454	0.482	0.503	0.476	8.80
40) 2,3-Dichloro	0.460	0.475	0.385	0.354	0.350	0.372	0.424	0.575	0.424	18.11
41) Caprolactam	0.178	0.168	0.155	0.158	0.166	0.159	0.159		0.163	4.79
42) Hexachlorobu	0.179	0.190	0.158	0.145	0.140	0.158	0.172	0.208	0.169	13.62

8.7.6

8

Initial Calibration Summary

Job Number: JC16038 **Sample:** EF6483-ICC6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154202.D
Project: BMSMC, Building 5 Area, PR

```
43) 4-Chloro-3-m 0.390 0.389 0.332 0.334 0.330 0.337 0.351 0.446 0.364  11.40
44) 2-Methylnaph 0.767 0.788 0.624 0.590 0.581 0.619 0.692 0.976 0.705  19.11
45) 1-Methylnaph 0.814 0.809 0.671 0.620 0.607 0.655 0.711 0.985 0.734  17.45
46) Dimethylnaph 0.840 0.848 0.684 0.641 0.629 0.675 0.737       0.722  12.53

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.285 0.298 0.288 0.284 0.282 0.289 0.282 0.340 0.293   6.69
49) 2,4,6-Trichl 0.348 0.373 0.317 0.313 0.306 0.314 0.338 0.457 0.346  14.54
50) 2,4,5-Trichl 0.444 0.413 0.368 0.348 0.345 0.353 0.385       0.379   9.82
51) 2-Fluorobiph 1.593 1.618 1.381 1.261 1.212 1.303 1.438 1.916 1.465  15.96
52) 2-Chloronaph 1.421 1.375 1.201 1.099 1.063 1.141 1.256 1.645 1.275  15.34
53) Biphenyl     1.850 1.872 1.580 1.457 1.410 1.522 1.697 2.241 1.704  16.19
54) 2-Nitroanili 0.313 0.312 0.292 0.302 0.316 0.297 0.284 0.380 0.312   9.47
55) Dimethylphth 1.506 1.551 1.320 1.244 1.202 1.287 1.389 1.894 1.424  15.85
56) Acenaphthyle 2.246 2.236 1.953 1.823 1.755 1.869 2.049 2.765 2.087  15.72
57) 2,6-Dinitrot 0.254 0.268 0.274 0.278 0.283 0.282 0.270 0.300 0.276   4.84
58) 3-Nitroanili 0.304 0.331 0.336 0.333 0.337 0.331 0.328 0.356 0.332   4.26
59) Acenaphthene 1.439 1.420 1.222 1.129 1.095 1.164 1.309 1.790 1.321  17.32
60) 2,4-Dinitrop 0.054 0.065 0.095 0.150 0.168 0.124 0.080 0.064 0.100  42.75
         ----- Quadratic regression -----                Coefficient =  0.9999
              Response Ratio = -0.00333 + 0.07882 *A + 0.01803 *A^2

61) 4-Nitropheno 0.193 0.187 0.162 0.174 0.184 0.161 0.148 0.256 0.183  18.12
62) Dibenzofuran 1.998 1.996 1.666 1.558 1.500 1.594 1.778 2.398 1.811  16.74
63) 2,4-Dinitrot 0.346 0.382 0.402 0.389 0.391 0.399 0.375 0.441 0.391   6.92
64) 2,3,4,6-Tetr 0.310 0.304 0.274 0.269 0.266 0.267 0.284 0.410 0.298  16.22
65) Diethylphtha 1.551 1.513 1.350 1.254 1.219 1.294 1.389 1.899 1.433  15.45
66) Fluorene     1.687 1.637 1.330 1.227 1.192 1.273 1.406 1.965 1.465  18.59
67) 4-Chlorophen 0.681 0.692 0.572 0.518 0.504 0.544 0.613 0.803 0.616  16.68
68) 4-Nitroanili 0.347 0.369 0.338 0.350 0.348 0.340 0.350 0.443 0.360   9.58

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro- 0.063 0.073 0.102 0.133 0.139 0.121 0.085 0.070 0.098  30.31
         ----- Quadratic regression -----                Coefficient =  0.9997
              Response Ratio = -0.00335 + 0.10361 *A + 0.01488 *A^2

71) n-Nitrosodip 0.751 0.727 0.628 0.598 0.575 0.615 0.673 0.884 0.681  15.06
72) 1,2-Diphenyl 0.913 0.891 0.772 0.750 0.722 0.756 0.835 1.091 0.841  14.55
73) 2,4,6-Tribro 0.098 0.100 0.093 0.091 0.088 0.089 0.094 0.130 0.098  13.86
74) 4-Bromopheny 0.225 0.220 0.191 0.181 0.174 0.186 0.200 0.282 0.207  16.91
75) Hexachlorobe 0.247 0.241 0.205 0.191 0.182 0.192 0.216 0.295 0.221  17.22
76) Pentachlorop 0.140 0.140 0.136 0.136 0.135 0.134 0.134 0.189 0.143  13.19
77) Phenanthrene 1.423 1.357 1.153 1.095 1.047 1.105 1.217 1.659 1.257  16.61
78) Anthracene   1.390 1.363 1.162 1.111 1.061 1.101 1.233 1.643 1.258  15.66
79) Carbazole    1.428 1.384 1.188 1.157 1.098 1.135 1.237 1.686 1.289  15.41
80) Di-n-butylph 1.607 1.584 1.452 1.411 1.357 1.400 1.468 1.904 1.523  11.62
81) Fluoranthene 1.365 1.362 1.205 1.171 1.128 1.168 1.256 1.666 1.290  13.60
82) Octadecane   0.606 0.605 0.508 0.485 0.473 0.490 0.536 0.708 0.551  14.82

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.569 1.601 1.367 1.401 1.357 1.366 1.461 1.884 1.501  12.08
85) Terphenyl-d1 0.918 0.904 0.787 0.814 0.783 0.789 0.842 1.150 0.873  14.16
86) Butylbenzylp 0.675 0.688 0.668 0.712 0.715 0.682 0.656 0.821 0.702   7.44
87) Butyl steara 0.407 0.390 0.390 0.394 0.397 0.394 0.365 0.476 0.402   8.07
88) Benzo[a]anth 1.317 1.304 1.140 1.172 1.152 1.134 1.177 1.654 1.256  14.01
89) 3,3'-Dichlor 0.354 0.397 0.376 0.407 0.396 0.387 0.367 0.434 0.390   6.44
90) Chrysene     1.330 1.300 1.140 1.168 1.123 1.133 1.185 1.566 1.243  12.21
91) bis(2-Ethylh 0.925 0.940 0.941 0.981 0.989 0.946 0.895 1.204 0.978   9.83

92) I   Perylene-d12          ----------------ISTD---------------------
```

8.7.6

8

Initial Calibration Summary

Job Number: JC16038 **Sample:** EF6483-ICC6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154202.D
Project: BMSMC, Building 5 Area, PR

93)	Di-n-octylph	1.609	1.703	1.721	1.770	1.754	1.775	1.613	2.115	1.757	9.00
94)	Benzo[b]fluo	1.303	1.344	1.230	1.216	1.179	1.217	1.282	1.600	1.296	10.33
95)	Benzo[k]fluo	1.393	1.364	1.201	1.121	1.079	1.164	1.261	1.644	1.278	14.43
96)	Benzo[a]pyre	1.131	1.237	1.086	1.072	1.038	1.067	1.112	1.431	1.147	11.33
97)	Indeno[1,2,3	1.068	1.067	1.016	1.032	1.014	0.999	0.993	1.320	1.064	10.10
98)	Dibenz(a,h)a	0.980	1.058	0.974	0.970	0.954	0.970	0.992	1.193	1.011	7.91
99)	Dibenz[a,h]a	1.104	1.146	1.074	1.086	1.042	1.093	1.096	1.342	1.123	8.31
100)	7,12-Dimethy	0.479	0.511	0.543	0.540	0.525	0.539	0.502	0.530	0.521	4.34
101)	Benzo[g,h,i]	1.242	1.234	1.107	1.100	1.060	1.093	1.127	1.443	1.176	10.77

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

MF6483.M Sat Jan 30 16:34:03 2016 RT1

8.7.6

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6483-ICV6483
Lab FileID: F154205.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6483\F154205.D          Vial: 10
Acq On    : 30 Jan 2016  12:42 pm                   Operator: kristis
Sample    : icv6483-50                              Inst    : MSF
Misc      : op90770,ef6483,1000,,,1,1               Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Sat Jan 30 15:30:25 2016
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.
92	I	Perylene-d12	1.000	1.000	0.0	74	0.00	17.62
100	t	7,12-Dimethylbenz(a)anthr	0.521	0.414	20.5	57	-0.01	16.88

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:34:43 2016 RT1

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6484-ICV6483
Lab FileID: F154208.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF6484\F154208.D Vial: 2
Acq On : 30 Jan 2016 2:06 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
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	105	0.00	4.88
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	50.000	44.254	11.5	95	0.02	2.50
		----------	AvgRF	CCRF	% Dev	----------		
6	t	Indene	2.931	2.476	15.5	98	0.00	5.07
7	t	Cumene	3.809	3.197	16.1	96	0.00	4.30
13	t	Decane	1.394	1.162	16.6	100	0.00	4.76
18	t	Acetophenone	2.099	1.802	14.1	97	0.00	5.17
24	I	Naphthalene-d8	1.000	1.000	0.0	114	0.00	5.80
27	t	Quinoline	0.905	0.633	30.1#	87	-0.01	6.05
40	t	2,3-Dichloroaniline	0.424	0.270	36.3#	82	0.00	6.56
41	t	Caprolactam	0.163	0.119	27.0	85	-0.03	6.09
45	t	1-Methylnaphthalene	0.734	0.496	32.4#	86	0.00	6.41
46	t	Dimethylnaphthalene	0.722	0.518	28.3	87	0.00	6.85
47	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.27
48	t	Hexachlorocyclopentadiene	0.293	0.284	3.1	92	0.00	6.46
53	t	Biphenyl	1.704	1.390	18.4	85	0.00	6.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:37:22 2016 RT1

8.7.8
8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6484-ICV6483
Lab FileID: F154209.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6484\F154209.D          Vial: 3
Acq On    : 30 Jan 2016   2:36 pm                   Operator: kristis
Sample    : icv6483-50                              Inst    : MSF
Misc      : op90770,ef6484,1000,,,1,1               Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Sat Jan 30 15:30:25 2016
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	107	0.00	4.88
9	t	Phenol	1.882	1.530	18.7	85	0.00	4.61
12	t	2-Chlorophenol	1.607	1.367	14.9	94	0.00	4.73
19	t	2-Methylphenol	1.265	1.188	6.1	96	0.00	5.05
21	t	3&4-Methylphenol	1.294	1.245	3.8	97	0.00	5.16
24	I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	5.80
29	t	2-Nitrophenol	0.202	0.185	8.4	96	0.00	5.52
30	t	2,4-Dimethylphenol	0.340	0.340	0.0	100	0.00	5.55
31	t	Benzoic acid	0.247	0.246	0.4	87	-0.01	5.62
33	t	2,4-Dichlorophenol	0.293	0.279	4.8	91	0.00	5.70
34		2,6-Dichlorophenol	0.314	0.274	12.7	93	0.00	5.86
43	t	4-Chloro-3-methylphenol	0.364	0.282	22.5	85	-0.01	6.19
47	I	Acenaphthene-d10	1.000	1.000	0.0	94	0.00	7.27
49	t	2,4,6-Trichlorophenol	0.346	0.313	9.5	94	0.00	6.55
50	t	2,4,5-Trichlorophenol	0.379	0.316	16.6	85	0.00	6.58
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	50.609	-1.2	76	0.00	7.31
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.183	0.156	14.8	91	-0.01	7.37
64		2,3,4,6-Tetrachlorophenol	0.298	0.243	18.5	86	0.00	7.62
69	I	Phenanthrene-d10	1.000	1.000	0.0	88	0.00	9.22
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	47.609	4.8	82	0.00	7.93
		----------	AvgRF	CCRF	% Dev	----------		
76	t	Pentachlorophenol	0.143	0.130	9.1	86	0.00	8.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:37:23 2016 RT1

Initial Calibration Verification

Job Number: JC16038 **Sample:** EF6484-ICV6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154210.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF6484\F154210.D Vial: 4
Acq On : 30 Jan 2016 3:05 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
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	109	0.00	4.88
4	t	N-Nitrosodimethylamine	0.611	0.500	18.2	97	0.01	2.77
11	t	bis(2-Chloroethyl)ether	1.393	1.208	13.3	98	0.00	4.68
14	t	1,3-Dichlorobenzene	1.780	1.505	15.4	98	0.00	4.84
15	t	1,4-Dichlorobenzene	1.794	1.540	14.2	99	0.00	4.89
17	t	1,2-Dichlorobenzene	1.695	1.441	15.0	99	0.00	5.01
20	t	2,2'-oxybis(1-Chloropropa	0.537	0.420	21.8	93	0.00	5.07
22		n-Nitroso-di-n-propylamin	0.923	0.796	13.8	100	0.00	5.17
23	t	Hexachloroethane	0.521	0.461	11.5	101	0.00	5.25
24	I	Naphthalene-d8	1.000	1.000	0.0	103	0.00	5.80
26	t	Nitrobenzene	0.387	0.320	17.3	90	0.00	5.30
28	t	Isophorone	0.682	0.608	10.9	99	0.00	5.46
32	t	bis(2-Chloroethoxy)methan	0.420	0.352	16.2	90	0.00	5.61
36	t	1,2,4-Trichlorobenzene	0.341	0.289	15.2	95	0.00	5.76
38	t	Naphthalene	1.280	1.085	15.2	97	0.00	5.82
42	t	Hexachlorobutadiene	0.169	0.151	10.7	98	0.00	5.90
47	I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	7.27
52	t	2-Chloronaphthalene	1.275	1.218	4.5	90	0.00	6.74
55	t	Dimethylphthalate	1.424	1.308	8.1	86	0.00	6.98
56	t	Acenaphthylene	2.087	1.942	6.9	88	0.00	7.13
57	t	2,6-Dinitrotoluene	0.276	0.270	2.2	81	0.00	7.04
59	t	Acenaphthene	1.321	1.248	5.5	91	0.00	7.30
63	t	2,4-Dinitrotoluene	0.391	0.343	12.3	73	0.00	7.45
65	t	Diethylphthalate	1.433	1.278	10.8	84	0.00	7.73
66	t	Fluorene	1.465	1.308	10.7	87	0.00	7.89
67	t	4-Chlorophenyl-phenylethe	0.616	0.560	9.1	87	0.00	7.88
69	I	Phenanthrene-d10	1.000	1.000	0.0	85	0.00	9.22
71	t	n-Nitrosodiphenylamine	0.681	0.581	14.7	81	0.00	8.02
72	t	1,2-Diphenylhydrazine	0.841	0.755	10.2	85	0.00	8.08
74	t	4-Bromophenyl-phenylether	0.207	0.187	9.7	86	0.00	8.54
75	t	Hexachlorobenzene	0.221	0.191	13.6	85	0.00	8.63
77	t	Phenanthrene	1.257	1.084	13.8	84	0.00	9.25
78	t	Anthracene	1.258	1.094	13.0	85	0.00	9.34
80	t	Di-n-butylphthalate	1.523	1.335	12.3	82	0.00	10.32
81	t	Fluoranthene	1.290	1.106	14.3	81	0.00	11.44
83	I	Chrysene-d12	1.000	1.000	0.0	79	0.00	14.56
84	t	Pyrene	1.501	1.406	6.3	82	0.00	11.89

Initial Calibration Verification

Job Number: JC16038 **Sample:** EF6484-ICV6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154210.D
Project: BMSMC, Building 5 Area, PR

86	t	Butylbenzylphthalate	0.702	0.642	8.5	75	0.00	13.48
88	t	Benzo[a]anthracene	1.256	1.066	15.1	75	0.00	14.54
90	t	Chrysene	1.243	1.056	15.0	74	0.00	14.62
91	t	bis(2-Ethylhexyl)phthalat	0.978	0.894	8.6	75	0.00	14.90
92	I	Perylene-d12	1.000	1.000	0.0	80	0.00	17.61
93	t	Di-n-octylphthalate	1.757	1.614	8.1	73	0.00	16.34
94	t	Benzo[b]fluoranthene	1.296	1.059	18.3	69	0.00	16.86
95	t	Benzo[k]fluoranthene	1.278	1.072	16.1	74	-0.01	16.92
96	t	Benzo[a]pyrene	1.147	0.996	13.2	74	0.00	17.50
97	t	Indeno[1,2,3-cd]pyrene	1.064	0.909	14.6	73	0.00	19.56
99	t	Dibenz[a,h]anthracene	1.123	0.915	18.5	67	0.00	19.62
101	t	Benzo[g,h,i]perylene	1.176	0.948	19.4	69	0.00	20.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:37:24 2016 RT1

8.7.10

8

Initial Calibration Verification

Job Number: JC16038 **Sample:** EF6484-ICV6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154211.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6484\F154211.D          Vial: 5
Acq On    : 30 Jan 2016   3:33 pm                   Operator: kristis
Sample    : icv6483-50                              Inst    : MSF
Misc      : op90770,ef6484,1000,,,1,1               Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Sat Jan 30 15:30:25 2016
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	101	0.00	4.88
3	t	Pyridine	1.592	1.389	12.8	93	0.09	2.87
10	t	Aniline	1.983	2.079	-4.8	124	0.00	4.64
16	t	Benzyl alcohol	0.973	0.936	3.8	98	0.00	4.97
24	I	Naphthalene-d8	1.000	1.000	0.0	103	0.00	5.80
39	t	4-Chloroaniline	0.476	0.442	7.1	100	0.00	5.85
44	t	2-Methylnaphthalene	0.705	0.553	21.6	92	0.00	6.33
47	I	Acenaphthene-d10	1.000	1.000	0.0	88	0.00	7.27
54	t	2-Nitroaniline	0.312	0.305	2.2	91	0.00	6.82
58	t	3-Nitroaniline	0.332	0.338	-1.8	90	0.00	7.21
62	t	Dibenzofuran	1.811	1.732	4.4	96	0.00	7.49
68	t	4-Nitroaniline	0.360	0.316	12.2	82	-0.01	7.90
69	I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00	9.22
79	t	Carbazole	1.289	1.053	18.3	87	0.00	9.61

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:37:25 2016 RT1

8.7.11

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6484-ICV6483
Lab FileID: F154213.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6484\F154213.D          Vial: 7
Acq On    : 30 Jan 2016   4:02 pm                   Operator: kristis
Sample    : icv6483-50                              Inst    : MSF
Misc      : op90770,ef6484,1000,,,1,1               Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Sat Jan 30 15:30:25 2016
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	99	-0.01	14.55
89	t	3,3'-Dichlorobenzidine	0.390	0.453	-16.2	116	0.00	14.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:37:26 2016 RT1

Initial Calibration Verification

Job Number: JC16038 **Sample:** EF6484-ICV6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154212.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6484\F154212.D          Vial: 6
Acq On    : 30 Jan 2016   4:31 pm                   Operator: kristis
Sample    : icv6483-50                              Inst    : MSF
Misc      : op90770,ef6484,1000,,,1,1               Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Sat Jan 30 15:30:25 2016
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	4.88
5	S	2-Fluorophenol	1.508	1.290	14.5	104	0.00	3.91
8	S	Phenol-d5	1.705	1.522	10.7	103	0.00	4.61
24	I	Naphthalene-d8	1.000	1.000	0.0	110	0.00	5.80
25	S	Nitrobenzene-d5	0.384	0.330	14.1	101	0.00	5.28
47	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	7.27
51	S	2-Fluorobiphenyl	1.465	1.213	17.2	94	0.00	6.62
69	I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00	9.22
73	S	2,4,6-Tribromophenol	0.098	0.087	11.2	92	0.00	8.19
83	I	Chrysene-d12	1.000	1.000	0.0	87	-0.01	14.55
85	S	Terphenyl-d14	0.873	0.766	12.3	85	0.00	12.31

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154202.D MF6483.M Sat Jan 30 16:55:47 2016 RT1

8.7.13

8

Initial Calibration Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6489-ICC6489
Lab FileID: F154270.D

```
                          Response Factor Report  MSF

  Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
  Title        : Semi Volatile Extractables by GC/MS
  Last Update  : Mon Feb 01 23:10:06 2016
  Response via : Initial Calibration

  Calibration Files
  2   =F154274.D  5   =F154273.D  25  =F154271.D  80  =F154269.D
  100 =F154268.D  50  =F154270.D  10  =F154272.D  1   =F154275.D

   Compound          2     5     25    80    100   50    10    1     Avg %RSD
  ---------------------------------------------------------------------------

159) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
160) Benzaldehyde 1.277 1.326 1.140 1.051 1.003 1.118 1.136 1.209 1.158   9.40

161) I   Naphthalene-d8b       ----------------ISTD---------------------
162) Hydroquinone       0.248 0.302 0.350 0.325 0.378 0.226       0.305  19.31

163)     Acenaphthene-d10b     ----------------ISTD---------------------
164) 1,2,4,5-Tetr 0.585 0.579 0.507 0.476 0.469 0.493 0.521 0.589 0.527   9.45

165)     Phenanthrene-d10b     ----------------ISTD---------------------
166) Atrazine     0.172 0.195 0.202 0.198 0.194 0.211 0.183 0.138 0.187  12.39

167)     Chrysene-d12b         ----------------ISTD---------------------
168) Benzidine    0.337 0.486 0.542 0.485 0.427 0.614 0.535       0.489  18.14
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MF6483.M          Mon Feb 01 23:59:14 2016   RT1
```

8.7.14

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6489-ICV6489
Lab FileID: F154276.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6489\F154276.D          Vial: 10
Acq On    :  1 Feb 2016  10:02 pm                   Operator: sarad
Sample    : icv6489-50                              Inst    : MSF
Misc      : op90770,ef6489                          Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Feb 01 23:10:06 2016
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.
163	Acenaphthene-d10b	1.000	1.000	0.0	80	0.00	7.27
164	1,2,4,5-Tetrachlorobenzen	0.527	0.568	-7.8	92	0.00	6.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154270A.D MF6483.M Mon Feb 01 23:14:32 2016 RT1

8.7.15

8

Initial Calibration Verification

Job Number: JC16038 **Sample:** EF6489-ICV6489
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F154277.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6489\F154277.D          Vial: 11
Acq On    :  1 Feb 2016  10:31 pm                   Operator: sarad
Sample    : icv6489-50                              Inst    : MSF
Misc      : op90770,ef6489                          Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Feb 01 23:10:06 2016
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.
159 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	96	0.00	4.88
160 t	Benzaldehyde	1.158	1.096	5.4	94	0.00	4.56
165	Phenanthrene-d10b	1.000	1.000	0.0	86	0.00	9.21
166	Atrazine	0.187	0.193	-3.2	79	0.00	8.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154270A.D MF6483.M Mon Feb 01 23:14:33 2016 RT1

8.7.16

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6489-ICV6489
Lab FileID: F154278.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6489\F154278.D          Vial: 12
Acq On    :  1 Feb 2016  11:00 pm                   Operator: sarad
Sample    : icv6489-50                              Inst    : MSF
Misc      : op90770,ef6489                          Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Feb 01 23:10:06 2016
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.
167	Chrysene-d12b	1.000	1.000	0.0	104	0.00	14.55
168	Benzidine	0.489	0.933	-90.8#	158	0.00	11.77

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154270A.D MF6483.M Mon Feb 01 23:55:05 2016 RT1

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EF6489-ICV6489
Lab FileID: F154279.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6489\F154279.D          Vial: 13
Acq On    :  1 Feb 2016  11:29 pm                   Operator: sarad
Sample    : icv6489-50                              Inst    : MSF
Misc      : op90770,ef6489                          Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Mon Feb 01 23:10:06 2016
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.
161	I	Naphthalene-d8b	1.000	1.000	0.0	95	0.00	5.80
162	t	Hydroquinone	0.305	0.359	-17.7	90	0.00	6.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154270A.D MF6483.M Mon Feb 01 23:57:40 2016 RT1

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EF6543-CC6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F155571.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6543\F155571.D          Vial: 2
Acq On    : 15 Mar 2016   9:18 pm                   Operator: sarad
Sample    : cc6483-25                               Inst    : MSF
Misc      : op92047,ef6543                          Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Mar 15 17:21:13 2016
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	72	0.05	4.78
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	25.000	24.351	2.6	73	0.02	2.37
		----------	AvgRF	CCRF	% Dev	----------		
3	t	Pyridine	1.592	1.462	8.2	72	0.02	2.70
4	t	N-Nitrosodimethylamine	0.611	0.795	-30.1#	104	0.02	2.67
5	S	2-Fluorophenol	1.508	1.401	7.1	73	0.04	3.85
6	t	Indene	2.931	2.839	3.1	76	0.01	4.97
7	t	Cumene	3.809	3.729	2.1	76	0.06	4.19
8	S	Phenol-d5	1.705	1.729	-1.4	77	0.02	4.56
9	t	Phenol	1.882	2.021	-7.4	79	-0.05	4.57
10	t	Aniline	1.983	1.542	22.2#	64	0.00	4.55
11	t	bis(2-Chloroethyl)ether	1.393	1.356	2.7	75	0.01	4.59
12	t	2-Chlorophenol	1.607	1.597	0.6	76	-0.02	4.65
13	t	Decane	1.394	1.863	-33.6#	106	0.01	4.66
14	t	1,3-Dichlorobenzene	1.780	1.661	6.7	72	0.05	4.74
15	t	1,4-Dichlorobenzene	1.794	1.711	4.6	73	0.01	4.80
16	t	Benzyl alcohol	0.973	0.996	-2.4	78	-0.01	4.89
17	t	1,2-Dichlorobenzene	1.695	1.633	3.7	75	0.01	4.91
18	t	Acetophenone	2.099	2.176	-3.7	81	0.00	5.08
19	t	2-Methylphenol	1.265	1.389	-9.8	78	-0.03	5.00
20	t	2,2'-oxybis(1-Chloropropa	0.537	0.540	-0.6	80	0.01	4.98
21	t	3&4-Methylphenol	1.294	1.502	-16.1	83	-0.04	5.10
22		n-Nitroso-di-n-propylamin	0.923	1.049	-13.7	86	-0.01	5.08
23	t	Hexachloroethane	0.521	0.525	-0.8	77	0.01	5.16
24	I	Naphthalene-d8	1.000	1.000	0.0	76	0.00	5.71
25	S	Nitrobenzene-d5	0.384	0.403	-4.9	86	0.00	5.19
26	t	Nitrobenzene	0.387	0.406	-4.9	84	0.01	5.20
27	t	Quinoline	0.905	0.812	10.3	75	0.00	5.96
28	t	Isophorone	0.682	0.673	1.3	80	0.01	5.37
29	t	2-Nitrophenol	0.202	0.207	-2.5	82	0.00	5.43
30	t	2,4-Dimethylphenol	0.340	0.348	-2.4	82	-0.02	5.47
31	t	Benzoic acid	0.247	0.314	-27.1#	92	-0.03	5.56
32	t	bis(2-Chloroethoxy)methan	0.420	0.404	3.8	77	0.00	5.52
33	t	2,4-Dichlorophenol	0.293	0.316	-7.8	82	-0.03	5.62
34		2,6-Dichlorophenol	0.314	0.308	1.9	77	0.00	5.77
35		1,3,5-Trichlorobenzene	0.359	0.327	8.9	75	0.01	5.44
36	t	1,2,4-Trichlorobenzene	0.341	0.320	6.2	76	0.00	5.66
37		1,2,3-Trichlorobenzene	0.341	0.313	8.2	75	0.00	5.82

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EF6543-CC6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F155571.D
Project: BMSMC, Building 5 Area, PR

38	t	Naphthalene	1.280	1.191	7.0	76	0.01	5.72
39	t	4-Chloroaniline	0.476	0.420	11.8	72	0.00	5.76
40	t	2,3-Dichloroaniline	0.424	0.389	8.3	77	0.00	6.46
41	t	Caprolactam	0.163	0.197	-20.9#	97	0.01	6.02
42	t	Hexachlorobutadiene	0.169	0.170	-0.6	82	0.01	5.81
43	t	4-Chloro-3-methylphenol	0.364	0.359	1.4	82	-0.03	6.13
44	t	2-Methylnaphthalene	0.705	0.627	11.1	76	0.00	6.22
45	t	1-Methylnaphthalene	0.734	0.672	8.4	76	0.01	6.30
46	t	Dimethylnaphthalene	0.722	0.706	2.2	78	0.01	6.74
47	I	Acenaphthene-d10	1.000	1.000	0.0	79	0.00	7.14
48	t	Hexachlorocyclopentadiene	0.293	0.275	6.1	76	0.01	6.35
49	t	2,4,6-Trichlorophenol	0.346	0.336	2.9	84	0.00	6.46
50	t	2,4,5-Trichlorophenol	0.379	0.348	8.2	75	-0.04	6.51
51	S	2-Fluorobiphenyl	1.465	1.336	8.8	77	0.01	6.52
52	t	2-Chloronaphthalene	1.275	1.144	10.3	76	0.00	6.63
53	t	Biphenyl	1.704	1.559	8.5	78	0.01	6.60
54	t	2-Nitroaniline	0.312	0.382	-22.4#	104	0.00	6.72
55	t	Dimethylphthalate	1.424	1.319	7.4	79	0.01	6.87
56	t	Acenaphthylene	2.087	1.893	9.3	77	0.00	7.00
57	t	2,6-Dinitrotoluene	0.276	0.305	-10.5	89	0.00	6.93
58	t	3-Nitroaniline	0.332	0.319	3.9	75	0.00	7.11
59	t	Acenaphthene	1.321	1.174	11.1	76	0.01	7.18
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	72.552	-45.1#	133	0.00	7.21
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.183	0.213	-16.4	105	-0.07	7.32
62	t	Dibenzofuran	1.811	1.640	9.4	78	0.01	7.36
63	t	2,4-Dinitrotoluene	0.391	0.430	-10.0	85	0.00	7.34
64		2,3,4,6-Tetrachlorophenol	0.298	0.266	10.7	77	0.00	7.51
65	t	Diethylphthalate	1.433	1.347	6.0	79	0.01	7.60
66	t	Fluorene	1.465	1.331	9.1	80	0.01	7.75
67	t	4-Chlorophenyl-phenylethe	0.616	0.603	2.1	84	0.01	7.74
68	t	4-Nitroaniline	0.360	0.291	19.2	69	-0.01	7.79
69	I	Phenanthrene-d10	1.000	1.000	0.0	82	0.00	9.06
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	32.313	-29.3#	115	0.00	7.82
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.681	0.612	10.1	80	0.00	7.89
72	t	1,2-Diphenylhydrazine	0.841	0.816	3.0	86	0.01	7.94
73	S	2,4,6-Tribromophenol	0.098	0.091	7.1	80	0.00	8.06
74	t	4-Bromophenyl-phenylether	0.207	0.191	7.7	82	0.01	8.39
75	t	Hexachlorobenzene	0.221	0.201	9.0	80	0.01	8.48
76	t	Pentachlorophenol	0.143	0.125	12.6	76	-0.01	8.79
77	t	Phenanthrene	1.257	1.095	12.9	78	0.01	9.09
78	t	Anthracene	1.258	1.111	11.7	78	0.00	9.17
79	t	Carbazole	1.289	1.150	10.8	79	-0.01	9.46
80	t	Di-n-butylphthalate	1.523	1.445	5.1	81	0.01	10.14
81	t	Fluoranthene	1.290	1.225	5.0	83	0.01	11.26
82	t	Octadecane	0.551	0.612	-11.1	98	0.02	8.93
83	I	Chrysene-d12	1.000	1.000	0.0	86	0.00	14.36
84	t	Pyrene	1.501	1.312	12.6	82	0.00	11.70
85	S	Terphenyl-d14	0.873	0.779	10.8	85	0.00	12.11
86	t	Butylbenzylphthalate	0.702	0.671	4.4	86	0.01	13.28

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EF6543-CC6483
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F155571.D
Project: BMSMC, Building 5 Area, PR

87		Butyl stearate	0.402	0.466	-15.9	103	0.01	13.54
88	t	Benzo[a]anthracene	1.256	1.095	12.8	83	0.00	14.33
89	t	3,3'-Dichlorobenzidine	0.390	0.392	-0.5	90	0.00	14.37
90	t	Chrysene	1.243	1.067	14.2	80	0.00	14.41
91	t	bis(2-Ethylhexyl)phthalat	0.978	0.908	7.2	83	0.01	14.67
92	I	Perylene-d12	1.000	1.000	0.0	79	0.00	17.41
93	t	Di-n-octylphthalate	1.757	1.864	-6.1	86	0.12	16.11
94	t	Benzo[b]fluoranthene	1.296	1.254	3.2	81	-0.02	16.65
95	t	Benzo[k]fluoranthene	1.278	1.199	6.2	79	-0.02	16.71
96	t	Benzo[a]pyrene	1.147	1.091	4.9	80	-0.02	17.28
97	t	Indeno[1,2,3-cd]pyrene	1.064	1.036	2.6	81	-0.02	19.35
98	t	Dibenz(a,h)acridine	1.011	0.984	2.7	80	-0.02	18.98
99	t	Dibenz[a,h]anthracene	1.123	1.073	4.5	79	-0.02	19.40
100	t	7,12-Dimethylbenz(a)anthr	0.521	0.509	2.3	74	-0.02	16.66
101	t	Benzo[g,h,i]perylene	1.176	1.057	10.1	76	-0.02	19.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154271A.D MF6483.M Wed Mar 16 15:05:08 2016 RT1

8.7.19

8

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EF6543-CC6489
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** F155572.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EF6543\F155572.D          Vial: 3
Acq On    : 15 Mar 2016   9:46 pm                   Operator: sarad
Sample    : cc6489-25                               Inst    : MSF
Misc      : op92047,ef6543                          Multiplr: 1.00
MS Integration Params: LSCINT.P

Method       : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Mar 15 17:21:13 2016
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.
102 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	86	0.06	4.78
103 t	Benzaldehyde	1.158	0.986	14.9	75	-0.04	4.46
104 I	Naphthalene-d8b	1.000	1.000	0.0	91	0.00	5.71
105 t	Hydroquinone	0.305	0.327	-7.2	99	0.07	6.02
106	Acenaphthene-d10b	1.000	1.000	0.0	95	0.00	7.14
107	1,2,4,5-Tetrachlorobenzen	0.527	0.426	19.2	80	0.03	6.36
108	Phenanthrene-d10b	1.000	1.000	0.0	100	0.00	9.06
109	Atrazine	0.187	0.189	-1.1	93	0.04	8.64
110	Chrysene-d12b	1.000	1.000	0.0	105	0.00	14.35
111	Benzidine	0.489	0.372	23.9#	72	0.03	11.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F154271A.D MF6483.M Wed Mar 16 15:05:09 2016 RT1

8.7.20

8

Initial Calibration Summary

Job Number: JC16038 **Sample:** EP4514-ICC4514
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P102794.D
Project: BMSMC, Building 5 Area, PR

```
                          Response Factor Report  MSP

  Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
  Title        : Semi Volatile Extractables by GC/MS
  Last Update  : Wed Feb 24 16:59:22 2016
  Response via : Initial Calibration

  Calibration Files
  2   =P102791.D  5   =P102790.D  25  =P102793.D  80  =P102788.D
  100 =P102787.D  50  =P102794.D  10  =P102789.D  1   =P102792.D

   Compound          2     5     25    80    100   50    10    1     Avg %RSD
  ---------------------------------------------------------------------------
159) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
160) Benzaldehyde 1.493 1.438 1.178 0.968 0.861 1.070 1.264 1.347 1.202  18.71

161) I   Phenanthrene-d10b     ----------------ISTD---------------------
162) Atrazine     0.205 0.229 0.206 0.195 0.191 0.202 0.206 0.198 0.204   5.61

163) I   Chrysene-d12b         ----------------ISTD---------------------
164) Benzidine    0.801 0.928 0.737 0.484       0.617 0.814 0.548 0.704  22.70

165) I   Naphthalene-d8b       ----------------ISTD---------------------
166) Hydroquinone 0.277 0.369 0.396 0.399 0.390 0.390 0.346       0.367  11.94

167) I   Acenaphthene-d10b     ----------------ISTD---------------------
168) 1,2,4,5-Tetr 0.648 0.646 0.535 0.467 0.439 0.496 0.546 0.615 0.549  14.65
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MP4513.M          Thu Feb 25 16:37:51 2016
```

8.7.21

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4514-ICV4514
Lab FileID: P102798A.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D          Vial: 21
Acq On    : 24 Feb 2016   7:31 am                    Operator: sarad
Sample    : icv4514-50                               Inst    : MSP
Misc      : op91338,ep4514                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
167 I	Acenaphthene-d10b	1.000	1.000	0.0	95	0.00	8.86
168	1,2,4,5-Tetrachlorobenzen	0.549	0.509	7.3	97	0.00	7.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:15 2016

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4514-ICV4514
Lab FileID: P102799A.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D          Vial: 22
Acq On    : 24 Feb 2016   8:00 am                    Operator: sarad
Sample    : icv4514-50                               Inst    : MSP
Misc      : op91338,ep4514                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
159	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	95	0.00	4.37
160		Benzaldehyde	1.202	1.156	3.8	103	0.00	3.84
161	I	Phenanthrene-d10b	1.000	1.000	0.0	94	0.00	11.22
162		Atrazine	0.204	0.201	1.5	94	0.00	10.88

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:17 2016

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4514-ICV4514
Lab FileID: P102800.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D          Vial: 23
Acq On    : 24 Feb 2016   8:29 am                   Operator: sarad
Sample    : icv4514-50                              Inst    : MSP
Misc      : op91338,ep4514                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
165 I	Naphthalene-d8b	1.000	1.000	0.0	103	0.00	6.13
166	Hydroquinone	0.367	0.386	-5.2	102	0.00	6.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:18 2016

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4514-ICV4514
Lab FileID: P102801A.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D          Vial: 24
Acq On    : 24 Feb 2016   8:58 am                    Operator: sarad
Sample    : icv4514-50                               Inst    : MSP
Misc      : op91338,ep4514                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Feb 24 16:59:22 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
163 I	Chrysene-d12b	1.000	1.000	0.0	113	0.00	15.95
164	Benzidine	0.704	1.090	-54.8#	199	0.00	13.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P102805A.D MP4513.M Thu Feb 25 16:23:20 2016

Initial Calibration Summary

Job Number: JC16038 **Sample:** EP4524-ICC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103017.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MSP

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration

Calibration Files
2 =P103015.D 5 =P103014.D 25 =P103018.D 80 =P103012.D
100 =P103011.D 50 =P103017.D 10 =P103013.D 1 =P103016.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.777	0.716	0.721	0.624	0.626	0.757	0.631	0.834	0.711	11.04
3) Pyridine	1.581	1.654	1.751	1.401	1.419	1.729	1.626	1.675	1.604	8.20
4) N-Nitrosodim	0.614	0.593	0.639	0.546	0.542	0.651	0.585	0.630	0.600	6.83
5) 2-Fluorophen	1.323	1.387	1.551	1.302	1.296	1.576	1.419	1.284	1.392	8.32
6) Indene	2.297	2.390	2.495	1.972	1.913	2.492	2.363	2.280	2.275	9.69
7) Cumene	3.409	3.405	3.648	2.649	2.520	3.496	3.392	3.773	3.287	13.83
8) Phenol-d5	1.776	1.728	1.873	1.465	1.425	1.874	1.763	1.685	1.699	9.99
9) Phenol	1.784	1.739	1.897	1.633	1.612	1.882	1.788	1.689	1.753	6.03
10) Aniline	2.052	2.064	2.156	1.506	1.449	1.969	2.005	2.079	1.910	14.30
11) bis(2-Chloro	1.413	1.288	1.330	1.122	1.128	1.343	1.281	1.413	1.290	8.75
12) 2-Chlorophen	1.441	1.367	1.438	1.165	1.131	1.437	1.406	1.241	1.328	9.74
13) Decane	1.204	1.083	1.130	0.870	0.839	1.086	1.091	1.153	1.057	12.45
14) 1,3-Dichloro	1.591	1.524	1.598	1.285	1.239	1.574	1.547	1.548	1.488	9.57
15) 1,4-Dichloro	1.552	1.437	1.566	1.239	1.206	1.529	1.469	1.435	1.429	9.59
16) Benzyl alcoh	0.777	0.790	0.887	0.706	0.687	0.908	0.818	0.745	0.790	10.05
17) 1,2-Dichloro	1.397	1.435	1.460	1.133	1.094	1.430	1.399	1.500	1.356	11.33
18) Acetophenone	1.790	1.873	1.977	1.586	1.554	1.954	1.818	1.840	1.799	8.63
19) 2-Methylphen	1.126	1.113	1.253	1.028	1.034	1.246	1.168	1.069	1.130	7.76
20) 2,2'-oxybis(	0.420	0.420	0.453	0.382	0.386	0.453	0.417	0.462	0.424	7.19
21) 3&4-Methylph	1.202	1.219	1.370	1.149	1.129	1.388	1.258	1.147	1.233	8.11
22) n-Nitroso-di	0.914	0.895	0.992	0.804	0.793	0.986	0.933	0.904	0.903	8.15
23) Hexachloroet	0.473	0.473	0.503	0.429	0.431	0.499	0.469	0.449	0.466	6.01
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.409	0.398	0.438	0.380	0.376	0.445	0.409	0.384	0.405	6.40
26) Nitrobenzene	0.382	0.397	0.415	0.352	0.342	0.413	0.395	0.414	0.389	7.32
27) Quinoline	0.709	0.738	0.786	0.669	0.652	0.799	0.705	0.709	0.721	7.18
28) Isophorone	0.614	0.665	0.744	0.615	0.600	0.756	0.684	0.593	0.659	9.75
29) 2-Nitropheno	0.175	0.178	0.219	0.192	0.188	0.225	0.191	0.156	0.191	11.94
30) 2,4-Dimethyl	0.290	0.312	0.362	0.328	0.322	0.384	0.322	0.270	0.324	11.16
31) Benzoic acid			0.240	0.278	0.271	0.284	0.184		0.251	16.36
32) bis(2-Chloro	0.417	0.422	0.458	0.381	0.370	0.462	0.411	0.408	0.416	7.78
33) 2,4-Dichloro	0.260	0.285	0.325	0.273	0.262	0.325	0.293	0.240	0.283	10.80
34) 2,6-Dichloro	0.252	0.281	0.303	0.254	0.245	0.303	0.277	0.258	0.271	8.40
35) 1,3,5-Trichl	0.321	0.331	0.343	0.271	0.262	0.339	0.320	0.349	0.317	10.33
36) 1,2,4-Trichl	0.319	0.333	0.332	0.278	0.267	0.331	0.318	0.328	0.313	8.35
37) 1,2,3-Trichl	0.317	0.301	0.302	0.245	0.235	0.301	0.299	0.302	0.288	10.51
38) Naphthalene	1.054	1.051	1.090	0.838	0.786	1.070	1.009	1.039	0.992	11.53
39) 4-Chloroanil	0.414	0.447	0.475	0.373	0.358	0.472	0.444	0.392	0.422	10.57
40) 2,3-Dichloro	0.366	0.375	0.394	0.329	0.321	0.402	0.361	0.326	0.359	8.71
41) Caprolactam	0.109	0.128	0.149	0.141	0.142	0.158	0.129	0.109	0.133	13.41
42) Hexachlorobu	0.162	0.164	0.167	0.139	0.135	0.165	0.153	0.161	0.156	7.80
43) 4-Chloro-3-m	0.259	0.300	0.353	0.303	0.298	0.369	0.314	0.220	0.302	15.74
44) 2-Methylnaph	0.557	0.577	0.604	0.480	0.456	0.598	0.576	0.549	0.550	9.80
45) 1-Methylnaph	0.693	0.715	0.736	0.588	0.561	0.727	0.690	0.652	0.670	9.70

Initial Calibration Summary

Job Number: JC16038 **Sample:** EP4524-ICC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103017.D
Project: BMSMC, Building 5 Area, PR

```
46) Dimethylnaph 0.586 0.605 0.648 0.513 0.496 0.645 0.604 0.593 0.586   9.45

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.217 0.230 0.305 0.276 0.276 0.326 0.274 0.180 0.261  18.47
49) 2,4,6-Trichl 0.284 0.296 0.356 0.319 0.312 0.367 0.325 0.248 0.313  12.26
50) 2,4,5-Trichl 0.284 0.325 0.364 0.329 0.331 0.395 0.335 0.246 0.326  13.92
51) 2-Fluorobiph 1.305 1.294 1.293 1.016 0.980 1.290 1.266 1.265 1.214  11.05
52) 2-Chloronaph 1.154 1.133 1.128 0.877 0.854 1.110 1.086 1.063 1.051  11.21
53) Biphenyl     1.513 1.426 1.446 1.106 1.046 1.421 1.411 1.438 1.351  12.84
54) 2-Nitroanili 0.262 0.278 0.351 0.318 0.321 0.371 0.312 0.218 0.304  16.32
55) Dimethylphth 1.206 1.244 1.318 1.114 1.092 1.351 1.234 1.158 1.215   7.55
56) Acenaphthyle 1.703 1.754 1.864 1.436 1.376 1.850 1.719 1.725 1.678  10.67
57) 2,6-Dinitrot 0.198 0.238 0.295 0.275 0.273 0.320 0.276 0.198 0.259  17.03
58) 3-Nitroanili 0.250 0.291 0.358 0.317 0.313 0.379 0.320 0.211 0.305  17.86
59) Acenaphthene 1.053 1.077 1.142 0.906 0.884 1.147 1.054 1.083 1.043   9.42
60) 2,4-Dinitrop 0.026 0.053 0.126 0.160 0.162 0.162 0.087       0.111  50.86
         ----- Quadratic regression -----                Coefficient =  0.9983
              Response Ratio = -0.02896 + 0.16490 *A + 0.00063 *A^2

61) 4-Nitropheno 0.121 0.126 0.180 0.185 0.192 0.204 0.153       0.166  19.76
62) Dibenzofuran 1.533 1.549 1.623 1.278 1.225 1.609 1.500 1.442 1.470  10.02
63) 2,4-Dinitrot 0.261 0.314 0.400 0.352 0.351 0.413 0.348 0.195 0.329  21.86
         ----- Quadratic regression -----                Coefficient =  0.9979
              Response Ratio = -0.01311 + 0.45486 *A + -0.04135 *A^2

64) 2,3,4,6-Tetr 0.186 0.233 0.277 0.260 0.259 0.300 0.239       0.251  14.48
65) Diethylphtha 1.200 1.218 1.321 1.116 1.090 1.371 1.230 1.111 1.207   8.39
66) Fluorene     1.213 1.267 1.314 1.069 1.037 1.337 1.237 1.128 1.200   9.27
67) 4-Chlorophen 0.554 0.570 0.587 0.487 0.476 0.586 0.544 0.504 0.539   8.19
68) 4-Nitroanili 0.236 0.276 0.339 0.309 0.313 0.365 0.307       0.306  13.62

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.069 0.131 0.148 0.154 0.159 0.100       0.127  27.86
            ----- Linear regression -----  Coefficient =  0.9977
              Response Ratio = -0.01194 + 0.15773 *A

71) n-Nitrosodip 0.546 0.570 0.641 0.551 0.547 0.670 0.574 0.509 0.576   9.30
72) 1,2-Diphenyl 0.760 0.793 0.884 0.737 0.725 0.903 0.816 0.698 0.789   9.42
73) 2,4,6-Tribro 0.066 0.080 0.103 0.101 0.103 0.114 0.088       0.094  17.60
74) 4-Bromopheny 0.178 0.188 0.210 0.193 0.196 0.227 0.193 0.180 0.196   8.28
75) Hexachlorobe 0.214 0.207 0.220 0.197 0.201 0.231 0.209 0.220 0.212   5.30
76) Pentachlorop 0.048 0.069 0.118 0.127 0.130 0.139 0.094       0.103  33.32
         ----- Quadratic regression -----                Coefficient =  0.9978
              Response Ratio = -0.01809 + 0.14437 *A + -0.00235 *A^2

77) Phenanthrene 1.037 1.026 1.137 0.918 0.903 1.148 1.038 0.999 1.026   8.64
78) Anthracene   0.999 1.043 1.156 0.949 0.929 1.190 1.067 0.895 1.029  10.32
79) Carbazole    0.997 1.080 1.202 0.975 0.958 1.230 1.078 0.910 1.054  10.97
80) Di-n-butylph 0.997 1.176 1.462 1.220 1.191 1.541 1.316 0.923 1.228  17.17
81) Fluoranthene 1.023 1.082 1.246 1.045 1.024 1.289 1.127 0.998 1.104   9.86
82) Octadecane   0.374 0.389 0.456 0.385 0.376 0.487 0.406 0.349 0.403  11.47

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.223 1.275 1.447 1.202 1.155 1.428 1.291 1.163 1.273   8.82
85) Terphenyl-d1 0.745 0.751 0.866 0.769 0.754 0.903 0.768 0.744 0.788   7.78
86) Butylbenzylp 0.419 0.537 0.707 0.665 0.655 0.760 0.591       0.619  18.48
87) Butyl steara 0.170 0.244 0.348 0.324 0.311 0.372 0.283       0.293  23.39
         ----- Quadratic regression -----                Coefficient =  0.9985
              Response Ratio = -0.02367 + 0.43258 *A + -0.04551 *A^2
```

Initial Calibration Summary

Job Number: JC16038 **Sample:** EP4524-ICC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103017.D
Project: BMSMC, Building 5 Area, PR

```
 88) Benzo[a]anth 0.969 0.988 1.160 1.035 1.019 1.205 0.996 0.976 1.044   8.54
 89) 3,3'-Dichlor 0.241 0.306 0.423 0.407 0.405 0.452 0.351       0.369  20.10
          ----- Quadratic regression -----                Coefficient =  0.9988
               Response Ratio = -0.02261 + 0.49442 *A + -0.03344 *A^2

 90) Chrysene     1.038 0.993 1.143 0.986 0.977 1.151 1.022 0.954 1.033   7.24
 91) bis(2-Ethylh 0.477 0.661 0.928 0.879 0.847 1.001 0.763       0.794  22.42
          ----- Quadratic regression -----                Coefficient =  0.9986
               Response Ratio = -0.06180 + 1.15010 *A + -0.11255 *A^2


 92) I   Perylene-d12          ----------------ISTD---------------------
 93) Di-n-octylph 0.708 1.144 1.681 1.427 1.382 1.836 1.391       1.367  26.85
          ----- Quadratic regression -----                Coefficient =  0.9944
               Response Ratio = -0.12624 + 2.19676 *A + -0.31528 *A^2

 94) Benzo[b]fluo 1.065 1.146 1.275 1.087 1.067 1.352 1.159 0.951 1.138  11.17
 95) Benzo[k]fluo 1.066 1.142 1.251 0.962 0.951 1.249 1.104 1.041 1.096  10.49
 96) Benzo[a]pyre 0.879 0.999 1.179 0.964 0.951 1.215 1.054 0.787 1.004  14.32
 97) Indeno[1,2,3 0.723 0.849 1.037 0.907 0.929 1.110 0.895 0.637 0.886  17.34
 98) Dibenz(a,h)a 0.599 0.757 0.961 0.850 0.835 1.057 0.848       0.844  17.22
 99) Dibenz[a,h]a 0.873 0.922 1.092 0.945 0.946 1.175 0.956 0.728 0.955  14.09
100) 7,12-Dimethy 0.378 0.428 0.561 0.484 0.474 0.593 0.454       0.482  15.43
101) Benzo[g,h,i] 0.910 1.004 1.136 0.965 0.972 1.218 1.007 0.903 1.015  10.80
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MP4524.M          Thu Mar 03 11:11:34 2016
```

8.7.26

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4524-ICV4524
Lab FileID: P103019.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D          Vial: 10
Acq On    :  2 Mar 2016   9:05 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	120	0.00	4.34
9	t	Phenol	1.753	1.661	5.2	106	0.00	3.98
12	t	2-Chlorophenol	1.328	1.289	2.9	108	0.00	4.11
19	t	2-Methylphenol	1.130	1.149	-1.7	111	-0.01	4.72
21	t	3&4-Methylphenol	1.233	1.212	1.7	105	0.00	4.93
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.10
29	t	2-Nitrophenol	0.191	0.202	-5.8	103	0.00	5.55
30	t	2,4-Dimethylphenol	0.324	0.361	-11.4	108	0.00	5.67
31	t	Benzoic acid	0.251	0.233	7.2	95	0.00	5.87
33	t	2,4-Dichlorophenol	0.283	0.281	0.7	100	0.00	5.95
34		2,6-Dichlorophenol	0.271	0.281	-3.7	107	0.00	6.25
43	t	4-Chloro-3-methylphenol	0.302	0.311	-3.0	97	-0.01	7.07
47	I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	8.82
49	t	2,4,6-Trichlorophenol	0.313	0.326	-4.2	103	0.00	7.67
50	t	2,4,5-Trichlorophenol	0.326	0.319	2.1	94	0.00	7.77
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	39.374	21.3	76	0.00	8.96
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.166	0.167	-0.6	95	0.00	9.26
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.251	0.238	5.2	92	0.00	9.39
69	I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	11.18
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	42.455	15.1	91	0.00	9.81
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	43.186	15.1	9 0	0.00	10.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:38 2016

8.7.27

8

Initial Calibration Verification

Job Number: JC16038 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103020.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
Acq On : 2 Mar 2016 9:34 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% 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	133	0.00	4.35
3	t	Pyridine	1.604	1.667	-3.9	128	0.08	2.05
10	t	Aniline	1.910	2.027	-6.1	137	0.01	3.96
16	t	Benzyl alcohol	0.790	0.848	-7.3	124	0.00	4.54
24	I	Naphthalene-d8	1.000	1.000	0.0	139	0.00	6.10
39	t	4-Chloroaniline	0.422	0.362	14.2	107	0.00	6.24
44	t	2-Methylnaphthalene	0.550	0.517	6.0	120	0.00	7.19
47	I	Acenaphthene-d10	1.000	1.000	0.0	130	0.00	8.82
54	t	2-Nitroaniline	0.304	0.346	-13.8	121	0.00	8.14
58	t	3-Nitroaniline	0.305	0.330	-8.2	113	0.00	8.80
62	t	Dibenzofuran	1.470	1.515	-3.1	123	0.00	9.15
68	t	4-Nitroaniline	0.306	0.335	-9.5	120	0.00	9.77
69	I	Phenanthrene-d10	1.000	1.000	0.0	142	0.00	11.18
79	t	Carbazole	1.054	1.026	2.7	118	0.00	11.61
83	I	Chrysene-d12	1.000	1.000	0.0	134	0.00	15.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:39 2016

8.7.28

8

Initial Calibration Verification

Job Number: JC16038 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103021.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
Acq On : 2 Mar 2016 10:03 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% 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	119	0.00	4.34
5	S	2-Fluorophenol	1.392	1.384	0.6	104	0.00	2.97
8	S	Phenol-d5	1.699	1.713	-0.8	109	0.00	3.96
24	I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	6.09
25	S	Nitrobenzene-d5	0.405	0.405	0.0	107	0.00	5.07
47	I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	8.82
51	S	2-Fluorobiphenyl	1.214	1.195	1.6	106	0.00	7.79
69	I	Phenanthrene-d10	1.000	1.000	0.0	114	0.00	11.18
73	S	2,4,6-Tribromophenol	0.094	0.089	5.3	89	0.00	10.09
83	I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	15.90
85	S	Terphenyl-d14	0.788	0.797	-1.1	96	0.00	14.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:40 2016

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4524-ICV4524
Lab FileID: P103022.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% 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	119	0.00	4.34
4	t	N-Nitrosodimethylamine	0.600	0.543	9.5	99	0.00	1.94
11	t	bis(2-Chloroethyl)ether	1.290	1.356	-5.1	120	0.00	4.02
14	t	1,3-Dichlorobenzene	1.488	1.444	3.0	109	0.00	4.28
15	t	1,4-Dichlorobenzene	1.429	1.376	3.7	107	0.00	4.36
17	t	1,2-Dichlorobenzene	1.356	1.367	-0.8	114	0.00	4.56
20	t	2,2'-oxybis(1-Chloropropa	0.424	0.383	9.7	101	0.00	4.70
22		n-Nitroso-di-n-propylamin	0.903	0.894	1.0	108	0.00	4.88
23	t	Hexachloroethane	0.466	0.461	1.1	110	0.00	5.00
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.10
26	t	Nitrobenzene	0.389	0.376	3.3	104	0.00	5.10
28	t	Isophorone	0.659	0.702	-6.5	107	0.00	5.44
32	t	bis(2-Chloroethoxy)methan	0.416	0.418	-0.5	104	0.00	5.78
36	t	1,2,4-Trichlorobenzene	0.313	0.310	1.0	108	0.00	6.02
38	t	Naphthalene	0.992	0.988	0.4	106	0.00	6.13
42	t	Hexachlorobutadiene	0.156	0.162	-3.8	112	0.00	6.34
47	I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	8.82
52	t	2-Chloronaphthalene	1.051	1.078	-2.6	112	0.00	7.94
55	t	Dimethylphthalate	1.215	1.170	3.7	100	0.00	8.47
56	t	Acenaphthylene	1.678	1.583	5.7	99	0.00	8.59
57	t	2,6-Dinitrotoluene	0.259	0.255	1.5	92	0.00	8.54
59	t	Acenaphthene	1.043	1.017	2.5	102	0.00	8.87
		----------	True	Calc.	% Drift		----------	
63	t	2,4-Dinitrotoluene	50.000	43.762	12.5	97	0.00	9.17
		----------	AvgRF	CCRF	% Dev		----------	
65	t	Diethylphthalate	1.207	1.155	4.3	97	0.00	9.60
66	t	Fluorene	1.200	1.168	2.7	101	0.00	9.69
67	t	4-Chlorophenyl-phenylethe	0.539	0.506	6.1	100	0.00	9.74
69	I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	11.18
		----------	AvgRF	CCRF	% Dev		----------	
71	t	n-Nitrosodiphenylamine	0.576	0.537	6.8	96	0.00	9.93
72	t	1,2-Diphenylhydrazine	0.789	0.743	5.8	98	0.00	9.98
74	t	4-Bromophenyl-phenylether	0.196	0.192	2.0	101	0.00	10.51
75	t	Hexachlorobenzene	0.212	0.189	10.8	98	0.00	10.58
		----------	AvgRF	CCRF	% Dev		----------	
77	t	Phenanthrene	1.026	0.983	4.2	102	0.00	11.22
78	t	Anthracene	1.029	0.974	5.3	98	0.00	11.30

Initial Calibration Verification

Job Number: JC16038 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103022.D
Project: BMSMC, Building 5 Area, PR

80	t	Di-n-butylphthalate	1.228	1.242	-1.1	96	0.00	12.29
81	t	Fluoranthene	1.104	1.075	2.6	99	0.00	13.24
83	I	Chrysene-d12	1.000	1.000	0.0	101	0.00	15.90
84	t	Pyrene	1.273	1.392	-9.3	99	0.00	13.63
86	t	Butylbenzylphthalate	0.619	0.697	-12.6	93	0.00	15.00
		----------	AvgRF	CCRF	% Dev	----------		
88	t	Benzo[a]anthracene	1.044	1.135	-8.7	95	0.00	15.89
		----------	AvgRF	CCRF	% Dev	----------		
90	t	Chrysene	1.033	1.076	-4.2	95	0.00	15.95
		----------	True	Calc.	% Drift	----------		
91	t	bis(2-Ethylhexyl)phthalat	50.000	46.469	7.1	91	0.00	16.17
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	99	0.00	18.47
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	50.000	48.962	2.1	90	0.00	17.38
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.138	1.192	-4.7	87	0.00	17.83
95	t	Benzo[k]fluoranthene	1.096	1.232	-12.4	97	-0.01	17.88
96	t	Benzo[a]pyrene	1.004	1.154	-14.9	94	0.00	18.37
97	t	Indeno[1,2,3-cd]pyrene	0.886	1.025	-15.7	91	0.00	20.09
99	t	Dibenz[a,h]anthracene	0.955	1.071	-12.1	90	0.00	20.14
101	t	Benzo[g,h,i]perylene	1.015	1.094	-7.8	89	0.00	20.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:41 2016

8.7.30

8

Initial Calibration Verification

Job Number: JC16038 **Sample:** EP4524-ICV4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103023.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D          Vial: 14
Acq On    :  2 Mar 2016  11:02 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	4.34
2	t	1,4-Dioxane	0.711	0.616	13.4	83	0.00	1.78
6	t	Indene	2.275	2.163	4.9	89	0.00	4.67
7	t	Cumene	3.287	3.030	7.8	89	0.00	3.43
13	t	Decane	1.057	0.961	9.1	91	0.00	4.16
18	t	Acetophenone	1.799	1.668	7.3	88	0.00	4.86
24	I	Naphthalene-d8	1.000	1.000	0.0	105	0.00	6.09
27	t	Quinoline	0.721	0.630	12.6	82	-0.01	6.63
40	t	2,3-Dichloroaniline	0.359	0.294	18.1	76	0.00	7.64
41	t	Caprolactam	0.133	0.121	9.0	80	-0.03	6.71
45	t	1-Methylnaphthalene	0.670	0.603	10.0	87	0.00	7.34
46	t	Dimethylnaphthalene	0.586	0.531	9.4	86	0.00	8.18
47	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	8.82
48	t	Hexachlorocyclopentadiene	0.261	0.270	-3.4	84	0.00	7.46
53	t	Biphenyl	1.351	1.303	3.6	92	0.00	7.94
69	I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00	11.18
82	t	Octadecane	0.403	0.414	-2.7	82	0.00	11.17
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	90	0.00	18.46
100	t	7,12-Dimethylbenz(a)anthr	0.482	0.516	-7.1	79	0.00	17.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:22:22 2016

8.7.31

8

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4524-ICV4524
Lab FileID: P103024.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D          Vial: 15
Acq On    :  2 Mar 2016  11:31 pm                   Operator: sarad
Sample    : icv4524-50                              Inst    : MSP
Misc      : op91633,ep4524                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	125	-0.01	15.90
		True	Calc.	% Drift			
89 t	3,3'-Dichlorobenzidine	50.000	43.268	13.5	105	0.00	15.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 03 11:09:43 2016

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4542-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103360.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4542\P103360.D Vial: 2
Acq On : 16 Mar 2016 12:14 pm Operator: linseyk
Sample : cc4524-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 21:54:42 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 48% 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	90	0.01	4.19
2	t	1,4-Dioxane	0.711	0.724	-1.8	86	-0.04	1.67
3	t	Pyridine	1.604	1.672	-4.2	87	-0.04	1.86
4	t	N-Nitrosodimethylamine	0.600	0.686	-14.3	95	-0.05	1.83
5	S	2-Fluorophenol	1.392	1.509	-8.4	86	-0.02	2.81
6	t	Indene	2.275	2.274	0.0	82	0.00	4.51
7	t	Cumene	3.287	3.297	-0.3	85	0.00	3.28
8	S	Phenol-d5	1.699	1.839	-8.2	88	0.00	3.79
9	t	Phenol	1.753	1.871	-6.7	89	0.02	3.80
10	t	Aniline	1.910	2.092	-9.5	95	0.00	3.79
11	t	bis(2-Chloroethyl)ether	1.290	1.327	-2.9	89	0.00	3.87
12	t	2-Chlorophenol	1.328	1.385	-4.3	87	-0.02	3.94
13	t	Decane	1.057	1.151	-8.9	95	0.00	4.00
14	t	1,3-Dichlorobenzene	1.488	1.466	1.5	84	0.00	4.12
15	t	1,4-Dichlorobenzene	1.429	1.428	0.1	84	0.00	4.21
16	t	Benzyl alcohol	0.790	0.875	-10.8	86	0.00	4.37
17	t	1,2-Dichlorobenzene	1.356	1.320	2.7	83	0.00	4.40
18	t	Acetophenone	1.799	1.897	-5.4	87	0.02	4.71
19	t	2-Methylphenol	1.130	1.185	-4.9	85	0.00	4.55
20	t	2,2'-oxybis(1-Chloropropa	0.424	0.413	2.6	82	0.01	4.55
21	t	3&4-Methylphenol	1.233	1.322	-7.2	85	0.00	4.76
22		n-Nitroso-di-n-propylamin	0.903	0.998	-10.5	91	0.02	4.73
23	t	Hexachloroethane	0.466	0.467	-0.2	84	0.01	4.84
24	I	Naphthalene-d8	1.000	1.000	0.0	91	0.01	5.93
25	S	Nitrobenzene-d5	0.405	0.425	-4.9	87	-0.02	4.91
26	t	Nitrobenzene	0.389	0.413	-6.2	91	-0.02	4.93
27	t	Quinoline	0.721	0.719	0.3	82	0.02	6.46
28	t	Isophorone	0.659	0.728	-10.5	87	0.00	5.28
29	t	2-Nitrophenol	0.191	0.212	-11.0	85	0.00	5.38
30	t	2,4-Dimethylphenol	0.324	0.386	-19.1	91	0.00	5.50
31	t	Benzoic acid	0.251	0.312	-24.3#	100	-0.01	5.69
32	t	bis(2-Chloroethoxy)methan	0.416	0.448	-7.7	88	0.01	5.62
33	t	2,4-Dichlorophenol	0.283	0.303	-7.1	84	-0.02	5.76
34		2,6-Dichlorophenol	0.271	0.282	-4.1	84	0.00	6.08
35		1,3,5-Trichlorobenzene	0.317	0.311	1.9	83	0.00	5.40
36	t	1,2,4-Trichlorobenzene	0.313	0.308	1.6	84	0.00	5.85
37		1,2,3-Trichlorobenzene	0.288	0.278	3.5	84	0.01	6.18
38	t	Naphthalene	0.992	0.999	-0.7	85	0.00	5.95
39	t	4-Chloroaniline	0.422	0.459	-8.8	88	0.01	6.07
40	t	2,3-Dichloroaniline	0.359	0.365	-1.7	82	0.05	7.47
41	t	Caprolactam	0.133	0.160	-20.3#	92	0.03	6.58

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4542-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103360.D
Project: BMSMC, Building 5 Area, PR

42	t	Hexachlorobutadiene	0.156	0.149	4.5	82	0.02	6.18
43	t	4-Chloro-3-methylphenol	0.302	0.355	-17.5	87	0.01	6.88
44	t	2-Methylnaphthalene	0.550	0.557	-1.3	85	0.04	7.02
45	t	1-Methylnaphthalene	0.670	0.671	-0.1	84	0.03	7.16
46	t	Dimethylnaphthalene	0.586	0.587	-0.2	83	0.06	8.00
47	I	Acenaphthene-d10	1.000	1.000	0.0	90	0.01	8.64
48	t	Hexachlorocyclopentadiene	0.261	0.298	-14.2	82	-0.01	7.28
49	t	2,4,6-Trichlorophenol	0.313	0.348	-11.2	85	-0.01	7.49
50	t	2,4,5-Trichlorophenol	0.326	0.366	-12.3	83	-0.04	7.56
51	S	2-Fluorobiphenyl	1.214	1.190	2.0	83	0.00	7.62
52	t	2-Chloronaphthalene	1.051	1.036	1.4	84	0.00	7.77
53	t	Biphenyl	1.351	1.326	1.9	84	0.00	7.76
54	t	2-Nitroaniline	0.304	0.369	-21.4#	90	0.00	7.96
55	t	Dimethylphthalate	1.215	1.277	-5.1	85	0.01	8.29
56	t	Acenaphthylene	1.678	1.733	-3.3	84	0.00	8.41
57	t	2,6-Dinitrotoluene	0.259	0.289	-11.6	81	0.00	8.36
58	t	3-Nitroaniline	0.305	0.358	-17.4	85	0.02	8.62
59	t	Acenaphthene	1.043	1.063	-1.9	83	0.01	8.69
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	109.545	-9.5	95	0.02	8.79
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.166	0.190	-14.5	84	-0.04	9.02
62	t	Dibenzofuran	1.470	1.512	-2.9	85	0.02	8.97
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	50.000	48.813	2.4	84	0.02	8.99
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.251	0.282	-12.4	85	0.02	9.20
65	t	Diethylphthalate	1.207	1.292	-7.0	85	0.03	9.43
66	t	Fluorene	1.200	1.248	-4.0	84	0.02	9.51
67	t	4-Chlorophenyl-phenylethe	0.539	0.549	-1.9	84	0.03	9.56
68	t	4-Nitroaniline	0.306	0.346	-13.1	85	0.03	9.59
69	I	Phenanthrene-d10	1.000	1.000	0.0	90	0.01	11.00
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	50.513	-1.0	85	0.00	9.64
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.576	0.600	-4.2	81	0.00	9.75
72	t	1,2-Diphenylhydrazine	0.789	0.879	-11.4	88	0.00	9.80
73	S	2,4,6-Tribromophenol	0.094	0.104	-10.6	82	-0.01	9.90
74	t	4-Bromophenyl-phenylether	0.196	0.203	-3.6	81	0.00	10.32
75	t	Hexachlorobenzene	0.212	0.215	-1.4	84	0.00	10.39
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	100.000	102.390	-2.4	87	0.00	10.74
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.026	1.050	-2.3	83	0.00	11.04
78	t	Anthracene	1.029	1.091	-6.0	83	0.00	11.12
79	t	Carbazole	1.054	1.122	-6.5	83	0.01	11.41
80	t	Di-n-butylphthalate	1.228	1.452	-18.2	85	0.02	12.10
81	t	Fluoranthene	1.104	1.183	-7.2	83	0.02	13.03
82	t	Octadecane	0.403	0.470	-16.6	87	0.02	11.00

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4542-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103360.D
Project: BMSMC, Building 5 Area, PR

83	I	Chrysene-d12	1.000	1.000	0.0	87	0.01	15.68
84	t	Pyrene	1.273	1.326	-4.2	81	-0.01	13.42
85	S	Terphenyl-d14	0.788	0.823	-4.4	80	0.00	13.80
86	t	Butylbenzylphthalate	0.619	0.741	-19.7	85	0.01	14.79
		----------	True	Calc.	% Drift	----------		
87		Butyl stearate	50.000	56.432	-12.9	93	0.02	15.02
		----------	AvgRF	CCRF	% Dev	----------		
88	t	Benzo[a]anthracene	1.044	1.130	-8.2	82	0.02	15.66
		----------	True	Calc.	% Drift	----------		
89	t	3,3'-Dichlorobenzidine	50.000	49.742	0.5	84	0.01	15.69
		----------	AvgRF	CCRF	% Dev	----------		
90	t	Chrysene	1.033	1.090	-5.5	83	0.01	15.73
		----------	True	Calc.	% Drift	----------		
91	t	bis(2-Ethylhexyl)phthalat	50.000	50.915	-1.8	85	0.03	15.96
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	88	0.00	18.23
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	50.000	52.814	-5.6	85	0.01	17.16
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.138	1.242	-9.1	81	0.00	17.60
95	t	Benzo[k]fluoranthene	1.096	1.164	-6.2	82	0.00	17.65
96	t	Benzo[a]pyrene	1.004	1.142	-13.7	83	0.00	18.13
97	t	Indeno[1,2,3-cd]pyrene	0.886	1.031	-16.4	82	0.02	19.85
98	t	Dibenz(a,h)acridine	0.844	0.965	-14.3	80	0.02	19.54
99	t	Dibenz[a,h]anthracene	0.955	1.088	-13.9	81	0.03	19.90
100	t	7,12-Dimethylbenz(a)anthr	0.482	0.561	-16.4	83	0.00	17.61
101	t	Benzo[g,h,i]perylene	1.015	1.108	-9.2	80	0.02	20.21

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 17 12:32:03 2016

8.7.33

8

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4542-CC4514
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103361.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4542\P103361.D          Vial: 3
Acq On    : 16 Mar 2016  12:45 pm                   Operator: linseyk
Sample    : cc4514-50                               Inst    : MSP
Misc      : op92089,ep4542                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Mar 16 21:54:42 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	121	0.00	4.18
103		Benzaldehyde	1.202	0.954	20.6#	108	0.00	3.66
104	I	Phenanthrene-d10b	1.000	1.000	0.0	118	0.00	10.99
105		Atrazine	0.204	0.214	-4.9	125	0.02	10.67
106	I	Chrysene-d12b	1.000	1.000	0.0	128	0.00	15.67
107		Benzidine	0.704	0.645	8.4	134	0.00	13.34
108	I	Naphthalene-d8b	1.000	1.000	0.0	119	0.00	5.92
109		Hydroquinone	0.367	0.413	-12.5	126	0.10	6.68
110	I	Acenaphthene-d10b	1.000	1.000	0.0	124	0.00	8.64
111		1,2,4,5-Tetrachlorobenzen	0.549	0.500	8.9	125	-0.02	7.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103017A.D MP4524.M Thu Mar 17 12:32:04 2016

8.7.34

8

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4545-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103409.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4545\P103409.D          Vial: 2
Acq On    : 17 Mar 2016  10:42 pm                   Operator: sarad
Sample    : cc4524-25                               Inst    : MSP
Misc      : op92138,ep4545                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Mar 18 14:46:17 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  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	181	0.00	4.17
2	t	1,4-Dioxane	0.711	0.695	2.3	174	-0.04	1.66
3	t	Pyridine	1.604	1.596	0.5	165	-0.05	1.85
4	t	N-Nitrosodimethylamine	0.600	0.643	-7.2	182	-0.04	1.83
5	S	2-Fluorophenol	1.392	1.441	-3.5	168	-0.01	2.80
6	t	Indene	2.275	2.277	-0.1	165	0.00	4.49
7	t	Cumene	3.287	3.263	0.7	162	0.00	3.27
8	S	Phenol-d5	1.699	1.789	-5.3	173	0.00	3.77
9	t	Phenol	1.753	1.752	0.1	167	0.00	3.78
10	t	Aniline	1.910	1.669	12.6	140	0.00	3.78
11	t	bis(2-Chloroethyl)ether	1.290	1.242	3.7	169	-0.02	3.85
12	t	2-Chlorophenol	1.328	1.305	1.7	164	-0.03	3.92
13	t	Decane	1.057	1.104	-4.4	176	-0.01	3.99
14	t	1,3-Dichlorobenzene	1.488	1.439	3.3	163	-0.02	4.10
15	t	1,4-Dichlorobenzene	1.429	1.368	4.3	158	-0.02	4.19
16	t	Benzyl alcohol	0.790	0.838	-6.1	171	0.00	4.35
17	t	1,2-Dichlorobenzene	1.356	1.286	5.2	159	0.00	4.38
18	t	Acetophenone	1.799	1.828	-1.6	167	0.00	4.69
19	t	2-Methylphenol	1.130	1.110	1.8	160	-0.02	4.53
20	t	2,2'-oxybis(1-Chloropropa	0.424	0.384	9.4	153	0.00	4.53
21	t	3&4-Methylphenol	1.233	1.254	-1.7	165	0.00	4.74
22		n-Nitroso-di-n-propylamin	0.903	0.941	-4.2	171	0.00	4.70
23	t	Hexachloroethane	0.466	0.453	2.8	163	0.00	4.82
24	I	Naphthalene-d8	1.000	1.000	0.0	173	0.00	5.91
25	S	Nitrobenzene-d5	0.405	0.439	-8.4	173	-0.03	4.89
26	t	Nitrobenzene	0.389	0.409	-5.1	170	-0.03	4.91
27	t	Quinoline	0.721	0.740	-2.6	163	0.00	6.44
28	t	Isophorone	0.659	0.740	-12.3	172	-0.02	5.25
29	t	2-Nitrophenol	0.191	0.211	-10.5	166	-0.02	5.37
30	t	2,4-Dimethylphenol	0.324	0.339	-4.6	162	-0.03	5.48
31	t	Benzoic acid	0.251	0.306	-21.9#	220#	-0.02	5.68
32	t	bis(2-Chloroethoxy)methan	0.416	0.447	-7.5	169	0.00	5.60
33	t	2,4-Dichlorophenol	0.283	0.302	-6.7	161	-0.03	5.74
34		2,6-Dichlorophenol	0.271	0.281	-3.7	160	0.00	6.06
35		1,3,5-Trichlorobenzene	0.317	0.314	0.9	158	-0.02	5.38
36	t	1,2,4-Trichlorobenzene	0.313	0.312	0.3	162	0.00	5.83
37		1,2,3-Trichlorobenzene	0.288	0.285	1.0	163	0.00	6.16
38	t	Naphthalene	0.992	0.989	0.3	157	-0.01	5.93
39	t	4-Chloroaniline	0.422	0.437	-3.6	159	0.00	6.05
40	t	2,3-Dichloroaniline	0.359	0.377	-5.0	165	0.03	7.45
41	t	Caprolactam	0.133	0.167	-25.6#	194	0.02	6.56

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4545-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103409.D
Project: BMSMC, Building 5 Area, PR

42	t	Hexachlorobutadiene	0.156	0.152	2.6	158	0.00	6.15
43	t	4-Chloro-3-methylphenol	0.302	0.350	-15.9	171	0.00	6.87
44	t	2-Methylnaphthalene	0.550	0.551	-0.2	158	0.02	6.99
45	t	1-Methylnaphthalene	0.670	0.676	-0.9	158	0.02	7.14
46	t	Dimethylnaphthalene	0.586	0.601	-2.6	160	0.04	7.98
47	I	Acenaphthene-d10	1.000	1.000	0.0	175	0.00	8.62
48	t	Hexachlorocyclopentadiene	0.261	0.274	-5.0	157	-0.04	7.26
49	t	2,4,6-Trichlorophenol	0.313	0.337	-7.7	166	-0.03	7.47
50	t	2,4,5-Trichlorophenol	0.326	0.363	-11.3	175	-0.06	7.54
51	S	2-Fluorobiphenyl	1.214	1.182	2.6	160	-0.02	7.59
52	t	2-Chloronaphthalene	1.051	1.031	1.9	160	-0.02	7.74
53	t	Biphenyl	1.351	1.312	2.9	159	-0.02	7.74
54	t	2-Nitroaniline	0.304	0.366	-20.4#	182	-0.02	7.94
55	t	Dimethylphthalate	1.215	1.257	-3.5	167	0.00	8.27
56	t	Acenaphthylene	1.678	1.640	2.3	154	-0.02	8.39
57	t	2,6-Dinitrotoluene	0.259	0.294	-13.5	175	0.00	8.34
58	t	3-Nitroaniline	0.305	0.345	-13.1	169	0.00	8.60
59	t	Acenaphthene	1.043	1.026	1.6	158	0.00	8.67
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	50.015	-0.0	198	0.00	8.76
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.166	0.184	-10.8	178	0.00	8.99
62	t	Dibenzofuran	1.470	1.480	-0.7	160	0.00	8.95
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	25.000	24.222	3.1	173	0.00	8.97
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.251	0.273	-8.8	173	0.00	9.18
65	t	Diethylphthalate	1.207	1.266	-4.9	168	0.02	9.41
66	t	Fluorene	1.200	1.225	-2.1	163	0.00	9.49
67	t	4-Chlorophenyl-phenylethe	0.539	0.541	-0.4	161	0.00	9.53
68	t	4-Nitroaniline	0.306	0.320	-4.6	165	0.01	9.57
69	I	Phenanthrene-d10	1.000	1.000	0.0	173	0.00	10.98
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	25.234	-0.9	185	-0.02	9.62
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.576	0.604	-4.9	163	-0.02	9.73
72	t	1,2-Diphenylhydrazine	0.789	0.855	-8.4	168	-0.02	9.78
73	S	2,4,6-Tribromophenol	0.094	0.107	-13.8	180	-0.03	9.88
74	t	4-Bromophenyl-phenylether	0.196	0.206	-5.1	170	-0.02	10.30
75	t	Hexachlorobenzene	0.212	0.208	1.9	164	-0.02	10.37
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	50.281	-0.6	188	-0.02	10.71
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.026	1.013	1.3	155	0.00	11.01
78	t	Anthracene	1.029	1.062	-3.2	159	-0.01	11.09
79	t	Carbazole	1.054	1.117	-6.0	161	0.00	11.39
80	t	Di-n-butylphthalate	1.228	1.421	-15.7	169	0.00	12.08
81	t	Fluoranthene	1.104	1.160	-5.1	161	-0.07	13.01
82	t	Octadecane	0.403	0.418	-3.7	159	0.00	10.98

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4545-CC4524
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103409.D
Project: BMSMC, Building 5 Area, PR

83	I	Chrysene-d12	1.000	1.000	0.0	177	-0.01	15.66
84	t	Pyrene	1.273	1.321	-3.8	162	-0.04	13.39
85	S	Terphenyl-d14	0.788	0.797	-1.1	163	-0.03	13.77
86	t	Butylbenzylphthalate	0.619	0.708	-14.4	177	0.00	14.76
		----------	True	Calc.	% Drift	----------		
87		Butyl stearate	25.000	25.484	-1.9	190	0.00	14.99
		----------	AvgRF	CCRF	% Dev	----------		
88	t	Benzo[a]anthracene	1.044	1.077	-3.2	164	-0.01	15.63
		----------	True	Calc.	% Drift	----------		
89	t	3,3'-Dichlorobenzidine	25.000	22.466	10.1	164	-0.01	15.67
		----------	AvgRF	CCRF	% Dev	----------		
90	t	Chrysene	1.033	1.025	0.8	159	0.00	15.70
		----------	True	Calc.	% Drift	----------		
91	t	bis(2-Ethylhexyl)phthalat	25.000	24.343	2.6	182	0.00	15.94
		----------	AvgRF	CCRF	% Dev	----------		
92	I	Perylene-d12	1.000	1.000	0.0	180	0.00	18.21
		----------	True	Calc.	% Drift	----------		
93	t	Di-n-octylphthalate	25.000	23.986	4.1	184	0.00	17.14
		----------	AvgRF	CCRF	% Dev	----------		
94	t	Benzo[b]fluoranthene	1.138	1.206	-6.0	170	-0.02	17.57
95	t	Benzo[k]fluoranthene	1.096	1.114	-1.6	160	-0.02	17.63
96	t	Benzo[a]pyrene	1.004	1.080	-7.6	165	-0.01	18.11
97	t	Indeno[1,2,3-cd]pyrene	0.886	0.985	-11.2	171	0.00	19.83
98	t	Dibenz(a,h)acridine	0.844	0.923	-9.4	173	0.00	19.52
99	t	Dibenz[a,h]anthracene	0.955	1.041	-9.0	171	0.01	19.88
100	t	7,12-Dimethylbenz(a)anthr	0.482	0.494	-2.5	158	-0.02	17.59
101	t	Benzo[g,h,i]perylene	1.015	1.061	-4.5	168	0.00	20.19

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103018A.D MP4524.M Fri Mar 18 15:31:40 2016

8.7.35

8

Continuing Calibration Summary

Job Number: JC16038 **Sample:** EP4545-CC4514
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P103410.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4545\P103410.D          Vial: 3
Acq On    : 17 Mar 2016  11:12 pm                   Operator: sarad
Sample    : cc4514-25                               Inst    : MSP
Misc      : op92138,ep4545                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Fri Mar 18 14:46:17 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.050  Min. Rel. Area :  48%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
102	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	132	-0.01	4.16
103		Benzaldehyde	1.202	1.232	-2.5	138	-0.02	3.65
104	I	Phenanthrene-d10b	1.000	1.000	0.0	126	-0.02	10.97
105		Atrazine	0.204	0.215	-5.4	132	0.00	10.64
106	I	Chrysene-d12b	1.000	1.000	0.0	134	-0.02	15.65
107		Benzidine	0.704	0.524	25.6#	95	-0.03	13.32
108	I	Naphthalene-d8b	1.000	1.000	0.0	131	-0.02	5.90
109		Hydroquinone	0.367	0.425	-15.8	141	0.07	6.65
110	I	Acenaphthene-d10b	1.000	1.000	0.0	131	-0.02	8.62
111		1,2,4,5-Tetrachlorobenzen	0.549	0.532	3.1	131	-0.05	7.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P103018A.D MP4524.M Fri Mar 18 15:31:41 2016

8.7.36

8

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155577.D Vial: 8
Acq On : 16 Mar 2016 12:09 am Operator: sarad
Sample : jc16038-1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 00:31:14 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	161793	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	619224	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	377158	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	626390	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	589408	40.00 ppm	0.00
92) Perylene-d12	17.40	264	526502	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	161793	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	619224	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	377158	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	626390	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	589408	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	129469	21.23 ppm	0.03
Spiked Amount 50.000			Recovery = 42.46%		
8) Phenol-d5	4.56	99	104337	15.13 ppm	0.02
Spiked Amount 50.000			Recovery = 30.26%		
25) Nitrobenzene-d5	5.19	82	224275	37.74 ppm	0.00
Spiked Amount 50.000			Recovery = 75.48%		
51) 2-Fluorobiphenyl	6.51	172	468288	33.90 ppm	0.00
Spiked Amount 50.000			Recovery = 67.80%		
73) 2,4,6-Tribromophenol	8.06	330	59791	38.98 ppm	0.00
Spiked Amount 50.000			Recovery = 77.96%		
85) Terphenyl-d14	12.11	244	467677	36.34 ppm	0.00
Spiked Amount 50.000			Recovery = 72.68%		

Target Compounds					Qvalue
39) 4-Chloroaniline	5.75	127	9918	1.34 ppm	95

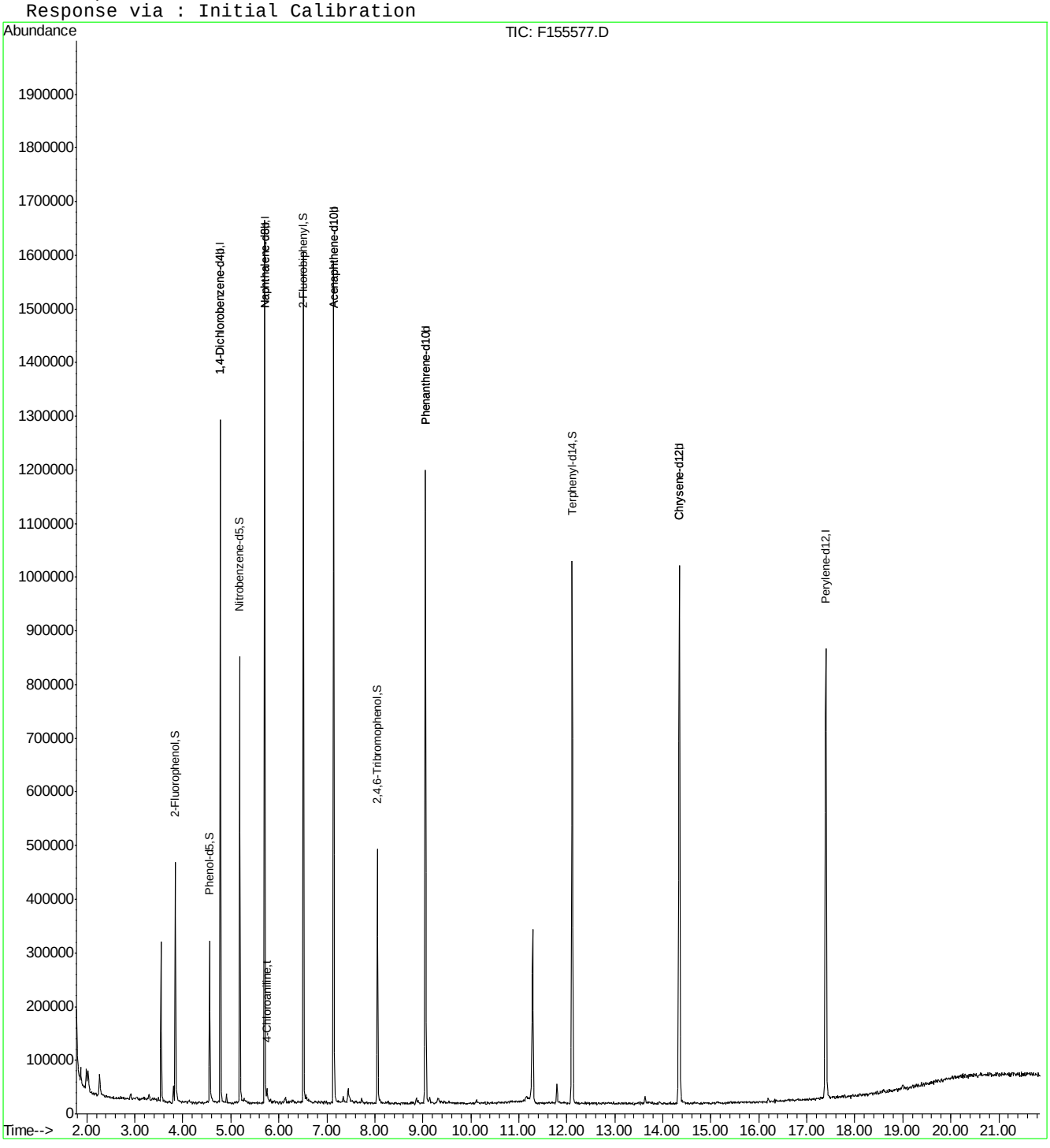
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

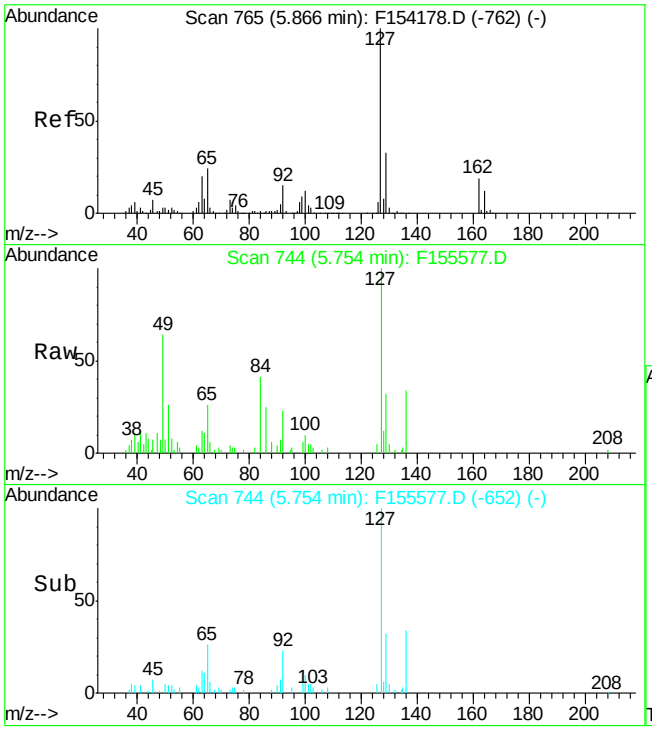
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155577.D Vial: 8
Acq On : 16 Mar 2016 12:09 am Operator: sarad
Sample : jc16038-1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:11 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



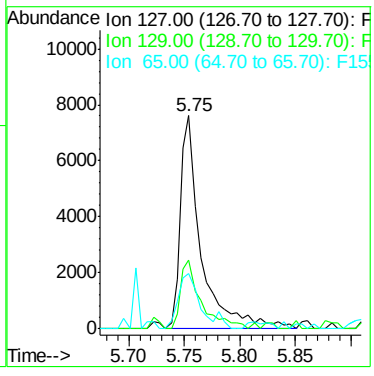
F155577.D MF6483.M Wed Mar 16 15:11:45 2016 RT1 Page 2



#39
4-Chloroaniline
Concen: 1.34 ppm
RT: 5.75 min Scan# 744
Delta R.T. -0.01 min
Lab File: F155577.D
Acq: 16 Mar 2016 12:09 am

Tgt Ion:127 Resp: 9918

Ion	Ratio	Lower	Upper
127	100		
129	30.1	2.8	62.8
65	24.7	0.0	57.4



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155577.D Vial: 8
Acq On : 16 Mar 2016 12:09 am Operator: sarad
Sample : jc16038-1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 00:31:14 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	161793	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	619224	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	377158	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	626390	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	589408	40.00 ppm	0.00
92) Perylene-d12	17.40	264	526502	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	161793	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	619224	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	377158	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	626390	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	589408	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	129469	21.23 ppm	0.03
Spiked Amount 50.000			Recovery	= 42.46%	
8) Phenol-d5	4.56	99	104337	15.13 ppm	0.02
Spiked Amount 50.000			Recovery	= 30.26%	
25) Nitrobenzene-d5	5.19	82	224275	37.74 ppm	0.00
Spiked Amount 50.000			Recovery	= 75.48%	
51) 2-Fluorobiphenyl	6.51	172	468288	33.90 ppm	0.00
Spiked Amount 50.000			Recovery	= 67.80%	
73) 2,4,6-Tribromophenol	8.06	330	59791	38.98 ppm	0.00
Spiked Amount 50.000			Recovery	= 77.96%	
85) Terphenyl-d14	12.11	244	467677	36.34 ppm	0.00
Spiked Amount 50.000			Recovery	= 72.68%	
Target Compounds					Qvalue
39) 4-Chloroaniline	5.75	127	9918	1.34 ppm	95

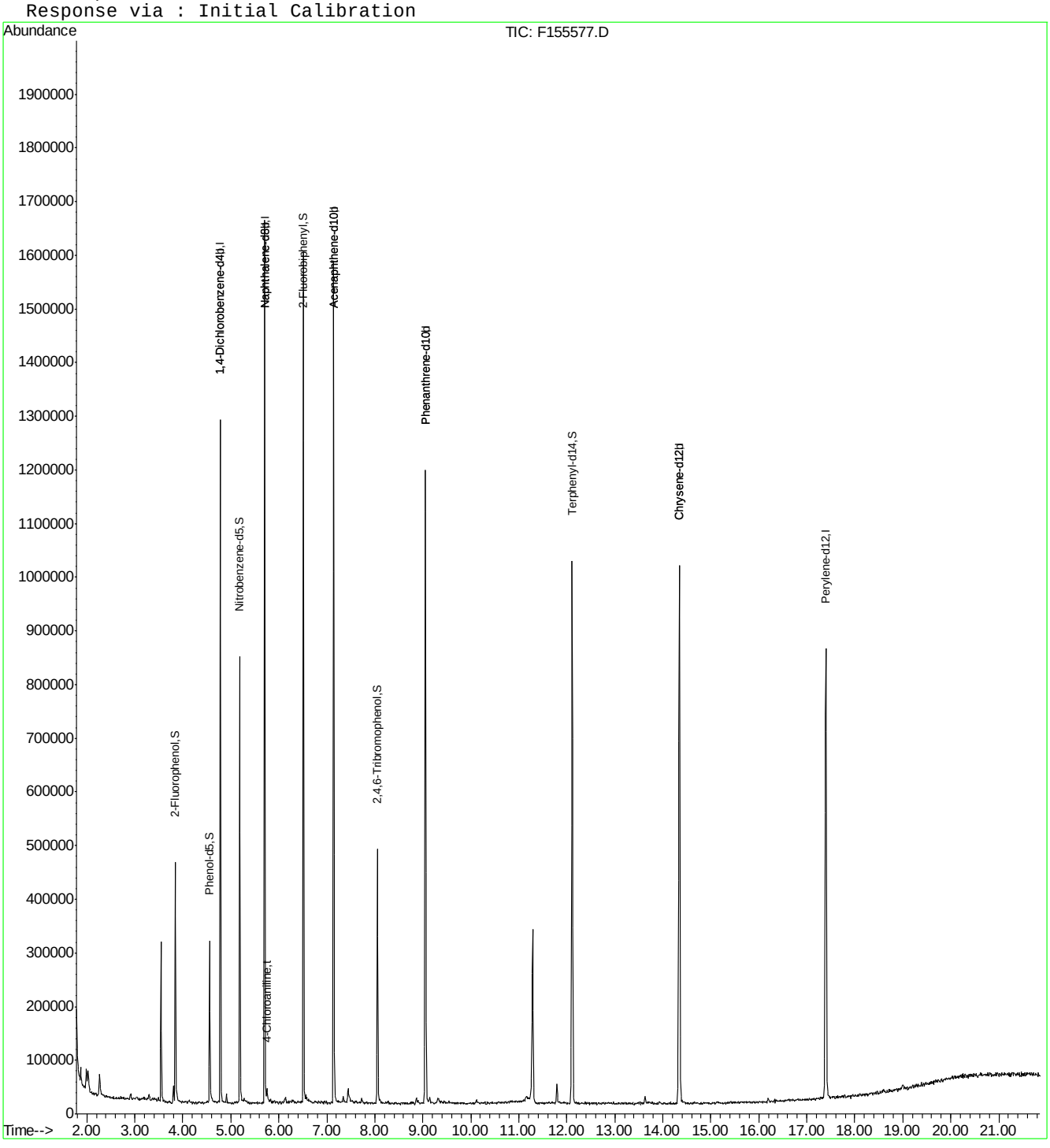
(#) = qualifier out of range (m) = manual integration (+) = signals summed

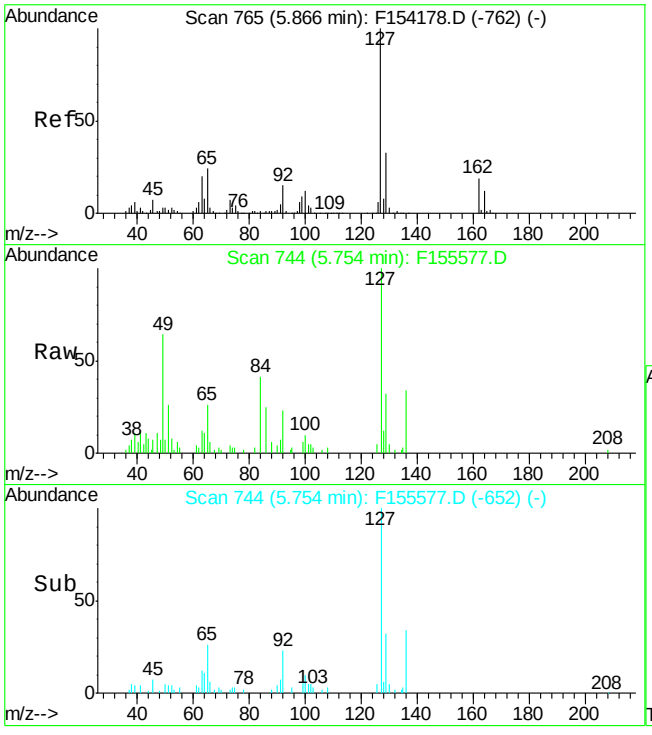
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155577.D Vial: 8
Acq On : 16 Mar 2016 12:09 am Operator: sarad
Sample : jc16038-1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:11 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration

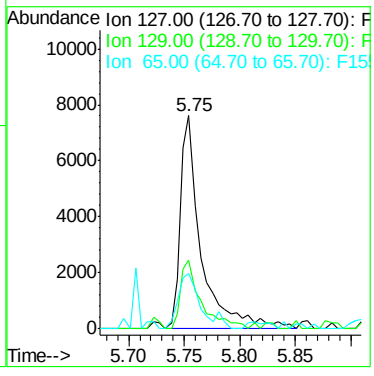




#39
4-Chloroaniline
Concen: 1.34 ppm
RT: 5.75 min Scan# 744
Delta R.T. -0.01 min
Lab File: F155577.D
Acq: 16 Mar 2016 12:09 am

Tgt Ion:127 Resp: 9918

Ion	Ratio	Lower	Upper
127	100		
129	30.1	2.8	62.8
65	24.7	0.0	57.4



9.1.2

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155578.D Vial: 9
Acq On : 16 Mar 2016 12:37 am Operator: sarad
Sample : jc16038-2 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 00:59:37 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	158470	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	623252	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	373409	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	605493	40.00	ppm	0.00
83) Chrysene-d12	14.34	240	575042	40.00	ppm	0.00
92) Perylene-d12	17.40	264	514361	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	158470	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	623252	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	373409	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	605493	40.00	ppm	0.00
110) Chrysene-d12b	14.34	240	575042	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.84	112	130368	21.82	ppm	0.03
Spiked Amount 50.000			Recovery = 43.64%			
8) Phenol-d5	4.56	99	110721	16.39	ppm	0.02
Spiked Amount 50.000			Recovery = 32.78%			
25) Nitrobenzene-d5	5.19	82	218426	36.52	ppm	0.00
Spiked Amount 50.000			Recovery = 73.04%			
51) 2-Fluorobiphenyl	6.51	172	465501	34.03	ppm	0.00
Spiked Amount 50.000			Recovery = 68.06%			
73) 2,4,6-Tribromophenol	8.06	330	62995	42.49	ppm	0.00
Spiked Amount 50.000			Recovery = 84.98%			
85) Terphenyl-d14	12.11	244	478125	38.08	ppm	0.00
Spiked Amount 50.000			Recovery = 76.16%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.38	88	4212	0.71	ppm	79

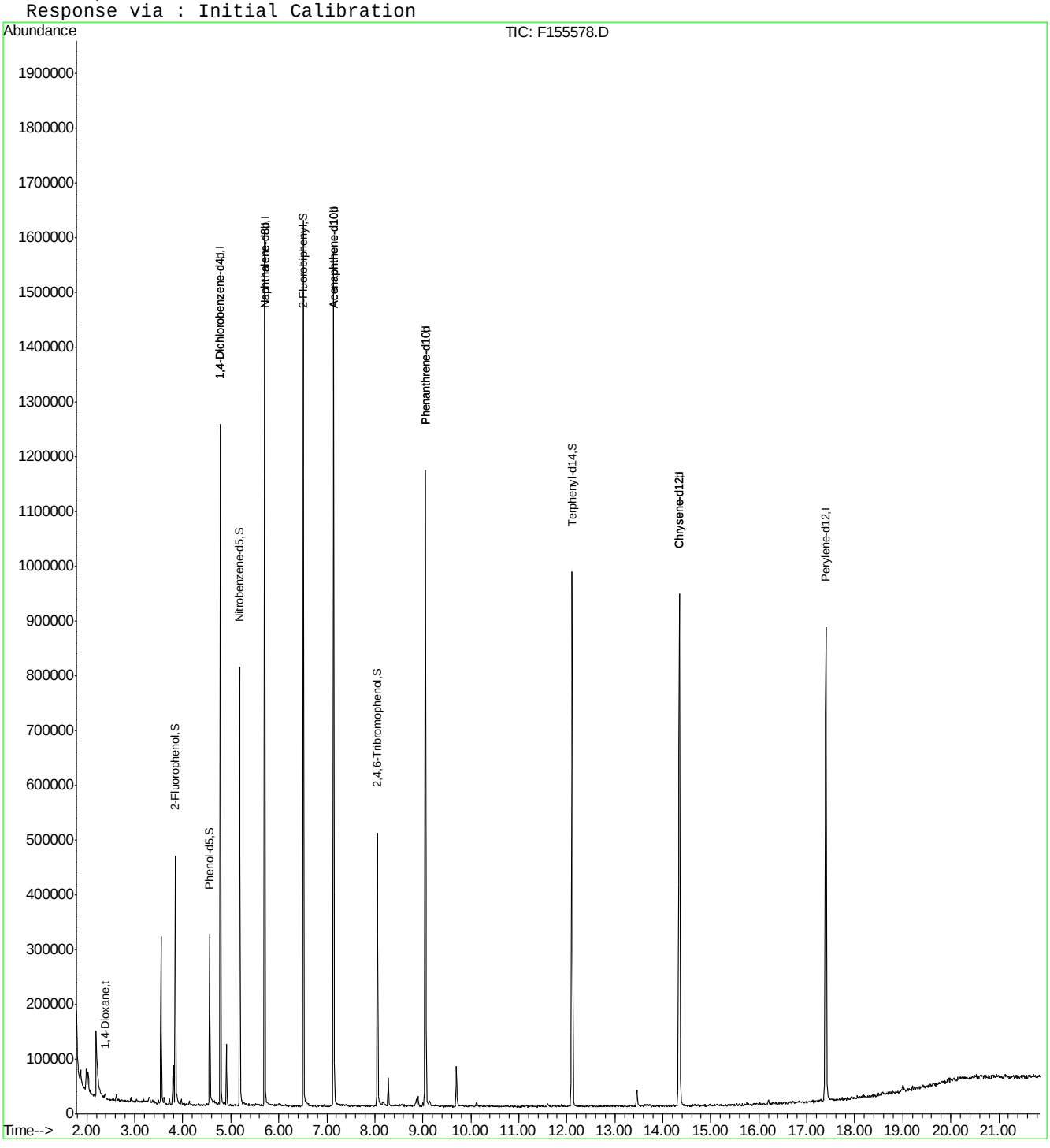
(#) = qualifier out of range (m) = manual integration (+) = signals summed

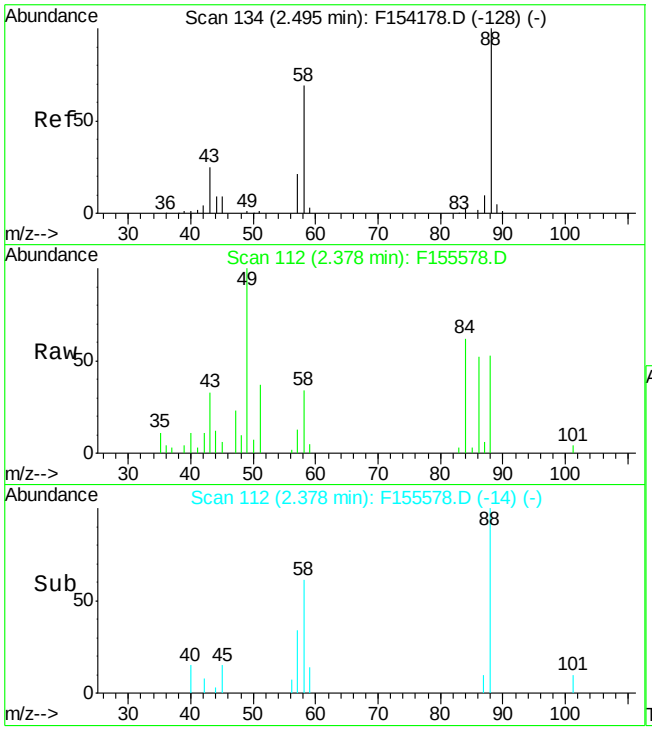
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155578.D Vial: 9
Acq On : 16 Mar 2016 12:37 am Operator: sarad
Sample : jc16038-2 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:15 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration

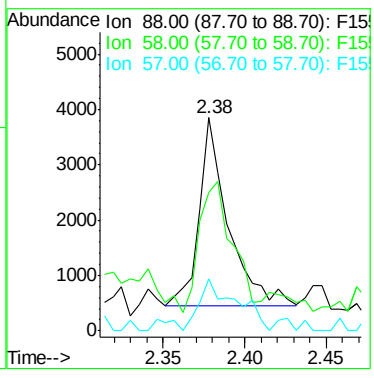




#2
1,4-Dioxane
Concen: 0.71 ppm
RT: 2.38 min Scan# 112
Delta R.T. 0.02 min
Lab File: F155578.D
Acq: 16 Mar 2016 12:37 am

Tgt Ion: 88 Resp: 4212

Ion	Ratio	Lower	Upper
88	100		
58	58.5	50.2	110.2
57	25.3	0.0	51.4



9.1.3

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155578.D Vial: 9
Acq On : 16 Mar 2016 12:37 am Operator: sarad
Sample : jc16038-2 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 00:59:37 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	158470	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	623252	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	373409	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	605493	40.00	ppm	0.00
83) Chrysene-d12	14.34	240	575042	40.00	ppm	0.00
92) Perylene-d12	17.40	264	514361	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	158470	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	623252	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	373409	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	605493	40.00	ppm	0.00
110) Chrysene-d12b	14.34	240	575042	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.84	112	130368	21.82	ppm	0.03
Spiked Amount 50.000			Recovery = 43.64%			
8) Phenol-d5	4.56	99	110721	16.39	ppm	0.02
Spiked Amount 50.000			Recovery = 32.78%			
25) Nitrobenzene-d5	5.19	82	218426	36.52	ppm	0.00
Spiked Amount 50.000			Recovery = 73.04%			
51) 2-Fluorobiphenyl	6.51	172	465501	34.03	ppm	0.00
Spiked Amount 50.000			Recovery = 68.06%			
73) 2,4,6-Tribromophenol	8.06	330	62995	42.49	ppm	0.00
Spiked Amount 50.000			Recovery = 84.98%			
85) Terphenyl-d14	12.11	244	478125	38.08	ppm	0.00
Spiked Amount 50.000			Recovery = 76.16%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.38	88	4212	0.71	ppm	79

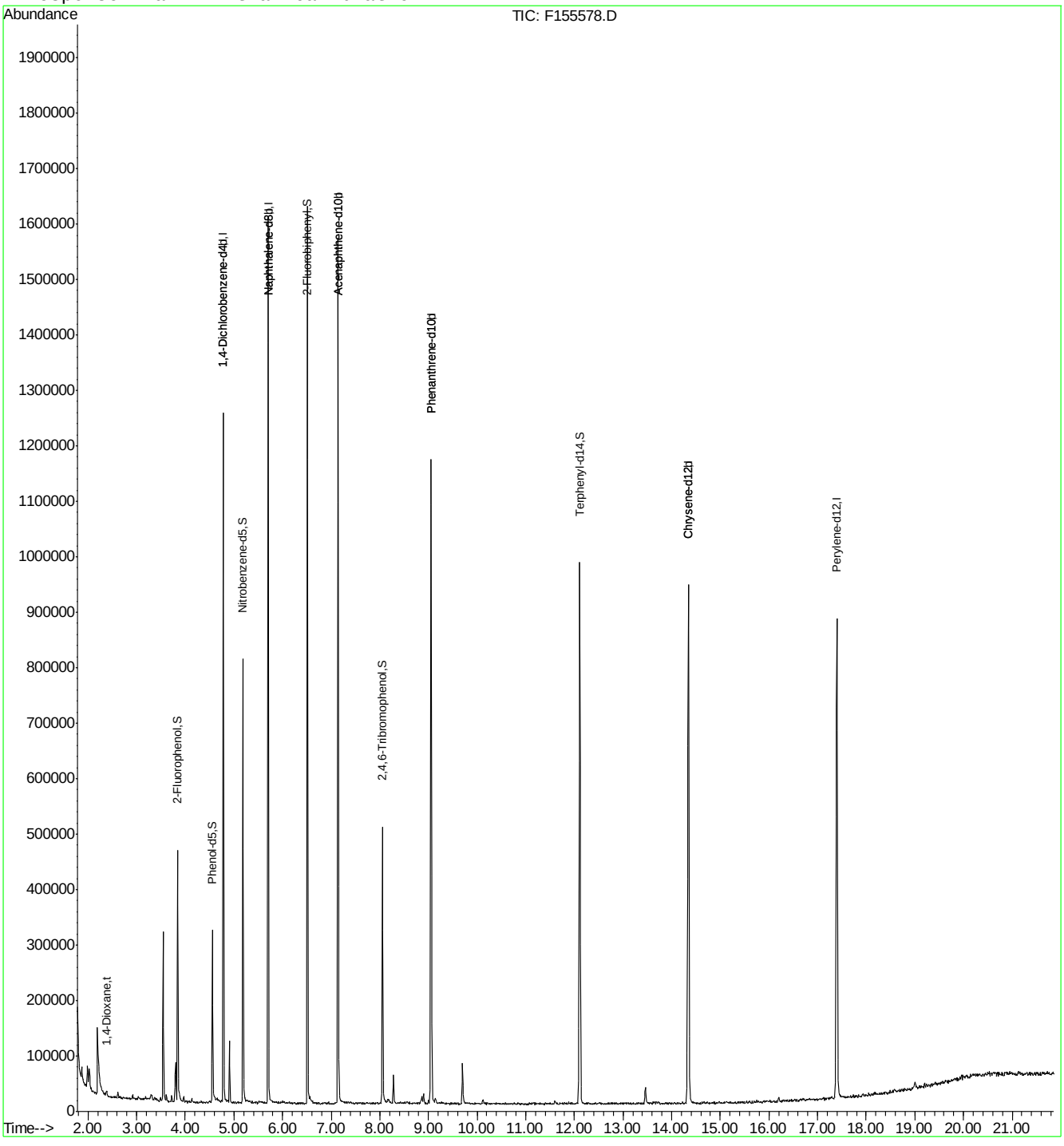
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

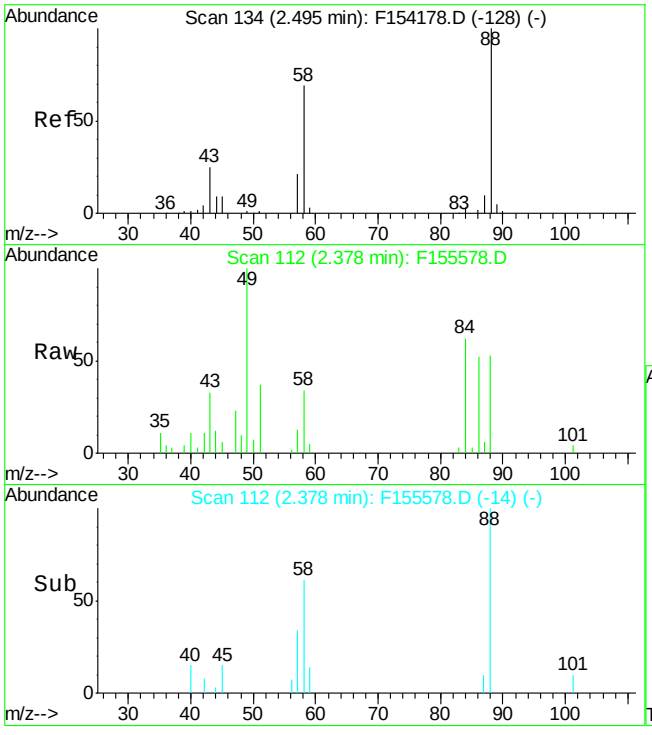
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155578.D Vial: 9
Acq On : 16 Mar 2016 12:37 am Operator: sarad
Sample : jc16038-2 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:15 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



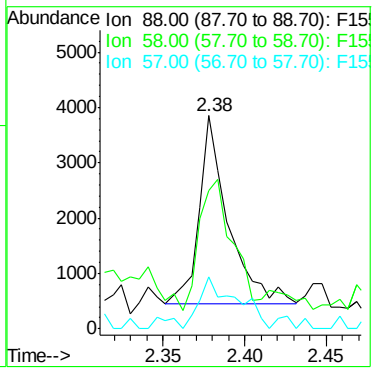
F155578.D MF6483.M Wed Mar 16 15:15:46 2016 RT1 Page 2



#2
1,4-Dioxane
Concen: 0.71 ppm
RT: 2.38 min Scan# 112
Delta R.T. 0.02 min
Lab File: F155578.D
Acq: 16 Mar 2016 12:37 am

Tgt Ion: 88 Resp: 4212

Ion	Ratio	Lower	Upper
88	100		
58	58.5	50.2	110.2
57	25.3	0.0	51.4



9.1.4

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155579.D Vial: 10
Acq On : 16 Mar 2016 1:06 am Operator: sarad
Sample : jc16038-3 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 01:29:09 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	154528	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	591079	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	353350	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	572106	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	544868	40.00 ppm	0.00
92) Perylene-d12	17.40	264	479804	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	154528	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	591079	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	353350	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	572106	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	544868	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	121208	20.81 ppm	0.03
Spiked Amount 50.000			Recovery	= 41.62%	
8) Phenol-d5	4.56	99	106937	16.24 ppm	0.02
Spiked Amount 50.000			Recovery	= 32.48%	
25) Nitrobenzene-d5	5.19	82	189541	33.41 ppm	0.00
Spiked Amount 50.000			Recovery	= 66.82%	
51) 2-Fluorobiphenyl	6.51	172	413035	31.91 ppm	0.00
Spiked Amount 50.000			Recovery	= 63.82%	
73) 2,4,6-Tribromophenol	8.06	330	49915	35.63 ppm	0.00
Spiked Amount 50.000			Recovery	= 71.26%	
85) Terphenyl-d14	12.12	244	403758	33.94 ppm	0.01
Spiked Amount 50.000			Recovery	= 67.88%	
Target Compounds					Qvalue
38) Naphthalene	5.72	128	67959	3.59 ppm	84
44) 2-Methylnaphthalene	6.23	141	545605	52.40 ppm	97
59) Acenaphthene	7.18	153	7867	0.67 ppm	94
66) Fluorene	7.75	166	15078	1.17 ppm	80

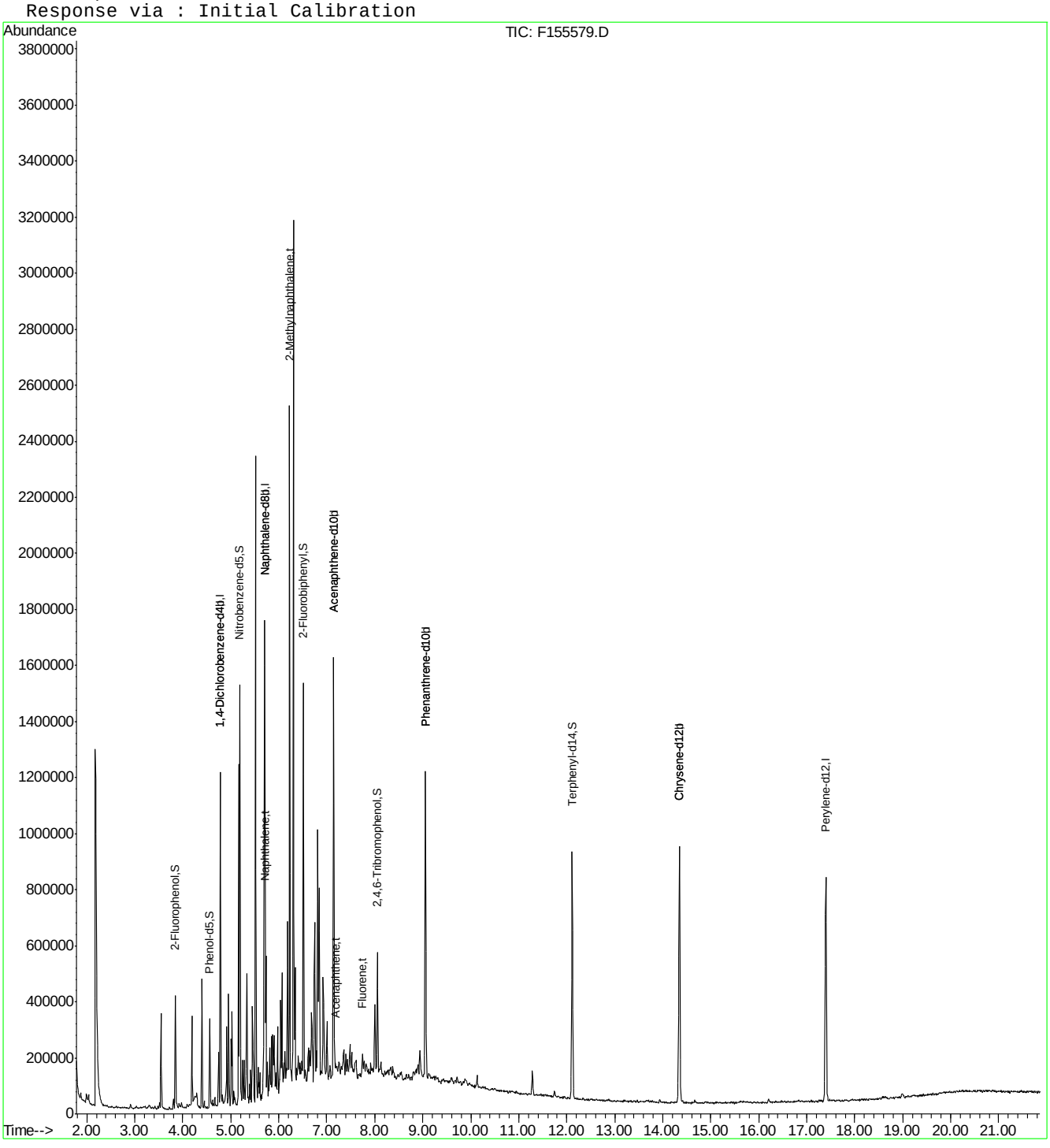
(#) = qualifier out of range (m) = manual integration (+) = signals summed

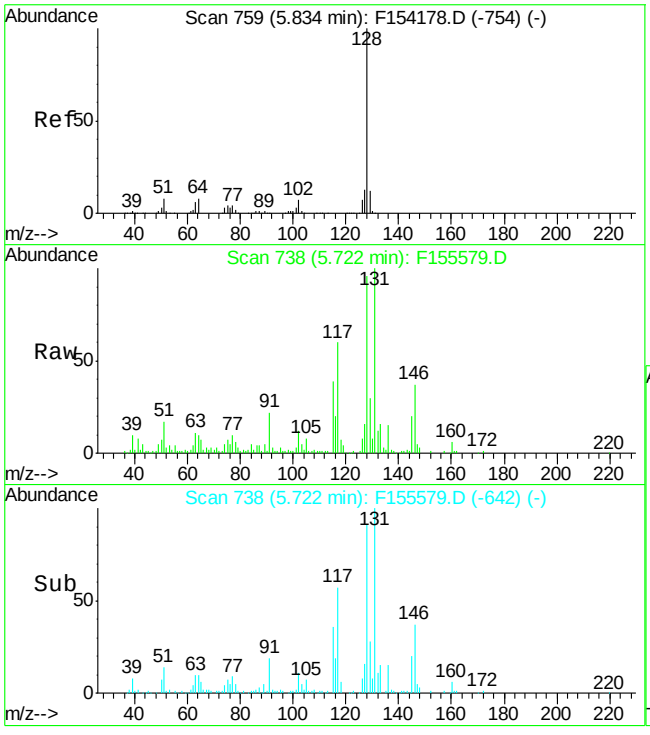
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155579.D Vial: 10
Acq On : 16 Mar 2016 1:06 am Operator: sarad
Sample : jc16038-3 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:17 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration

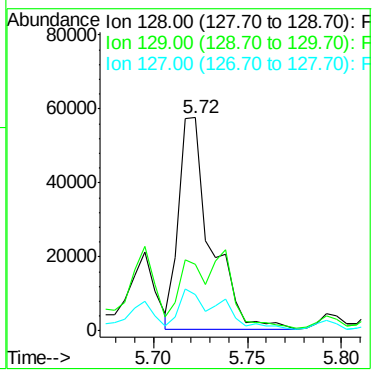


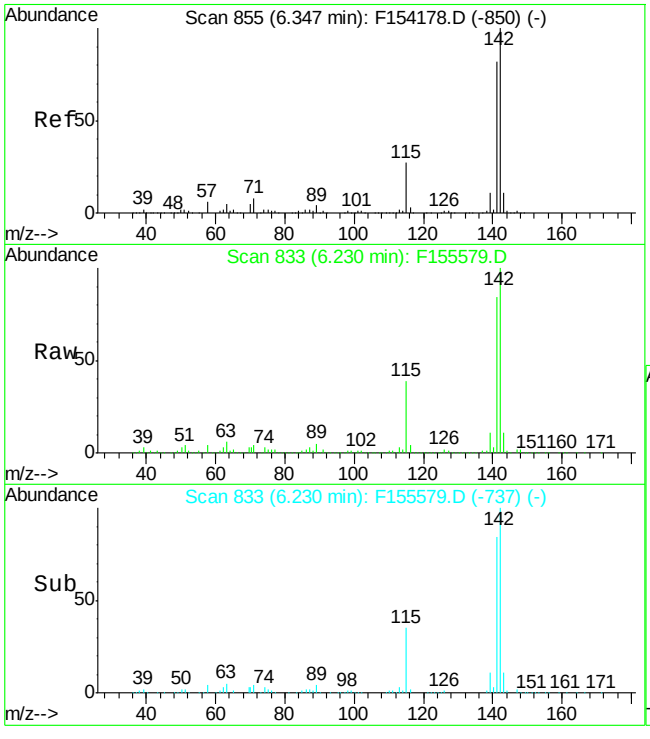


#38
Naphthalene
Concen: 3.59 ppm
RT: 5.72 min Scan# 738
Delta R.T. 0.01 min
Lab File: F155579.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:128 Resp: 67959

Ion	Ratio	Lower	Upper
128	100		
129	28.6	0.0	45.1
127	15.9	0.0	46.2

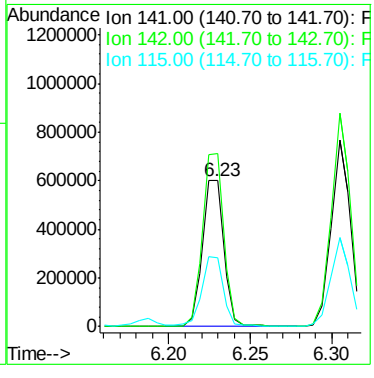


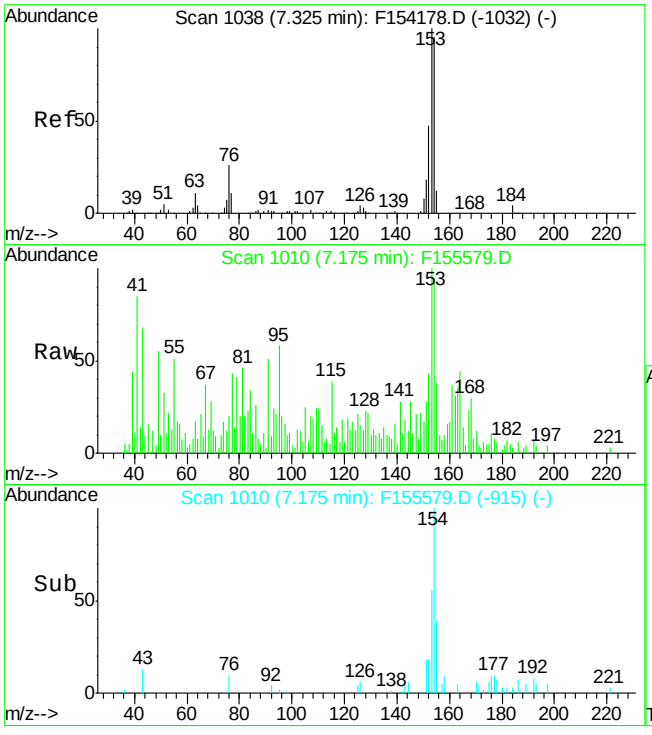


#44
2-Methylnaphthalene
Concen: 52.40 ppm
RT: 6.23 min Scan# 833
Delta R.T. 0.01 min
Lab File: F155579.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:141 Resp: 545605

Ion	Ratio	Lower	Upper
141	100		
142	119.1	87.9	147.9
115	46.3	10.5	70.5

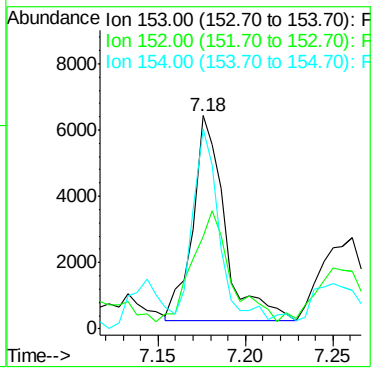


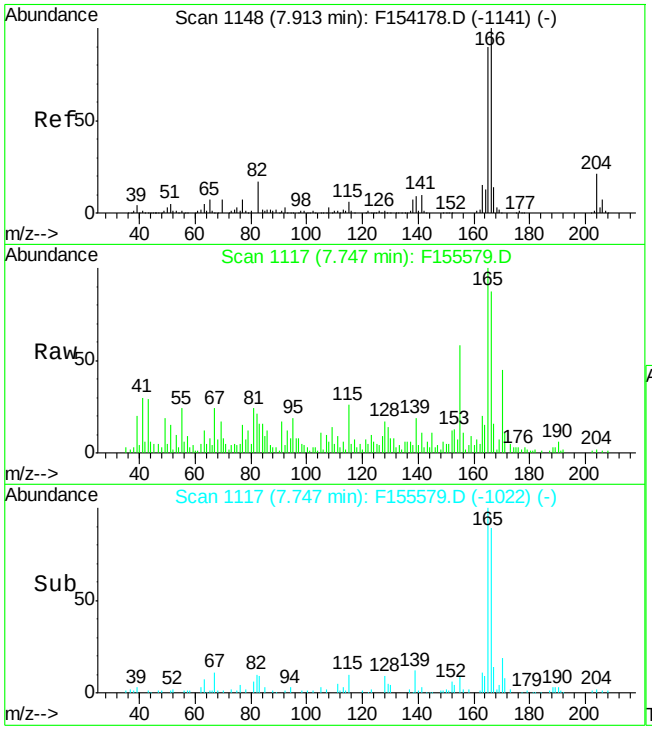


#59
Acenaphthene
Concen: 0.67 ppm
RT: 7.18 min Scan# 1010
Delta R.T. 0.01 min
Lab File: F155579.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:153 Resp: 7867

Ion	Ratio	Lower	Upper
153	100		
152	39.2	16.9	76.9
154	91.2	63.6	123.6

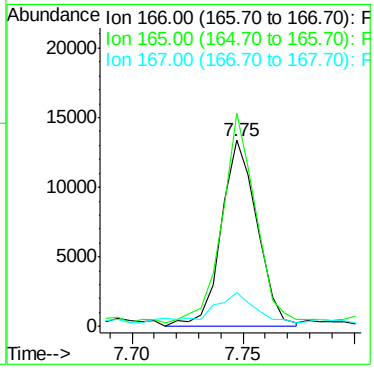




#66
Fluorene
Concen: 1.17 ppm
RT: 7.75 min Scan# 1117
Delta R.T. 0.01 min
Lab File: F155579.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:166 Resp: 15078

Ion	Ratio	Lower	Upper
166	100		
165	112.6	62.0	122.0
167	15.2	0.0	43.0



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/11/16 11:30

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155579R.D Vial: 10
Acq On : 16 Mar 2016 1:06 am Operator: sarad
Sample : jc16038-3r Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 01:29:09 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	154528	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	591079	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	353350	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	572106	40.00	ppm	0.00
83) Chrysene-d12	14.34	240	544868	40.00	ppm	0.00
92) Perylene-d12	17.40	264	479804	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	154528	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	591079	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	353350	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	572106	40.00	ppm	0.00
110) Chrysene-d12b	14.34	240	544868	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.84	112	121208	20.81	ppm	0.03
Spiked Amount 50.000			Recovery = 41.62%			
8) Phenol-d5	4.56	99	106937	16.24	ppm	0.02
Spiked Amount 50.000			Recovery = 32.48%			
25) Nitrobenzene-d5	5.19	82	189541	33.41	ppm	0.00
Spiked Amount 50.000			Recovery = 66.82%			
51) 2-Fluorobiphenyl	6.51	172	413035	31.91	ppm	0.00
Spiked Amount 50.000			Recovery = 63.82%			
73) 2,4,6-Tribromophenol	8.06	330	49915	35.63	ppm	0.00
Spiked Amount 50.000			Recovery = 71.26%			
85) Terphenyl-d14	12.12	244	403758	33.94	ppm	0.01
Spiked Amount 50.000			Recovery = 67.88%			

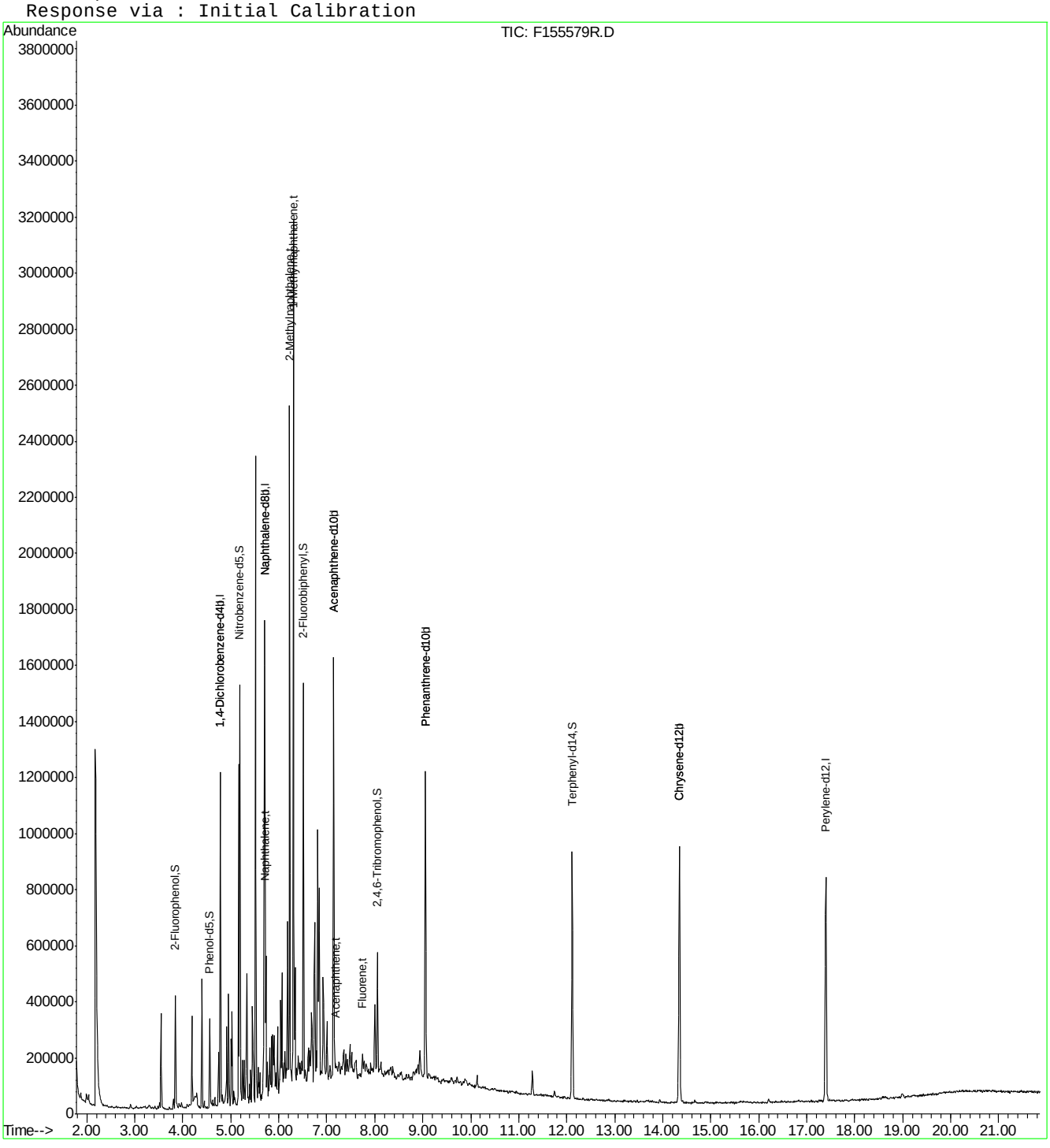
Target Compounds						Qvalue
38) Naphthalene	5.72	128	67959	3.59	ppm	84
44) 2-Methylnaphthalene	6.23	141	545605	52.40	ppm	97
45) 1-Methylnaphthalene	6.30	141	641536m	59.15	ppm	
59) Acenaphthene	7.18	153	7867	0.67	ppm	94
66) Fluorene	7.75	166	15078	1.17	ppm	80

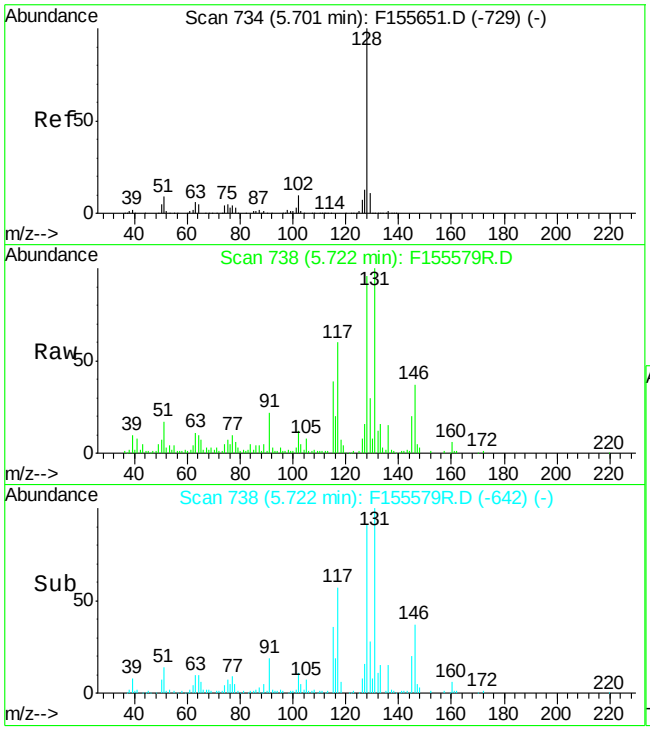
(#) = qualifier out of range (m) = manual integration (+) = signals summed
F155579R.D MF6483.M Sat Apr 09 16:32:07 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155579R.D Vial: 10
Acq On : 16 Mar 2016 1:06 am Operator: sarad
Sample : jc16038-3r Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 9 16:31 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 31 12:30:23 2016
Response via : Initial Calibration

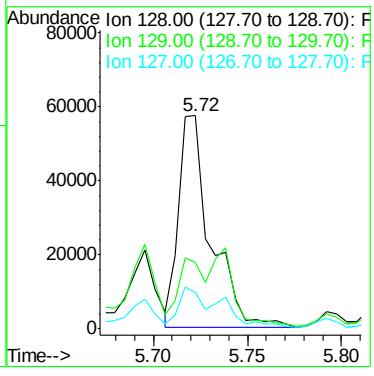


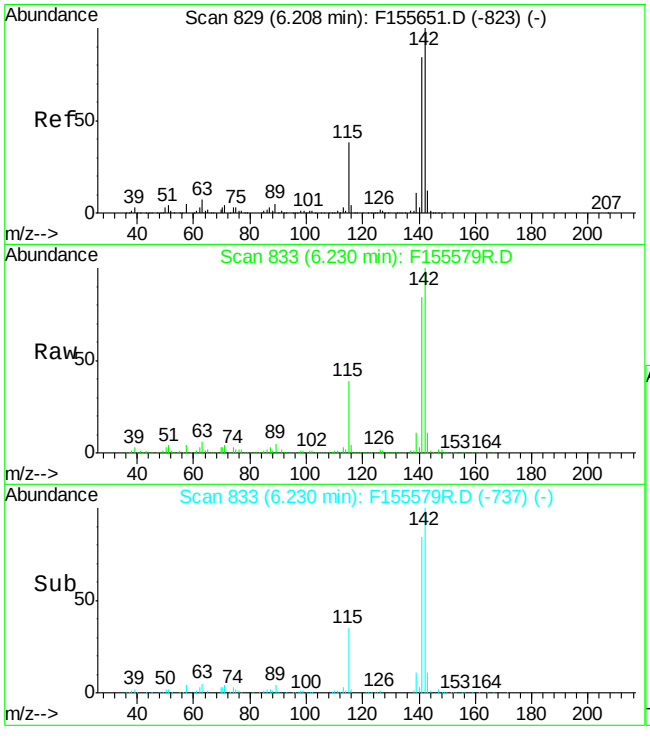


#38
Naphthalene
Concen: 3.59 ppm
RT: 5.72 min Scan# 738
Delta R.T. 0.01 min
Lab File: F155579R.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:128 Resp: 67959

Ion	Ratio	Lower	Upper
128	100		
129	28.6	0.0	45.1
127	15.9	0.0	46.2

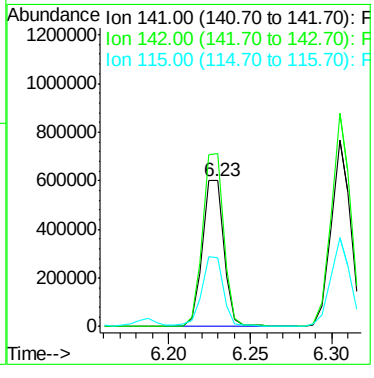


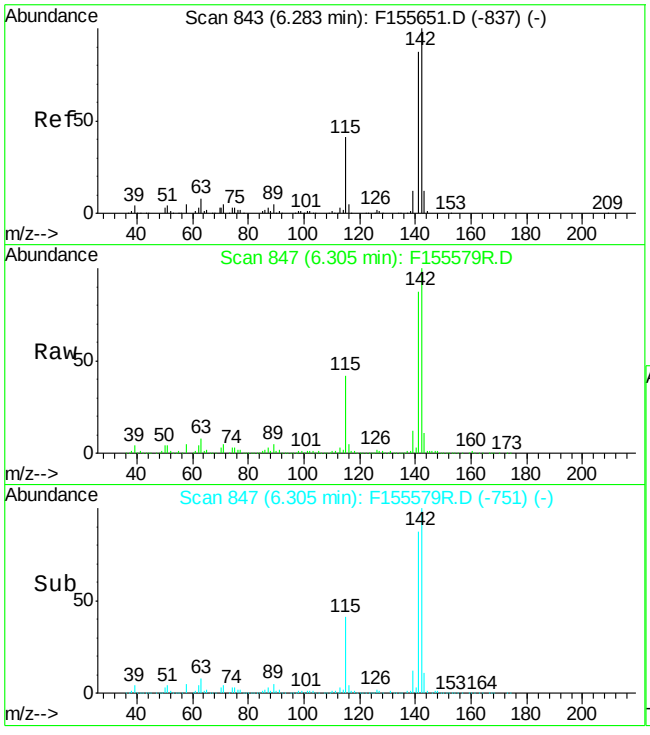


#44
2-Methylnaphthalene
Concen: 52.40 ppm
RT: 6.23 min Scan# 833
Delta R.T. 0.01 min
Lab File: F155579R.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:141 Resp: 545605

Ion	Ratio	Lower	Upper
141	100		
142	119.1	87.9	147.9
115	46.3	10.5	70.5

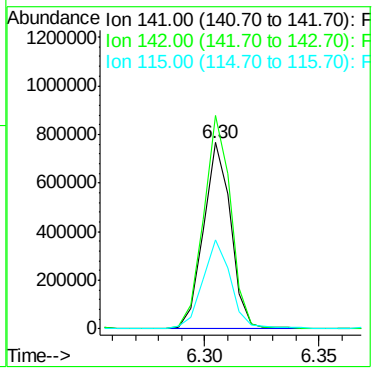


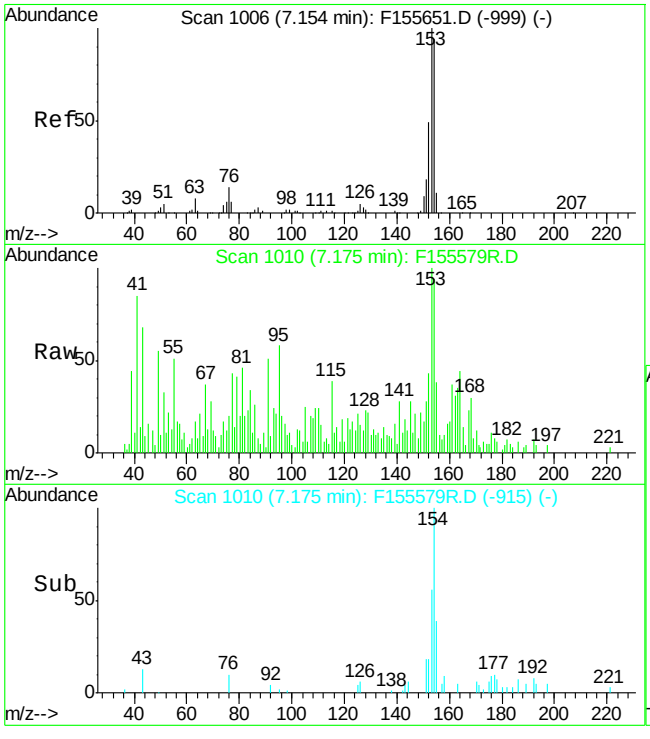


#45
1-Methylnaphthalene
Concen: 59.15 ppm m
RT: 6.30 min Scan# 847
Delta R.T. 0.01 min
Lab File: F155579R.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:141 Resp: 641536

Ion	Ratio	Lower	Upper
141	100		
142	114.5	84.1	144.1
115	47.7	10.5	70.5

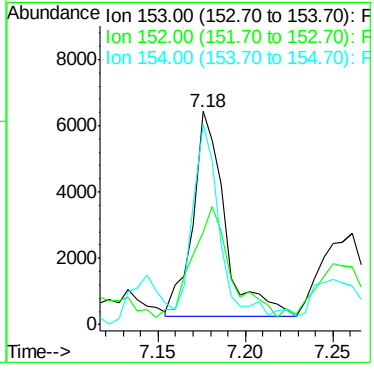


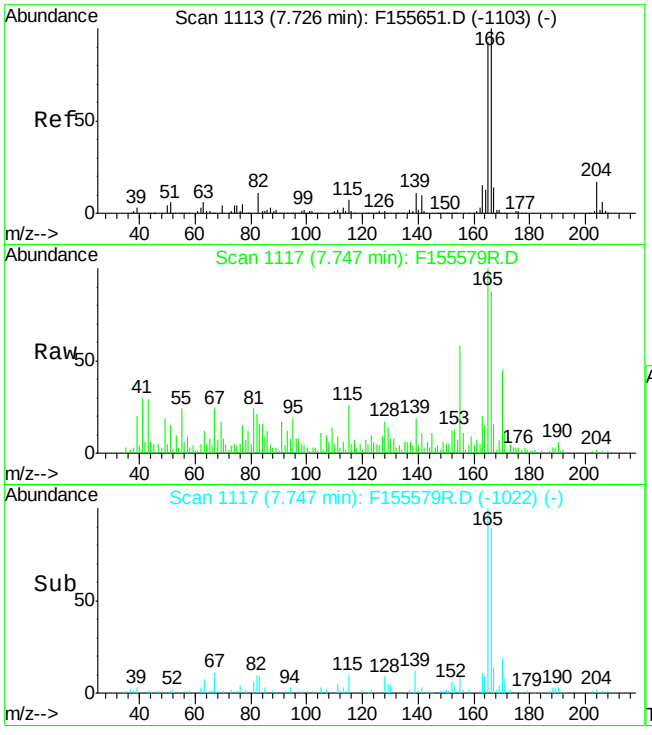


#59
Acenaphthene
Concen: 0.67 ppm
RT: 7.18 min Scan# 1010
Delta R.T. 0.01 min
Lab File: F155579R.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:153 Resp: 7867

Ion	Ratio	Lower	Upper
153	100		
152	39.2	16.9	76.9
154	91.2	63.6	123.6

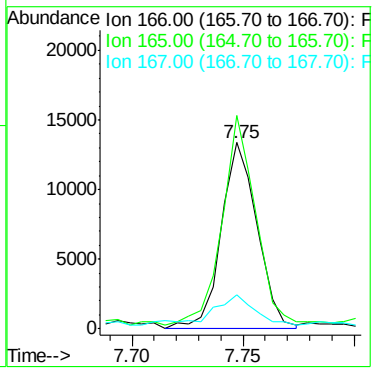




#66
Fluorene
Concen: 1.17 ppm
RT: 7.75 min Scan# 1117
Delta R.T. 0.01 min
Lab File: F155579R.D
Acq: 16 Mar 2016 1:06 am

Tgt Ion:166 Resp: 15078

Ion	Ratio	Lower	Upper
166	100		
165	112.6	62.0	122.0
167	15.2	0.0	43.0



9.1.6

9

Manual Integration Approval Summary

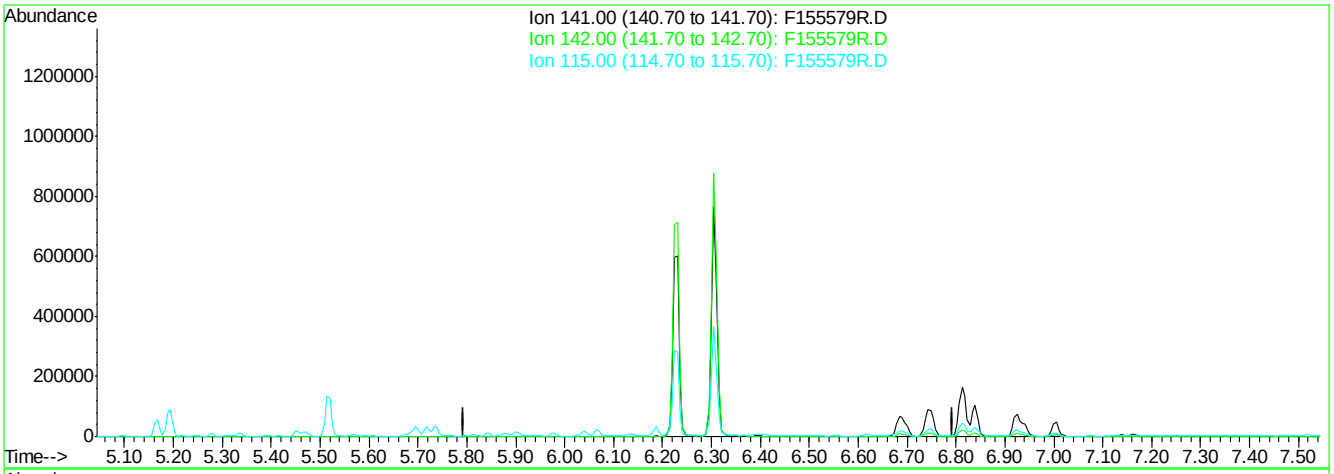
Sample Number:	JC16038-3R	**Method:**	SW846 8270D
Lab FileID:	F155579R.D	**Analyst approved:**	04/09/16 16:32 Kristi Schollenberger
Injection Time:	03/16/16 01:06	**Supervisor approved:**	04/11/16 11:30 Kristi Schollenberger

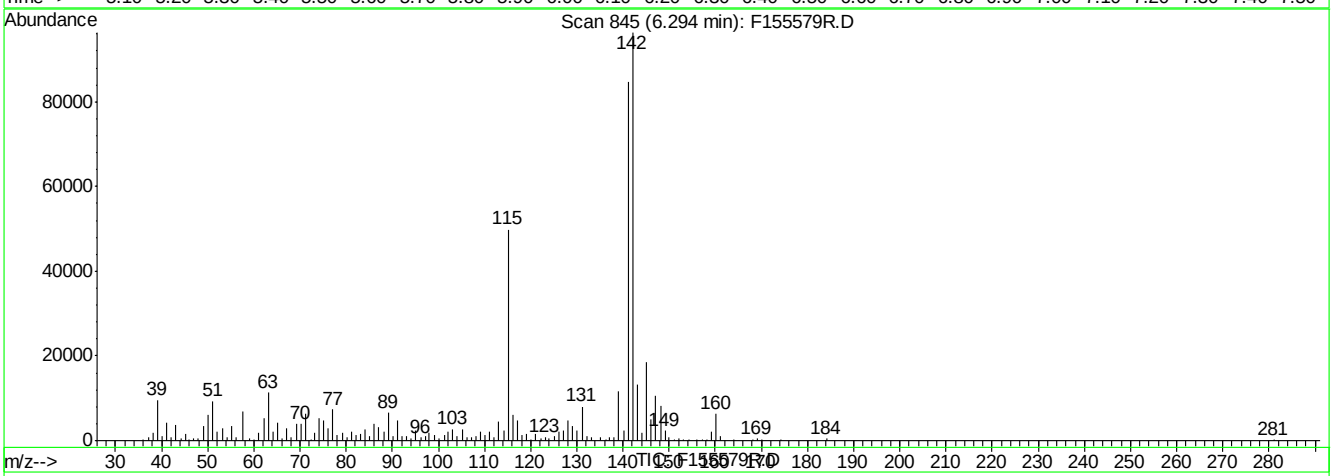
Parameter	CAS	Sig#	R.T. (min.)	Reason
1-Methylnaphthalene	90-12-0		6.30	Add-on compound quantitation

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155579R.D Vial: 10
Acq On : 16 Mar 2016 1:06 am Operator: sarad
Sample : jc16038-3r Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:17 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 31 12:30:23 2016
Response via : Multiple Level Calibration





(45) 1-Methylnaphthalene (t)

6.29min 0.00ppm d

response 0

Ion	Exp%	Act%
141.00	100	0.00
142.00	114.10	0.00
115.00	40.50	0.00
0.00	0.00	0.00

F155579R.D MF6483.M Sat Apr 09 16:31:53 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155580.D Vial: 11
Acq On : 16 Mar 2016 1:35 am Operator: sarad
Sample : jc16038-4 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 01:57:50 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

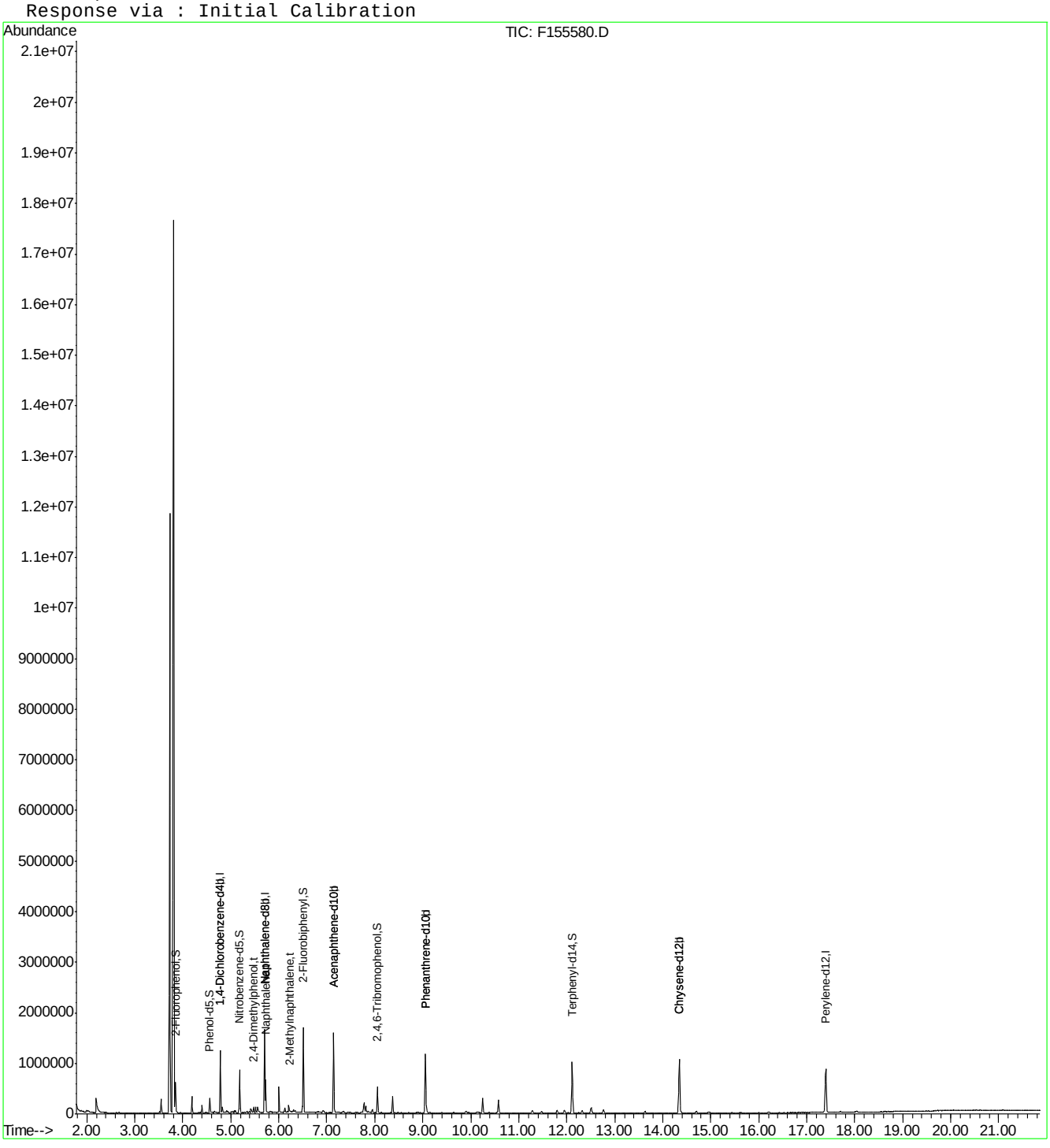
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	157949	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	621449	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	368866	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	610131	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	584035	40.00 ppm	0.00
92) Perylene-d12	17.40	264	513702	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	157949	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	621449	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	368866	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	610131	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	584035	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	124460	20.90 ppm	0.03
Spiked Amount 50.000			Recovery	= 41.80%	
8) Phenol-d5	4.56	99	109287	16.23 ppm	0.02
Spiked Amount 50.000			Recovery	= 32.46%	
25) Nitrobenzene-d5	5.19	82	211036	35.38 ppm	0.00
Spiked Amount 50.000			Recovery	= 70.76%	
51) 2-Fluorobiphenyl	6.51	172	473233	35.02 ppm	0.00
Spiked Amount 50.000			Recovery	= 70.04%	
73) 2,4,6-Tribromophenol	8.06	330	62086	41.56 ppm	0.00
Spiked Amount 50.000			Recovery	= 83.12%	
85) Terphenyl-d14	12.11	244	462982	36.31 ppm	0.00
Spiked Amount 50.000			Recovery	= 72.62%	
Target Compounds					Qvalue
30) 2,4-Dimethylphenol	5.47	107	28398	5.38 ppm	90
38) Naphthalene	5.72	128	51757	2.60 ppm	79
44) 2-Methylnaphthalene	6.22	141	6524	0.60 ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F155580.D MF6483.M Wed Mar 16 15:19:50 2016 RT1

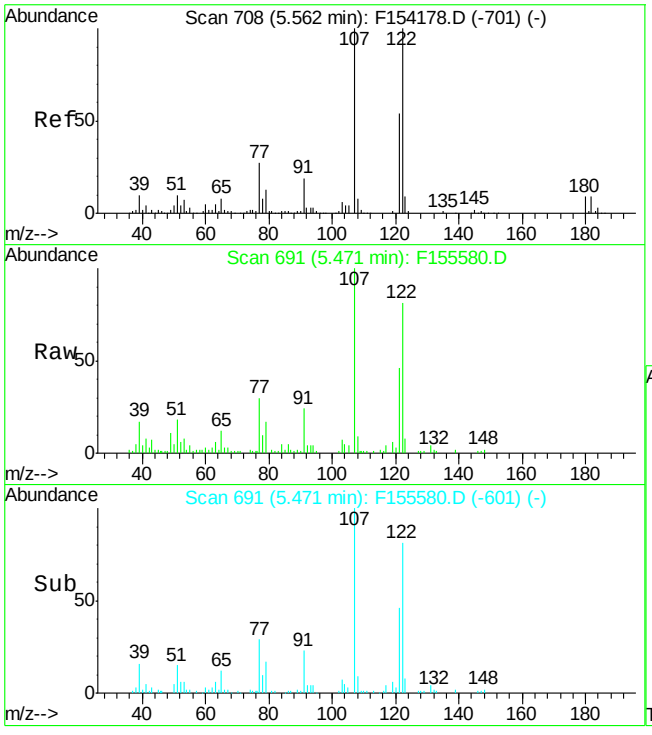
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155580.D Vial: 11
Acq On : 16 Mar 2016 1:35 am Operator: sarad
Sample : jc16038-4 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:19 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



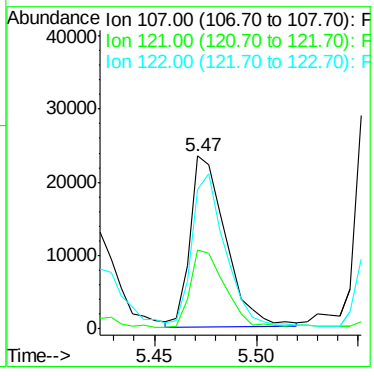
F155580.D MF6483.M Wed Mar 16 15:19:50 2016 RT1 Page 2

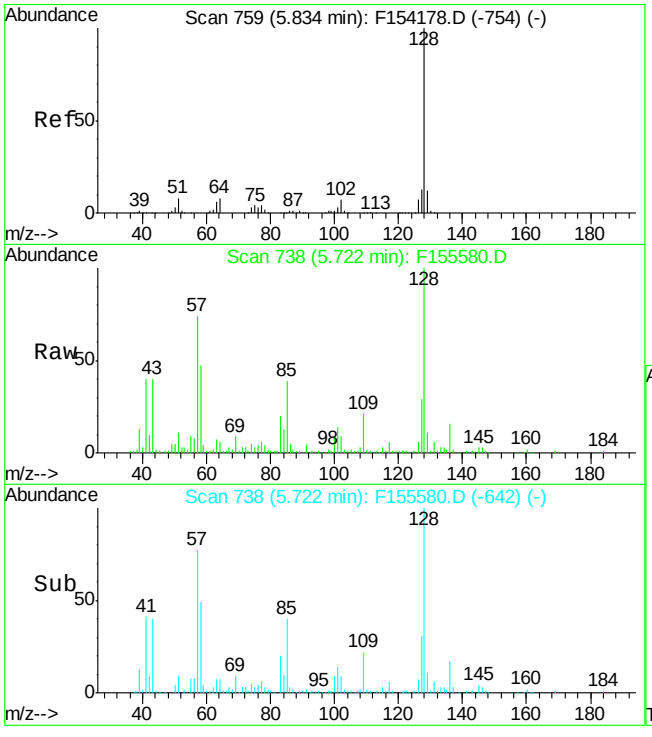


#30
2,4-Dimethylphenol
Concen: 5.38 ppm
RT: 5.47 min Scan# 691
Delta R.T. -0.02 min
Lab File: F155580.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:107 Resp: 28398

Ion	Ratio	Lower	Upper
107	100		
121	45.8	20.8	80.8
122	81.0	61.4	121.4

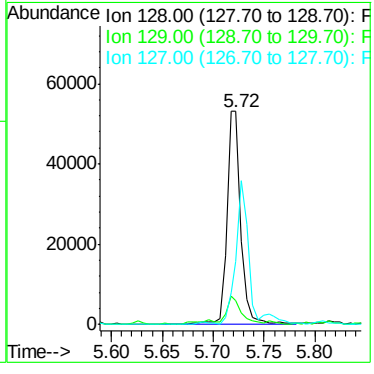




#38
Naphthalene
Concen: 2.60 ppm
RT: 5.72 min Scan# 738
Delta R.T. 0.01 min
Lab File: F155580.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:128 Resp: 51757

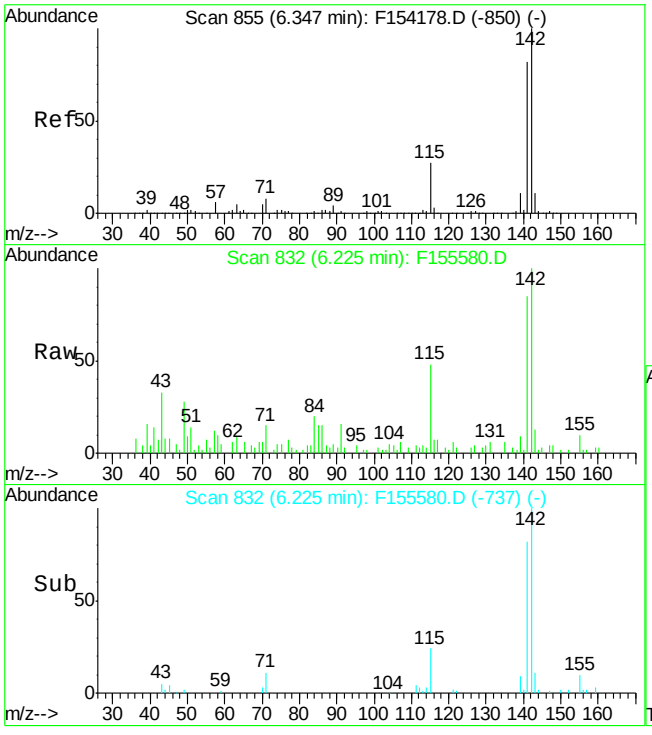
Ion	Ratio	Lower	Upper
128	100		
129	10.6	0.0	45.1
127	29.1	0.0	46.2



9.1.7

9

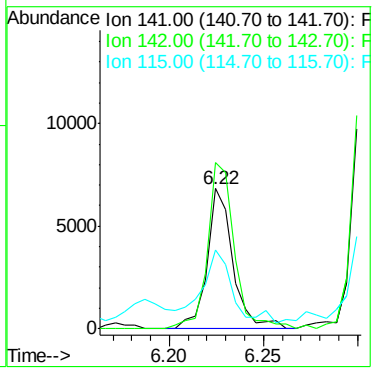
SGS ACCUTEST JC16038



#44
2-Methylnaphthalene
Concen: 0.60 ppm
RT: 6.22 min Scan# 832
Delta R.T. 0.01 min
Lab File: F155580.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:141 Resp: 6524

Ion	Ratio	Lower	Upper
141	100		
142	118.3	87.9	147.9
115	46.5	10.5	70.5



9.1.7

9

SGS ACCUTEST JC16038

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/11/16 11:30

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155580R.D Vial: 11
Acq On : 16 Mar 2016 1:35 am Operator: sarad
Sample : jc16038-4r Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 01:57:50 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	157949	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	621449	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	368866	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	610131	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	584035	40.00 ppm	0.00
92) Perylene-d12	17.40	264	513702	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	157949	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	621449	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	368866	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	610131	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	584035	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	124460	20.90 ppm	0.03
Spiked Amount 50.000			Recovery = 41.80%		
8) Phenol-d5	4.56	99	109287	16.23 ppm	0.02
Spiked Amount 50.000			Recovery = 32.46%		
25) Nitrobenzene-d5	5.19	82	211036	35.38 ppm	0.00
Spiked Amount 50.000			Recovery = 70.76%		
51) 2-Fluorobiphenyl	6.51	172	473233	35.02 ppm	0.00
Spiked Amount 50.000			Recovery = 70.04%		
73) 2,4,6-Tribromophenol	8.06	330	62086	41.56 ppm	0.00
Spiked Amount 50.000			Recovery = 83.12%		
85) Terphenyl-d14	12.11	244	462982	36.31 ppm	0.00
Spiked Amount 50.000			Recovery = 72.62%		

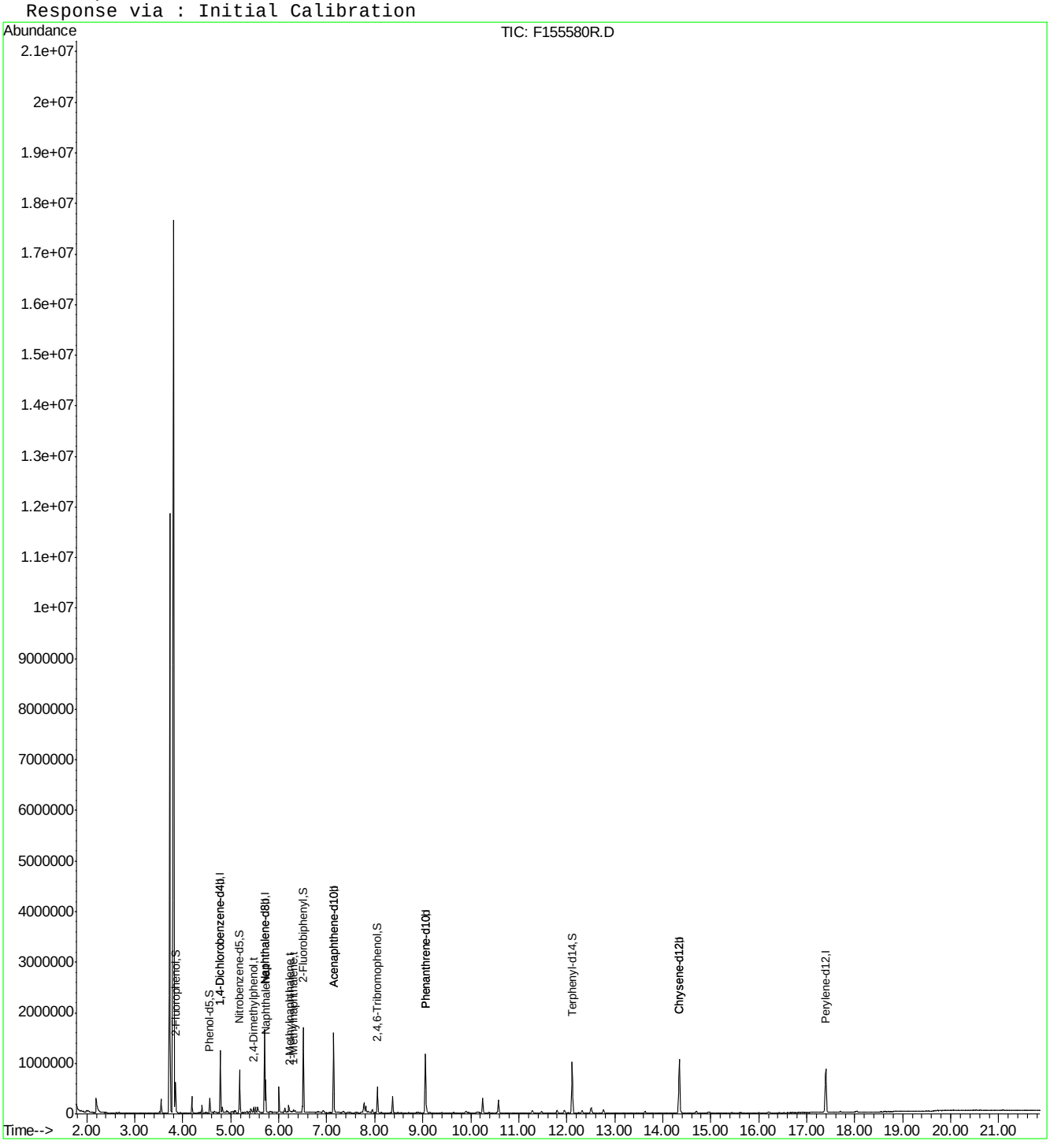
Target Compounds					Qvalue
30) 2,4-Dimethylphenol	5.47	107	28398	5.38 ppm	90
38) Naphthalene	5.72	128	51757	2.60 ppm	79
44) 2-Methylnaphthalene	6.22	141	6524	0.60 ppm	97
45) 1-Methylnaphthalene	6.30	141	11272m	0.99 ppm	

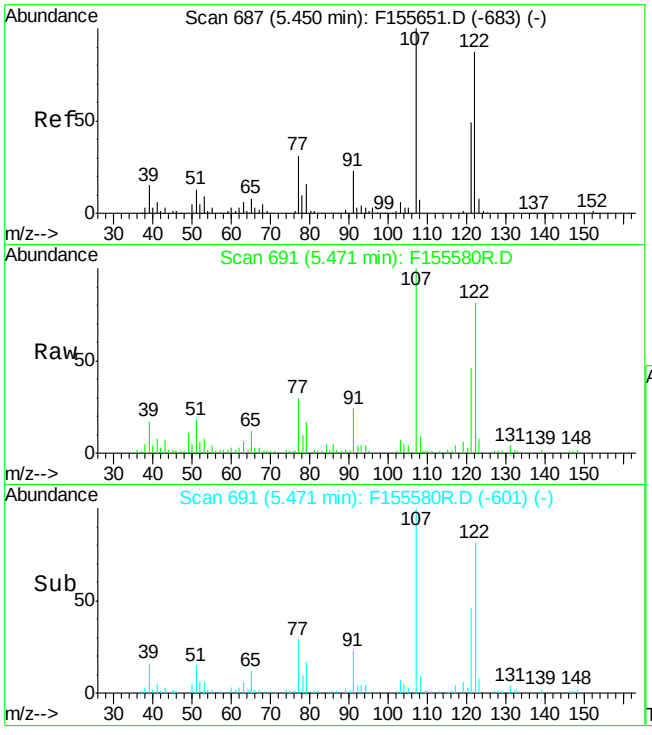
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155580R.D Vial: 11
Acq On : 16 Mar 2016 1:35 am Operator: sarad
Sample : jc16038-4r Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 9 16:32 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 31 12:30:23 2016
Response via : Initial Calibration

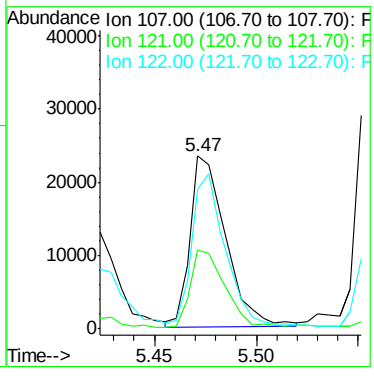


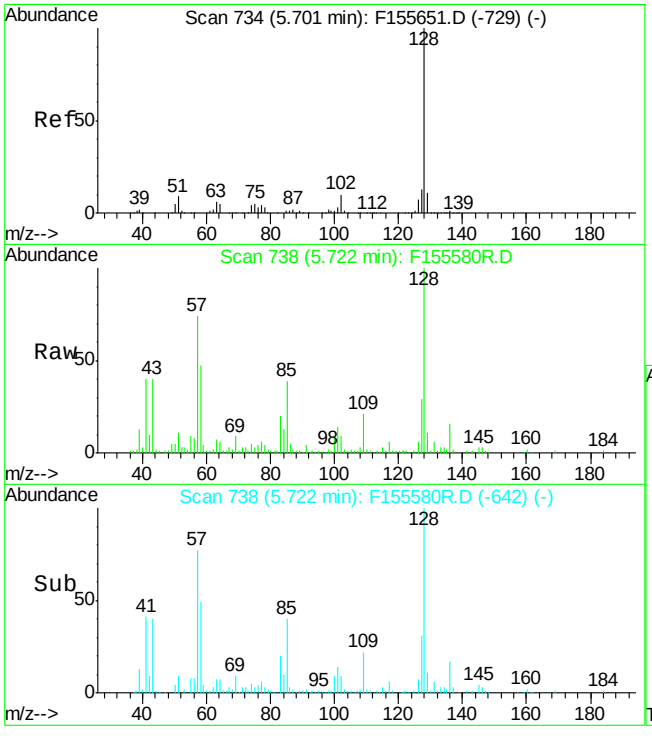


#30
2,4-Dimethylphenol
Concen: 5.38 ppm
RT: 5.47 min Scan# 691
Delta R.T. -0.02 min
Lab File: F155580R.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:107 Resp: 28398

Ion	Ratio	Lower	Upper
107	100		
121	45.8	20.8	80.8
122	81.0	61.4	121.4

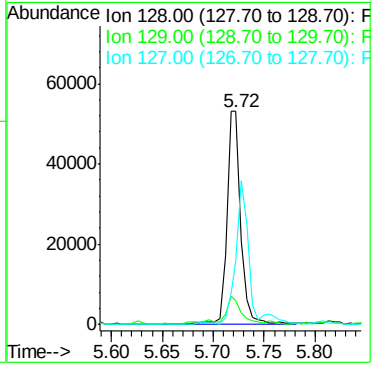


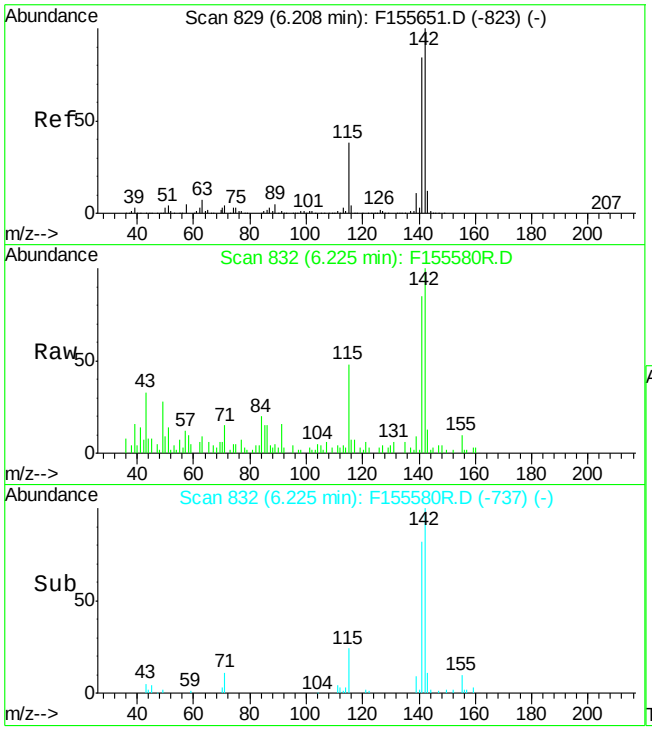


#38
Naphthalene
Concen: 2.60 ppm
RT: 5.72 min Scan# 738
Delta R.T. 0.01 min
Lab File: F155580R.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:128 Resp: 51757

Ion	Ratio	Lower	Upper
128	100		
129	10.6	0.0	45.1
127	29.1	0.0	46.2

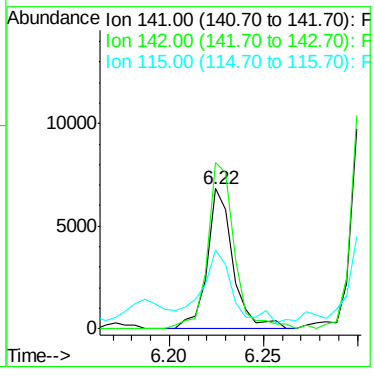


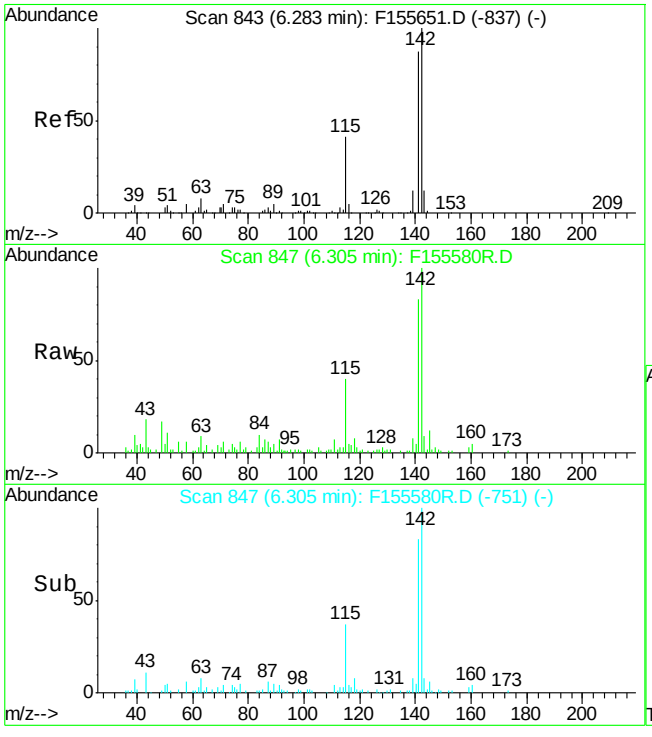


#44
2-Methylnaphthalene
Concen: 0.60 ppm
RT: 6.22 min Scan# 832
Delta R.T. 0.01 min
Lab File: F155580R.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:141 Resp: 6524

Ion	Ratio	Lower	Upper
141	100		
142	118.3	87.9	147.9
115	46.5	10.5	70.5

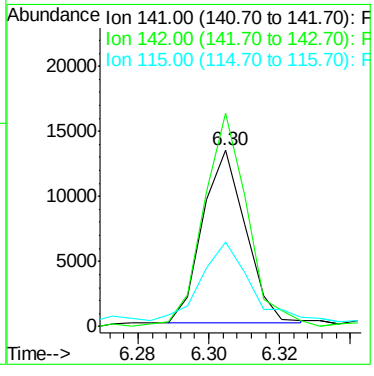




#45
1-Methylnaphthalene
Concen: 0.99 ppm m
RT: 6.30 min Scan# 847
Delta R.T. 0.01 min
Lab File: F155580R.D
Acq: 16 Mar 2016 1:35 am

Tgt Ion:141 Resp: 11272

Ion	Ratio	Lower	Upper
141	100		
142	120.6	84.1	144.1
115	47.8	10.5	70.5



Manual Integration Approval Summary

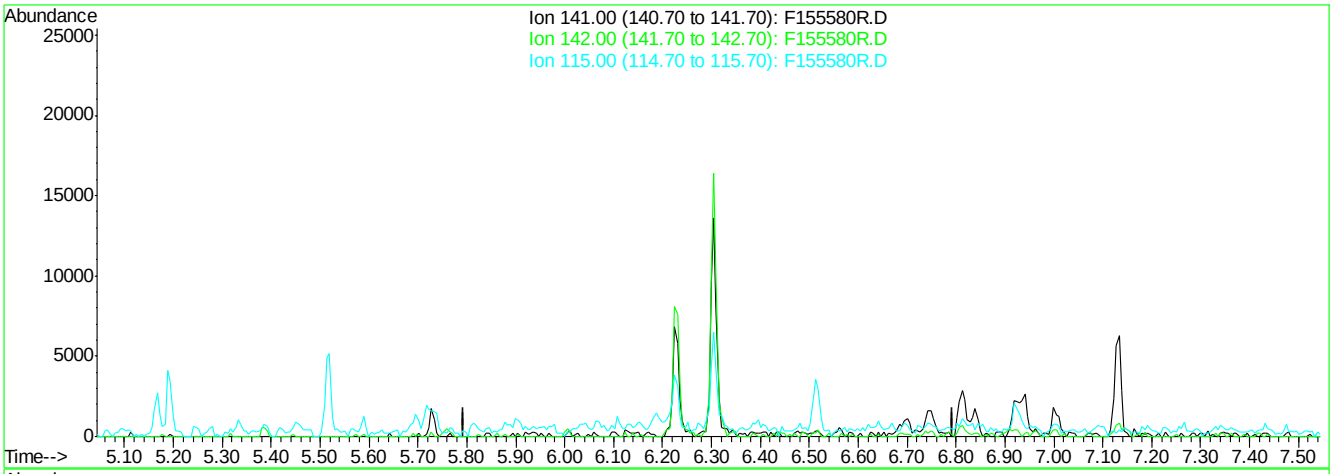
Sample Number:	JC16038-4R	**Method:**	SW846 8270D
Lab FileID:	F155580R.D	**Analyst approved:**	04/09/16 16:32 Kristi Schollenberger
Injection Time:	03/16/16 01:35	**Supervisor approved:**	04/11/16 11:30 Kristi Schollenberger

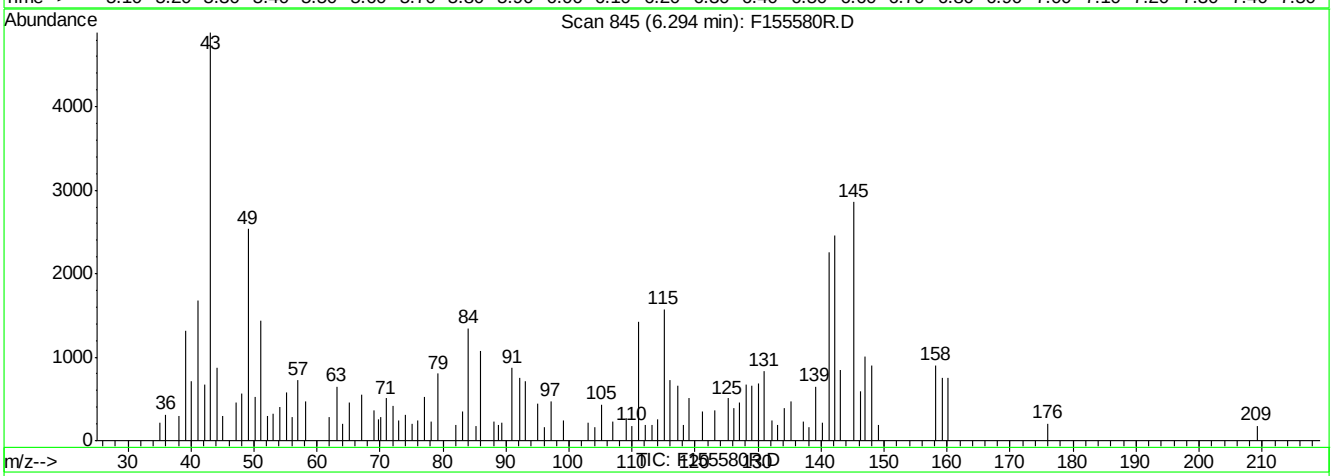
Parameter	CAS	Sig#	R.T. (min.)	Reason
1-Methylnaphthalene	90-12-0		6.30	Add-on compound quantitation

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155580R.D Vial: 11
Acq On : 16 Mar 2016 1:35 am Operator: sarad
Sample : jc16038-4r Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:19 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 31 12:30:23 2016
Response via : Multiple Level Calibration





(45) 1-Methylnaphthalene (t)

6.29min 0.00ppm d

response 0

Ion	Exp%	Act%
141.00	100	0.00
142.00	114.10	0.00
115.00	40.50	0.00
0.00	0.00	0.00

F155580R.D MF6483.M Sat Apr 09 16:32:16 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155581.D Vial: 12
Acq On : 16 Mar 2016 2:04 am Operator: sarad
Sample : jc16038-5 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 02:26:06 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	156055	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	630707	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	378018	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	627337	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	585313	40.00 ppm	0.00
92) Perylene-d12	17.40	264	516529	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	156055	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	630707	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	378018	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	627337	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	585313	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	122134	20.76 ppm	0.03
Spiked Amount 50.000			Recovery = 41.52%		
8) Phenol-d5	4.56	99	106003	15.94 ppm	0.02
Spiked Amount 50.000			Recovery = 31.88%		
25) Nitrobenzene-d5	5.19	82	217184	35.88 ppm	0.00
Spiked Amount 50.000			Recovery = 71.76%		
51) 2-Fluorobiphenyl	6.51	172	459240	33.16 ppm	0.00
Spiked Amount 50.000			Recovery = 66.32%		
73) 2,4,6-Tribromophenol	8.06	330	59178	38.52 ppm	0.00
Spiked Amount 50.000			Recovery = 77.04%		
85) Terphenyl-d14	12.11	244	451362	35.32 ppm	0.00
Spiked Amount 50.000			Recovery = 70.64%		

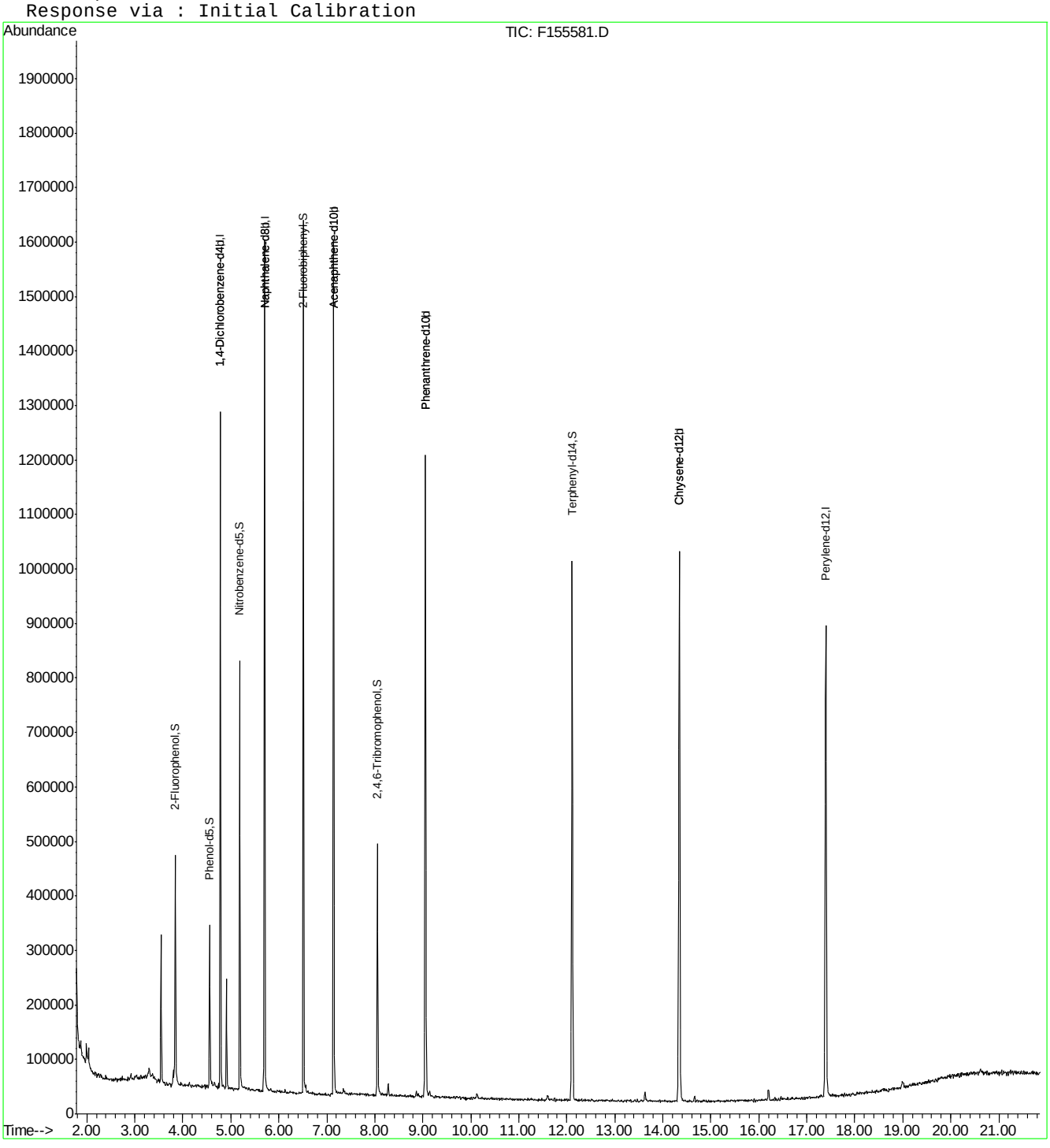
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F155581.D MF6483.M Wed Mar 16 15:29:30 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155581.D Vial: 12
Acq On : 16 Mar 2016 2:04 am Operator: sarad
Sample : jc16038-5 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:29 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



F155581.D MF6483.M Wed Mar 16 15:29:35 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155581.D Vial: 12
Acq On : 16 Mar 2016 2:04 am Operator: sarad
Sample : jc16038-5 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 02:26:06 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	156055	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	630707	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	378018	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	627337	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	585313	40.00 ppm	0.00
92) Perylene-d12	17.40	264	516529	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	156055	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	630707	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	378018	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	627337	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	585313	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	122134	20.76 ppm	0.03
Spiked Amount 50.000			Recovery = 41.52%		
8) Phenol-d5	4.56	99	106003	15.94 ppm	0.02
Spiked Amount 50.000			Recovery = 31.88%		
25) Nitrobenzene-d5	5.19	82	217184	35.88 ppm	0.00
Spiked Amount 50.000			Recovery = 71.76%		
51) 2-Fluorobiphenyl	6.51	172	459240	33.16 ppm	0.00
Spiked Amount 50.000			Recovery = 66.32%		
73) 2,4,6-Tribromophenol	8.06	330	59178	38.52 ppm	0.00
Spiked Amount 50.000			Recovery = 77.04%		
85) Terphenyl-d14	12.11	244	451362	35.32 ppm	0.00
Spiked Amount 50.000			Recovery = 70.64%		

Target Compounds Qvalue

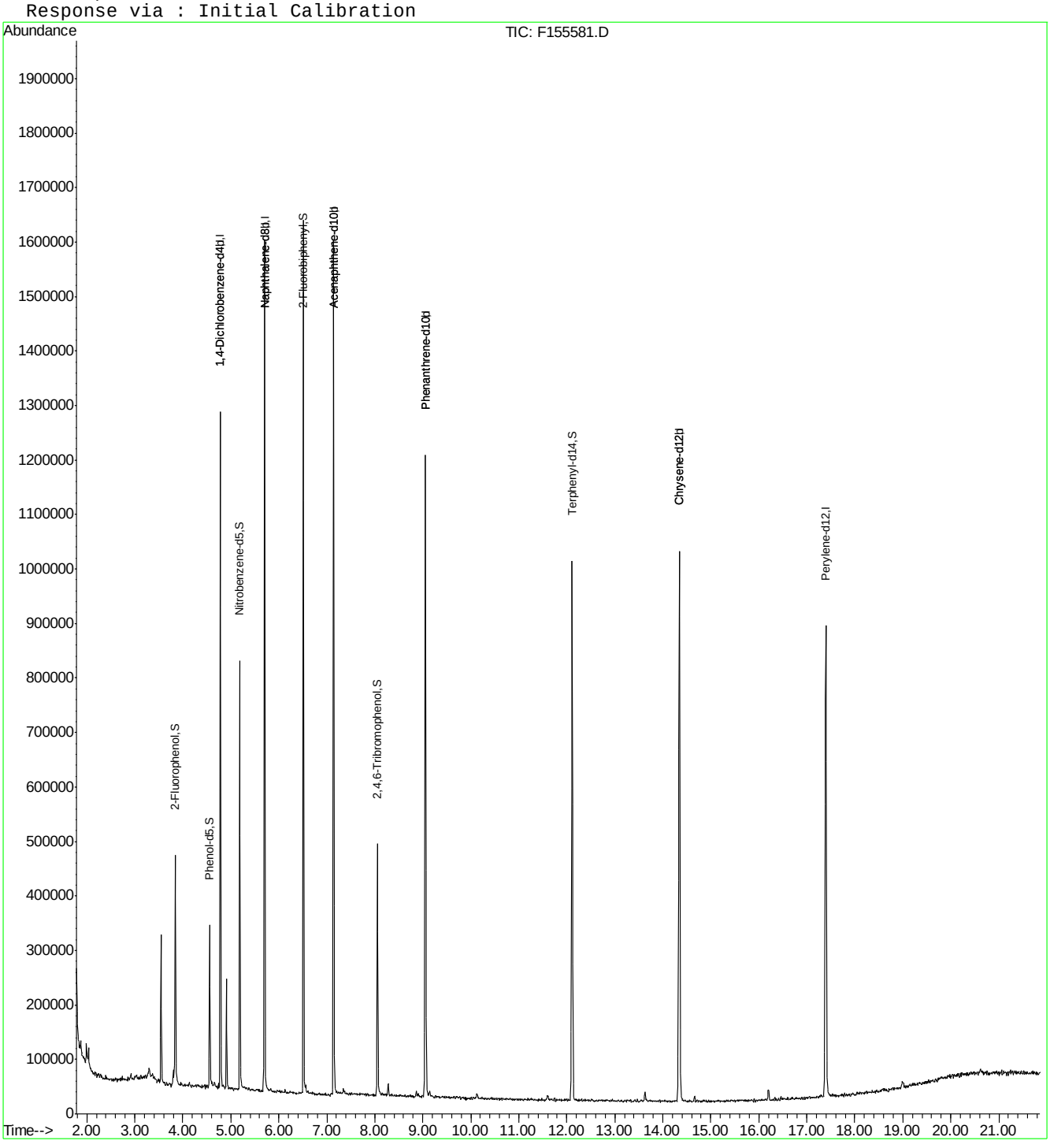
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155581.D Vial: 12
Acq On : 16 Mar 2016 2:04 am Operator: sarad
Sample : jc16038-5 Inst : MSF
Misc : op92078,ef6543,950 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:29 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



F155581.D MF6483.M Wed Mar 16 15:29:35 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155582.D Vial: 13
Acq On : 16 Mar 2016 2:32 am Operator: sarad
Sample : jc16038-6 Inst : MSF
Misc : op92078,ef6543,970 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 02:54:32 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	154551	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	604475	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	353821	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	589326	40.00	ppm	0.00
83) Chrysene-d12	14.34	240	568125	40.00	ppm	0.00
92) Perylene-d12	17.40	264	504521	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	154551	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	604475	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	353821	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	589326	40.00	ppm	0.00
110) Chrysene-d12b	14.34	240	568125	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.84	112	160729	27.59	ppm	0.03
Spiked Amount 50.000			Recovery = 55.18%			
8) Phenol-d5	4.56	99	129965	19.73	ppm	0.02
Spiked Amount 50.000			Recovery = 39.46%			
25) Nitrobenzene-d5	5.19	82	280404	48.33	ppm	0.00
Spiked Amount 50.000			Recovery = 96.66%			
51) 2-Fluorobiphenyl	6.51	172	574316	44.31	ppm	0.00
Spiked Amount 50.000			Recovery = 88.62%			
73) 2,4,6-Tribromophenol	8.06	330	69742	48.33	ppm	0.00
Spiked Amount 50.000			Recovery = 96.66%			
85) Terphenyl-d14	12.12	244	535894	43.20	ppm	0.01
Spiked Amount 50.000			Recovery = 86.40%			

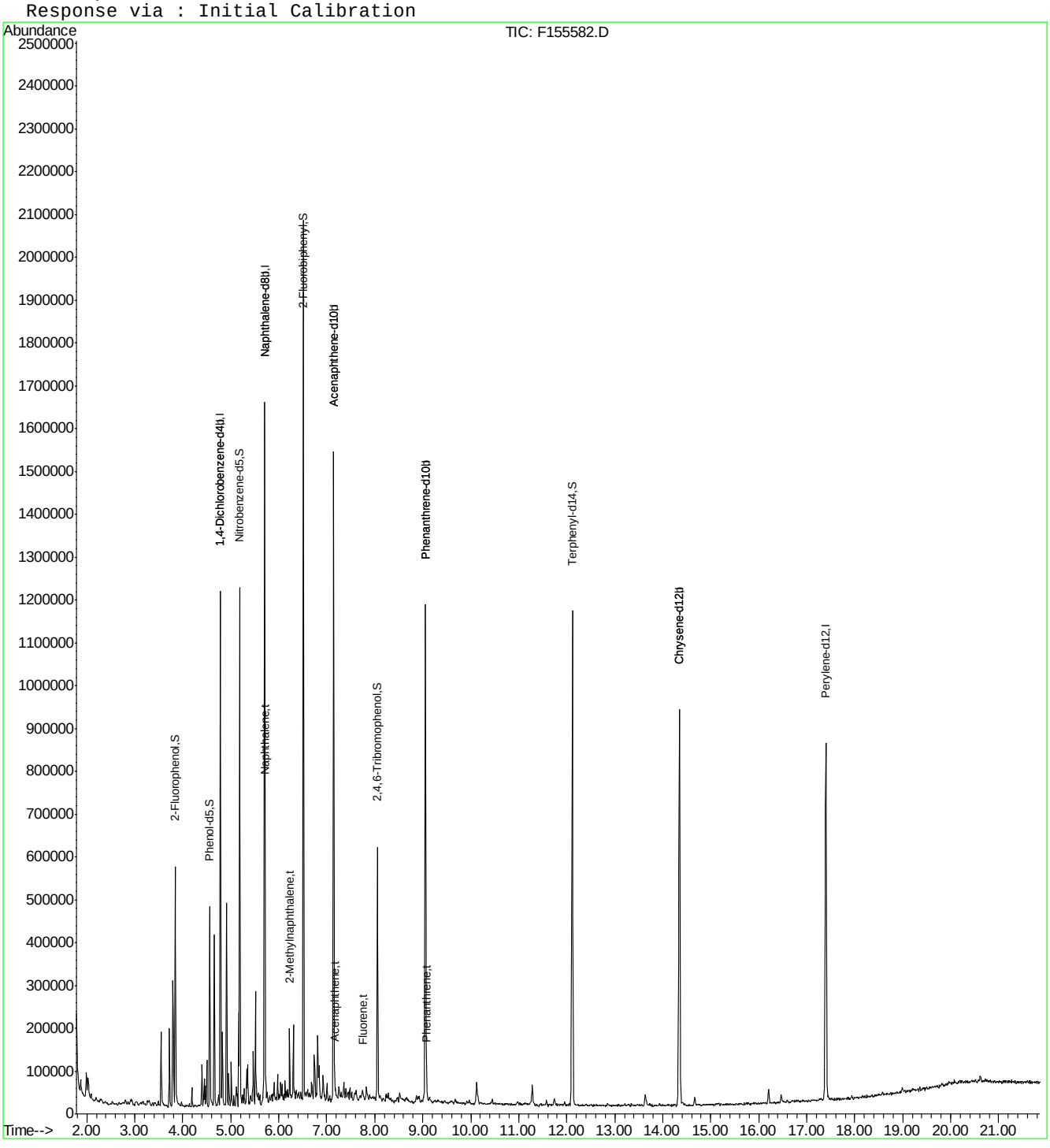
Target Compounds							Qvalue
38) Naphthalene	5.72	128	42340	2.19	ppm		93
44) 2-Methylnaphthalene	6.22	141	34859	3.27	ppm		95
59) Acenaphthene	7.18	153	4941	0.42	ppm	#	70
66) Fluorene	7.75	166	6133	0.47	ppm		91
77) Phenanthrene	9.09	178	10874	0.59	ppm		92

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

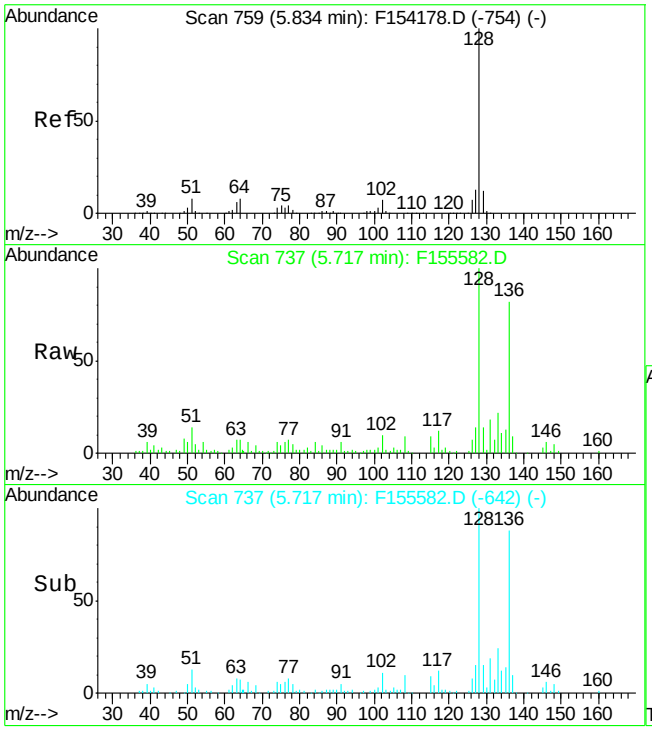
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155582.D Vial: 13
Acq On : 16 Mar 2016 2:32 am Operator: sarad
Sample : jc16038-6 Inst : MSF
Misc : op92078,ef6543,970 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:30 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



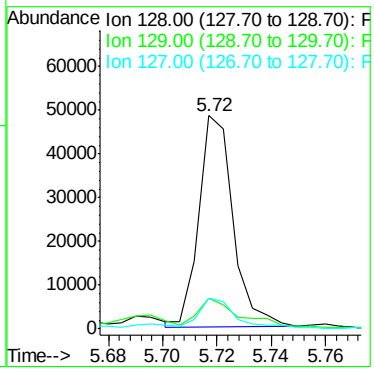
F155582.D MF6483.M Wed Mar 16 15:30:52 2016 RT1 Page 2

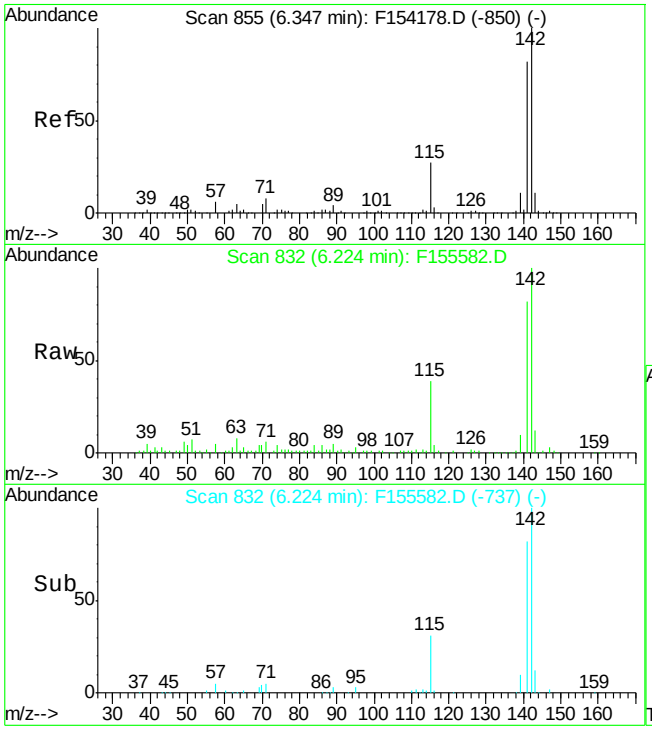


#38
Naphthalene
Concen: 2.19 ppm
RT: 5.72 min Scan# 737
Delta R.T. 0.01 min
Lab File: F155582.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:128 Resp: 42340

Ion	Ratio	Lower	Upper
128	100		
129	11.9	0.0	45.1
127	13.4	0.0	46.2

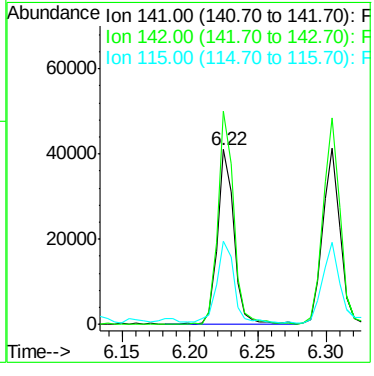


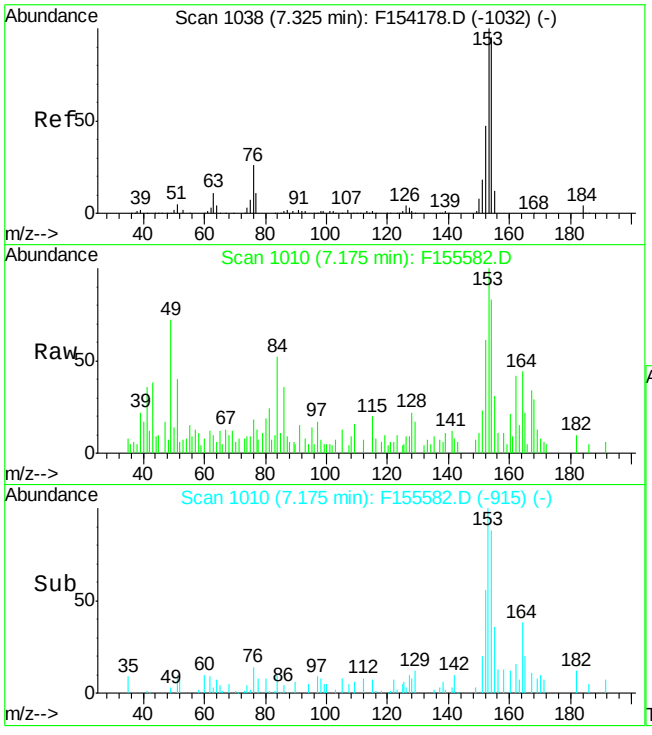


#44
2-Methylnaphthalene
Concen: 3.27 ppm
RT: 6.22 min Scan# 832
Delta R.T. 0.01 min
Lab File: F155582.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:141 Resp: 34859

Ion	Ratio	Lower	Upper
141	100		
142	122.0	87.9	147.9
115	45.5	10.5	70.5

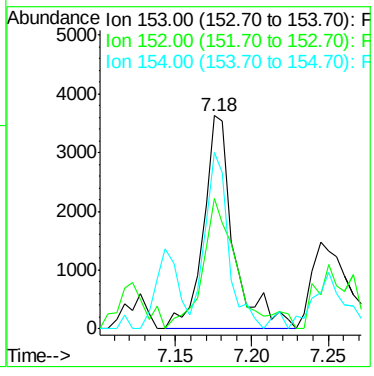


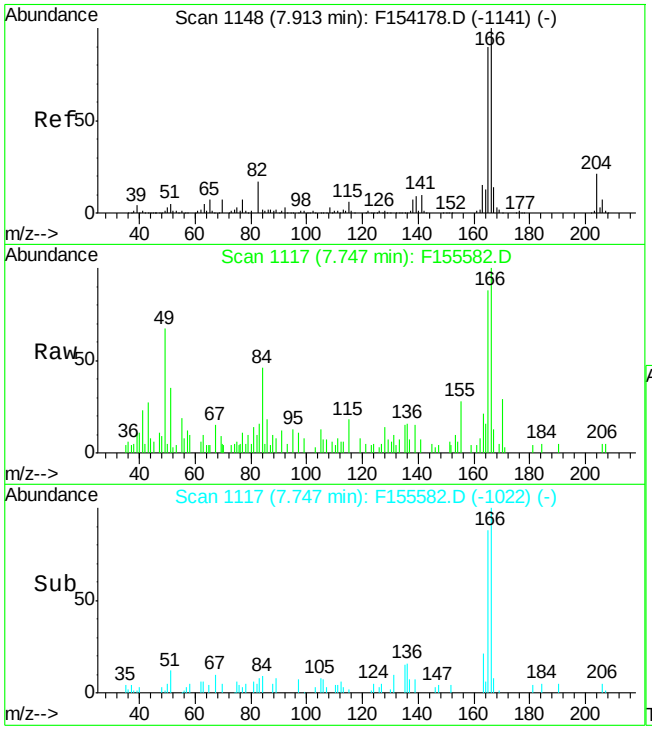


#59
Acenaphthene
Concen: 0.42 ppm
RT: 7.18 min Scan# 1010
Delta R.T. 0.01 min
Lab File: F155582.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:153 Resp: 4941

Ion	Ratio	Lower	Upper
153	100		
152	61.3	16.9	76.9
154	60.9	63.6	123.6#

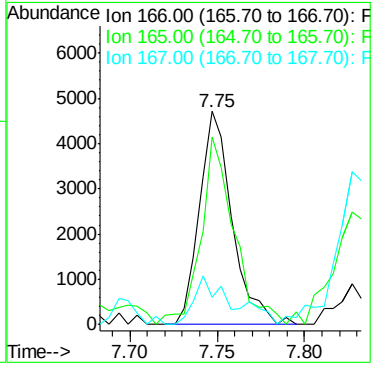




#66
Fluorene
Concen: 0.47 ppm
RT: 7.75 min Scan# 1117
Delta R.T. 0.01 min
Lab File: F155582.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:166 Resp: 6133

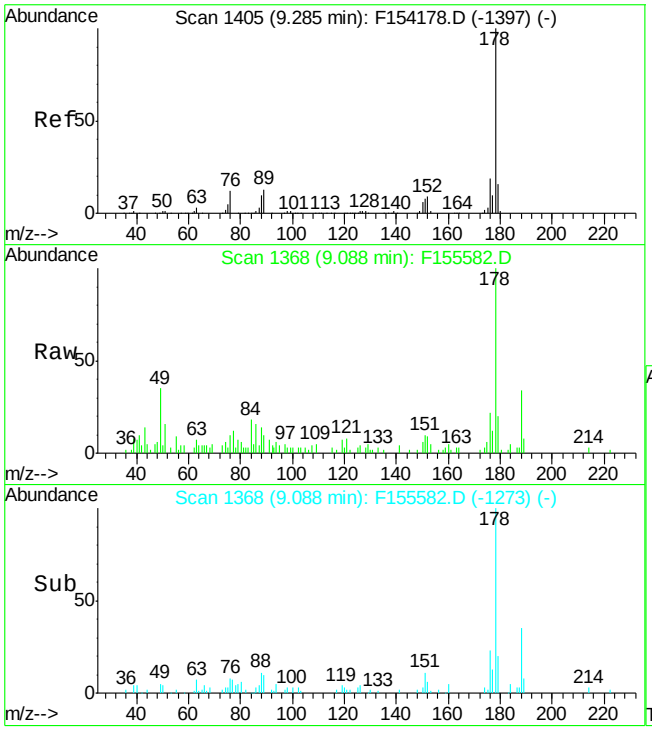
Ion	Ratio	Lower	Upper
166	100		
165	82.6	62.0	122.0
167	11.3	0.0	43.0



9.1.11

9

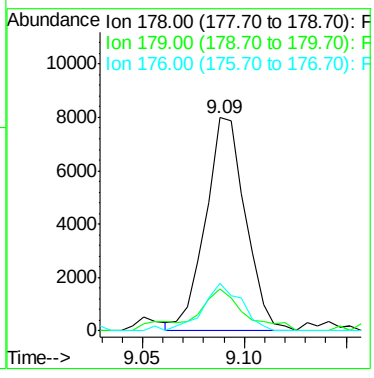
SGS ACCUTEST JC16038



#77
Phenanthrene
Concen: 0.59 ppm
RT: 9.09 min Scan# 1368
Delta R.T. 0.01 min
Lab File: F155582.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:178 Resp: 10874

Ion	Ratio	Lower	Upper
178	100		
179	17.7	0.0	45.2
176	22.8	0.0	48.5



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/11/16 11:30

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155582R.D Vial: 13
Acq On : 16 Mar 2016 2:32 am Operator: sarad
Sample : jc16038-6r Inst : MSF
Misc : op92078,ef6543,970 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 02:54:32 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	154551	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	604475	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	353821	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	589326	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	568125	40.00 ppm	0.00
92) Perylene-d12	17.40	264	504521	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	154551	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	604475	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	353821	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	589326	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	568125	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	160729	27.59 ppm	0.03
Spiked Amount 50.000			Recovery	= 55.18%	
8) Phenol-d5	4.56	99	129965	19.73 ppm	0.02
Spiked Amount 50.000			Recovery	= 39.46%	
25) Nitrobenzene-d5	5.19	82	280404	48.33 ppm	0.00
Spiked Amount 50.000			Recovery	= 96.66%	
51) 2-Fluorobiphenyl	6.51	172	574316	44.31 ppm	0.00
Spiked Amount 50.000			Recovery	= 88.62%	
73) 2,4,6-Tribromophenol	8.06	330	69742	48.33 ppm	0.00
Spiked Amount 50.000			Recovery	= 96.66%	
85) Terphenyl-d14	12.12	244	535894	43.20 ppm	0.01
Spiked Amount 50.000			Recovery	= 86.40%	

Target Compounds						Qvalue
38) Naphthalene	5.72	128	42340	2.19 ppm		93
44) 2-Methylnaphthalene	6.22	141	34859	3.27 ppm		95
45) 1-Methylnaphthalene	6.30	141	35484m	3.20 ppm		
59) Acenaphthene	7.18	153	4941	0.42 ppm	#	70
66) Fluorene	7.75	166	6133	0.47 ppm		91
77) Phenanthrene	9.09	178	10874	0.59 ppm		92

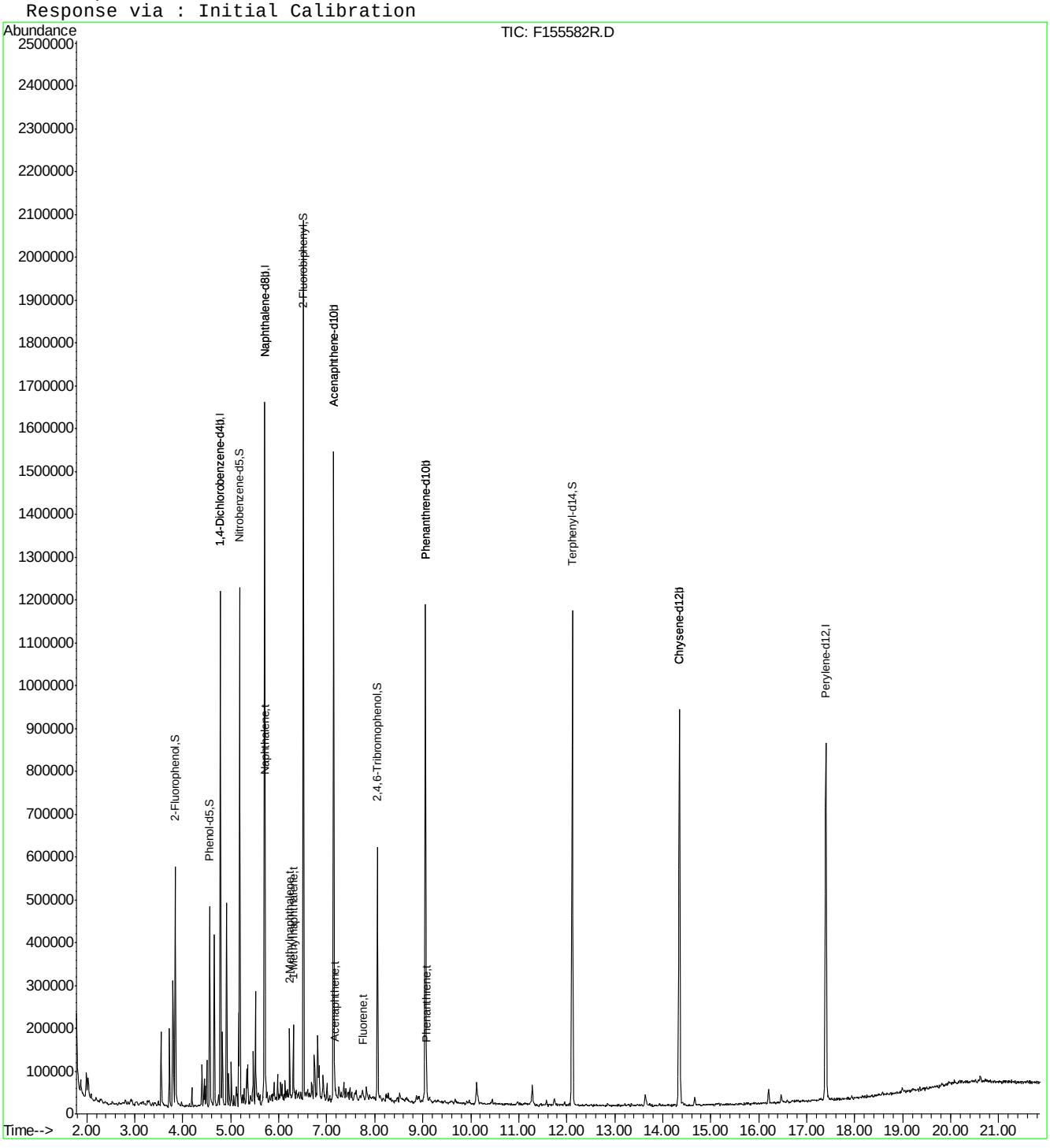
(#) = qualifier out of range (m) = manual integration (+) = signals summed

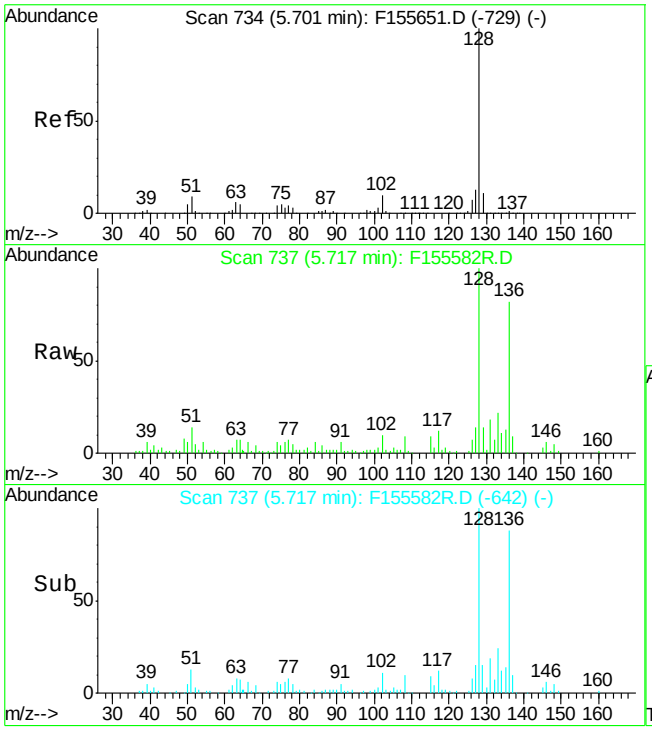
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155582R.D Vial: 13
Acq On : 16 Mar 2016 2:32 am Operator: sarad
Sample : jc16038-6r Inst : MSF
Misc : op92078,ef6543,970 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 9 16:32 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 31 12:30:23 2016
Response via : Initial Calibration

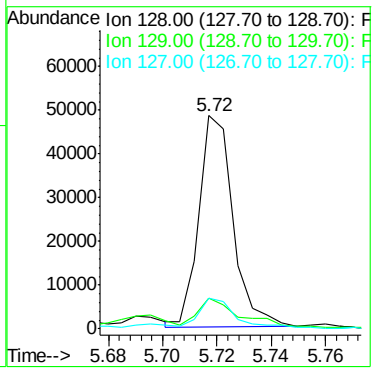


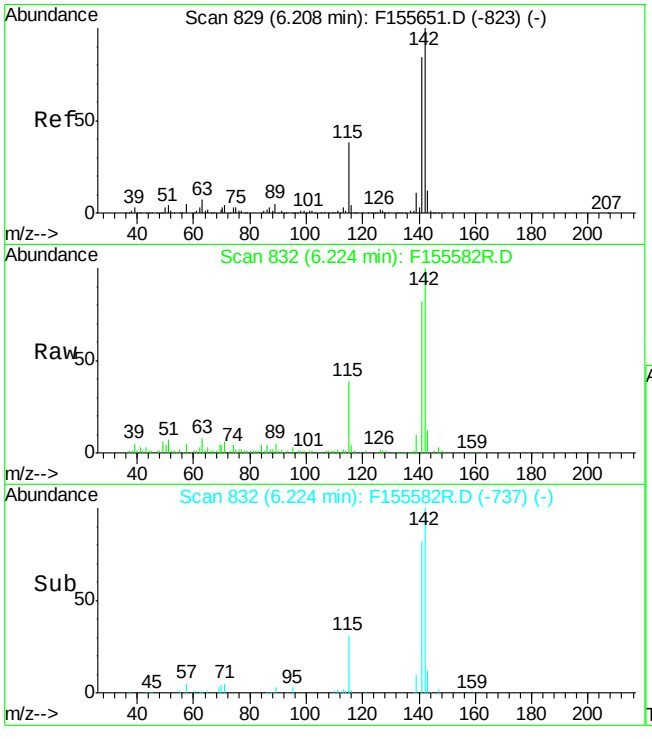


#38
Naphthalene
Concen: 2.19 ppm
RT: 5.72 min Scan# 737
Delta R.T. 0.01 min
Lab File: F155582R.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:128 Resp: 42340

Ion	Ratio	Lower	Upper
128	100		
129	11.9	0.0	45.1
127	13.4	0.0	46.2

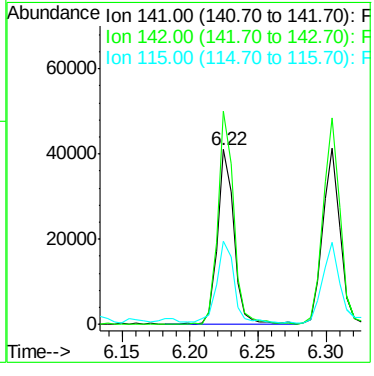




#44
2-Methylnaphthalene
Concen: 3.27 ppm
RT: 6.22 min Scan# 832
Delta R.T. 0.01 min
Lab File: F155582R.D
Acq: 16 Mar 2016 2:32 am

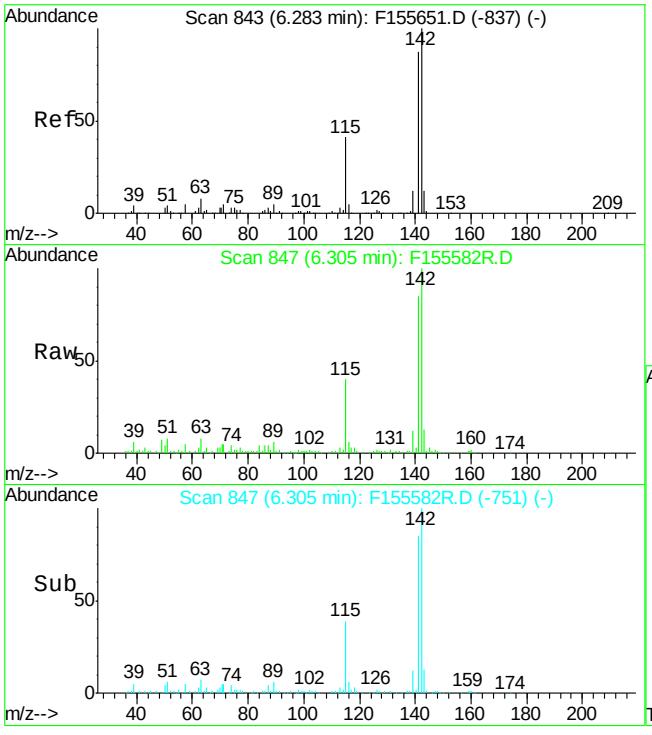
Tgt Ion:141 Resp: 34859

Ion	Ratio	Lower	Upper
141	100		
142	122.0	87.9	147.9
115	45.5	10.5	70.5



9.1.12
9

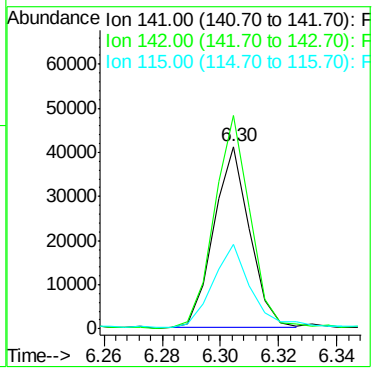
SGS ACCUTEST JC16038

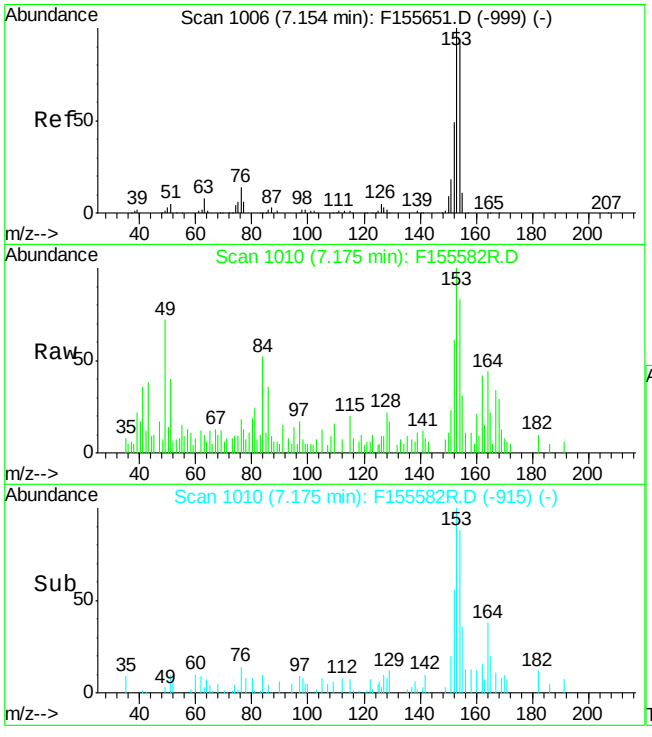


#45
1-Methylnaphthalene
Concen: 3.20 ppm m
RT: 6.30 min Scan# 847
Delta R.T. 0.01 min
Lab File: F155582R.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:141 Resp: 35484

Ion	Ratio	Lower	Upper
141	100		
142	117.1	84.1	144.1
115	46.5	10.5	70.5

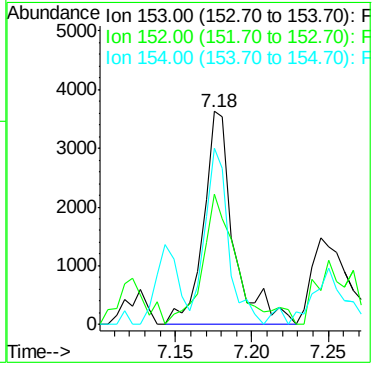




#59
Acenaphthene
Concen: 0.42 ppm
RT: 7.18 min Scan# 1010
Delta R.T. 0.01 min
Lab File: F155582R.D
Acq: 16 Mar 2016 2:32 am

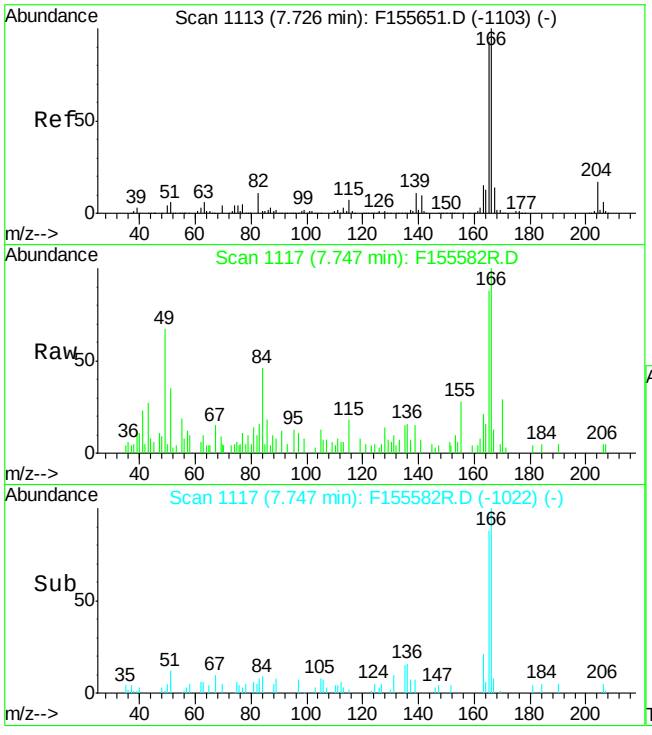
Tgt Ion:153 Resp: 4941

Ion	Ratio	Lower	Upper
153	100		
152	61.3	16.9	76.9
154	60.9	63.6	123.6#



9.1.12

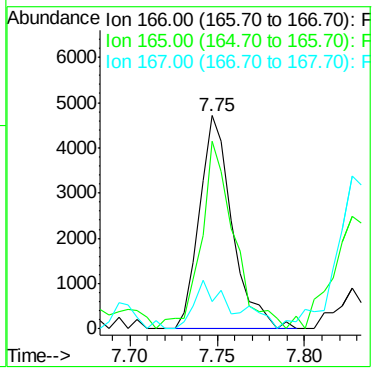
9

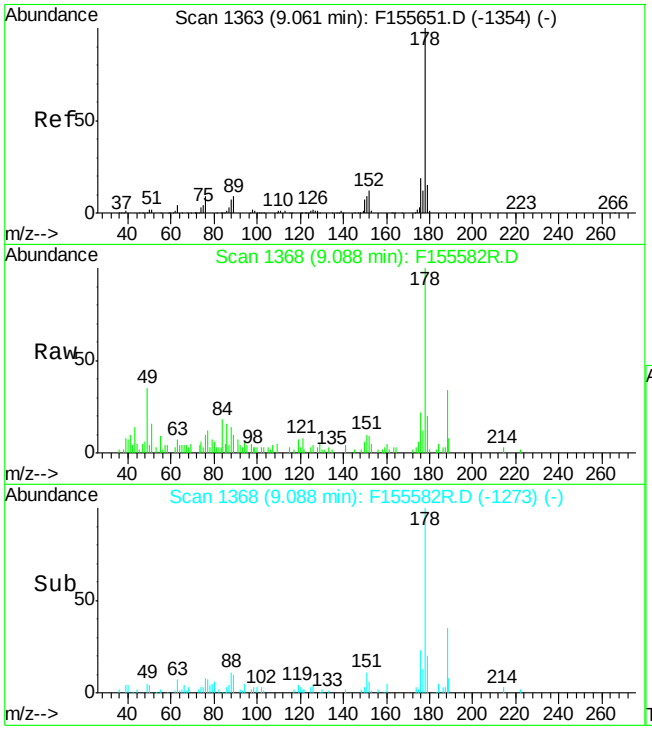


#66
Fluorene
Concen: 0.47 ppm
RT: 7.75 min Scan# 1117
Delta R.T. 0.01 min
Lab File: F155582R.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:166 Resp: 6133

Ion	Ratio	Lower	Upper
166	100		
165	82.6	62.0	122.0
167	11.3	0.0	43.0

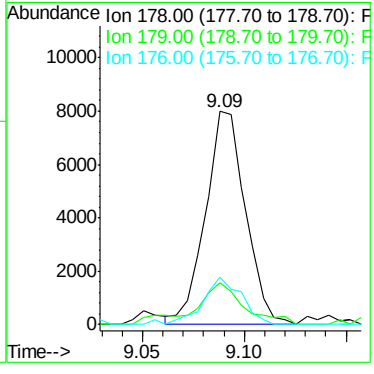




#77
Phenanthrene
Concen: 0.59 ppm
RT: 9.09 min Scan# 1368
Delta R.T. 0.01 min
Lab File: F155582R.D
Acq: 16 Mar 2016 2:32 am

Tgt Ion:178 Resp: 10874

Ion	Ratio	Lower	Upper
178	100		
179	17.7	0.0	45.2
176	22.8	0.0	48.5



Manual Integration Approval Summary

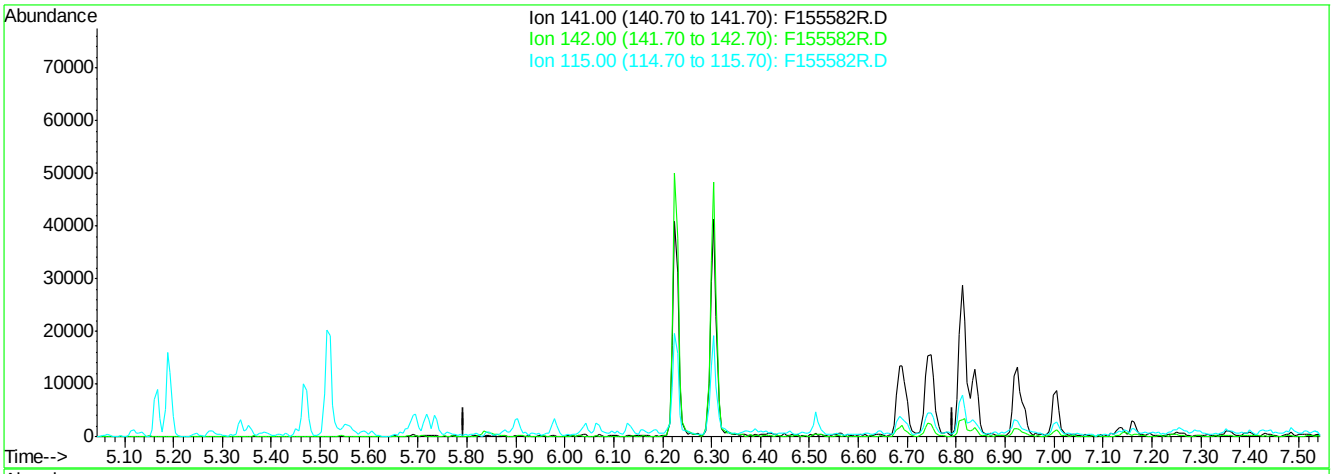
Sample Number:	JC16038-6R	**Method:**	SW846 8270D
Lab FileID:	F155582R.D	**Analyst approved:**	04/09/16 16:32 Kristi Schollenberger
Injection Time:	03/16/16 02:32	**Supervisor approved:**	04/11/16 11:30 Kristi Schollenberger

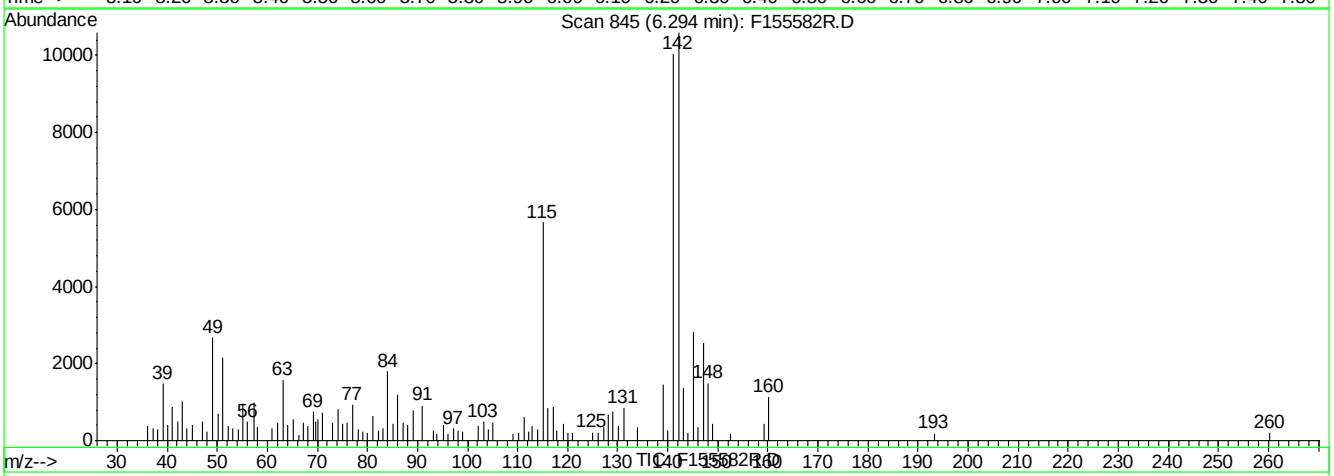
Parameter	CAS	Sig#	R.T. (min.)	Reason
1-Methylnaphthalene	90-12-0		6.30	Add-on compound quantitation

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155582R.D Vial: 13
Acq On : 16 Mar 2016 2:32 am Operator: sarad
Sample : jc16038-6r Inst : MSF
Misc : op92078,ef6543,970 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:30 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 31 12:30:23 2016
Response via : Multiple Level Calibration





(45) 1-Methylnaphthalene (t)

6.29min 0.00ppm d

response 0

Ion	Exp%	Act%
141.00	100	0.00
142.00	114.10	0.00
115.00	40.50	0.00
0.00	0.00	0.00

F155582R.D MF6483.M Sat Apr 09 16:32:42 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103375.D Vial: 17
Acq On : 16 Mar 2016 7:35 pm Operator: linseyk
Sample : jc16038-8 Inst : MSP
Misc : op92078,ep4542,990,,,1,40 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 19:58:01 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.18	152	115395	40.00	ppm	-0.02
24) Naphthalene-d8	5.92	136	415118	40.00	ppm	-0.02
47) Acenaphthene-d10	8.64	164	212472	40.00	ppm	-0.04
69) Phenanthrene-d10	10.99	188	361890	40.00	ppm	-0.04
83) Chrysene-d12	15.67	240	341810	40.00	ppm	-0.05
92) Perylene-d12	18.22	264	320504	40.00	ppm	-0.09
102) 1,4-Dichlorobenzene-d4b	4.18	152	115395	40.00	ppm	-0.05
104) Phenanthrene-d10b	10.99	188	361890	40.00	ppm	-0.06
106) Chrysene-d12b	15.67	240	341810	40.00	ppm	-0.08
108) Naphthalene-d8b	5.92	136	415118	40.00	ppm	-0.05
110) Acenaphthene-d10b	8.64	164	212472	40.00	ppm	-0.06

System Monitoring Compounds						
5) 2-Fluorophenol	2.81	112	3044	0.76	ppm	-0.04
Spiked Amount 50.000			Recovery = 1.52%			
8) Phenol-d5	3.79	99	2054	0.42	ppm	0.00
Spiked Amount 50.000			Recovery = 0.84%			
25) Nitrobenzene-d5	4.91	82	4900	1.17	ppm	-0.03
Spiked Amount 50.000			Recovery = 2.34%			
51) 2-Fluorobiphenyl	7.61	172	9679	1.50	ppm	-0.05
Spiked Amount 50.000			Recovery = 3.00%			
73) 2,4,6-Tribromophenol	9.90	330	586	0.69	ppm	-0.06
Spiked Amount 50.000			Recovery = 1.38%			
85) Terphenyl-d14	13.79	244	7060	1.05	ppm	-0.05
Spiked Amount 50.000			Recovery = 2.10%			

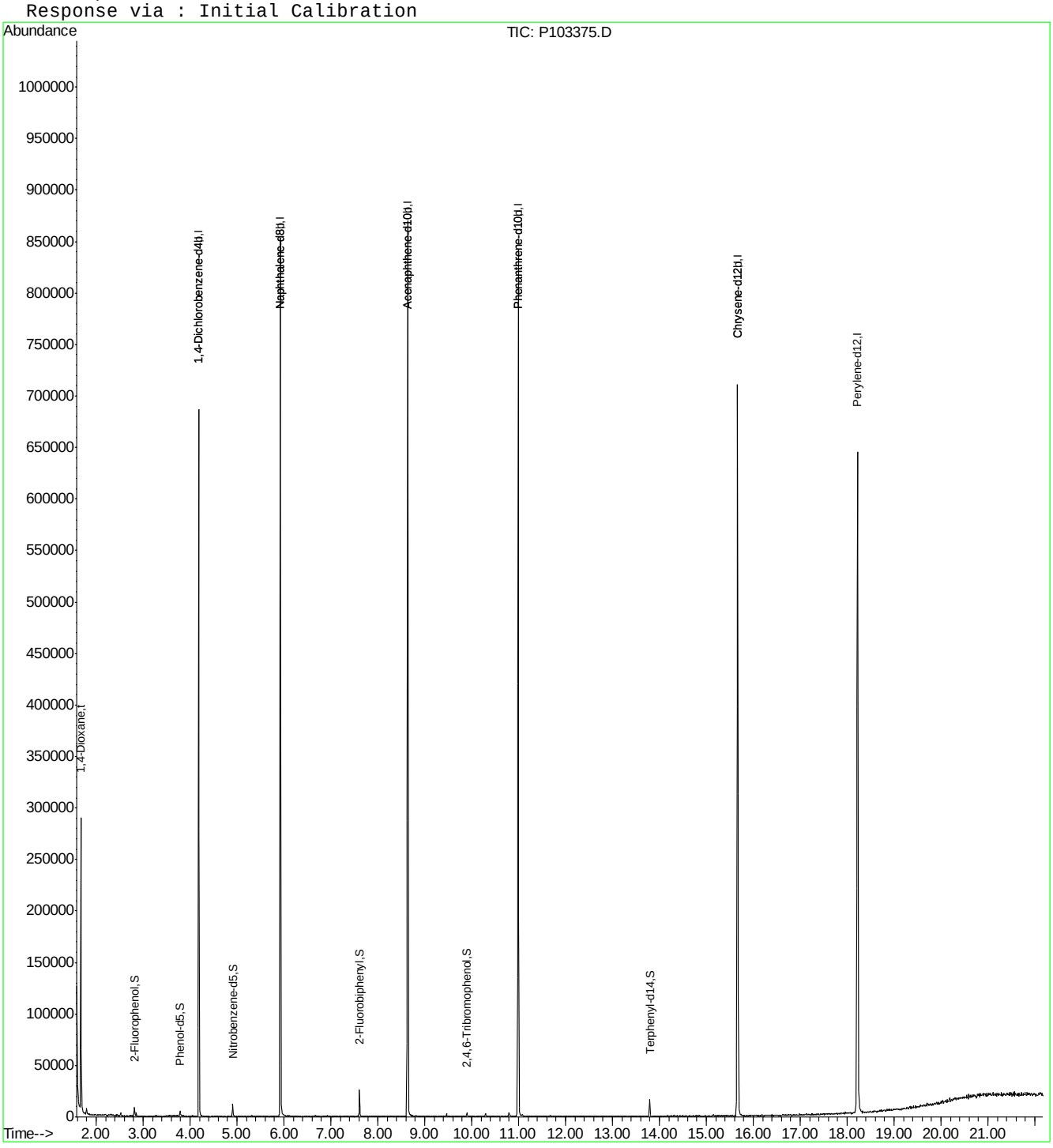
Target Compounds						Qvalue
2) 1,4-Dioxane	1.67	88	112855	55.04	ppm	97

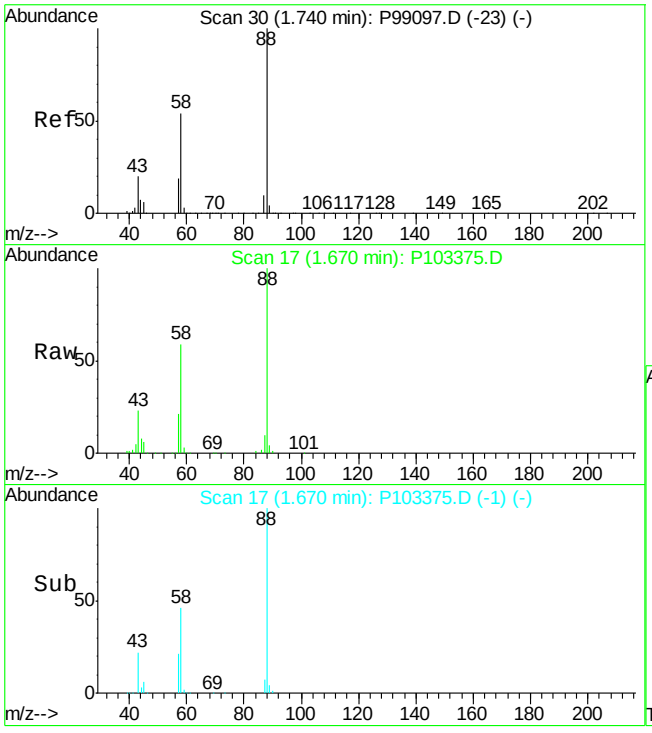
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103375.D Vial: 17
Acq On : 16 Mar 2016 7:35 pm Operator: linseyk
Sample : jc16038-8 Inst : MSP
Misc : op92078,ep4542,990,,,1,40 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:50 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration

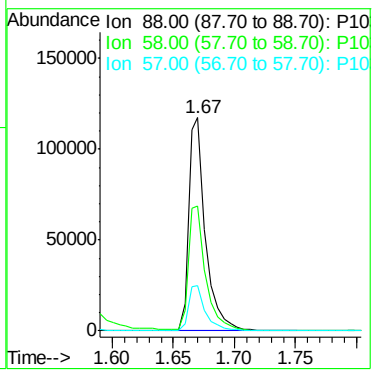




#2
1,4-Dioxane
Concen: 55.04 ppm
RT: 1.67 min Scan# 17
Delta R.T. -0.05 min
Lab File: P103375.D
Acq: 16 Mar 2016 7:35 pm

Tgt Ion: 88 Resp: 112855

Ion	Ratio	Lower	Upper
88	100		
58	58.1	31.0	91.0
57	21.4	0.0	51.2



9.1.13

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103411.D Vial: 4
Acq On : 17 Mar 2016 11:41 pm Operator: sarad
Sample : jc16038-8 Inst : MSP
Misc : op92078,ep4545,990 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 00:03:33 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.16	152	187566	40.00	ppm	-0.01
24) Naphthalene-d8	5.90	136	656126	40.00	ppm	-0.02
47) Acenaphthene-d10	8.62	164	379852	40.00	ppm	-0.02
69) Phenanthrene-d10	10.97	188	586230	40.00	ppm	-0.02
83) Chrysene-d12	15.65	240	506042	40.00	ppm	-0.02
92) Perylene-d12	18.20	264	430473	40.00	ppm	-0.02
102) 1,4-Dichlorobenzene-d4b	4.16	152	187566	40.00	ppm	-0.01
104) Phenanthrene-d10b	10.97	188	586230	40.00	ppm	-0.02
106) Chrysene-d12b	15.65	240	506042	40.00	ppm	-0.02
108) Naphthalene-d8b	5.90	136	656126	40.00	ppm	-0.02
110) Acenaphthene-d10b	8.62	164	379852	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	2.80	112	219616	33.64	ppm	-0.01
Spiked Amount 50.000			Recovery = 67.28%			
8) Phenol-d5	3.77	99	180926	22.71	ppm	0.00
Spiked Amount 50.000			Recovery = 45.42%			
25) Nitrobenzene-d5	4.89	82	334475	50.36	ppm	-0.04
Spiked Amount 50.000			Recovery = 100.72%			
51) 2-Fluorobiphenyl	7.59	172	547714	47.53	ppm	-0.03
Spiked Amount 50.000			Recovery = 95.06%			
73) 2,4,6-Tribromophenol	9.88	330	72212	52.68	ppm	-0.03
Spiked Amount 50.000			Recovery = 105.36%			
85) Terphenyl-d14	13.78	244	480445	48.22	ppm	-0.02
Spiked Amount 50.000			Recovery = 96.44%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.68	88	2204323	661.46	ppm	97
103) Benzaldehyde	3.65	105	5020	0.89	ppm	98

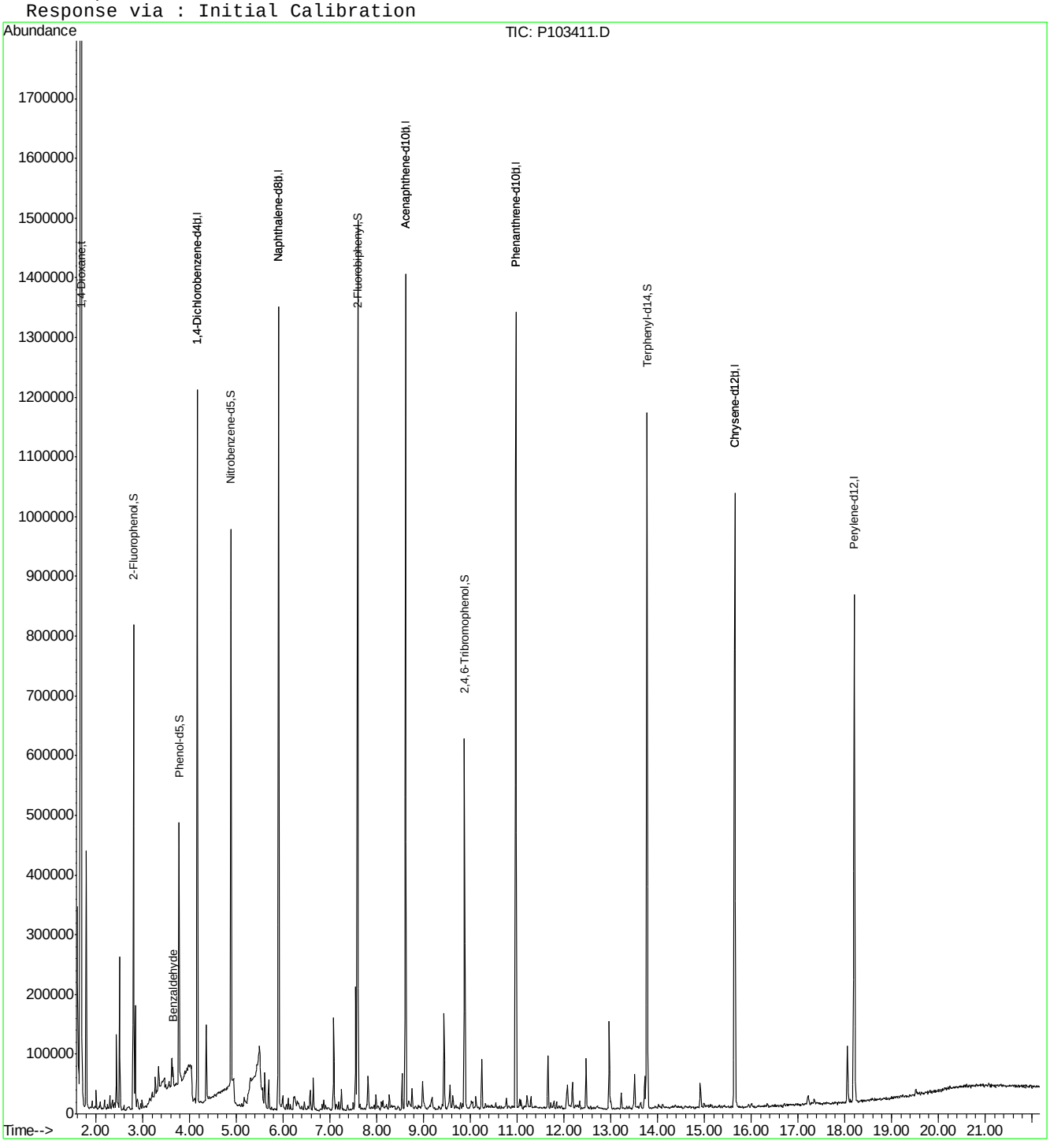
(#) = qualifier out of range (m) = manual integration (+) = signals summed

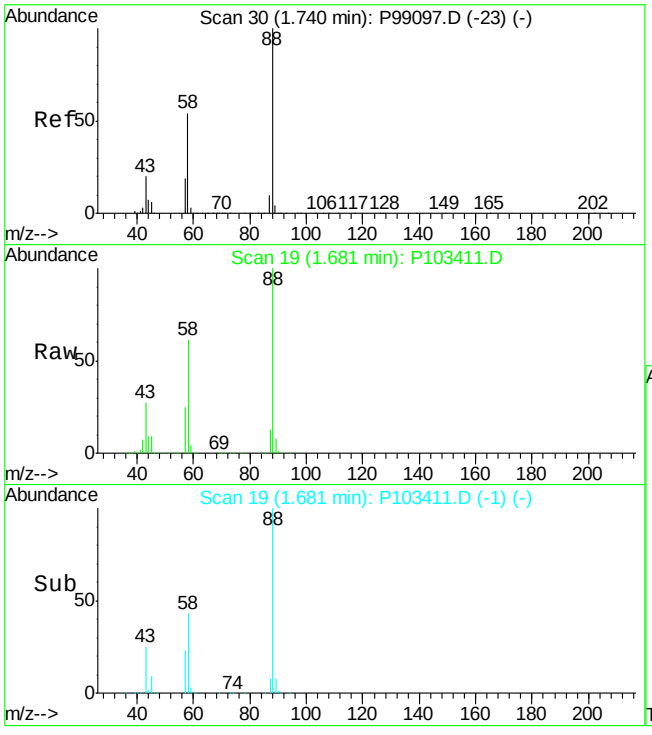
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103411.D Vial: 4
Acq On : 17 Mar 2016 11:41 pm Operator: sarad
Sample : jc16038-8 Inst : MSP
Misc : op92078,ep4545,990 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 13:00 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 25 12:29:10 2016
Response via : Initial Calibration

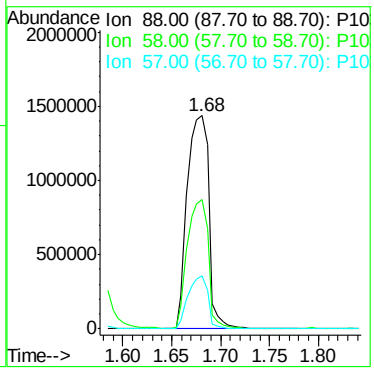


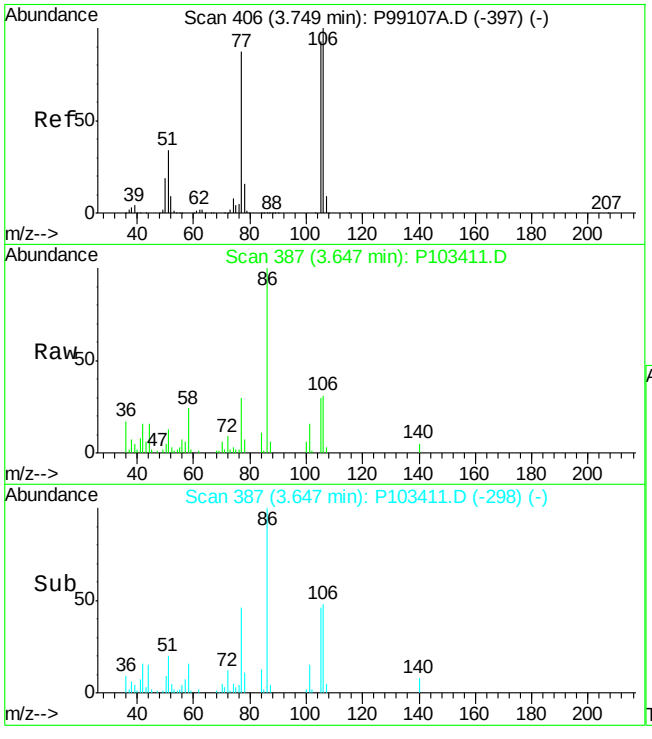


#2
1,4-Dioxane
Concen: 661.46 ppm
RT: 1.68 min Scan# 19
Delta R.T. -0.03 min
Lab File: P103411.D
Acq: 17 Mar 2016 11:41 pm

Tgt Ion: 88 Resp: 2204323

Ion	Ratio	Lower	Upper
88	100		
58	60.3	31.0	91.0
57	24.7	0.0	51.2

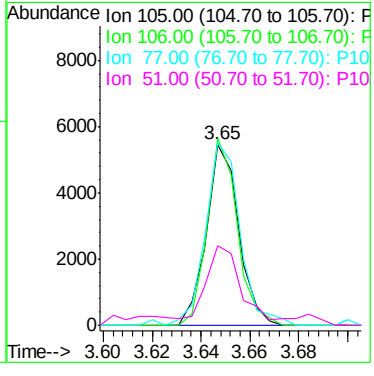




#103
Benzaldehyde
Concen: 0.89 ppm
RT: 3.65 min Scan# 387
Delta R.T. -0.02 min
Lab File: P103411.D
Acq: 17 Mar 2016 11:41 pm

Tgt Ion:105 Resp: 5020

Ion	Ratio	Lower	Upper
105	100		
106	103.4	74.8	134.8
77	101.1	68.0	128.0
51	39.6	9.4	69.4



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103411.D Vial: 4
Acq On : 17 Mar 2016 11:41 pm Operator: sarad
Sample : jc16038-8 Inst : MSP
Misc : op92078,ep4545,990 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 00:03:33 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.16	152	187566	40.00	ppm	-0.01
24) Naphthalene-d8	5.90	136	656126	40.00	ppm	-0.02
47) Acenaphthene-d10	8.62	164	379852	40.00	ppm	-0.02
69) Phenanthrene-d10	10.97	188	586230	40.00	ppm	-0.02
83) Chrysene-d12	15.65	240	506042	40.00	ppm	-0.02
92) Perylene-d12	18.20	264	430473	40.00	ppm	-0.02
102) 1,4-Dichlorobenzene-d4b	4.16	152	187566	40.00	ppm	-0.01
104) Phenanthrene-d10b	10.97	188	586230	40.00	ppm	-0.02
106) Chrysene-d12b	15.65	240	506042	40.00	ppm	-0.02
108) Naphthalene-d8b	5.90	136	656126	40.00	ppm	-0.02
110) Acenaphthene-d10b	8.62	164	379852	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	2.80	112	219616	33.64	ppm	-0.01
Spiked Amount 50.000			Recovery = 67.28%			
8) Phenol-d5	3.77	99	180926	22.71	ppm	0.00
Spiked Amount 50.000			Recovery = 45.42%			
25) Nitrobenzene-d5	4.89	82	334475	50.36	ppm	-0.04
Spiked Amount 50.000			Recovery = 100.72%			
51) 2-Fluorobiphenyl	7.59	172	547714	47.53	ppm	-0.03
Spiked Amount 50.000			Recovery = 95.06%			
73) 2,4,6-Tribromophenol	9.88	330	72212	52.68	ppm	-0.03
Spiked Amount 50.000			Recovery = 105.36%			
85) Terphenyl-d14	13.78	244	480445	48.22	ppm	-0.02
Spiked Amount 50.000			Recovery = 96.44%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.68	88	2204323	661.46	ppm	97
103) Benzaldehyde	3.65	105	5020	0.89	ppm	98

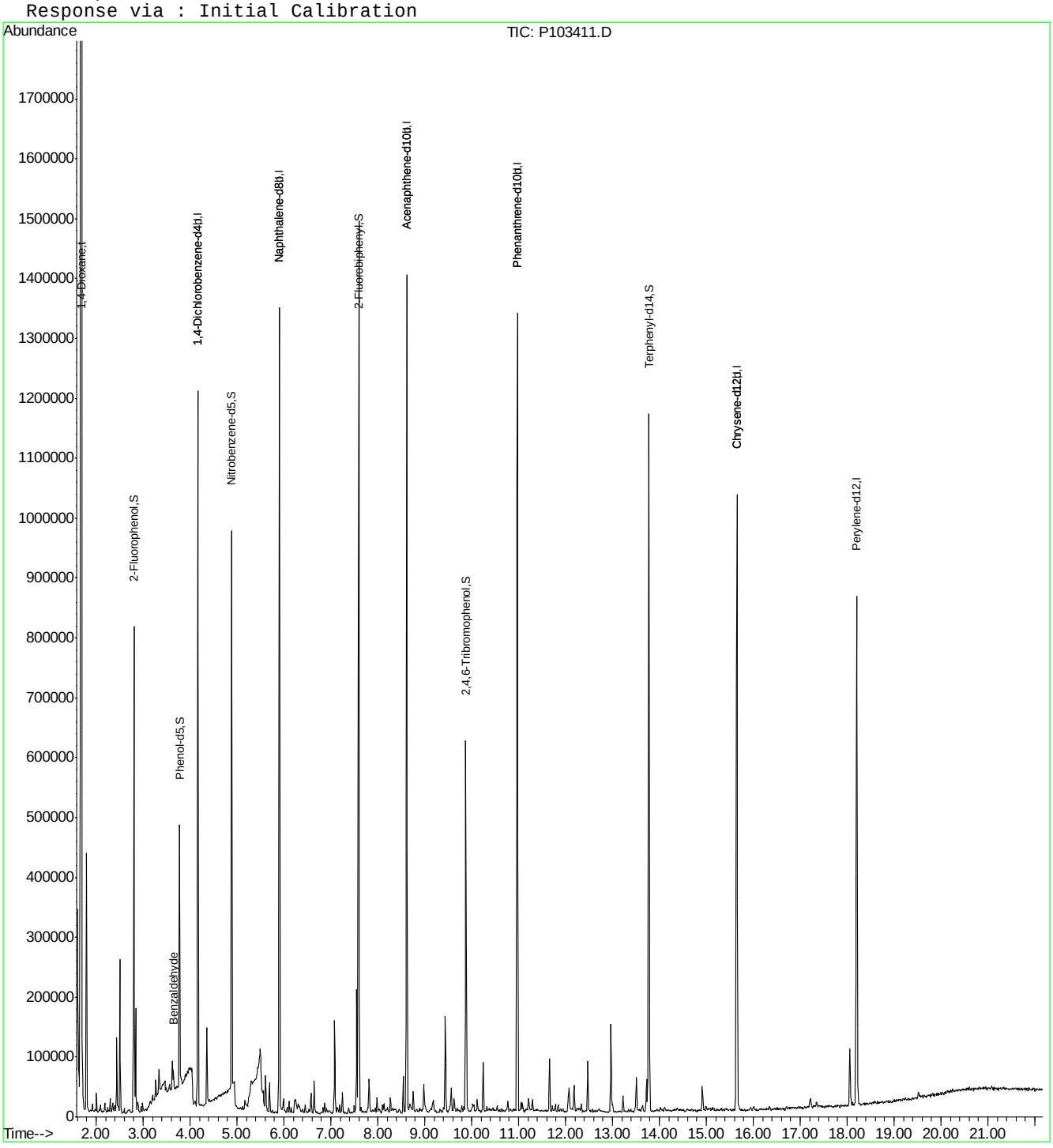
(#) = qualifier out of range (m) = manual integration (+) = signals summed

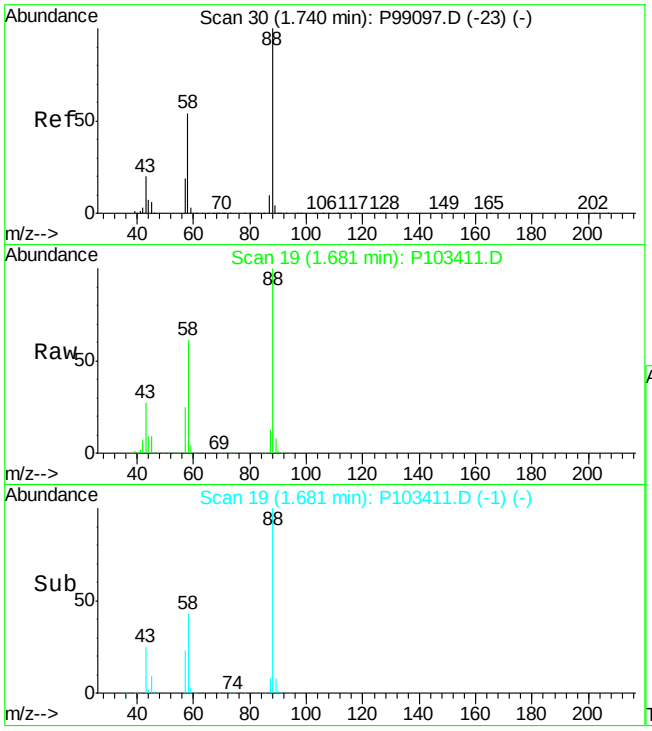
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103411.D Vial: 4
Acq On : 17 Mar 2016 11:41 pm Operator: sarad
Sample : jc16038-8 Inst : MSP
Misc : op92078,ep4545,990 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 25 13:00 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 25 12:29:10 2016
Response via : Initial Calibration

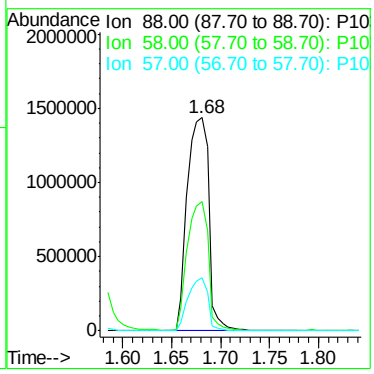


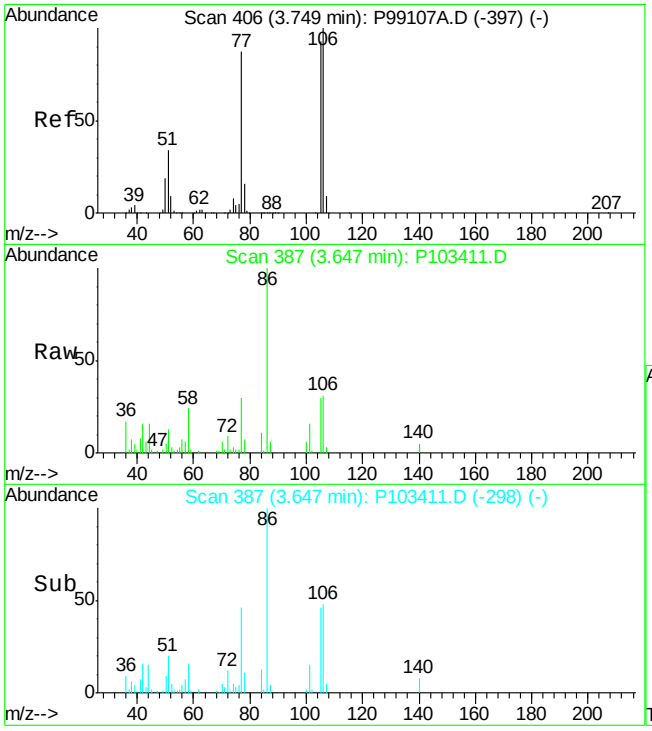


#2
1,4-Dioxane
Concen: 661.46 ppm
RT: 1.68 min Scan# 19
Delta R.T. -0.03 min
Lab File: P103411.D
Acq: 17 Mar 2016 11:41 pm

Tgt Ion: 88 Resp: 2204323

Ion	Ratio	Lower	Upper
88	100		
58	60.3	31.0	91.0
57	24.7	0.0	51.2

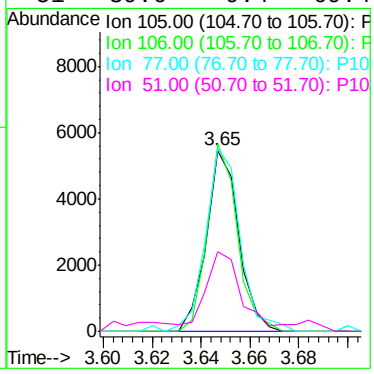




#103
Benzaldehyde
Concen: 0.89 ppm
RT: 3.65 min Scan# 387
Delta R.T. -0.02 min
Lab File: P103411.D
Acq: 17 Mar 2016 11:41 pm

Tgt Ion:105 Resp: 5020

Ion	Ratio	Lower	Upper
105	100		
106	103.4	74.8	134.8
77	101.1	68.0	128.0
51	39.6	9.4	69.4



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155576.D Vial: 7
Acq On : 15 Mar 2016 11:40 pm Operator: sarad
Sample : jc16038-9 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 00:02:51 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

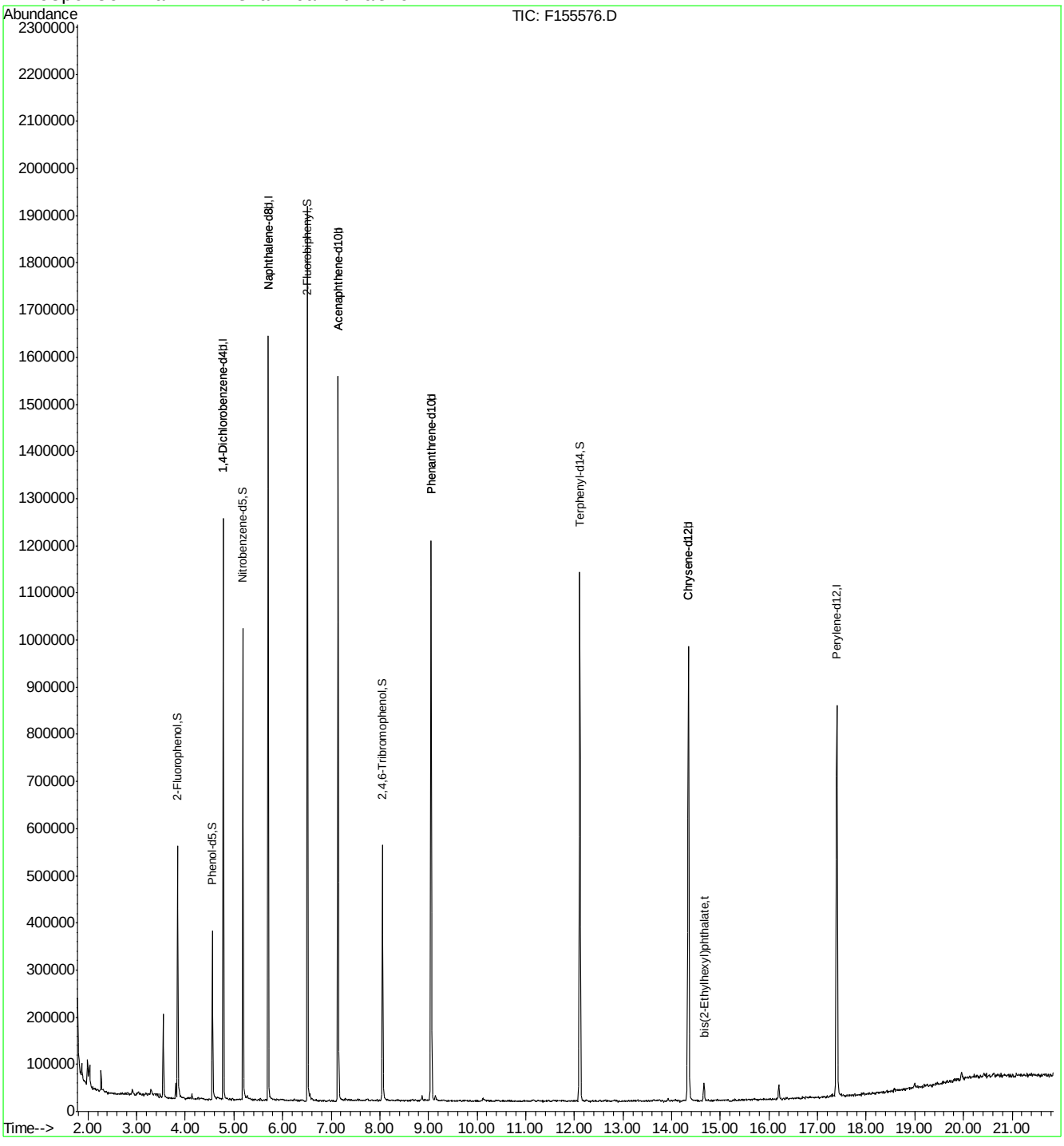
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	159184	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	610601	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	376969	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	614415	40.00	ppm	0.00
83) Chrysene-d12	14.34	240	571810	40.00	ppm	0.00
92) Perylene-d12	17.40	264	505349	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	159184	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	610601	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	376969	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	614415	40.00	ppm	0.00
110) Chrysene-d12b	14.34	240	571810	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.84	112	151739	25.29	ppm	0.03
Spiked Amount 50.000			Recovery = 50.58%			
8) Phenol-d5	4.56	99	121802	17.95	ppm	0.02
Spiked Amount 50.000			Recovery = 35.90%			
25) Nitrobenzene-d5	5.19	82	263699	45.00	ppm	0.00
Spiked Amount 50.000			Recovery = 90.00%			
51) 2-Fluorobiphenyl	6.51	172	573900	41.56	ppm	0.00
Spiked Amount 50.000			Recovery = 83.12%			
73) 2,4,6-Tribromophenol	8.06	330	65195	43.33	ppm	0.00
Spiked Amount 50.000			Recovery = 86.66%			
85) Terphenyl-d14	12.11	244	516572	41.38	ppm	0.00
Spiked Amount 50.000			Recovery = 82.76%			
Target Compounds						Qvalue
91) bis(2-Ethylhexyl)phthalate	14.67	149	16168	1.16	ppm	96

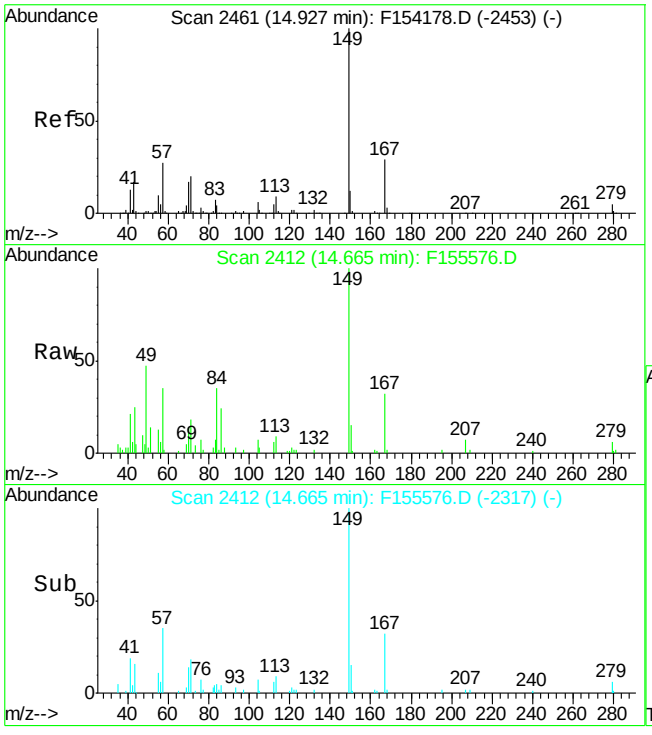
(#) = qualifier out of range (m) = manual integration (+) = signals summed
F155576.D MF6483.M Wed Mar 16 15:09:27 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155576.D Vial: 7
Acq On : 15 Mar 2016 11:40 pm Operator: sarad
Sample : jc16038-9 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:09 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration

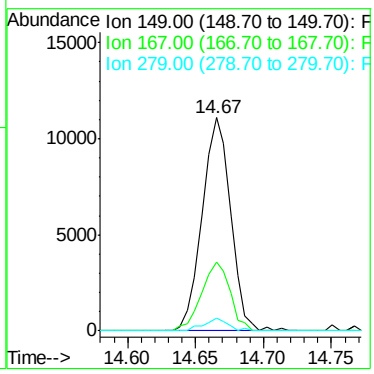




#91
bis(2-Ethylhexyl)phthalate
Concen: 1.16 ppm
RT: 14.67 min Scan# 2412
Delta R.T. 0.01 min
Lab File: F155576.D
Acq: 15 Mar 2016 11:40 pm

Tgt Ion:149 Resp: 16168

Ion	Ratio	Lower	Upper
149	100		
167	32.2	0.2	60.2
279	6.0	0.0	35.1



9.1.16

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155576.D Vial: 7
Acq On : 15 Mar 2016 11:40 pm Operator: sarad
Sample : jc16038-9 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 00:02:51 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

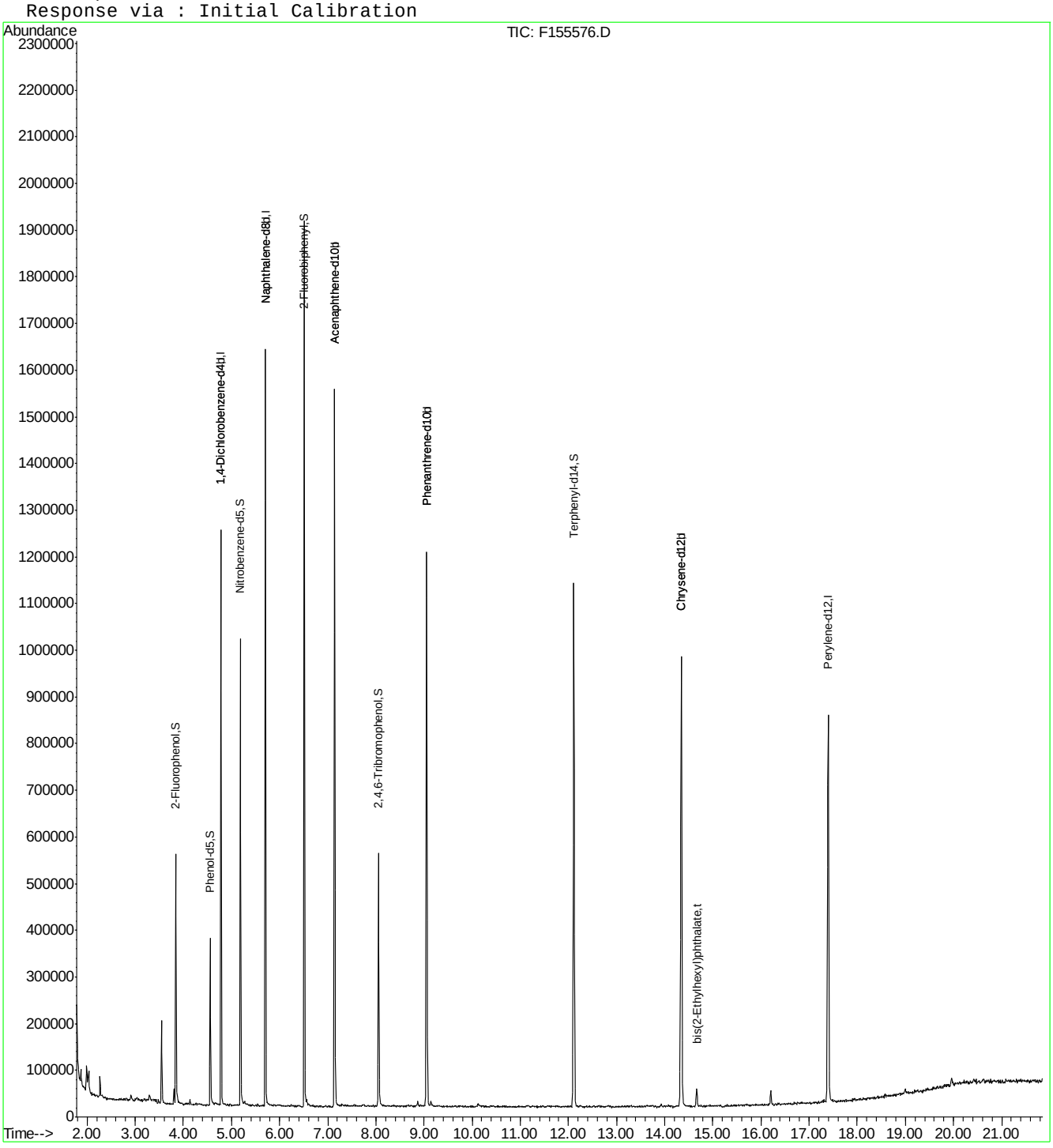
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	159184	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	610601	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	376969	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	614415	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	571810	40.00 ppm	0.00
92) Perylene-d12	17.40	264	505349	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	159184	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	610601	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	376969	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	614415	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	571810	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	151739	25.29 ppm	0.03
Spiked Amount 50.000			Recovery	= 50.58%	
8) Phenol-d5	4.56	99	121802	17.95 ppm	0.02
Spiked Amount 50.000			Recovery	= 35.90%	
25) Nitrobenzene-d5	5.19	82	263699	45.00 ppm	0.00
Spiked Amount 50.000			Recovery	= 90.00%	
51) 2-Fluorobiphenyl	6.51	172	573900	41.56 ppm	0.00
Spiked Amount 50.000			Recovery	= 83.12%	
73) 2,4,6-Tribromophenol	8.06	330	65195	43.33 ppm	0.00
Spiked Amount 50.000			Recovery	= 86.66%	
85) Terphenyl-d14	12.11	244	516572	41.38 ppm	0.00
Spiked Amount 50.000			Recovery	= 82.76%	
Target Compounds					Qvalue
91) bis(2-Ethylhexyl)phthalate	14.67	149	16168	1.16 ppm	96

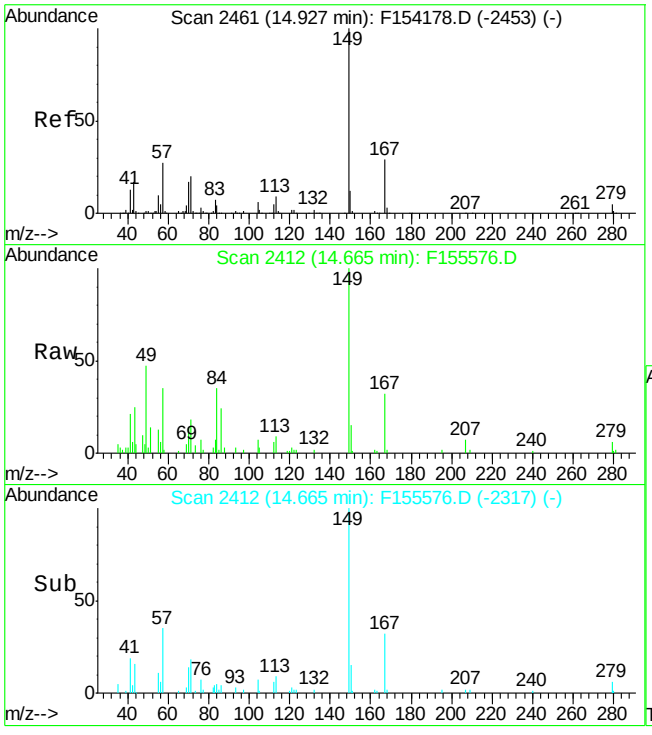
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155576.D Vial: 7
Acq On : 15 Mar 2016 11:40 pm Operator: sarad
Sample : jc16038-9 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:09 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration

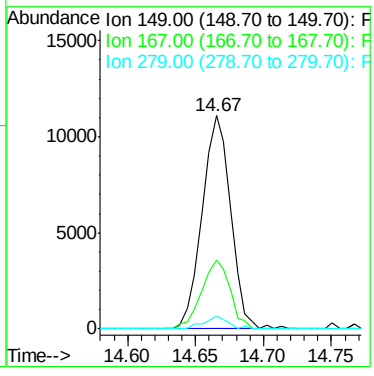




#91
bis(2-Ethylhexyl)phthalate
Concen: 1.16 ppm
RT: 14.67 min Scan# 2412
Delta R.T. 0.01 min
Lab File: F155576.D
Acq: 15 Mar 2016 11:40 pm

Tgt Ion:149 Resp: 16168

Ion	Ratio	Lower	Upper
149	100		
167	32.2	0.2	60.2
279	6.0	0.0	35.1



9.1.17

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103372.D Vial: 14
Acq On : 16 Mar 2016 6:07 pm Operator: linseyk
Sample : jc16038-10 Inst : MSP
Misc : op92078,ep4542,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 18:29:44 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.19	152	138199	40.00 ppm	-0.01
24) Naphthalene-d8	5.92	136	500016	40.00 ppm	-0.02
47) Acenaphthene-d10	8.64	164	285301	40.00 ppm	-0.04
69) Phenanthrene-d10	10.99	188	440334	40.00 ppm	-0.04
83) Chrysene-d12	15.67	240	394228	40.00 ppm	-0.05
92) Perylene-d12	18.22	264	345546	40.00 ppm	-0.09
102) 1,4-Dichlorobenzene-d4b	4.19	152	138199	40.00 ppm	-0.04
104) Phenanthrene-d10b	10.99	188	440334	40.00 ppm	-0.06
106) Chrysene-d12b	15.67	240	394228	40.00 ppm	-0.07
108) Naphthalene-d8b	5.92	136	500016	40.00 ppm	-0.05
110) Acenaphthene-d10b	8.64	164	285301	40.00 ppm	-0.06
System Monitoring Compounds					
5) 2-Fluorophenol	2.81	112	156206	32.47 ppm	-0.04
Spiked Amount 50.000			Recovery = 64.94%		
8) Phenol-d5	3.79	99	133936	22.82 ppm	-0.01
Spiked Amount 50.000			Recovery = 45.64%		
25) Nitrobenzene-d5	4.91	82	246336	48.66 ppm	-0.03
Spiked Amount 50.000			Recovery = 97.32%		
51) 2-Fluorobiphenyl	7.62	172	411580	47.55 ppm	-0.05
Spiked Amount 50.000			Recovery = 95.10%		
73) 2,4,6-Tribromophenol	9.90	330	50802	49.34 ppm	-0.06
Spiked Amount 50.000			Recovery = 98.68%		
85) Terphenyl-d14	13.79	244	360393	46.43 ppm	-0.05
Spiked Amount 50.000			Recovery = 92.86%		
Target Compounds					Qvalue
2) 1,4-Dioxane	1.67	88	702985	286.30 ppm	96

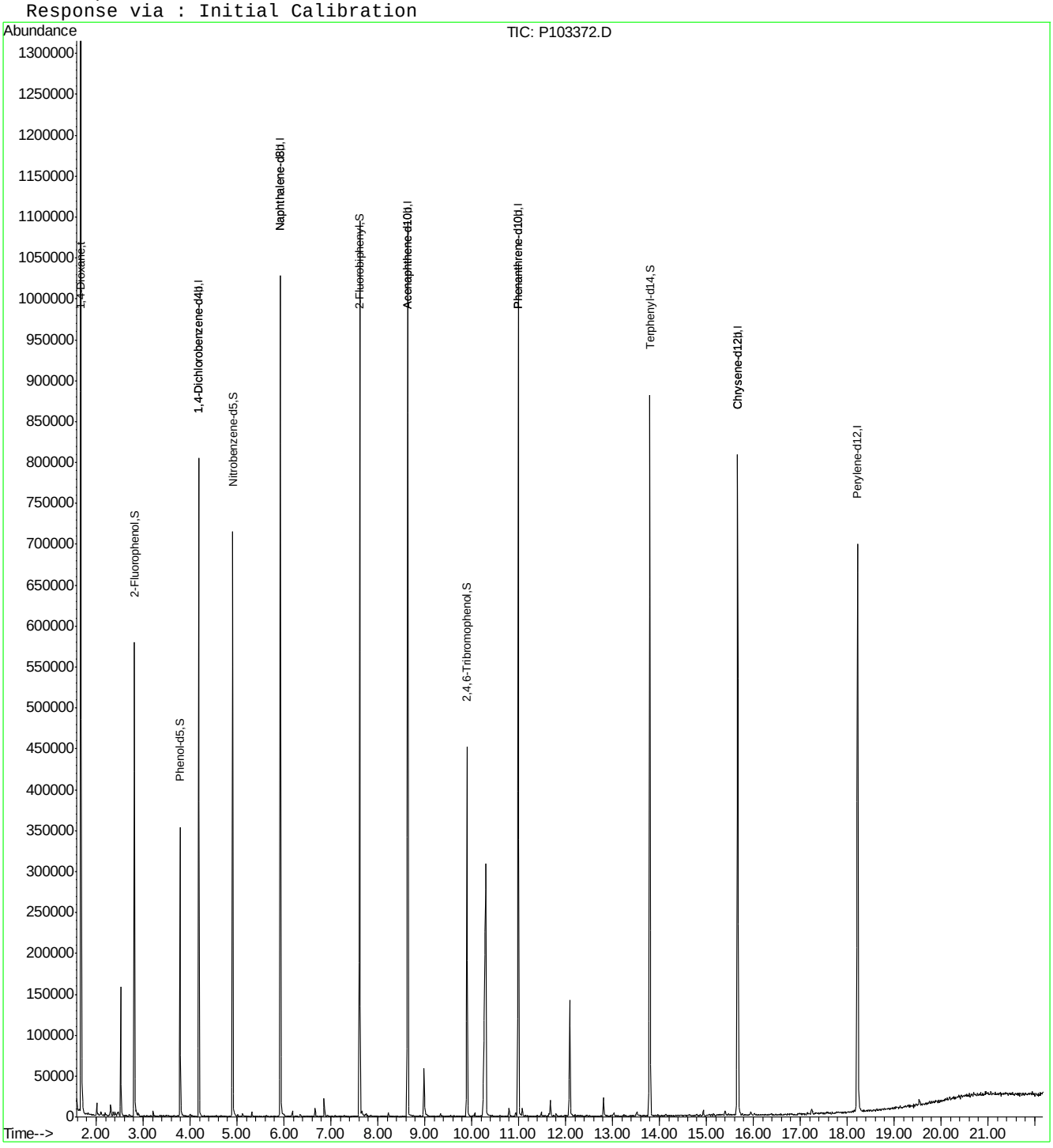
(#) = qualifier out of range (m) = manual integration (+) = signals summed

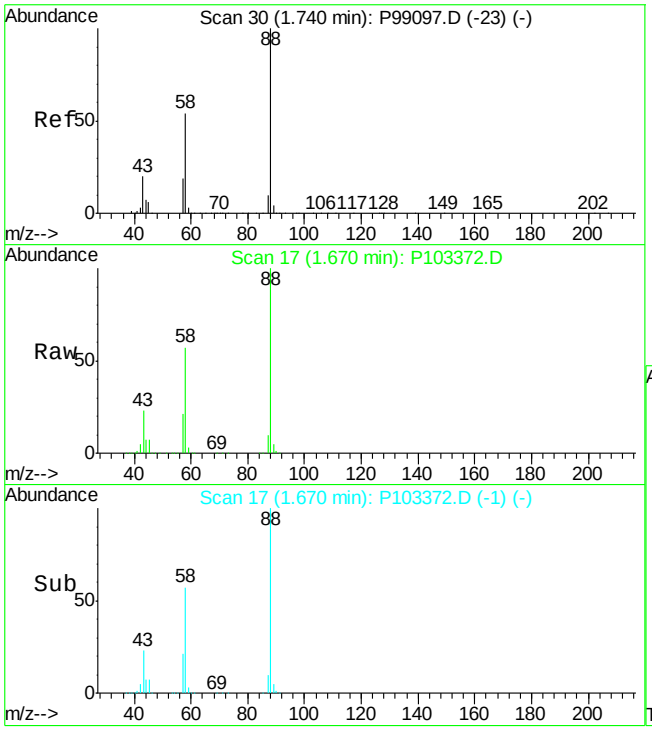
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103372.D Vial: 14
Acq On : 16 Mar 2016 6:07 pm Operator: linseyk
Sample : jc16038-10 Inst : MSP
Misc : op92078,ep4542,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:48 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration

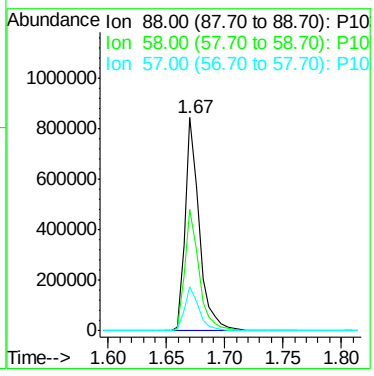




#2
1,4-Dioxane
Concen: 286.30 ppm
RT: 1.67 min Scan# 17
Delta R.T. -0.05 min
Lab File: P103372.D
Acq: 16 Mar 2016 6:07 pm

Tgt Ion: 88 Resp: 702985

Ion	Ratio	Lower	Upper
88	100		
58	56.8	31.0	91.0
57	20.8	0.0	51.2



9.1.18

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103374.D Vial: 16
Acq On : 16 Mar 2016 7:06 pm Operator: linseyk
Sample : jc16038-10 Inst : MSP
Misc : op92078,ep4542,970,,,1,5 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 19:28:27 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.18	152	130108	40.00 ppm	-0.02
24) Naphthalene-d8	5.92	136	462119	40.00 ppm	-0.02
47) Acenaphthene-d10	8.64	164	245199	40.00 ppm	-0.04
69) Phenanthrene-d10	10.99	188	404377	40.00 ppm	-0.04
83) Chrysene-d12	15.67	240	373785	40.00 ppm	-0.05
92) Perylene-d12	18.22	264	347548	40.00 ppm	-0.09
102) 1,4-Dichlorobenzene-d4b	4.18	152	130108	40.00 ppm	-0.05
104) Phenanthrene-d10b	10.99	188	404377	40.00 ppm	-0.06
106) Chrysene-d12b	15.67	240	373785	40.00 ppm	-0.08
108) Naphthalene-d8b	5.92	136	462119	40.00 ppm	-0.05
110) Acenaphthene-d10b	8.64	164	245199	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	2.81	112	28702	6.34 ppm	-0.04
Spiked Amount 50.000			Recovery = 12.68%		
8) Phenol-d5	3.79	99	25157	4.55 ppm	-0.01
Spiked Amount 50.000			Recovery = 9.10%		
25) Nitrobenzene-d5	4.91	82	48816	10.43 ppm	-0.03
Spiked Amount 50.000			Recovery = 20.86%		
51) 2-Fluorobiphenyl	7.61	172	83748	11.26 ppm	-0.05
Spiked Amount 50.000			Recovery = 22.52%		
73) 2,4,6-Tribromophenol	9.90	330	8502	8.99 ppm	-0.06
Spiked Amount 50.000			Recovery = 17.98%		
85) Terphenyl-d14	13.79	244	72650	9.87 ppm	-0.05
Spiked Amount 50.000			Recovery = 19.74%		

Target Compounds					Qvalue
2) 1,4-Dioxane	1.67	88	172604	74.67 ppm	98

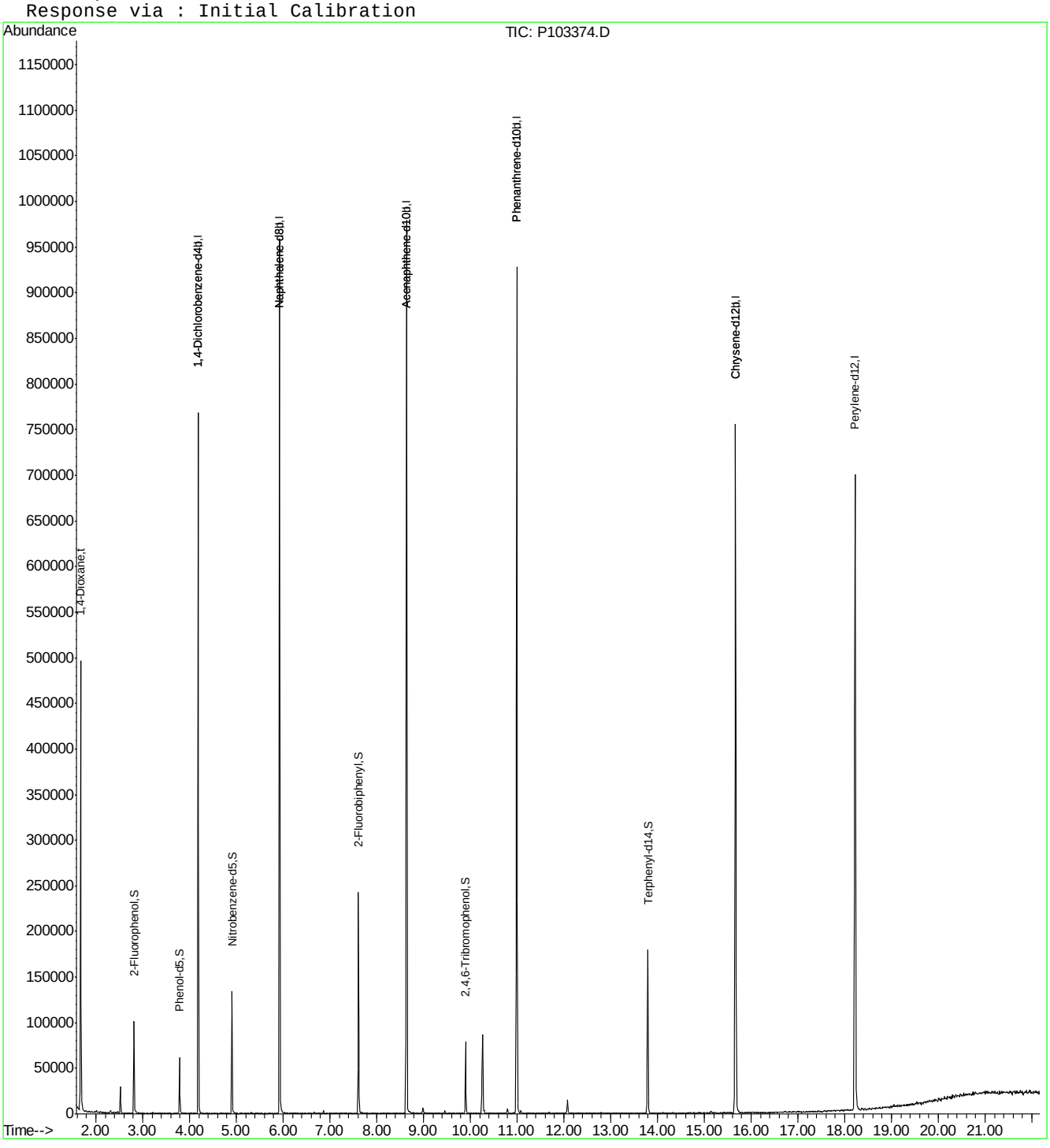
(#) = qualifier out of range (m) = manual integration (+) = signals summed

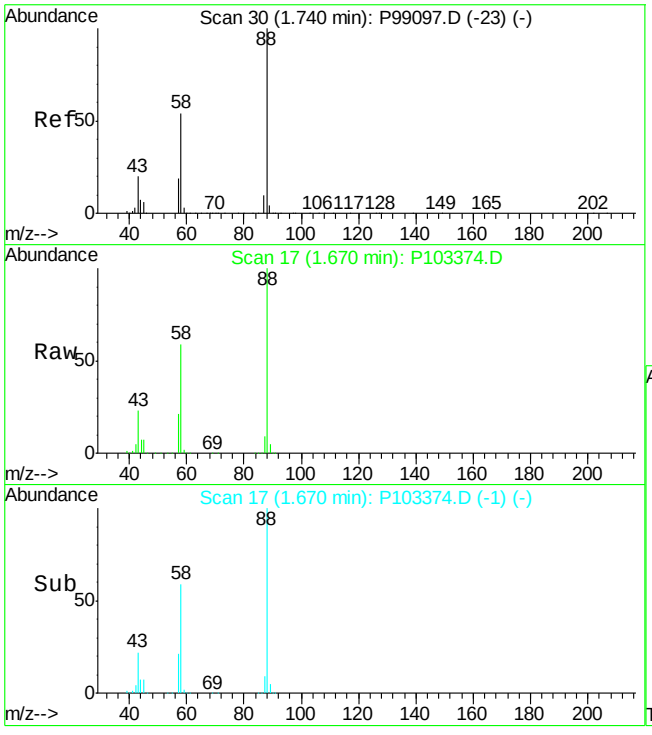
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103374.D Vial: 16
Acq On : 16 Mar 2016 7:06 pm Operator: linseyk
Sample : jc16038-10 Inst : MSP
Misc : op92078,ep4542,970,,,1,5 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:49 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration

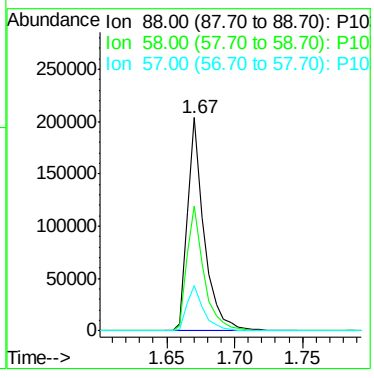




#2
1,4-Dioxane
Concen: 74.67 ppm
RT: 1.67 min Scan# 17
Delta R.T. -0.05 min
Lab File: P103374.D
Acq: 16 Mar 2016 7:06 pm

Tgt Ion: 88 Resp: 172604

Ion	Ratio	Lower	Upper
88	100		
58	58.6	31.0	91.0
57	21.2	0.0	51.2



9.1.19

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103372.D Vial: 14
Acq On : 16 Mar 2016 6:07 pm Operator: linseyk
Sample : jc16038-10 Inst : MSP
Misc : op92078,ep4542,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 18:29:44 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.19	152	138199	40.00 ppm	-0.01
24) Naphthalene-d8	5.92	136	500016	40.00 ppm	-0.02
47) Acenaphthene-d10	8.64	164	285301	40.00 ppm	-0.04
69) Phenanthrene-d10	10.99	188	440334	40.00 ppm	-0.04
83) Chrysene-d12	15.67	240	394228	40.00 ppm	-0.05
92) Perylene-d12	18.22	264	345546	40.00 ppm	-0.09
102) 1,4-Dichlorobenzene-d4b	4.19	152	138199	40.00 ppm	-0.04
104) Phenanthrene-d10b	10.99	188	440334	40.00 ppm	-0.06
106) Chrysene-d12b	15.67	240	394228	40.00 ppm	-0.07
108) Naphthalene-d8b	5.92	136	500016	40.00 ppm	-0.05
110) Acenaphthene-d10b	8.64	164	285301	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	2.81	112	156206	32.47 ppm	-0.04
Spiked Amount 50.000			Recovery = 64.94%		
8) Phenol-d5	3.79	99	133936	22.82 ppm	-0.01
Spiked Amount 50.000			Recovery = 45.64%		
25) Nitrobenzene-d5	4.91	82	246336	48.66 ppm	-0.03
Spiked Amount 50.000			Recovery = 97.32%		
51) 2-Fluorobiphenyl	7.62	172	411580	47.55 ppm	-0.05
Spiked Amount 50.000			Recovery = 95.10%		
73) 2,4,6-Tribromophenol	9.90	330	50802	49.34 ppm	-0.06
Spiked Amount 50.000			Recovery = 98.68%		
85) Terphenyl-d14	13.79	244	360393	46.43 ppm	-0.05
Spiked Amount 50.000			Recovery = 92.86%		

Target Compounds					Qvalue
2) 1,4-Dioxane	1.67	88	702985	286.30 ppm	96

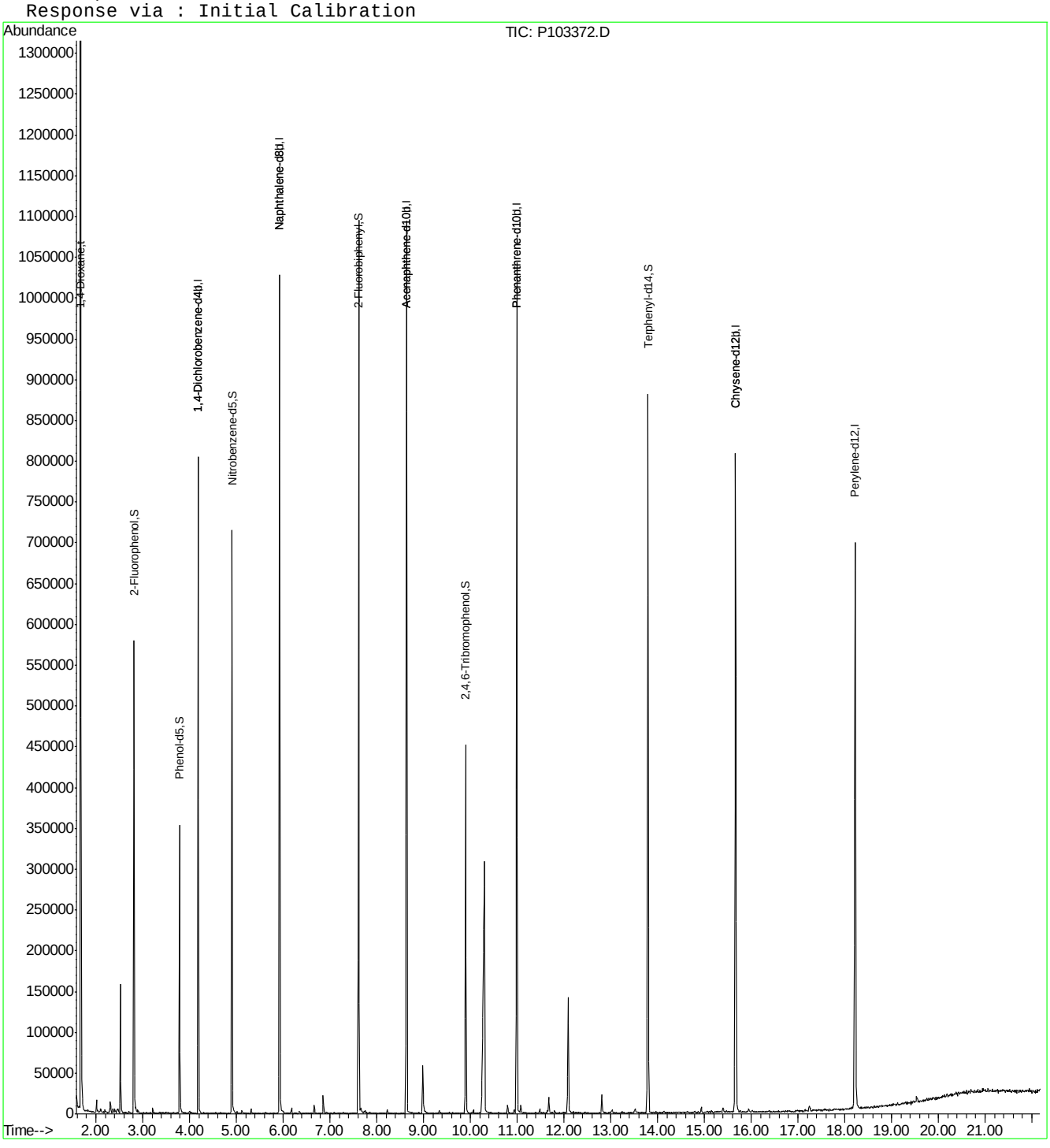
(#) = qualifier out of range (m) = manual integration (+) = signals summed

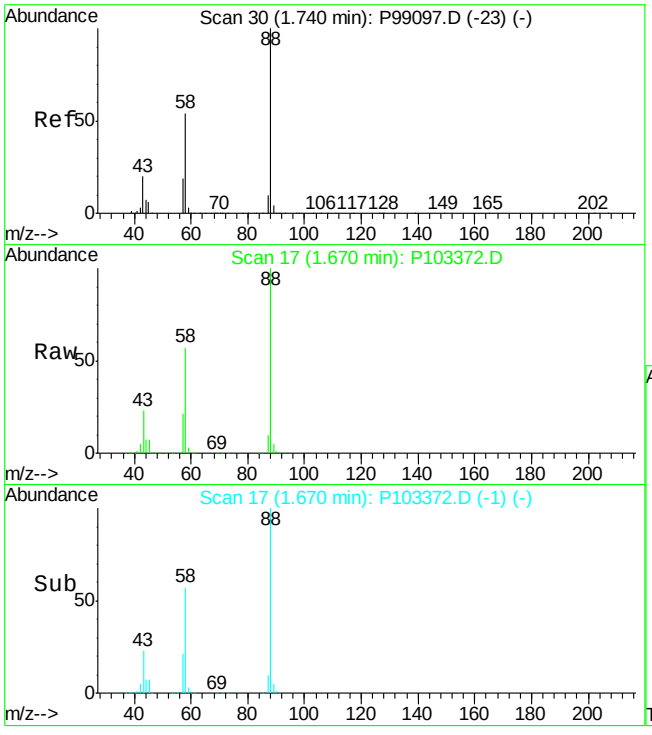
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103372.D Vial: 14
Acq On : 16 Mar 2016 6:07 pm Operator: linseyk
Sample : jc16038-10 Inst : MSP
Misc : op92078,ep4542,970 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:48 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration

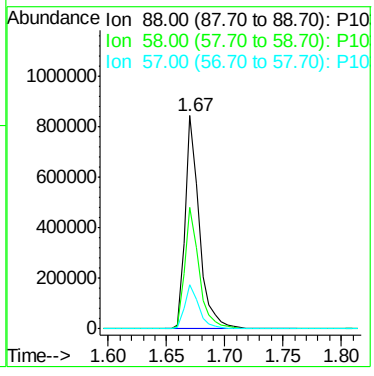




#2
1,4-Dioxane
Concen: 286.30 ppm
RT: 1.67 min Scan# 17
Delta R.T. -0.05 min
Lab File: P103372.D
Acq: 16 Mar 2016 6:07 pm

Tgt Ion: 88 Resp: 702985

Ion	Ratio	Lower	Upper
88	100		
58	56.8	31.0	91.0
57	20.8	0.0	51.2



9.1.20

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15636.D
Acq On : 17 Mar 2016 2:30 am
Operator : juliusj
Sample : jc16038-1
Misc : op92078a,e4p804,1000
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 18 09:12:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	130498	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	173578	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	316777	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.401	264	235925	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	531564	23.20	ppm	-0.05
Spiked Amount 50.000			Recovery = 46.40%			
4) Phenol-d5	4.320	99	634981	17.20	ppm	-0.04
Spiked Amount 50.000			Recovery = 34.40%			
7) Nitrobenzene-d5	5.716	82	1406653	38.71	ppm	0.00
Spiked Amount 50.000			Recovery = 77.42%			
14) 2-Fluorobiphenyl	9.165	172	1911127	38.68	ppm	0.00
Spiked Amount 50.000			Recovery = 77.36%			
22) 2,4,6-Tribromophenol	12.058	330	342501	53.04	ppm	-0.02
Spiked Amount 50.000			Recovery = 106.08%			
30) Terphenyl-d14	16.565	244	1872589	38.72	ppm	0.06
Spiked Amount 50.000			Recovery = 77.44%			
Target Compounds						Qvalue
28) Fluoranthene	15.773	202	14773	0.15	ppm	99
29) Pyrene	16.169	202	10938	0.11	ppm	97

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

9.1.21

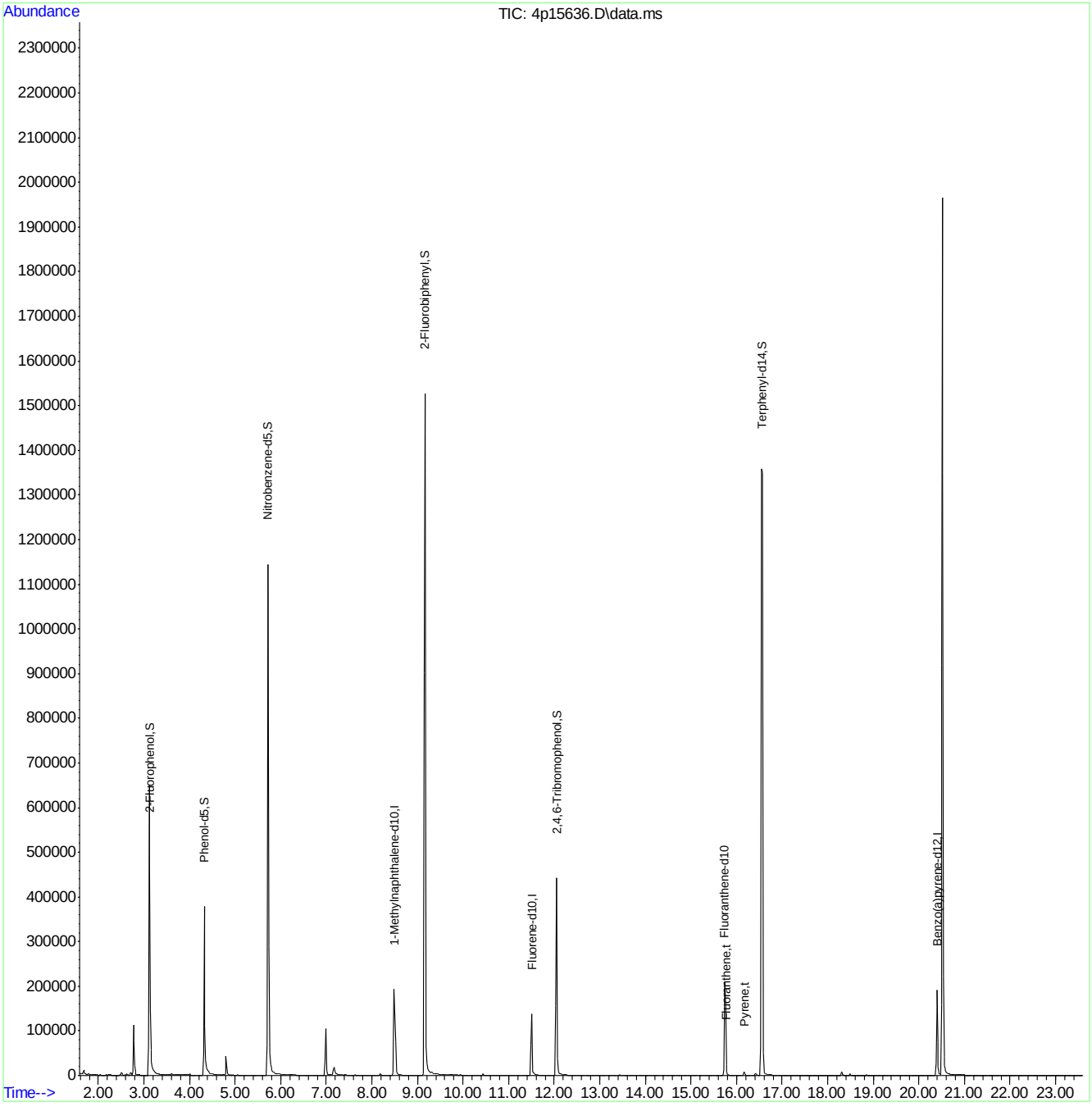
9

SGS ACCUTEST JC16038

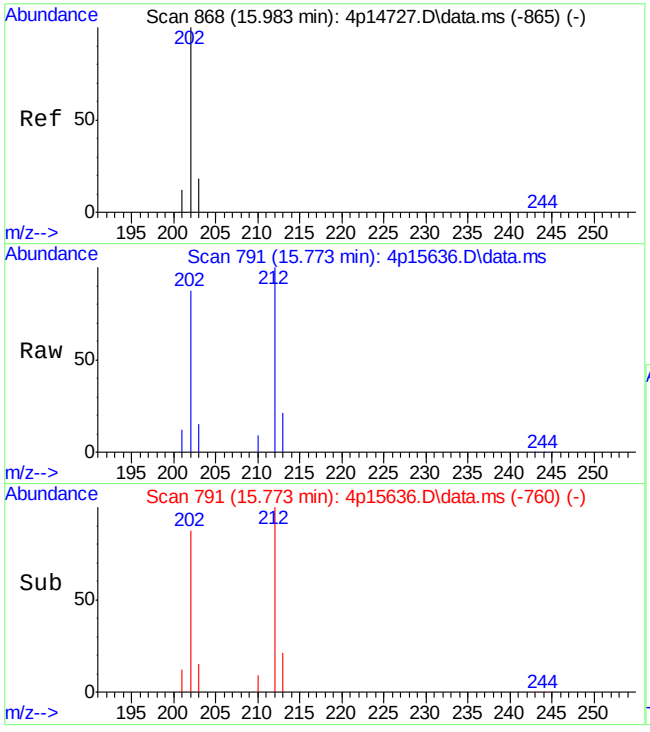
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15636.D
Acq On : 17 Mar 2016 2:30 am
Operator : juliusj
Sample : jc16038-1
Misc : op92078a,e4p804,1000
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 18 09:12:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



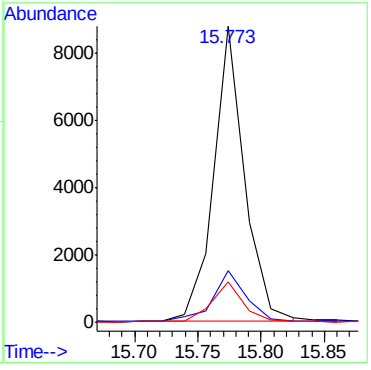
M4P767SIM.M Fri Mar 18 09:12:40 2016 Page: 2

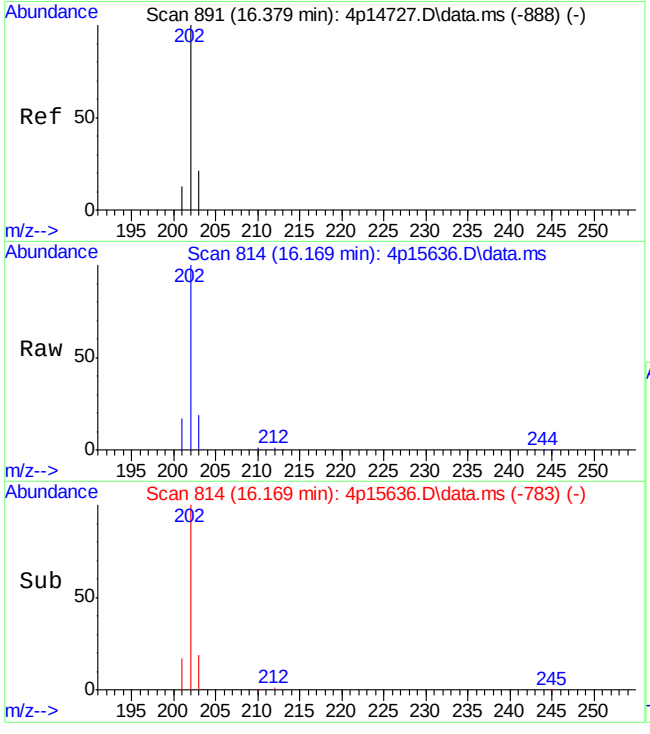


#28
Fluoranthene
Concen: 0.15 ppm
RT: 15.773 min Scan# 791
Delta R.T. 0.038 min
Lab File: 4p15636.D
Acq: 17 Mar 2016 2:30 am

Tgt Ion:202 Resp: 14773

Ion	Ratio	Lower	Upper
202	100		
203	17.2	0.0	46.6
201	13.5	0.0	43.5

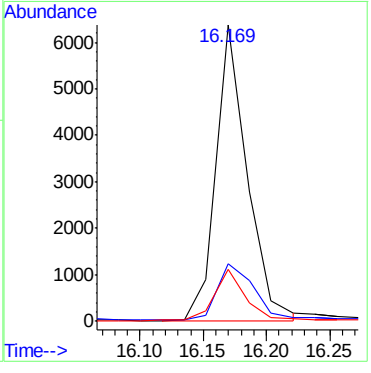




#29
Pyrene
Concen: 0.11 ppm
RT: 16.169 min Scan# 814
Delta R.T. 0.040 min
Lab File: 4p15636.D
Acq: 17 Mar 2016 2:30 am

Tgt Ion:202 Resp: 10938

Ion	Ratio	Lower	Upper
202	100		
203	18.7	0.0	47.1
201	17.1	0.0	46.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15637.D
Acq On : 17 Mar 2016 3:01 am
Operator : juliusj
Sample : jc16038-2
Misc : op92078a,e4p804,950
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 18 09:12:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.491	150	122787	4.00 ppm	0.00
13) Fluorene-d10	11.506	176	173007	4.00 ppm	0.02
23) Fluoranthene-d10	15.752	212	279760	4.00 ppm	0.03
33) Benzo(a)pyrene-d12	20.399	264	220301	4.00 ppm	0.04
System Monitoring Compounds					
3) 2-Fluorophenol	3.129	112	514519	23.86 ppm	-0.05
Spiked Amount 50.000			Recovery = 47.72%		
4) Phenol-d5	4.320	99	640133	18.42 ppm	-0.04
Spiked Amount 50.000			Recovery = 36.84%		
7) Nitrobenzene-d5	5.714	82	1345590	39.36 ppm	0.00
Spiked Amount 50.000			Recovery = 78.72%		
14) 2-Fluorobiphenyl	9.163	172	1824282	37.04 ppm	0.00
Spiked Amount 50.000			Recovery = 74.08%		
22) 2,4,6-Tribromophenol	12.054	330	357118	55.48 ppm	-0.02
Spiked Amount 50.000			Recovery = 110.96%		
30) Terphenyl-d14	16.561	244	1908329	44.67 ppm	0.05
Spiked Amount 50.000			Recovery = 89.34%		
Target Compounds					Qvalue
2) 1,4-Dioxane	1.775	88	20629	1.64 ppm	91

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

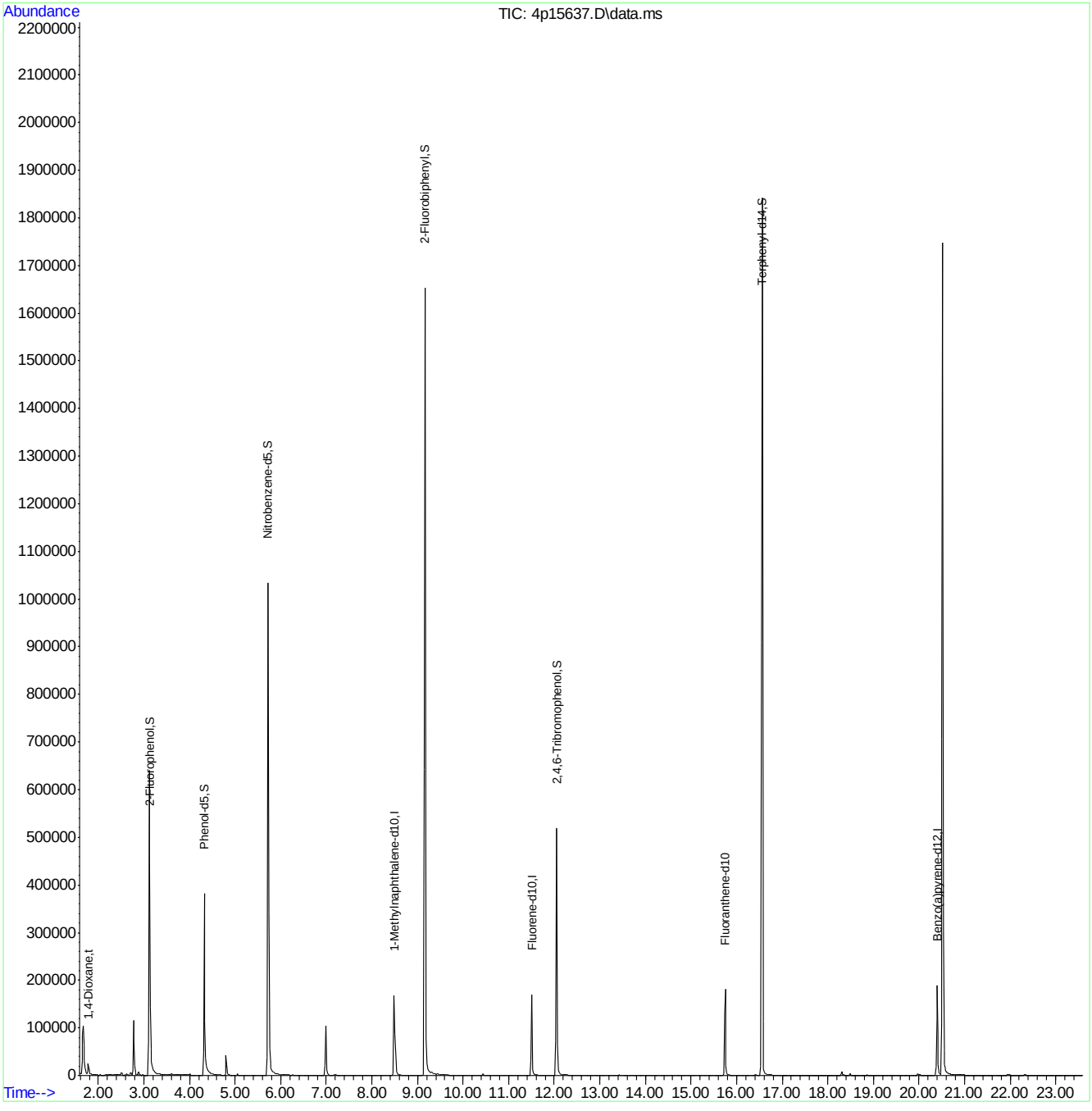
9.1.22

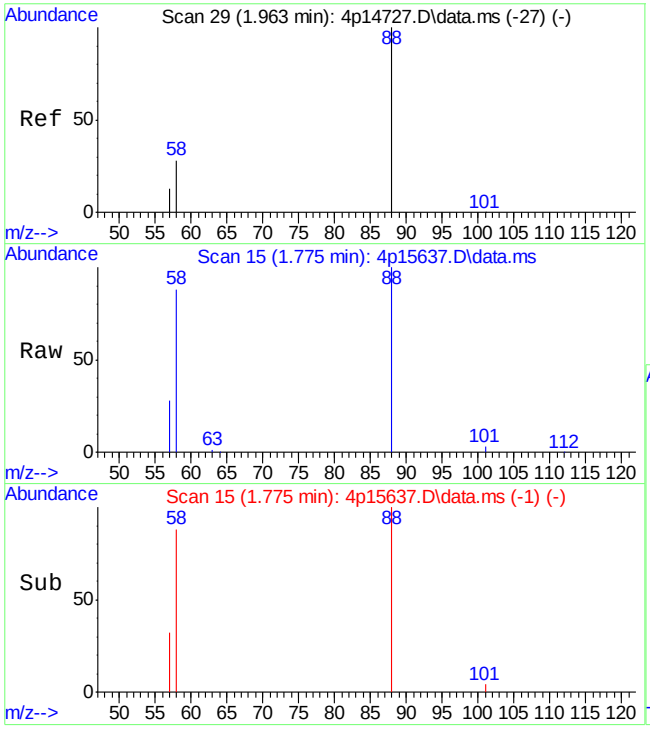
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15637.D
Acq On : 17 Mar 2016 3:01 am
Operator : juliusj
Sample : jc16038-2
Misc : op92078a,e4p804,950
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 18 09:12:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

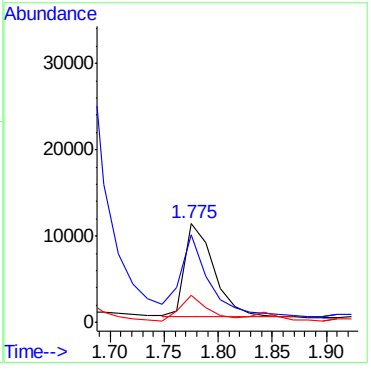




#2
1,4-Dioxane
Concen: 1.64 ppm
RT: 1.775 min Scan# 15
Delta R.T. -0.004 min
Lab File: 4p15637.D
Acq: 17 Mar 2016 3:01 am

Tgt Ion: 88 Resp: 20629

Ion	Ratio	Lower	Upper
88	100		
58	80.3	53.7	93.7
57	27.0	1.5	41.5



9.1.22

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15638.D
Acq On : 17 Mar 2016 3:31 am
Operator : juliusj
Sample : jc16038-3
Misc : op92078a,e4p804,1000
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 18 09:13:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	135417	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	189935	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	308988	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.401	264	240102	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	488708	20.55	ppm	-0.05
Spiked Amount 50.000			Recovery = 41.10%			
4) Phenol-d5	4.320	99	665901	17.38	ppm	-0.04
Spiked Amount 50.000			Recovery = 34.76%			
7) Nitrobenzene-d5	5.716	82	1195114	31.70	ppm	0.00
Spiked Amount 50.000			Recovery = 63.40%			
14) 2-Fluorobiphenyl	9.165	172	1846343	34.15	ppm	0.00
Spiked Amount 50.000			Recovery = 68.30%			
22) 2,4,6-Tribromophenol	12.058	330	338858	47.95	ppm	-0.02
Spiked Amount 50.000			Recovery = 95.90%			
30) Terphenyl-d14	16.565	244	1762429	37.36	ppm	0.06
Spiked Amount 50.000			Recovery = 74.72%			
Target Compounds						Qvalue
8) Naphthalene	7.035	128	319339	3.57	ppm	57
16) Acenaphthene	10.510	153	28482	0.58	ppm	97
18) Fluorene	11.560	166	68862	1.17	ppm	96
26) Phenanthrene	13.467	178	28876	0.31	ppm	95

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

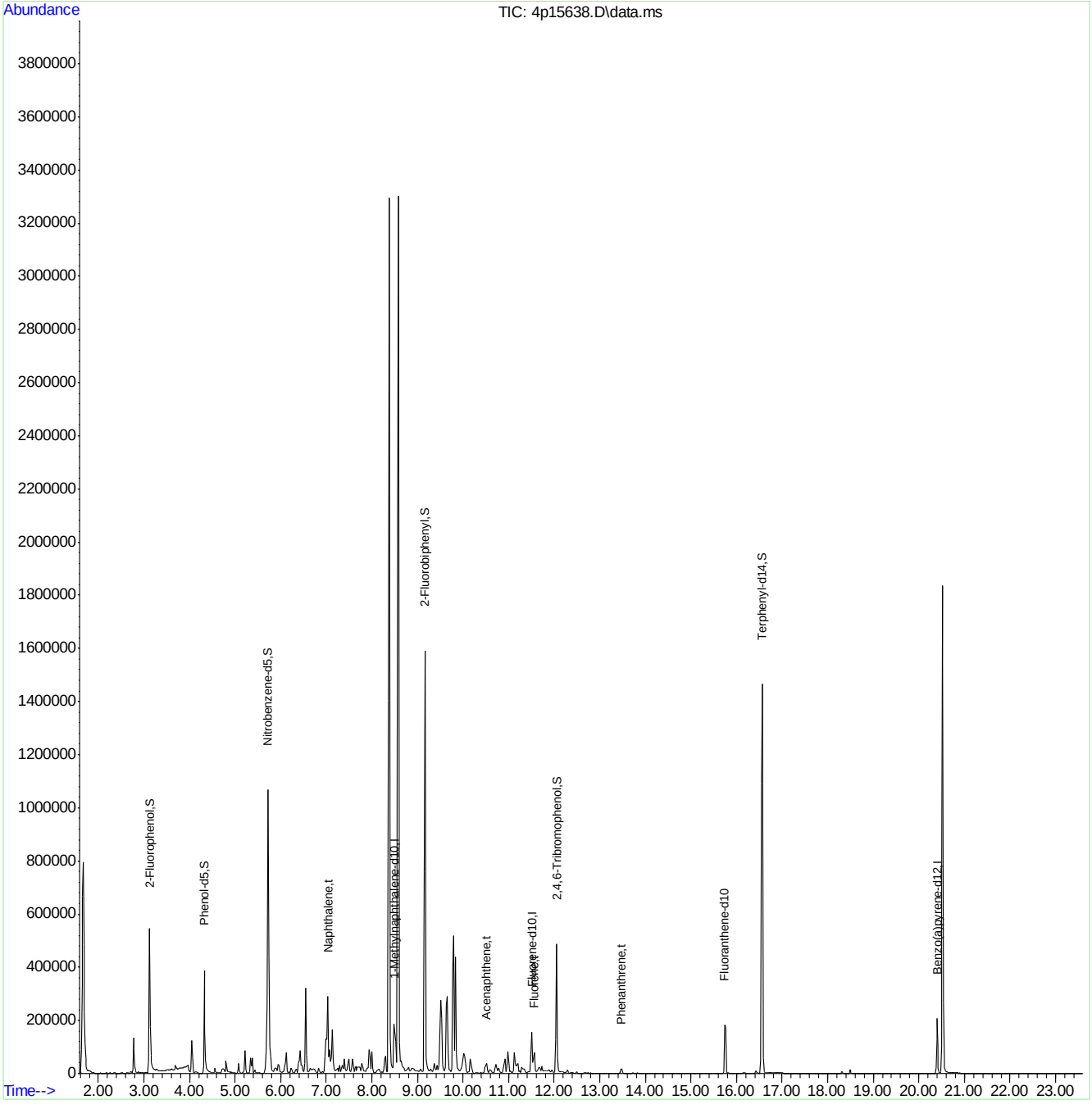
9.1.23

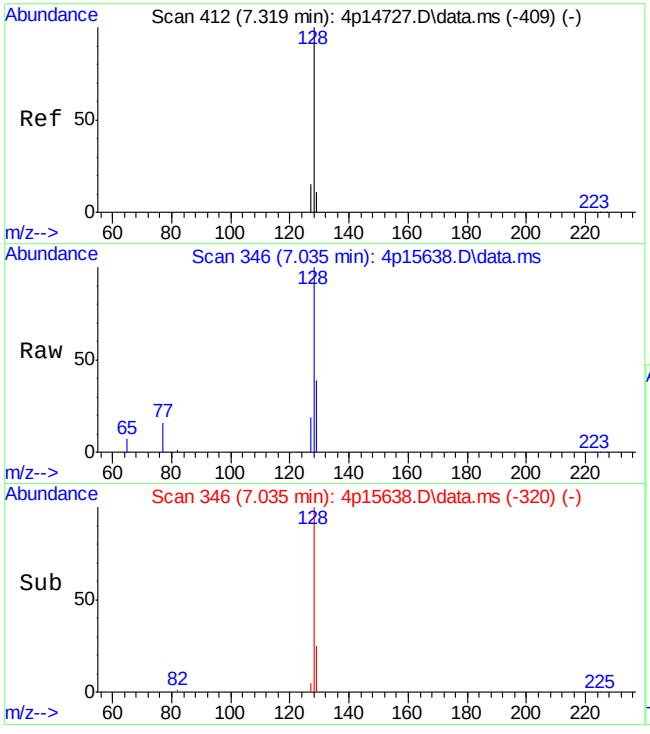
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15638.D
Acq On : 17 Mar 2016 3:31 am
Operator : juliusj
Sample : jc16038-3
Misc : op92078a,e4p804,1000
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 18 09:13:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

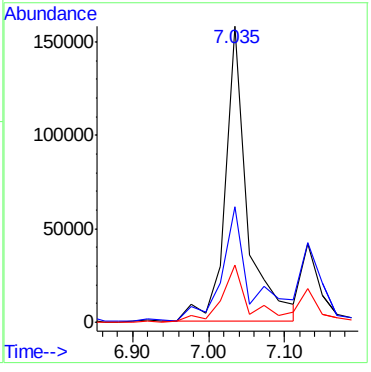


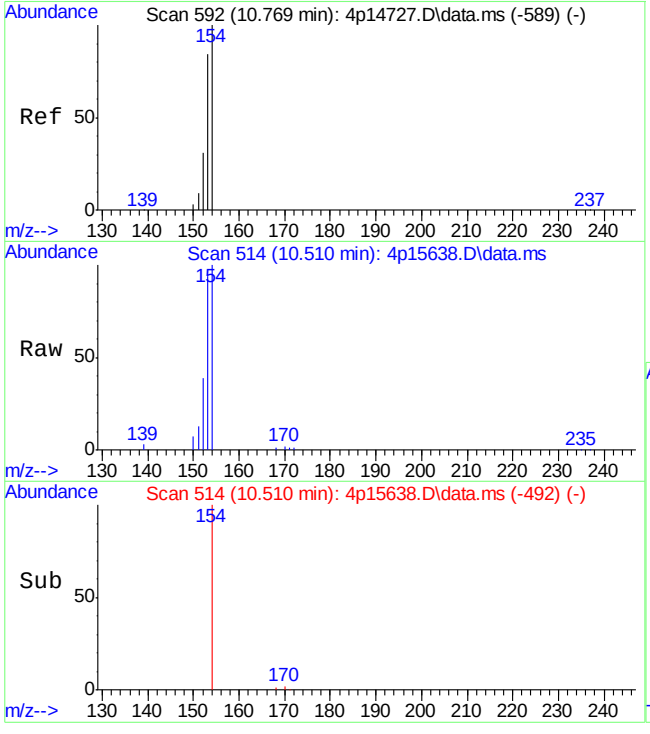


#8
Naphthalene
Concen: 3.57 ppm
RT: 7.035 min Scan# 346
Delta R.T. 0.002 min
Lab File: 4p15638.D
Acq: 17 Mar 2016 3:31 am

Tgt Ion:128 Resp: 319339

Ion	Ratio	Lower	Upper
128	100		
129	36.1	0.0	42.0
127	18.2	0.0	40.3

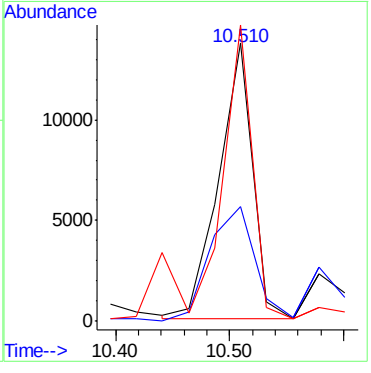




#16
Acenaphthene
Concen: 0.58 ppm
RT: 10.510 min Scan# 514
Delta R.T. 0.004 min
Lab File: 4p15638.D
Acq: 17 Mar 2016 3:31 am

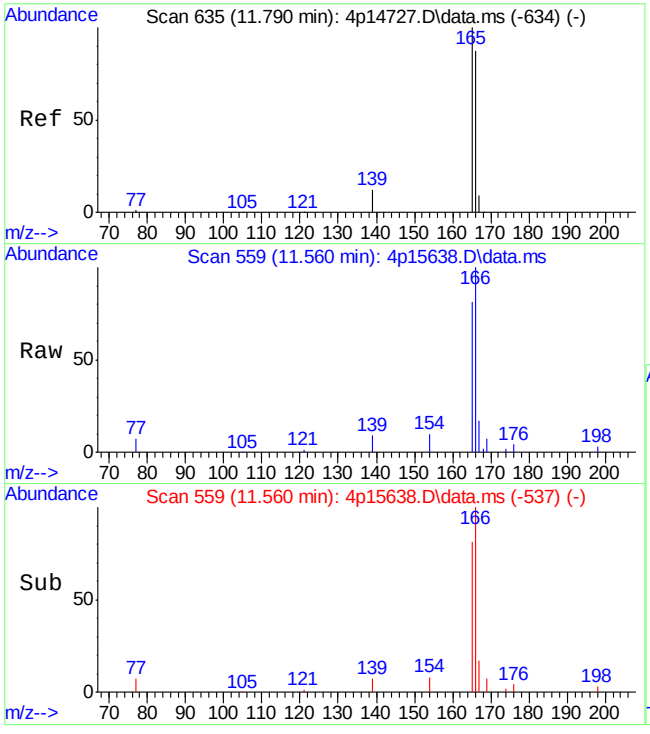
Tgt Ion:153 Resp: 28482

Ion	Ratio	Lower	Upper
153	100		
152	41.3	15.5	75.5
154	95.1	66.0	126.0



9.1.23

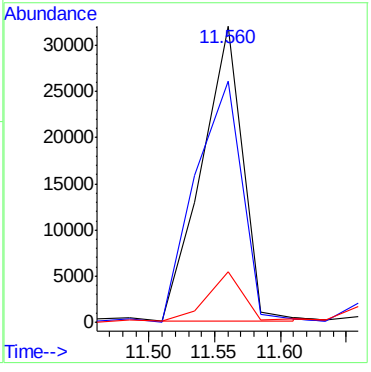
9

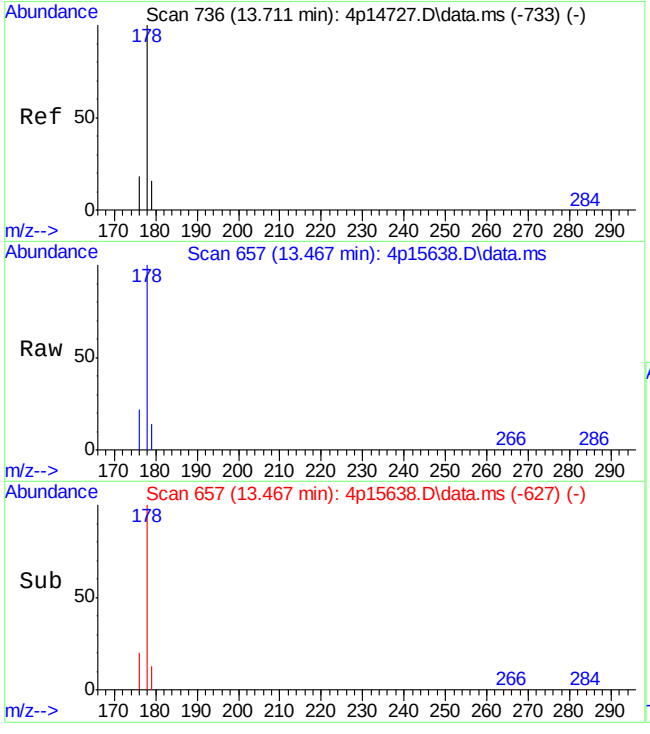


#18
Fluorene
Concen: 1.17 ppm
RT: 11.560 min Scan# 559
Delta R.T. 0.028 min
Lab File: 4p15638.D
Acq: 17 Mar 2016 3:31 am

Tgt Ion:166 Resp: 68862

Ion	Ratio	Lower	Upper
166	100		
165	81.5	54.5	114.5
167	16.5	0.0	43.3

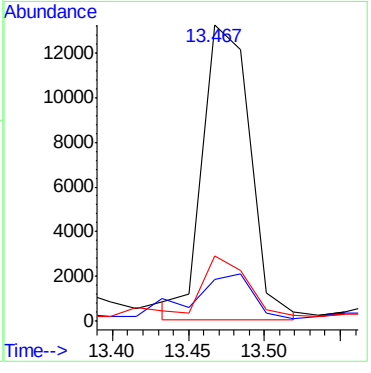




#26
Phenanthrene
Concen: 0.31 ppm
RT: 13.467 min Scan# 657
Delta R.T. 0.011 min
Lab File: 4p15638.D
Acq: 17 Mar 2016 3:31 am

Tgt Ion:178 Resp: 28876

Ion	Ratio	Lower	Upper
178	100		
179	10.6	0.0	44.3
176	20.4	0.0	49.5



9.1.23

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15639.D
Acq On : 17 Mar 2016 4:01 am
Operator : juliusj
Sample : jc16038-4
Misc : op92078a,e4p804,950
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 18 09:14:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 18 09:14:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.491	150	129918	4.00	ppm	0.00
13) Fluorene-d10	11.506	176	190433	4.00	ppm	0.02
23) Fluoranthene-d10	15.752	212	314557	4.00	ppm	0.03
33) Benzo(a)pyrene-d12	20.397	264	242772	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	294457	12.91	ppm	-0.05
Spiked Amount 50.000			Recovery = 25.82%			
4) Phenol-d5	4.320	99	667460	18.16	ppm	-0.04
Spiked Amount 50.000			Recovery = 36.32%			
7) Nitrobenzene-d5	5.714	82	1316178	36.38	ppm	0.00
Spiked Amount 50.000			Recovery = 72.76%			
14) 2-Fluorobiphenyl	9.163	172	1990823	36.72	ppm	0.00
Spiked Amount 50.000			Recovery = 73.44%			
22) 2,4,6-Tribromophenol	12.054	330	387745	54.73	ppm	-0.02
Spiked Amount 50.000			Recovery = 109.46%			
30) Terphenyl-d14	16.561	244	1914692	39.86	ppm	0.05
Spiked Amount 50.000			Recovery = 79.72%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	10011	0.70	ppm #	78
8) Naphthalene	7.033	128	201876	2.35	ppm	95
18) Fluorene	11.556	166	7008	0.12	ppm	97
28) Fluoranthene	15.770	202	11853	0.12	ppm	98

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

9.1.24

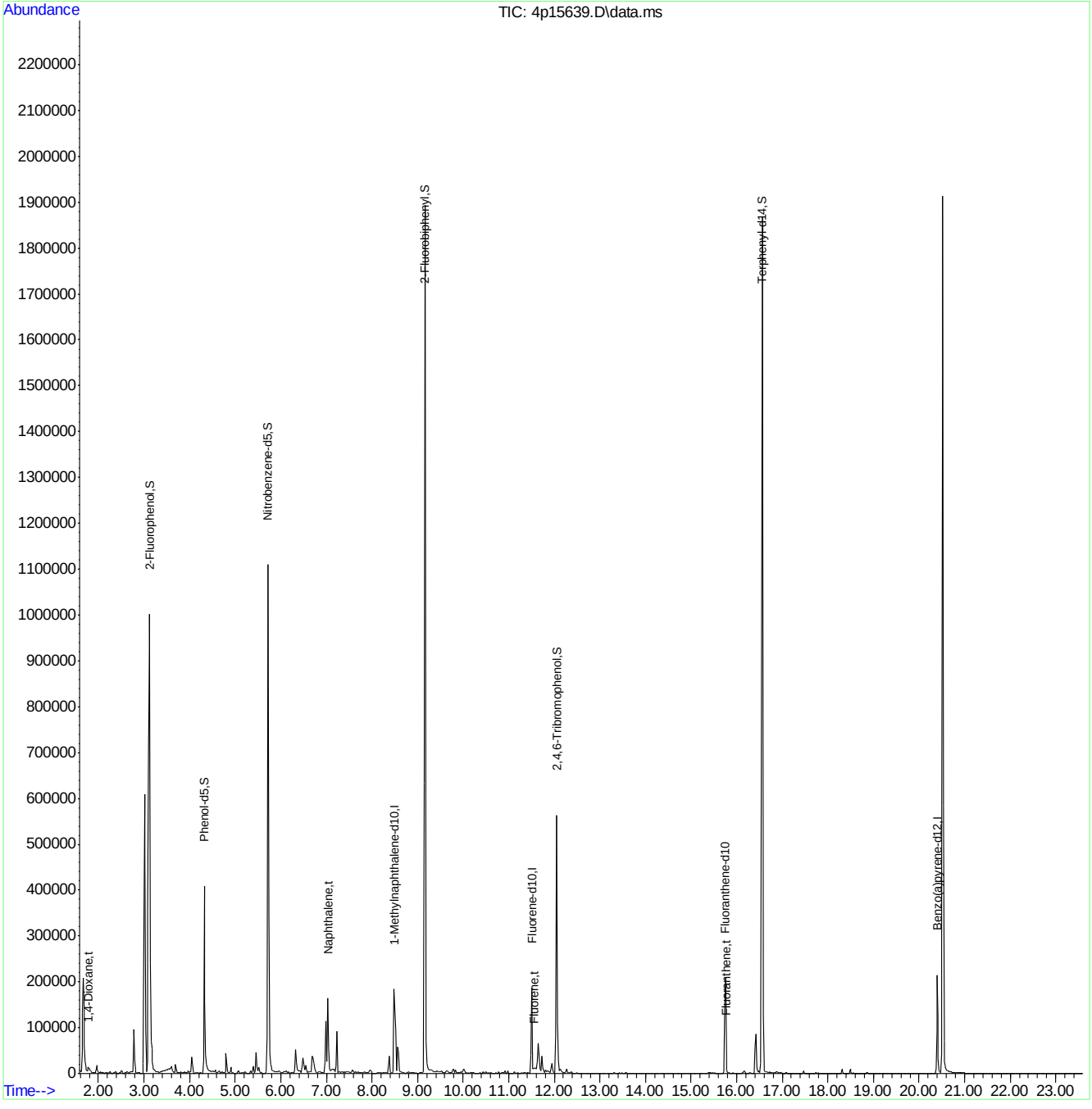
9

SGS ACCUTEST JC16038

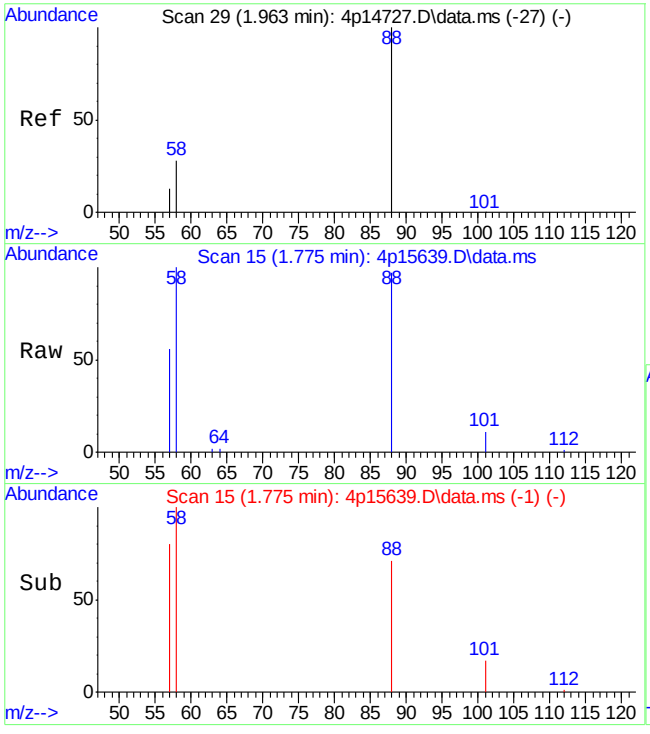
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15639.D
Acq On : 17 Mar 2016 4:01 am
Operator : juliusj
Sample : jc16038-4
Misc : op92078a,e4p804,950
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 18 09:14:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 18 09:14:09 2016
Response via : Initial Calibration



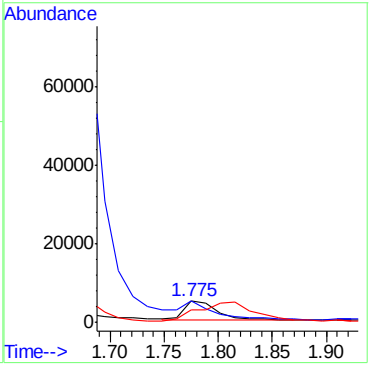
M4P767SIM.M Fri Mar 18 09:14:45 2016 Page: 2

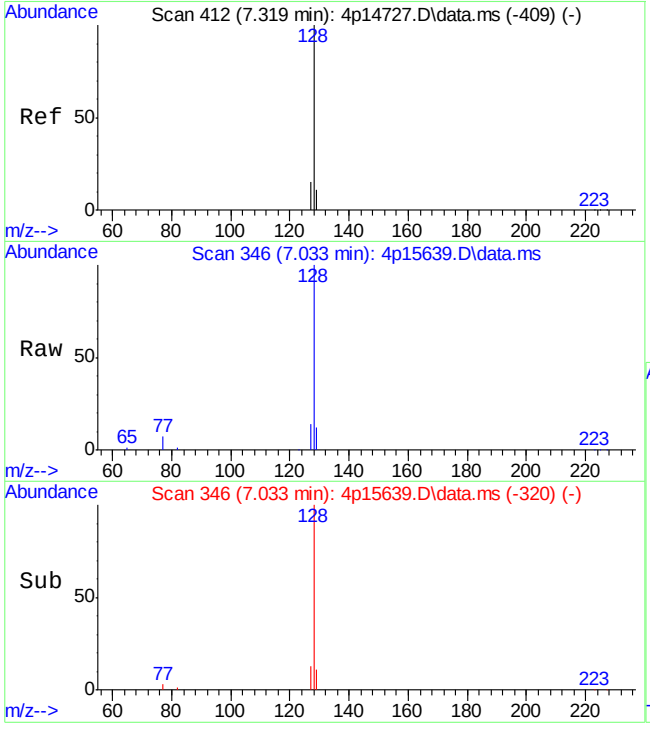


#2
1,4-Dioxane
Concen: 0.70 ppm
RT: 1.775 min Scan# 15
Delta R.T. -0.004 min
Lab File: 4p15639.D
Acq: 17 Mar 2016 4:01 am

Tgt Ion: 88 Resp: 10011

Ion	Ratio	Lower	Upper
88	100		
58	78.8	53.7	93.7
57	58.2	1.5	41.5#

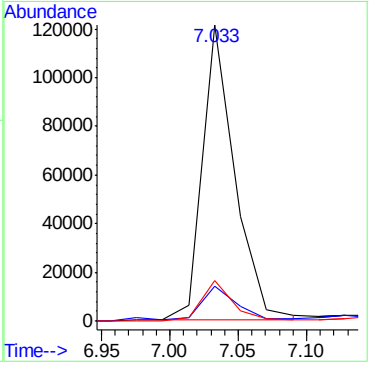


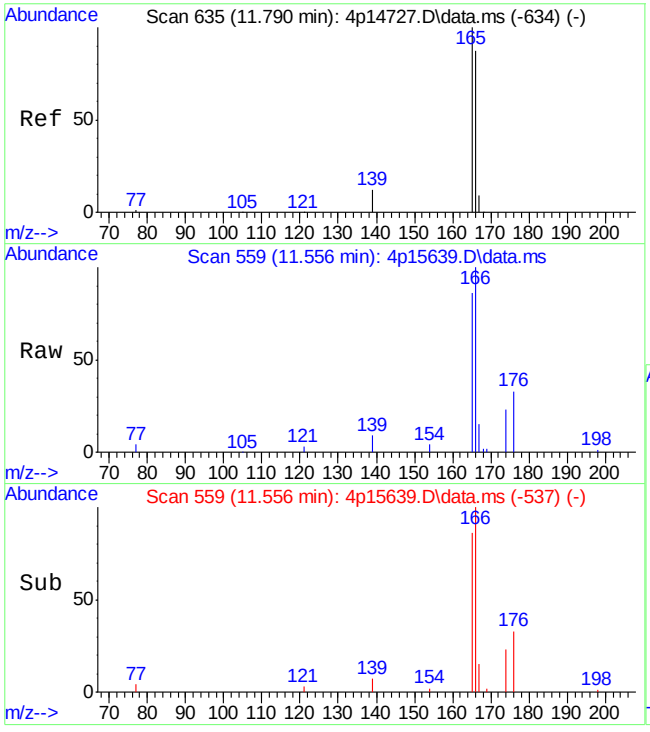


#8
Naphthalene
Concen: 2.35 ppm
RT: 7.033 min Scan# 346
Delta R.T. 0.000 min
Lab File: 4p15639.D
Acq: 17 Mar 2016 4:01 am

Tgt Ion:128 Resp: 201876

Ion	Ratio	Lower	Upper
128	100		
129	11.2	0.0	42.0
127	13.6	0.0	40.3

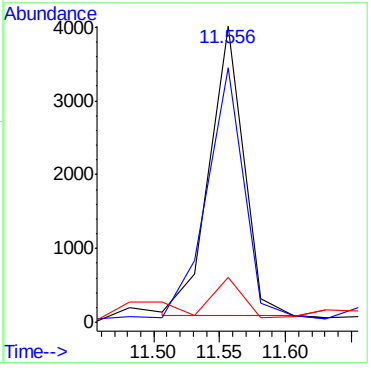


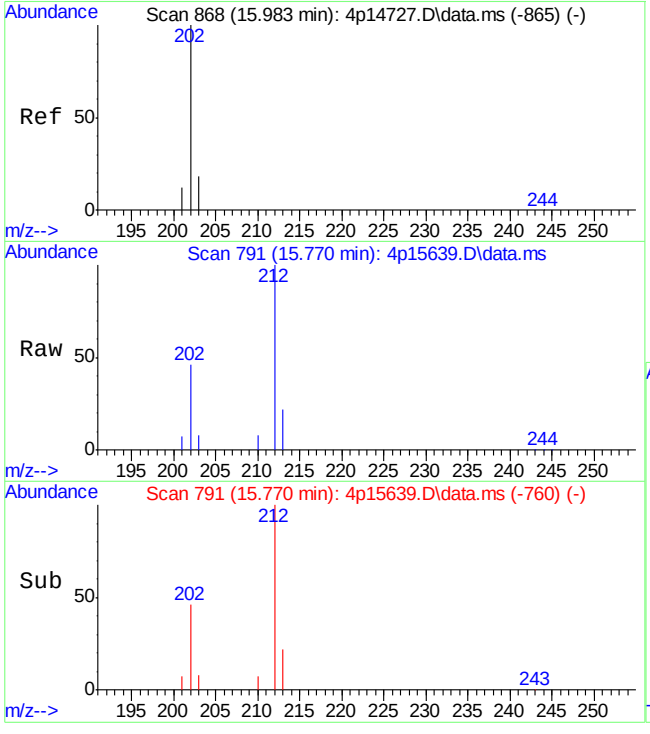


#18
Fluorene
Concen: 0.12 ppm
RT: 11.556 min Scan# 559
Delta R.T. 0.025 min
Lab File: 4p15639.D
Acq: 17 Mar 2016 4:01 am

Tgt Ion:166 Resp: 7008

Ion	Ratio	Lower	Upper
166	100		
165	86.9	54.5	114.5
167	11.3	0.0	43.3

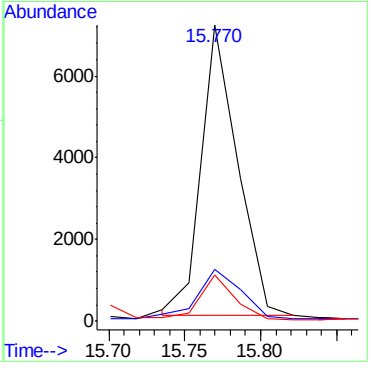




#28
Fluoranthene
Concen: 0.12 ppm
RT: 15.770 min Scan# 791
Delta R.T. 0.034 min
Lab File: 4p15639.D
Acq: 17 Mar 2016 4:01 am

Tgt Ion:202 Resp: 11853

Ion	Ratio	Lower	Upper
202	100		
203	16.3	0.0	46.6
201	15.0	0.0	43.5



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15640.D
Acq On : 17 Mar 2016 4:31 am
Operator : juliusj
Sample : jc16038-5
Misc : op92078a,e4p804,950
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 18 09:15:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	133229	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	174322	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	303028	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.401	264	244145	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	504295	21.55	ppm	-0.05
Spiked Amount 50.000			Recovery = 43.10%			
4) Phenol-d5	4.320	99	642980	17.06	ppm	-0.04
Spiked Amount 50.000			Recovery = 34.12%			
7) Nitrobenzene-d5	5.716	82	1370023	36.93	ppm	0.00
Spiked Amount 50.000			Recovery = 73.86%			
14) 2-Fluorobiphenyl	9.165	172	1800941	36.29	ppm	0.00
Spiked Amount 50.000			Recovery = 72.58%			
22) 2,4,6-Tribromophenol	12.058	330	346839	53.48	ppm	-0.02
Spiked Amount 50.000			Recovery = 106.96%			
30) Terphenyl-d14	16.565	244	1821898	39.38	ppm	0.06
Spiked Amount 50.000			Recovery = 78.76%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.788	88	5850	0.37	ppm #	76

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

9.1.25

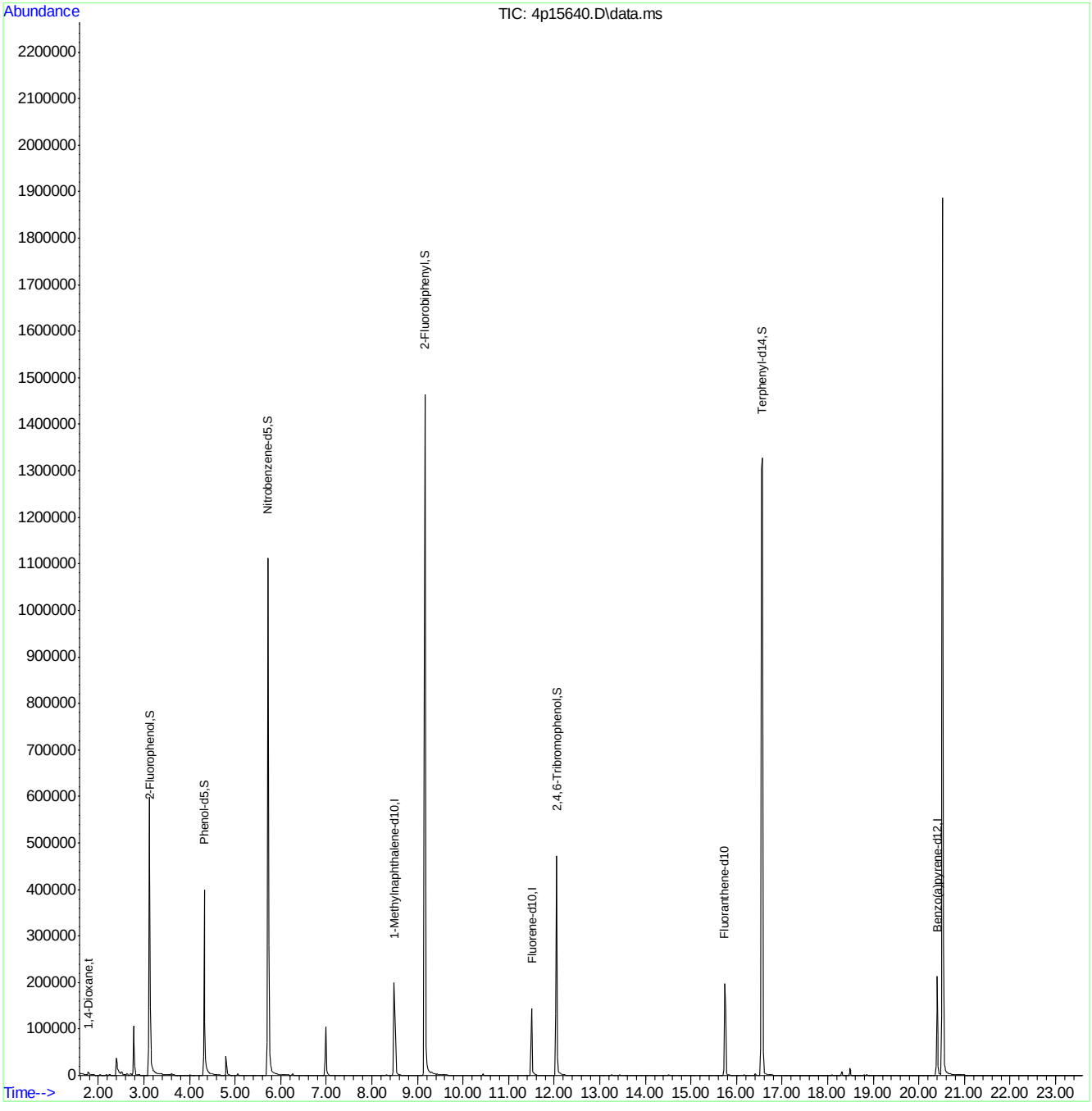
9

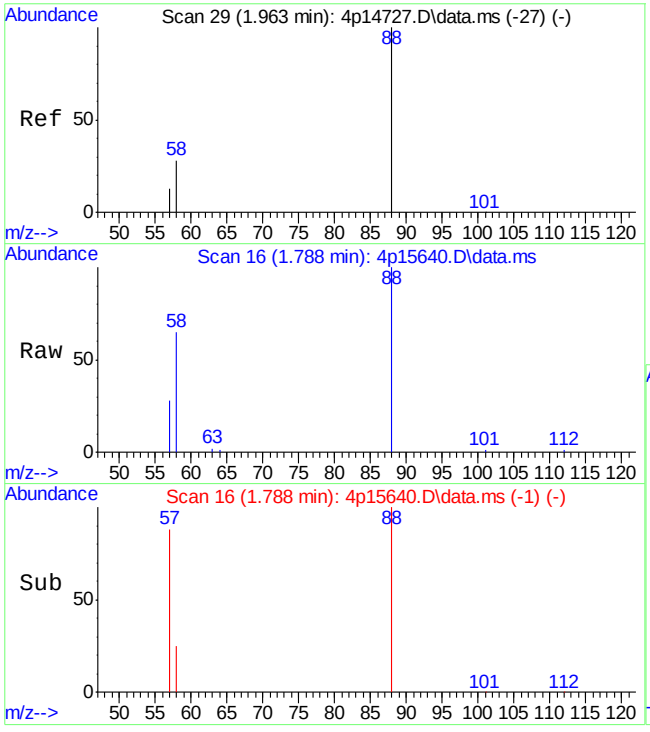
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15640.D
Acq On : 17 Mar 2016 4:31 am
Operator : juliusj
Sample : jc16038-5
Misc : op92078a,e4p804,950
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 18 09:15:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

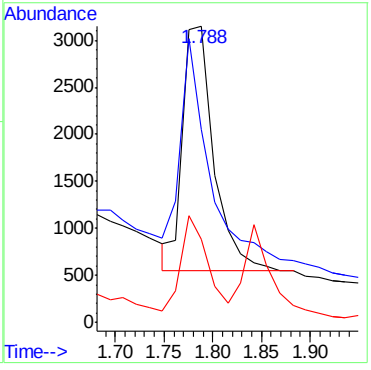




#2
1,4-Dioxane
Concen: 0.37 ppm
RT: 1.788 min Scan# 16
Delta R.T. 0.009 min
Lab File: 4p15640.D
Acq: 17 Mar 2016 4:31 am

Tgt Ion: 88 Resp: 5850

Ion	Ratio	Lower	Upper
88	100		
58	52.0	53.7	93.7#
57	29.7	1.5	41.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15641.D
Acq On : 17 Mar 2016 5:01 am
Operator : juliusj
Sample : jc16038-6
Misc : op92078a,e4p804,970
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 18 09:20:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.491	150	132854	4.00	ppm	0.00
13) Fluorene-d10	11.506	176	191707	4.00	ppm	0.02
23) Fluoranthene-d10	15.752	212	308728	4.00	ppm	0.03
33) Benzo(a)pyrene-d12	20.399	264	242772	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	658262	28.21	ppm	-0.05
Spiked Amount 50.000			Recovery = 56.42%			
4) Phenol-d5	4.320	99	787686	20.95	ppm	-0.04
Spiked Amount 50.000			Recovery = 41.90%			
7) Nitrobenzene-d5	5.714	82	1716241	46.39	ppm	0.00
Spiked Amount 50.000			Recovery = 92.78%			
14) 2-Fluorobiphenyl	9.163	172	2504506	45.89	ppm	0.00
Spiked Amount 50.000			Recovery = 91.78%			
22) 2,4,6-Tribromophenol	12.054	330	445471	62.46	ppm	-0.02
Spiked Amount 50.000			Recovery = 124.92%			
30) Terphenyl-d14	16.561	244	2279995	48.37	ppm	0.05
Spiked Amount 50.000			Recovery = 96.74%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	12873	0.90	ppm	81
8) Naphthalene	7.033	128	196763	2.24	ppm	91
16) Acenaphthene	10.506	153	17178	0.35	ppm	91
18) Fluorene	11.556	166	24923	0.42	ppm	95
26) Phenanthrene	13.481	178	55600	0.60	ppm	95

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

9.1.26

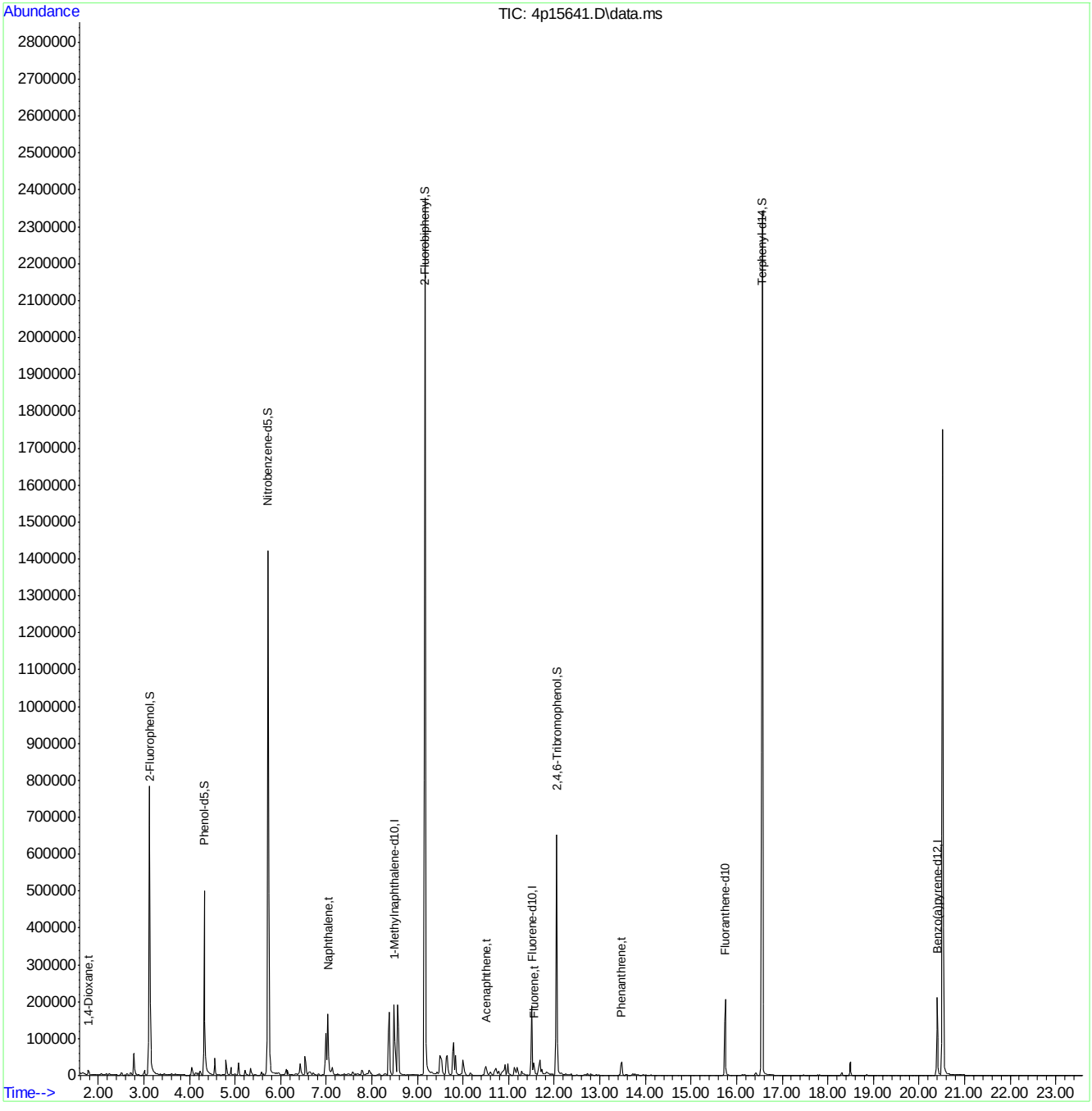
9

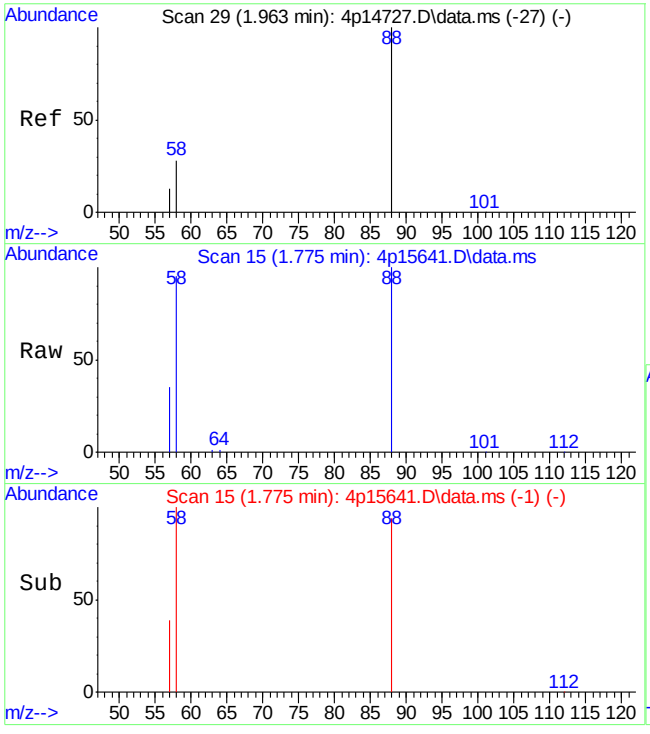
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15641.D
Acq On : 17 Mar 2016 5:01 am
Operator : juliusj
Sample : jc16038-6
Misc : op92078a,e4p804,970
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 18 09:20:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

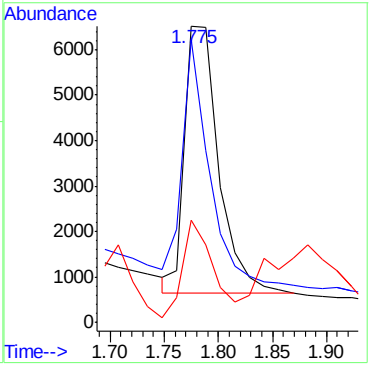


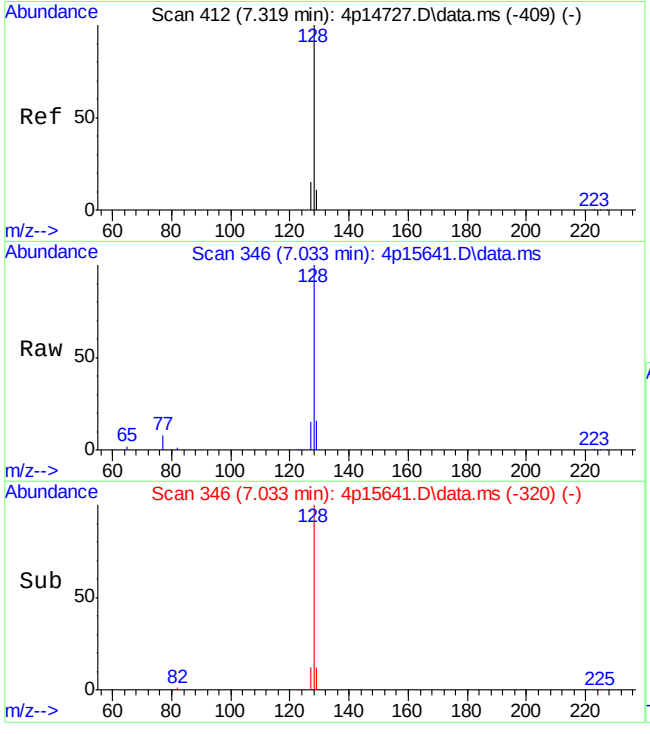


#2
1,4-Dioxane
Concen: 0.90 ppm
RT: 1.775 min Scan# 15
Delta R.T. -0.004 min
Lab File: 4p15641.D
Acq: 17 Mar 2016 5:01 am

Tgt Ion: 88 Resp: 12873

Ion	Ratio	Lower	Upper
88	100		
58	91.8	53.7	93.7
57	26.2	1.5	41.5

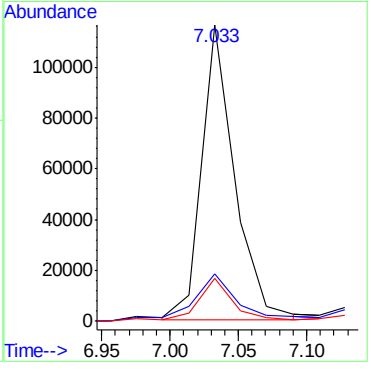


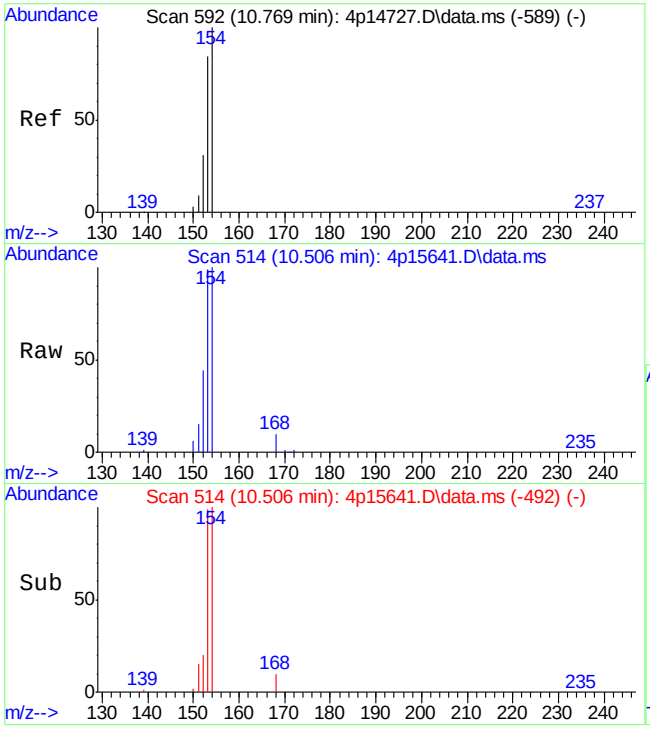


#8
Naphthalene
Concen: 2.24 ppm
RT: 7.033 min Scan# 346
Delta R.T. 0.000 min
Lab File: 4p15641.D
Acq: 17 Mar 2016 5:01 am

Tgt Ion:128 Resp: 196763

Ion	Ratio	Lower	Upper
128	100		
129	15.0	0.0	42.0
127	14.3	0.0	40.3

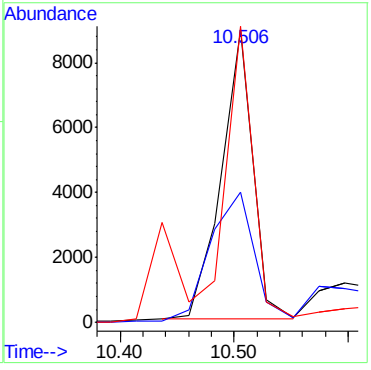


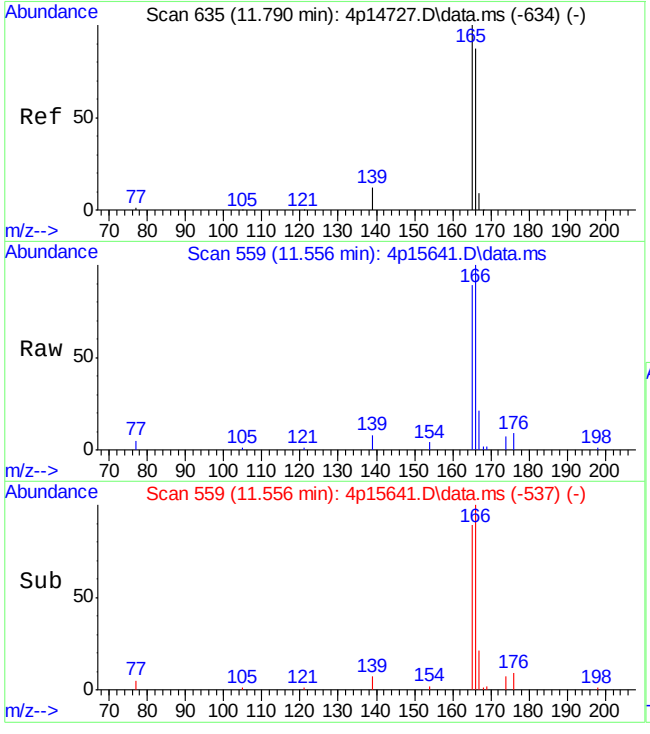


#16
Acenaphthene
Concen: 0.35 ppm
RT: 10.506 min Scan# 514
Delta R.T. 0.000 min
Lab File: 4p15641.D
Acq: 17 Mar 2016 5:01 am

Tgt Ion:153 Resp: 17178

Ion	Ratio	Lower	Upper
153	100		
152	44.2	15.5	75.5
154	84.1	66.0	126.0

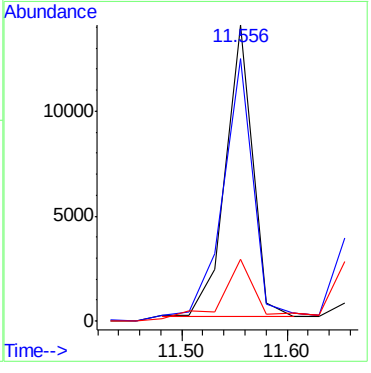




#18
Fluorene
Concen: 0.42 ppm
RT: 11.556 min Scan# 559
Delta R.T. 0.024 min
Lab File: 4p15641.D
Acq: 17 Mar 2016 5:01 am

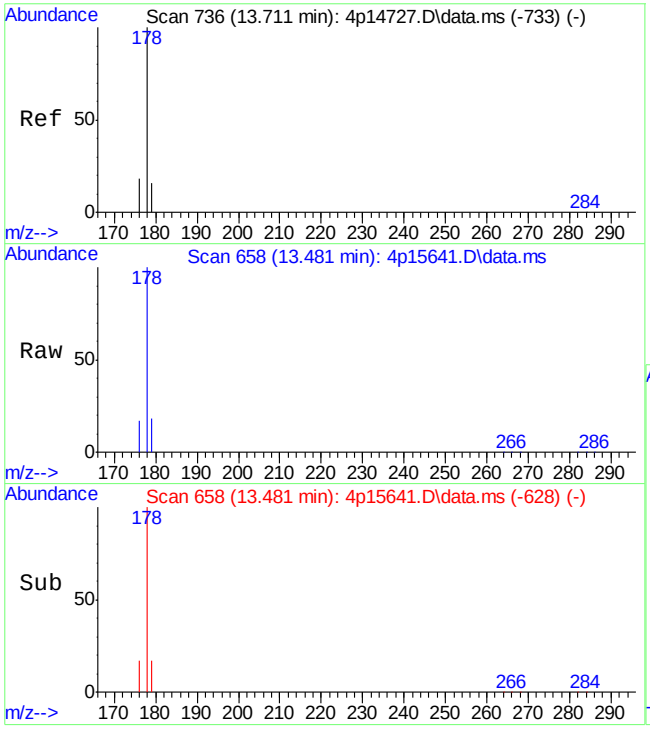
Tgt Ion:166 Resp: 24923

Ion	Ratio	Lower	Upper
166	100		
165	87.9	54.5	114.5
167	19.4	0.0	43.3



9.1.26

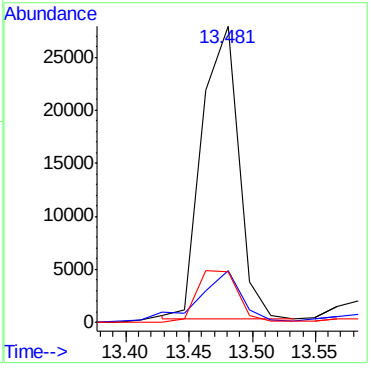
9



#26
Phenanthrene
Concen: 0.60 ppm
RT: 13.481 min Scan# 658
Delta R.T. 0.024 min
Lab File: 4p15641.D
Acq: 17 Mar 2016 5:01 am

Tgt Ion:178 Resp: 55600

Ion	Ratio	Lower	Upper
178	100		
179	16.0	0.0	44.3
176	17.0	0.0	49.5



9.1.26

9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15642.D
Acq On : 17 Mar 2016 5:31 am
Operator : juliusj
Sample : jc16038-8
Misc : op92078a,e4p804,990
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 18 09:21:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 18 09:20:59 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	123833	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	162760	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	285364	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.391	264	216665	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	650864	29.93	ppm	-0.05
Spiked Amount 50.000			Recovery = 59.86%			
4) Phenol-d5	4.320	99	785612	22.42	ppm	-0.04
Spiked Amount 50.000			Recovery = 44.84%			
7) Nitrobenzene-d5	5.716	82	1623180	47.07	ppm	0.00
Spiked Amount 50.000			Recovery = 94.14%			
14) 2-Fluorobiphenyl	9.165	172	2227241	48.07	ppm	0.00
Spiked Amount 50.000			Recovery = 96.14%			
22) 2,4,6-Tribromophenol	12.058	330	413719	68.32	ppm	-0.02
Spiked Amount 50.000			Recovery = 136.64%			
30) Terphenyl-d14	16.565	244	2036230	46.73	ppm	0.06
Spiked Amount 50.000			Recovery = 93.46%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	10605695	726.89	ppm	88
27) Anthracene	13.570	178	28159	0.37	ppm	97

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

9.1.27

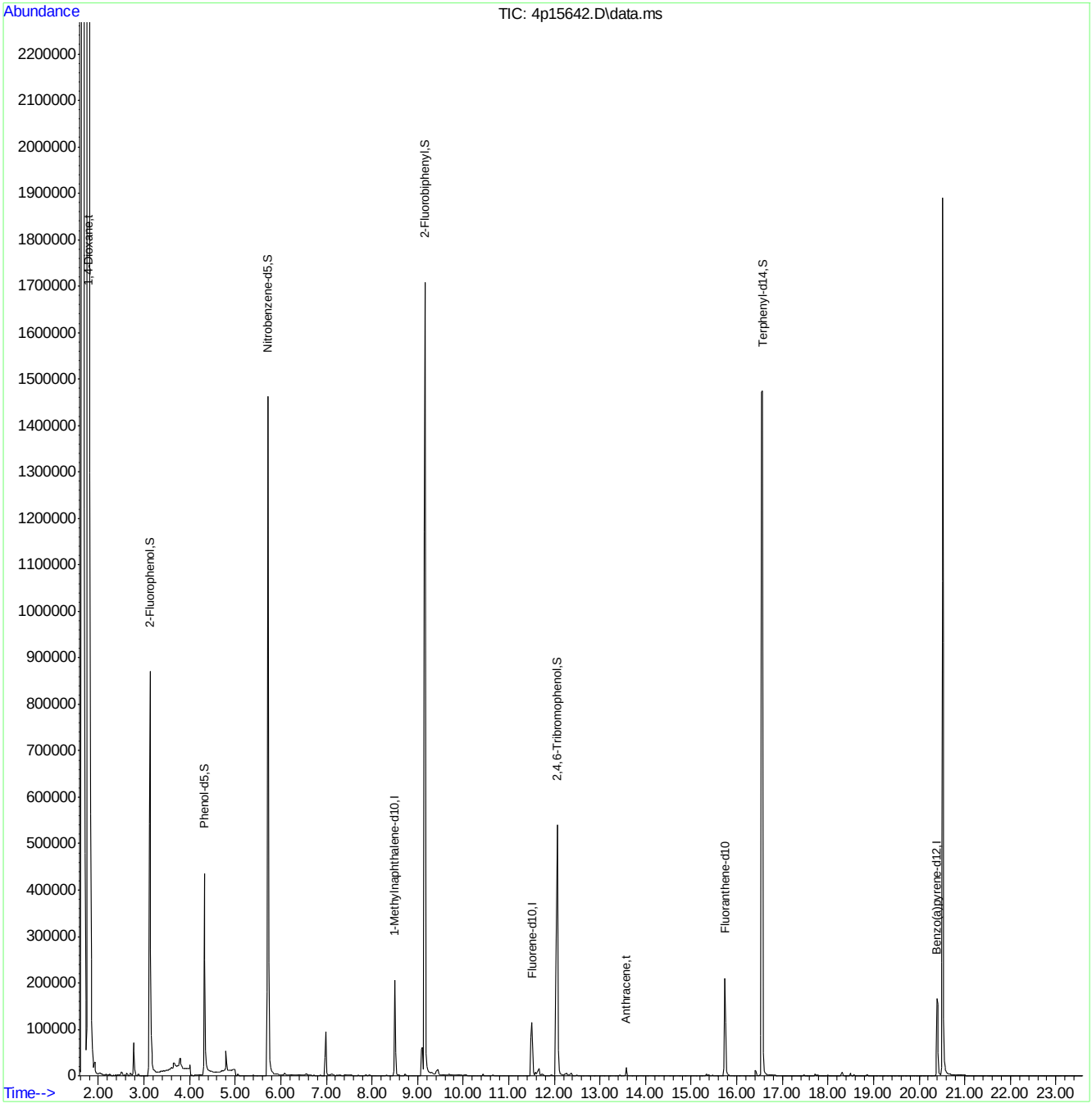
9

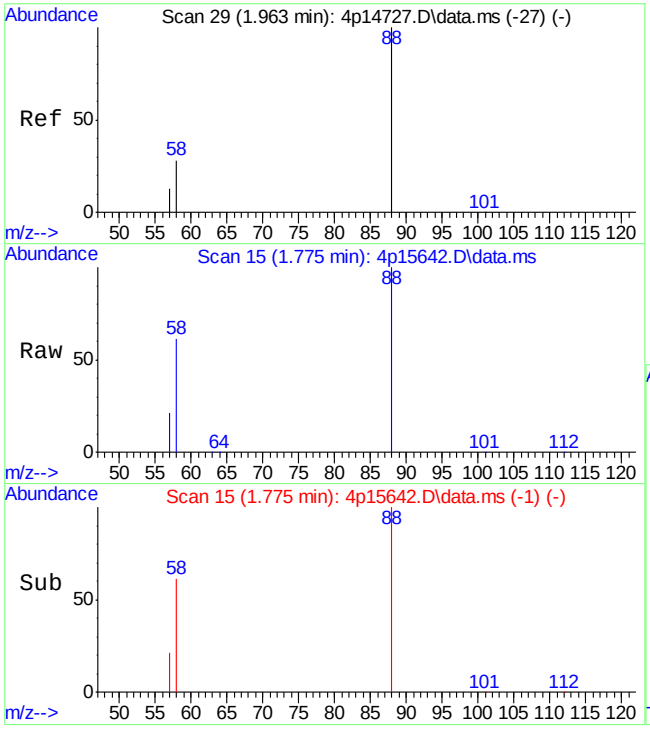
SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15642.D
Acq On : 17 Mar 2016 5:31 am
Operator : juliusj
Sample : jc16038-8
Misc : op92078a,e4p804,990
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 18 09:21:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 18 09:20:59 2016
Response via : Initial Calibration

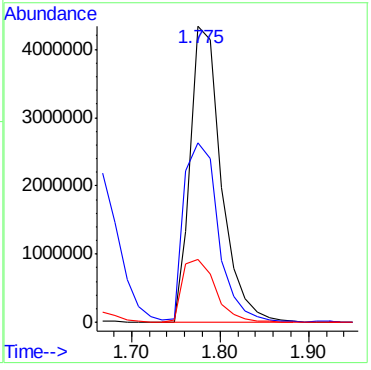


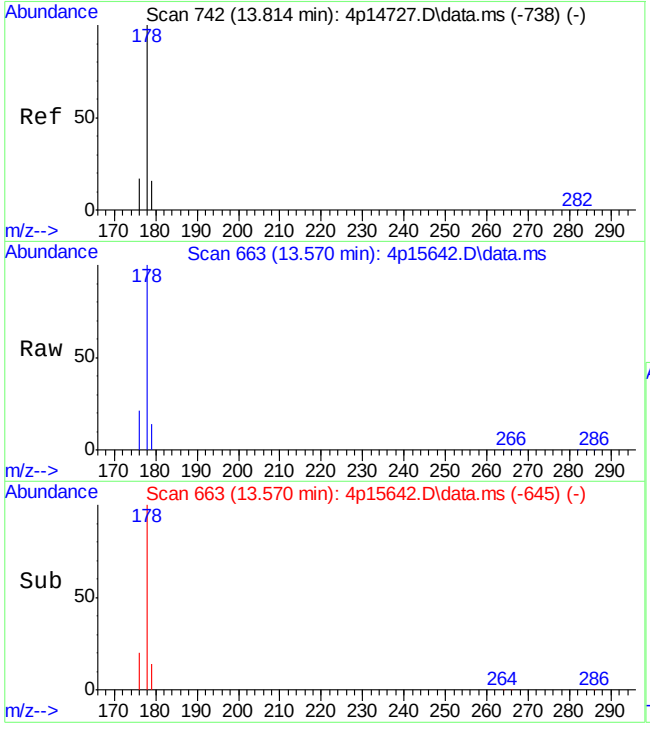


#2
1,4-Dioxane
Concen: 726.89 ppm
RT: 1.775 min Scan# 15
Delta R.T. -0.004 min
Lab File: 4p15642.D
Acq: 17 Mar 2016 5:31 am

Tgt Ion: 88 Resp:10605695

Ion	Ratio	Lower	Upper
88	100		
58	60.5	53.7	93.7
57	21.3	1.5	41.5

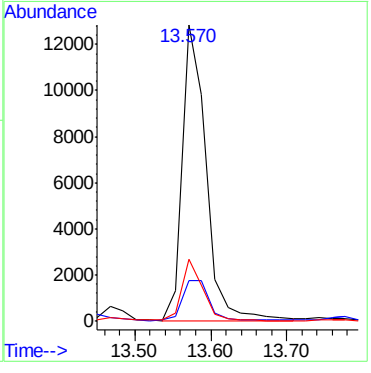




#27
Anthracene
Concen: 0.37 ppm
RT: 13.570 min Scan# 663
Delta R.T. 0.011 min
Lab File: 4p15642.D
Acq: 17 Mar 2016 5:31 am

Tgt Ion:178 Resp: 28159

Ion	Ratio	Lower	Upper
178	100		
179	13.5	0.0	44.3
176	20.6	0.0	49.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15643.D
Acq On : 17 Mar 2016 6:01 am
Operator : juliusj
Sample : jc16038-9
Misc : op92078a,e4p804,1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 18 09:22:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.493	150	120424	4.00 ppm	0.00
13) Fluorene-d10	11.510	176	153065	4.00 ppm	0.03
23) Fluoranthene-d10	15.739	212	270227	4.00 ppm	0.02
33) Benzo(a)pyrene-d12	20.391	264	216127	4.00 ppm	0.03
System Monitoring Compounds					
3) 2-Fluorophenol	3.116	112	591105	27.95 ppm	-0.06
Spiked Amount 50.000			Recovery	= 55.90%	
4) Phenol-d5	4.320	99	684459	20.09 ppm	-0.04
Spiked Amount 50.000			Recovery	= 40.18%	
7) Nitrobenzene-d5	5.716	82	1505313	44.89 ppm	0.00
Spiked Amount 50.000			Recovery	= 89.78%	
14) 2-Fluorobiphenyl	9.165	172	2084476	47.84 ppm	0.00
Spiked Amount 50.000			Recovery	= 95.68%	
22) 2,4,6-Tribromophenol	12.058	330	361730	63.52 ppm	-0.02
Spiked Amount 50.000			Recovery	= 127.04%	
30) Terphenyl-d14	16.548	244	1888079	45.76 ppm	0.04
Spiked Amount 50.000			Recovery	= 91.52%	
Target Compounds					Qvalue

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

9.1.28

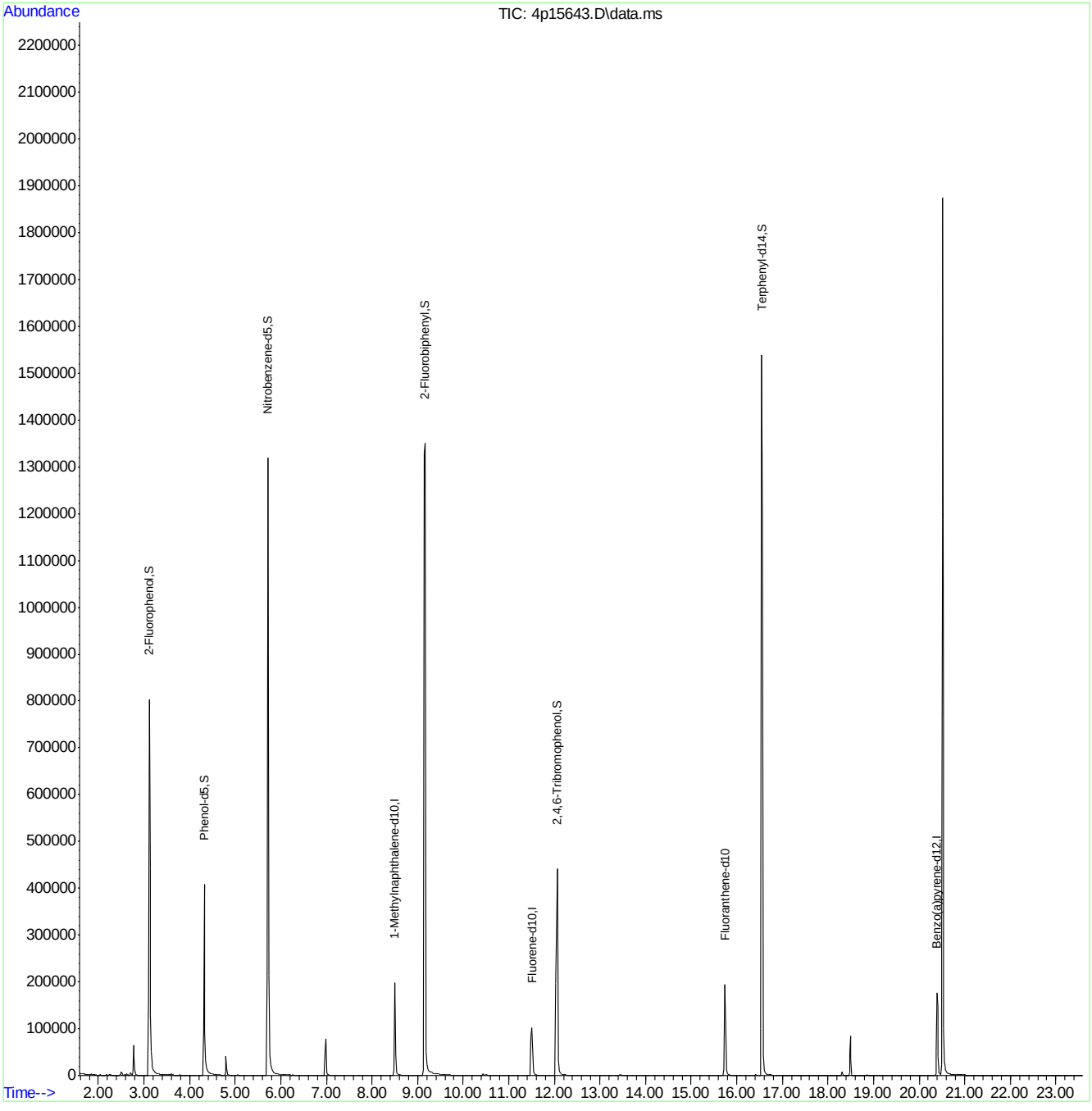
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15643.D
Acq On : 17 Mar 2016 6:01 am
Operator : juliusj
Sample : jc16038-9
Misc : op92078a,e4p804,1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 18 09:22:00 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



M4P767SIM.M Fri Mar 18 09:22:03 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15644.D
Acq On : 17 Mar 2016 6:31 am
Operator : juliusj
Sample : jc16038-10
Misc : op92078a,e4p804,970
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 18 09:22:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 18 09:22:38 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	108644	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	139734	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	246305	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.401	264	190171	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	675852	35.42	ppm	-0.05
Spiked Amount 50.000			Recovery = 70.84%			
4) Phenol-d5	4.320	99	796384	25.91	ppm	-0.04
Spiked Amount 50.000			Recovery = 51.82%			
7) Nitrobenzene-d5	5.716	82	1656617	54.76	ppm	0.00
Spiked Amount 50.000			Recovery = 109.52%			
14) 2-Fluorobiphenyl	9.165	172	2286592	57.48	ppm	0.00
Spiked Amount 50.000			Recovery = 114.96%			
22) 2,4,6-Tribromophenol	12.058	330	401950	77.32	ppm	-0.02
Spiked Amount 50.000			Recovery = 154.64%			
30) Terphenyl-d14	16.548	244	2092732	55.65	ppm	0.04
Spiked Amount 50.000			Recovery = 111.30%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	3819178	298.35	ppm	95

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

9.1.29

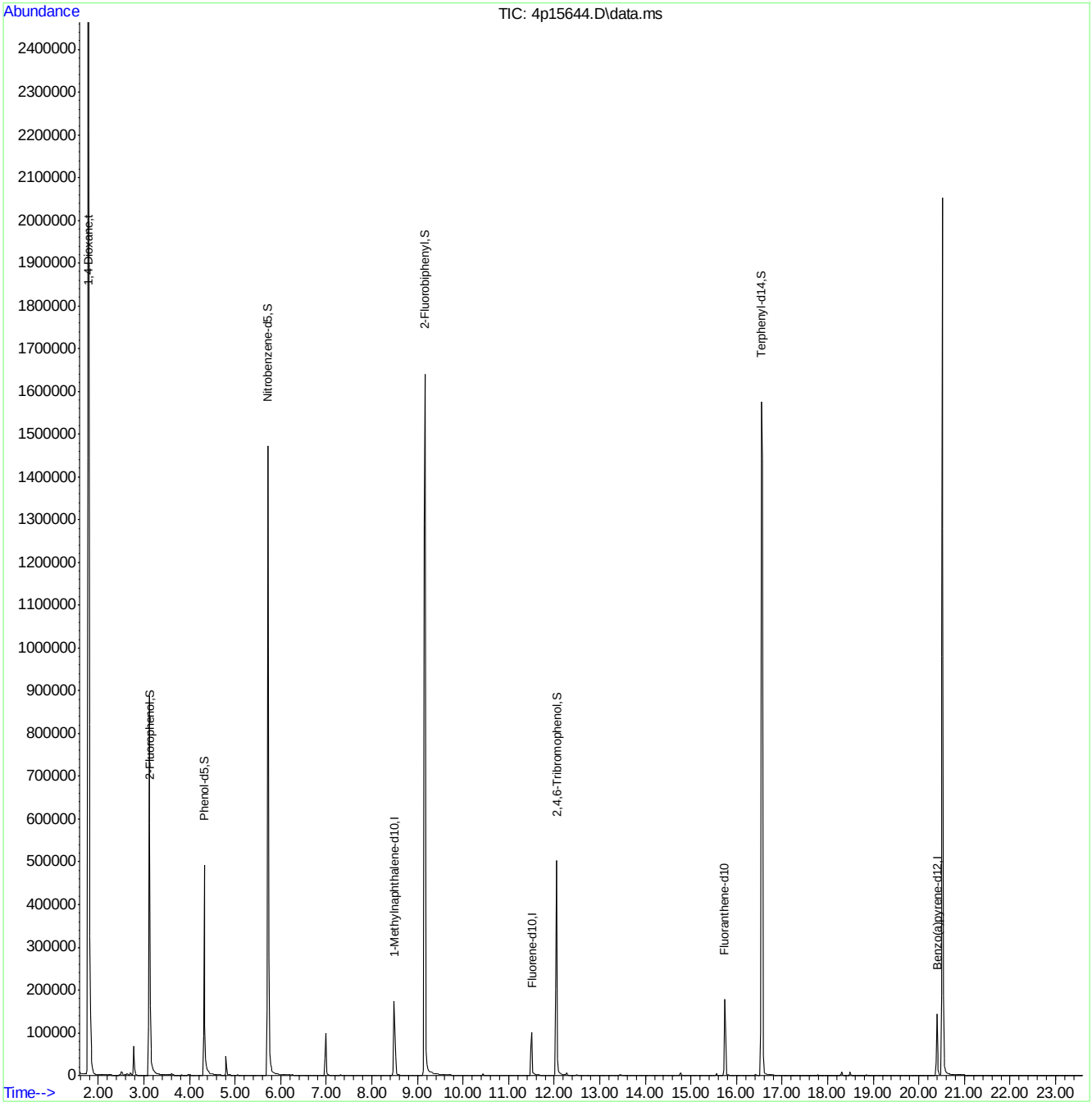
9

SGS ACCUTEST JC16038

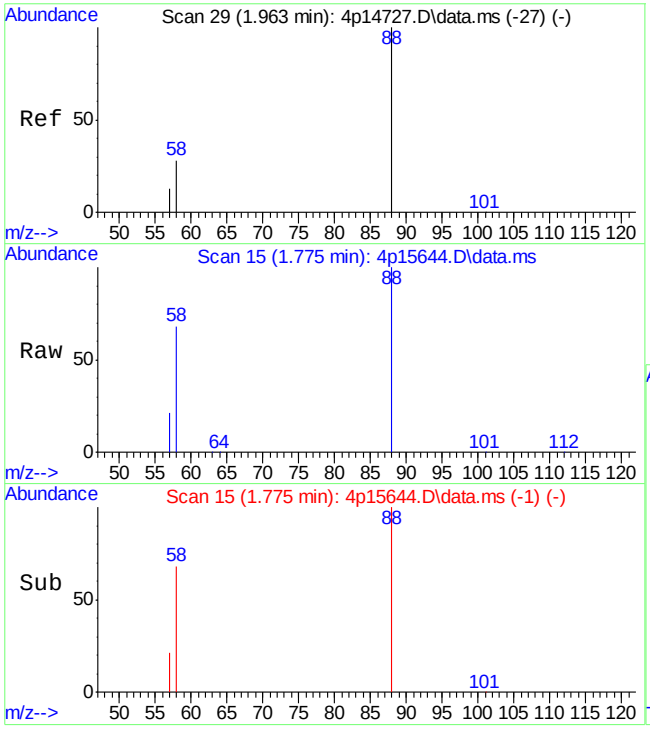
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15644.D
Acq On : 17 Mar 2016 6:31 am
Operator : juliusj
Sample : jc16038-10
Misc : op92078a,e4p804,970
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 18 09:22:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 18 09:22:38 2016
Response via : Initial Calibration



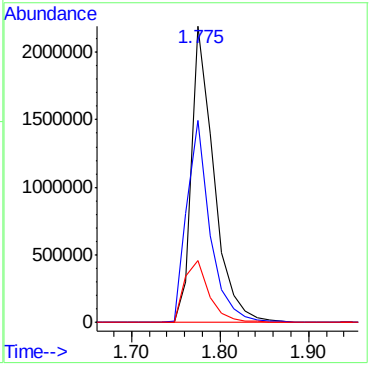
SGS ACCUTEST JC16038



#2
1,4-Dioxane
Concen: 298.35 ppm
RT: 1.775 min Scan# 15
Delta R.T. -0.004 min
Lab File: 4p15644.D
Acq: 17 Mar 2016 6:31 am

Tgt Ion: 88 Resp: 3819178

Ion	Ratio	Lower	Upper
88	100		
58	68.2	53.7	93.7
57	20.9	1.5	41.5



9.1.29

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155573.D Vial: 4
Acq On : 15 Mar 2016 10:15 pm Operator: sarad
Sample : op92078-mb1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 22:37:24 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	166086	40.00 ppm	0.05
24) Naphthalene-d8	5.71	136	646169	40.00 ppm	0.00
47) Acenaphthene-d10	7.14	164	395240	40.00 ppm	0.00
69) Phenanthrene-d10	9.06	188	643195	40.00 ppm	0.00
83) Chrysene-d12	14.34	240	609486	40.00 ppm	0.00
92) Perylene-d12	17.40	264	536212	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	166086	40.00 ppm	0.06
104) Naphthalene-d8b	5.71	136	646169	40.00 ppm	0.00
106) Acenaphthene-d10b	7.14	164	395240	40.00 ppm	0.00
108) Phenanthrene-d10b	9.06	188	643195	40.00 ppm	0.00
110) Chrysene-d12b	14.34	240	609486	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.84	112	153570	24.53 ppm	0.03
Spiked Amount 50.000			Recovery = 49.06%		
8) Phenol-d5	4.56	99	122886	17.36 ppm	0.02
Spiked Amount 50.000			Recovery = 34.72%		
25) Nitrobenzene-d5	5.19	82	269617	43.47 ppm	0.00
Spiked Amount 50.000			Recovery = 86.94%		
51) 2-Fluorobiphenyl	6.51	172	558780	38.59 ppm	0.00
Spiked Amount 50.000			Recovery = 77.18%		
73) 2,4,6-Tribromophenol	8.06	330	67939	43.14 ppm	0.00
Spiked Amount 50.000			Recovery = 86.28%		
85) Terphenyl-d14	12.11	244	492630	37.02 ppm	0.00
Spiked Amount 50.000			Recovery = 74.04%		

Target Compounds Qvalue

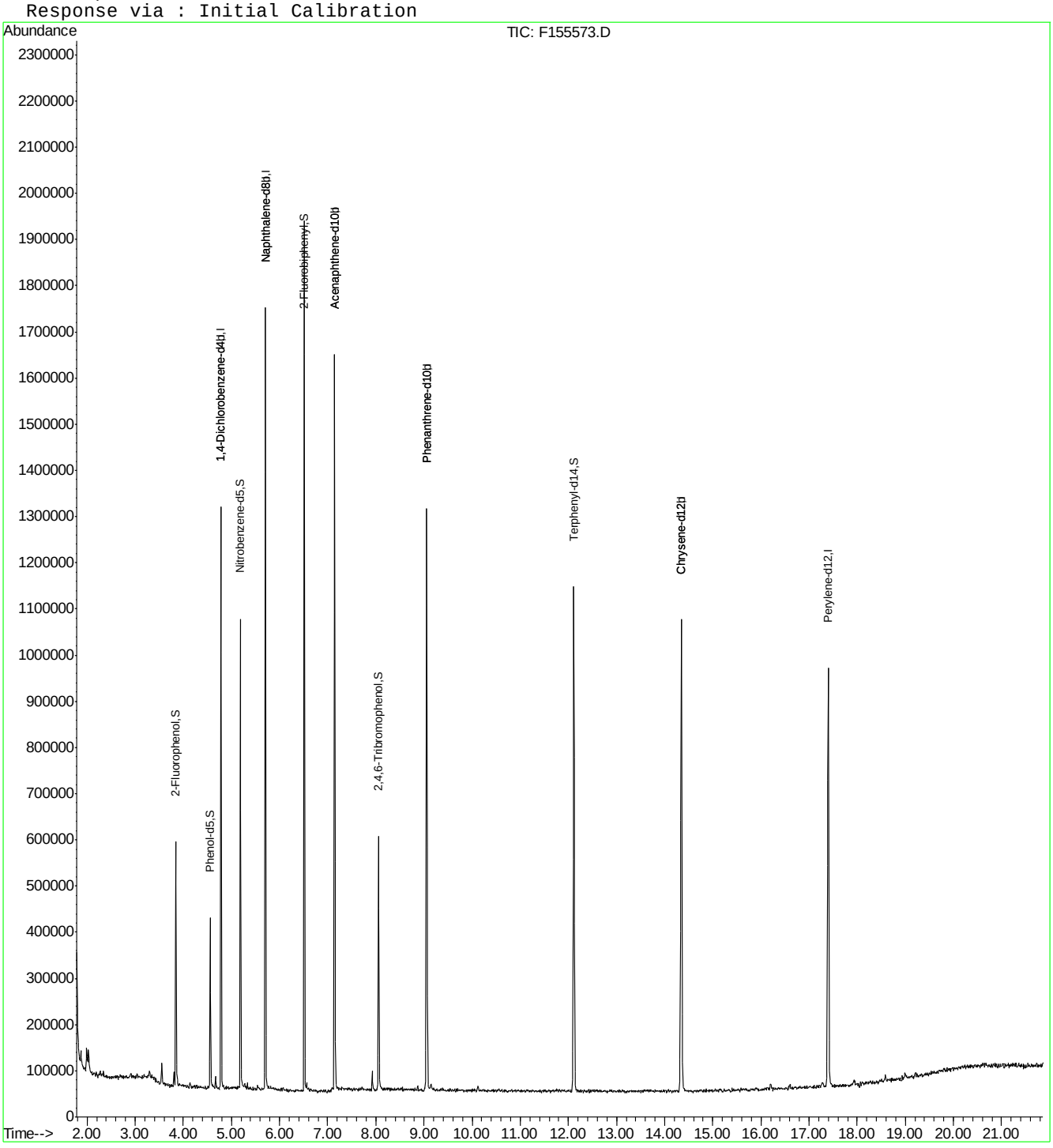
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155573.D Vial: 4
Acq On : 15 Mar 2016 10:15 pm Operator: sarad
Sample : op92078-mb1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:06 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



F155573.D MF6483.M Wed Mar 16 15:06:07 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103370.D Vial: 12
Acq On : 16 Mar 2016 5:08 pm Operator: linseyk
Sample : op92078-mb1 Inst : MSP
Misc : op92078,ep4542,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 17:31:04 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.19	152	156592	40.00 ppm	-0.01
24) Naphthalene-d8	5.92	136	544956	40.00 ppm	-0.02
47) Acenaphthene-d10	8.64	164	315929	40.00 ppm	-0.04
69) Phenanthrene-d10	10.99	188	495536	40.00 ppm	-0.04
83) Chrysene-d12	15.67	240	431319	40.00 ppm	-0.05
92) Perylene-d12	18.23	264	376375	40.00 ppm	-0.08
102) 1,4-Dichlorobenzene-d4b	4.19	152	156592	40.00 ppm	-0.04
104) Phenanthrene-d10b	10.99	188	495536	40.00 ppm	-0.06
106) Chrysene-d12b	15.67	240	431319	40.00 ppm	-0.07
108) Naphthalene-d8b	5.92	136	544956	40.00 ppm	-0.05
110) Acenaphthene-d10b	8.64	164	315929	40.00 ppm	-0.06

System Monitoring Compounds					
5) 2-Fluorophenol	2.81	112	163300	29.96 ppm	-0.04
Spiked Amount 50.000			Recovery = 59.92%		
8) Phenol-d5	3.79	99	141570	21.29 ppm	-0.01
Spiked Amount 50.000			Recovery = 42.58%		
25) Nitrobenzene-d5	4.91	82	271611	49.23 ppm	-0.03
Spiked Amount 50.000			Recovery = 98.46%		
51) 2-Fluorobiphenyl	7.62	172	439747	45.88 ppm	-0.05
Spiked Amount 50.000			Recovery = 91.76%		
73) 2,4,6-Tribromophenol	9.90	330	55048	47.51 ppm	-0.06
Spiked Amount 50.000			Recovery = 95.02%		
85) Terphenyl-d14	13.80	244	376129	44.29 ppm	-0.05
Spiked Amount 50.000			Recovery = 88.58%		

Target Compounds Qvalue

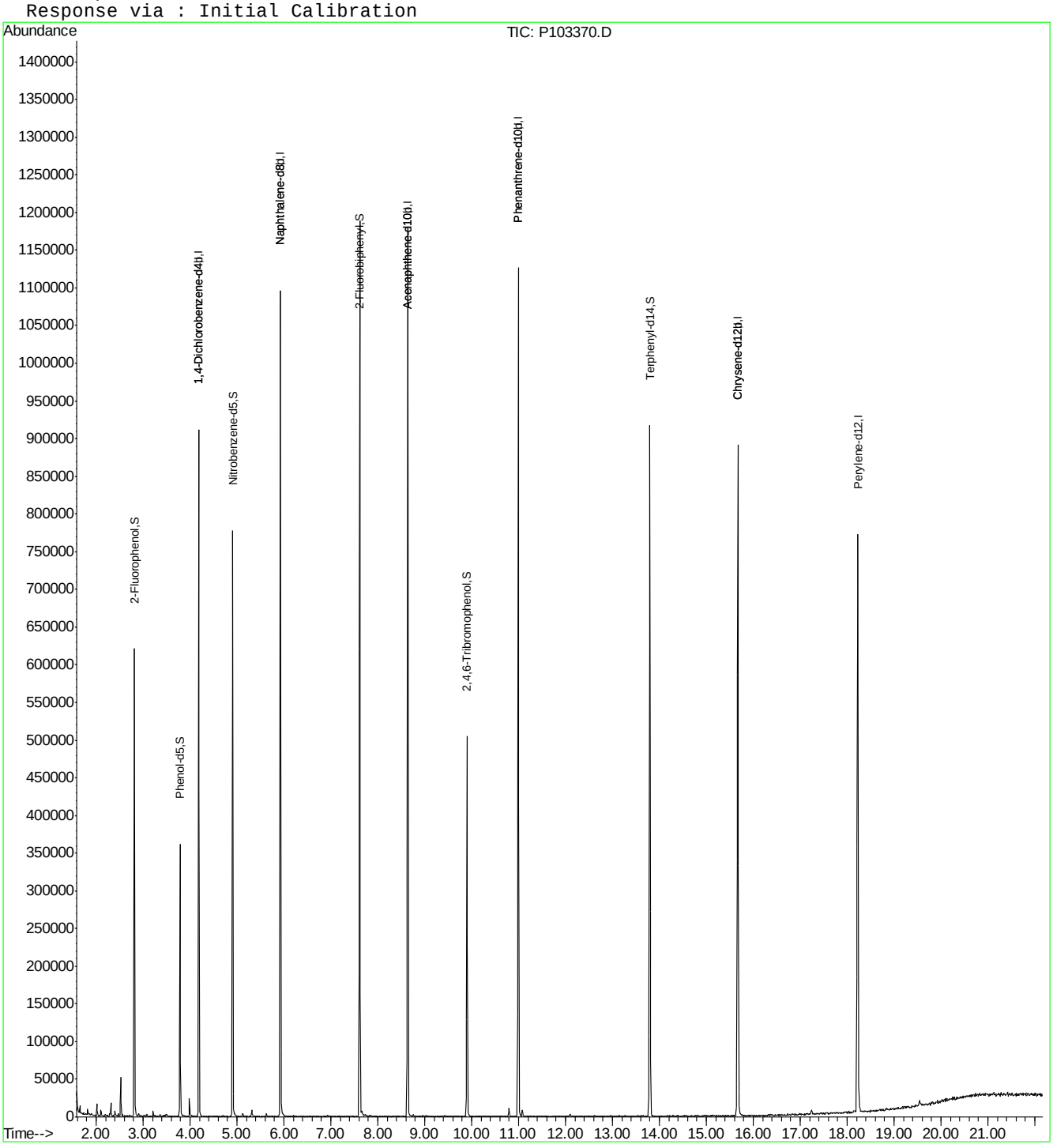
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103370.D Vial: 12
Acq On : 16 Mar 2016 5:08 pm Operator: linseyk
Sample : op92078-mb1 Inst : MSP
Misc : op92078,ep4542,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:46 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration



P103370.D MP4524.M Thu Mar 17 12:46:25 2016 Page 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15632.D
Acq On : 17 Mar 2016 12:29 am
Operator : juliusj
Sample : op92078a-mb1
Misc : op92078a,e4p804,1000
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 18 09:10:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.491	150	129169	4.00	ppm	0.00
13) Fluorene-d10	11.506	176	194420	4.00	ppm	0.02
23) Fluoranthene-d10	15.752	212	306830	4.00	ppm	0.03
33) Benzo(a)pyrene-d12	20.399	264	242357	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	613390	27.04	ppm	-0.05
Spiked Amount 50.000			Recovery = 54.08%			
4) Phenol-d5	4.320	99	734637	20.10	ppm	-0.04
Spiked Amount 50.000			Recovery = 40.20%			
7) Nitrobenzene-d5	5.714	82	1598083	44.43	ppm	0.00
Spiked Amount 50.000			Recovery = 88.86%			
14) 2-Fluorobiphenyl	9.163	172	2266535	40.95	ppm	0.00
Spiked Amount 50.000			Recovery = 81.90%			
22) 2,4,6-Tribromophenol	12.054	330	392381	54.25	ppm	-0.02
Spiked Amount 50.000			Recovery = 108.50%			
30) Terphenyl-d14	16.561	244	2052253	43.81	ppm	0.05
Spiked Amount 50.000			Recovery = 87.62%			

Target Compounds Qvalue

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

9.2.3

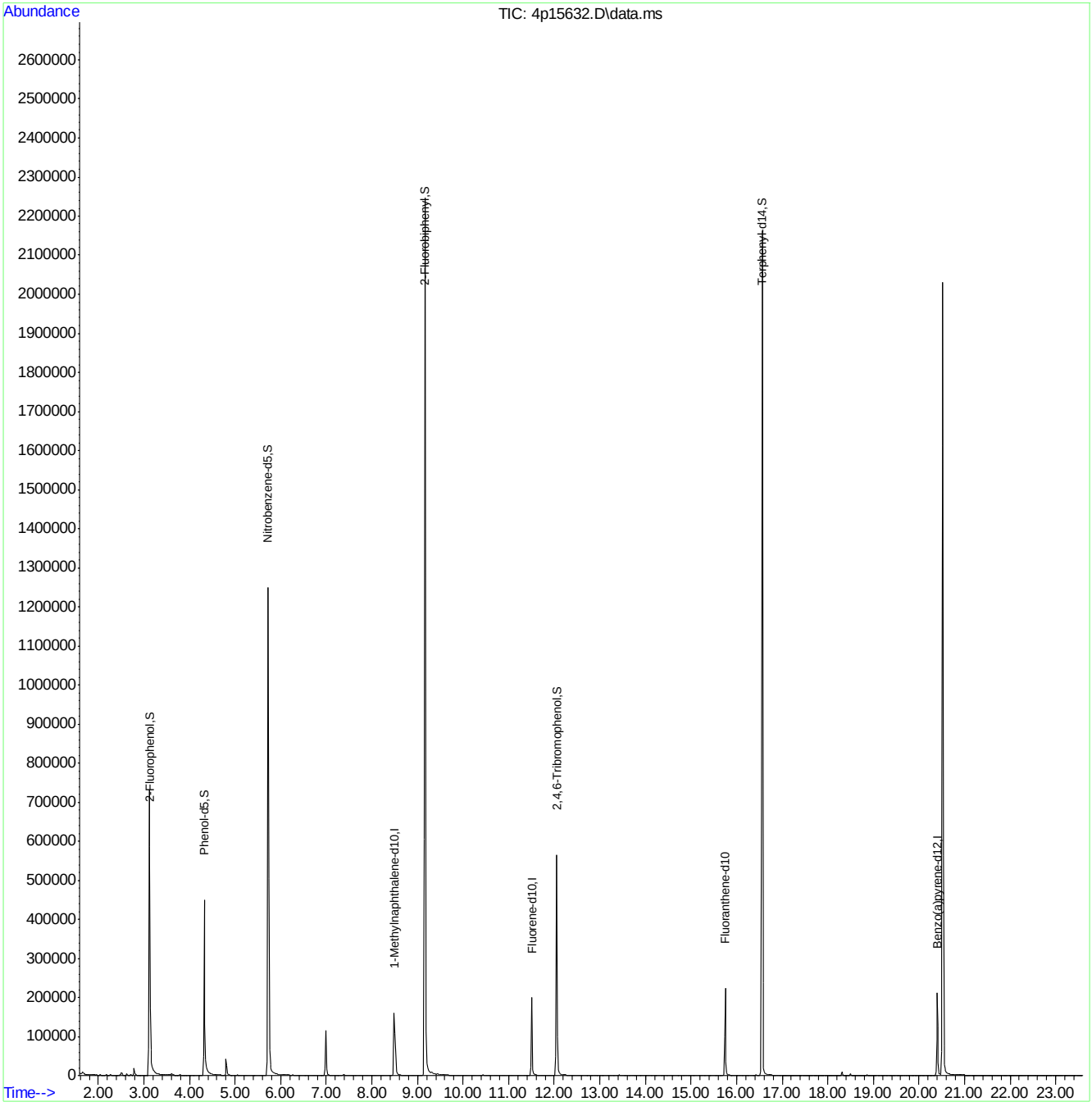
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15632.D
Acq On : 17 Mar 2016 12:29 am
Operator : juliusj
Sample : op92078a-mb1
Misc : op92078a,e4p804,1000
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 18 09:10:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



M4P767SIM.M Fri Mar 18 09:10:14 2016 Page: 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155574.D Vial: 5
Acq On : 15 Mar 2016 10:44 pm Operator: sarad
Sample : op92078-bs1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 23:05:53 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	151777	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	663485	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	350011	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	562749	40.00	ppm	0.00
83) Chrysene-d12	14.35	240	511604	40.00	ppm	0.00
92) Perylene-d12	17.40	264	436354	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	151777	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	663485	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	350011	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	562749	40.00	ppm	0.00
110) Chrysene-d12b	14.35	240	511604	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.85	112	145070	25.35	ppm	0.04
Spiked Amount 50.000			Recovery = 50.70%			
8) Phenol-d5	4.56	99	124559	19.25	ppm	0.02
Spiked Amount 50.000			Recovery = 38.50%			
25) Nitrobenzene-d5	5.19	82	241237	37.88	ppm	0.00
Spiked Amount 50.000			Recovery = 75.76%			
51) 2-Fluorobiphenyl	6.52	172	493314	38.48	ppm	0.01
Spiked Amount 50.000			Recovery = 76.96%			
73) 2,4,6-Tribromophenol	8.06	330	55877	40.55	ppm	0.00
Spiked Amount 50.000			Recovery = 81.10%			
85) Terphenyl-d14	12.11	244	425460	38.09	ppm	0.00
Spiked Amount 50.000			Recovery = 76.18%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.38	88	48033	19.33	ppm		93
3) Pyridine	2.70	79	102227	16.92	ppm		81
4) N-Nitrosodimethylamine	2.67	42	72680	31.36	ppm	#	67
6) Indene	4.97	116	397495	35.74	ppm		98
7) Cumene	4.19	105	467722	32.36	ppm		98
9) Phenol	4.57	94	147176	20.61	ppm		89
10) Aniline	4.55	93	143264	19.04	ppm		94
11) bis(2-Chloroethyl)ether	4.58	93	209090	39.57	ppm		91
12) 2-Chlorophenol	4.65	128	224014	36.75	ppm		95
13) Decane	4.66	43	185292	35.02	ppm		82
14) 1,3-Dichlorobenzene	4.74	146	206116	30.52	ppm		96
15) 1,4-Dichlorobenzene	4.80	146	215097	31.61	ppm		99
16) Benzyl alcohol	4.89	108	127399	34.51	ppm		90
17) 1,2-Dichlorobenzene	4.91	146	201778	31.37	ppm		98
18) Acetophenone	5.08	105	316179	39.70	ppm		100
19) 2-Methylphenol	5.00	108	184437	38.43	ppm		93
20) 2,2'-oxybis(1-Chloropropan	4.98	121	71389	35.02	ppm	#	54
21) 3&4-Methylphenol	5.10	108	178977	36.44	ppm		94
22) n-Nitroso-di-n-propylamine	5.08	70	149206	42.61	ppm		98
23) Hexachloroethane	5.16	201	61931	31.35	ppm		100
26) Nitrobenzene	5.20	77	236347	36.78	ppm		99
27) Quinoline	5.96	129	462005	30.77	ppm		95
28) Isophorone	5.37	82	441213	38.98	ppm		92

(#) = qualifier out of range (m) = manual integration
F155574.D MF6483.M Wed Mar 16 15:07:28 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155574.D Vial: 5
Acq On : 15 Mar 2016 10:44 pm Operator: sarad
Sample : op92078-bs1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 23:05:53 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29)	2-Nitrophenol	5.43	139	123688	36.92 ppm	#	68
30)	2,4-Dimethylphenol	5.47	107	227580	40.39 ppm		91
31)	Benzoic acid	5.56	105	87484	21.34 ppm		97
32)	bis(2-Chloroethoxy)methane	5.52	93	242055	34.75 ppm		99
33)	2,4-Dichlorophenol	5.62	162	186207	38.29 ppm		98
34)	2,6-Dichlorophenol	5.77	162	176774	33.94 ppm		99
36)	1,2,4-Trichlorobenzene	5.66	180	149540	26.42 ppm		98
38)	Naphthalene	5.72	128	630341	29.69 ppm		90
39)	4-Chloroaniline	5.76	127	138380	17.51 ppm		98
40)	2,3-Dichloroaniline	6.45	161	203834	28.96 ppm		97
41)	Caprolactam	6.02	55	27882	10.29 ppm		88
42)	Hexachlorobutadiene	5.81	225	77058	27.53 ppm		95
43)	4-Chloro-3-methylphenol	6.13	107	204831	33.95 ppm		93
44)	2-Methylnaphthalene	6.22	141	356379	30.49 ppm		97
45)	1-Methylnaphthalene	6.30	141	363899	29.89 ppm		97
46)	Dimethylnaphthalene	6.74	156	369012	30.82 ppm		98
48)	Hexachlorocyclopentadiene	6.35	237	132395	51.58 ppm		100
49)	2,4,6-Trichlorophenol	6.46	196	124813	41.26 ppm		98
50)	2,4,5-Trichlorophenol	6.50	196	121707	36.65 ppm		99
52)	2-Chloronaphthalene	6.63	162	354043	31.73 ppm		95
53)	Biphenyl	6.60	154	524263	35.17 ppm		99
54)	2-Nitroaniline	6.72	65	139448	51.05 ppm		84
55)	Dimethylphthalate	6.87	163	484979	38.92 ppm		99
56)	Acenaphthylene	7.01	152	614775	33.66 ppm		99
57)	2,6-Dinitrotoluene	6.93	165	107707	44.56 ppm		85
58)	3-Nitroaniline	7.11	138	72513	24.95 ppm		97
59)	Acenaphthene	7.18	153	396326	34.28 ppm		94
60)	2,4-Dinitrophenol	7.21	184	119247	107.96 ppm	#	61
61)	4-Nitrophenol	7.32	109	42589	26.58 ppm	#	30
62)	Dibenzofuran	7.36	168	598042	37.74 ppm		99
63)	2,4-Dinitrotoluene	7.34	165	151045	44.17 ppm		83
64)	2,3,4,6-Tetrachlorophenol	7.51	232	95893	36.77 ppm		96
65)	Diethylphthalate	7.60	149	494209	39.40 ppm		100
66)	Fluorene	7.75	166	475075	37.07 ppm		98
67)	4-Chlorophenyl-phenylether	7.74	204	201775	37.43 ppm		98
68)	4-Nitroaniline	7.79	138	119794	37.98 ppm		84
70)	4,6-Dinitro-2-methylphenol	7.82	198	82009	48.95 ppm		92
71)	n-Nitrosodiphenylamine	7.89	169	345883	36.09 ppm		100
72)	1,2-Diphenylhydrazine	7.94	77	465179	39.31 ppm		99
74)	4-Bromophenyl-phenylether	8.39	248	108115	37.06 ppm		96
75)	Hexachlorobenzene	8.48	284	114914	36.93 ppm		97
76)	Pentachlorophenol	8.79	266	66417	33.05 ppm		95
77)	Phenanthrene	9.09	178	647881	36.64 ppm		99
78)	Anthracene	9.17	178	645348	36.46 ppm		99
79)	Carbazole	9.46	167	666762	36.77 ppm		99
80)	Di-n-butylphthalate	10.13	149	828093	38.65 ppm		99
81)	Fluoranthene	11.25	202	712286	39.25 ppm		99
82)	Octadecane	8.93	57	317908	40.99 ppm		90
84)	Pyrene	11.70	202	746385	38.89 ppm		98

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155574.D Vial: 5
Acq On : 15 Mar 2016 10:44 pm Operator: sarad
Sample : op92078-bs1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 23:05:53 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
86)	Butylbenzylphthalate	13.27	149	351029	39.09 ppm	93
88)	Benzo[a]anthracene	14.33	228	617324	38.42 ppm	99
89)	3,3'-Dichlorobenzidine	14.37	252	224000	44.94 ppm	97
90)	Chrysene	14.41	228	590403	37.13 ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.67	149	485606	38.84 ppm	99
93)	Di-n-octylphthalate	16.11	149	819043	42.72 ppm	99
94)	Benzo[b]fluoranthene	16.65	252	596585	42.18 ppm	97
95)	Benzo[k]fluoranthene	16.71	252	558792	40.07 ppm	97
96)	Benzo[a]pyrene	17.28	252	504033	40.29 ppm	98
97)	Indeno[1,2,3-cd]pyrene	19.35	276	480429	41.40 ppm	92
99)	Dibenz[a,h]anthracene	19.40	278	509115	41.56 ppm	96
100)	7,12-Dimethylbenz(a)anthra	16.66	256	229470	40.35 ppm	98
101)	Benzo[g,h,i]perylene	19.78	276	494630	38.56 ppm	99
103)	Benzaldehyde	4.46	105	180681	41.13 ppm	88
107)	1,2,4,5-Tetrachlorobenzene	6.36	216	155347	33.66 ppm	97
109)	Atrazine	8.64	200	129115	49.18 ppm	99
111)	Benzidine	11.59	184	102414	16.36 ppm	91

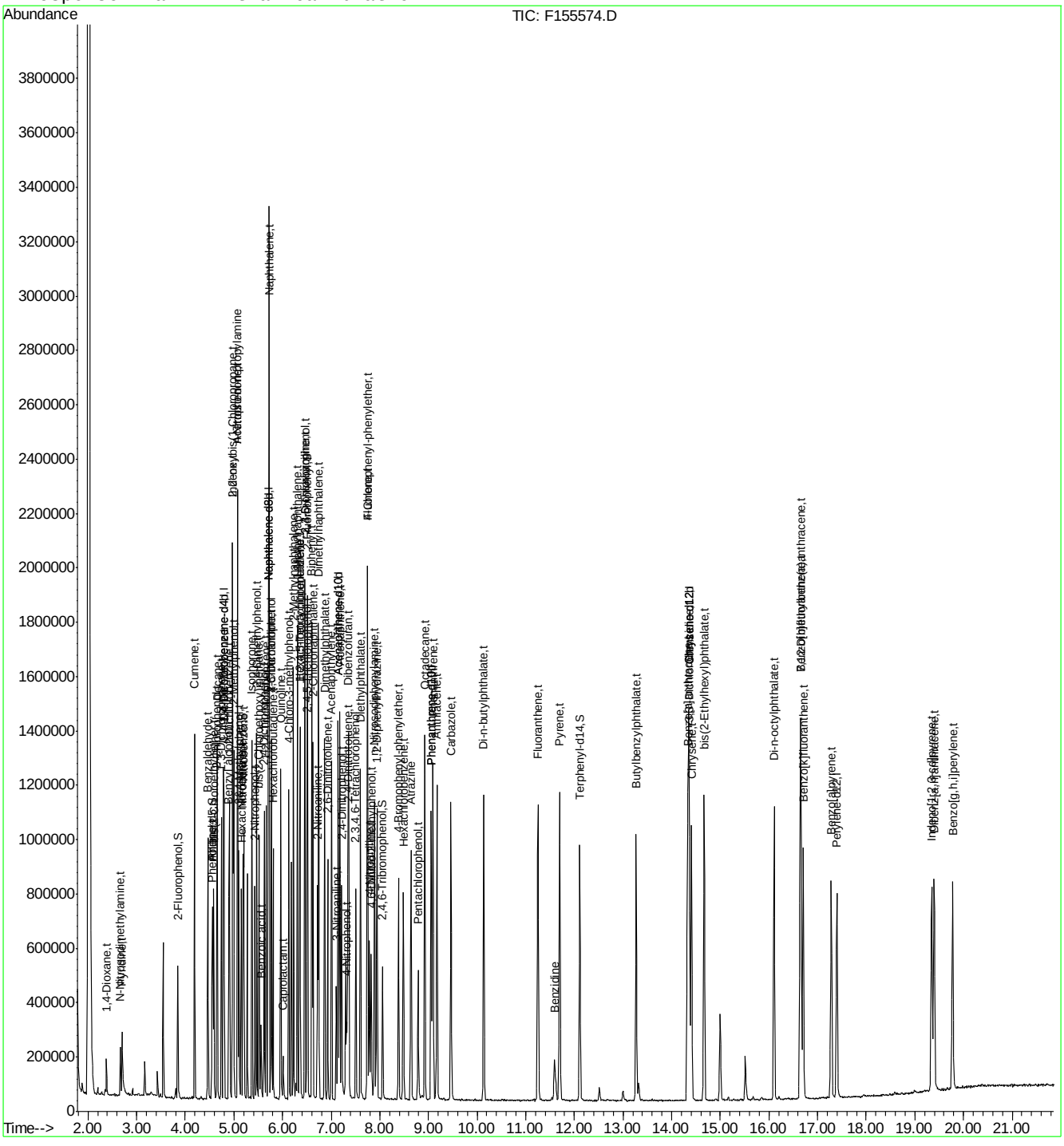
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155574.D Vial: 5
Acq On : 15 Mar 2016 10:44 pm Operator: sarad
Sample : op92078-bs1 Inst : MSF
Misc : op92078,ef6543,1000 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:07 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



F155574.D MF6483.M Wed Mar 16 15:07:28 2016 RT1 Page 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15633.D
Acq On : 17 Mar 2016 12:59 am
Operator : juliusj
Sample : op92078a-bs1
Misc : op92078a,e4p804,1000
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 18 09:10:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	122230	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	171385	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	276699	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.401	264	221714	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	592520	27.60	ppm	-0.05
Spiked Amount 50.000			Recovery = 55.20%			
4) Phenol-d5	4.320	99	717204	20.74	ppm	-0.04
Spiked Amount 50.000			Recovery = 41.48%			
7) Nitrobenzene-d5	5.716	82	1517589	44.59	ppm	0.00
Spiked Amount 50.000			Recovery = 89.18%			
14) 2-Fluorobiphenyl	9.165	172	2125202	43.56	ppm	0.00
Spiked Amount 50.000			Recovery = 87.12%			
22) 2,4,6-Tribromophenol	12.058	330	361099	56.63	ppm	-0.02
Spiked Amount 50.000			Recovery = 113.26%			
30) Terphenyl-d14	16.565	244	1911347	45.24	ppm	0.06
Spiked Amount 50.000			Recovery = 90.48%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	5429	0.37	ppm	87
5) Phenol	4.337	94	107315	2.62	ppm #	71
6) bis(2-Chloroethyl)ether	4.441	93	27409	0.76	ppm #	59
8) Naphthalene	7.035	128	66770	0.83	ppm	93
9) Hexachlorobutadiene	7.321	225	13420	0.71	ppm	97
10) 2-Methylnaphthalene	8.388	141	28305	0.71	ppm	92
15) Acenaphthylene	10.143	152	59863	1.00	ppm	96
16) Acenaphthene	10.510	153	37922	0.86	ppm	93
17) Dibenzofuran	10.876	168	53348	0.94	ppm #	60
18) Fluorene	11.560	166	44689	0.84	ppm	95
19) 4,6-dinitro-2-methylph...	11.758	198	18939	4.25	ppm	76
20) n-nitrosodiphenylamine	11.882	169	26586	1.03	ppm #	66
21) 1,2-Diphenylhydrazine	11.907	77	64679	1.23	ppm	100
24) Hexachlorobenzene	12.675	284	17044	0.77	ppm	89
25) Pentachlorophenol	13.106	266	30465	3.37	ppm	85
26) Phenanthrene	13.467	178	67690	0.82	ppm	96
27) Anthracene	13.588	178	64567	0.88	ppm	95
28) Fluoranthene	15.773	202	76982	0.87	ppm	99
29) Pyrene	16.169	202	77530	0.88	ppm	97
31) Benzo[a]anthracene	18.298	228	67105	0.88	ppm	99
32) Chrysene	18.346	228	76782	0.85	ppm	93
34) Benzo[b]fluoranthene	19.975	252	59581	0.65	ppm	97
35) Benzo[k]fluoranthene	20.010	252	69344	0.83	ppm	99
36) Benzo[a]pyrene	20.424	252	60601	0.67	ppm	98
37) Indeno[1,2,3-cd]pyrene	21.933	276	58520	0.61	ppm	98
38) Dibenz[a,h]anthracene	21.971	278	47957	0.61	ppm	96
39) Benzo[g,h,i]perylene	22.317	276	50502	0.59	ppm	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15633.D
Acq On : 17 Mar 2016 12:59 am
Operator : juliusj
Sample : op92078a-bs1
Misc : op92078a,e4p804,1000
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 18 09:10:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

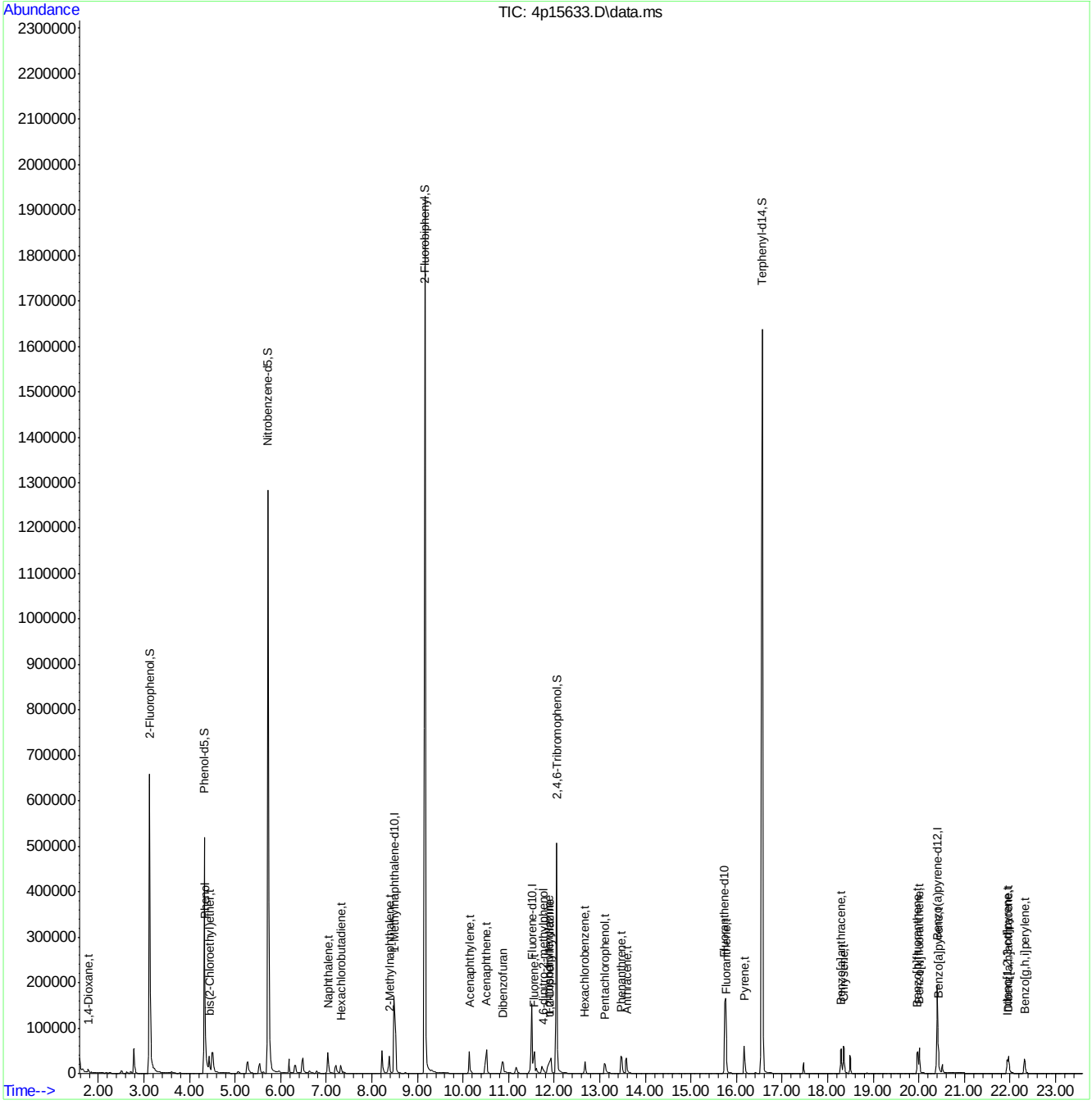
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15633.D
Acq On : 17 Mar 2016 12:59 am
Operator : juliusj
Sample : op92078a-bs1
Misc : op92078a,e4p804,1000
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 18 09:10:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155593.D Vial: 24
Acq On : 16 Mar 2016 7:42 am Operator: sarad
Sample : op92078-ms Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:48:12 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 15:48:08 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.79	152	151106	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	648160	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	340885	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	537229	40.00	ppm	0.00
83) Chrysene-d12	14.35	240	475570	40.00	ppm	0.00
92) Perylene-d12	17.40	264	391400	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.79	152	151106	40.00	ppm	0.07
104) Naphthalene-d8b	5.71	136	648160	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	340885	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	537229	40.00	ppm	0.00
110) Chrysene-d12b	14.35	240	475618	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.85	112	177486	31.16	ppm	0.04
Spiked Amount 50.000			Recovery = 62.32%			
8) Phenol-d5	4.56	99	180239	27.98	ppm	0.02
Spiked Amount 50.000			Recovery = 55.96%			
25) Nitrobenzene-d5	5.19	82	227766	36.61	ppm	0.00
Spiked Amount 50.000			Recovery = 73.22%			
51) 2-Fluorobiphenyl	6.52	172	466775	37.38	ppm	0.01
Spiked Amount 50.000			Recovery = 74.76%			
73) 2,4,6-Tribromophenol	8.06	330	50840	38.65	ppm	0.00
Spiked Amount 50.000			Recovery = 77.30%			
85) Terphenyl-d14	12.11	244	376514	36.26	ppm	0.00
Spiked Amount 50.000			Recovery = 72.52%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.38	88	59684	24.57	ppm		97
3) Pyridine	2.70	79	146089	24.28	ppm		79
4) N-Nitrosodimethylamine	2.67	42	89825	38.93	ppm	#	62
6) Indene	4.97	116	388424	35.08	ppm		99
7) Cumene	4.19	105	472217	32.82	ppm		99
9) Phenol	4.57	94	212006	29.82	ppm		85
10) Aniline	4.55	93	246051	32.84	ppm		96
11) bis(2-Chloroethyl)ether	4.59	93	198898	37.80	ppm		98
12) 2-Chlorophenol	4.65	128	215404	35.49	ppm		95
13) Decane	4.66	43	196857	37.37	ppm		84
14) 1,3-Dichlorobenzene	4.74	146	207468	30.86	ppm		98
15) 1,4-Dichlorobenzene	4.80	146	212173	31.31	ppm		99
16) Benzyl alcohol	4.89	108	135050	36.75	ppm		80
17) 1,2-Dichlorobenzene	4.91	146	201121	31.41	ppm		99
18) Acetophenone	5.08	105	300935	37.95	ppm		99
19) 2-Methylphenol	5.00	108	189518	39.66	ppm		92
20) 2,2'-oxybis(1-Chloropropan	4.98	121	66766	32.90	ppm	#	57
21) 3&4-Methylphenol	5.10	108	194991	39.88	ppm		99
22) n-Nitroso-di-n-propylamine	5.08	70	141808	40.68	ppm		97
23) Hexachloroethane	5.16	201	62755	31.91	ppm		98
26) Nitrobenzene	5.20	77	222711	35.48	ppm		99
27) Quinoline	5.96	129	438435	29.89	ppm		97
28) Isophorone	5.37	82	405260	36.65	ppm		92

(#) = qualifier out of range (m) = manual integration
F155593.D MF6483.M Wed Mar 16 15:52:30 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155593.D Vial: 24
Acq On : 16 Mar 2016 7:42 am Operator: sarad
Sample : op92078-ms Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:48:12 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 15:48:08 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2-Nitrophenol	5.43	139	116184	35.50	ppm	#	61
30)	2,4-Dimethylphenol	5.47	107	216921	39.41	ppm		92
31)	Benzoic acid	5.57	105	123209	30.76	ppm		96
32)	bis(2-Chloroethoxy)methane	5.52	93	223273	32.81	ppm		98
33)	2,4-Dichlorophenol	5.62	162	176260	37.10	ppm		97
34)	2,6-Dichlorophenol	5.77	162	168819	33.18	ppm		99
36)	1,2,4-Trichlorobenzene	5.66	180	158228	28.62	ppm		97
38)	Naphthalene	5.72	128	630247	30.38	ppm		90
39)	4-Chloroaniline	5.76	127	204687	26.51	ppm		98
40)	2,3-Dichloroaniline	6.45	161	198123	28.82	ppm		98
41)	Caprolactam	6.02	55	44444	16.79	ppm		92
42)	Hexachlorobutadiene	5.81	225	81253	29.71	ppm		98
43)	4-Chloro-3-methylphenol	6.13	107	195065	33.10	ppm		91
44)	2-Methylnaphthalene	6.22	141	341369	29.90	ppm		96
45)	1-Methylnaphthalene	6.30	141	348247	29.28	ppm		96
46)	Dimethylnaphthalene	6.74	156	356961	30.51	ppm		96
48)	Hexachlorocyclopentadiene	6.35	237	139011	55.61	ppm		96
49)	2,4,6-Trichlorophenol	6.46	196	115435	39.19	ppm		96
50)	2,4,5-Trichlorophenol	6.50	196	112205	34.70	ppm		97
52)	2-Chloronaphthalene	6.63	162	371482	34.18	ppm		94
53)	Biphenyl	6.60	154	506953	34.92	ppm		99
54)	2-Nitroaniline	6.72	65	126672	47.62	ppm		85
55)	Dimethylphthalate	6.87	163	440241	36.28	ppm		100
56)	Acenaphthylene	7.00	152	602050	33.85	ppm		99
57)	2,6-Dinitrotoluene	6.93	165	99649	42.33	ppm		88
58)	3-Nitroaniline	7.11	138	90910	32.12	ppm		87
59)	Acenaphthene	7.18	153	398039	35.35	ppm		95
60)	2,4-Dinitrophenol	7.21	184	103646	99.45	ppm	#	57
61)	4-Nitrophenol	7.32	109	60072	38.50	ppm	#	84
62)	Dibenzofuran	7.36	168	562951	36.47	ppm		97
63)	2,4-Dinitrotoluene	7.35	165	136638	41.02	ppm		88
64)	2,3,4,6-Tetrachlorophenol	7.51	232	84511	33.28	ppm		92
65)	Diethylphthalate	7.60	149	457947	37.49	ppm		99
66)	Fluorene	7.75	166	451649	36.18	ppm		99
67)	4-Chlorophenyl-phenylether	7.74	204	201611	38.40	ppm		95
68)	4-Nitroaniline	7.79	138	111152	36.19	ppm		88
70)	4,6-Dinitro-2-methylphenol	7.82	198	74496	46.92	ppm		84
71)	n-Nitrosodiphenylamine	7.89	169	320665	35.04	ppm		99
72)	1,2-Diphenylhydrazine	7.94	77	430801	38.13	ppm		98
74)	4-Bromophenyl-phenylether	8.38	248	100976	36.25	ppm		92
75)	Hexachlorobenzene	8.48	284	105352	35.46	ppm		98
76)	Pentachlorophenol	8.79	266	53363	27.81	ppm		97
77)	Phenanthrene	9.09	178	585683	34.70	ppm		98
78)	Anthracene	9.18	178	587715	34.79	ppm		99
79)	Carbazole	9.47	167	598684	34.58	ppm		100
80)	Di-n-butylphthalate	10.14	149	755370	36.93	ppm		99
81)	Fluoranthene	11.25	202	635554	36.68	ppm		98
82)	Octadecane	8.93	57	301236	40.68	ppm		89
84)	Pyrene	11.70	202	657008	36.82	ppm		97

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155593.D Vial: 24
Acq On : 16 Mar 2016 7:42 am Operator: sarad
Sample : op92078-ms Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:48:12 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 15:48:08 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

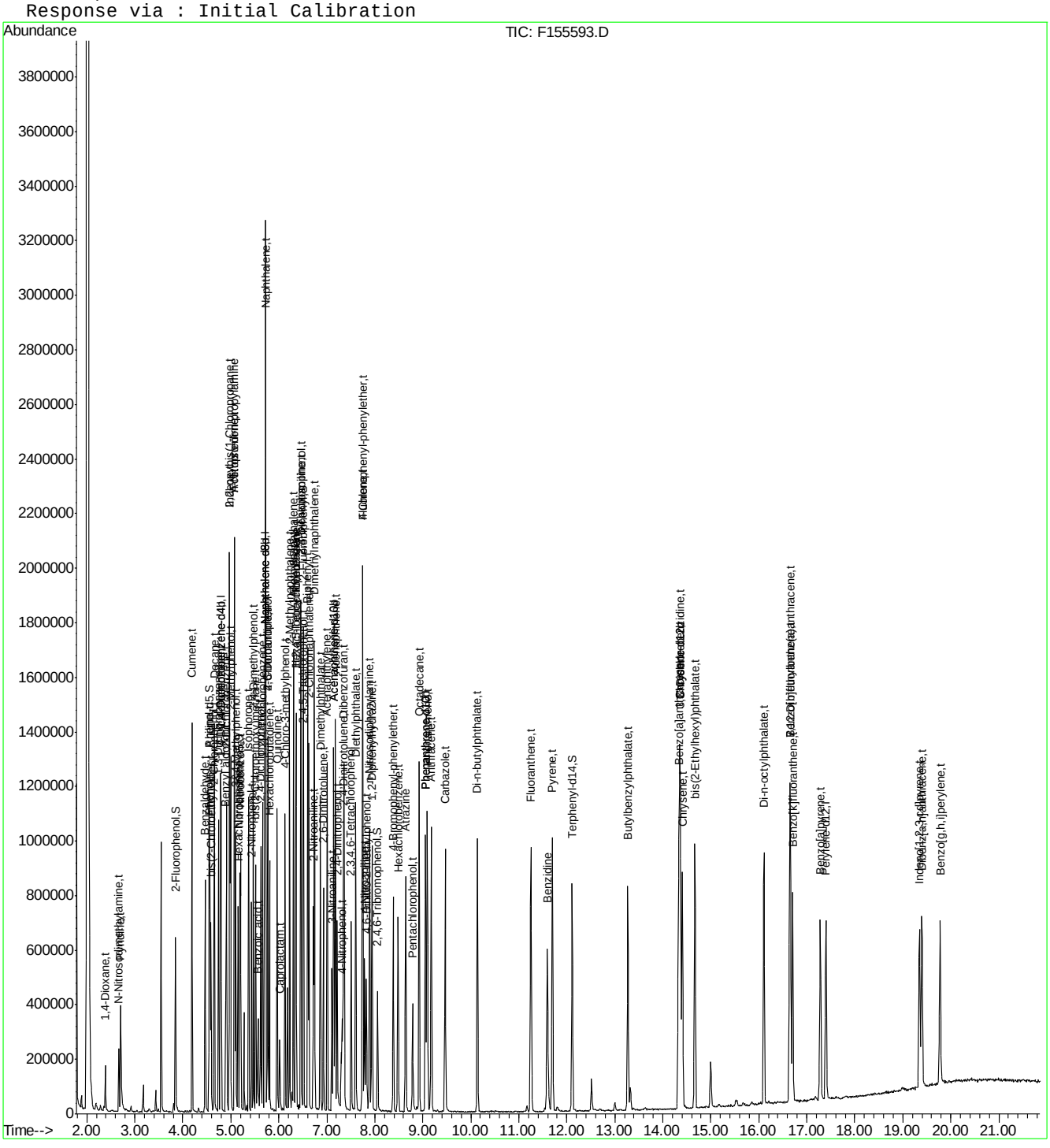
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	Butylbenzylphthalate	13.27	149	318773	38.19	ppm	91
88)	Benzo[a]anthracene	14.33	228	528092	35.36	ppm	99
89)	3,3'-Dichlorobenzidine	14.37	252	272931	58.90	ppm	98
90)	Chrysene	14.41	228	504278	34.11	ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.67	149	432877	37.24	ppm	99
93)	Di-n-octylphthalate	16.11	149	718283	41.77	ppm	100
94)	Benzo[b]fluoranthene	16.65	252	484747	38.21	ppm	98
95)	Benzo[k]fluoranthene	16.71	252	459419	36.73	ppm	98
96)	Benzo[a]pyrene	17.28	252	415072	36.99	ppm	100
97)	Indeno[1,2,3-cd]pyrene	19.35	276	380628	36.57	ppm	92
99)	Dibenz[a,h]anthracene	19.40	278	409108	37.23	ppm	96
100)	7,12-Dimethylbenz(a)anthra	16.66	256	192753	37.79	ppm	97
101)	Benzo[g,h,i]perylene	19.78	276	394842	34.32	ppm	98
103)	Benzaldehyde	4.47	105	156578	35.81	ppm	92
107)	1,2,4,5-Tetrachlorobenzene	6.36	216	167047	37.17	ppm	97
109)	Atrazine	8.64	200	118570	47.31	ppm	97
111)	Benzidine	11.59	184	357549	61.44	ppm	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F155593.D MF6483.M Wed Mar 16 15:52:30 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155593.D Vial: 24
Acq On : 16 Mar 2016 7:42 am Operator: sarad
Sample : op92078-ms Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:52 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 15:48:08 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155594.D Vial: 25
Acq On : 16 Mar 2016 8:10 am Operator: sarad
Sample : op92078-msd Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 08:32:43 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.79	152	157111	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	676048	40.00	ppm	0.00
47) Acenaphthene-d10	7.15	164	348517	40.00	ppm	0.01
69) Phenanthrene-d10	9.06	188	551788	40.00	ppm	0.00
83) Chrysene-d12	14.35	240	490416	40.00	ppm	0.00
92) Perylene-d12	17.40	264	408888	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.79	152	157111	40.00	ppm	0.07
104) Naphthalene-d8b	5.71	136	676048	40.00	ppm	0.00
106) Acenaphthene-d10b	7.15	164	348517	40.00	ppm	0.01
108) Phenanthrene-d10b	9.06	188	551788	40.00	ppm	0.00
110) Chrysene-d12b	14.35	240	490416	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.85	112	188874	31.89	ppm	0.04
Spiked Amount 50.000			Recovery = 63.78%			
8) Phenol-d5	4.56	99	197996	29.57	ppm	0.02
Spiked Amount 50.000			Recovery = 59.14%			
25) Nitrobenzene-d5	5.19	82	240356	37.04	ppm	0.00
Spiked Amount 50.000			Recovery = 74.08%			
51) 2-Fluorobiphenyl	6.52	172	504159	39.49	ppm	0.01
Spiked Amount 50.000			Recovery = 78.98%			
73) 2,4,6-Tribromophenol	8.06	330	55419	41.02	ppm	0.00
Spiked Amount 50.000			Recovery = 82.04%			
85) Terphenyl-d14	12.11	244	410156	38.31	ppm	0.00
Spiked Amount 50.000			Recovery = 76.62%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.38	88	67081	26.73	ppm		95
3) Pyridine	2.70	79	162284	25.95	ppm		82
4) N-Nitrosodimethylamine	2.67	42	101216	42.19	ppm	#	58
6) Indene	4.97	116	415492	36.09	ppm		99
7) Cumene	4.19	105	491732	32.87	ppm		99
9) Phenol	4.56	94	229819	31.09	ppm		79
10) Aniline	4.55	93	241399	30.99	ppm		98
11) bis(2-Chloroethyl)ether	4.59	93	210702	38.52	ppm		96
12) 2-Chlorophenol	4.65	128	234536	37.17	ppm		97
13) Decane	4.66	43	207596	37.91	ppm		86
14) 1,3-Dichlorobenzene	4.74	146	216806	31.01	ppm		97
15) 1,4-Dichlorobenzene	4.80	146	227210	32.25	ppm		99
16) Benzyl alcohol	4.89	108	149918	39.23	ppm		85
17) 1,2-Dichlorobenzene	4.91	146	214225	32.18	ppm		98
18) Acetophenone	5.08	105	320463	38.87	ppm		97
19) 2-Methylphenol	4.99	108	205136	41.29	ppm		96
20) 2,2'-oxybis(1-Chloropropan	4.98	121	72714	34.46	ppm	#	60
21) 3&4-Methylphenol	5.10	108	212634	41.82	ppm		96
22) n-Nitroso-di-n-propylamine	5.08	70	148962	41.10	ppm		96
23) Hexachloroethane	5.16	201	65945	32.25	ppm		99
26) Nitrobenzene	5.20	77	236090	36.05	ppm		99
27) Quinoline	5.96	129	473879	30.97	ppm		96
28) Isophorone	5.37	82	428976	37.20	ppm		92

(#) = qualifier out of range (m) = manual integration
F155594.D MF6483.M Wed Mar 16 15:53:34 2016 RT1

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155594.D Vial: 25
Acq On : 16 Mar 2016 8:10 am Operator: sarad
Sample : op92078-msd Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 08:32:43 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29)	2-Nitrophenol	5.43	139	125934	36.89 ppm	#	67
30)	2,4-Dimethylphenol	5.47	107	232112	40.43 ppm		95
31)	Benzoic acid	5.57	105	138816	33.23 ppm		94
32)	bis(2-Chloroethoxy)methane	5.52	93	239095	33.69 ppm		97
33)	2,4-Dichlorophenol	5.62	162	186206	37.58 ppm		96
34)	2,6-Dichlorophenol	5.77	162	180383	33.99 ppm		97
36)	1,2,4-Trichlorobenzene	5.66	180	166057	28.79 ppm		98
38)	Naphthalene	5.72	128	676072	31.25 ppm		90
39)	4-Chloroaniline	5.76	127	192229	23.87 ppm		99
40)	2,3-Dichloroaniline	6.46	161	208987	29.14 ppm		98
41)	Caprolactam	6.02	55	49029	17.75 ppm		93
42)	Hexachlorobutadiene	5.81	225	86301	30.26 ppm		97
43)	4-Chloro-3-methylphenol	6.13	107	205623	33.45 ppm		90
44)	2-Methylnaphthalene	6.22	141	359395	30.18 ppm		95
45)	1-Methylnaphthalene	6.30	141	374209	30.17 ppm		97
46)	Dimethylnaphthalene	6.74	156	388658	31.85 ppm		99
48)	Hexachlorocyclopentadiene	6.35	237	146937	57.49 ppm		98
49)	2,4,6-Trichlorophenol	6.46	196	121062	40.20 ppm		96
50)	2,4,5-Trichlorophenol	6.50	196	123591	37.38 ppm		99
52)	2-Chloronaphthalene	6.63	162	398441	35.86 ppm		94
53)	Biphenyl	6.60	154	535699	36.09 ppm		99
54)	2-Nitroaniline	6.72	65	136798	50.30 ppm		85
55)	Dimethylphthalate	6.87	163	476472	38.40 ppm		99
56)	Acenaphthylene	7.00	152	644962	35.47 ppm		99
57)	2,6-Dinitrotoluene	6.93	165	107263	44.57 ppm		86
58)	3-Nitroaniline	7.11	138	92947	32.12 ppm		96
59)	Acenaphthene	7.18	153	419918	36.48 ppm		94
60)	2,4-Dinitrophenol	7.21	184	113774	104.70 ppm	#	57
61)	4-Nitrophenol	7.32	109	64066	40.16 ppm	#	84
62)	Dibenzofuran	7.36	168	601379	38.11 ppm		98
63)	2,4-Dinitrotoluene	7.35	165	148186	43.52 ppm		92
64)	2,3,4,6-Tetrachlorophenol	7.51	232	92388	35.58 ppm		92
65)	Diethylphthalate	7.60	149	484478	38.79 ppm		99
66)	Fluorene	7.75	166	487966	38.24 ppm		98
67)	4-Chlorophenyl-phenylether	7.74	204	215219	40.10 ppm		94
68)	4-Nitroaniline	7.79	138	118206	37.64 ppm		80
70)	4,6-Dinitro-2-methylphenol	7.83	198	84095	50.85 ppm		99
71)	n-Nitrosodiphenylamine	7.90	169	342738	36.47 ppm		98
72)	1,2-Diphenylhydrazine	7.94	77	466579	40.21 ppm		98
74)	4-Bromophenyl-phenylether	8.39	248	109759	38.37 ppm		98
75)	Hexachlorobenzene	8.48	284	113300	37.13 ppm		91
76)	Pentachlorophenol	8.79	266	59457	30.17 ppm		92
77)	Phenanthrene	9.09	178	633738	36.55 ppm		99
78)	Anthracene	9.18	178	628618	36.22 ppm		98
79)	Carbazole	9.47	167	627940	35.31 ppm		98
80)	Di-n-butylphthalate	10.14	149	811360	38.62 ppm		99
81)	Fluoranthene	11.25	202	683005	38.38 ppm		99
82)	Octadecane	8.93	57	330067	43.40 ppm		90
84)	Pyrene	11.70	202	713401	38.77 ppm		97

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155594.D Vial: 25
Acq On : 16 Mar 2016 8:10 am Operator: sarad
Sample : op92078-msd Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 08:32:43 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
86)	Butylbenzylphthalate	13.28	149	340741	39.59 ppm	97
88)	Benzo[a]anthracene	14.33	228	587365	38.14 ppm	99
89)	3,3'-Dichlorobenzidine	14.37	252	267419	55.96 ppm	98
90)	Chrysene	14.41	228	553971	36.34 ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.67	149	463293	38.65 ppm	96
93)	Di-n-octylphthalate	16.11	149	778067	43.31 ppm	99
94)	Benzo[b]fluoranthene	16.65	252	550678	41.55 ppm	97
95)	Benzo[k]fluoranthene	16.71	252	512351	39.21 ppm	99
96)	Benzo[a]pyrene	17.28	252	468273	39.95 ppm	100
97)	Indeno[1,2,3-cd]pyrene	19.35	276	440711	40.53 ppm	90
99)	Dibenz[a,h]anthracene	19.40	278	460105	40.08 ppm	96
100)	7,12-Dimethylbenz(a)anthra	16.66	256	211514	39.69 ppm	97
101)	Benzo[g,h,i]perylene	19.78	276	456571	37.98 ppm	99
103)	Benzaldehyde	4.47	105	167577	36.86 ppm	94
107)	1,2,4,5-Tetrachlorobenzene	6.36	216	179186	39.00 ppm	96
109)	Atrazine	8.65	200	124283	48.28 ppm	96
111)	Benzidine	11.59	184	324454	54.07 ppm	92

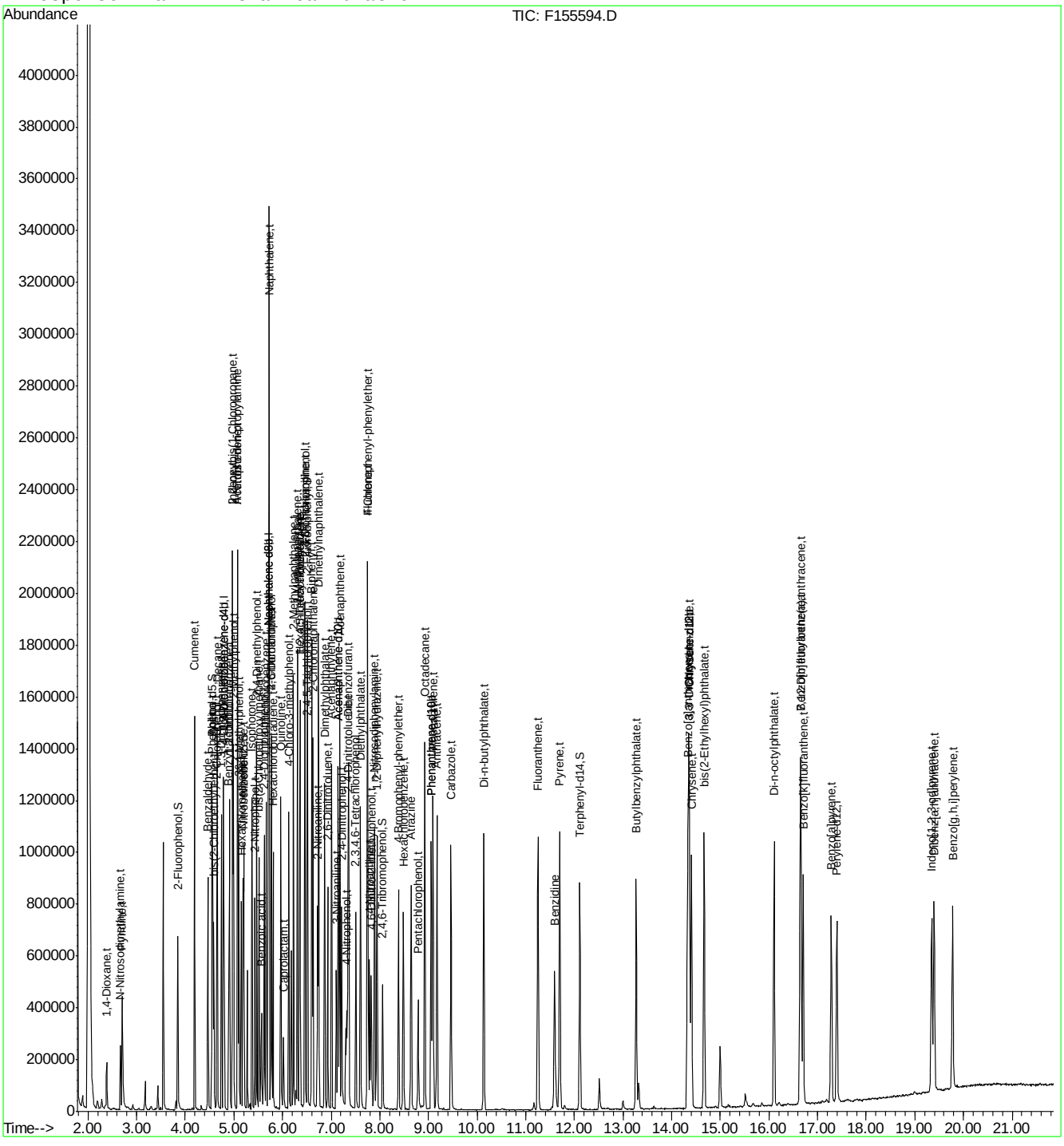
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155594.D Vial: 25
Acq On : 16 Mar 2016 8:10 am Operator: sarad
Sample : op92078-msd Inst : MSF
Misc : op92078,ef6543,500 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:53 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 15:48:08 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15634.D
Acq On : 17 Mar 2016 1:30 am
Operator : juliusj
Sample : op92078a-ms
Misc : op92078a,e4p804,1000
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 18 09:11:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.491	150	119099	4.00	ppm	0.00
13) Fluorene-d10	11.507	176	175724	4.00	ppm	0.02
23) Fluoranthene-d10	15.753	212	265963	4.00	ppm	0.03
33) Benzo(a)pyrene-d12	20.399	264	212537	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	621870	29.73	ppm	-0.05
Spiked Amount 50.000			Recovery = 59.46%			
4) Phenol-d5	4.320	99	913116	27.10	ppm	-0.04
Spiked Amount 50.000			Recovery = 54.20%			
7) Nitrobenzene-d5	5.714	82	1249823	37.69	ppm	0.00
Spiked Amount 50.000			Recovery = 75.38%			
14) 2-Fluorobiphenyl	9.163	172	1823779	36.46	ppm	0.00
Spiked Amount 50.000			Recovery = 72.92%			
22) 2,4,6-Tribromophenol	12.055	330	352569	53.93	ppm	-0.02
Spiked Amount 50.000			Recovery = 107.86%			
30) Terphenyl-d14	16.561	244	1874107	46.15	ppm	0.06
Spiked Amount 50.000			Recovery = 92.30%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	16789	1.35	ppm	98
5) Phenol	4.338	94	139297	3.49	ppm #	78
6) bis(2-Chloroethyl)ether	4.424	93	22345	0.64	ppm #	62
8) Naphthalene	7.033	128	54903	0.70	ppm	93
9) Hexachlorobutadiene	7.320	225	11709	0.63	ppm	95
10) 2-Methylnaphthalene	8.386	141	25141	0.64	ppm	92
15) Acenaphthylene	10.140	152	51529	0.84	ppm	98
16) Acenaphthene	10.506	153	34173	0.76	ppm	95
17) Dibenzofuran	10.873	168	48852	0.84	ppm #	48
18) Fluorene	11.556	166	43964	0.81	ppm	99
19) 4,6-dinitro-2-methylph...	11.755	198	21696	4.68	ppm	95
20) n-nitrosodiphenylamine	11.879	169	26947	1.01	ppm #	66
21) 1,2-Diphenylhydrazine	11.928	77	62546	1.16	ppm #	85
24) Hexachlorobenzene	12.672	284	17250	0.81	ppm	92
25) Pentachlorophenol	13.119	266	34580	3.92	ppm	94
26) Phenanthrene	13.481	178	67533	0.85	ppm	94
27) Anthracene	13.584	178	64534	0.91	ppm	95
28) Fluoranthene	15.770	202	73614	0.87	ppm	98
29) Pyrene	16.166	202	74111	0.88	ppm	96
31) Benzo[a]anthracene	18.296	228	63350	0.86	ppm	100
32) Chrysene	18.354	228	71779	0.82	ppm	98
34) Benzo[b]fluoranthene	19.974	252	54168	0.62	ppm	97
35) Benzo[k]fluoranthene	20.008	252	61857	0.78	ppm	98
36) Benzo[a]pyrene	20.422	252	54781	0.63	ppm	99
37) Indeno[1,2,3-cd]pyrene	21.931	276	50725	0.55	ppm	99
38) Dibenz[a,h]anthracene	21.969	278	42560	0.56	ppm	97
39) Benzo[g,h,i]perylene	22.315	276	43037	0.52	ppm	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15634.D
Acq On : 17 Mar 2016 1:30 am
Operator : juliusj
Sample : op92078a-ms
Misc : op92078a,e4p804,1000
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 18 09:11:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

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

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

9.4.3

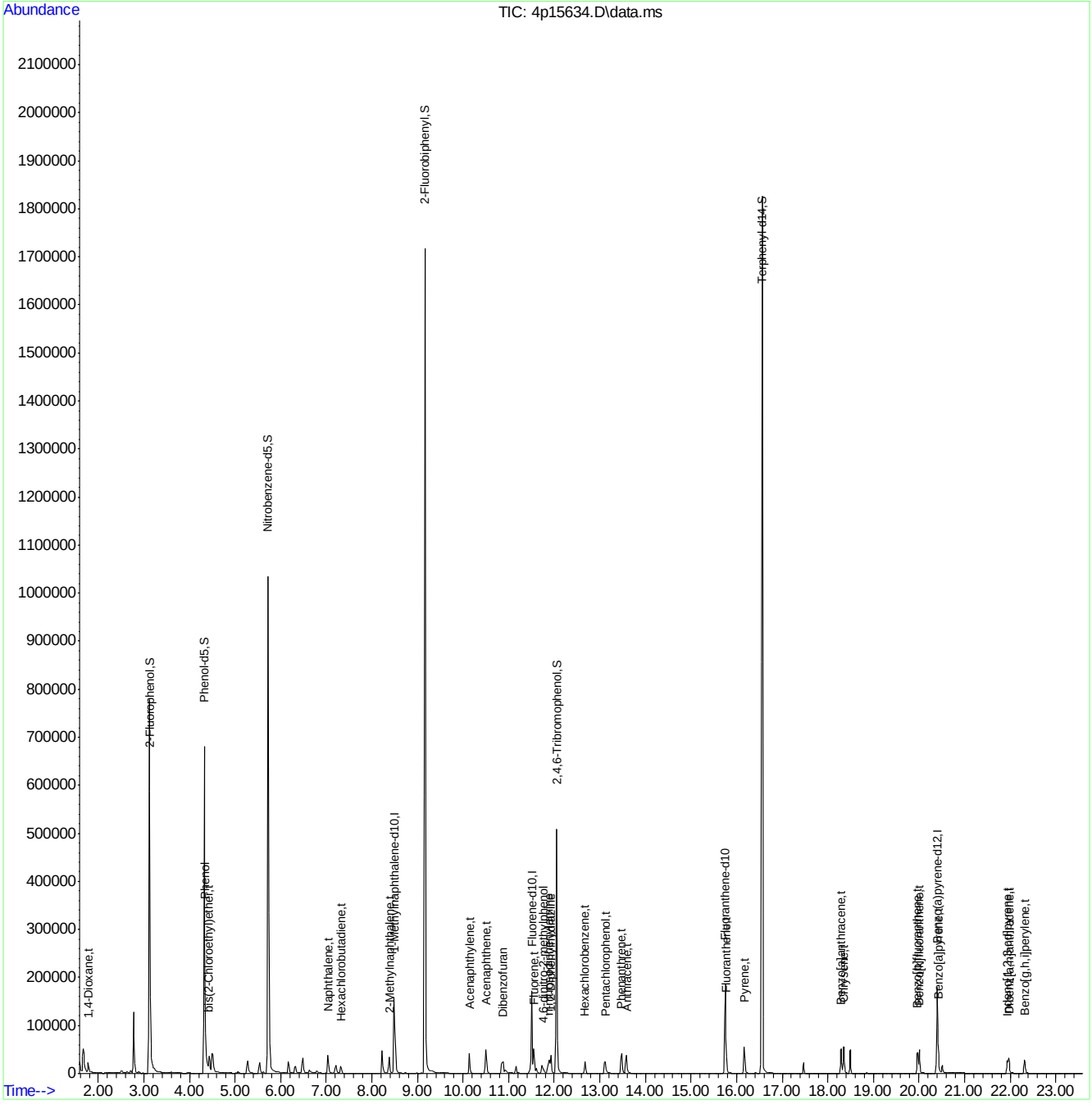
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15634.D
Acq On : 17 Mar 2016 1:30 am
Operator : juliusj
Sample : op92078a-ms
Misc : op92078a,e4p804,1000
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 18 09:11:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



M4P767SIM.M Fri Mar 18 09:11:20 2016 Page: 3

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15635.D
Acq On : 17 Mar 2016 2:00 am
Operator : juliusj
Sample : op92078a-msd
Misc : op92078a,e4p804,1000
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 18 09:11:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	123488	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	163092	4.00	ppm	0.03
23) Fluoranthene-d10	15.739	212	274794	4.00	ppm	0.02
33) Benzo(a)pyrene-d12	20.391	264	214658	4.00	ppm	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	702968	32.42	ppm	-0.05
Spiked Amount 50.000			Recovery = 64.84%			
4) Phenol-d5	4.320	99	993692	28.44	ppm	-0.04
Spiked Amount 50.000			Recovery = 56.88%			
7) Nitrobenzene-d5	5.716	82	1415198	41.16	ppm	0.00
Spiked Amount 50.000			Recovery = 82.32%			
14) 2-Fluorobiphenyl	9.165	172	1892185	40.76	ppm	0.00
Spiked Amount 50.000			Recovery = 81.52%			
22) 2,4,6-Tribromophenol	12.058	330	335016	55.21	ppm	-0.02
Spiked Amount 50.000			Recovery = 110.42%			
30) Terphenyl-d14	16.548	244	1740472	41.48	ppm	0.04
Spiked Amount 50.000			Recovery = 82.96%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.775	88	20875	1.65	ppm	98
5) Phenol	4.337	94	151298	3.65	ppm #	78
6) bis(2-Chloroethyl)ether	4.423	93	25378	0.70	ppm #	74
8) Naphthalene	7.035	128	63136	0.77	ppm	96
9) Hexachlorobutadiene	7.321	225	13569	0.71	ppm	99
10) 2-Methylnaphthalene	8.388	141	26690	0.66	ppm	89
15) Acenaphthylene	10.143	152	53991	0.95	ppm	95
16) Acenaphthene	10.510	153	34178	0.81	ppm	88
17) Dibenzofuran	10.853	168	49101	0.91	ppm #	53
18) Fluorene	11.560	166	40866	0.81	ppm	94
19) 4,6-dinitro-2-methylph...	11.734	198	21309	4.92	ppm #	1
20) n-nitrosodiphenylamine	11.882	169	24598	1.00	ppm #	62
21) 1,2-Diphenylhydrazine	11.907	77	59984	1.19	ppm	98
24) Hexachlorobenzene	12.676	284	16885	0.76	ppm	85
25) Pentachlorophenol	13.106	266	32402	3.59	ppm	88
26) Phenanthrene	13.467	178	64481	0.79	ppm	98
27) Anthracene	13.570	178	61223	0.84	ppm	97
28) Fluoranthene	15.773	202	72886	0.83	ppm	100
29) Pyrene	16.169	202	72648	0.83	ppm	99
31) Benzo[a]anthracene	18.290	228	60926	0.80	ppm	95
32) Chrysene	18.348	228	73323	0.81	ppm	95
34) Benzo[b]fluoranthene	19.966	252	59006	0.66	ppm	94
35) Benzo[k]fluoranthene	20.012	252	62650	0.78	ppm	95
36) Benzo[a]pyrene	20.426	252	59130	0.67	ppm	98
37) Indeno[1,2,3-cd]pyrene	21.935	276	56995	0.62	ppm	99
38) Dibenz[a,h]anthracene	21.973	278	47345	0.62	ppm	99
39) Benzo[g,h,i]perylene	22.309	276	48755	0.59	ppm	98

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15635.D
Acq On : 17 Mar 2016 2:00 am
Operator : juliusj
Sample : op92078a-msd
Misc : op92078a,e4p804,1000
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 18 09:11:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

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

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

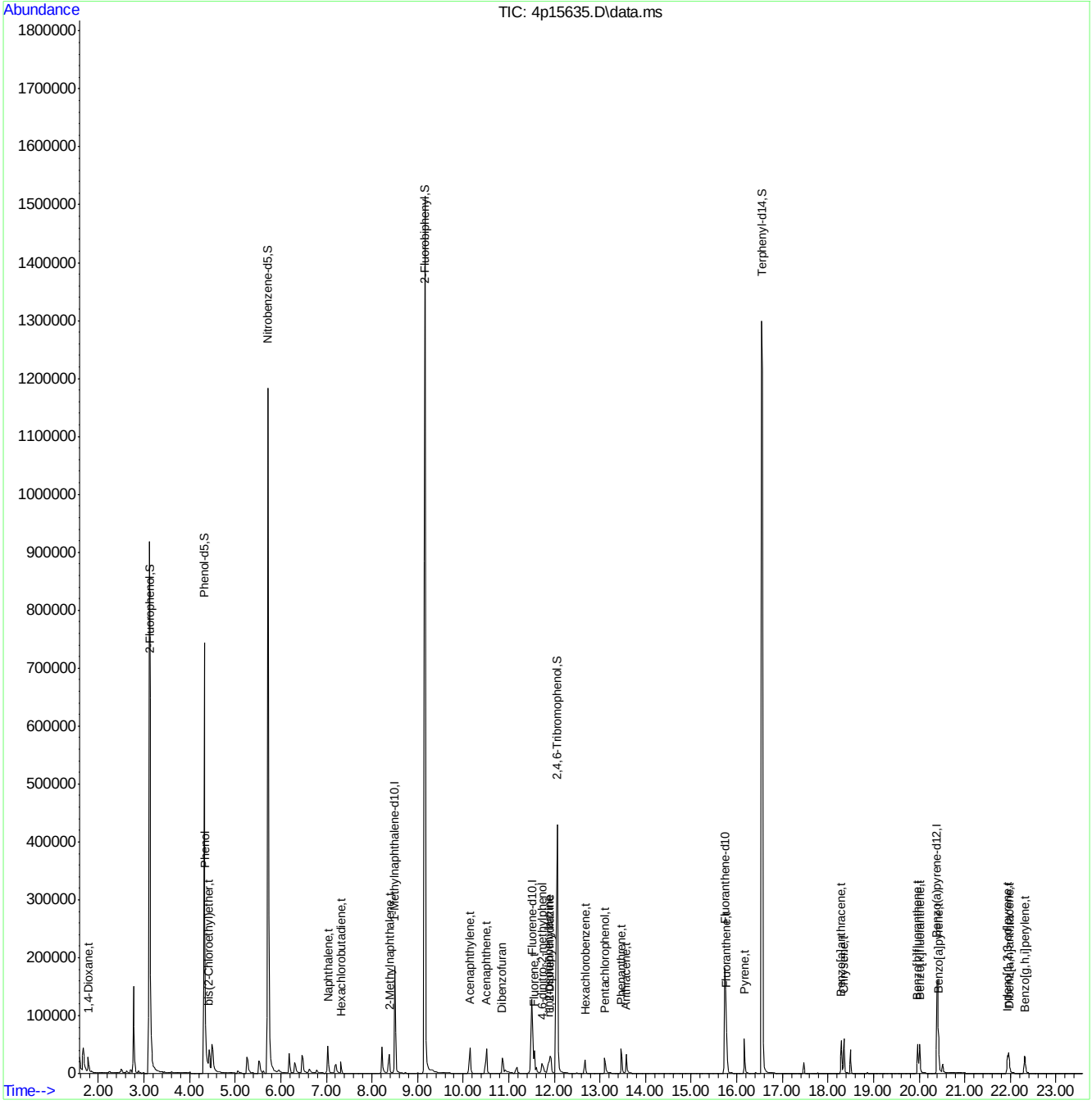
9.4.4

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15635.D
Acq On : 17 Mar 2016 2:00 am
Operator : juliusj
Sample : op92078a-msd
Misc : op92078a,e4p804,1000
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 18 09:11:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

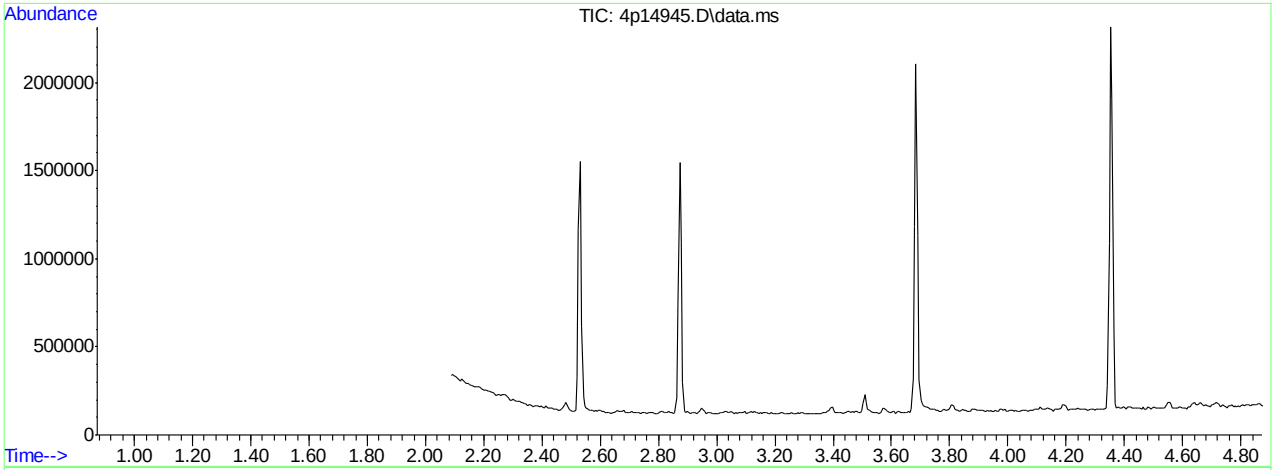


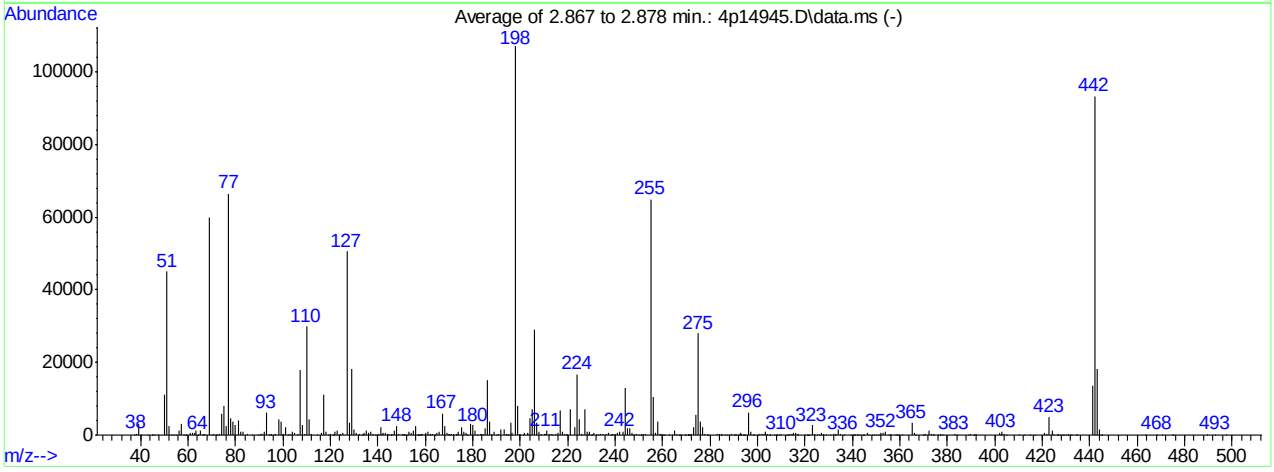
SGS ACCUTEST JC16038

DFTPPR

Data File : C:\msdchem\1\DATA\e4p767\4p14945.D Vial: 1
Acq On : 1 Feb 2016 4:06 pm Operator: juliusj
Sample : dftpp Inst : MS4P
Misc : op90759a,e4p767 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS





AutoFind: Scans 147, 148, 149; Background Corrected with Scan 142

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.0	44967	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	56.0	59960	PASS
70	69	0.00	2	0.0	24	PASS
127	198	40	60	47.2	50540	PASS
197	198	0.00	1	0.5	542	PASS
198	198	100	100	100.0	106984	PASS
199	198	5	9	7.4	7920	PASS
275	198	10	30	26.2	27999	PASS
365	198	1	100	3.1	3301	PASS
441	443	0.10	100	73.8	13533	PASS
442	198	40	100	87.2	93328	PASS
443	442	17	23	19.6	18332	PASS

4p14945.D DFTPP4P.M Tue Feb 02 09:03:45 2016

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.15	44	52.10	2342	63.00	558	72.00	111
38.10	378	53.00	108	63.15	1288	72.20	78
39.15	2964	54.00	62	64.10	60	73.10	317
40.10	8	55.05	158	64.30	152	74.05	5768
43.10	53	56.10	1247	65.15	1155	75.10	8137
44.90	155	57.10	3197	66.00	115	76.10	2417
45.15	49	58.10	131	66.20	10	77.10	66502
45.80	47	59.00	102	67.10	290	78.10	4583
47.10	89	59.20	102	69.10	59960	79.10	3647
50.05	11154	61.05	729	70.10	24	80.05	2767
51.10	44967	62.10	770	71.10	254	81.10	3994

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.10	1019	95.00	160	104.00	994	117.10	11165
83.10	908	95.20	409	105.05	739	118.10	1020
85.10	167	96.10	117	106.15	287	119.00	123
87.00	108	96.95	298	107.10	17904	120.05	257
89.20	132	98.10	4470	108.10	2712	121.15	104
90.10	111	99.10	3771	109.15	205	121.40	107
90.90	326	99.90	125	110.10	29869	122.10	787
91.05	442	100.05	404	111.10	4412	123.10	1149
92.10	1064	101.05	2176	112.00	459	123.90	93
93.10	6151	102.05	33	114.20	28	124.10	342
94.10	74	103.05	367	116.10	766	125.15	734

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.10	50540	136.05	623	144.80	39	153.10	914
128.05	3348	137.20	865	145.40	43	154.10	484
129.10	18139	138.05	220	146.05	308	155.05	1093
130.05	1707	138.85	117	147.10	1254	156.15	2371
131.10	479	139.25	37	148.05	2506	156.80	55
131.80	42	140.15	166	149.05	434	157.00	153
132.10	261	141.10	2052	150.10	245	157.30	63
133.05	101	141.90	259	150.80	63	157.70	136
133.90	94	142.15	665	151.15	191	158.10	433
134.15	520	143.10	692	151.40	63	158.95	380
135.10	1348	144.15	181	152.00	90	159.90	148

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.10	581	169.05	563	177.05	651	187.15	3727
161.05	1081	169.80	61	177.80	63	188.10	405
162.10	244	170.05	192	179.05	3035	189.15	853
162.30	89	170.60	32	180.15	2730	190.10	128
163.15	241	171.10	295	181.05	1169	191.05	216
163.90	26	172.15	167	182.10	34	192.00	1594
164.10	69	172.90	79	183.20	206	193.05	1431
165.15	656	173.20	305	183.95	268	194.15	290
166.05	1062	174.10	958	184.20	70	194.90	124
167.10	5973	175.10	2221	185.10	1912	195.20	36
168.05	2510	176.05	915	186.10	15082	196.10	3441

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
196.80	542	206.10	29112	216.10	590	225.90	73
198.10	106984	207.10	3374	217.05	6725	226.05	354
199.10	7920	208.00	993	218.05	849	227.10	6991
199.90	333	209.05	461	218.85	172	228.05	863

200.10	160	210.10	420	219.10	48	228.90	104
201.10	56	210.60	308	219.60	18	229.10	994
201.55	596	211.10	1163	219.90	49	229.90	67
203.00	514	212.25	250	221.05	7085	230.10	139
203.20	316	213.10	175	223.05	2177	231.05	635
204.10	4629	213.75	68	224.10	16774	232.00	72
205.15	7120	215.05	321	225.10	4285	232.20	38

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
232.95	110	243.15	918	251.90	223	262.70	17
234.00	209	244.10	13038	253.00	310	264.00	103
235.05	445	245.15	1933	255.10	64920	265.05	1237
236.05	174	246.05	1979	256.10	10623	266.10	211
237.05	516	247.10	536	257.05	572	266.80	88
238.10	139	247.70	52	258.10	3576	267.50	24
238.70	58	248.05	111	258.95	358	268.10	62
239.00	245	249.05	395	259.20	280	269.10	18
240.05	165	250.10	129	260.00	108	269.95	162
241.00	497	250.90	25	260.30	35	270.50	29
242.05	942	251.10	119	260.90	117	270.90	22

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
271.10	80	279.10	71	291.10	35	297.95	65
271.40	81	283.00	392	291.90	67	298.40	23
271.60	81	284.15	263	292.30	62	299.80	21
272.20	257	284.80	78	292.50	52	301.00	176
273.05	2164	285.05	405	292.80	28	302.05	213
274.05	5454	286.20	30	293.00	487	302.80	275
275.10	27999	287.30	33	294.00	131	303.15	995
276.05	3765	288.00	17	294.30	78	304.15	300
277.10	2276	289.20	165	295.00	107	305.10	18
278.00	407	290.15	68	296.05	6303	305.30	39
278.80	20	290.75	62	297.05	1001	306.95	70

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
308.00	108	316.90	32	328.05	356	340.80	77
308.20	85	317.25	175	328.80	32	341.05	153
309.05	153	319.70	134	330.90	22	341.90	25
310.00	222	320.85	152	331.95	198	342.10	113
312.20	25	321.20	120	332.50	45	343.20	42
312.80	137	321.80	21	333.00	242	344.20	44
313.30	29	323.10	2731	334.10	1532	344.90	25
314.05	318	324.05	459	335.00	407	346.10	607
314.80	146	325.10	42	336.20	100	347.00	80
315.15	494	326.05	93	339.10	53	348.10	54
316.15	529	327.00	715	340.05	71	349.20	17

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
350.20	22	359.30	57	374.20	90	392.10	210
351.10	33	361.00	22	376.00	19	402.10	583
352.05	674	365.00	3301	377.00	42	402.60	42
353.05	600	366.05	528	377.20	20	403.00	888
354.05	1052	366.60	27	377.90	17	403.95	285
355.15	101	369.90	41	382.95	269	404.95	66
355.80	24	370.10	46	384.05	139	410.15	63
356.00	34	370.85	176	389.05	44	412.30	33
357.90	36	372.10	1283	390.00	233	414.90	60
358.50	20	373.10	382	391.05	112	416.80	24
358.90	43	374.00	24	391.40	75	421.10	771

Average of 2.867 to 2.878 min.: 4p14945.D\data.ms

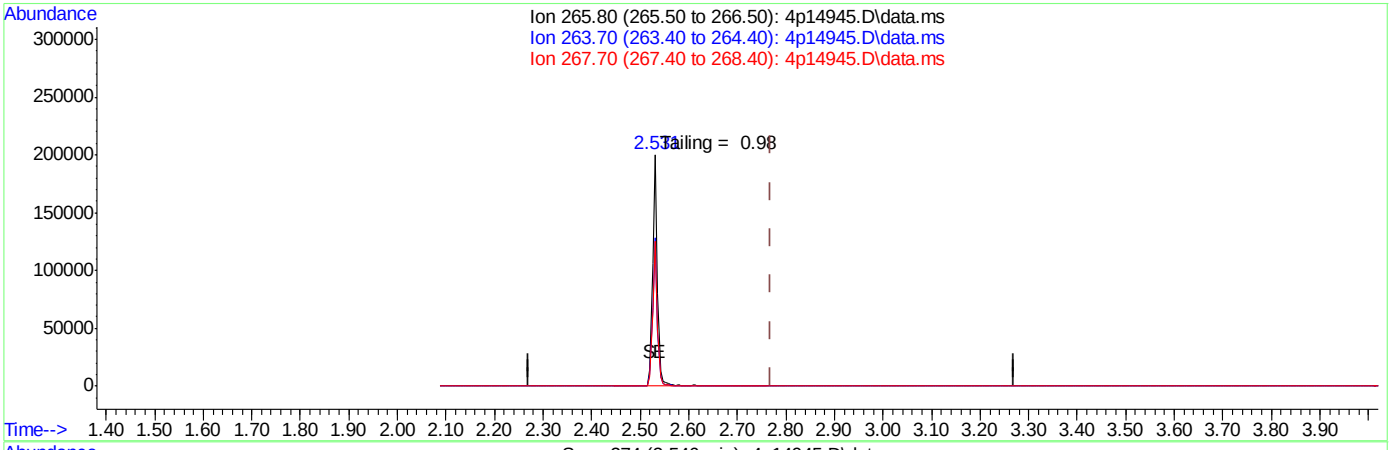
dftpp
Modified:subtracted

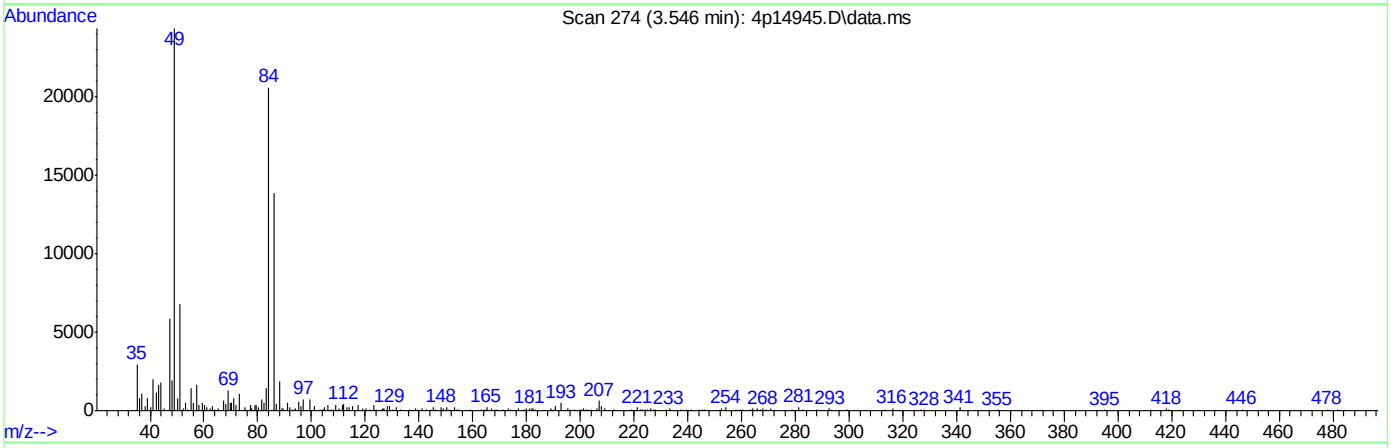
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.00	310	430.65	58	444.90	33		
423.00	5014	431.00	34	445.20	29		
424.10	1290	431.70	23	463.30	17		
424.85	111	432.50	91	468.20	29		
426.05	77	434.30	22	470.50	25		
426.50	18	434.80	35	474.60	18		
426.75	79	441.10	13533	475.10	19		
427.70	61	442.10	93328	489.40	20		
428.70	68	443.10	18332	492.90	34		
429.00	25	443.90	126	497.30	17		
429.70	32	444.10	1669				

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14945.D
Acq On    :  1 Feb 2016   4:06 pm
Operator  : juliusj
Sample    : dftpp
Misc      : op90759a,e4p767
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 01 16:12:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration
```





TIC: 4p14945.D\data.ms

(1) Pentachlorophenol (MC)

2.531min (-0.239) 75.38ng m

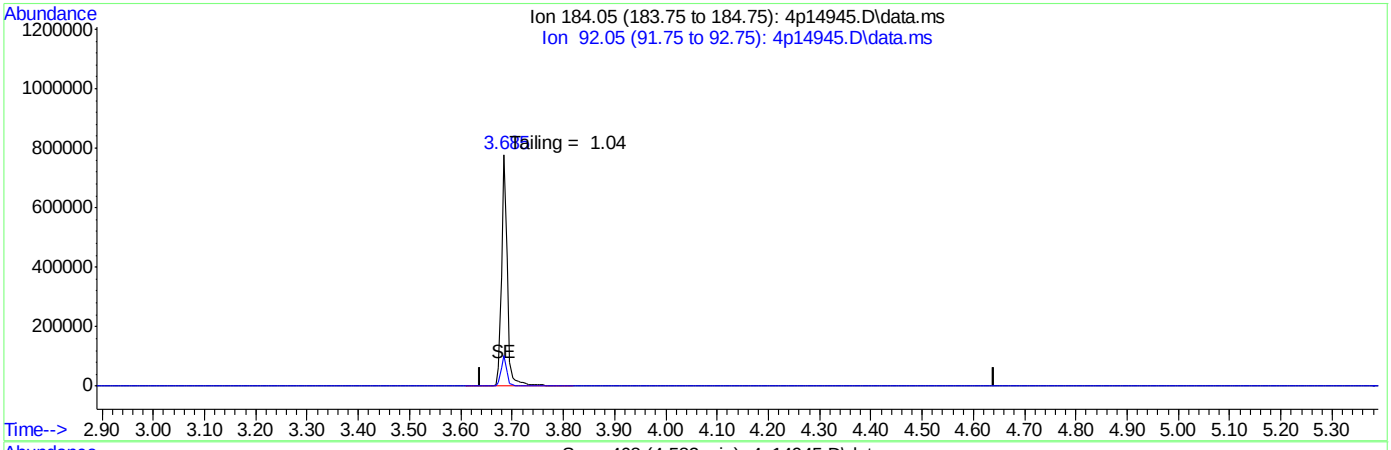
response 140947

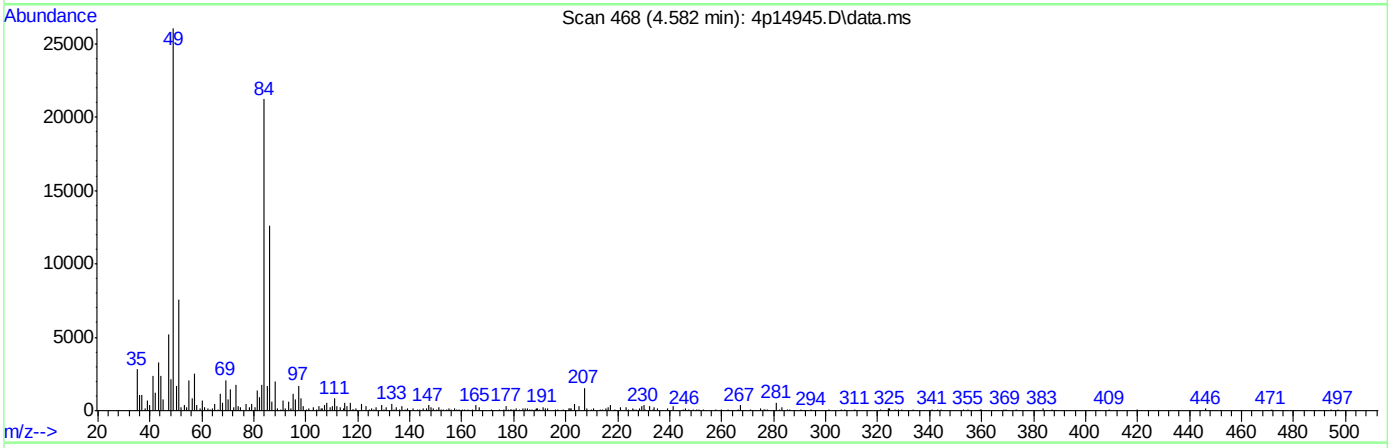
Ion	Exp%	Act%
265.80	100	100
263.70	64.70	63.87
267.70	64.60	62.62
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14945.D
Acq On    :  1 Feb 2016   4:06 pm
Operator  : juliusj
Sample    : dftpp
Misc      : op90759a,e4p767
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 01 16:12:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration
```





TIC: 4p14945.D\data.ms

(2) Benzidine (M)

4.140min (-4.140) 0.00ng

response 0

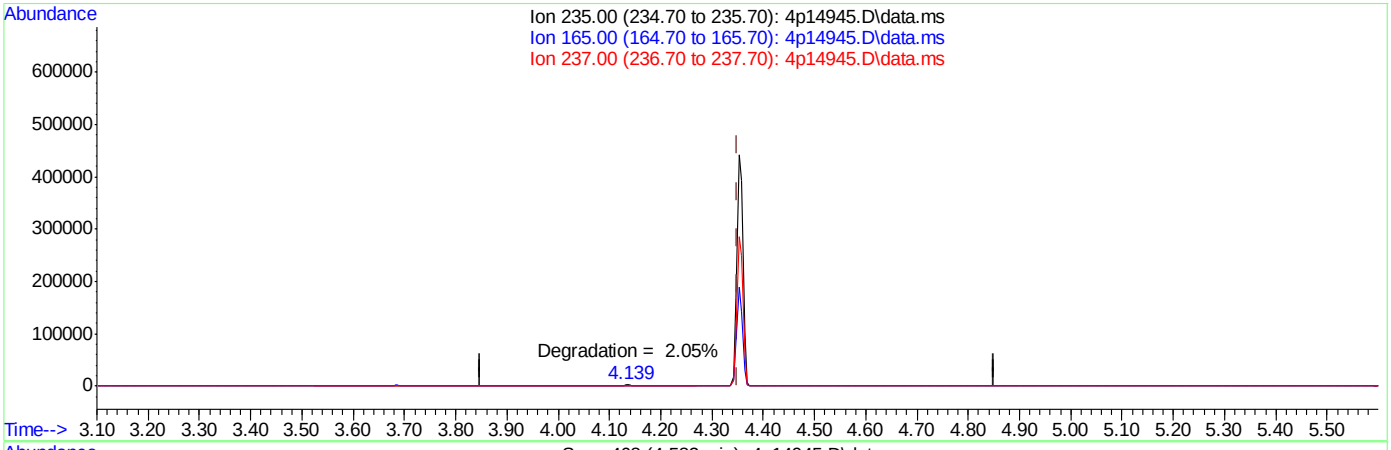
Ion	Exp%	Act%
184.05	100	0.00
92.05	11.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

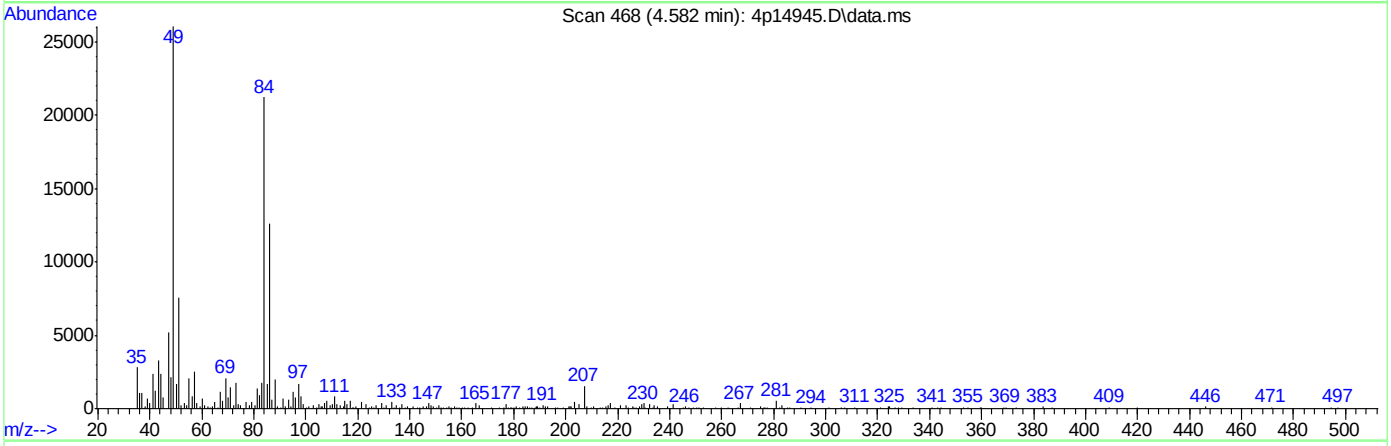
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14945.D
Acq On    :  1 Feb 2016   4:06 pm
Operator  : juliusj
Sample    : dftpp
Misc      : op90759a,e4p767
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 01 16:12:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title  : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration
```





TIC: 4p14945.D\data.ms

(3) PP-DDT (MC)

4.352min (+0.002) 195.21ppb

response 365003

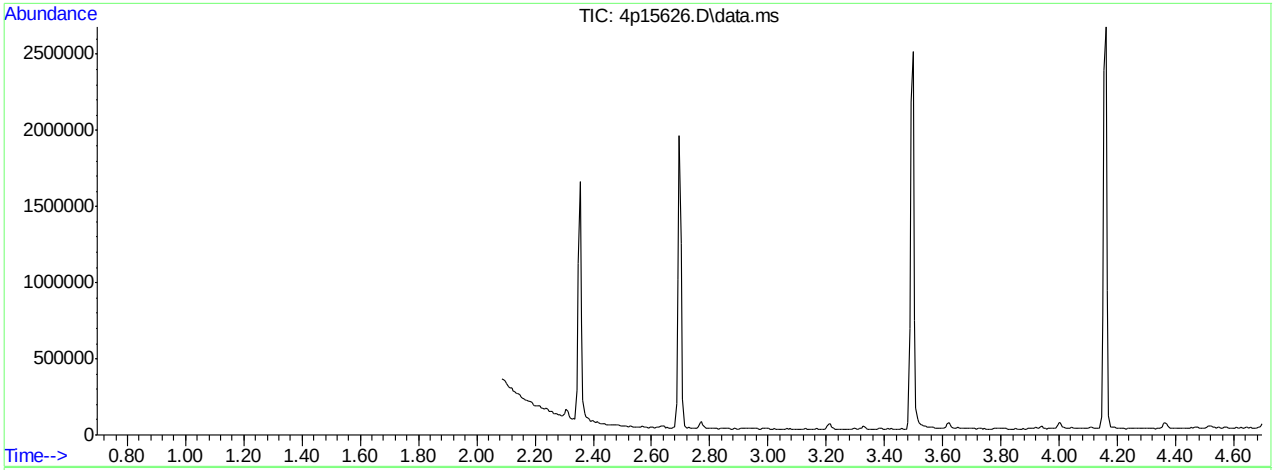
Ion	Exp%	Act%
235.00	100	100
165.00	58.00	42.58
237.00	62.20	64.43
0.00	0.00	0.00

SGS ACCUTEST JC16038

DFTPPR

Data File : C:\msdchem\1\DATA\e4p804\4p15626.D Vial: 1
Acq On : 16 Mar 2016 9:30 pm Operator: juliusj
Sample : dftpp Inst : MS4P
Misc : op91877a,e4p804 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 114, 115, 116; Background Corrected with Scan 107

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.1	56457	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.6	74560	PASS
70	69	0.00	2	0.4	315	PASS
127	198	40	60	47.5	68560	PASS
197	198	0.00	1	0.0	38	PASS
198	198	100	100	100.0	144445	PASS
199	198	5	9	7.0	10092	PASS
275	198	10	30	26.9	38805	PASS
365	198	1	100	3.2	4609	PASS
441	443	0.10	100	75.8	19356	PASS
442	198	40	100	94.5	136554	PASS
443	442	17	23	18.7	25547	PASS

4p15626.D DFTPP4P.M Thu Mar 17 14:57:41 2016

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	53	51.10	56457	64.20	292	77.10	84974
37.15	324	52.10	3054	65.05	1203	78.10	5929
38.15	456	55.00	293	66.10	54	79.10	4804
39.10	4371	56.05	1421	69.10	74560	80.10	3275
40.10	178	57.10	4383	70.15	315	81.10	5863
41.15	56	57.90	62	71.00	85	82.10	1653
42.00	283	58.05	208	71.15	34	83.10	994
45.05	165	59.70	58	73.15	594	85.10	905
48.00	116	61.10	584	74.10	6425	86.05	1697
49.10	32	62.15	721	75.05	11208	87.10	1072
50.05	15376	63.10	2541	76.15	3929	87.95	154

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.95	112	100.05	409	112.10	757	122.05	1447
90.10	77	101.10	2781	113.10	277	123.10	1757
91.05	626	101.90	154	113.65	74	124.05	750
92.05	986	102.85	221	115.30	95	125.05	832
93.10	8225	103.10	358	116.10	1173	125.70	80
94.00	310	104.00	1824	117.10	15518	127.10	68560
94.20	124	105.05	1243	118.10	987	128.05	5132
95.00	17	107.10	22487	119.00	94	129.05	26241
96.10	252	108.10	3397	119.20	115	130.10	2075
98.10	5842	110.10	40918	120.05	376	131.05	463
99.10	4363	111.10	6141	120.90	71	132.00	176

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.20	95	142.10	1128	150.30	45	157.90	323
134.00	271	143.05	654	150.70	43	158.05	600
134.15	294	143.90	72	151.10	434	159.00	381
135.10	2009	144.80	84	151.65	188	160.10	1025
136.05	643	145.15	189	152.05	45	161.05	1275
137.15	1117	145.75	7	153.10	995	162.00	490
137.90	85	146.10	806	154.10	599	163.05	23
138.95	192	147.10	1732	155.00	465	164.00	168
139.55	77	148.10	3702	155.15	1325	165.05	996
140.00	157	149.05	720	156.10	2610	166.10	1173
141.05	2737	150.05	128	157.10	654	167.05	6932

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
168.10	3711	177.10	1008	188.05	544	198.05	144445
169.15	691	178.00	584	188.90	233	199.05	10092
170.00	143	179.05	4554	189.05	755	200.10	998
170.30	139	180.10	3519	190.10	131	201.45	758
171.10	230	181.10	1974	191.05	348	201.70	316
171.85	251	182.05	210	192.00	1731	203.05	1018
172.20	236	183.10	46	193.10	2052	204.10	5543
173.10	779	184.05	464	194.10	636	205.10	9777
174.05	1200	185.10	2963	195.05	128	206.05	39612
175.15	2776	186.10	19766	196.10	4581	207.05	5885
176.05	763	187.05	5329	196.85	38	208.10	1172

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
209.00	448	216.10	871	228.10	1314	236.10	439
210.25	768	217.05	8808	229.10	1985	236.80	116
210.60	342	218.05	1449	230.10	336	237.10	536
210.75	1028	219.15	139	230.90	164	237.90	117

211.15	566	221.00	8964	231.05	563	238.20	132
211.70	270	222.00	506	232.00	95	239.15	284
212.20	40	223.10	2450	232.20	20	240.10	303
213.20	150	224.10	22414	232.80	45	240.50	76
214.15	89	225.10	6084	233.10	131	241.05	434
215.05	624	226.15	859	234.05	695	242.05	1470
215.90	195	227.10	9036	235.00	718	243.10	1653

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
244.10	18179	251.30	72	263.40	37	271.30	71
245.10	2320	252.00	84	264.10	175	271.80	123
246.05	3634	252.20	159	265.05	1653	272.05	107
247.00	461	252.70	91	266.00	303	273.05	2664
247.40	25	253.10	360	266.90	131	274.05	7115
247.90	113	255.10	92285	267.50	29	275.10	38805
248.10	44	256.10	13800	267.90	59	276.10	5251
248.90	175	257.05	868	268.60	20	277.10	2990
249.10	496	258.05	4613	270.00	46	278.05	432
250.10	115	259.05	987	270.25	180	279.10	238
251.05	232	259.90	172	271.10	237	279.70	48

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
281.90	75	290.15	52	297.05	1317	308.90	79
282.30	57	290.40	31	298.00	121	309.10	191
283.00	264	290.70	33	300.65	87	310.15	232
283.20	180	291.15	59	301.05	146	311.20	53
284.10	277	291.50	28	302.10	133	312.80	22
285.10	764	291.95	167	302.90	183	313.10	104
286.05	73	293.05	758	303.05	1422	313.80	146
286.30	55	293.90	171	304.10	404	314.10	489
289.05	176	294.10	107	305.20	51	315.10	1086
289.50	17	294.80	71	306.10	19	316.05	646
289.90	102	296.05	9982	308.05	194	316.70	45

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
316.90	39	325.80	74	333.05	267	341.80	55
317.10	36	326.00	48	334.05	2405	342.10	128
318.00	49	326.30	24	335.05	627	344.10	27
319.20	25	327.00	706	335.90	103	344.70	18
319.50	22	328.00	332	336.50	24	346.00	847
320.20	38	329.10	214	337.40	48	346.90	146
321.05	503	330.20	40	338.50	52	347.30	63
321.95	79	331.10	54	338.90	47	347.80	28
323.10	3820	331.75	197	339.30	30	348.20	31
324.10	956	332.10	222	339.90	49	350.10	32
325.00	16	332.40	52	341.05	449	350.80	63

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
351.00	67	360.00	42	373.05	459	391.20	133
352.05	1064	360.85	79	373.80	68	391.85	155
352.90	93	363.85	75	374.05	106	395.10	17
353.05	632	365.00	4609	376.90	78	399.00	22
354.15	1105	366.05	742	382.95	484	399.80	21
355.10	173	366.90	35	383.30	71	401.00	61
355.90	27	369.75	48	384.00	255	401.20	60
356.20	34	370.10	43	385.10	50	401.95	747
357.30	26	370.95	249	385.40	37	402.90	707
358.30	33	372.10	2013	389.90	199	403.10	657
359.05	81	372.80	42	390.85	189	404.00	394

Average of 2.691 to 2.702 min.: 4p15626.D\data.ms

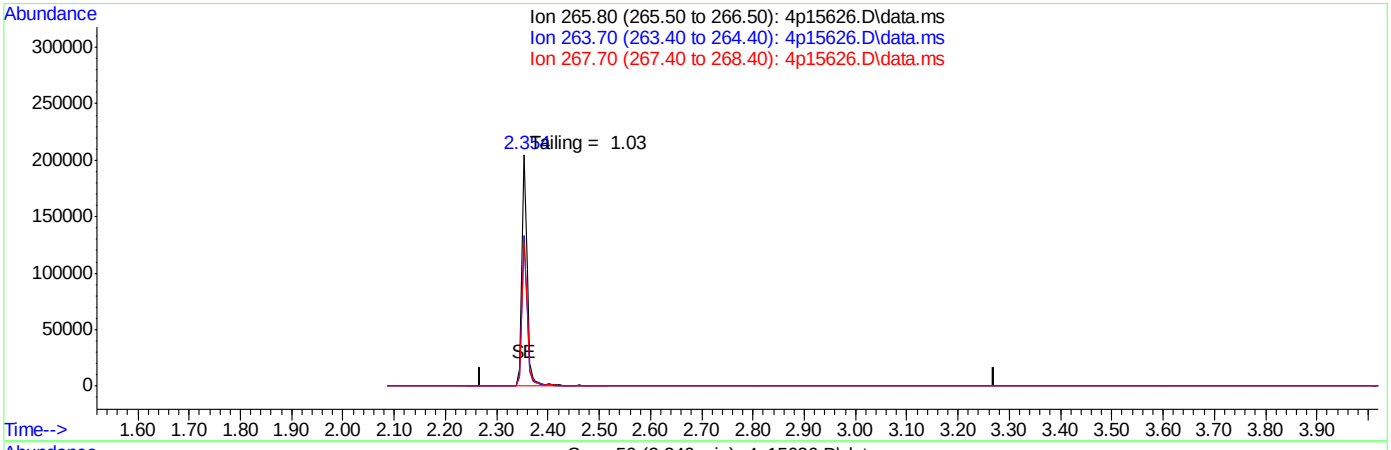
dftpp
Modified:subtracted

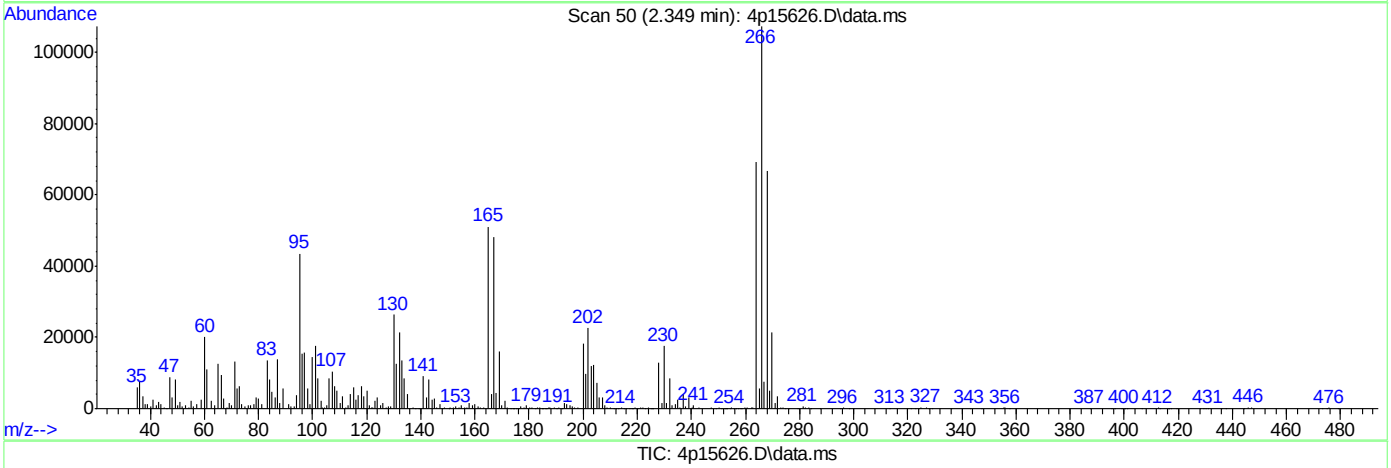
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
404.80	52	421.95	847	433.45	49	476.90	25
405.00	44	423.10	6301	433.90	38	478.70	27
405.50	65	424.05	1501	439.20	28	497.00	22
408.00	36	425.05	157	441.10	19356		
408.20	27	426.50	50	442.10	136554		
408.90	22	427.40	58	443.10	25547		
411.50	29	427.70	44	444.05	2654		
414.70	37	429.90	46	445.05	82		
414.95	75	430.10	19	455.20	18		
415.90	77	431.30	41	460.80	42		
421.00	782	432.70	38	462.00	29		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15626.D
Acq On : 16 Mar 2016 9:30 pm
Operator : juliusj
Sample : dftpp
Misc : op91877a,e4p804
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 21:35:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p15626.D\data.ms

(1) Pentachlorophenol (MC)

2.770min (-2.770) 0.00ng

response 0

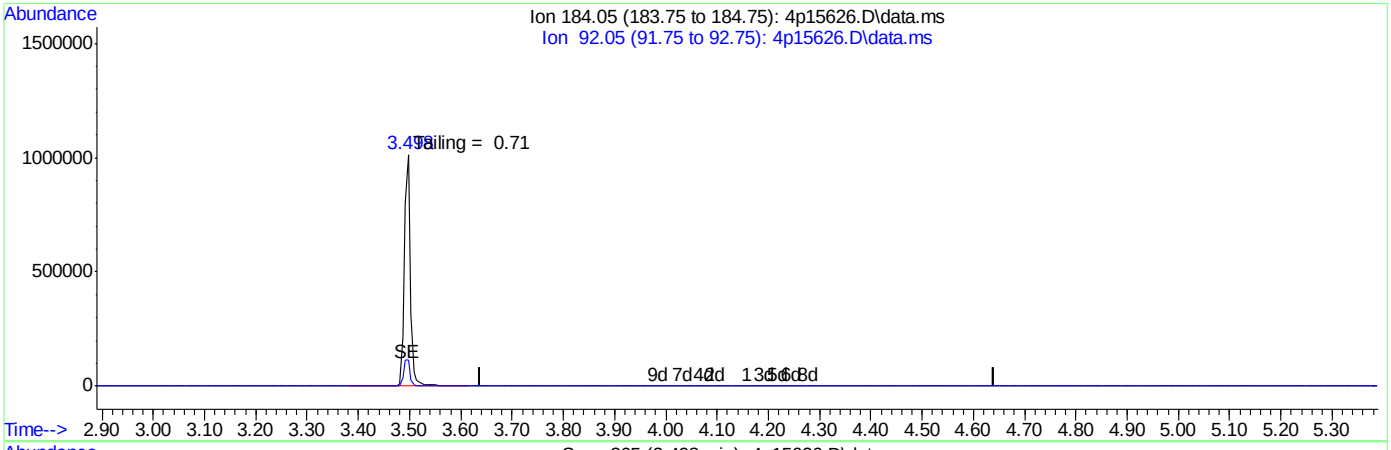
Ion	Exp%	Act%
265.80	100	0.00
263.70	64.70	0.00#
267.70	64.60	0.00#
0.00	0.00	0.00

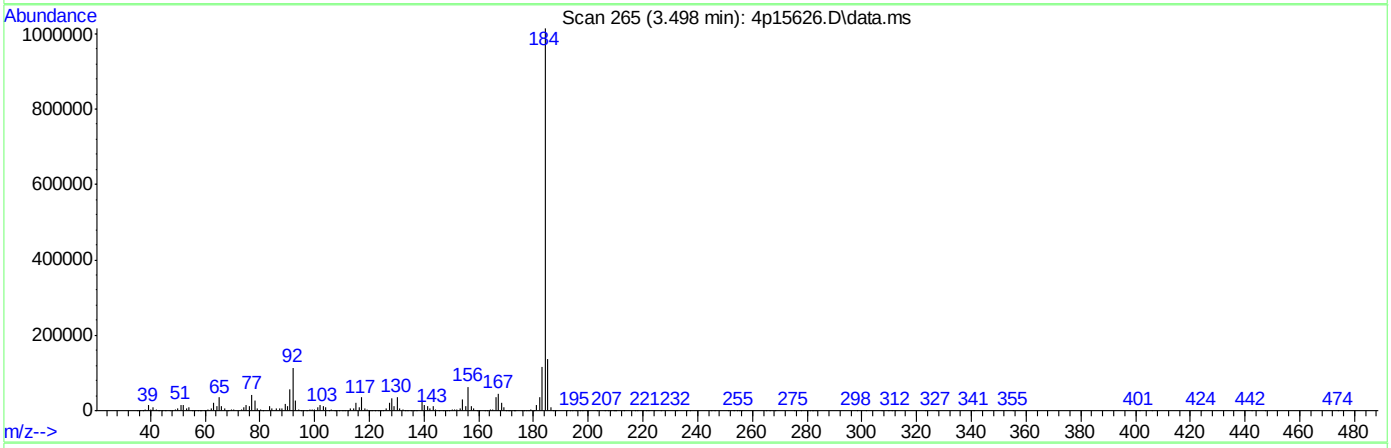
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15626.D
Acq On : 16 Mar 2016 9:30 pm
Operator : juliusj
Sample : dftpp
Misc : op91877a,e4p804
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 21:35:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p15626.D\data.ms

(2) Benzidine (M)

4.140min 0.00ng d

response 0

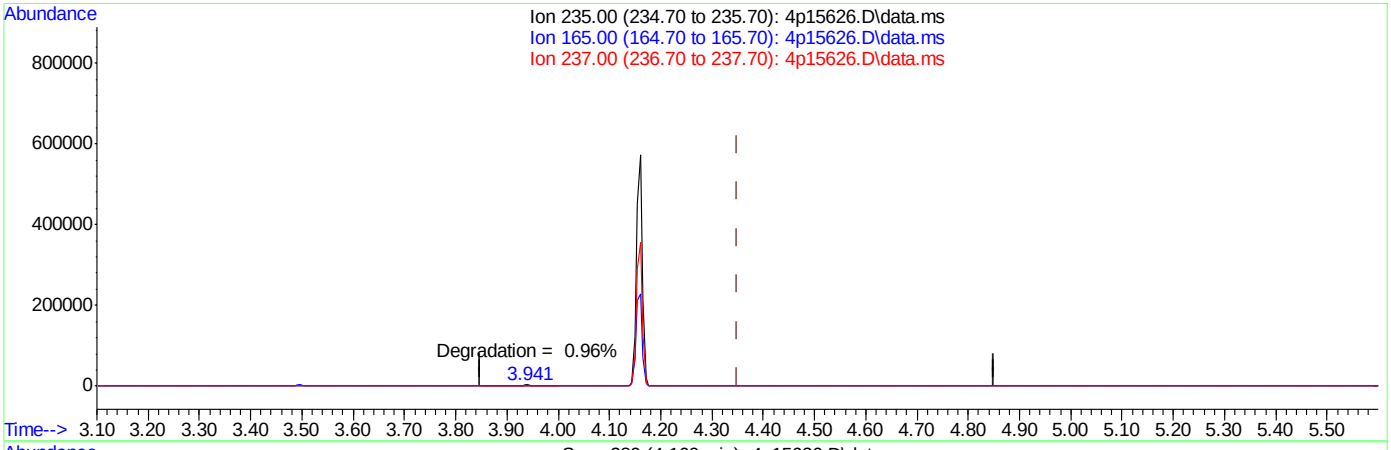
Ion	Exp%	Act%
184.05	100	0.00
92.05	11.60	0.00
0.00	0.00	0.00
0.00	0.00	0.00

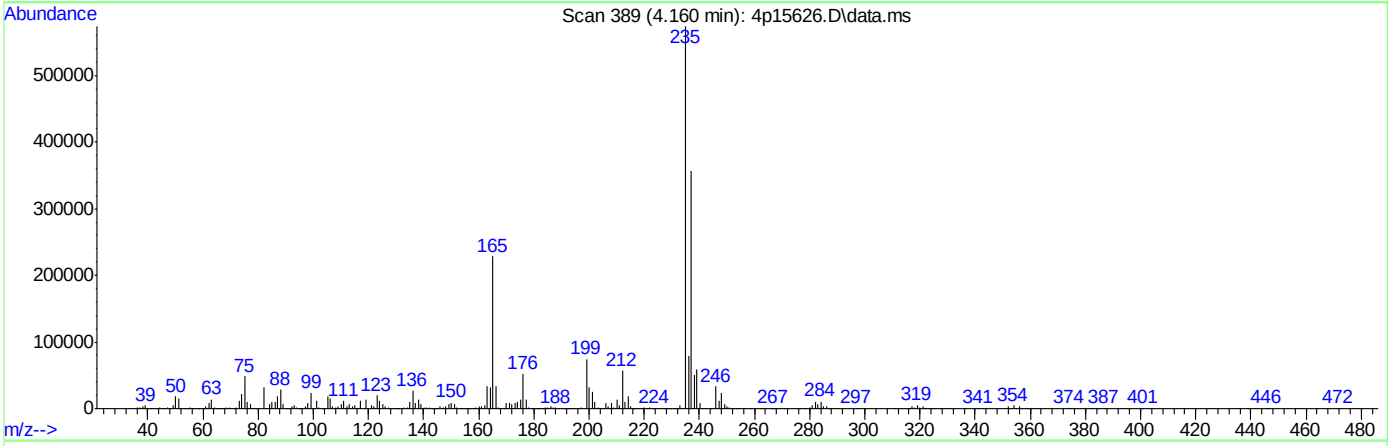
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15626.D
Acq On : 16 Mar 2016 9:30 pm
Operator : juliusj
Sample : dftpp
Misc : op91877a,e4p804
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 21:35:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP4P.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Feb 20 12:09:44 2014
Response via : Initial Calibration





TIC: 4p15626.D\data.ms

(3) PP-DDT (MC)

4.160min (-0.190) 239.49ppb

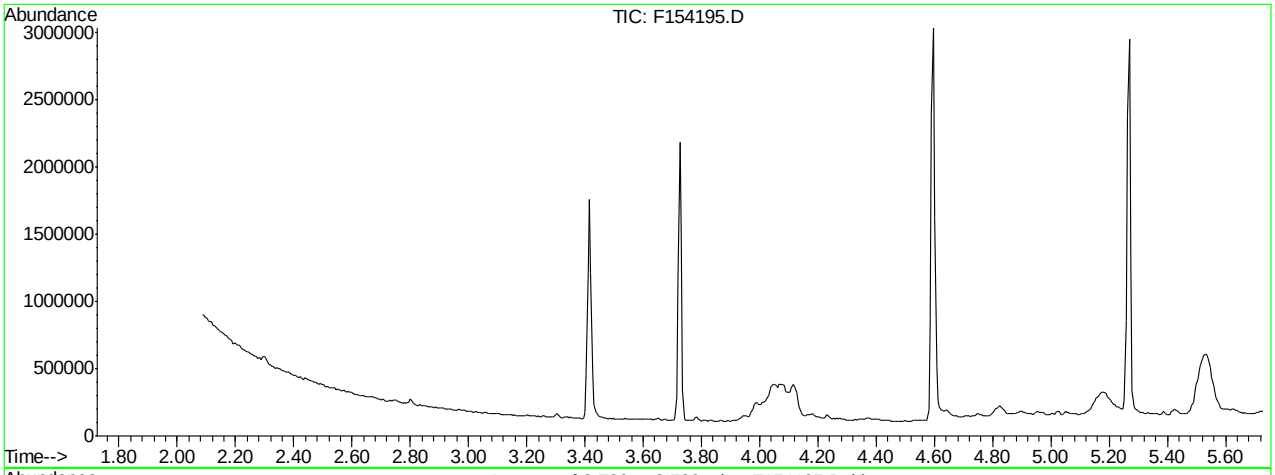
response 447808

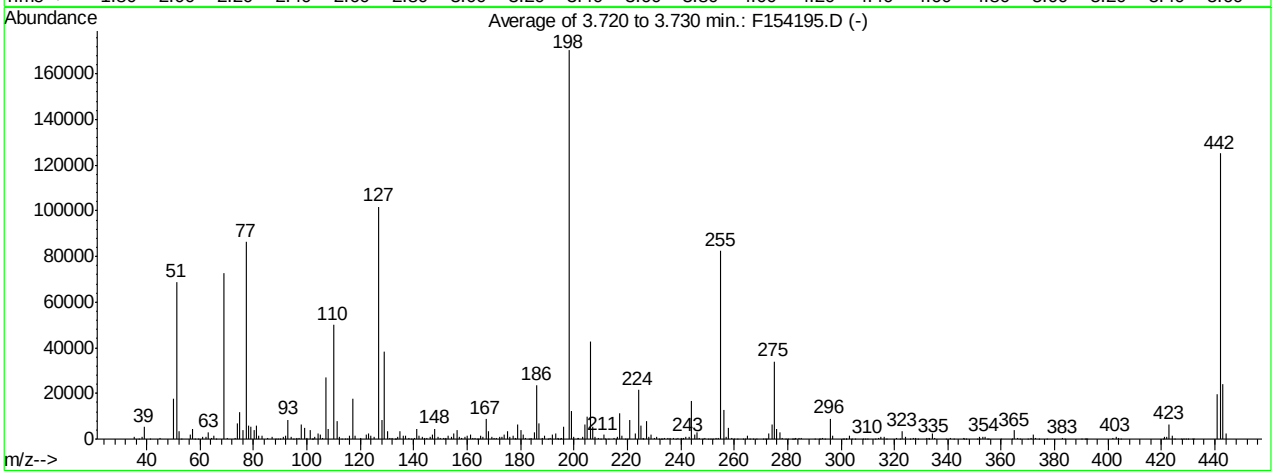
Ion	Exp%	Act%
235.00	100	100
165.00	58.00	39.82#
237.00	62.20	62.31
0.00	0.00	0.00

SGS ACCUTEST JC16038

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF6483\F154195.D Vial: 1
Acq On : 30 Jan 2016 8:22 am Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 307, 308, 309; Background Corrected with Scan 302

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.5	68961	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.7	72644	PASS
70	69	0.00	2	0.7	503	PASS
127	198	40	60	59.8	101830	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	170213	PASS
199	198	5	9	7.1	12081	PASS
275	198	10	30	20.0	33976	PASS
365	198	1	100	2.2	3723	PASS
441	443	0.10	100	81.9	19732	PASS
442	198	40	100	73.5	125080	PASS
443	442	17	23	19.3	24098	PASS

F154195.D DFTPPF.M Sat Jan 30 16:32:31 2016 RT1

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	1060	57.10	4513	73.10	441	85.10	519
37.00	244	58.05	262	74.10	6884	87.05	828
38.05	773	59.05	113	74.95	11635	88.00	244
39.05	5242	60.95	911	76.10	4121	88.95	212
41.10	112	62.00	1123	77.10	86370	90.00	52
45.05	336	63.10	3031	78.10	5805	91.00	1197
50.05	17728	64.10	497	79.05	5246	92.00	1542
51.10	68961	65.05	1348	80.05	4086	93.00	8537
52.05	3644	66.00	21	81.05	5800	94.00	858
53.05	205	69.00	72644	82.05	1636	95.10	61
56.10	1948	70.05	503	83.05	1709	96.05	350

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.10	558	106.95	26796	120.05	532	132.95	221
98.00	6429	108.10	4212	122.00	1810	133.20	100
99.00	5080	110.00	49980	123.00	2360	134.00	1105
100.05	529	111.10	7755	124.05	1367	135.00	3330
101.05	3710	112.05	879	125.05	1092	136.05	1450
101.90	85	113.05	148	127.00	101830	137.05	1272
102.10	213	114.15	263	128.00	8502	138.00	525
103.00	1099	115.00	69	129.00	38305	139.05	153
104.00	2251	116.05	1449	130.00	3530	140.05	659
104.95	2106	117.00	17606	131.00	728	141.00	4424
106.00	684	118.05	1602	132.00	359	142.05	1676

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.00	1179	152.95	1597	163.05	314	173.05	1029
144.00	429	154.05	1235	163.90	141	174.00	2071
145.05	458	155.05	2287	164.10	132	175.10	3498
146.05	829	156.05	4111	165.05	1493	176.05	1132
147.00	2225	157.15	899	166.05	1218	177.00	1658
148.00	4667	157.90	270	167.00	8836	177.90	103
149.00	1093	158.05	654	168.00	3637	178.05	477
150.05	402	159.05	779	169.05	834	179.00	6359
151.05	541	160.05	1524	169.95	441	180.00	4143
151.70	137	161.05	2149	170.95	339	181.05	1951
151.95	355	161.95	643	172.00	890	181.95	421

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.20	241	193.90	96	204.05	6388	215.90	200
184.05	681	194.05	391	205.05	9818	216.10	857
185.05	3102	194.80	98	206.10	42904	217.00	11403
186.05	23818	195.10	514	207.05	5490	218.00	1454
187.05	6649	196.05	5292	208.00	1215	219.35	176
188.05	688	198.00	170213	209.00	471	219.90	112
189.00	1552	199.00	12081	210.10	181	221.05	8352
190.00	261	200.00	822	211.05	1902	223.00	2331
191.00	736	201.45	596	211.70	178	224.10	21536
192.00	2163	201.65	648	213.05	152	225.00	5792
193.05	2431	203.05	1063	215.00	534	225.90	121

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.10	482	236.05	530	246.00	3152	256.95	1071
227.00	7868	237.05	722	246.95	630	258.00	4754
228.00	1239	238.00	57	248.05	169	259.00	744
229.00	1874	239.00	383	249.05	654	259.90	69

230.00	304	240.00	333	250.15	156	260.95	166
231.05	858	240.70	107	250.90	213	263.20	64
231.80	96	241.00	582	251.95	197	263.90	128
232.80	89	242.00	1082	253.05	555	265.00	1674
232.95	195	243.00	1191	253.90	359	265.85	114
233.95	735	244.05	16784	255.00	82413	266.90	68
235.05	691	245.10	2217	256.00	12900	268.10	86

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
270.95	261	281.80	55	296.00	8902	310.05	208
271.80	101	282.10	143	297.00	1491	313.00	53
272.20	110	282.70	52	300.80	63	313.95	537
272.95	2349	283.00	372	301.10	96	314.95	1066
274.00	6520	284.05	373	301.70	63	315.95	779
275.00	33976	285.05	550	302.00	107	317.10	77
276.00	4442	290.10	79	303.00	1288	320.95	336
277.00	2863	292.00	104	304.05	260	321.90	167
278.00	451	292.20	51	305.10	50	323.05	3519
279.05	109	293.00	606	308.00	62	324.00	755
280.10	50	294.00	193	308.90	79	326.00	54

Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
326.95	580	345.80	123	363.90	50	383.90	113
328.00	314	346.00	556	365.00	3723	389.90	226
328.80	50	346.90	78	366.00	552	391.15	171
331.95	286	351.00	61	367.00	54	391.90	84
332.85	387	351.80	126	370.10	54	392.10	84
333.10	133	352.00	994	370.95	319	402.00	747
334.00	2282	353.00	962	372.00	1770	403.00	988
335.05	582	353.95	1053	373.00	457	403.90	314
339.10	51	354.90	104	374.00	62	404.90	80
341.05	450	355.10	60	377.00	73	420.80	102
342.10	131	360.00	50	383.00	397	421.00	822

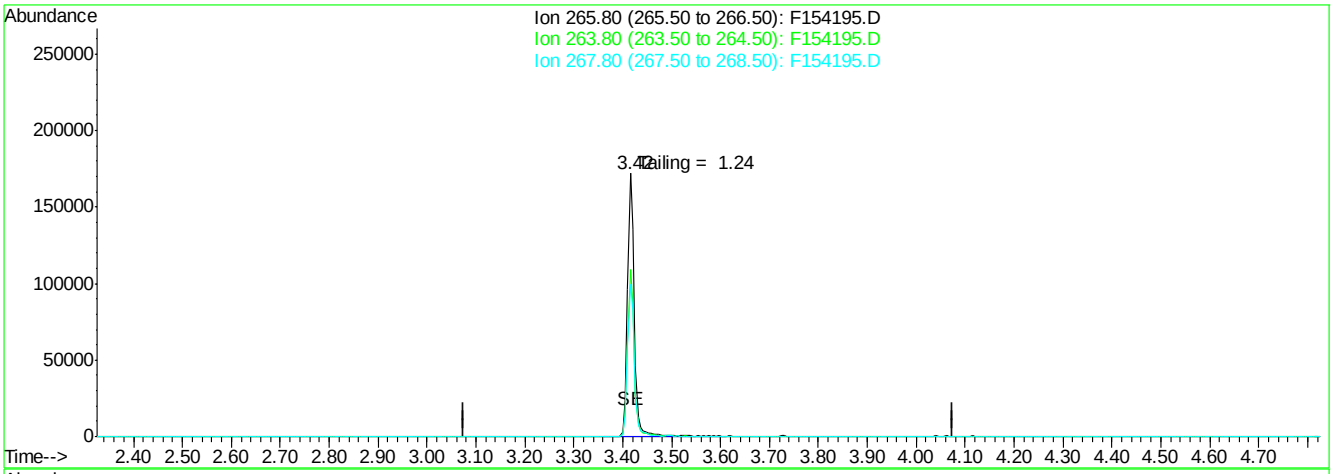
Average of 3.720 to 3.730 min.: F154195.D
dftpp
Modified:subtracted

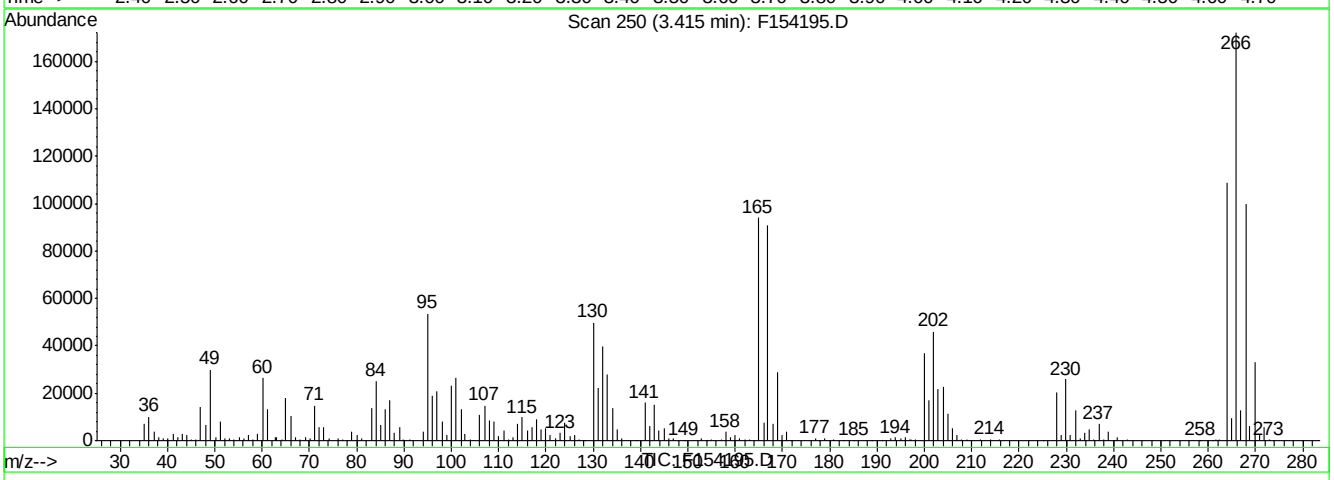
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.00	1035	442.00	125080				
423.00	6487	443.00	24098				
424.05	1296	444.05	2635				
425.00	73						
427.50	61						
428.30	67						
428.95	109						
430.00	73						
431.50	91						
432.10	56						
441.00	19732						

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154195.D Vial: 1
Acq On : 30 Jan 2016 8:22 am Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 8:28 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(1) Pentachlorophenol (t)

3.42min 88.87ppb

response 165206

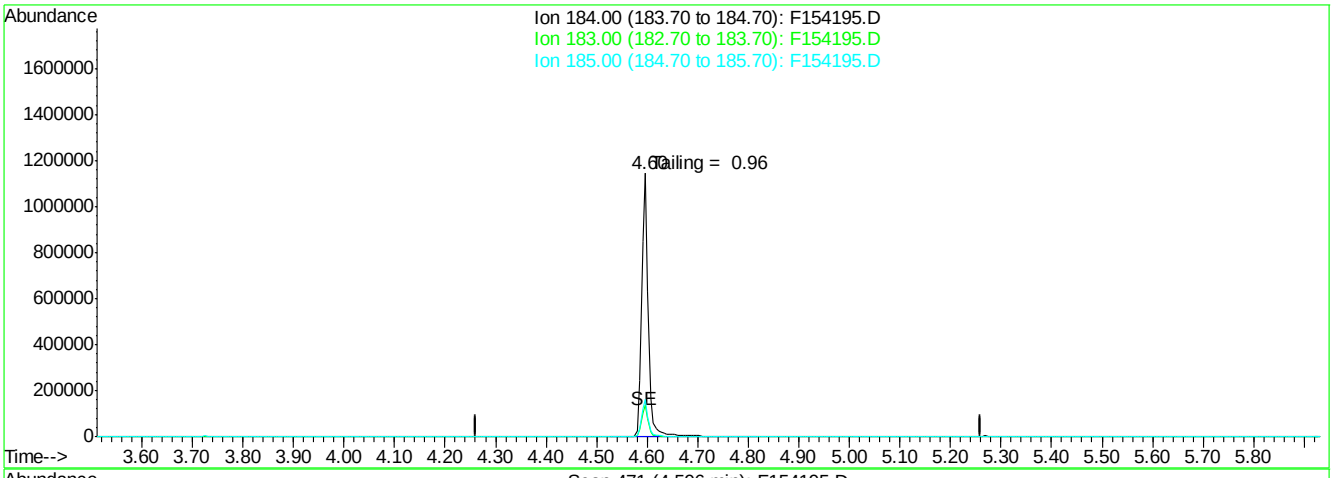
Ion	Exp%	Act%
265.80	100	100
263.80	63.00	63.13
267.80	64.80	58.03
0.00	0.00	0.00

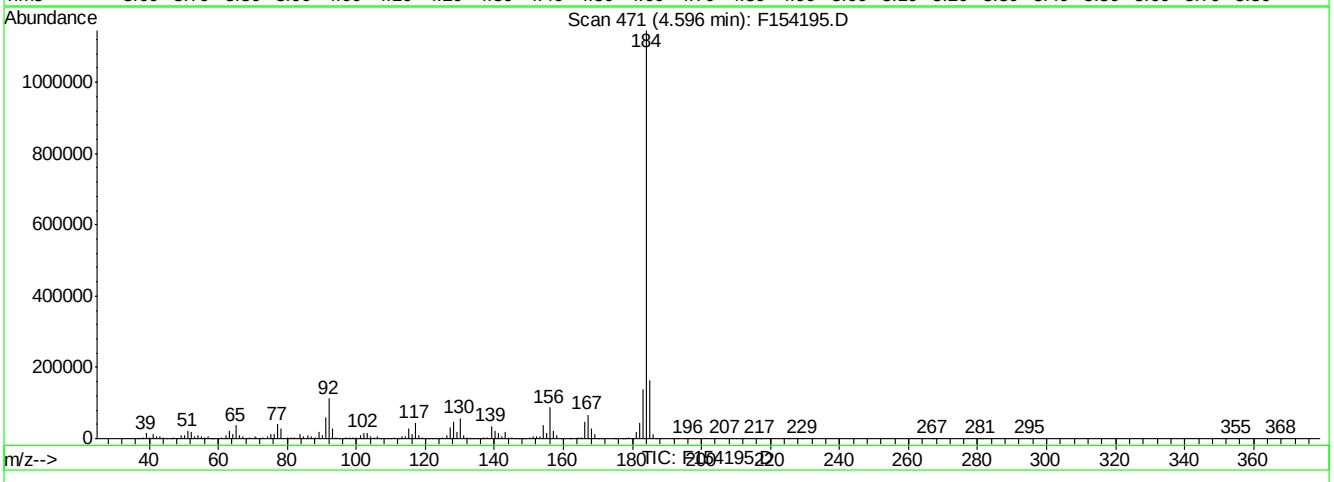
F154195.D DFTPPF.M Sat Jan 30 09:09:43 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154195.D Vial: 1
Acq On : 30 Jan 2016 8:22 am Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 8:28 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(2) Benzidine (t)

4.60min 56.47ppb

response 1057803

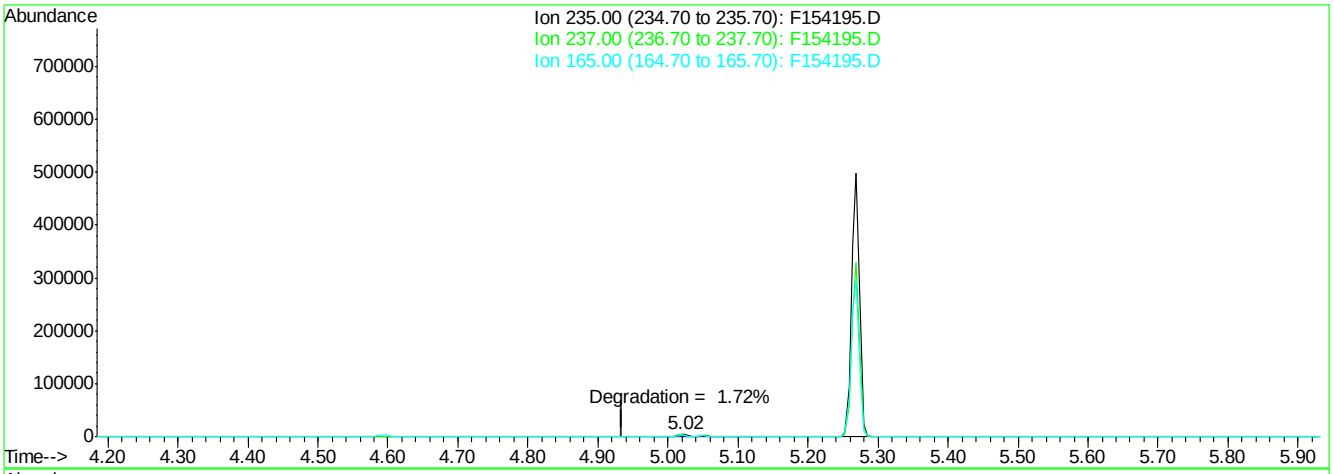
Ion	Exp%	Act%
184.00	100	100
183.00	12.60	11.93
185.00	16.20	14.09
0.00	0.00	0.00

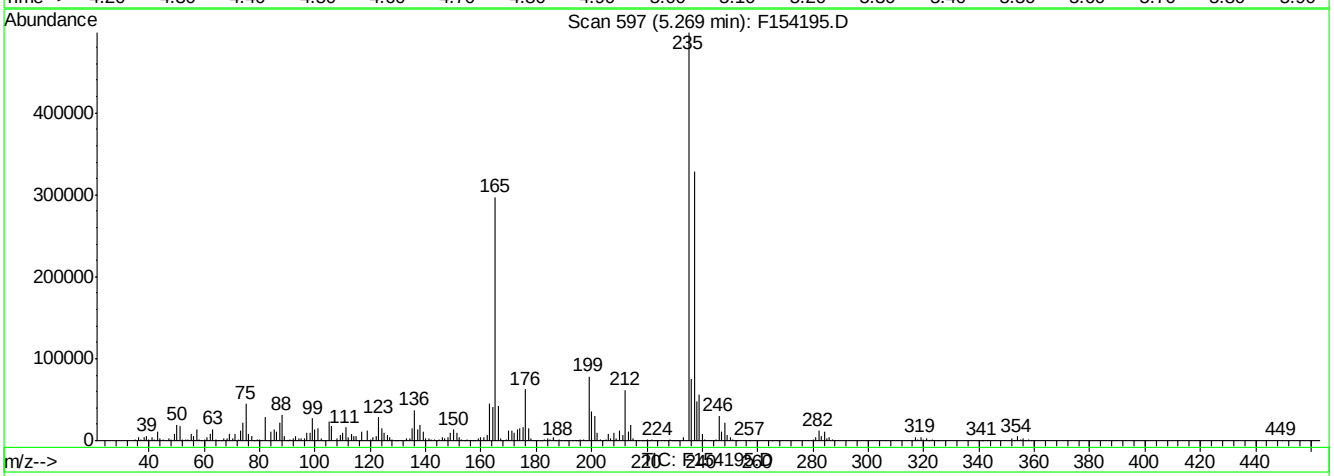
F154195.D DFTPPF.M Sat Jan 30 09:09:48 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154195.D Vial: 1
Acq On : 30 Jan 2016 8:22 am Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 8:28 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Single Level Calibration





(3) ddt (t)

5.27min 25.04ppb

response 388776

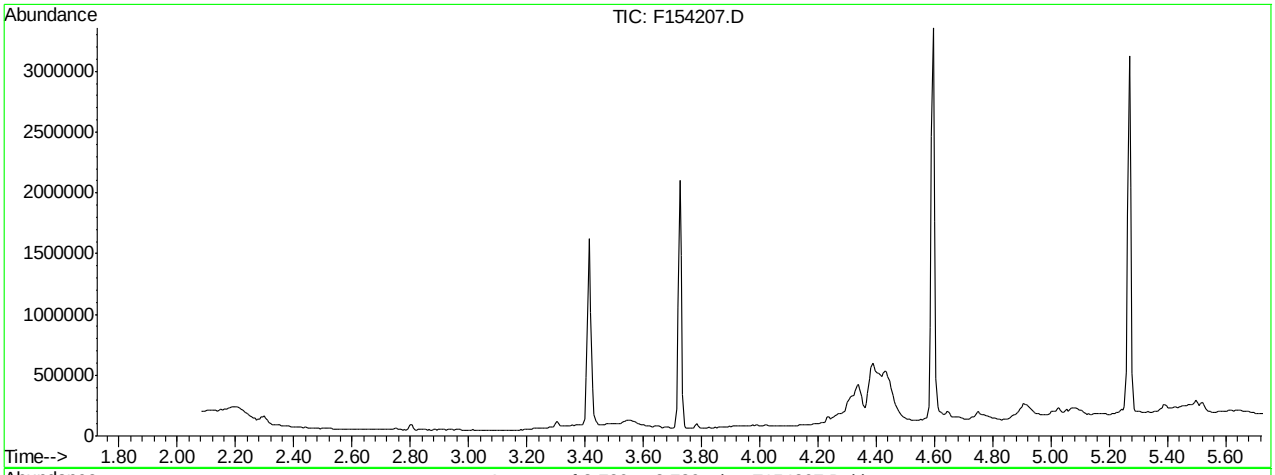
Ion	Exp%	Act%
235.00	100	100
237.00	66.70	64.57
165.00	59.50	59.93
0.00	0.00	0.00

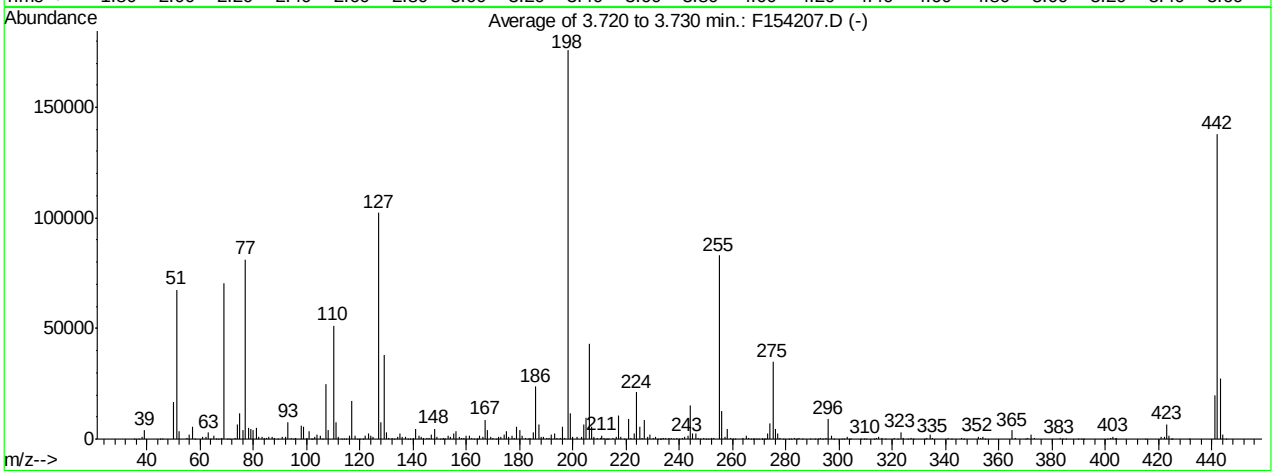
F154195.D DFTPPF.M Sat Jan 30 09:09:56 2016 RT1

SGS ACCUTEST JC16038

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF6484\F154207.D Vial: 1
Acq On : 30 Jan 2016 1:53 pm Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 307, 308, 309; Background Corrected with Scan 302

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.4	67425	PASS
68	69	0.00	2	0.6	442	PASS
69	198	0.00	100	40.0	70239	PASS
70	69	0.00	2	0.3	227	PASS
127	198	40	60	58.2	102158	PASS
197	198	0.00	1	0.2	353	PASS
198	198	100	100	100.0	175661	PASS
199	198	5	9	6.7	11743	PASS
275	198	10	30	19.9	34941	PASS
365	198	1	100	2.3	4023	PASS
441	443	0.10	100	73.7	20031	PASS
442	198	40	100	78.5	137840	PASS
443	442	17	23	19.7	27179	PASS

F154207.D DFTPPF.M Sat Jan 30 16:35:22 2016 RT1

Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	111	57.10	5464	70.10	227	82.10	1207
37.00	135	58.10	198	71.10	178	83.10	1255
38.10	824	61.10	803	73.10	499	84.00	525
39.10	4177	62.10	1045	74.05	6422	85.10	638
45.05	59	63.10	2841	75.05	11474	86.00	1225
46.00	50	64.10	251	76.10	4073	87.00	904
50.10	16745	65.05	1450	77.10	81299	87.95	336
51.10	67425	66.10	123	78.05	5264	89.05	239
52.10	3381	67.05	237	79.00	4798	91.05	982
55.10	329	68.05	442	80.05	3957	92.10	1143
56.10	1997	69.00	70239	81.05	5120	93.00	7826

Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.05	528	105.05	1372	117.00	17173	129.00	37795
95.05	236	106.10	42	118.05	1591	130.05	3245
96.10	382	107.05	24876	119.10	108	131.00	321
98.05	5871	108.00	3940	120.05	261	132.10	272
99.00	5548	110.05	51221	121.05	166	133.10	168
100.00	357	111.05	7584	122.05	1357	134.00	927
101.00	3416	112.05	851	123.10	2652	135.05	2608
101.95	129	113.00	200	124.00	1292	136.05	822
102.20	98	114.15	202	125.05	1034	137.10	1239
103.10	1270	115.00	84	127.10	102158	138.15	242
104.05	1997	116.00	1311	128.00	7507	139.00	45

Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.05	665	151.10	40	161.05	1743	171.05	189
141.05	4414	151.35	465	162.05	666	171.95	835
142.05	1604	151.70	149	162.90	62	173.05	1185
143.05	1267	153.05	1320	163.90	176	174.05	2084
144.00	428	154.00	982	164.10	103	175.10	3370
145.05	323	155.05	2589	164.95	1591	176.05	1028
146.05	729	156.05	3486	166.10	1248	177.05	1440
147.00	2093	157.15	1006	167.05	8868	178.05	666
148.00	4675	158.00	712	168.00	3828	179.00	5761
149.05	1008	159.10	706	169.05	912	180.05	4119
150.20	268	160.05	1320	170.15	380	181.00	1689

Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.05	399	193.05	2385	205.10	9473	215.00	556
182.90	227	194.10	616	206.10	43010	216.10	838
184.05	549	195.10	355	207.10	5552	217.00	10461
185.10	3068	196.00	5669	208.00	1255	218.05	1054
186.10	23622	196.80	353	209.00	518	219.20	264
187.05	6553	198.00	175661	210.40	401	221.00	9021
188.05	801	199.00	11743	210.95	1773	221.80	465
189.00	1270	200.05	903	211.70	440	223.05	2411
190.00	302	201.45	962	212.30	69	224.05	21064
191.05	702	203.05	812	213.00	73	225.05	5427
192.05	1801	204.05	6502	213.20	178	226.05	613

Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
227.00	8720	237.05	655	248.05	143	259.90	70
228.00	1157	237.95	179	249.00	425	261.00	81
229.05	1923	239.00	395	250.05	153	263.95	325
230.05	301	239.95	188	251.00	65	265.00	1722

231.05	828	240.95	580	252.10	275	266.00	411
232.00	96	242.05	1252	253.00	451	267.00	125
232.70	52	243.05	1353	255.00	83077	267.60	64
233.30	60	244.10	15301	256.00	12523	268.10	69
234.05	744	245.10	2381	257.00	1009	268.70	64
235.00	646	246.00	2774	258.00	4664	269.80	62
235.95	403	247.05	589	259.05	740	270.80	76

Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
271.10	78	282.00	112	296.00	8957	312.90	86
271.95	215	283.05	367	296.95	1392	314.05	392
272.20	98	284.10	211	297.90	69	314.95	1153
273.00	2571	285.05	639	300.90	129	316.05	732
274.00	7004	286.20	60	301.90	110	317.20	67
275.00	34941	289.00	73	303.05	1237	320.85	332
276.00	4631	290.90	66	303.95	222	322.00	107
277.00	2679	292.10	208	304.20	54	323.00	3204
277.90	448	292.95	692	308.00	54	324.05	719
279.10	85	293.85	189	309.10	50	325.90	66
281.20	169	295.10	315	310.00	58	327.00	510

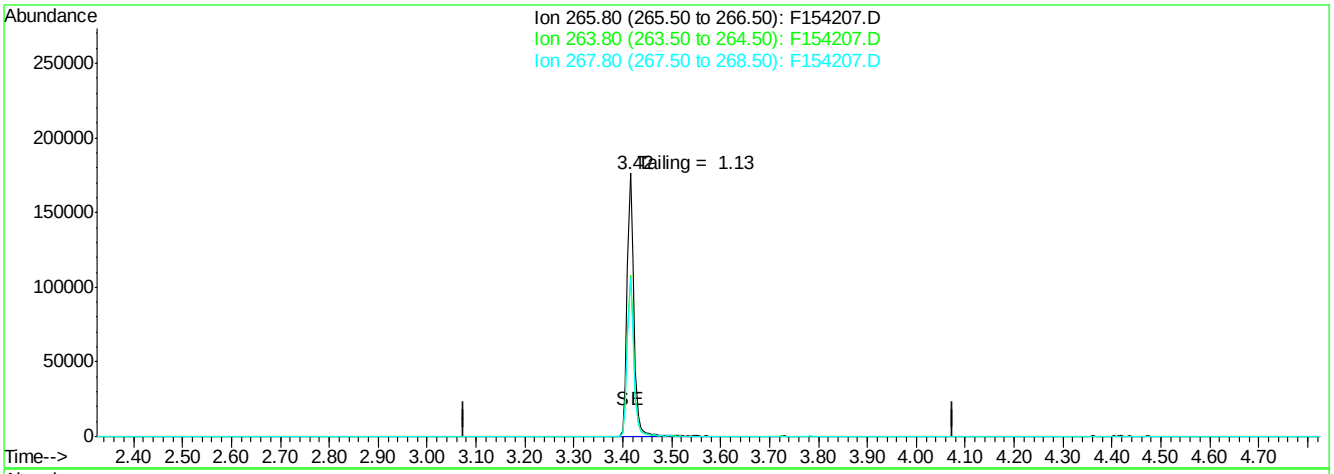
Average of 3.720 to 3.730 min.: F154207.D
dftpp
Modified:subtracted

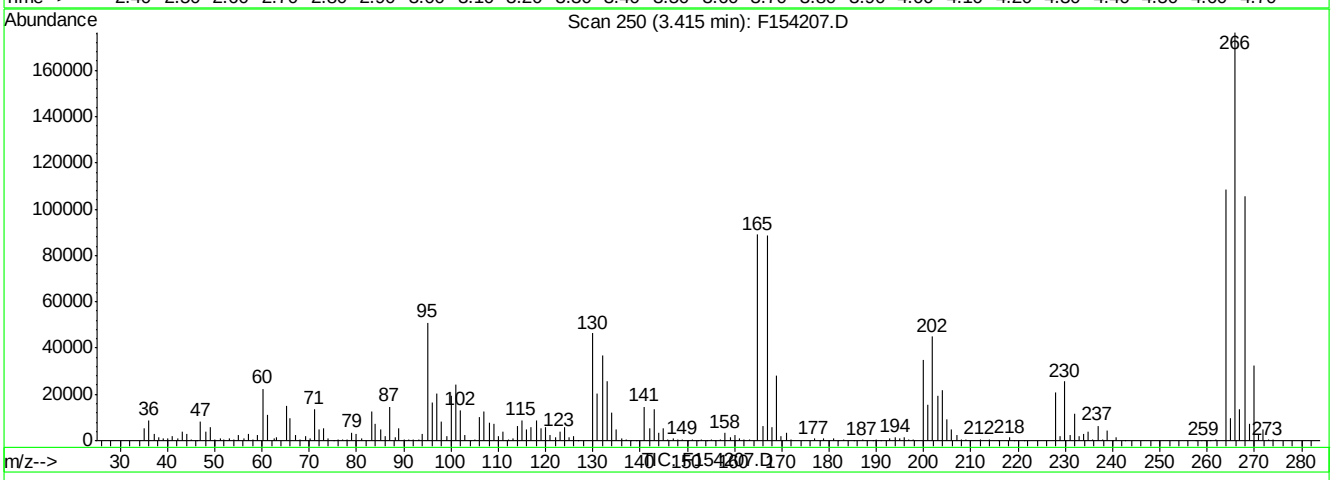
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
328.00	246	354.05	1116	389.90	244	423.00	6816
332.00	186	354.90	131	390.80	162	424.00	1451
332.95	329	364.95	4023	391.70	115	424.75	120
333.95	1795	366.00	555	400.80	63	425.20	55
335.00	747	370.10	103	402.05	769	431.20	70
341.00	454	370.95	363	402.95	1142	441.00	20031
341.95	140	372.00	2121	403.80	64	442.00	137840
345.90	687	373.10	414	404.00	420	443.00	27179
346.85	105	382.95	485	415.00	62	444.00	2265
352.05	1160	383.95	152	421.00	925	445.10	128
353.00	746	385.00	74	422.00	1088		

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154207.D Vial: 1
Acq On : 30 Jan 2016 1:53 pm Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 13:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(1) Pentachlorophenol (t)

3.42min 91.95ppb

response 170922

Ion	Exp%	Act%
265.80	100	100
263.80	63.00	61.49
267.80	64.80	59.86
0.00	0.00	0.00

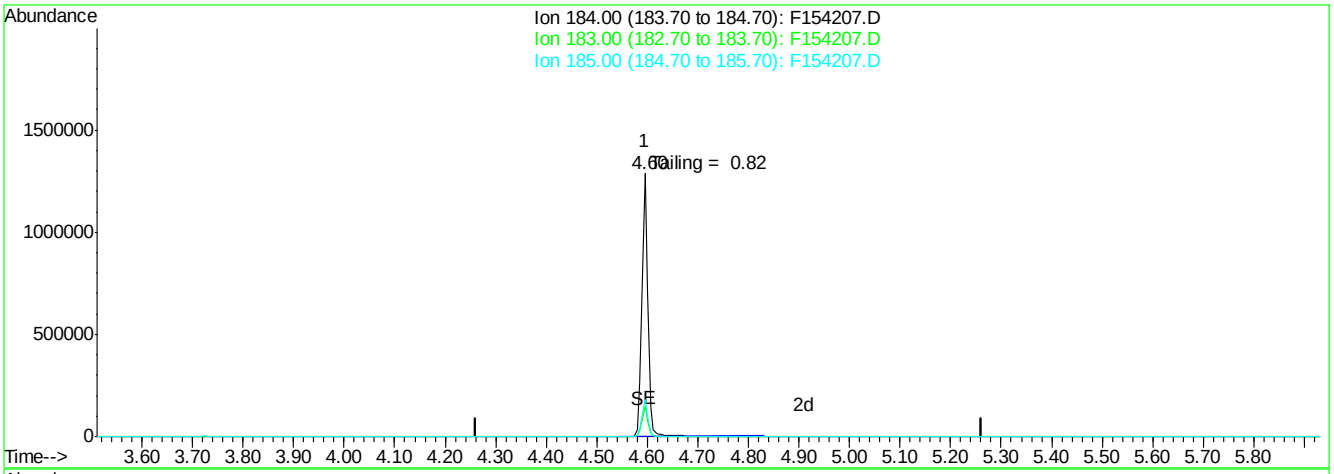
F154207.D DFTPPF.M Sat Jan 30 14:00:55 2016 RT1

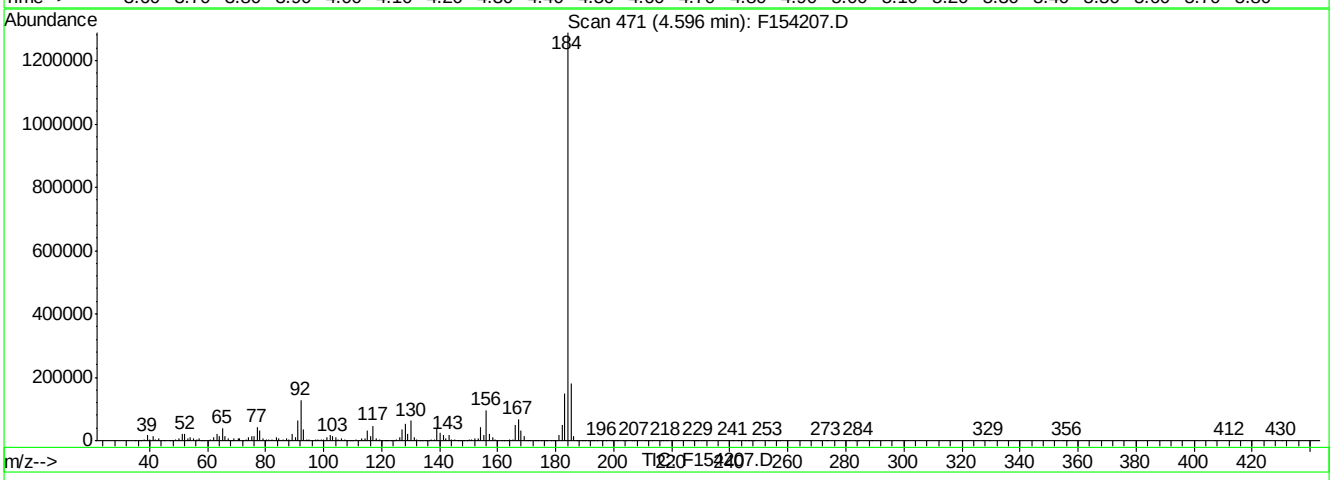
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154207.D Vial: 1
Acq On : 30 Jan 2016 1:53 pm Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 13:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(2) Benzidine (t)

4.60min 59.03ppb

response 1105835

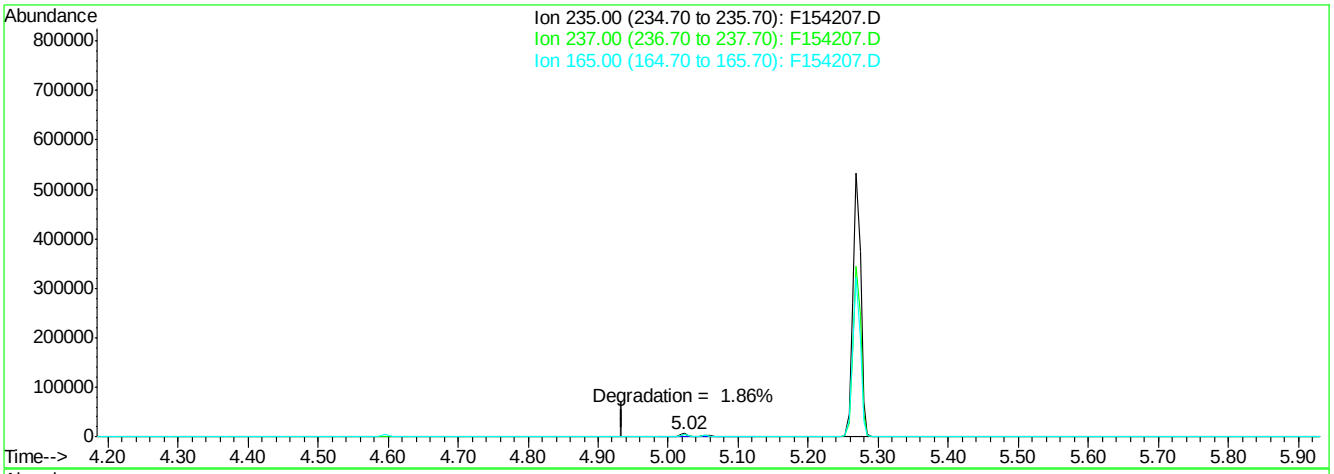
Ion	Exp%	Act%
184.00	100	100
183.00	12.60	11.38
185.00	16.20	14.14
0.00	0.00	0.00

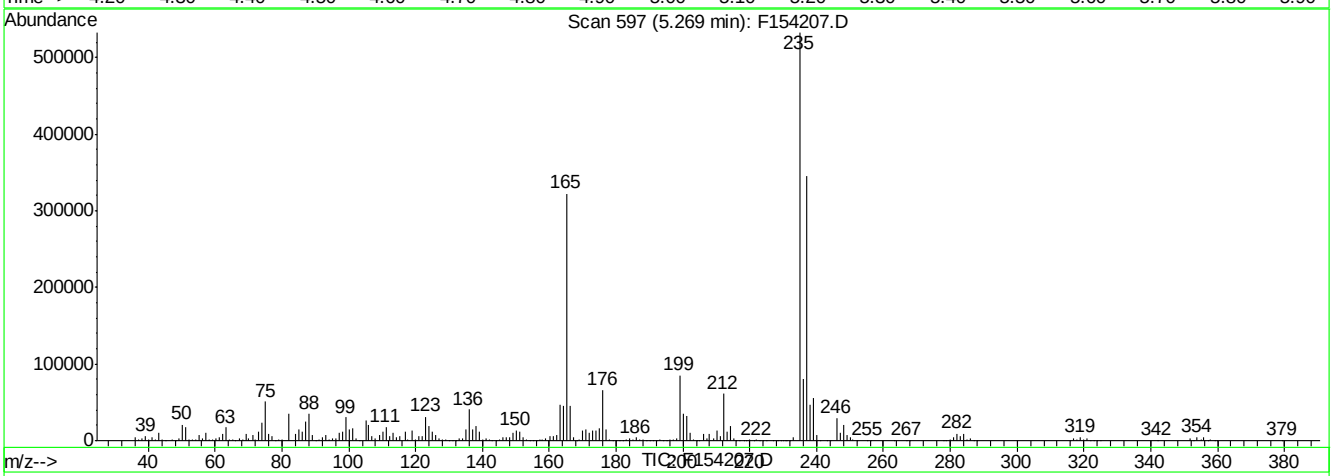
F154207.D DFTPPF.M Sat Jan 30 14:01:01 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154207.D Vial: 1
Acq On : 30 Jan 2016 1:53 pm Operator: kristis
Sample : dftpp Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 13:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Single Level Calibration





(3) ddt (t)

5.27min 26.84ppb

response 416838

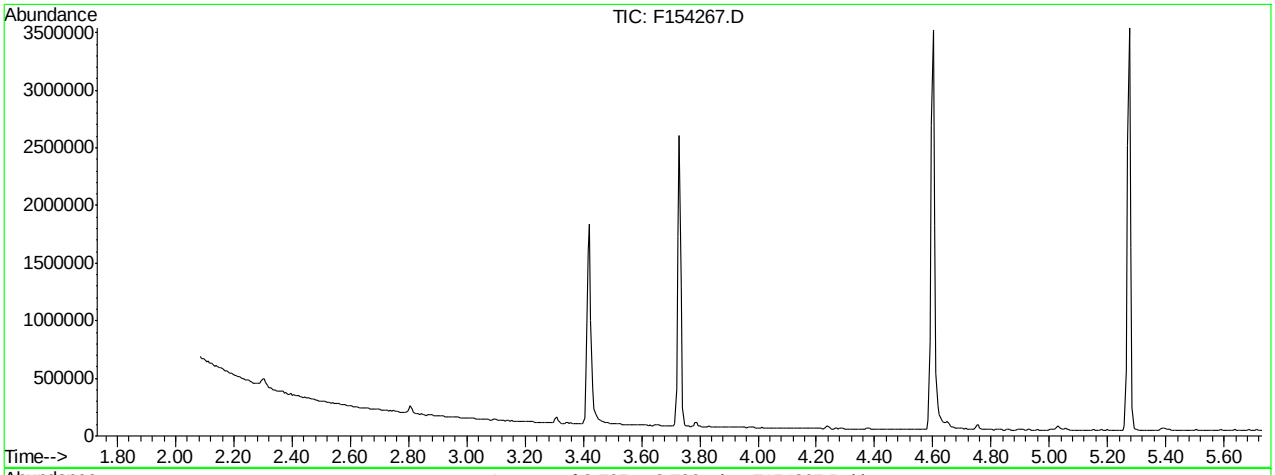
Ion	Exp%	Act%
235.00	100	100
237.00	66.70	64.70
165.00	59.50	59.04
0.00	0.00	0.00

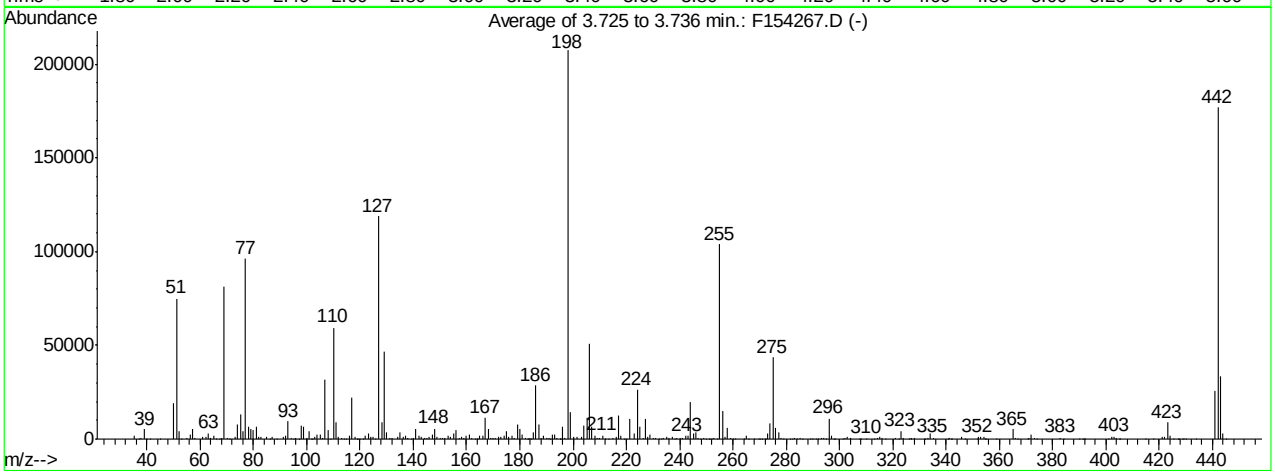
F154207.D DFTPPF.M Sat Jan 30 14:01:08 2016 RT1

SGS ACCUTEST JC16038

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF6489\F154267.D Vial: 1
Acq On : 1 Feb 2016 5:54 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 308, 309, 310; Background Corrected with Scan 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.1	74861	PASS
68	69	0.00	2	0.8	664	PASS
69	198	0.00	100	39.3	81365	PASS
70	69	0.00	2	0.6	493	PASS
127	198	40	60	57.3	118728	PASS
197	198	0.00	1	0.3	603	PASS
198	198	100	100	100.0	207296	PASS
199	198	5	9	6.8	14099	PASS
275	198	10	30	20.9	43376	PASS
365	198	1	100	2.5	5114	PASS
441	443	0.10	100	76.4	25733	PASS
442	198	40	100	85.3	176808	PASS
443	442	17	23	19.0	33672	PASS

F154267.D DFTPPF.M Mon Feb 01 18:03:02 2016 RT1

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	1790	55.05	398	68.10	664	80.00	4549
37.00	179	56.10	2357	69.00	81365	81.00	6776
38.00	749	57.10	5586	70.05	493	82.00	1495
39.10	5108	58.05	394	71.10	62	83.00	1352
40.05	174	61.10	956	73.10	941	85.00	1227
41.05	155	62.10	1026	74.10	7621	86.00	300
45.10	95	63.10	3046	75.10	13225	86.95	925
50.05	19142	64.05	392	76.10	4485	88.90	128
51.10	74861	65.05	1714	77.10	96050	91.05	1249
52.10	4341	66.05	127	78.10	6871	92.00	1531
53.15	138	67.15	119	79.00	5516	93.00	9462

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	776	104.05	2153	114.80	116	125.00	1328
95.05	291	105.10	2138	116.00	1701	125.90	80
96.05	633	106.05	841	117.00	21937	127.00	118728
97.00	111	107.00	31490	118.00	1392	128.05	9173
98.00	7444	108.05	4754	118.90	52	129.00	46386
99.00	6364	108.90	108	119.15	168	130.00	3803
100.00	599	110.00	59405	120.05	295	131.00	804
101.00	4184	111.00	8797	120.95	116	132.05	357
101.90	113	112.05	1030	122.00	1893	134.05	1244
102.10	147	113.05	360	123.00	3214	135.00	3355
103.05	1199	114.00	96	124.00	1420	136.10	1275

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
137.05	1777	148.00	5479	159.05	731	169.00	896
137.95	473	149.00	1120	160.00	1713	170.05	420
139.10	280	150.00	524	161.00	2308	170.95	448
140.00	639	150.95	617	162.10	673	172.00	1123
141.00	5112	151.85	384	163.05	167	173.05	1354
142.00	1669	153.05	1648	163.90	119	174.00	2102
142.95	1176	154.00	1303	164.05	184	175.05	4375
144.10	355	155.10	2873	165.00	1750	176.00	1268
145.00	413	156.10	4683	166.05	1636	177.05	2067
146.05	1147	157.15	887	167.00	11226	178.00	665
147.00	2617	157.95	1002	168.05	5255	179.00	7726

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
180.05	5119	189.00	1799	198.00	207296	210.05	669
181.05	2471	190.00	330	199.00	14099	211.05	1987
182.05	453	191.00	718	200.00	1282	211.80	133
182.90	105	191.40	169	201.50	1111	212.10	86
183.10	67	192.00	2204	203.05	1447	213.05	203
183.90	569	193.05	2605	204.05	7465	215.00	565
184.10	152	194.05	666	205.10	11632	216.10	1279
185.10	3870	195.00	193	206.10	50605	217.00	12287
186.00	28437	195.20	101	207.05	6653	218.05	1922
187.10	7795	196.00	6762	208.00	1663	219.00	69
188.10	793	196.70	603	209.00	636	219.90	99

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.05	11031	232.95	185	244.10	19843	253.90	159
223.00	2964	234.00	768	245.05	2722	255.00	103824
224.10	26050	235.00	957	246.00	3892	256.00	14865
225.10	6763	235.95	525	247.00	899	257.00	1374

226.10	584	237.05	976	247.90	62	258.00	5780
227.00	10957	237.95	139	249.10	793	259.00	823
228.00	1499	239.10	384	250.00	152	259.95	213
229.00	2157	240.05	359	250.95	302	260.95	222
230.00	327	241.00	666	251.20	93	263.95	240
231.05	914	242.10	1523	251.95	235	265.00	2012
232.05	134	243.05	1550	253.00	589	265.90	144

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
268.00	75	278.05	609	292.00	107	304.05	384
269.80	64	278.90	147	293.00	752	307.50	61
270.10	148	281.30	57	294.05	363	307.95	149
270.95	311	282.10	75	295.00	126	310.10	154
272.00	176	283.05	342	296.00	11063	313.00	87
272.20	182	284.05	295	296.95	1616	314.05	699
273.00	3173	285.05	694	297.80	66	315.00	1399
274.00	8307	285.90	89	298.10	57	315.95	657
275.00	43376	289.00	54	301.05	136	317.05	169
276.05	5729	289.95	199	301.95	331	321.05	495
277.00	3420	291.10	58	303.00	1410	322.05	191

Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.05	4365	340.90	91	355.10	289	384.00	119
324.00	796	341.05	461	358.80	56	389.90	308
325.80	125	341.90	121	365.00	5114	391.10	262
326.80	131	342.10	66	366.00	884	391.80	84
326.95	437	345.95	939	367.00	53	392.10	82
327.95	366	347.00	68	370.70	52	400.95	155
331.80	63	351.80	170	371.00	423	401.95	923
332.00	220	352.05	1100	372.00	2129	403.05	1411
333.00	550	353.05	976	372.95	542	404.00	444
334.00	2863	354.00	1447	373.90	50	404.90	59
335.05	801	354.80	96	382.95	732	405.10	60

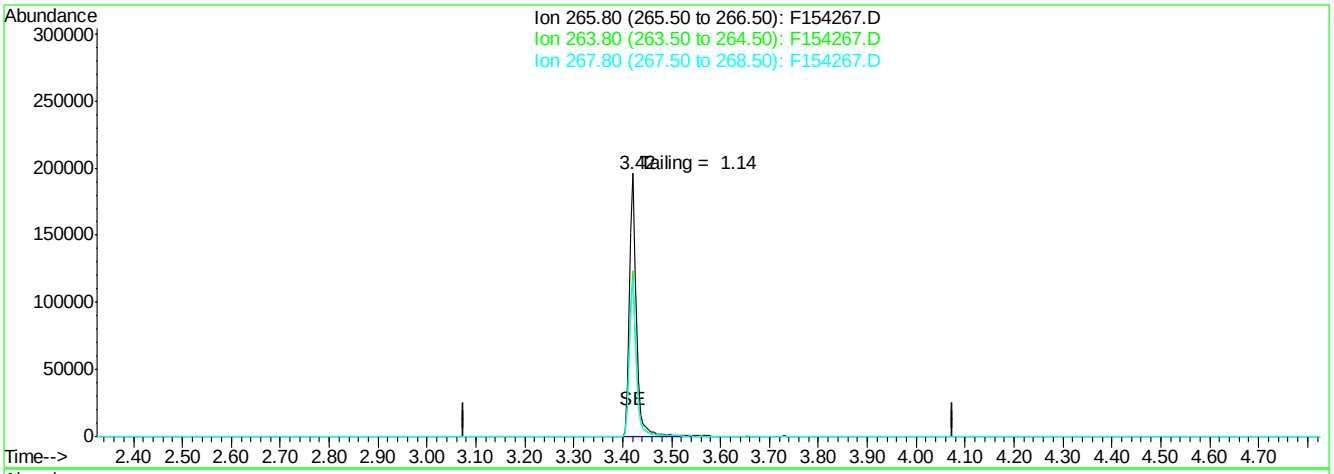
Average of 3.725 to 3.736 min.: F154267.D
dftpp
Modified:subtracted

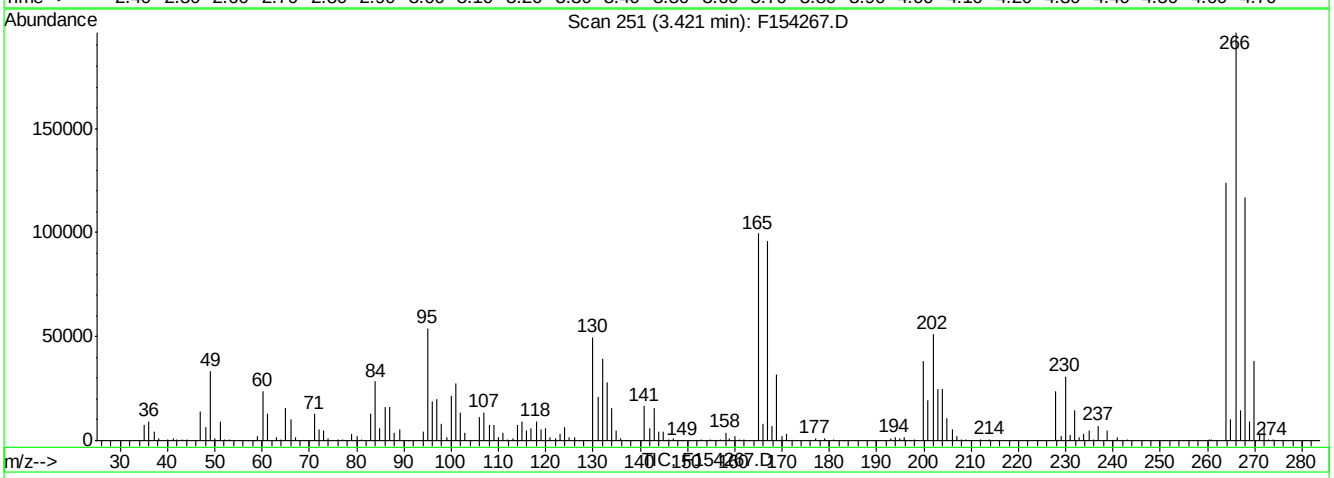
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
414.90	88	430.00	53				
417.70	50	433.60	53				
420.95	1151	441.00	25733				
422.05	1378	442.00	176808				
423.00	8941	443.00	33672				
424.05	1697	444.00	3278				
425.20	262	444.90	148				
426.80	65						
427.60	52						
428.50	54						
429.10	86						

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154267.D Vial: 1
Acq On : 1 Feb 2016 5:54 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 18:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(1) Pentachlorophenol (t)

3.42min 104.99ppb

response 195171

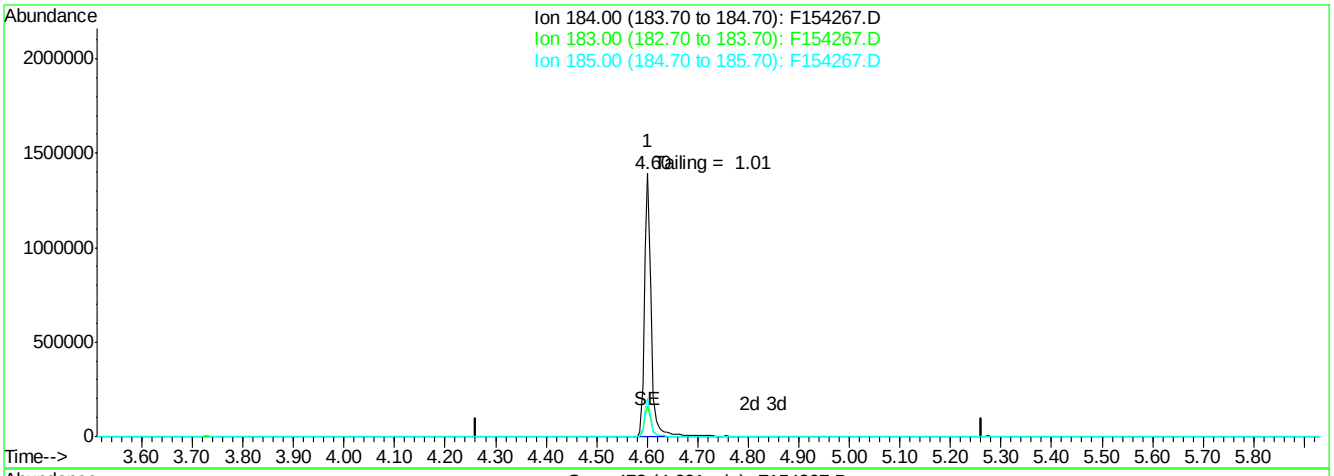
Ion	Exp%	Act%
265.80	100	100
263.80	63.00	63.14
267.80	64.80	59.50
0.00	0.00	0.00

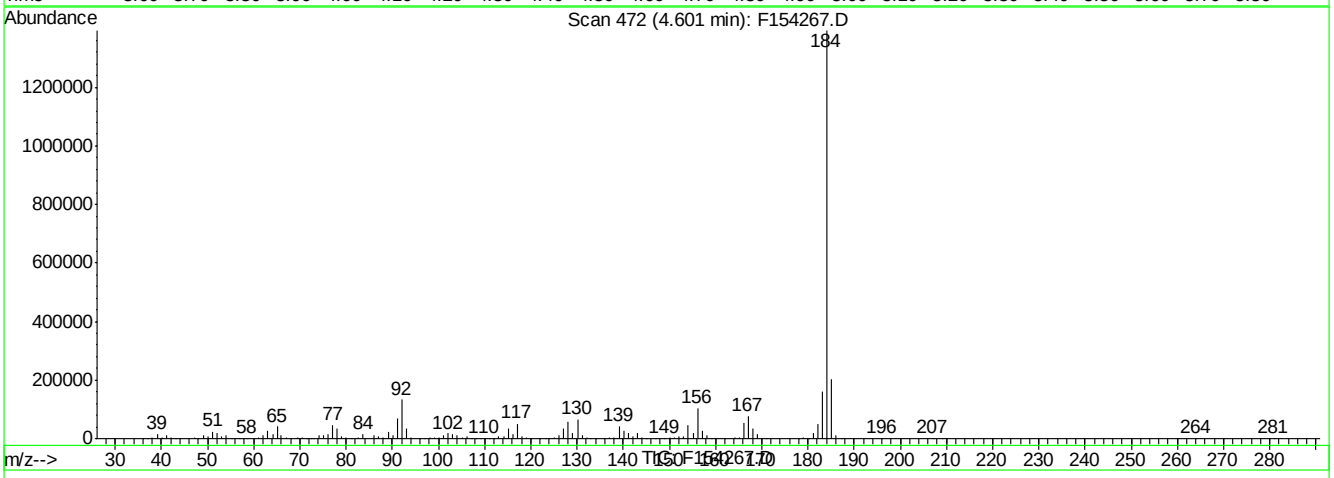
F154267.D DFTPPF.M Mon Feb 01 18:02:44 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154267.D Vial: 1
Acq On : 1 Feb 2016 5:54 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 18:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(2) Benzidine (t)

4.60min 68.28ppb

response 1279095

Ion	Exp%	Act%
184.00	100	100
183.00	12.60	11.36
185.00	16.20	14.65
0.00	0.00	0.00

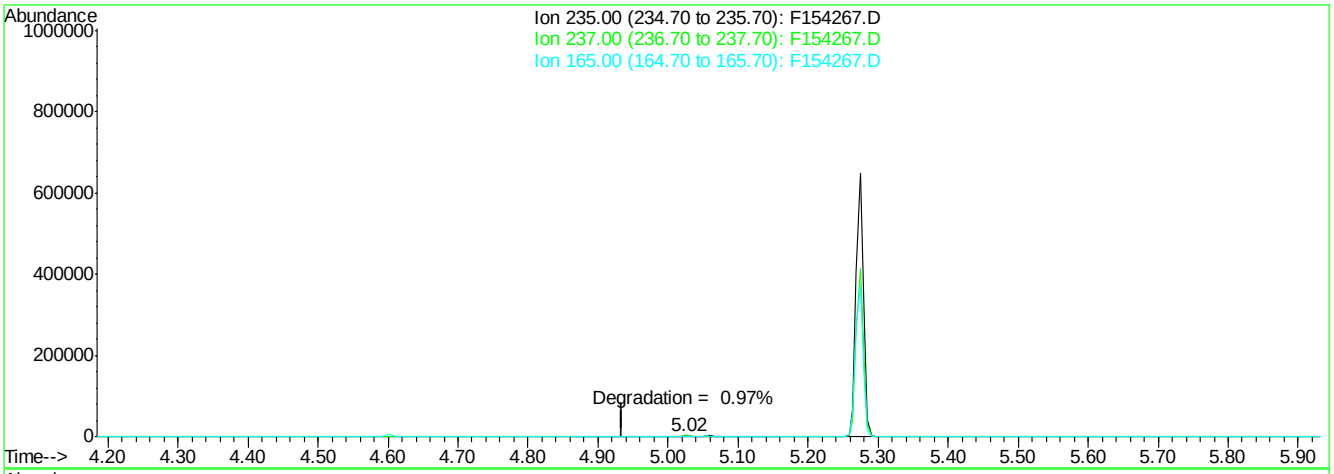
F154267.D DFTPPF.M Mon Feb 01 18:02:50 2016 RT1

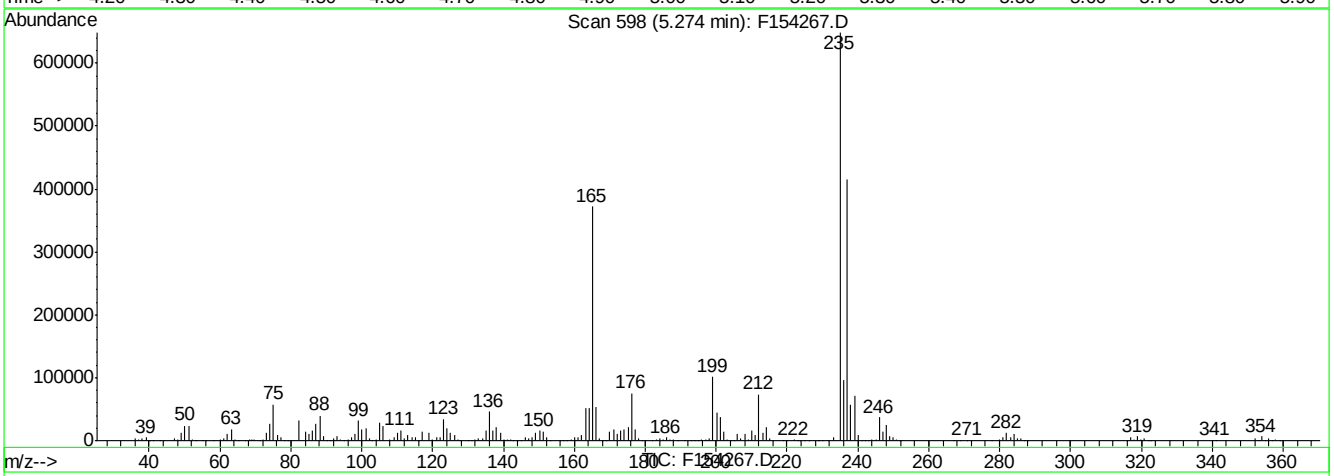
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154267.D Vial: 1
Acq On : 1 Feb 2016 5:54 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 18:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Single Level Calibration





(3) ddt (t)

5.27min 30.98ppb

response 481069

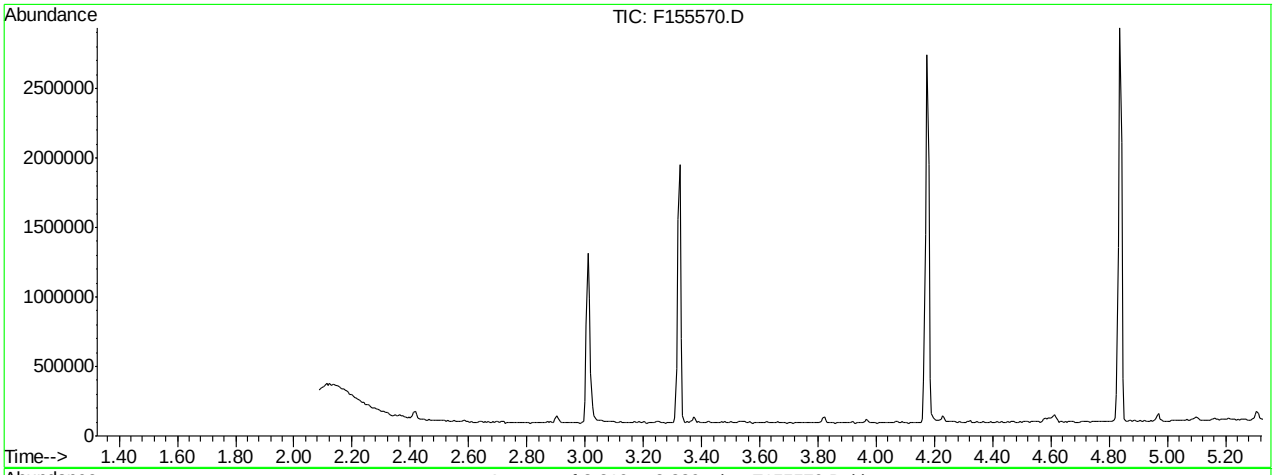
Ion	Exp%	Act%
235.00	100	100
237.00	66.70	63.82
165.00	59.50	58.90
0.00	0.00	0.00

F154267.D DFTPPF.M Mon Feb 01 18:02:57 2016 RT1

SGS ACCUTEST JC16038

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF6543\F155570.D Vial: 1
Acq On : 15 Mar 2016 9:06 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 232, 233, 234; Background Corrected with Scan 227

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.9	58915	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.7	58568	PASS
70	69	0.00	2	0.5	306	PASS
127	198	40	60	56.1	80719	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	143973	PASS
199	198	5	9	6.7	9626	PASS
275	198	10	30	21.5	30952	PASS
365	198	1	100	2.9	4233	PASS
441	443	0.10	100	82.3	19915	PASS
442	198	40	100	93.3	134306	PASS
443	442	17	23	18.0	24197	PASS

F155570.D DFTPPF.M Wed Mar 16 15:02:43 2016 RT1

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	665	53.20	94	63.10	2147	74.00	5921
37.00	256	54.10	61	64.00	265	75.05	9645
38.05	328	55.10	87	65.05	1085	76.10	3429
39.10	5075	56.00	1738	66.00	102	77.10	66101
40.00	251	57.10	4454	66.95	132	78.05	4020
41.10	81	58.05	77	69.00	58568	79.10	4203
47.00	30	59.00	219	70.00	306	80.00	3086
48.00	114	59.20	100	70.95	159	81.00	4873
50.05	15216	60.05	8	72.40	69	82.05	1035
51.10	58915	61.10	861	73.00	379	83.00	1455
52.10	3468	62.05	792	73.10	20	84.00	824

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.00	698	97.95	5838	107.00	21875	118.05	1273
86.00	712	99.00	4254	108.00	3398	118.95	217
87.05	667	100.00	441	110.00	40826	121.00	20
87.95	467	100.20	71	111.05	5785	122.05	1225
88.95	192	101.00	3094	112.00	547	123.00	2079
91.00	1043	102.00	193	113.05	262	124.05	1374
92.00	1039	103.00	970	113.70	58	125.00	1236
93.00	7414	104.05	2018	114.10	54	127.00	80719
94.05	715	105.00	1286	114.95	218	128.10	6515
95.05	269	105.90	169	116.05	1267	129.00	32844
96.15	518	106.10	293	117.00	17325	130.00	2923

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.05	497	138.80	74	148.00	4238	158.95	765
132.05	343	139.10	136	149.00	1192	160.00	1277
132.85	160	140.00	255	150.05	238	161.10	1812
133.20	54	140.20	289	151.15	668	162.05	554
133.90	402	141.00	3887	152.00	408	163.15	230
134.10	434	142.05	1424	153.00	1335	163.90	79
135.05	2890	143.00	907	154.00	906	164.10	144
136.05	1019	144.05	302	155.05	2411	165.05	1755
137.05	1441	145.05	284	156.10	3620	166.00	1362
137.75	232	145.95	754	157.00	805	167.00	8286
138.10	123	147.00	1850	158.05	691	168.10	3425

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.10	594	180.05	3870	189.95	210	202.00	95
170.05	382	181.05	1717	191.05	599	203.00	1204
170.90	261	182.00	339	192.05	1656	204.10	5759
171.90	716	182.90	56	193.00	1826	205.10	8685
173.10	964	183.20	106	194.00	486	206.10	38333
174.00	1549	184.00	531	194.95	290	207.05	4526
175.05	3003	185.10	2657	196.05	4388	208.00	1400
176.00	1111	186.10	20937	198.00	143973	209.00	461
177.05	1400	187.10	6059	199.00	9626	210.10	654
178.05	531	188.05	657	200.00	871	211.10	1580
179.00	5188	189.00	1298	201.55	959	212.10	145

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
213.00	56	224.05	18789	234.00	627	244.10	13571
214.00	85	225.10	4849	234.95	535	245.10	1594
214.90	341	226.05	604	236.00	335	246.00	3003
216.00	930	227.00	8459	236.95	603	247.00	472

217.00	10124	228.00	1222	239.00	214	247.90	55
218.00	1403	229.00	1681	239.90	80	249.00	448
218.95	175	230.00	273	240.15	216	250.10	133
220.00	77	231.05	691	241.00	468	251.00	92
221.00	6308	231.80	73	242.00	1113	251.95	268
221.70	973	232.05	176	243.00	457	253.10	356
223.05	2094	233.00	57	243.25	657	253.75	624

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
255.00	76933	267.00	81	276.00	4421	291.00	164
256.00	11018	268.10	76	277.00	2557	292.00	52
257.00	993	269.20	87	278.05	509	293.00	604
258.00	4521	270.10	61	281.10	79	294.00	98
258.95	765	270.90	96	281.80	69	294.95	250
259.90	78	271.20	65	282.95	383	296.00	9409
260.95	149	271.95	132	283.85	203	297.00	1173
263.10	52	272.15	198	285.10	604	301.95	157
263.85	233	273.00	2380	285.90	53	303.05	1384
265.00	1838	274.00	6006	288.90	131	304.00	302
265.95	376	275.00	30952	289.90	132	308.00	108

Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
308.90	85	320.00	57	333.00	161	353.00	864
309.80	62	320.90	316	334.05	1680	354.00	1151
309.90	67	322.10	174	335.00	451	355.10	123
310.05	129	323.05	3522	338.70	87	358.90	52
313.05	132	323.95	234	341.00	407	365.00	4233
313.80	112	324.20	178	341.70	71	365.80	172
314.00	480	326.00	112	342.20	71	366.00	340
314.90	939	326.95	686	346.05	528	369.00	56
316.05	774	327.95	197	346.95	130	370.85	177
316.80	53	332.10	120	350.70	60	372.05	1525
317.00	61	332.80	70	352.00	1060	373.05	500

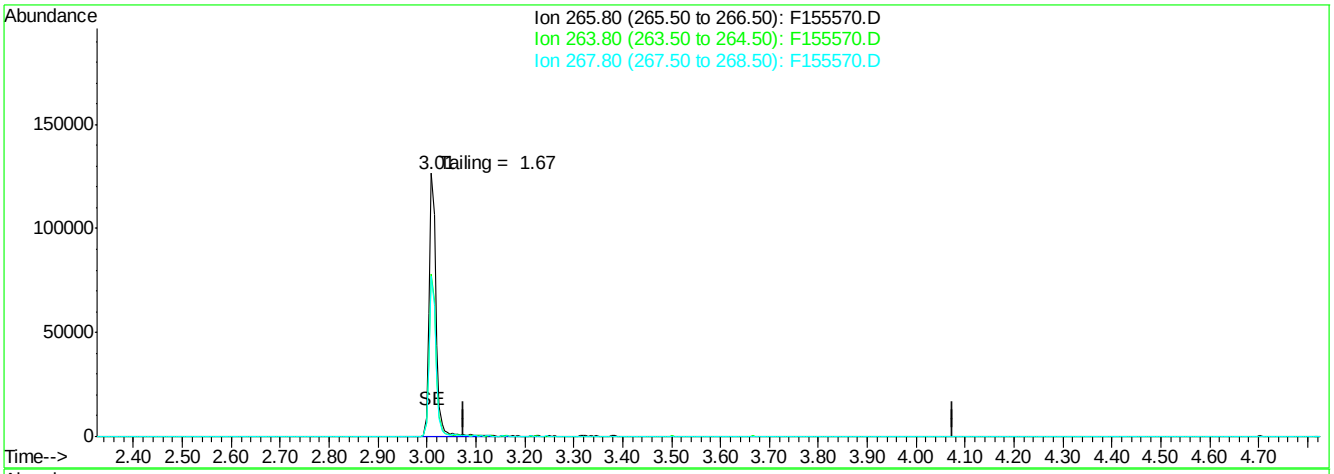
Average of 3.319 to 3.330 min.: F155570.D
dftpp
Modified:subtracted

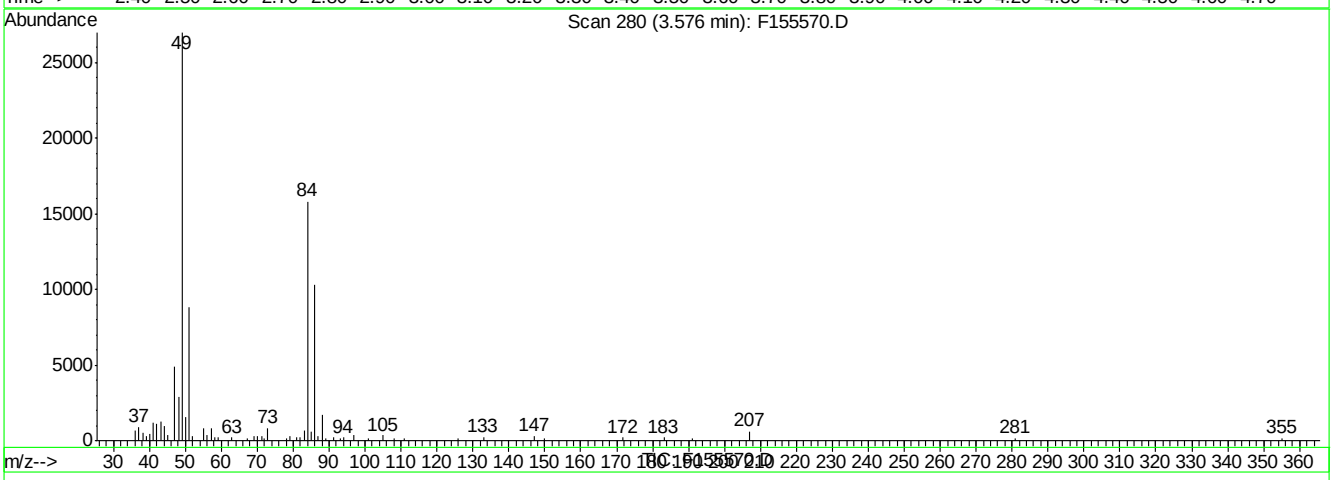
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
374.00	69	400.95	175	425.30	56		
377.00	62	401.90	848	430.20	92		
382.85	368	403.00	1224	431.25	117		
383.05	356	403.90	287	434.20	92		
383.70	60	404.10	116	441.00	19915		
383.90	86	404.50	59	442.00	134306		
389.40	51	421.00	1002	443.00	24197		
390.05	240	421.95	966	444.05	2155		
391.05	238	423.00	6218	444.85	186		
391.90	62	424.05	1234				
392.10	59	425.00	91				

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155570.D Vial: 1
Acq On : 15 Mar 2016 9:06 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 21:12 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(1) Pentachlorophenol (t)

3.58min 0.00ppb

response 0

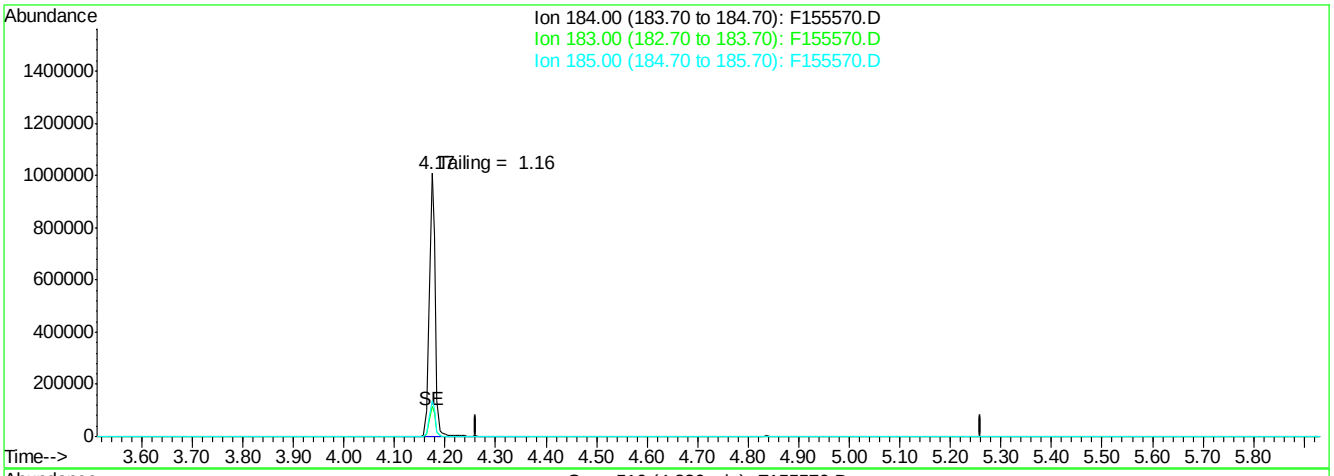
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.00	0.00#
267.80	64.80	0.00#
0.00	0.00	0.00

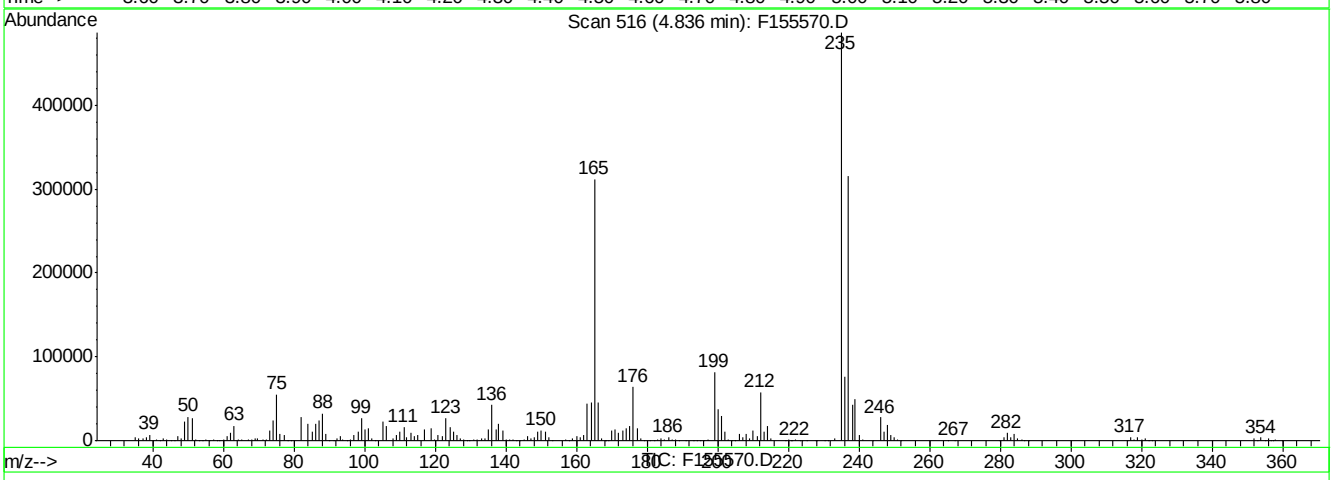
F155570.D DFTPPF.M Tue Mar 15 21:13:30 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155570.D Vial: 1
Acq On : 15 Mar 2016 9:06 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 21:12 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Multiple Level Calibration





(2) Benzidine (t)

4.84min 0.13ppb

response 2343

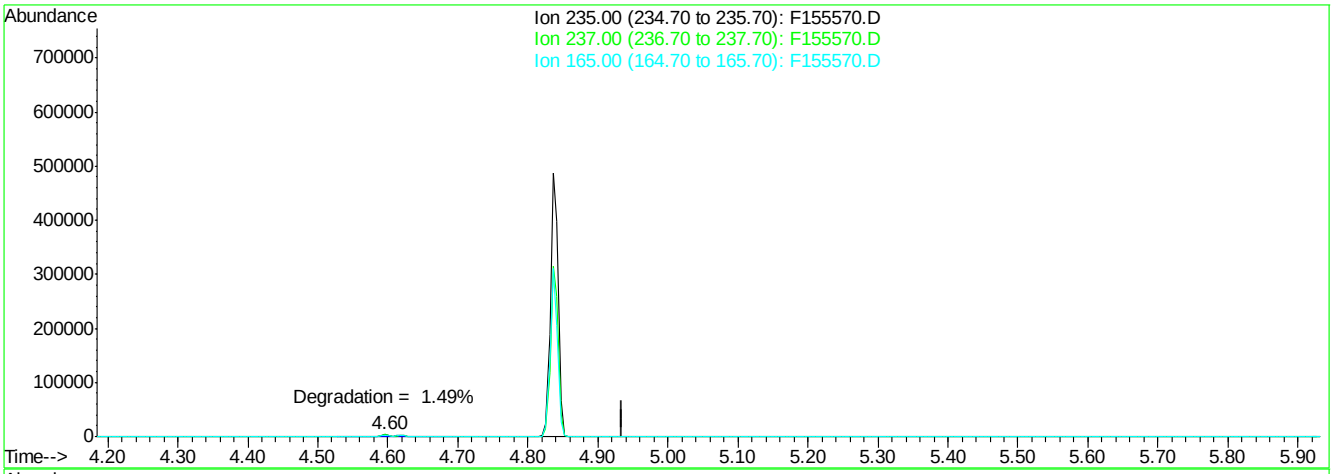
Ion	Exp%	Act%
184.00	100	100
183.00	12.60	0.00
185.00	16.20	67.35#
0.00	0.00	0.00

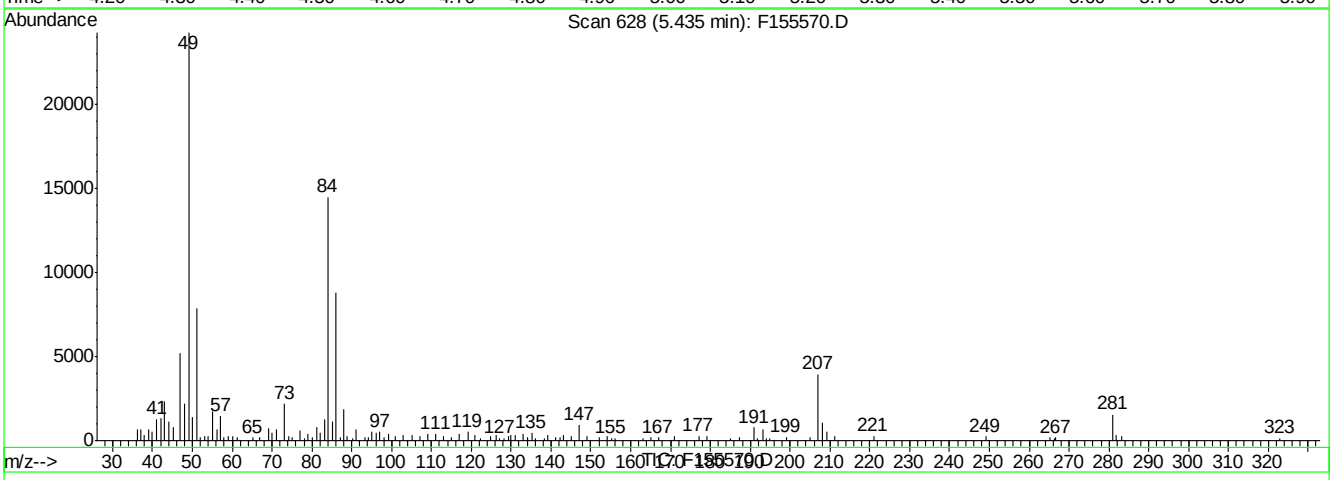
F155570.D DFTPPF.M Tue Mar 15 21:13:36 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155570.D Vial: 1
Acq On : 15 Mar 2016 9:06 pm Operator: sarad
Sample : dftpp Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 21:12 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Thu Nov 12 10:38:14 2015
Response via : Single Level Calibration





(3) ddt (t)

5.43min 0.00ppb

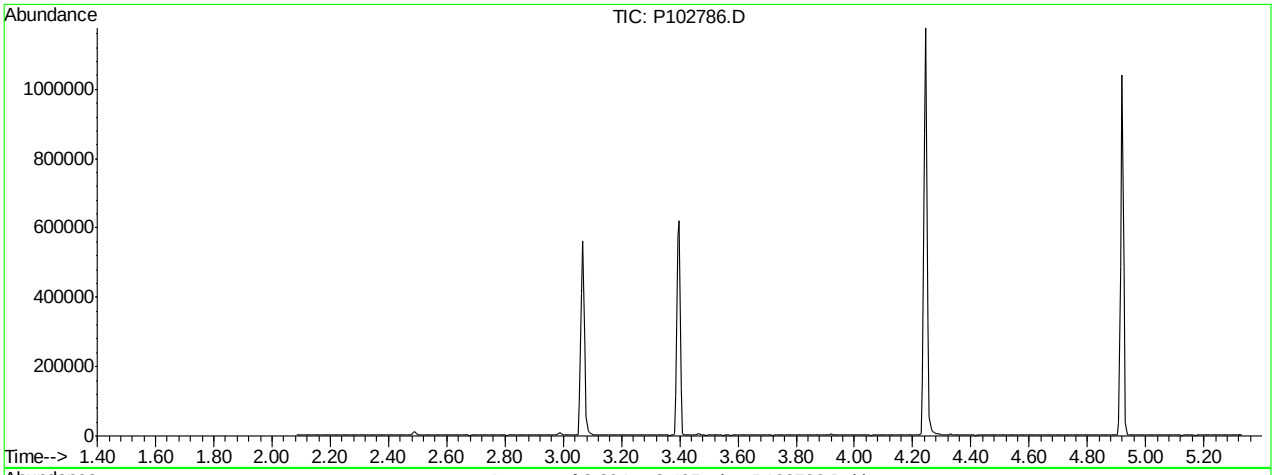
response 0

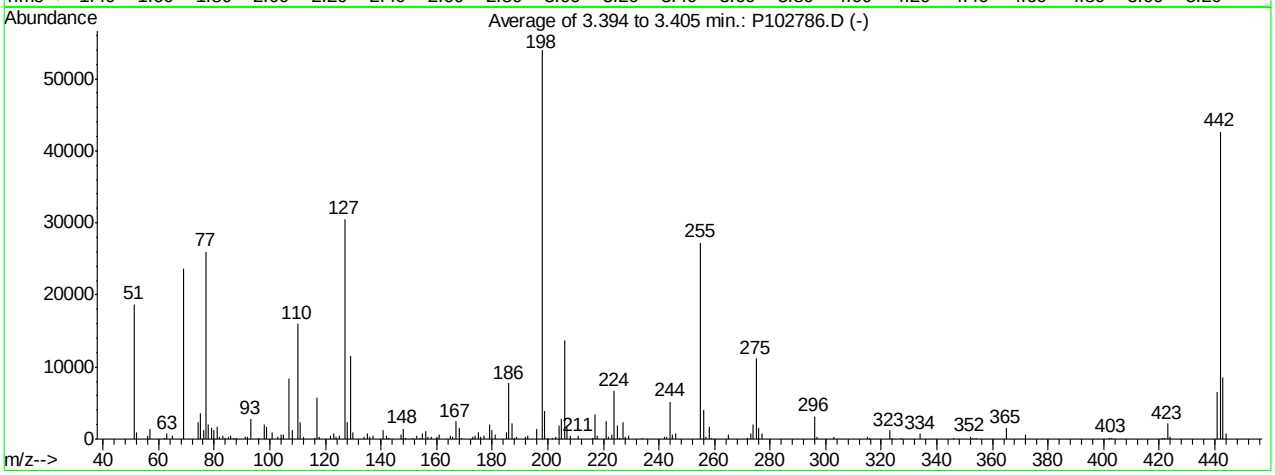
Ion	Exp%	Act%
235.00	100	0.00
237.00	66.70	0.00#
165.00	59.50	0.00#
0.00	0.00	0.00

F155570.D DFTPPF.M Tue Mar 15 21:13:44 2016 RT1

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 230, 231, 232; Background Corrected with Scan 225

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.6	18668	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.0	23706	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	56.7	30563	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	53930	PASS
199	198	5	9	7.3	3929	PASS
275	198	10	30	20.6	11130	PASS
365	198	1	100	2.8	1487	PASS
441	443	0.10	100	77.6	6594	PASS
442	198	40	100	79.1	42661	PASS
443	442	17	23	19.9	8492	PASS

P102786.D DFTPPP.M Wed Feb 24 09:01:28 2016

Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
51.00	18668	77.00	25986	87.80	123	107.00	8385
52.00	1008	78.00	1975	90.95	354	107.95	1240
56.00	521	79.00	1614	91.90	370	110.00	16002
57.00	1408	80.00	1188	93.00	2756	110.95	2304
61.90	150	80.90	1772	96.00	127	111.90	295
63.00	732	81.90	308	98.00	1975	116.00	174
65.00	509	83.00	507	98.90	1792	116.95	5691
68.90	23706	83.90	130	101.00	991	117.85	289
74.00	2320	84.95	350	102.90	352	121.95	447
75.00	3660	85.90	529	103.95	575	123.00	744
76.05	1258	87.00	131	105.00	557	123.90	378

Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
124.95	433	142.70	123	157.95	265	175.95	329
127.00	30563	142.90	119	159.90	357	176.95	496
128.00	2341	147.00	667	160.95	653	178.90	2001
129.00	11491	147.95	1469	164.90	515	179.95	1291
129.95	900	149.00	167	165.90	372	180.90	568
133.90	306	151.10	132	166.95	2444	185.00	906
134.90	787	153.00	403	168.00	1599	186.00	7768
135.95	393	154.00	208	169.00	150	186.95	2228
136.95	401	155.00	718	172.85	274	187.90	150
140.90	1203	156.00	1028	173.95	530	188.90	327
141.95	404	156.95	276	174.95	962	191.90	381

Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
192.95	536	207.90	435	226.90	2401	256.95	321
196.00	1467	210.95	444	227.90	291	257.90	1713
197.90	53930	216.00	185	228.90	425	259.00	122
198.90	3929	216.90	3425	233.90	128	264.90	553
199.90	136	217.90	476	241.95	361	271.90	125
201.50	165	220.95	2531	242.95	355	272.90	792
203.00	341	221.90	280	244.00	5140	273.90	1999
204.00	1911	222.90	679	244.95	621	274.90	11130
205.00	2868	224.00	6671	245.90	848	275.95	1583
206.00	13678	224.95	1834	254.90	27247	276.90	804
207.00	1679	225.90	119	255.90	4037	295.90	3150

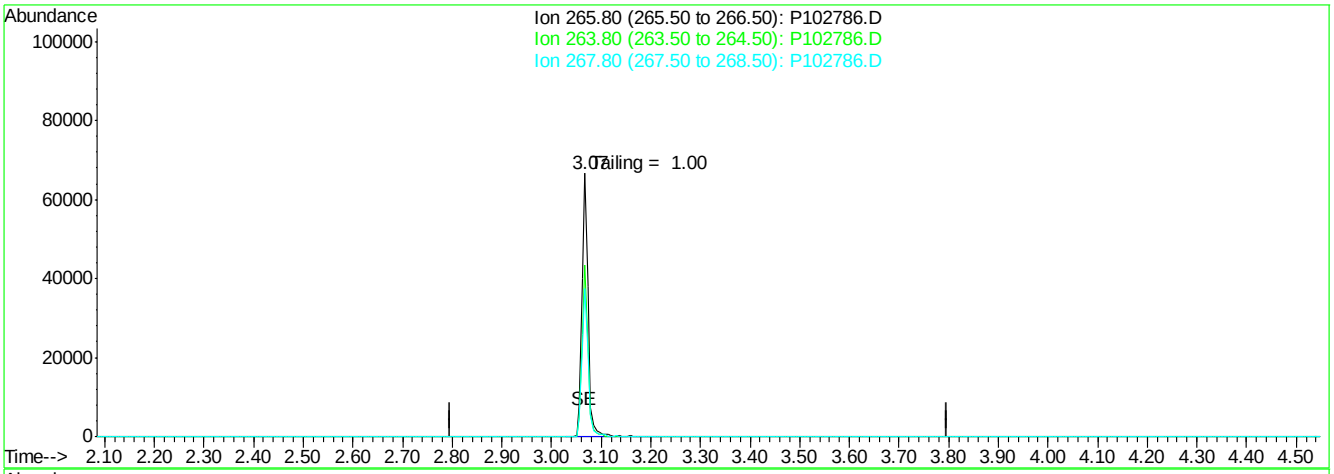
Average of 3.394 to 3.405 min.: P102786.D
dftpp
Modified:subtracted

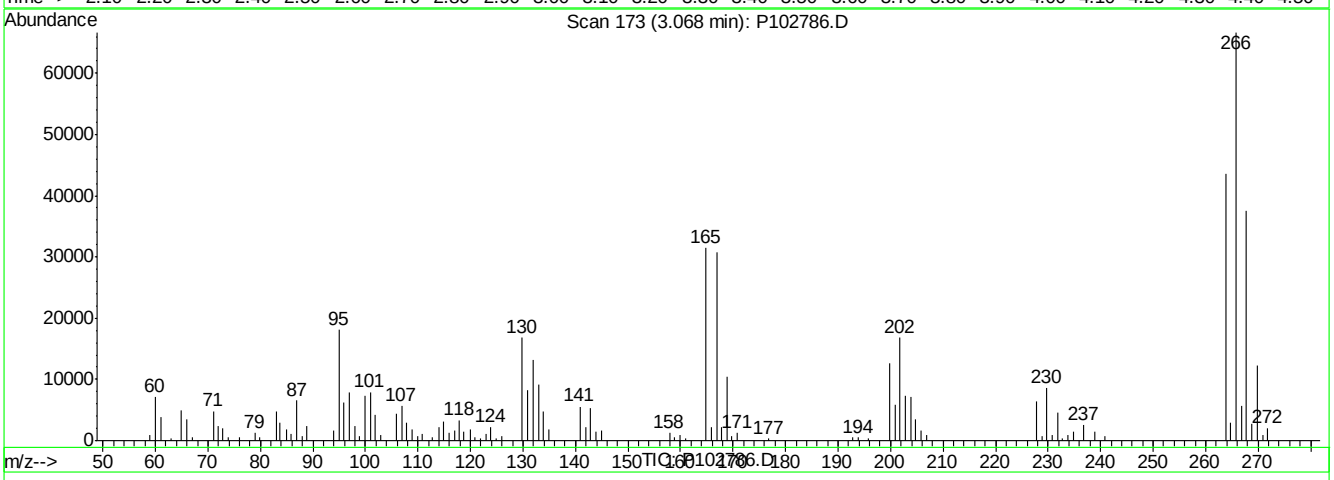
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.80	367	353.90	213	442.90	8492		
302.90	248	364.90	1487	443.90	828		
314.85	382	371.85	664				
315.90	135	401.90	176				
323.00	1207	402.90	188				
323.80	122	420.90	148				
326.90	153	422.00	160				
333.95	711	422.95	2166				
345.90	161	423.90	241				
352.00	322	440.95	6594				
353.00	153	441.90	42661				

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

3.07min 208.02ppb

response 57519

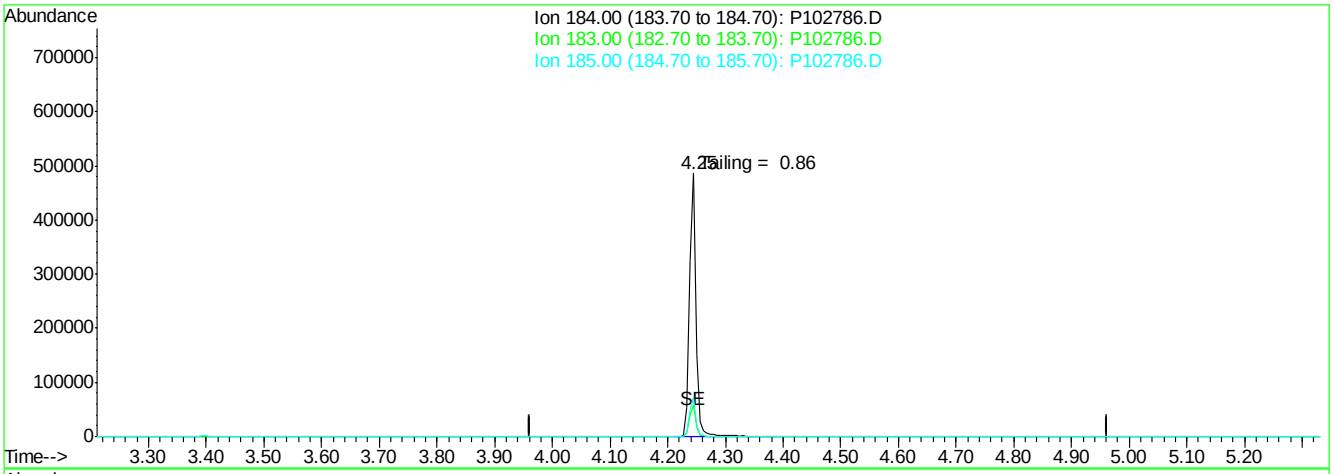
Ion	Exp%	Act%
265.80	100	100
263.80	63.10	65.27
267.80	63.20	55.97
0.00	0.00	0.00

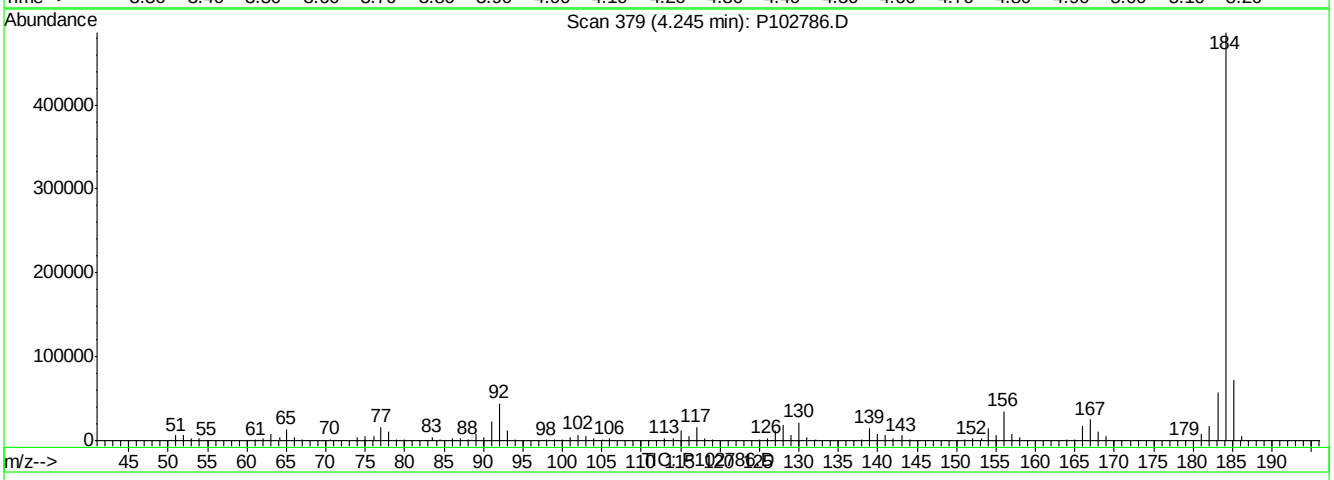
P102786.D DFTPPP.M Wed Feb 24 09:01:35 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.25min 132.10ppb

response 375509

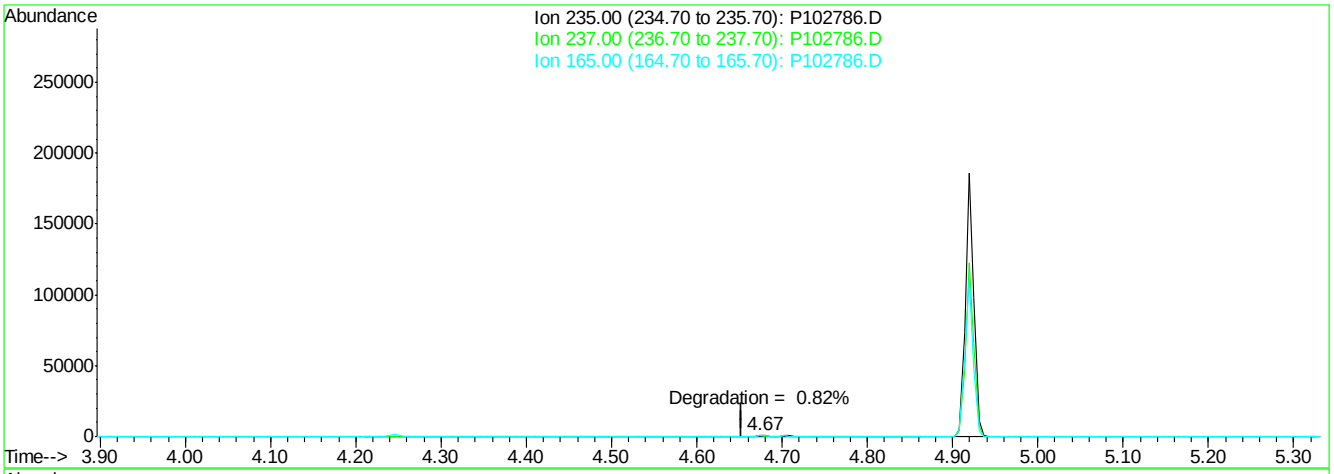
Ion	Exp%	Act%
184.00	100	100
183.00	0.00	11.47
185.00	0.00	14.61
0.00	0.00	0.00

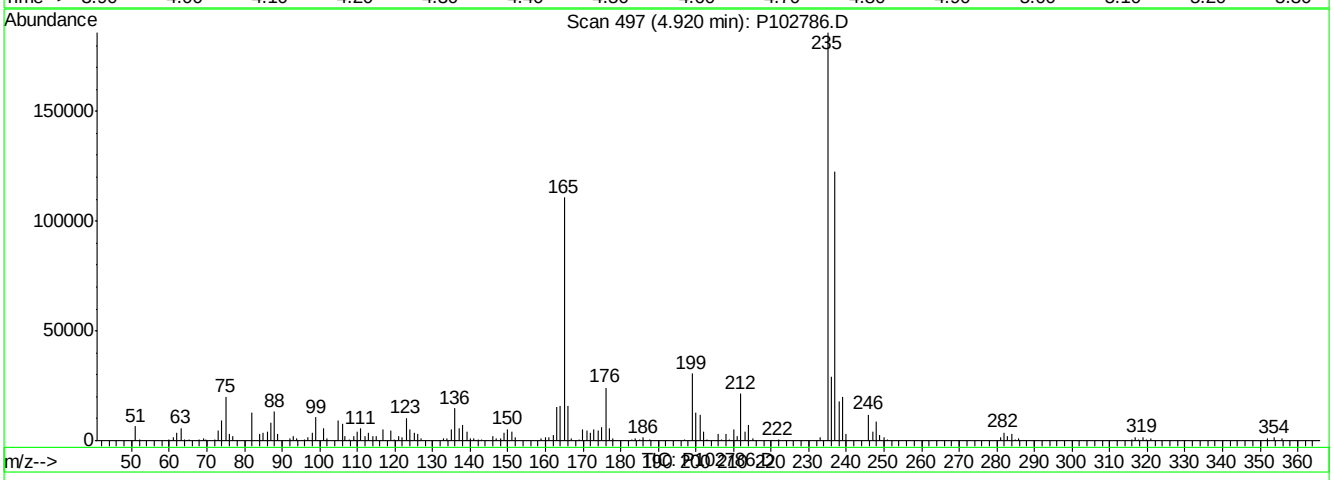
P102786.D DFTPPP.M Wed Feb 24 09:01:39 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102786.D Vial: 1
Acq On : 24 Feb 2016 1:55 am Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 24 2:00 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

4.92min 98.65ppb

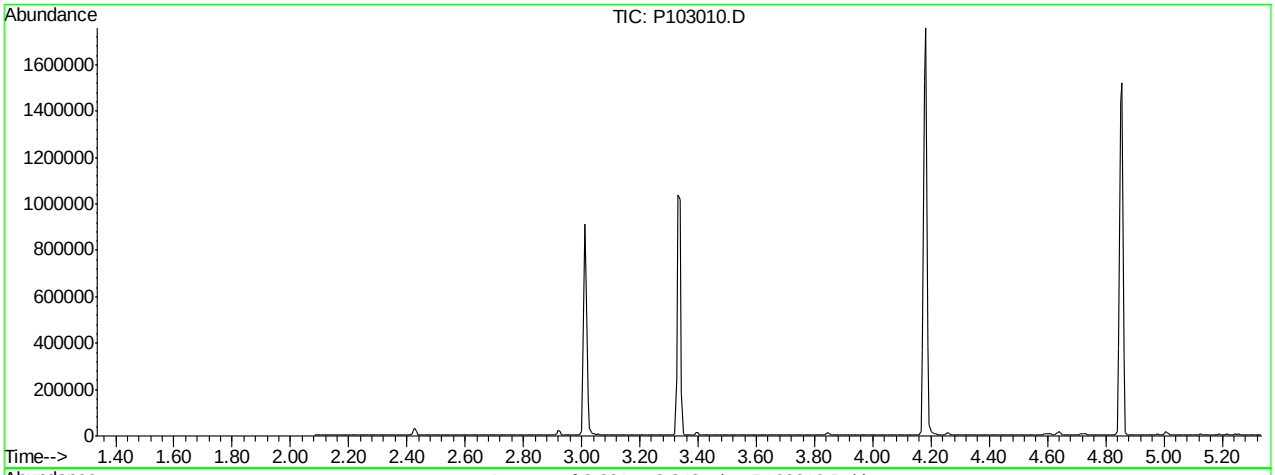
response 128279

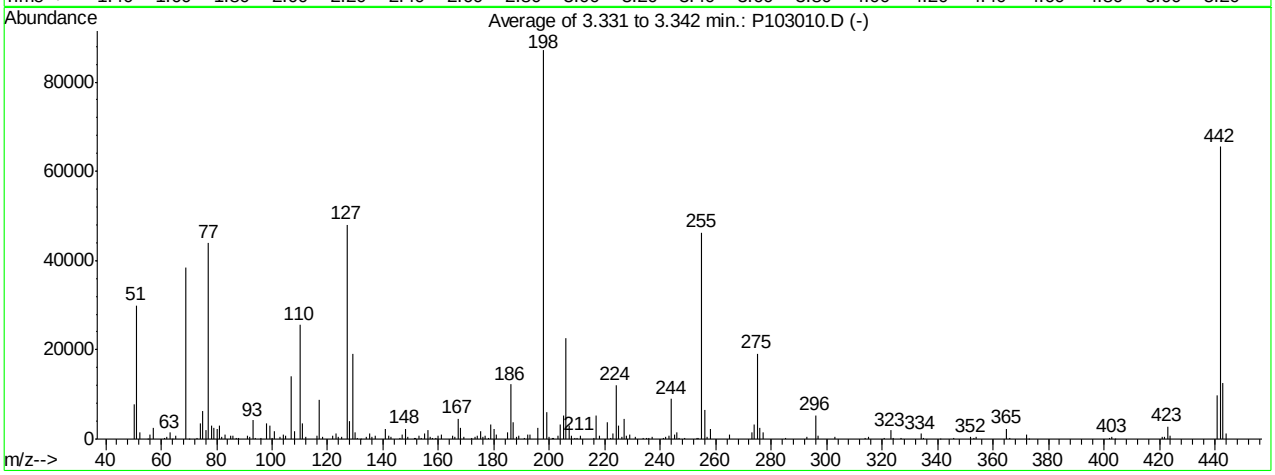
Ion	Exp%	Act%
235.00	100	100
237.00	65.40	66.06
165.00	55.50	60.08
0.00	0.00	0.00

P102786.D DFTPPP.M Wed Feb 24 09:01:46 2016

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 219, 220, 221; Background Corrected with Scan 214

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.4	29961	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.2	38523	PASS
70	69	0.00	2	0.3	119	PASS
127	198	40	60	55.2	48031	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	87088	PASS
199	198	5	9	6.9	5993	PASS
275	198	10	30	21.9	19109	PASS
365	198	1	100	2.7	2328	PASS
441	443	0.10	100	79.2	9869	PASS
442	198	40	100	75.2	65456	PASS
443	442	17	23	19.0	12454	PASS

P103010.D DFTPPP.M Thu Mar 03 08:55:28 2016

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	7918	69.00	38523	81.95	617	98.00	3529
51.05	29961	69.90	119	83.05	909	99.00	3032
52.10	1568	72.95	325	85.00	779	100.05	324
55.10	127	74.05	3401	85.90	815	101.00	1657
56.00	892	75.00	6289	86.95	355	103.00	508
57.00	2405	76.10	2020	87.95	273	104.00	895
61.05	310	77.10	43879	91.00	685	105.00	849
62.00	456	78.10	3069	92.00	603	107.00	13956
63.05	1416	79.00	2571	93.05	4266	108.00	1737
64.10	118	80.00	2196	94.00	348	110.00	25592
65.05	756	81.00	3087	96.00	138	111.00	3642

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
112.05	454	130.00	1463	147.00	1042	158.95	278
116.05	636	130.90	139	148.00	2369	160.00	700
117.00	8823	132.10	117	148.90	462	161.00	1024
118.05	627	133.95	525	151.20	143	165.00	714
122.00	747	135.00	1252	151.80	156	166.00	615
123.00	1240	136.00	598	152.95	661	167.00	4618
124.00	545	137.05	797	153.90	358	168.00	2478
125.00	611	141.00	2341	155.00	1349	169.00	395
127.00	48031	142.05	647	156.00	1990	171.90	385
128.00	3925	143.00	527	157.05	465	173.00	482
129.00	19067	146.00	259	157.90	357	174.00	866

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	1760	189.00	759	204.00	3341	221.00	3814
175.95	453	190.95	343	205.00	5296	222.00	340
177.00	741	192.00	902	206.00	22535	222.90	1343
177.95	327	193.00	1098	207.00	3106	224.00	12115
179.00	3264	196.00	2527	207.95	672	225.00	3045
180.00	2227	198.00	87088	209.00	158	226.05	412
181.00	920	198.95	5993	210.00	192	226.95	4563
185.00	1582	199.90	427	211.00	835	227.95	656
186.00	12226	200.90	140	216.00	188	228.90	1024
187.00	3749	201.55	345	217.00	5332	230.95	445
188.00	408	203.00	695	217.95	791	234.00	200

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.90	221	253.10	230	276.95	1590	326.95	281
235.95	278	253.80	143	285.00	328	334.00	1172
237.00	449	255.00	46267	293.00	409	334.90	175
240.95	294	256.00	6608	295.95	5356	340.90	123
242.00	605	256.85	522	296.90	724	345.90	375
243.00	751	257.90	2386	302.95	595	351.95	489
244.00	8992	265.00	902	314.00	173	353.00	341
245.00	1094	273.00	1566	314.95	552	353.95	426
246.00	1451	273.95	3350	320.80	136	364.90	2328
246.95	335	275.00	19109	323.00	1903	365.95	354
248.90	172	276.00	2456	324.05	306	371.95	941

Average of 3.331 to 3.342 min.: P103010.D
dftpp
Modified:subtracted

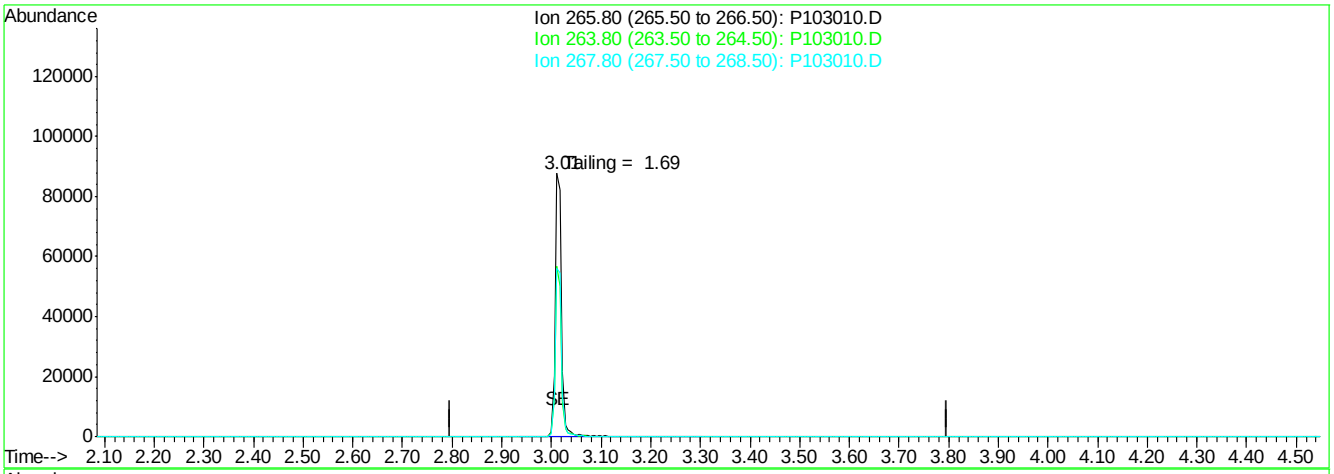
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.00	123	443.90	1215				
401.95	295						
402.95	437						
404.00	120						

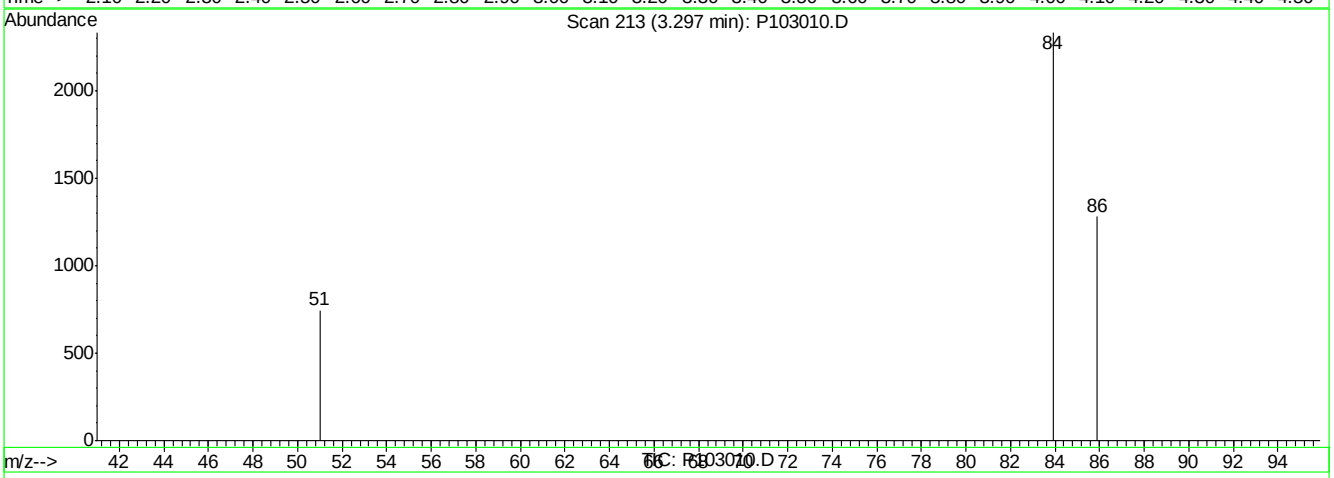
420.95	490
421.95	391
422.95	2864
423.90	772
441.00	9869
442.00	65456
443.00	12454

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

3.30min 0.00ppb

response 0

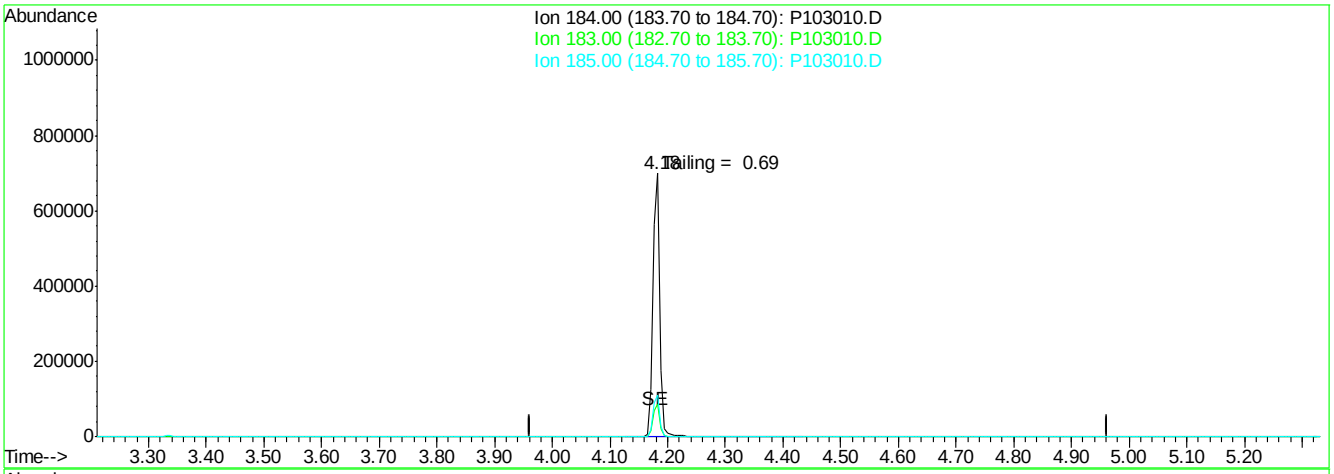
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

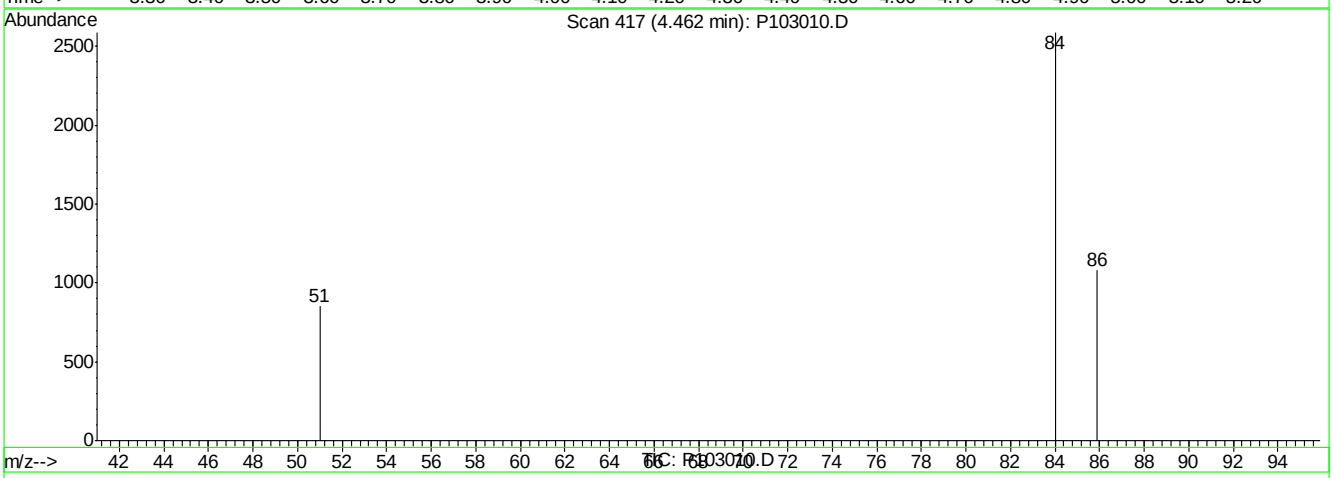
P103010.D DFTPPP.M Wed Mar 02 17:02:42 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.46min 0.00ppb

response 0

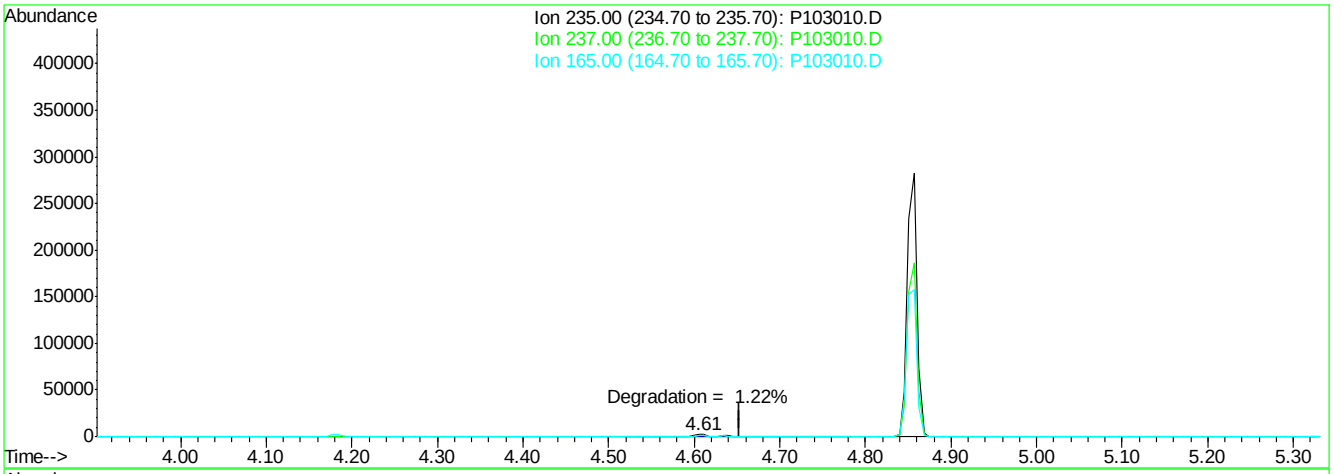
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

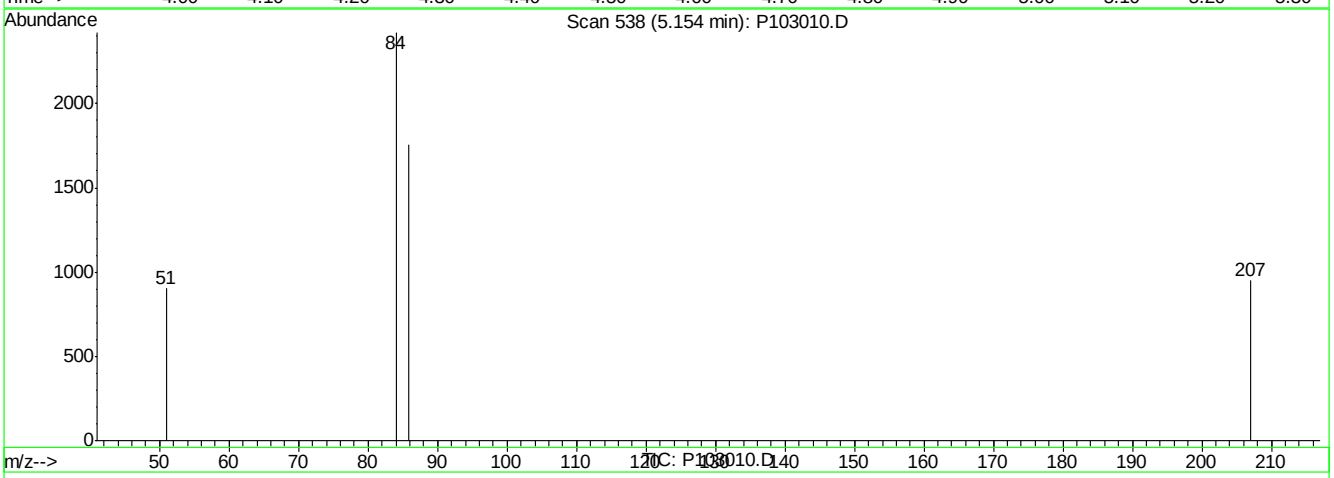
P103010.D DFTPPP.M Wed Mar 02 17:02:49 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103010.D Vial: 1
Acq On : 2 Mar 2016 4:56 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 2 17:01 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

5.15min 0.00ppb

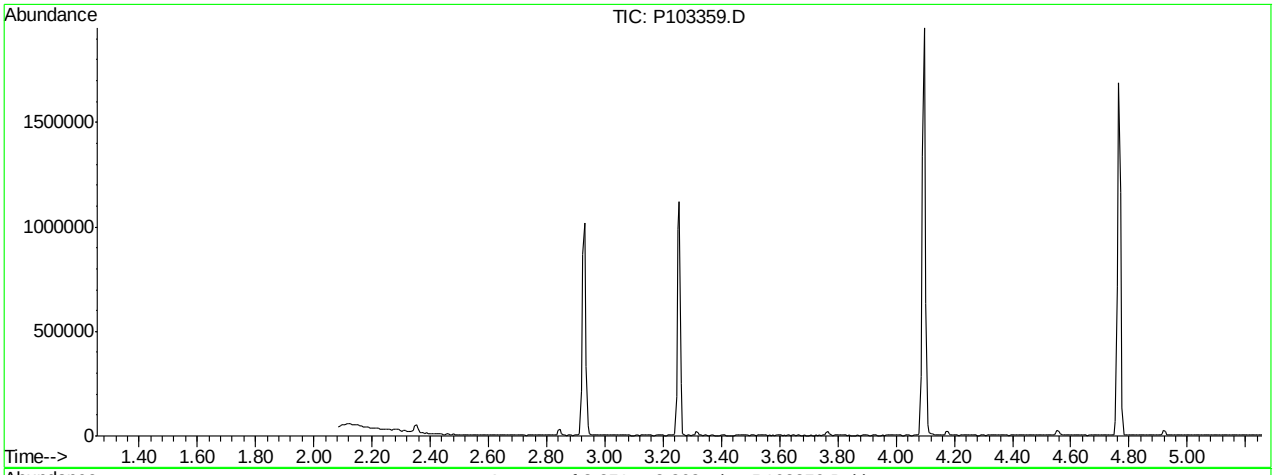
response 0

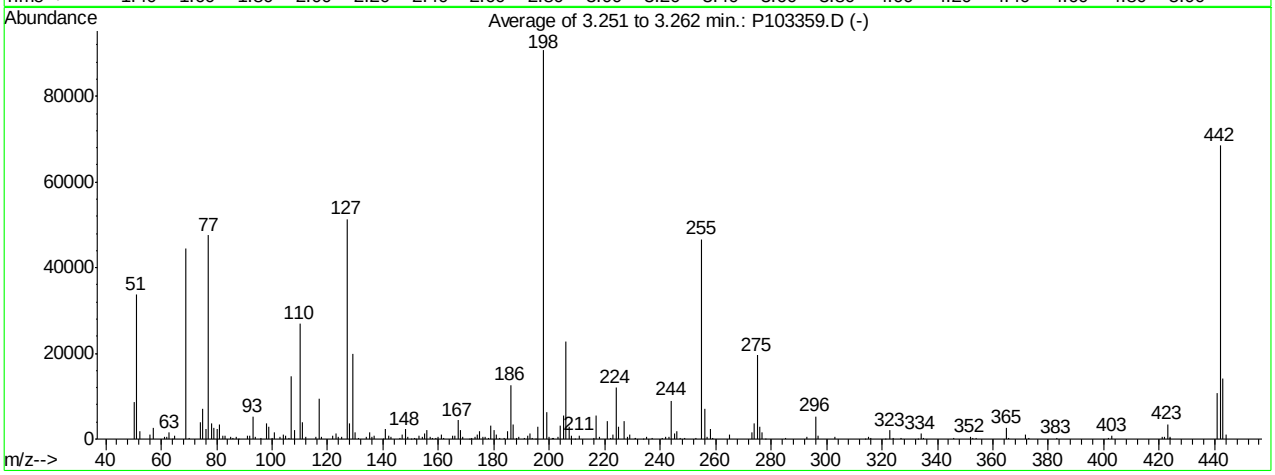
Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

P103010.D DFTPPP.M Wed Mar 02 17:02:56 2016

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4542\P103359.D Vial: 1
Acq On : 16 Mar 2016 12:03 pm Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 205, 206, 207; Background Corrected with Scan 200

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.2	33749	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.2	44592	PASS
70	69	0.00	2	0.4	161	PASS
127	198	40	60	56.6	51339	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	90720	PASS
199	198	5	9	7.0	6388	PASS
275	198	10	30	21.5	19523	PASS
365	198	1	100	2.8	2532	PASS
441	443	0.10	100	75.4	10706	PASS
442	198	40	100	75.5	68501	PASS
443	442	17	23	20.7	14207	PASS

P103359.D DFTPPP.M Thu Mar 17 12:30:52 2016

Average of 3.251 to 3.262 min.: P103359.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	8601	70.00	161	85.00	513	100.00	323
51.05	33749	74.00	3858	86.00	202	101.00	1638
52.10	1739	75.00	7022	87.00	488	103.00	631
56.00	1064	76.10	2487	87.90	130	103.95	958
57.00	2634	77.00	47574	91.00	894	104.95	918
61.00	477	78.00	3617	91.90	770	106.10	196
61.95	589	79.00	2671	93.00	5138	107.00	14756
63.00	1562	80.00	2369	94.00	456	107.95	2205
64.00	124	81.00	3419	96.00	273	110.00	26877
65.00	889	82.05	924	98.00	3633	111.00	3866
69.00	44592	83.00	779	99.00	2886	112.00	466

Average of 3.251 to 3.262 min.: P103359.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.95	638	131.00	279	148.00	2298	158.95	331
117.00	9410	134.00	513	149.00	490	159.95	631
118.00	595	135.00	1639	150.10	120	161.00	1016
121.95	698	135.95	510	151.20	266	162.05	301
123.00	1335	137.00	722	151.90	133	165.00	854
124.00	568	139.90	128	153.00	685	166.00	745
124.95	558	140.95	2283	154.00	463	167.00	4372
127.00	51339	142.00	769	154.95	1241	168.00	2203
128.00	3717	143.00	491	156.00	1999	168.90	465
129.00	19846	146.00	314	157.00	450	171.00	118
129.95	1669	147.00	1017	157.80	350	171.95	337

Average of 3.251 to 3.262 min.: P103359.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
173.00	554	185.00	1753	197.95	90720	209.00	122
174.00	999	186.00	12592	198.90	6388	211.00	912
175.00	1959	187.00	3394	200.00	535	215.95	397
175.95	455	188.00	371	201.10	140	216.95	5485
176.95	629	189.00	633	201.55	361	218.00	553
178.00	325	190.95	360	202.95	549	221.00	4096
179.00	3177	192.00	863	204.00	3234	222.00	289
180.00	2159	193.00	1215	205.00	5395	222.95	1111
180.95	1090	193.95	327	206.00	22772	224.00	12036
181.90	143	195.00	129	207.00	2919	225.00	2868
183.90	300	196.00	2776	207.95	789	227.00	4220

Average of 3.251 to 3.262 min.: P103359.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.00	616	245.00	1225	272.95	1471	314.00	124
229.00	993	245.95	1758	273.95	3596	314.95	605
230.90	151	247.00	219	275.00	19523	316.00	328
231.10	248	248.90	205	276.00	2774	321.00	131
234.00	119	253.00	158	276.90	1560	323.00	1983
234.90	407	255.00	46653	277.90	138	323.95	276
237.00	344	255.95	7059	285.00	305	326.90	192
240.90	141	256.95	560	293.00	411	332.90	118
241.95	567	258.00	2384	295.95	5305	333.95	1188
243.05	582	258.95	390	297.00	718	334.80	147
244.00	8985	264.95	935	302.95	544	346.00	159

Average of 3.251 to 3.262 min.: P103359.D
dftpp
Modified:subtracted

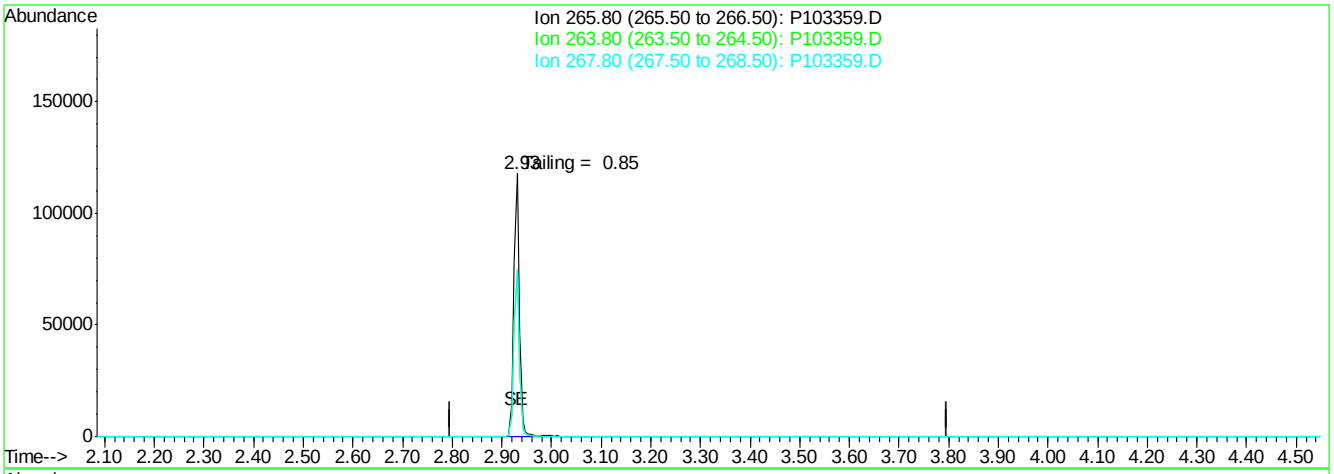
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
351.90	458	421.95	541				
352.90	176	422.95	3505				
353.95	395	423.80	174				
364.90	2532	423.95	552				

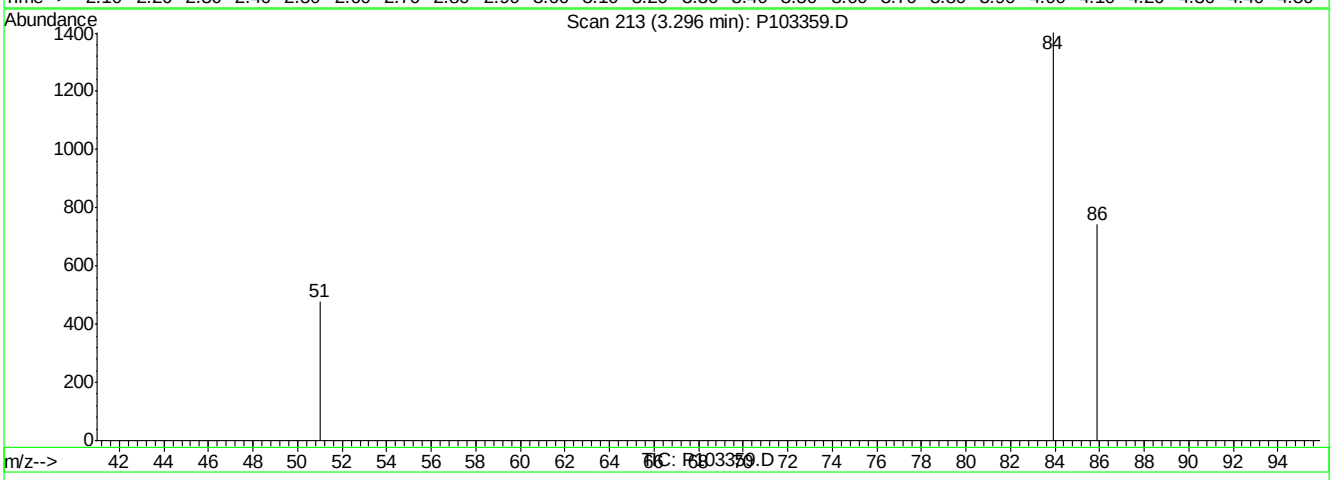
365.80	198	440.95	10706
371.90	1161	441.95	68501
372.90	271	442.95	14207
382.90	231	443.95	1106
401.80	220		
402.95	687		
420.95	418		

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103359.D Vial: 1
Acq On : 16 Mar 2016 12:03 pm Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 12:08 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

3.30min 0.00ppb

response 0

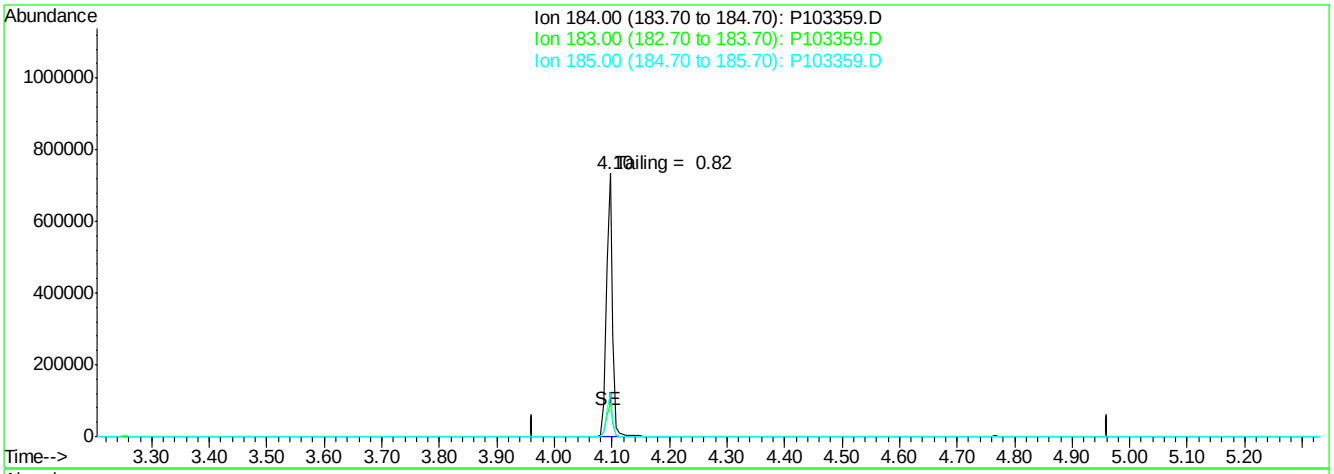
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

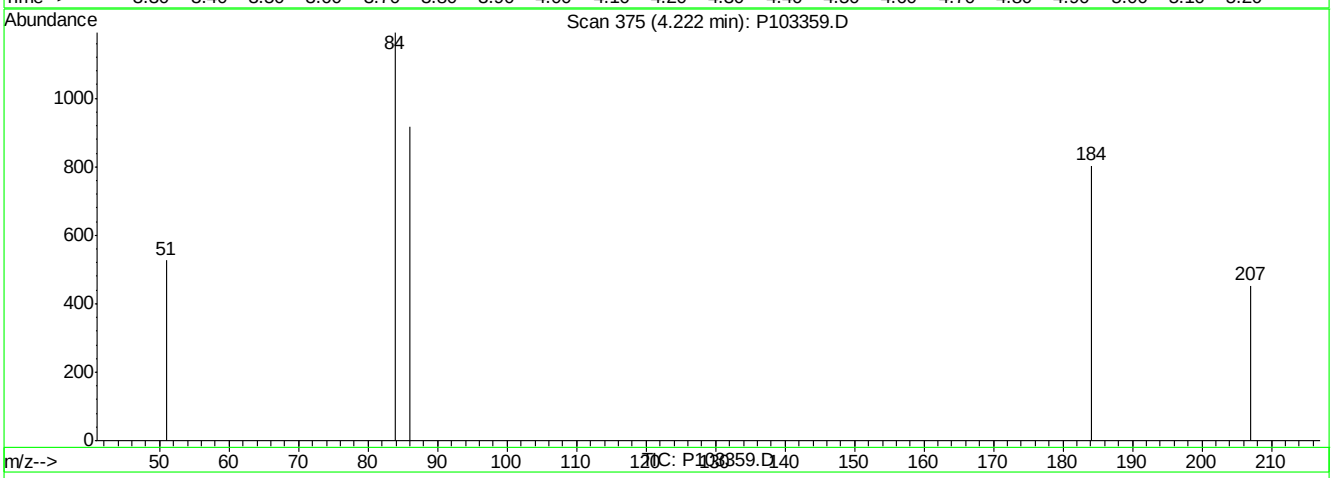
P103359.D DFTPPP.M Thu Mar 17 12:31:00 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103359.D Vial: 1
Acq On : 16 Mar 2016 12:03 pm Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 12:08 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.22min 0.45ppb

response 1280

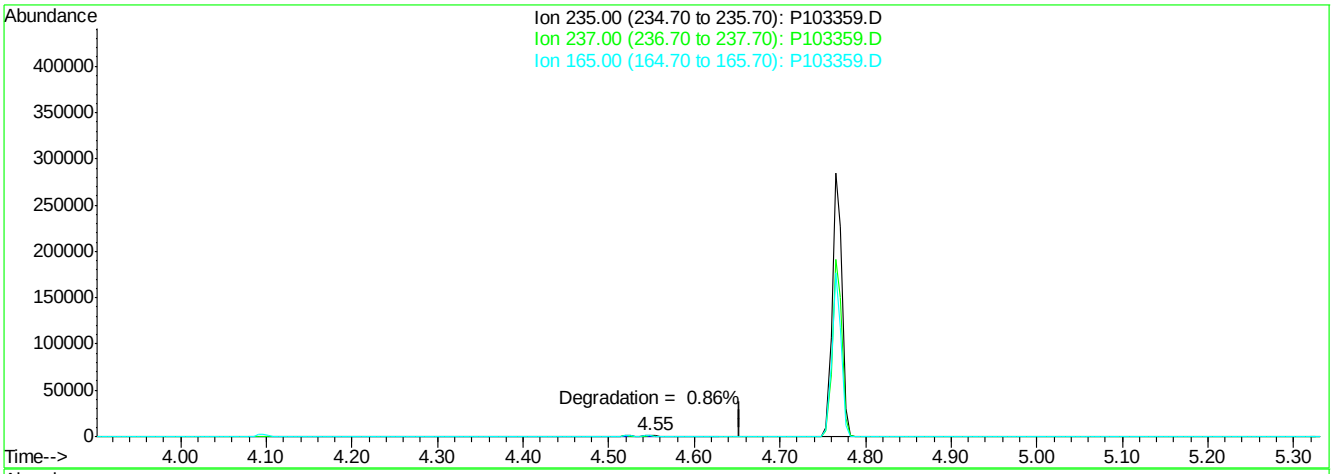
Ion	Exp%	Act%
184.00	100	100
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

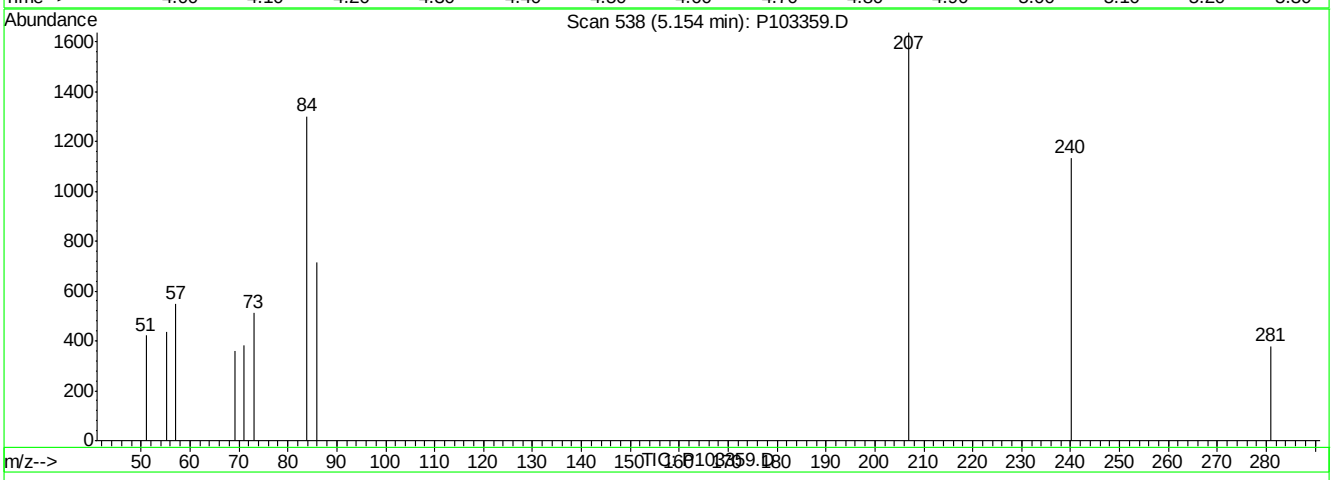
P103359.D DFTPPP.M Thu Mar 17 12:31:05 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103359.D Vial: 1
Acq On : 16 Mar 2016 12:03 pm Operator: linseyk
Sample : dftpp Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 12:08 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

5.15min 0.00ppb

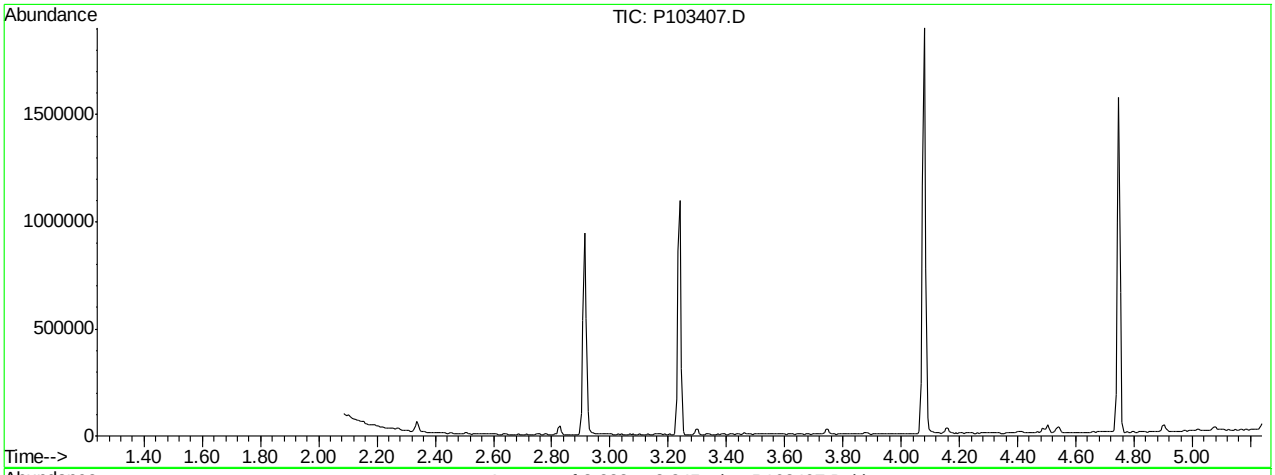
response 0

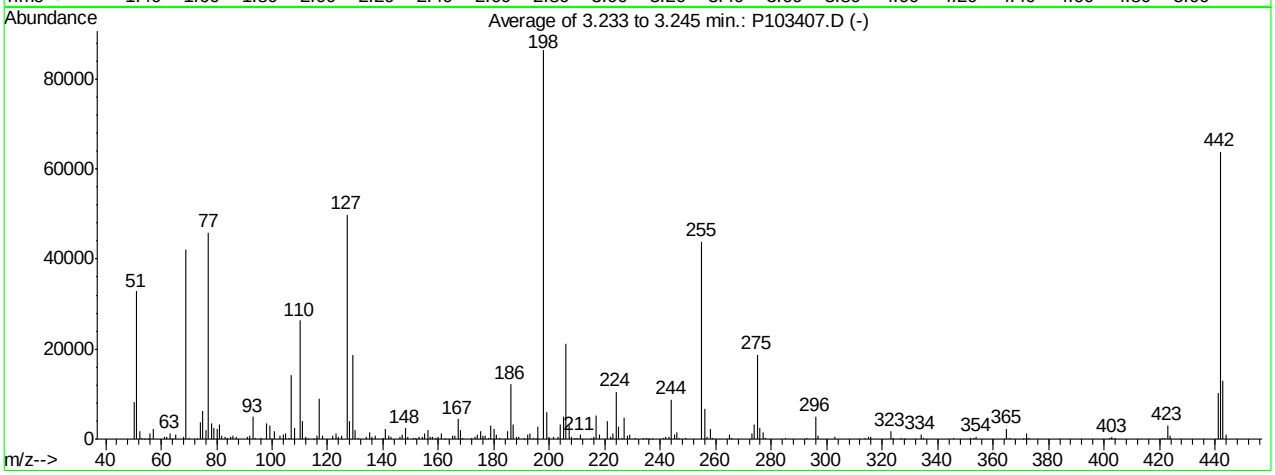
Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

P103359.D DFTPPP.M Thu Mar 17 12:31:20 2016

DFTPP

Data File : C:\MSDCHEM\1\DATA\EP4545\P103407.D Vial: 1
Acq On : 17 Mar 2016 9:59 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um





AutoFind: Scans 202, 203, 204; Background Corrected with Scan 197

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.0	32816	PASS
68	69	0.00	2	1.4	581	PASS
69	198	0.00	100	48.7	42064	PASS
70	69	0.00	2	0.8	337	PASS
127	198	40	60	57.7	49832	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	86325	PASS
199	198	5	9	7.0	6007	PASS
275	198	10	30	21.7	18719	PASS
365	198	1	100	2.7	2293	PASS
441	443	0.10	100	78.8	10246	PASS
442	198	40	100	74.0	63856	PASS
443	442	17	23	20.4	12995	PASS

P103407.D DFTPPP.M Fri Mar 18 15:19:49 2016

Average of 3.233 to 3.245 min.: P103407.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.10	8306	64.10	119	79.00	2415	93.00	4864
51.05	32816	65.05	1012	80.00	2217	94.05	333
52.10	1642	68.05	581	81.00	3311	95.95	320
53.00	138	69.00	42064	82.00	831	98.00	3590
54.00	130	70.00	337	83.00	552	99.00	2934
55.00	62	73.05	94	83.90	299	101.00	1831
56.10	1228	74.00	3837	85.00	485	102.95	634
57.00	2279	75.00	6240	86.00	734	104.00	1059
61.00	417	76.10	2055	87.00	457	105.00	1315
62.00	518	77.05	45909	91.00	454	106.00	291
63.10	1359	78.05	3509	92.00	771	107.00	14229

Average of 3.233 to 3.245 min.: P103407.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
108.00	2433	124.00	478	140.00	150	154.00	464
110.00	26388	125.00	701	141.00	2177	155.00	1292
111.00	3965	127.00	49832	141.95	708	156.00	2089
112.05	441	128.00	3996	142.95	482	156.95	427
113.10	117	129.00	18740	146.05	475	158.00	496
114.90	132	130.00	1928	147.00	1067	158.90	149
116.05	689	131.05	277	148.00	2383	160.00	565
117.00	9025	134.00	577	149.00	478	161.00	1233
118.00	636	135.00	1574	150.95	365	162.10	135
122.00	777	135.95	577	151.60	174	164.95	812
123.00	1317	137.00	780	152.95	549	166.00	852

Average of 3.233 to 3.245 min.: P103407.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
167.00	4394	180.00	2360	194.00	141	207.00	2915
167.95	1953	180.95	1103	194.90	130	208.00	592
168.90	233	182.00	141	196.00	2704	209.00	176
171.95	345	185.00	1672	197.95	86325	210.00	179
173.05	402	186.00	12242	199.00	6007	211.00	925
174.00	898	187.00	3354	199.95	418	214.90	117
175.00	1663	188.00	402	201.45	416	216.05	507
175.95	690	189.05	608	202.95	510	217.00	5308
176.95	829	191.00	310	204.00	3307	218.00	920
178.05	317	192.00	921	205.00	5109	221.00	4085
178.95	2983	193.00	1309	206.00	21206	221.95	515

Average of 3.233 to 3.245 min.: P103407.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
223.00	1182	237.00	129	256.95	504	285.00	175
224.00	10476	241.00	177	258.00	2280	292.90	312
225.00	2737	242.00	532	258.90	202	295.90	5002
226.10	340	242.95	539	265.00	932	296.90	740
227.00	4634	244.00	8836	265.90	158	302.95	584
227.95	684	245.00	1126	272.90	1370	314.00	154
228.95	1025	245.95	1402	274.00	3348	314.95	460
230.90	260	246.90	294	275.00	18719	315.90	390
233.95	333	249.00	180	276.00	2447	323.00	1845
234.95	370	255.00	43952	276.95	1541	324.00	365
235.90	133	256.00	6739	277.95	248	326.90	143

Average of 3.233 to 3.245 min.: P103407.D
dftpp
Modified:subtracted

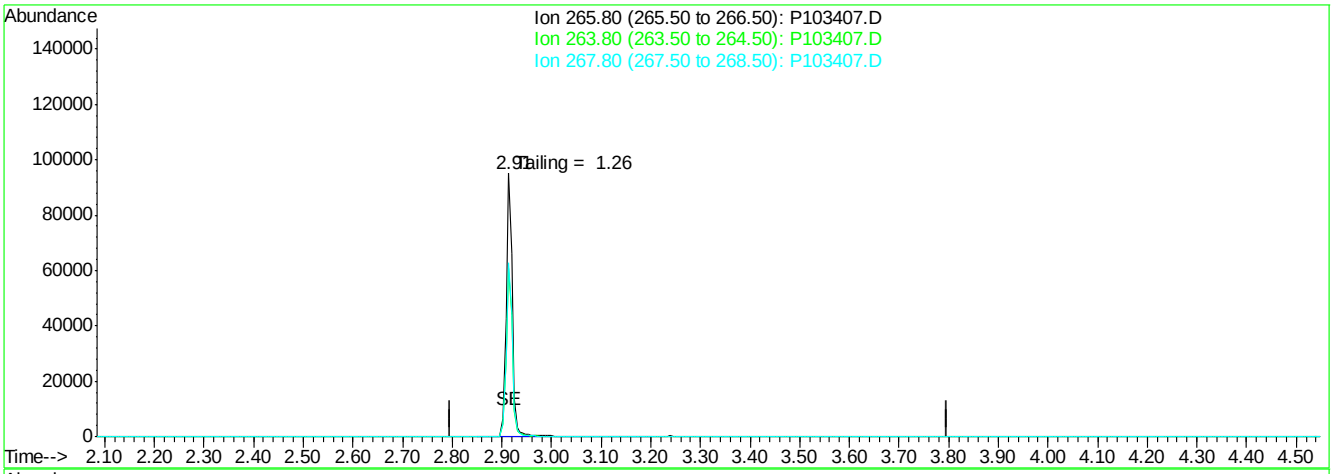
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
328.00	130	373.00	170	443.85	1129		
334.00	1103	401.90	180				
334.95	271	402.95	430				
345.95	320	403.90	253				

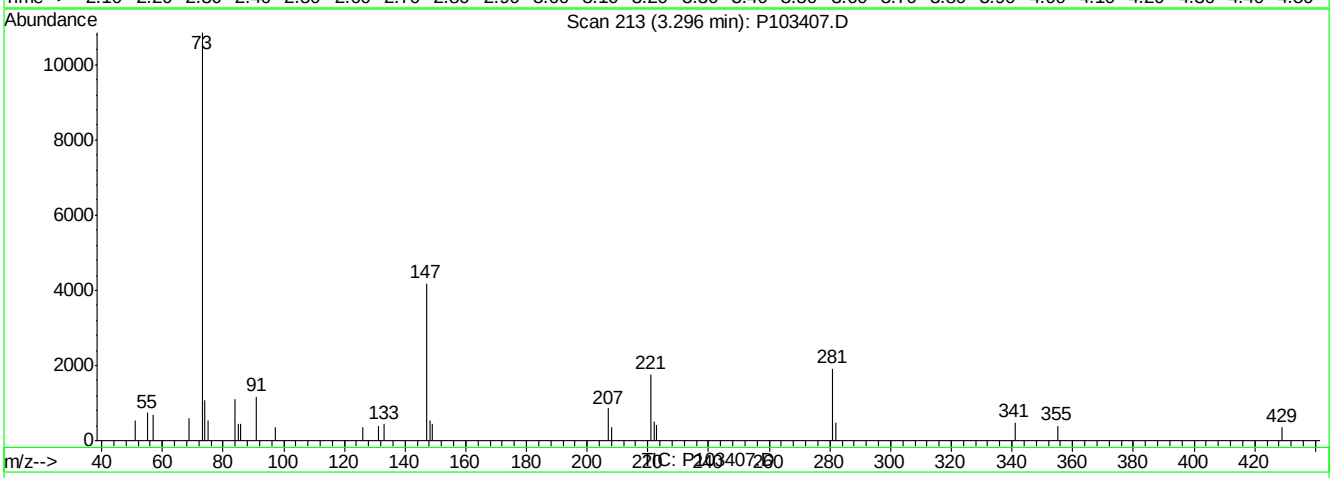
352.00	306	421.00	236
352.90	137	421.90	211
353.95	604	422.95	3050
364.90	2293	423.95	672
365.90	181	441.00	10246
371.00	127	441.95	63856
371.95	1167	442.95	12995

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103407.D Vial: 1
Acq On : 17 Mar 2016 9:59 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:04 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

3.30min 0.00ppb

response 0

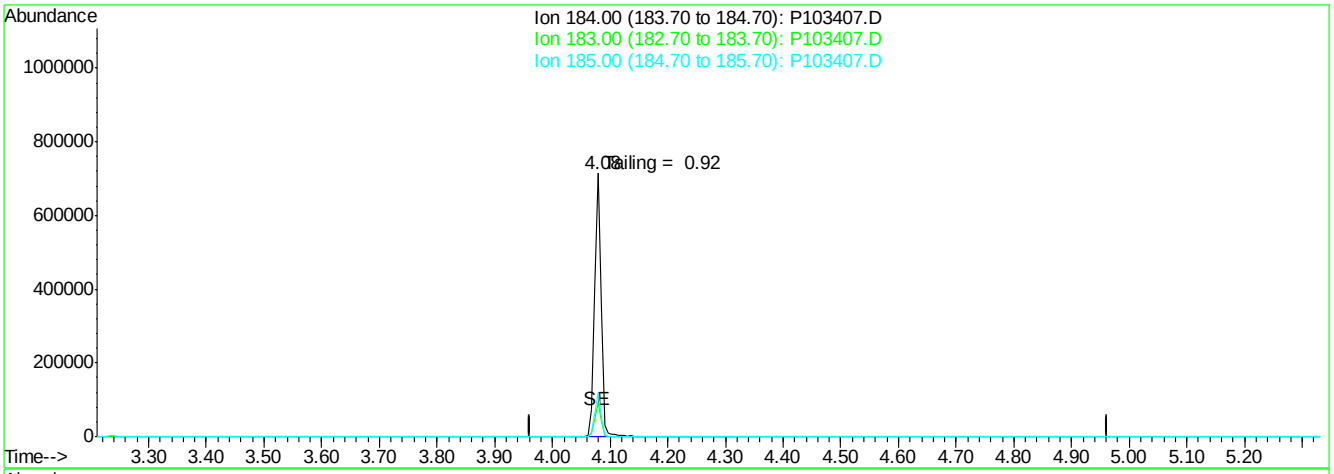
Ion	Exp%	Act%
265.80	100	0.00
263.80	63.10	0.00#
267.80	63.20	0.00#
0.00	0.00	0.00

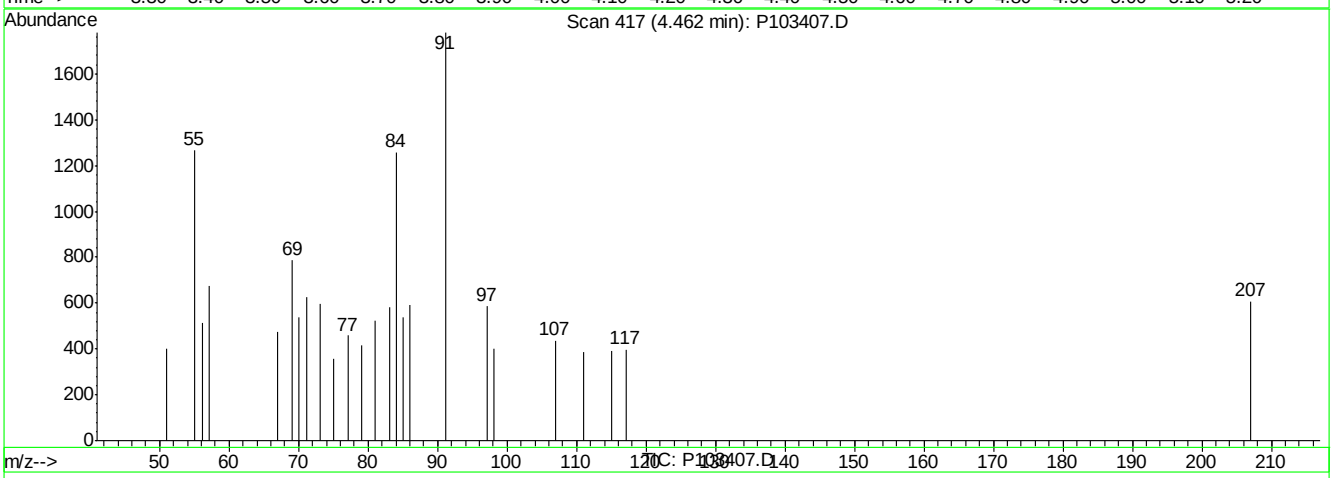
P103407.D DFTPPP.M Thu Mar 17 22:06:46 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103407.D Vial: 1
Acq On : 17 Mar 2016 9:59 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:04 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(2) Benzidine (t)

4.46min 0.00ppb

response 0

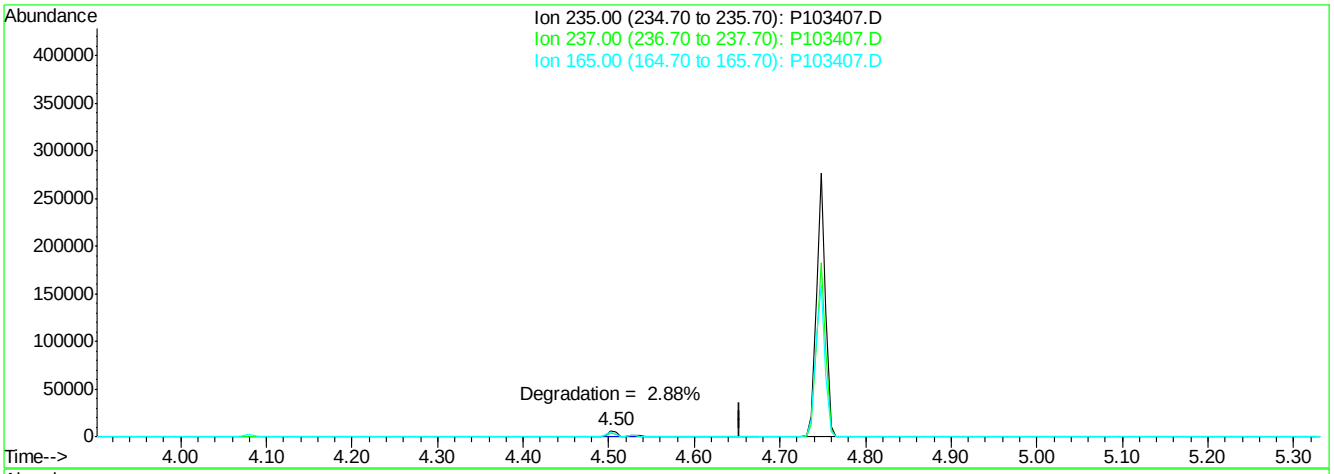
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

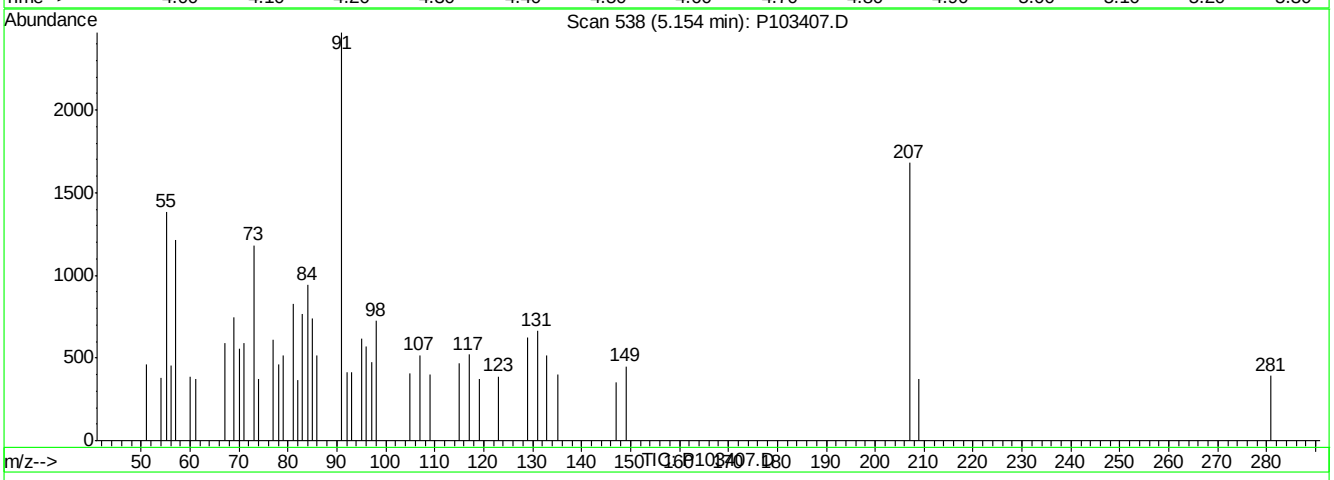
P103407.D DFTPPP.M Thu Mar 17 22:06:52 2016

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103407.D Vial: 1
Acq On : 17 Mar 2016 9:59 pm Operator: sarad
Sample : dftpp Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:04 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
Last Update : Wed Jan 06 10:49:26 2016
Response via : Single Level Calibration





(3) ddt

5.15min 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	65.40	0.00#
165.00	55.50	0.00#
0.00	0.00	0.00

P103407.D DFTPPP.M Thu Mar 17 22:06:59 2016

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14948.D
Acq On : 1 Feb 2016 5:52 pm
Operator : juliusj
Sample : ic767-0.5
Misc : op90759a,e4p767
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 08:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:35:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.752	150	116866	4.00	ppm	0.00
13) Fluorene-d10	11.741	176	171703	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	243157	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	190560	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	208877	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
4) Phenol-d5	4.527	99	354969	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
7) Nitrobenzene-d5	5.965	82	330070	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
14) 2-Fluorobiphenyl	9.403	172	520728	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
22) 2,4,6-Tribromophenol	12.296	330	67870	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
30) Terphenyl-d14	16.757	244	383901	10.00	ppm	0.00
Spiked Amount 50.000			Recovery = 20.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	6758	0.46	ppm	99
5) Phenol	4.544	94	103891	2.50	ppm	100
6) bis(2-Chloroethyl)ether	4.665	93	16449	0.50	ppm	100
8) Naphthalene	7.292	128	36286	0.50	ppm	100
9) Hexachlorobutadiene	7.587	225	8392	0.50	ppm	100
10) 2-Methylnaphthalene	8.626	141	19058	0.50	ppm	100
11) 1-Methylnaphthalene	8.815	141	20892	0.50	ppm	100
12) Hexachlorocyclopentadiene	8.983	237	14992	1.00	ppm #	100
15) Acenaphthylene	10.379	152	29013	0.50	ppm	100
16) Acenaphthene	10.746	153	22588	0.50	ppm	100
17) Dibenzofuran	11.113	168	31827	0.50	ppm	100
18) Fluorene	11.790	166	28317	0.50	ppm	100
19) 4,6-dinitro-2-methylph...	11.964	198	10508	2.50	ppm	100
20) n-nitrosodiphenylamine	12.113	169	14064	0.50	ppm	100
21) 1,2-Diphenylhydrazine	12.163	77	25432	0.50	ppm	100
24) Hexachlorobenzene	12.919	284	9739	0.50	ppm	100
25) Pentachlorophenol	13.333	266	18835	2.50	ppm	100
26) Phenanthrene	13.711	178	37619	0.50	ppm	100
27) Anthracene	13.814	178	34857	0.50	ppm	100
28) Fluoranthene	15.983	202	40284	0.50	ppm	100
29) Pyrene	16.379	202	40512	0.50	ppm	100
31) Benzo[a]anthracene	18.476	228	35675	0.50	ppm	100
32) Chrysene	18.533	228	39954	0.50	ppm	100
34) Benzo[b]fluoranthene	20.143	252	39767	0.50	ppm	100
35) Benzo[k]fluoranthene	20.178	252	35752	0.50	ppm	100
36) Benzo[a]pyrene	20.603	252	37547	0.50	ppm	100
37) Indeno[1,2,3-cd]pyrene	22.141	276	40972	0.50	ppm	100
38) Dibenz[a,h]anthracene	22.170	278	34054	0.50	ppm	100
39) Benzo[g,h,i]perylene	22.535	276	36070	0.50	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14948.D
Acq On : 1 Feb 2016 5:52 pm
Operator : juliusj
Sample : ic767-0.5
Misc : op90759a,e4p767
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 08:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:35:53 2016
Response via : Initial Calibration

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

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

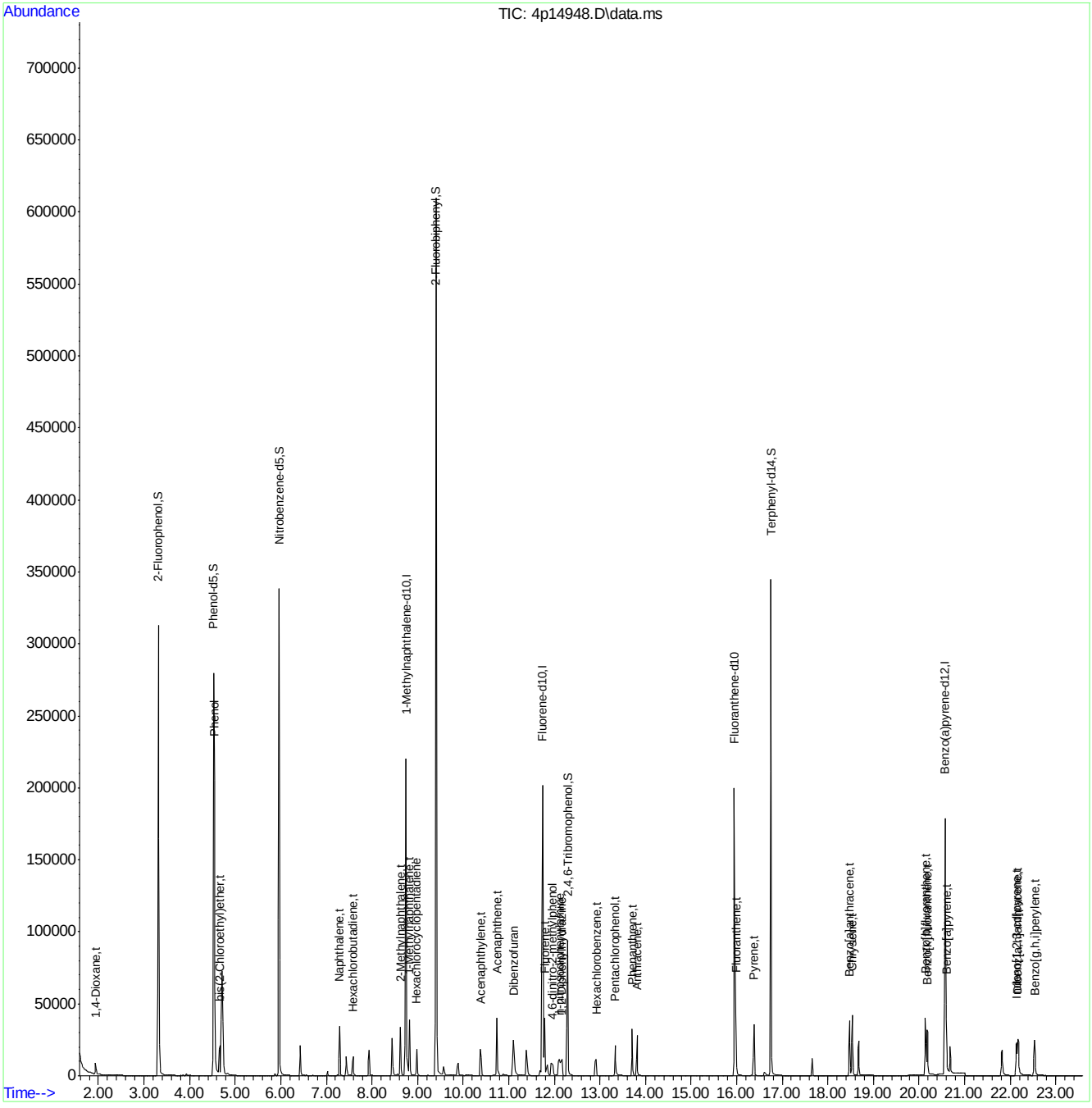
9.6.1

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14948.D
Acq On : 1 Feb 2016 5:52 pm
Operator : juliusj
Sample : ic767-0.5
Misc : op90759a,e4p767
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 02 08:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:35:53 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14949.D
Acq On : 1 Feb 2016 6:22 pm
Operator : juliusj
Sample : icc767-1.0
Misc : op90759a,e4p767
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 08:36:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:36:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.752	150	123313	4.00	ppm		0.00
13) Fluorene-d10	11.741	176	202458	4.00	ppm		0.00
23) Fluoranthene-d10	15.948	212	279533	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.565	264	213575	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	3.317	112	433572	19.67	ppm		0.00
Spiked Amount 50.000			Recovery = 39.34%				
4) Phenol-d5	4.527	99	743457	19.85	ppm		0.00
Spiked Amount 50.000			Recovery = 39.70%				
7) Nitrobenzene-d5	5.964	82	704063	20.22	ppm		0.00
Spiked Amount 50.000			Recovery = 40.44%				
14) 2-Fluorobiphenyl	9.403	172	1043332	16.99	ppm		0.00
Spiked Amount 50.000			Recovery = 33.98%				
22) 2,4,6-Tribromophenol	12.275	330	155533	19.44	ppm		-0.02
Spiked Amount 50.000			Recovery = 38.88%				
30) Terphenyl-d14	16.757	244	830925	18.83	ppm		0.00
Spiked Amount 50.000			Recovery = 37.66%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.936	88	12999	0.91	ppm		94
5) Phenol	4.544	94	219708	5.01	ppm	#	84
6) bis(2-Chloroethyl)ether	4.664	93	34645	1.00	ppm		85
8) Naphthalene	7.292	128	79992	1.04	ppm		97
9) Hexachlorobutadiene	7.574	225	18376	1.04	ppm		78
10) 2-Methylnaphthalene	8.626	141	40846	1.02	ppm		87
11) 1-Methylnaphthalene	8.815	141	43358	0.98	ppm		86
12) Hexachlorocyclopentadiene	8.983	237	33435	2.11	ppm	#	94
15) Acenaphthylene	10.379	152	70406	1.03	ppm		96
16) Acenaphthene	10.746	153	50772	0.95	ppm		91
17) Dibenzofuran	11.112	168	61228	0.82	ppm		93
18) Fluorene	11.790	166	61619	0.92	ppm		92
19) 4,6-dinitro-2-methylph...	11.964	198	24140	4.87	ppm		99
20) n-nitrosodiphenylamine	12.088	169	29972	0.90	ppm	#	42
21) 1,2-Diphenylhydrazine	12.138	77	66593	1.11	ppm		81
24) Hexachlorobenzene	12.902	284	21342	0.95	ppm		74
25) Pentachlorophenol	13.332	266	41539	4.80	ppm		89
26) Phenanthrene	13.711	178	82435	0.95	ppm		97
27) Anthracene	13.814	178	73436	0.92	ppm		97
28) Fluoranthene	15.983	202	86066	0.93	ppm		97
29) Pyrene	16.379	202	85996	0.92	ppm		96
31) Benzo[a]anthracene	18.474	228	76647	0.93	ppm		99
32) Chrysene	18.531	228	89812	0.98	ppm		99
34) Benzo[b]fluoranthene	20.139	252	85494	0.96	ppm		98
35) Benzo[k]fluoranthene	20.185	252	78934	0.98	ppm		88
36) Benzo[a]pyrene	20.599	252	79356	0.94	ppm		100
37) Indeno[1,2,3-cd]pyrene	22.137	276	88350	0.96	ppm		100
38) Dibenz[a,h]anthracene	22.176	278	72890	0.95	ppm		93
39) Benzo[g,h,i]perylene	22.531	276	78035	0.97	ppm		100

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14949.D
Acq On : 1 Feb 2016 6:22 pm
Operator : juliusj
Sample : icc767-1.0
Misc : op90759a,e4p767
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 08:36:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:36:36 2016
Response via : Initial Calibration

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

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

9.6.2

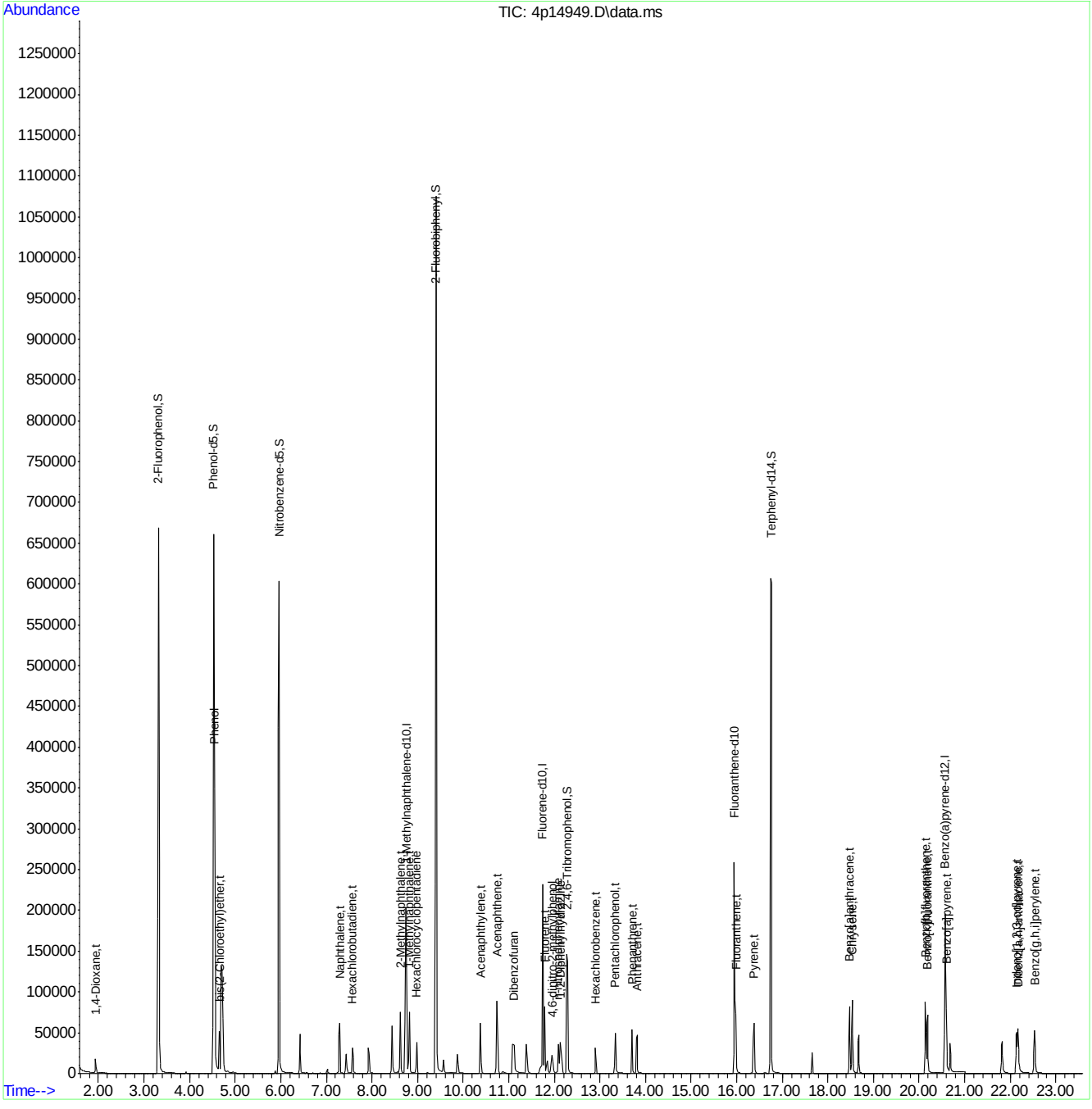
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14949.D
Acq On : 1 Feb 2016 6:22 pm
Operator : juliusj
Sample : icc767-1.0
Misc : op90759a,e4p767
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 02 08:36:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:36:36 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14950.D
Acq On : 1 Feb 2016 6:52 pm
Operator : juliusj
Sample : ic767-0.2
Misc : op90759a,e4p767
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 08:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.748	150	145085	4.00	ppm		0.00
13) Fluorene-d10	11.737	176	205337	4.00	ppm		0.00
23) Fluoranthene-d10	15.948	212	295085	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.569	264	219556	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	3.317	112	121045	4.71	ppm		0.00
Spiked Amount 50.000			Recovery	=	9.42%		
4) Phenol-d5	4.527	99	196549	4.48	ppm		0.00
Spiked Amount 50.000			Recovery	=	8.96%		
7) Nitrobenzene-d5	5.961	82	190624	4.63	ppm		0.00
Spiked Amount 50.000			Recovery	=	9.26%		
14) 2-Fluorobiphenyl	9.399	172	303209	5.26	ppm		0.00
Spiked Amount 50.000			Recovery	=	10.52%		
22) 2,4,6-Tribromophenol	12.292	330	35599	4.45	ppm		0.02
Spiked Amount 50.000			Recovery	=	8.90%		
30) Terphenyl-d14	16.740	244	215346	4.76	ppm		-0.02
Spiked Amount 50.000			Recovery	=	9.52%		
Target Compounds							Qvalue
2) 1,4-Dioxane	1.936	88	3945	0.25	ppm		95
5) Phenol	4.544	94	56008	1.08	ppm	#	90
6) bis(2-Chloroethyl)ether	4.664	93	9525	0.23	ppm		97
8) Naphthalene	7.288	128	21877	0.24	ppm		97
9) Hexachlorobutadiene	7.583	225	5059	0.24	ppm		76
10) 2-Methylnaphthalene	8.622	141	11017	0.23	ppm		89
11) 1-Methylnaphthalene	8.811	141	12331	0.24	ppm		91
12) Hexachlorocyclopentadiene	8.979	237	7356	0.38	ppm	#	96
15) Acenaphthylene	10.375	152	15718	0.22	ppm		96
16) Acenaphthene	10.742	153	13206	0.25	ppm		93
17) Dibenzofuran	11.109	168	16808	0.24	ppm	#	59
18) Fluorene	11.786	166	15550	0.24	ppm		93
19) 4,6-dinitro-2-methylph...	11.960	198	4410	0.89	ppm		77
20) n-nitrosodiphenylamine	12.109	169	7432	0.23	ppm	#	59
21) 1,2-Diphenylhydrazine	12.134	77	13964	0.22	ppm		98
24) Hexachlorobenzene	12.902	284	5548	0.24	ppm		99
25) Pentachlorophenol	13.332	266	8078	0.90	ppm		92
26) Phenanthrene	13.711	178	20754	0.23	ppm		99
27) Anthracene	13.814	178	18553	0.23	ppm		98
28) Fluoranthene	15.983	202	22071	0.23	ppm		98
29) Pyrene	16.379	202	21140	0.22	ppm		98
31) Benzo[a]anthracene	18.476	228	18242	0.22	ppm		98
32) Chrysene	18.533	228	22239	0.23	ppm		99
34) Benzo[b]fluoranthene	20.143	252	22094	0.25	ppm		94
35) Benzo[k]fluoranthene	20.178	252	18051	0.22	ppm		92
36) Benzo[a]pyrene	20.592	252	20902	0.25	ppm		92
37) Indeno[1,2,3-cd]pyrene	22.139	276	22157	0.24	ppm		100
38) Dibenz[a,h]anthracene	22.178	278	18223	0.24	ppm		97
39) Benzo[g,h,i]perylene	22.533	276	19966	0.24	ppm		100

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14950.D
Acq On : 1 Feb 2016 6:52 pm
Operator : juliusj
Sample : ic767-0.2
Misc : op90759a,e4p767
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 08:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:27 2016
Response via : Initial Calibration

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

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

9.6.3

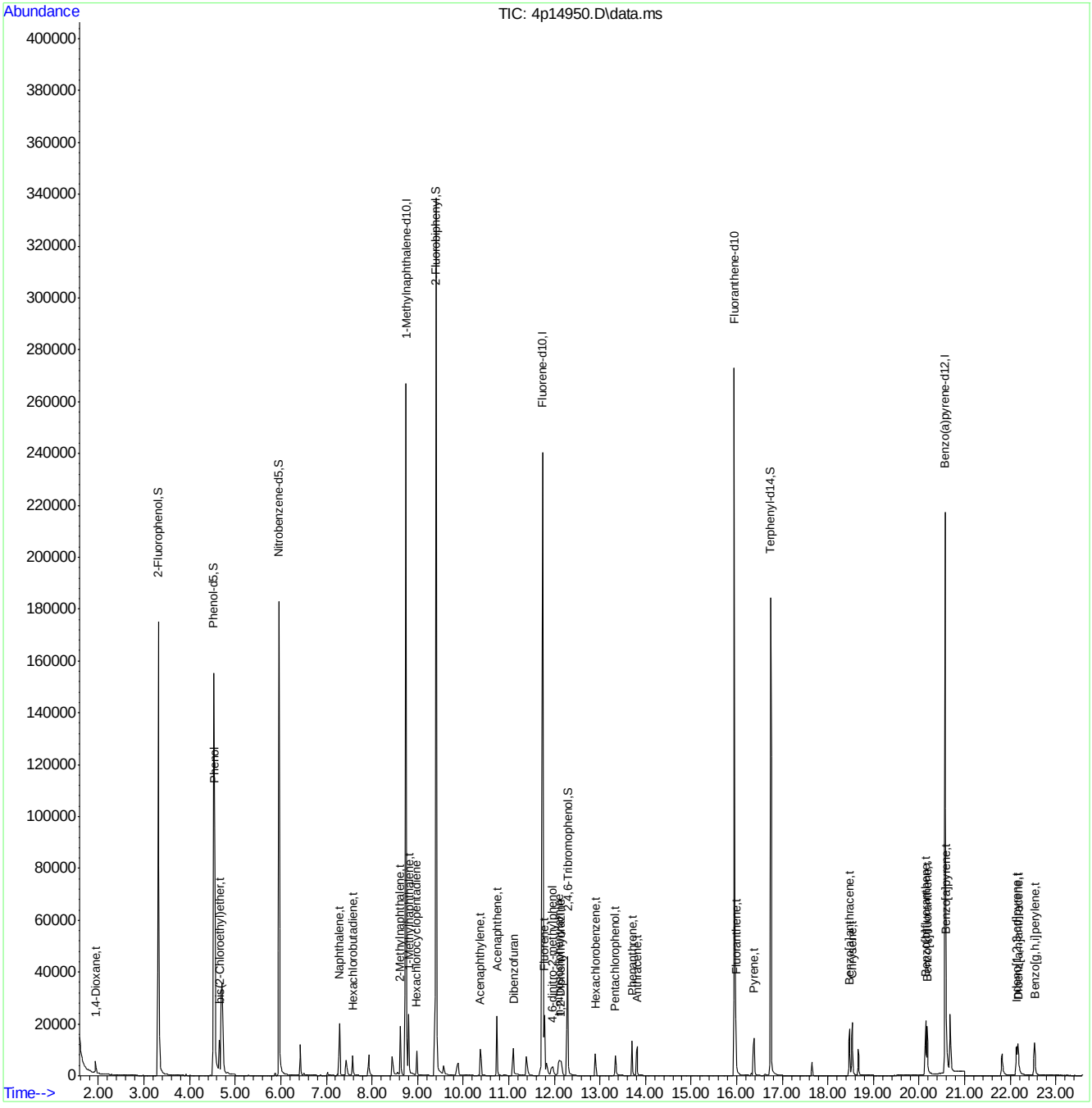
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14950.D
Acq On : 1 Feb 2016 6:52 pm
Operator : juliusj
Sample : ic767-0.2
Misc : op90759a,e4p767
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 02 08:37:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:27 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14951.D
Acq On : 1 Feb 2016 7:22 pm
Operator : juliusj
Sample : ic767-0.1
Misc : op90759a,e4p767
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 08:38:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:56 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.752	150	132054	4.00	ppm	0.00
13) Fluorene-d10	11.741	176	209961	4.00	ppm	0.00
23) Fluoranthene-d10	15.948	212	305759	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	232454	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	47888	1.93	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.86%	
4) Phenol-d5	4.527	99	70492	1.70	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.40%	
7) Nitrobenzene-d5	5.965	82	73864	1.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.74%	
14) 2-Fluorobiphenyl	9.403	172	114140	1.75	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.50%	
22) 2,4,6-Tribromophenol	12.275	330	14159	1.67	ppm	-0.02
Spiked Amount 50.000			Recovery	=	3.34%	
30) Terphenyl-d14	16.740	244	95651	1.92	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.84%	
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	2122	0.14	ppm	89
5) Phenol	4.544	94	21748	0.45	ppm	92
6) bis(2-Chloroethyl)ether	4.664	93	3770	0.10	ppm	98
8) Naphthalene	7.292	128	9014	0.10	ppm	97
9) Hexachlorobutadiene	7.574	225	2096	0.10	ppm	79
10) 2-Methylnaphthalene	8.626	141	4365	0.10	ppm	87
11) 1-Methylnaphthalene	8.815	141	4709	0.09	ppm	87
12) Hexachlorocyclopentadiene	8.983	237	2385	0.14	ppm #	94
15) Acenaphthylene	10.379	152	7582	0.10	ppm	96
16) Acenaphthene	10.746	153	5375	0.09	ppm	90
17) Dibenzofuran	11.112	168	6986	0.09	ppm	96
18) Fluorene	11.790	166	6161	0.09	ppm	95
19) 4,6-dinitro-2-methylph...	11.964	198	1392	0.28	ppm	95
20) n-nitrosodiphenylamine	12.113	169	3000	0.09	ppm	98
21) 1,2-Diphenylhydrazine	12.138	77	6136	0.09	ppm	98
24) Hexachlorobenzene	12.902	284	2427	0.10	ppm	98
25) Pentachlorophenol	13.332	266	2979	0.33	ppm	98
26) Phenanthrene	13.711	178	8866	0.09	ppm	100
27) Anthracene	13.814	178	7716	0.09	ppm	98
28) Fluoranthene	15.983	202	9503	0.09	ppm	99
29) Pyrene	16.379	202	9526	0.09	ppm	99
31) Benzo[a]anthracene	18.476	228	8236	0.09	ppm	99
32) Chrysene	18.533	228	10118	0.10	ppm	100
34) Benzo[b]fluoranthene	20.143	252	9717	0.09	ppm	99
35) Benzo[k]fluoranthene	20.178	252	7667	0.09	ppm	99
36) Benzo[a]pyrene	20.592	252	9527	0.10	ppm	100
37) Indeno[1,2,3-cd]pyrene	22.132	276	9916	0.09	ppm	95
38) Dibenz[a,h]anthracene	22.180	278	8164	0.09	ppm	97
39) Benzo[g,h,i]perylene	22.525	276	9060	0.10	ppm	99

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14951.D
Acq On : 1 Feb 2016 7:22 pm
Operator : juliusj
Sample : ic767-0.1
Misc : op90759a,e4p767
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 08:38:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:56 2016
Response via : Initial Calibration

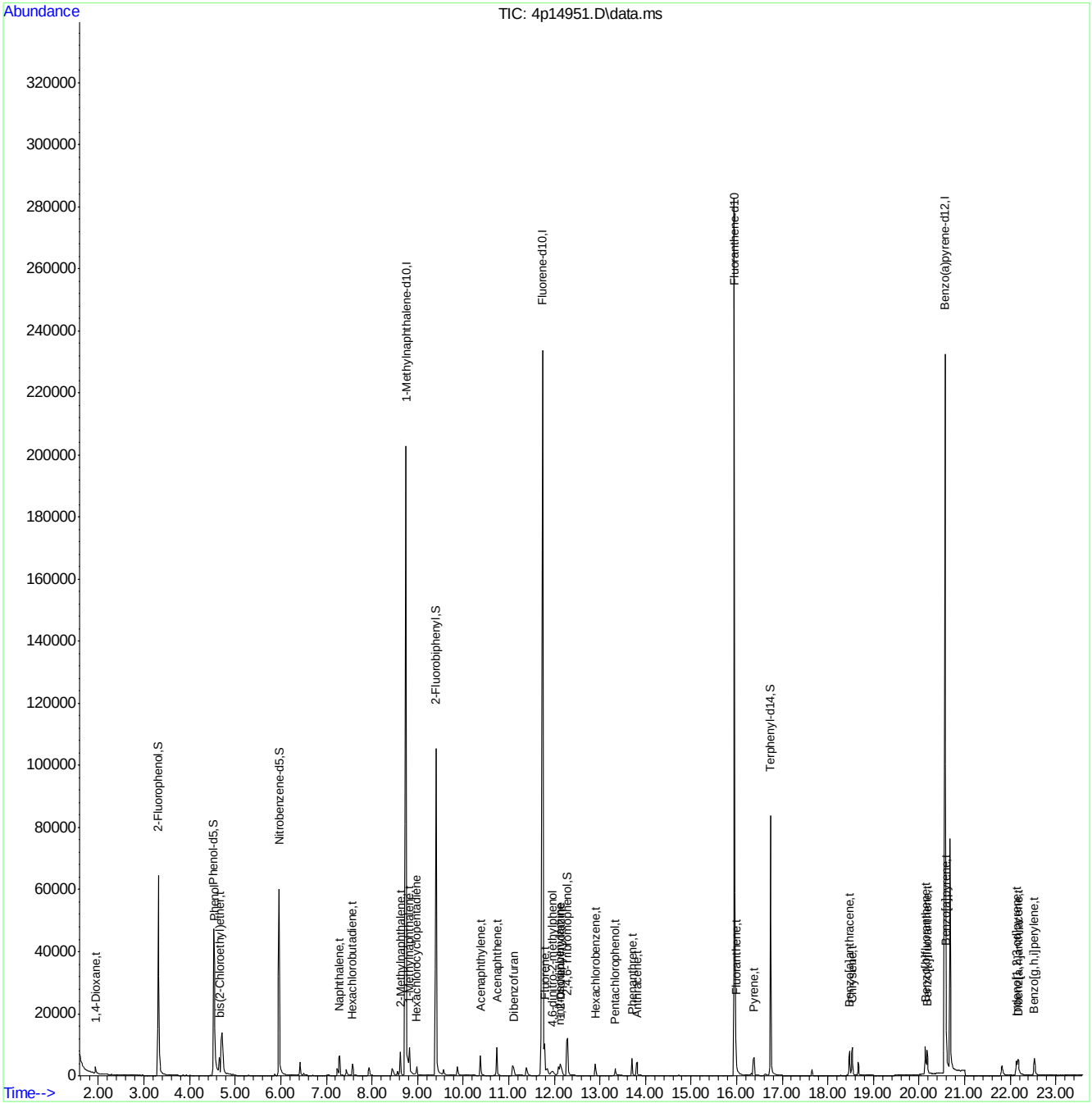
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14951.D
Acq On : 1 Feb 2016 7:22 pm
Operator : juliusj
Sample : ic767-0.1
Misc : op90759a,e4p767
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 02 08:38:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:37:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14952.D
Acq On : 1 Feb 2016 7:53 pm
Operator : juliusj
Sample : ic767-0.05
Misc : op90759a,e4p767
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 08:38:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:38:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.748	150	136992	4.00	ppm	0.00
13) Fluorene-d10	11.737	176	216131	4.00	ppm	0.00
23) Fluoranthene-d10	15.948	212	316972	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	227941	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.317	112	22318	0.88	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.76%	
4) Phenol-d5	4.527	99	33544	0.81	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.62%	
7) Nitrobenzene-d5	5.961	82	33652	0.84	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.68%	
14) 2-Fluorobiphenyl	9.399	172	57575	0.89	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.78%	
22) 2,4,6-Tribromophenol	12.292	330	6297	0.75	ppm	0.02
Spiked Amount 50.000			Recovery	=	1.50%	
30) Terphenyl-d14	16.740	244	44624	0.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.74%	
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	1363	0.08	ppm	99
5) Phenol	4.544	94	9585	0.20	ppm	92
6) bis(2-Chloroethyl)ether	4.664	93	1756	0.04	ppm	97
8) Naphthalene	7.288	128	4261	0.05	ppm	99
9) Hexachlorobutadiene	7.570	225	982	0.05	ppm	95
10) 2-Methylnaphthalene	8.622	141	2189	0.05	ppm	90
11) 1-Methylnaphthalene	8.811	141	2330	0.05	ppm	96
12) Hexachlorocyclopentadiene	8.979	237	867	0.05	ppm #	97
15) Acenaphthylene	10.375	152	3477	0.05	ppm	99
16) Acenaphthene	10.742	153	2565	0.04	ppm	94
17) Dibenzofuran	11.109	168	3527	0.05	ppm	94
18) Fluorene	11.786	166	3019	0.04	ppm	97
19) 4,6-dinitro-2-methylph...	11.960	198	564	0.13	ppm #	52
20) n-nitrosodiphenylamine	12.109	169	1405	0.04	ppm	94
21) 1,2-Diphenylhydrazine	12.134	77	2649	0.04	ppm	99
24) Hexachlorobenzene	12.902	284	1154	0.04	ppm	99
25) Pentachlorophenol	13.332	266	1326	0.16	ppm	99
26) Phenanthrene	13.694	178	4209	0.04	ppm	88
27) Anthracene	13.797	178	3720	0.04	ppm	88
28) Fluoranthene	15.983	202	4623	0.04	ppm	100
29) Pyrene	16.361	202	4438	0.04	ppm	86
31) Benzo[a]anthracene	18.476	228	3634	0.04	ppm	99
32) Chrysene	18.533	228	4782	0.04	ppm	97
34) Benzo[b]fluoranthene	20.143	252	3809	0.04	ppm	98
35) Benzo[k]fluoranthene	20.178	252	4112	0.05	ppm	97
36) Benzo[a]pyrene	20.592	252	5408	0.06	ppm	98
37) Indeno[1,2,3-cd]pyrene	22.139	276	4688	0.05	ppm	94
38) Dibenz[a,h]anthracene	22.178	278	3737	0.04	ppm	94
39) Benzo[g,h,i]perylene	22.523	276	4314	0.05	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14952.D
Acq On : 1 Feb 2016 7:53 pm
Operator : juliusj
Sample : ic767-0.05
Misc : op90759a,e4p767
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 08:38:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:38:22 2016
Response via : Initial Calibration

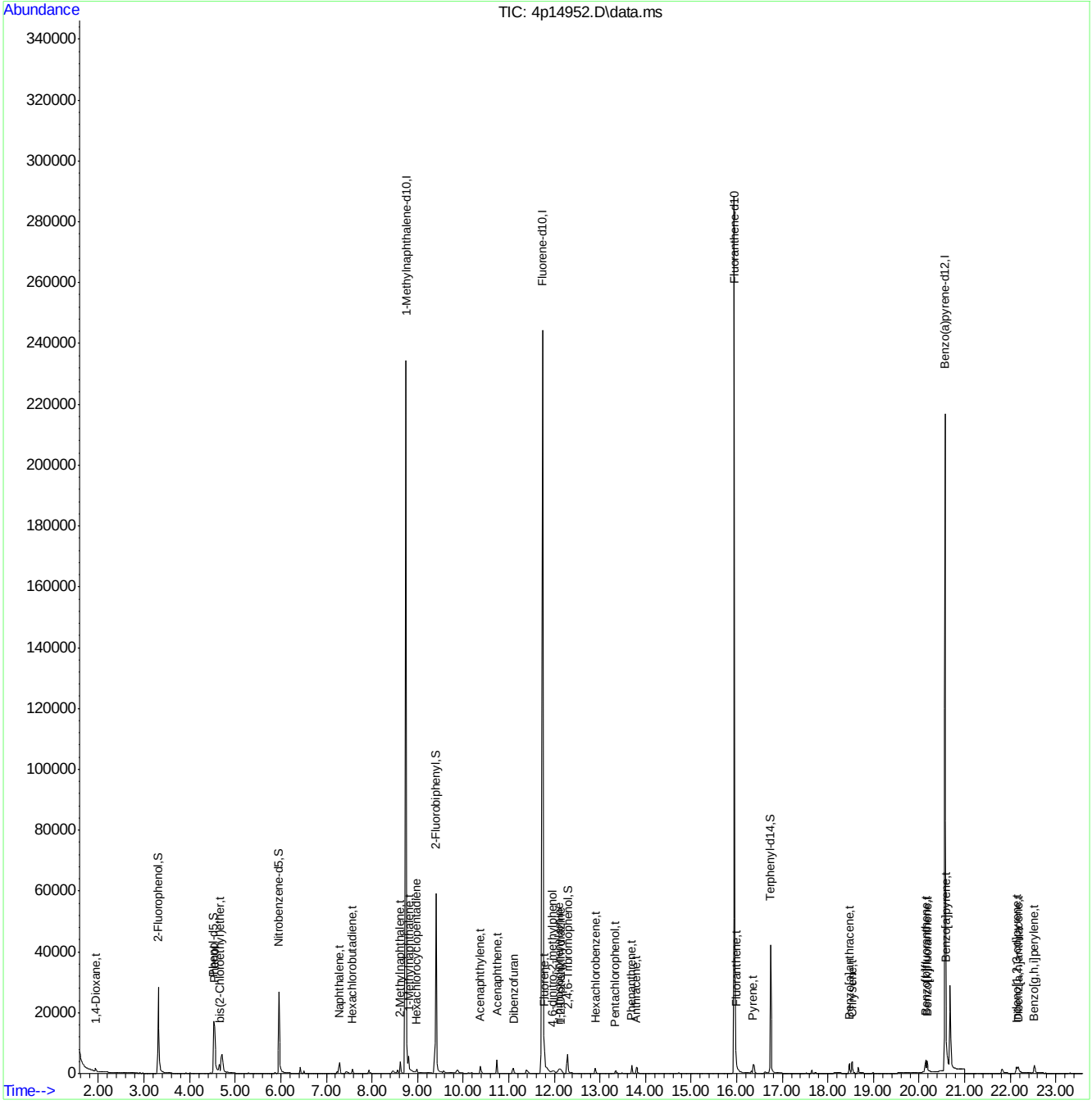
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14952.D
Acq On : 1 Feb 2016 7:53 pm
Operator : juliusj
Sample : ic767-0.05
Misc : op90759a,e4p767
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 02 08:38:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:38:22 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:39:23 2016 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14953.D
Acq On : 1 Feb 2016 8:23 pm
Operator : juliusj
Sample : ic767-0.02
Misc : op90759a,e4p767
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 08:40:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:39:25 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.752	150	120159	4.00	ppm	0.00
13) Fluorene-d10	11.741	176	182801	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	292186	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	207117	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	3.331	112	8478	0.39	ppm	0.01
Spiked Amount 50.000			Recovery	=	0.78%	
4) Phenol-d5	4.527	99	11659	0.33	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.66%	
7) Nitrobenzene-d5	5.965	82	12369	0.36	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.72%	
14) 2-Fluorobiphenyl	9.403	172	19721	0.37	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.74%	
22) 2,4,6-Tribromophenol	12.275	330	2315	0.33	ppm	-0.02
Spiked Amount 50.000			Recovery	=	0.66%	
30) Terphenyl-d14	16.740	244	17335	0.38	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.76%	
Target Compounds						Qvalue
5) Phenol	4.544	94	3336	0.08	ppm #	86
6) bis(2-Chloroethyl)ether	4.665	93	1026	0.03	ppm	93
8) Naphthalene	7.279	128	1706	0.02	ppm	93
9) Hexachlorobutadiene	7.574	225	404	0.02	ppm	88
10) 2-Methylnaphthalene	8.626	141	718	0.02	ppm	84
11) 1-Methylnaphthalene	8.815	141	811	0.02	ppm	89
12) Hexachlorocyclopentadiene	8.983	237	213	0.01	ppm #	89
15) Acenaphthylene	10.379	152	1602	0.03	ppm	96
16) Acenaphthene	10.746	153	927	0.02	ppm	88
17) Dibenzofuran	11.113	168	1314	0.02	ppm	94
18) Fluorene	11.790	166	959	0.02	ppm	87
19) 4,6-dinitro-2-methylph...	11.964	198	207	0.06	ppm	92
20) n-nitrosodiphenylamine	12.113	169	561	0.02	ppm	98
21) 1,2-Diphenylhydrazine	12.138	77	1074	0.02	ppm	97
24) Hexachlorobenzene	12.902	284	472	0.02	ppm	95
25) Pentachlorophenol	13.350	266	526	0.07	ppm	90
26) Phenanthrene	13.694	178	1651	0.02	ppm	97
27) Anthracene	13.797	178	1451	0.02	ppm	96
28) Fluoranthene	15.966	202	2202	0.02	ppm	90
29) Pyrene	16.362	202	1837	0.02	ppm	99
31) Benzo[a]anthracene	18.476	228	1464	0.02	ppm	97
32) Chrysene	18.524	228	1859	0.02	ppm	89
34) Benzo[b]fluoranthene	20.143	252	1474	0.02	ppm	100
35) Benzo[k]fluoranthene	20.178	252	1590	0.02	ppm	96
36) Benzo[a]pyrene	20.592	252	1700	0.02	ppm	95
37) Indeno[1,2,3-cd]pyrene	22.132	276	1903	0.02	ppm	94
38) Dibenz[a,h]anthracene	22.180	278	1551	0.02	ppm	97
39) Benzo[g,h,i]perylene	22.525	276	1757	0.02	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14953.D
Acq On : 1 Feb 2016 8:23 pm
Operator : juliusj
Sample : ic767-0.02
Misc : op90759a,e4p767
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 08:40:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:39:25 2016
Response via : Initial Calibration

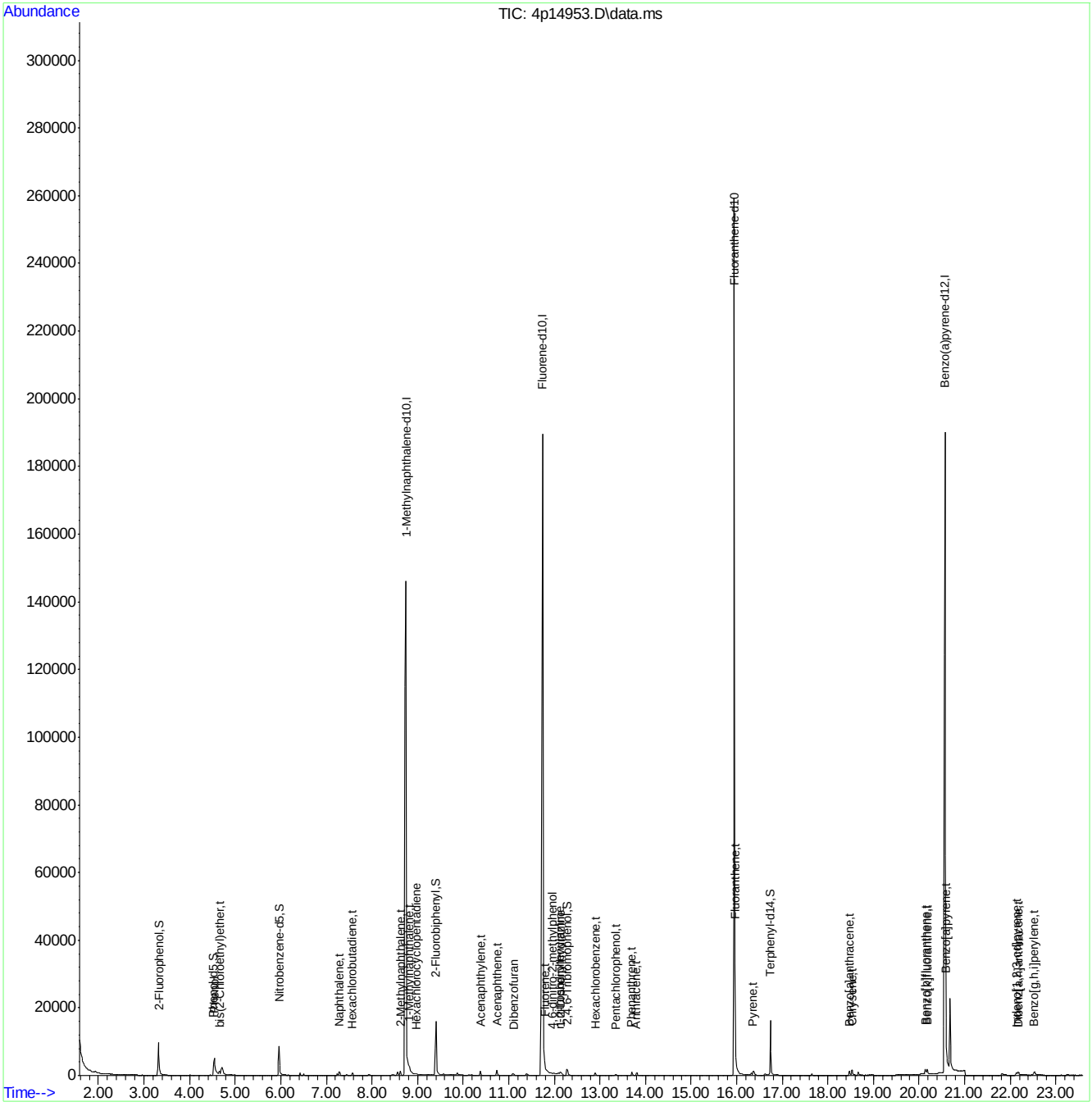
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14953.D
Acq On : 1 Feb 2016 8:23 pm
Operator : juliusj
Sample : ic767-0.02
Misc : op90759a,e4p767
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 02 08:40:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:39:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14954.D
Acq On : 1 Feb 2016 8:53 pm
Operator : juliusj
Sample : ic767-0.01
Misc : op90759a,e4p767
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 02 08:40:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:40:24 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.752	150	104757	4.00 ppm	0.00
13) Fluorene-d10	11.740	176	158214	4.00 ppm	0.00
23) Fluoranthene-d10	15.948	212	254166	4.00 ppm	0.00
33) Benzo(a)pyrene-d12	20.569	264	185992	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	3.330	112	3607	0.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.38%	
4) Phenol-d5	4.544	99	4128	0.14 ppm	0.02
Spiked Amount 50.000			Recovery	= 0.28%	
7) Nitrobenzene-d5	5.964	82	4995	0.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.34%	
14) 2-Fluorobiphenyl	9.403	172	8607	0.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.38%	
22) 2,4,6-Tribromophenol	12.275	330	1045	0.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.34%	
30) Terphenyl-d14	16.740	244	7255	0.18 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.36%	
Target Compounds					Qvalue
5) Phenol	4.544	94	1217	0.04 ppm #	60
6) bis(2-Chloroethyl)ether	4.664	93	248	0.01 ppm	95
8) Naphthalene	7.279	128	699	0.01 ppm	98
9) Hexachlorobutadiene	7.574	225	177	0.01 ppm	95
10) 2-Methylnaphthalene	8.626	141	333	0.01 ppm	99
11) 1-Methylnaphthalene	8.815	141	379	0.01 ppm	97
15) Acenaphthylene	10.379	152	646	0.01 ppm	97
16) Acenaphthene	10.746	153	422	0.01 ppm	94
17) Dibenzofuran	11.112	168	564	0.01 ppm	92
18) Fluorene	11.790	166	415	0.01 ppm	99
20) n-nitrosodiphenylamine	12.113	169	225	0.01 ppm	85
21) 1,2-Diphenylhydrazine	12.138	77	503	0.01 ppm	94
24) Hexachlorobenzene	12.902	284	211	0.01 ppm	96
25) Pentachlorophenol	13.350	266	236	0.04 ppm	93
26) Phenanthrene	13.694	178	747	0.01 ppm	97
27) Anthracene	13.797	178	562	0.01 ppm	97
28) Fluoranthene	15.966	202	1153	0.01 ppm	97
29) Pyrene	16.361	202	833	0.01 ppm	99
31) Benzo[a]anthracene	18.476	228	694	0.01 ppm	95
32) Chrysene	18.533	228	876	0.01 ppm	90
34) Benzo[b]fluoranthene	20.143	252	741	0.01 ppm	97
35) Benzo[k]fluoranthene	20.177	252	765	0.01 ppm	98
36) Benzo[a]pyrene	20.592	252	681	0.01 ppm	91
37) Indeno[1,2,3-cd]pyrene	22.139	276	776	0.01 ppm	96
38) Dibenz[a,h]anthracene	22.178	278	574	0.01 ppm	80
39) Benzo[g,h,i]perylene	22.533	276	756	0.01 ppm	87

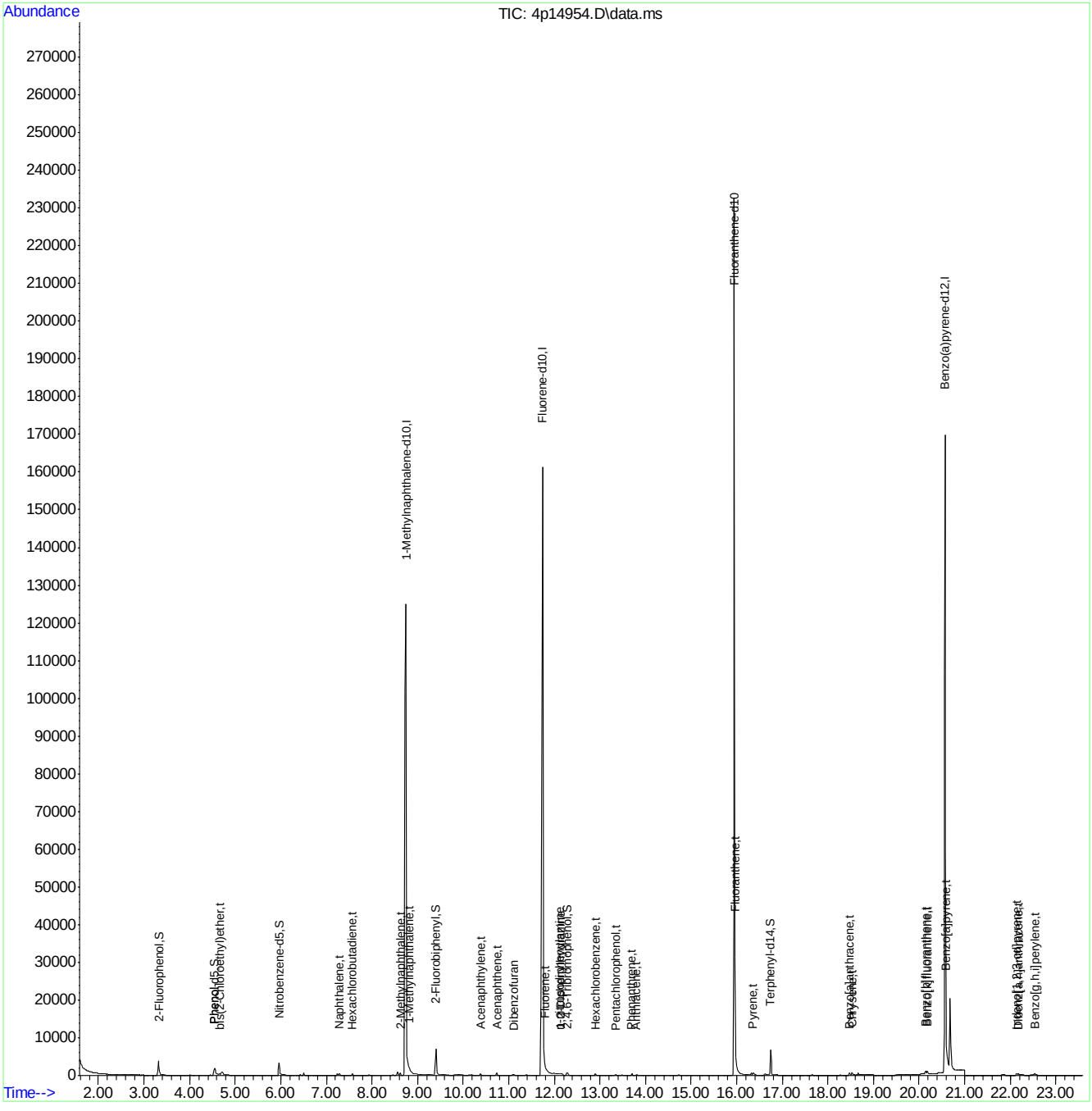
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14954.D
Acq On : 1 Feb 2016 8:53 pm
Operator : juliusj
Sample : ic767-0.01
Misc : op90759a,e4p767
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 02 08:40:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:40:24 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:41:06 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14955.D
Acq On : 1 Feb 2016 9:23 pm
Operator : juliusj
Sample : ic767-5
Misc : op90759a,e4p767
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:41:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:29 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.748	150	147959	4.00	ppm		0.00
13) Fluorene-d10	11.737	176	258328	4.00	ppm		0.00
23) Fluoranthene-d10	15.948	212	320902	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.565	264	243905	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	3.317	112	2265128	84.76	ppm		-0.01
Spiked Amount 50.000			Recovery = 169.52%				
4) Phenol-d5	4.527	99	3935833	93.98	ppm		-0.02
Spiked Amount 50.000			Recovery = 187.96%				
7) Nitrobenzene-d5	5.961	82	3896890	94.12	ppm		0.00
Spiked Amount 50.000			Recovery = 188.24%				
14) 2-Fluorobiphenyl	9.399	172	5148616	68.80	ppm		0.00
Spiked Amount 50.000			Recovery = 137.60%				
22) 2,4,6-Tribromophenol	12.292	330	954779	95.38	ppm		0.02
Spiked Amount 50.000			Recovery = 190.76%				
30) Terphenyl-d14	16.757	244	4662020	94.41	ppm		0.02
Spiked Amount 50.000			Recovery = 188.82%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.936	88	66645	3.14	ppm		83
5) Phenol	4.544	94	1328137	27.13	ppm	#	68
6) bis(2-Chloroethyl)ether	4.647	93	192097	4.34	ppm	#	1
8) Naphthalene	7.288	128	442742	4.45	ppm		90
9) Hexachlorobutadiene	7.570	225	104259	4.46	ppm		95
10) 2-Methylnaphthalene	8.622	141	231667	4.76	ppm		97
11) 1-Methylnaphthalene	8.811	141	236764	4.43	ppm		97
12) Hexachlorocyclopentadiene	8.979	237	233903	13.15	ppm	#	90
15) Acenaphthylene	10.375	152	429863	4.75	ppm		98
16) Acenaphthene	10.742	153	286318	4.20	ppm		98
17) Dibenzofuran	11.109	168	353260	3.93	ppm		59
18) Fluorene	11.786	166	359666	4.39	ppm		90
19) 4,6-dinitro-2-methylph...	11.960	198	229380	47.48	ppm	#	43
20) n-nitrosodiphenylamine	12.084	169	175918	4.45	ppm	#	33
21) 1,2-Diphenylhydrazine	12.134	77	393374	5.07	ppm		96
24) Hexachlorobenzene	12.902	284	123053	4.74	ppm		99
25) Pentachlorophenol	13.332	266	299383	37.53	ppm		90
26) Phenanthrene	13.694	178	467876	4.89	ppm		97
27) Anthracene	13.797	178	460331	5.52	ppm		95
28) Fluoranthene	15.966	202	476251	4.59	ppm		96
29) Pyrene	16.361	202	498486	4.89	ppm		99
31) Benzo[a]anthracene	18.474	228	450888	5.11	ppm		97
32) Chrysene	18.531	228	499873	4.69	ppm		97
34) Benzo[b]fluoranthene	20.139	252	515074	4.86	ppm		97
35) Benzo[k]fluoranthene	20.174	252	437947	4.83	ppm		93
36) Benzo[a]pyrene	20.588	252	435724	4.20	ppm		90
37) Indeno[1,2,3-cd]pyrene	22.128	276	491748	4.54	ppm		97
38) Dibenz[a,h]anthracene	22.166	278	414126	4.64	ppm		82
39) Benzo[g,h,i]perylene	22.521	276	430681	4.45	ppm		95

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14955.D
Acq On : 1 Feb 2016 9:23 pm
Operator : juliusj
Sample : ic767-5
Misc : op90759a,e4p767
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:41:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:29 2016
Response via : Initial Calibration

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

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

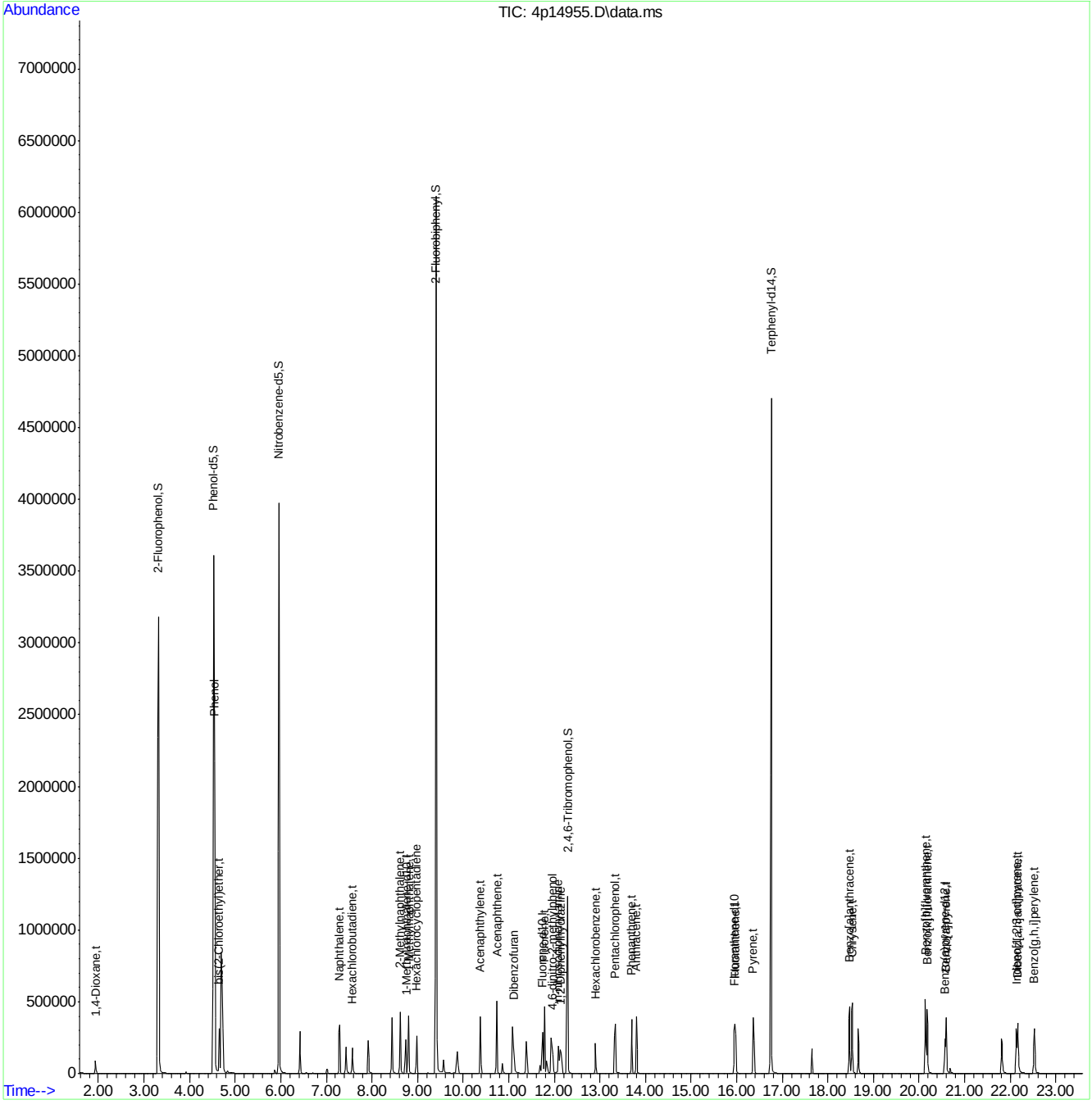
9.6.8

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14955.D
Acq On : 1 Feb 2016 9:23 pm
Operator : juliusj
Sample : ic767-5
Misc : op90759a,e4p767
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 02 08:41:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:29 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14956.D
Acq On : 1 Feb 2016 9:54 pm
Operator : juliusj
Sample : ic767-2.5
Misc : op90759a,e4p767
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:42:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.748	150	131488	4.00	ppm		0.00
13) Fluorene-d10	11.737	176	217765	4.00	ppm		0.00
23) Fluoranthene-d10	15.949	212	289783	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.569	264	214983	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	3.317	112	1104808	47.55	ppm		0.00
Spiked Amount 50.000			Recovery = 95.10%				
4) Phenol-d5	4.527	99	1968442	53.35	ppm		0.00
Spiked Amount 50.000			Recovery = 106.70%				
7) Nitrobenzene-d5	5.961	82	1874633	51.38	ppm		0.00
Spiked Amount 50.000			Recovery = 102.76%				
14) 2-Fluorobiphenyl	9.400	172	2773421	43.97	ppm		0.00
Spiked Amount 50.000			Recovery = 87.94%				
22) 2,4,6-Tribromophenol	12.271	330	428301	51.23	ppm		-0.02
Spiked Amount 50.000			Recovery = 102.46%				
30) Terphenyl-d14	16.740	244	2198427	49.65	ppm		-0.02
Spiked Amount 50.000			Recovery = 99.30%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.936	88	32589	1.84	ppm		97
5) Phenol	4.544	94	560303	12.73	ppm		95
6) bis(2-Chloroethyl)ether	4.647	93	98416	2.54	ppm	#	60
8) Naphthalene	7.289	128	210646	2.42	ppm		100
9) Hexachlorobutadiene	7.570	225	49897	2.43	ppm		100
10) 2-Methylnaphthalene	8.622	141	110885	2.58	ppm		99
11) 1-Methylnaphthalene	8.811	141	112725	2.41	ppm		99
12) Hexachlorocyclopentadiene	8.979	237	103176	6.14	ppm	#	100
15) Acenaphthylene	10.376	152	198788	2.63	ppm		99
16) Acenaphthene	10.742	153	133042	2.36	ppm		98
17) Dibenzofuran	11.109	168	168366	2.30	ppm		88
18) Fluorene	11.787	166	165961	2.45	ppm		100
19) 4,6-dinitro-2-methylph...	11.960	198	84461	18.04	ppm		90
20) n-nitrosodiphenylamine	12.084	169	85054	2.60	ppm		96
21) 1,2-Diphenylhydrazine	12.134	77	189225	2.89	ppm		99
24) Hexachlorobenzene	12.902	284	58915	2.53	ppm		99
25) Pentachlorophenol	13.333	266	133535	17.11	ppm		99
26) Phenanthrene	13.694	178	224887	2.61	ppm		99
27) Anthracene	13.797	178	209233	2.74	ppm		100
28) Fluoranthene	15.966	202	228787	2.48	ppm		99
29) Pyrene	16.362	202	230938	2.52	ppm		99
31) Benzo[a]anthracene	18.466	228	205091	2.56	ppm		92
32) Chrysene	18.524	228	232864	2.45	ppm		90
34) Benzo[b]fluoranthene	20.143	252	216289	2.33	ppm		97
35) Benzo[k]fluoranthene	20.178	252	225992	2.85	ppm		98
36) Benzo[a]pyrene	20.592	252	205121	2.31	ppm		95
37) Indeno[1,2,3-cd]pyrene	22.130	276	230288	2.46	ppm		98
38) Dibenz[a,h]anthracene	22.168	278	191422	2.47	ppm		99
39) Benzo[g,h,i]perylene	22.524	276	204234	2.45	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14956.D
Acq On : 1 Feb 2016 9:54 pm
Operator : juliusj
Sample : ic767-2.5
Misc : op90759a,e4p767
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:42:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:54 2016
Response via : Initial Calibration

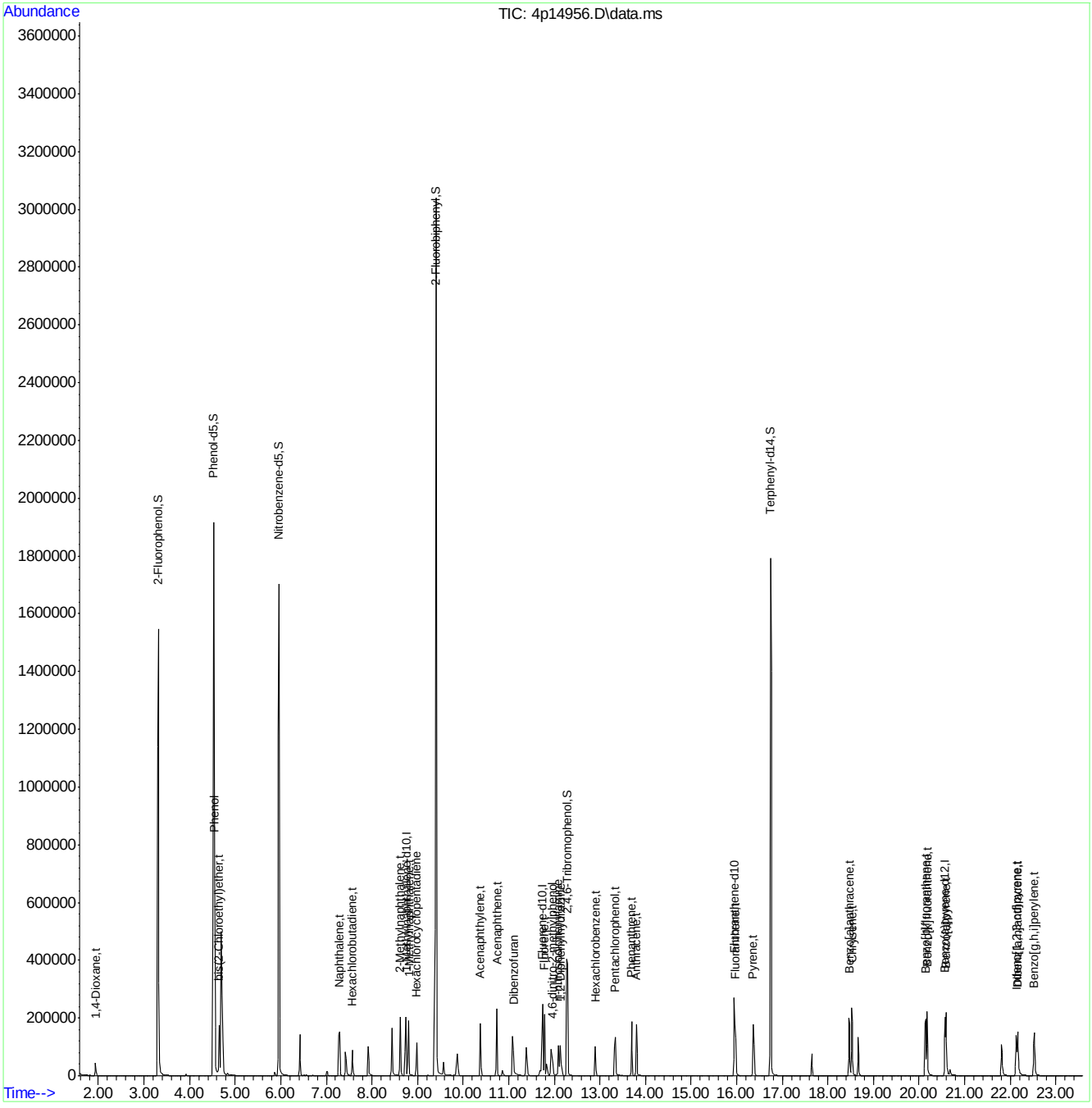
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14956.D
Acq On : 1 Feb 2016 9:54 pm
Operator : juliusj
Sample : ic767-2.5
Misc : op90759a,e4p767
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 02 08:42:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:41:54 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14957.D
Acq On : 1 Feb 2016 10:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 02 08:46:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:46:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	8.748	150	119320	4.00	ppm		0.00
13) Fluorene-d10	11.737	176	186403	4.00	ppm		0.00
23) Fluoranthene-d10	15.948	212	280630	4.00	ppm		0.00
33) Benzo(a)pyrene-d12	20.569	264	195953	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	0.000	112	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
4) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
7) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
14) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
22) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
30) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount 50.000			Recovery	=	0.00%		
Target Compounds							Qvalue
6) bis(2-Chloroethyl)ether	4.647	93	39800	1.13	ppm	#	60
8) Naphthalene	7.275	128	75350	0.96	ppm		92
9) Hexachlorobutadiene	7.570	225	18394	0.99	ppm		94
10) 2-Methylnaphthalene	8.622	141	37200	0.95	ppm		94
15) Acenaphthylene	10.375	152	66208	1.02	ppm		99
16) Acenaphthene	10.742	153	47469	0.99	ppm		94
17) Dibenzofuran	11.109	168	60050	0.97	ppm	#	60
18) Fluorene	11.786	166	54825	0.95	ppm		96
20) n-nitrosodiphenylamine	12.084	169	27511	0.98	ppm		97
21) 1,2-Diphenylhydrazine	12.134	77	59973	1.05	ppm		99
24) Hexachlorobenzene	12.902	284	21121	0.94	ppm		86
26) Phenanthrene	13.694	178	84406	1.01	ppm		91
27) Anthracene	13.797	178	66501	0.89	ppm		90
28) Fluoranthene	15.966	202	86423	0.97	ppm		90
29) Pyrene	16.361	202	81576	0.92	ppm		88
31) Benzo[a]anthracene	18.466	228	71319	0.92	ppm		97
32) Chrysene	18.524	228	92171	1.00	ppm		96
34) Benzo[b]fluoranthene	20.132	252	69078	0.85	ppm		95
35) Benzo[k]fluoranthene	20.178	252	76748	1.04	ppm		96
36) Benzo[a]pyrene	20.592	252	69102	0.86	ppm		97
37) Indeno[1,2,3-cd]pyrene	22.130	276	77075	0.91	ppm		98
38) Dibenz[a,h]anthracene	22.168	278	64176	0.92	ppm		94
39) Benzo[g,h,i]perylene	22.523	276	71534	0.95	ppm		99

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

9.6.10

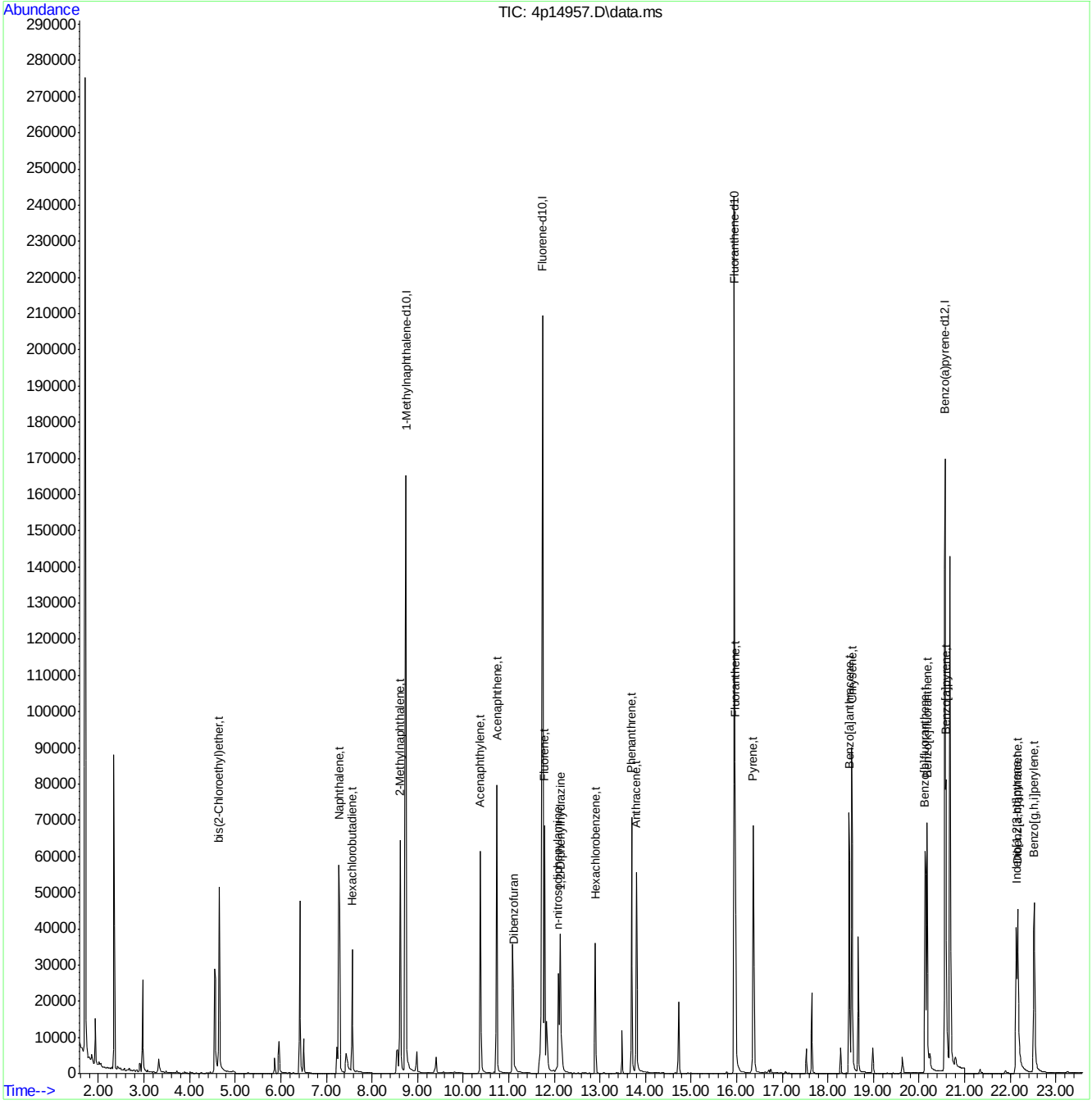
6

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14957.D
Acq On : 1 Feb 2016 10:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 02 08:46:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:46:07 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:51:51 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14958.D
Acq On : 1 Feb 2016 10:54 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 08:51:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:47:59 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.731	150	99683	4.00	ppm	-0.02
13) Fluorene-d10	11.741	176	128179	4.00	ppm	0.00
23) Fluoranthene-d10	15.949	212	220510	4.00	ppm	0.00
33) Benzo(a)pyrene-d12	20.565	264	158253	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
4) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
7) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
14) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
22) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
30) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	1.936	88	10074	0.94	ppm	# 63
11) 1-Methylnaphthalene	8.794	141	32115	0.91	ppm	# 62

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

9.6.11

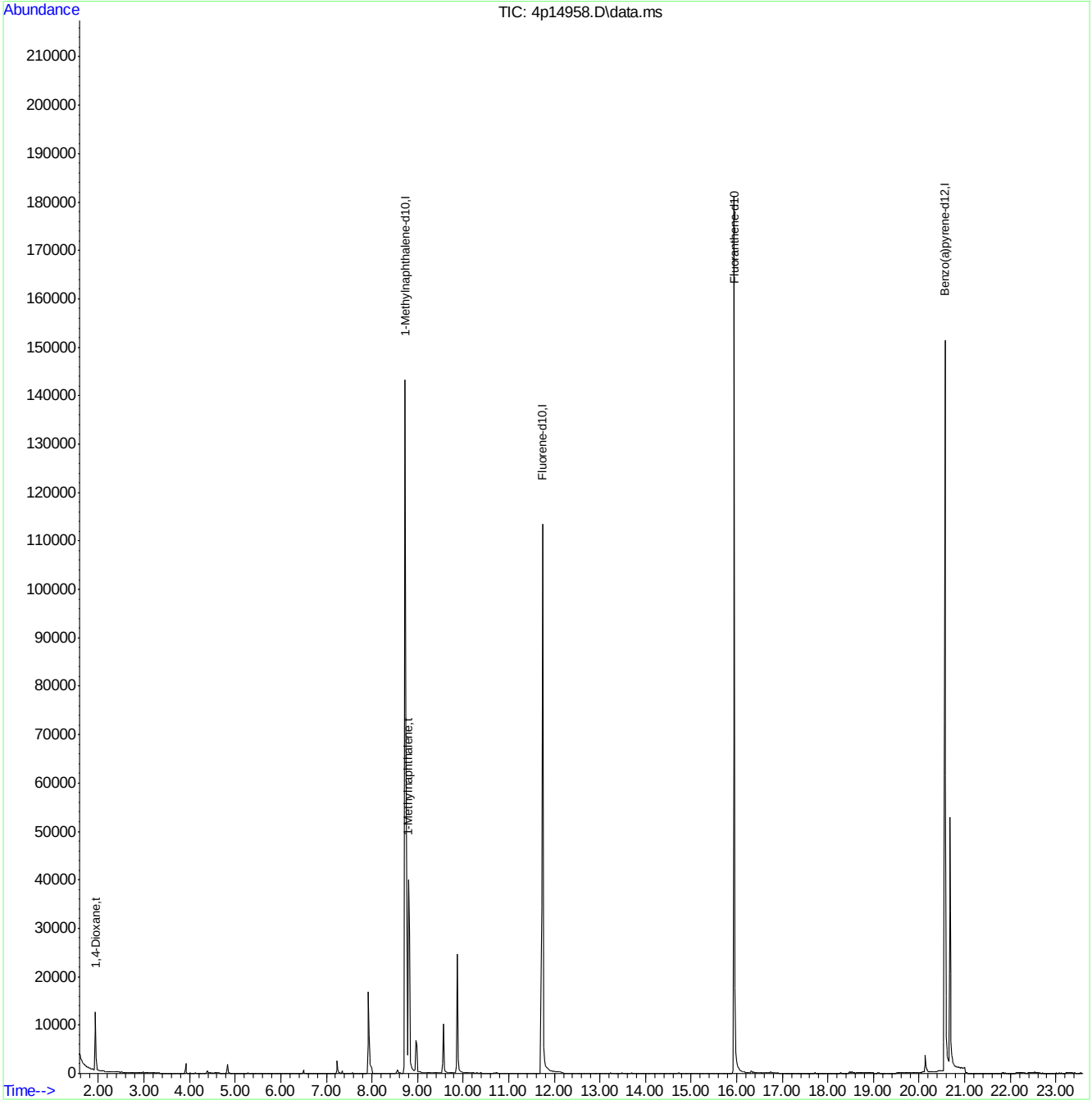
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14958.D
Acq On : 1 Feb 2016 10:54 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 08:51:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:47:59 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14959.D
Acq On : 1 Feb 2016 11:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 08:55:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:55:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	8.731	150	158470	4.00 ppm	-0.02
13) Fluorene-d10	11.741	176	199519	4.00 ppm	0.00
23) Fluoranthene-d10	15.949	212	338174	4.00 ppm	0.00
33) Benzo(a)pyrene-d12	20.557	264	247357	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	0.000	112	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
4) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
7) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
14) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
22) 2,4,6-Tribromophenol	0.000	330	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
30) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
5) Phenol	4.544	94	266757	5.02 ppm	# 86
19) 4,6-dinitro-2-methylph...	11.939	198	33982	6.23 ppm	49
25) Pentachlorophenol	13.315	266	61434	5.34 ppm	82

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

9.6.12

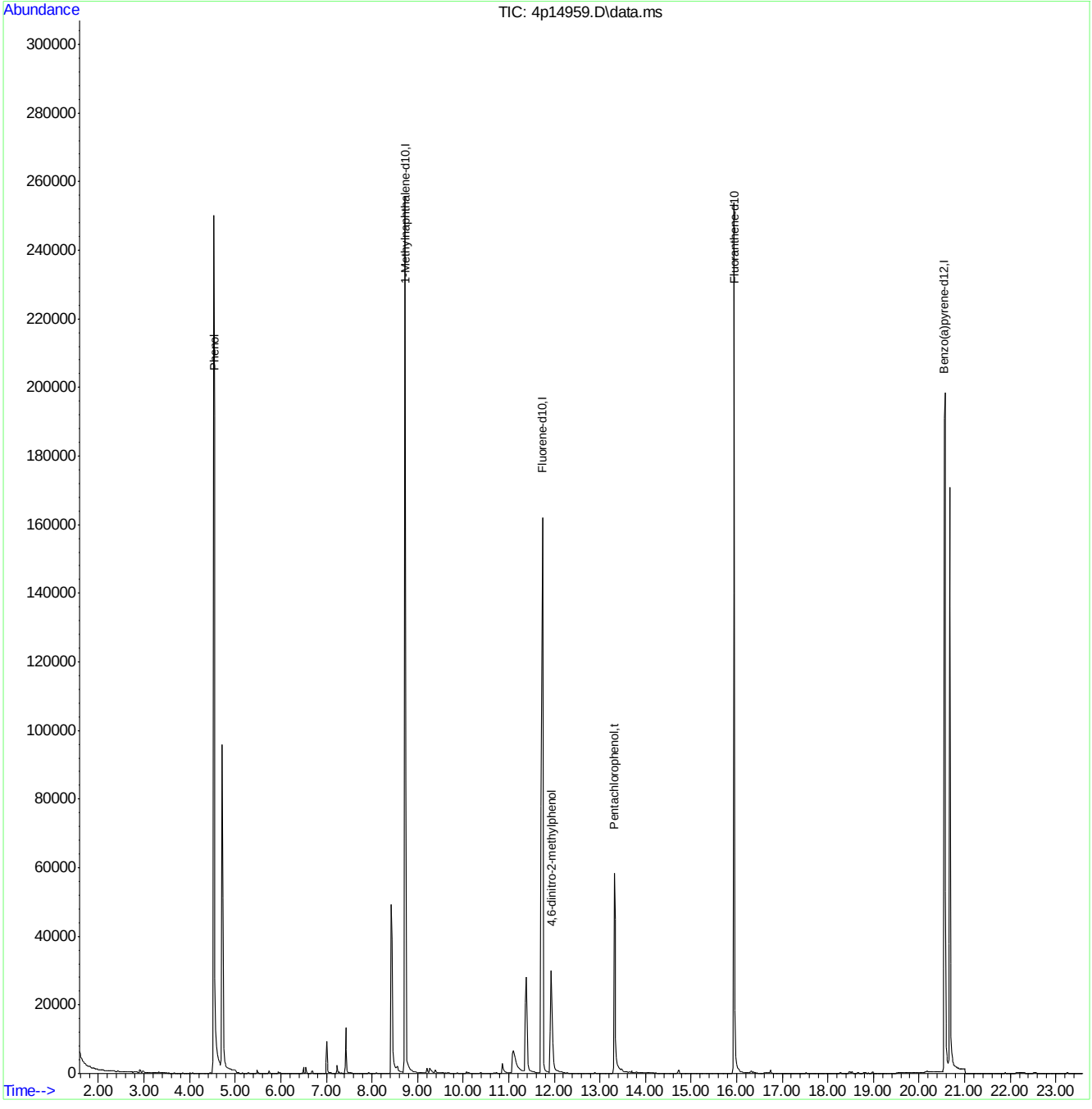
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p767\
Data File : 4p14959.D
Acq On : 1 Feb 2016 11:24 pm
Operator : juliusj
Sample : icv767-1.0
Misc : op90759a,e4p767
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 08:55:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Feb 02 08:55:09 2016
Response via : Initial Calibration



M4P767SIM.M Tue Feb 02 08:55:55 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15627.D
Acq On : 16 Mar 2016 9:42 pm
Operator : juliusj
Sample : cc767-1.0
Misc : op91877a,e4p804
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 22:06:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	8.493	150	122238	4.00	ppm	0.00
13) Fluorene-d10	11.510	176	184919	4.00	ppm	0.03
23) Fluoranthene-d10	15.756	212	286052	4.00	ppm	0.04
33) Benzo(a)pyrene-d12	20.401	264	233590	4.00	ppm	0.04
System Monitoring Compounds						
3) 2-Fluorophenol	3.129	112	421280	19.63	ppm	-0.05
Spiked Amount 50.000			Recovery = 39.26%			
4) Phenol-d5	4.320	99	725752	20.98	ppm	-0.04
Spiked Amount 50.000			Recovery = 41.96%			
7) Nitrobenzene-d5	5.716	82	672354	19.75	ppm	0.00
Spiked Amount 50.000			Recovery = 39.50%			
14) 2-Fluorobiphenyl	9.165	172	997357	18.95	ppm	0.00
Spiked Amount 50.000			Recovery = 37.90%			
22) 2,4,6-Tribromophenol	12.058	330	164304	23.88	ppm	-0.02
Spiked Amount 50.000			Recovery = 47.76%			
30) Terphenyl-d14	16.565	244	925124	21.18	ppm	0.06
Spiked Amount 50.000			Recovery = 42.36%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.789	88	12376	0.94	ppm	79
5) Phenol	4.337	94	210538	5.13	ppm #	70
6) bis(2-Chloroethyl)ether	4.441	93	31799	0.88	ppm #	38
8) Naphthalene	7.035	128	75065	0.93	ppm	92
9) Hexachlorobutadiene	7.340	225	17462	0.92	ppm	71
10) 2-Methylnaphthalene	8.388	141	37359	0.93	ppm	96
11) 1-Methylnaphthalene	8.577	141	40677	0.94	ppm	93
12) Hexachlorocyclopentadiene	8.745	237	10653	0.66	ppm #	96
15) Acenaphthylene	10.143	152	74744	1.16	ppm	97
16) Acenaphthene	10.510	153	47596	1.00	ppm	96
17) Dibenzofuran	10.876	168	65758	1.07	ppm #	48
18) Fluorene	11.560	166	55783	0.97	ppm	100
19) 4,6-dinitro-2-methylph...	11.758	198	21998	4.53	ppm	97
20) n-nitrosodiphenylamine	11.882	169	33304	1.19	ppm #	66
21) 1,2-Diphenylhydrazine	11.932	77	75525	1.33	ppm #	84
24) Hexachlorobenzene	12.675	284	21450	0.93	ppm	91
25) Pentachlorophenol	13.123	266	35430	3.75	ppm	94
26) Phenanthrene	13.484	178	83360	0.98	ppm	95
27) Anthracene	13.588	178	80053	1.05	ppm	95
28) Fluoranthene	15.773	202	89908	0.99	ppm	97
29) Pyrene	16.169	202	90749	1.00	ppm	96
31) Benzo[a]anthracene	18.298	228	84708	1.07	ppm	98
32) Chrysene	18.355	228	95570	1.02	ppm	99
34) Benzo[b]fluoranthene	19.975	252	104935	1.09	ppm	98
35) Benzo[k]fluoranthene	20.010	252	79728	0.91	ppm	98
36) Benzo[a]pyrene	20.435	252	86149	0.90	ppm	95
37) Indeno[1,2,3-cd]pyrene	21.942	276	97878	0.97	ppm	98
38) Dibenz[a,h]anthracene	21.971	278	82388	0.99	ppm	95
39) Benzo[g,h,i]perylene	22.317	276	84961	0.94	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15627.D
Acq On : 16 Mar 2016 9:42 pm
Operator : juliusj
Sample : cc767-1.0
Misc : op91877a,e4p804
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 22:06:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration

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

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

9.6.13

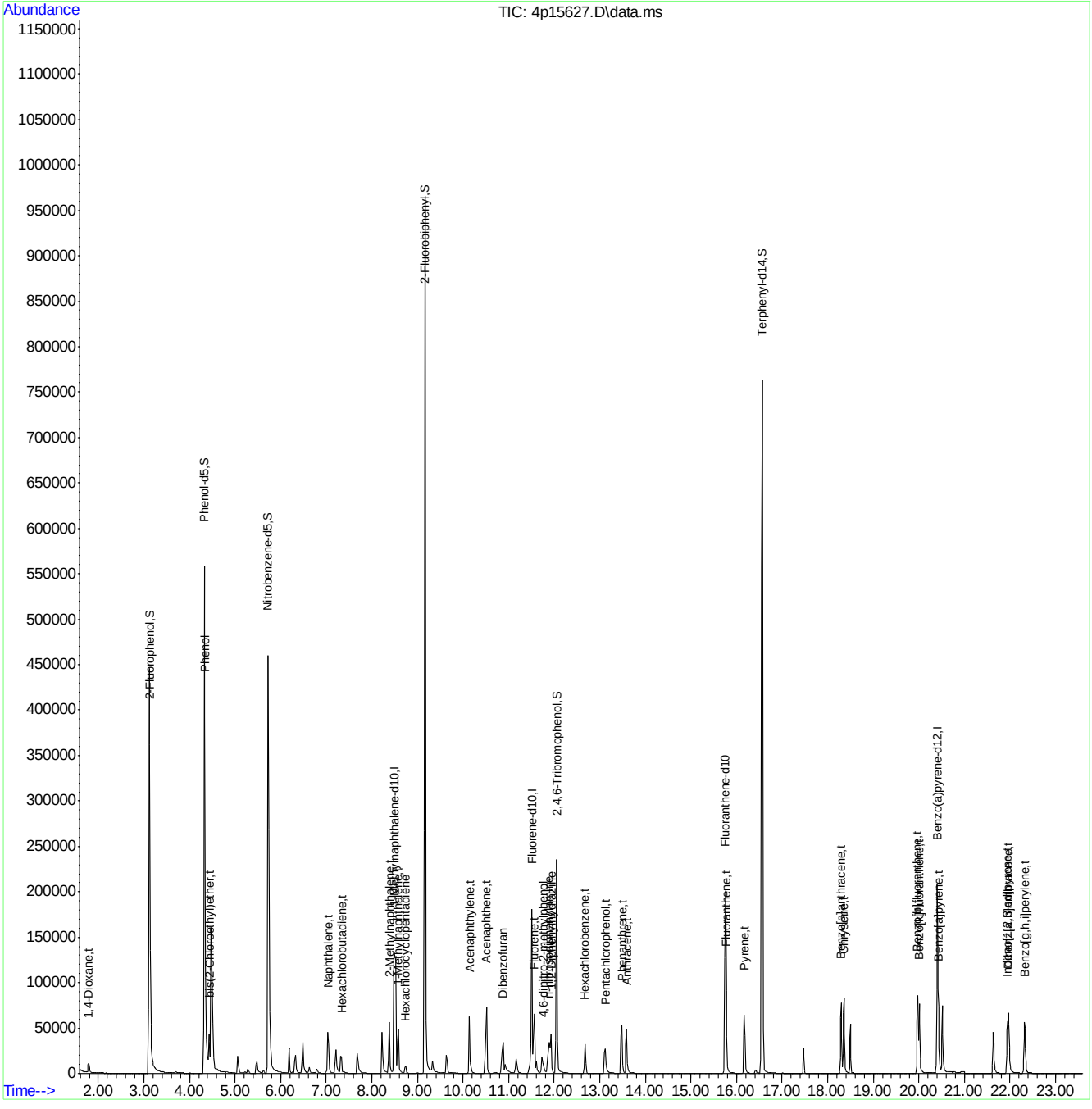
9

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e4p804\
Data File : 4p15627.D
Acq On : 16 Mar 2016 9:42 pm
Operator : juliusj
Sample : cc767-1.0
Misc : op91877a,e4p804
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 22:06:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4P767SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 14 09:09:23 2016
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
02/02/16 16:08

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154196.D Vial: 2
Acq On : 30 Jan 2016 8:34 am Operator: kristis
Sample : ic6483-100 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 09:06:46 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	213246	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	809522	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	487172	40.00	ppm	0.00
69) Phenanthrene-d10	9.23	188	763440	40.00	ppm	0.00
83) Chrysene-d12	14.57	240	660817	40.00	ppm	0.00
92) Perylene-d12	17.62	264	644075	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	213246	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	809522	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	487172	40.00	ppm	0.00
132) Phenanthrene-d10A	9.23	188	763440	40.00	ppm	0.00
147) Chrysene-d12A	14.57	240	660817	40.00	ppm	0.00
155) Perylene-d12A	17.62	264	644075	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	213246	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	809522	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	487172	40.00	ppm	0.00
165) Phenanthrene-d10b	9.23	188	763440	40.00	ppm	0.00
167) Chrysene-d12b	14.57	240	660817	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	213246	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	809522	40.00	ppm	0.00
176) Chrysene-d12c	14.57	240	660817	40.00	ppm	0.00
178) Naphthalene-d8a	5.80	136	809522	40.00	ppm	0.08
180) Chrysene-d12B	14.57	240	660817	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	3.91	112	708026	100.00	ppm	0.00
Spiked Amount 50.000			Recovery = 200.00%			
8) Phenol-d5	4.62	99	855445	100.00	ppm	0.00
Spiked Amount 50.000			Recovery = 200.00%			
25) Nitrobenzene-d5	5.28	82	710523	100.00	ppm	0.00
Spiked Amount 50.000			Recovery = 200.00%			
51) 2-Fluorobiphenyl	6.63	172	1476141	100.00	ppm	0.00
Spiked Amount 50.000			Recovery = 200.00%			
73) 2,4,6-Tribromophenol	8.20	330	168835	100.00	ppm	0.00
Spiked Amount 50.000			Recovery = 200.00%			
85) Terphenyl-d14	12.33	244	1292769	100.00	ppm	0.00
Spiked Amount 50.000			Recovery = 200.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.48	88	290473	100.00	ppm	100
3) Pyridine	2.79	79	731572	100.00	ppm	100
4) N-Nitrosodimethylamine	2.76	42	292887	100.00	ppm	100
6) Indene	5.07	116	1225974	100.00	ppm	100
7) Cumene	4.30	105	1627064	100.00	ppm	100
9) Phenol	4.63	94	938539	100.00	ppm	100
10) Aniline	4.64	93	876554	100.00	ppm	100
11) bis(2-Chloroethyl)ether	4.69	93	630654	100.00	ppm	100
12) 2-Chlorophenol	4.73	128	771639	100.00	ppm	100
13) Decane	4.77	43	583540	100.00	ppm	100
14) 1,3-Dichlorobenzene	4.85	146	786361	100.00	ppm	100
15) 1,4-Dichlorobenzene	4.89	146	789299	100.00	ppm	100

(#) = qualifier out of range (m) = manual integration
F154196.D MF6483.M Sat Jan 30 16:32:38 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154196.D Vial: 2
Acq On : 30 Jan 2016 8:34 am Operator: kristis
Sample : ic6483-100 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 09:06:46 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
16) Benzyl alcohol	4.99	108	486543	100.00	ppm	100
17) 1,2-Dichlorobenzene	5.01	146	732147	100.00	ppm	100
18) Acetophenone	5.18	105	905927	100.00	ppm	100
19) 2-Methylphenol	5.07	108	633161	100.00	ppm	100
20) 2,2'-oxybis(1-Chloropropan	5.08	121	230894	100.00	ppm	100
21) 3&4-Methylphenol	5.17	108	654263	100.00	ppm	100
22) n-Nitroso-di-n-propylamine	5.18	70	415754	100.00	ppm	100
23) Hexachloroethane	5.26	201	237538	100.00	ppm	100
26) Nitrobenzene	5.30	77	696914	100.00	ppm	100
27) Quinoline	6.07	129	1599354	100.00	ppm	100
28) Isophorone	5.47	82	1224726	100.00	ppm	100
29) 2-Nitrophenol	5.53	139	399000	100.00	ppm	100
30) 2,4-Dimethylphenol	5.55	107	717741	100.00	ppm	100
31) Benzoic acid	5.66	105	631676m	99.43	ppm	
32) bis(2-Chloroethoxy)methane	5.62	93	756394	100.00	ppm	100
33) 2,4-Dichlorophenol	5.70	162	610582	100.00	ppm	100
34) 2,6-Dichlorophenol	5.86	162	580904	100.00	ppm	100
35) 1,3,5-Trichlorobenzene	5.54	180	586115	100.00	ppm	100
36) 1,2,4-Trichlorobenzene	5.76	180	573295	100.00	ppm	100
37) 1,2,3-Trichlorobenzene	5.93	180	567073	100.00	ppm	100
38) Naphthalene	5.82	128	2118443	100.00	ppm	100
39) 4-Chloroaniline	5.86	127	863193	100.00	ppm	100
40) 2,3-Dichloroaniline	6.56	161	708172	100.00	ppm	100
41) Caprolactam	6.13	55	336063	100.00	ppm	100
42) Hexachlorobutadiene	5.91	225	283190	100.00	ppm	100
43) 4-Chloro-3-methylphenol	6.21	107	668099	100.00	ppm	100
44) 2-Methylnaphthalene	6.33	141	1175081	100.00	ppm	100
45) 1-Methylnaphthalene	6.41	141	1227821	100.00	ppm	100
46) Dimethylnaphthalene	6.86	156	1272733	100.00	ppm	100
48) Hexachlorocyclopentadiene	6.46	237	685972	200.00	ppm	100
49) 2,4,6-Trichlorophenol	6.56	196	372712	100.00	ppm	100
50) 2,4,5-Trichlorophenol	6.60	196	420576	100.00	ppm	100
52) 2-Chloronaphthalene	6.74	162	1294837	100.00	ppm	100
53) Biphenyl	6.72	154	1717813	100.00	ppm	100
54) 2-Nitroaniline	6.83	65	385412	100.00	ppm	100
55) Dimethylphthalate	6.98	163	1463898	100.00	ppm	100
56) Acenaphthylene	7.13	152	2137228	100.00	ppm	100
57) 2,6-Dinitrotoluene	7.05	165	345252	100.00	ppm	100
58) 3-Nitroaniline	7.22	138	410243	100.00	ppm	100
59) Acenaphthene	7.31	153	1333697	100.00	ppm	100
60) 2,4-Dinitrophenol	7.33	184	409837	200.00	ppm	100
61) 4-Nitrophenol	7.39	109	224496	100.00	ppm	100
62) Dibenzofuran	7.50	168	1827313	100.00	ppm	100
63) 2,4-Dinitrotoluene	7.46	165	476453	100.00	ppm	100
64) 2,3,4,6-Tetrachlorophenol	7.63	232	324201	100.00	ppm	100
65) Diethylphthalate	7.74	149	1484445	100.00	ppm	100
66) Fluorene	7.90	166	1451924	100.00	ppm	100
67) 4-Chlorophenyl-phenylether	7.89	204	613823	100.00	ppm	100
68) 4-Nitroaniline	7.92	138	423813	100.00	ppm	100

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154196.D Vial: 2
Acq On : 30 Jan 2016 8:34 am Operator: kristis
Sample : ic6483-100 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 09:06:46 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.96	198	265146	100.00 ppm	100
71)	n-Nitrosodiphenylamine	8.04	169	1096848	100.00 ppm	100
72)	1,2-Diphenylhydrazine	8.09	77	1377903	100.00 ppm	100
74)	4-Bromophenyl-phenylether	8.54	248	332430	100.00 ppm	100
75)	Hexachlorobenzene	8.64	284	347496	100.00 ppm	100
76)	Pentachlorophenol	8.94	266	514785	200.00 ppm	100
77)	Phenanthrene	9.26	178	1998254	100.00 ppm	100
78)	Anthracene	9.35	178	2025512	100.00 ppm	100
79)	Carbazole	9.62	167	2094799	100.00 ppm	100
80)	Di-n-butylphthalate	10.33	149	2590907	100.00 ppm	100
81)	Fluoranthene	11.45	202	2153721	100.00 ppm	100
82)	Octadecane	9.10	57	903574	100.00 ppm	100
84)	Pyrene	11.91	202	2241428	100.00 ppm	100
86)	Butylbenzylphthalate	13.49	149	1180561	100.00 ppm	100
87)	Butyl stearate	13.77	56	655682	100.00 ppm	100
88)	Benzo[a]anthracene	14.55	228	1902719	100.00 ppm	100
89)	3,3'-Dichlorobenzidine	14.58	252	654059	100.00 ppm	100
90)	Chrysene	14.64	228	1855960	100.00 ppm	100
91)	bis(2-Ethylhexyl)phthalate	14.90	149	1633630	100.00 ppm	100
93)	Di-n-octylphthalate	16.35	149	2823810	100.00 ppm	100
94)	Benzo[b]fluoranthene	16.88	252	1899040	100.00 ppm	100
95)	Benzo[k]fluoranthene	16.95	252	1737018	100.00 ppm	100
96)	Benzo[a]pyrene	17.52	252	1671829	100.00 ppm	100
97)	Indeno[1,2,3-cd]pyrene	19.59	276	1632994	100.00 ppm	100
98)	Dibenz(a,h)acridine	19.21	279	1535618	100.00 ppm	100
99)	Dibenz[a,h]anthracene	19.64	278	1678110	100.00 ppm	100
100)	7,12-Dimethylbenz(a)anthra	16.90	256	845560	100.00 ppm	100
101)	Benzo[g,h,i]perylene	20.02	276	1706962	100.00 ppm	100

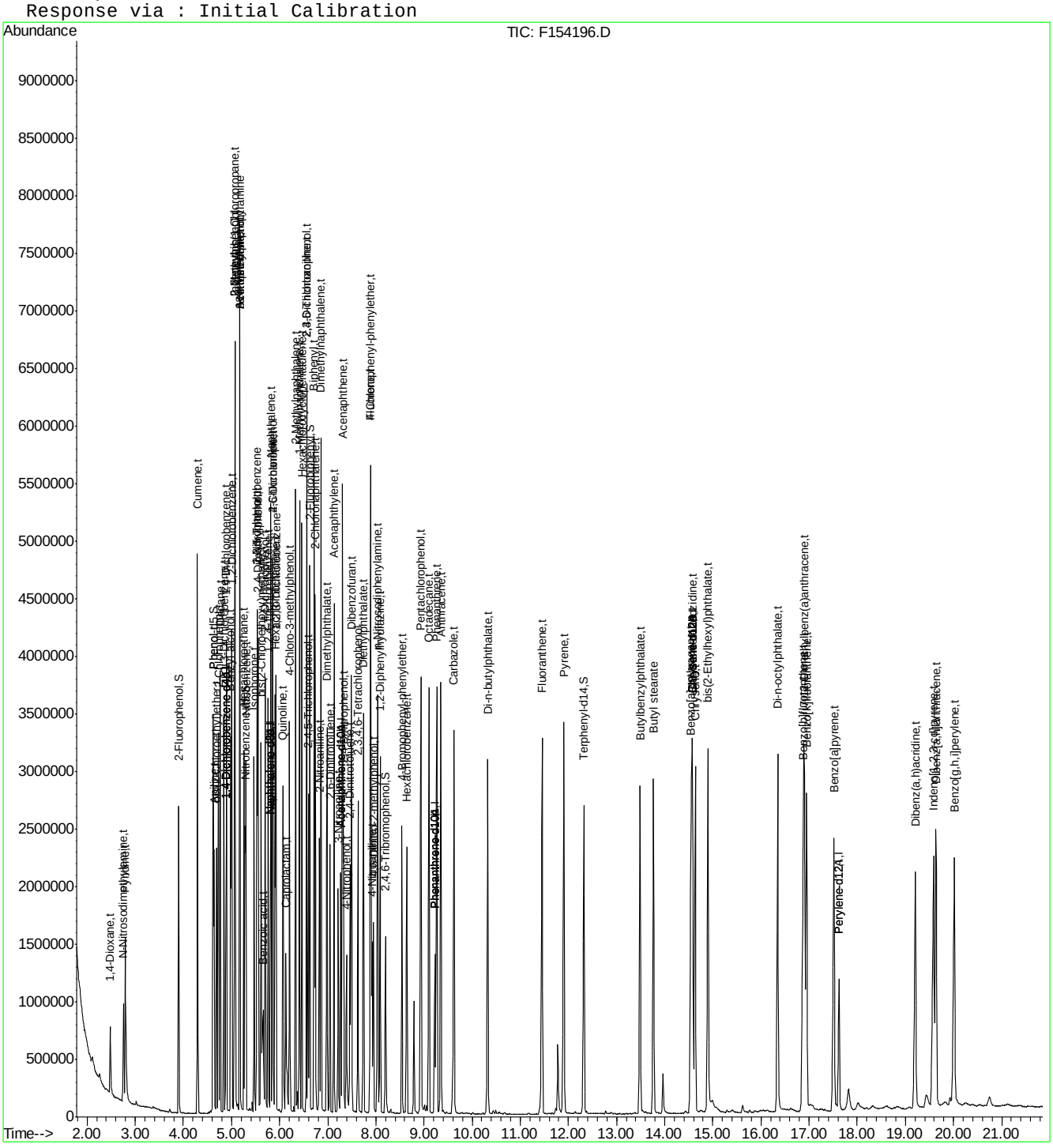
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154196.D Vial: 2
Acq On : 30 Jan 2016 8:34 am Operator: kristis
Sample : ic6483-100 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 9:08 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Manual Integration Approval Summary

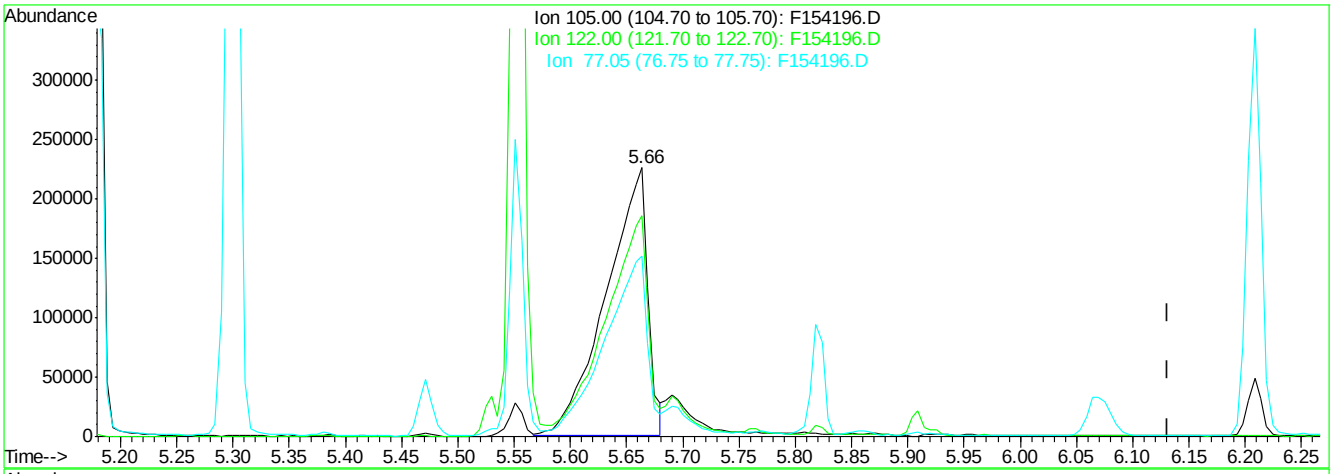
Sample Number:	EF6483-IC6483	**Method:**	EPA 625
Lab FileID:	F154196.D	**Analyst approved:**	02/01/16 16:37 Kristi Schollenberger
Injection Time:	01/30/16 08:34	**Supervisor approved:**	02/02/16 16:08 Nina Pandya

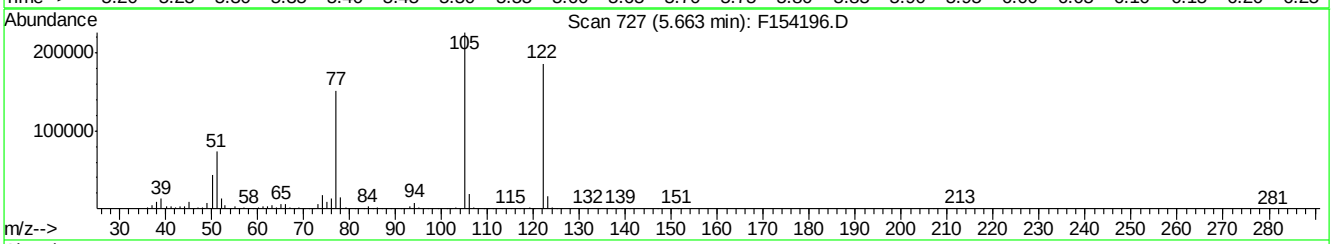
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.66	Split peak

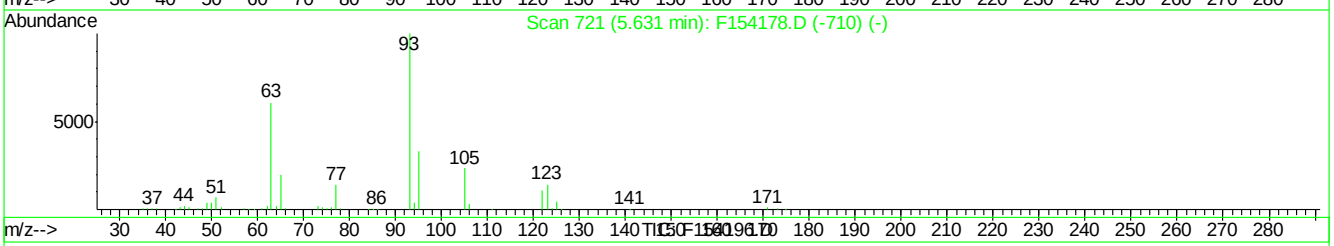
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154196.D Vial: 2
Acq On : 30 Jan 2016 8:34 am Operator: kristis
Sample : ic6483-100 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 8:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Jan 29 17:49:03 2016
Response via : Multiple Level Calibration







(31) Benzoic acid (t)

5.66min 122.14ppm

response 578123

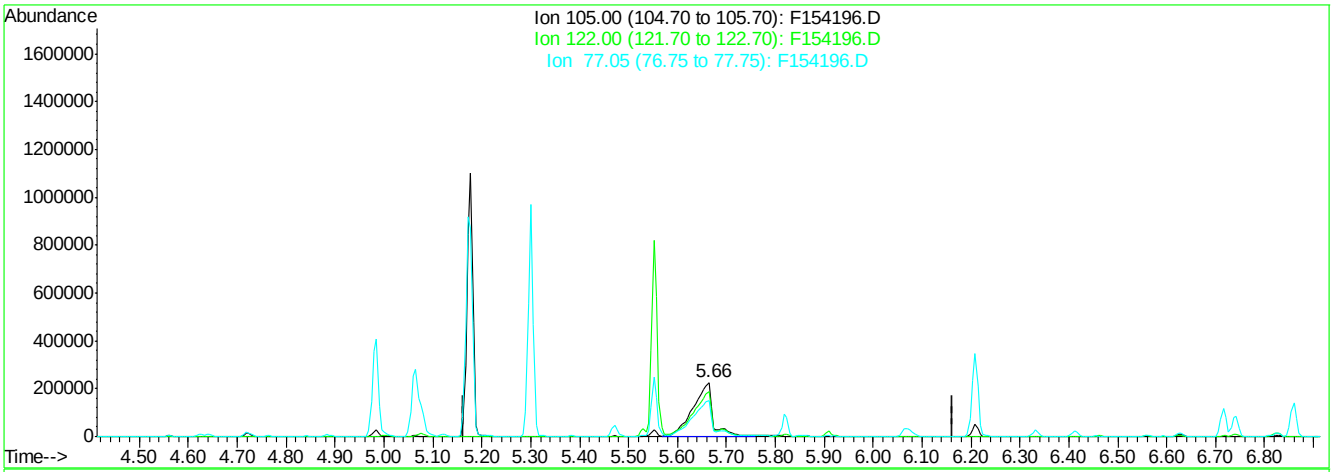
Ion	Exp%	Act%
105.00	100	100
122.00	64.90	73.58
77.05	65.00	64.50
0.00	0.00	0.00

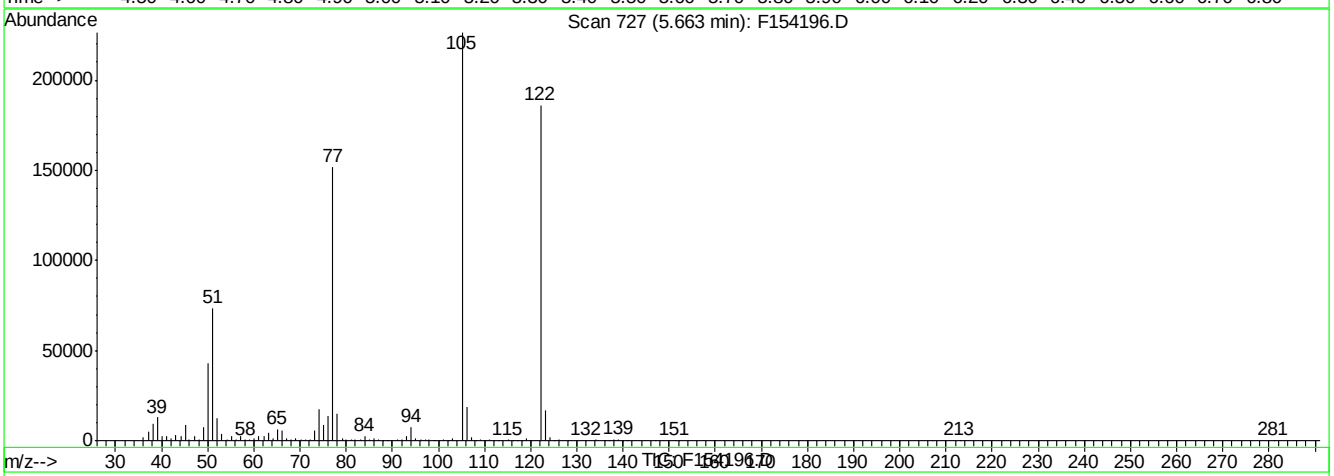
F154196.D MF6483.M Sat Jan 30 08:58:02 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154196.D Vial: 2
Acq On : 30 Jan 2016 8:34 am Operator: kristis
Sample : ic6483-100 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 9:07 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Multiple Level Calibration





(31) Benzoic acid (t)

5.66min 99.43ppm m

response 631676

Ion	Exp%	Act%
105.00	100	100
122.00	82.20	82.22
77.05	67.10	67.10
0.00	0.00	0.00

F154196.D MF6483.M Sat Jan 30 09:07:32 2016 RT1

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
02/02/16 16:08

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 09:28:26 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	236361	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	857221	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	534219	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	838160	40.00	ppm	-0.01
83) Chrysene-d12	14.55	240	777236	40.00	ppm	-0.02
92) Perylene-d12	17.61	264	718313	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.88	152	236361	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	857221	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	534219	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	838160	40.00	ppm	-0.01
147) Chrysene-d12A	14.55	240	777236	40.00	ppm	-0.02
155) Perylene-d12A	17.61	264	718313	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.88	152	236361	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	857221	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	534219	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	838160	40.00	ppm	-0.01
167) Chrysene-d12b	14.55	240	777236	40.00	ppm	-0.02
169) 1,4-Dichlorobenzene-d4c	4.88	152	236361	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	857221	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	777236	40.00	ppm	-0.02
178) Naphthalene-d8a	5.80	136	857221	40.00	ppm	0.08
180) Chrysene-d12B	14.55	240	777236	40.00	ppm	0.14
System Monitoring Compounds						
5) 2-Fluorophenol	3.90	112	11009	1.40	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.80%	
8) Phenol-d5	4.61	99	11454	1.21	ppm	-0.01
Spiked Amount 50.000			Recovery	=	2.42%	
25) Nitrobenzene-d5	5.28	82	10534	1.40	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.80%	
51) 2-Fluorobiphenyl	6.63	172	25591	1.58	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.16%	
73) 2,4,6-Tribromophenol	8.20	330	2727	1.47	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.94%	
85) Terphenyl-d14	12.31	244	22353	1.47	ppm	-0.02
Spiked Amount 50.000			Recovery	=	2.94%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.49	88	7533	2.34	ppm	98
3) Pyridine	2.82	79	11740	1.45	ppm	88
4) N-Nitrosodimethylamine	2.77	42	4374	1.35	ppm	93
6) Indene	5.07	116	22875	1.68	ppm	95
7) Cumene	4.30	105	28900	1.60	ppm	97
9) Phenol	4.62	94	11892	1.14	ppm	95
10) Aniline	4.64	93	17515	1.80	ppm	99
11) bis(2-Chloroethyl)ether	4.68	93	10308	1.47	ppm	95
12) 2-Chlorophenol	4.73	128	11004	1.29	ppm	98
13) Decane	4.76	43	11041	1.71	ppm	91
14) 1,3-Dichlorobenzene	4.84	146	12855	1.47	ppm	100
15) 1,4-Dichlorobenzene	4.89	146	12871	1.47	ppm	97

(#) = qualifier out of range (m) = manual integration
F154197.D MF6483.M Sat Jan 30 16:32:44 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 09:28:26 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.97	108	6381	1.18	ppm		95
17)	1,2-Dichlorobenzene	5.01	146	12689	1.56	ppm		99
18)	Acetophenone	5.17	105	16096	1.60	ppm		97
19)	2-Methylphenol	5.06	108	7417	1.06	ppm		98
20)	2,2'-oxybis(1-Chloropropan	5.08	121	4251	1.66	ppm		87
21)	3&4-Methylphenol	5.17	108	7389	1.02	ppm		96
22)	n-Nitroso-di-n-propylamine	5.17	70	6279	1.36	ppm		95
23)	Hexachloroethane	5.26	201	3956	1.50	ppm		90
26)	Nitrobenzene	5.29	77	10471	1.42	ppm		98
27)	Quinoline	6.06	129	25938	1.53	ppm		100
28)	Isophorone	5.46	82	18657	1.44	ppm		95
29)	2-Nitrophenol	5.52	139	5227	1.24	ppm		96
30)	2,4-Dimethylphenol	5.55	107	8488	1.12	ppm		95
31)	Benzoic acid	5.60	105	4221	0.63	ppm	#	49
32)	bis(2-Chloroethoxy)methane	5.61	93	10615	1.33	ppm		96
33)	2,4-Dichlorophenol	5.70	162	6198	0.96	ppm		90
34)	2,6-Dichlorophenol	5.86	162	7559	1.23	ppm		91
35)	1,3,5-Trichlorobenzene	5.54	180	10188	1.64	ppm		95
36)	1,2,4-Trichlorobenzene	5.76	180	9315	1.53	ppm		99
37)	1,2,3-Trichlorobenzene	5.92	180	9588	1.60	ppm		98
38)	Naphthalene	5.82	128	36478	1.63	ppm		98
39)	4-Chloroaniline	5.85	127	10776	1.18	ppm		92
40)	2,3-Dichloroaniline	6.56	161	12322	1.64	ppm		94
41)	Caprolactam	6.08	55	5094m	1.43	ppm		
42)	Hexachlorobutadiene	5.90	225	4449	1.48	ppm		86
43)	4-Chloro-3-methylphenol	6.20	107	9562	1.35	ppm		94
44)	2-Methylnaphthalene	6.33	141	20923	1.68	ppm		95
45)	1-Methylnaphthalene	6.41	141	21102	1.62	ppm		95
46)	Dimethylnaphthalene	6.85	156	22002	1.63	ppm		98
48)	Hexachlorocyclopentadiene	6.46	237	9085	2.42	ppm		98
49)	2,4,6-Trichlorophenol	6.56	196	6104	1.49	ppm		89
50)	2,4,5-Trichlorophenol	6.60	196	8037	1.74	ppm		92
52)	2-Chloronaphthalene	6.74	162	21969	1.55	ppm		95
53)	Biphenyl	6.71	154	29923	1.59	ppm		97
54)	2-Nitroaniline	6.82	65	5073	1.20	ppm		88
55)	Dimethylphthalate	6.97	163	25294	1.58	ppm		98
56)	Acenaphthylene	7.12	152	36923	1.58	ppm		98
57)	2,6-Dinitrotoluene	7.03	165	4008	1.06	ppm		91
58)	3-Nitroaniline	7.22	138	4755	1.06	ppm		98
59)	Acenaphthene	7.30	153	23912	1.64	ppm		89
60)	2,4-Dinitrophenol	7.33	184	1714	0.76	ppm	#	32
61)	4-Nitrophenol	7.42	109	3417	1.39	ppm	#	15
62)	Dibenzofuran	7.49	168	32026	1.60	ppm		95
63)	2,4-Dinitrotoluene	7.45	165	5895	1.13	ppm		88
64)	2,3,4,6-Tetrachlorophenol	7.62	232	5480	1.54	ppm		97
65)	Diethylphthalate	7.73	149	25356	1.56	ppm		95
66)	Fluorene	7.89	166	26250	1.65	ppm		94
67)	4-Chlorophenyl-phenylether	7.88	204	10720	1.59	ppm		98
68)	4-Nitroaniline	7.91	138	5913	1.27	ppm		93

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 09:28:26 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

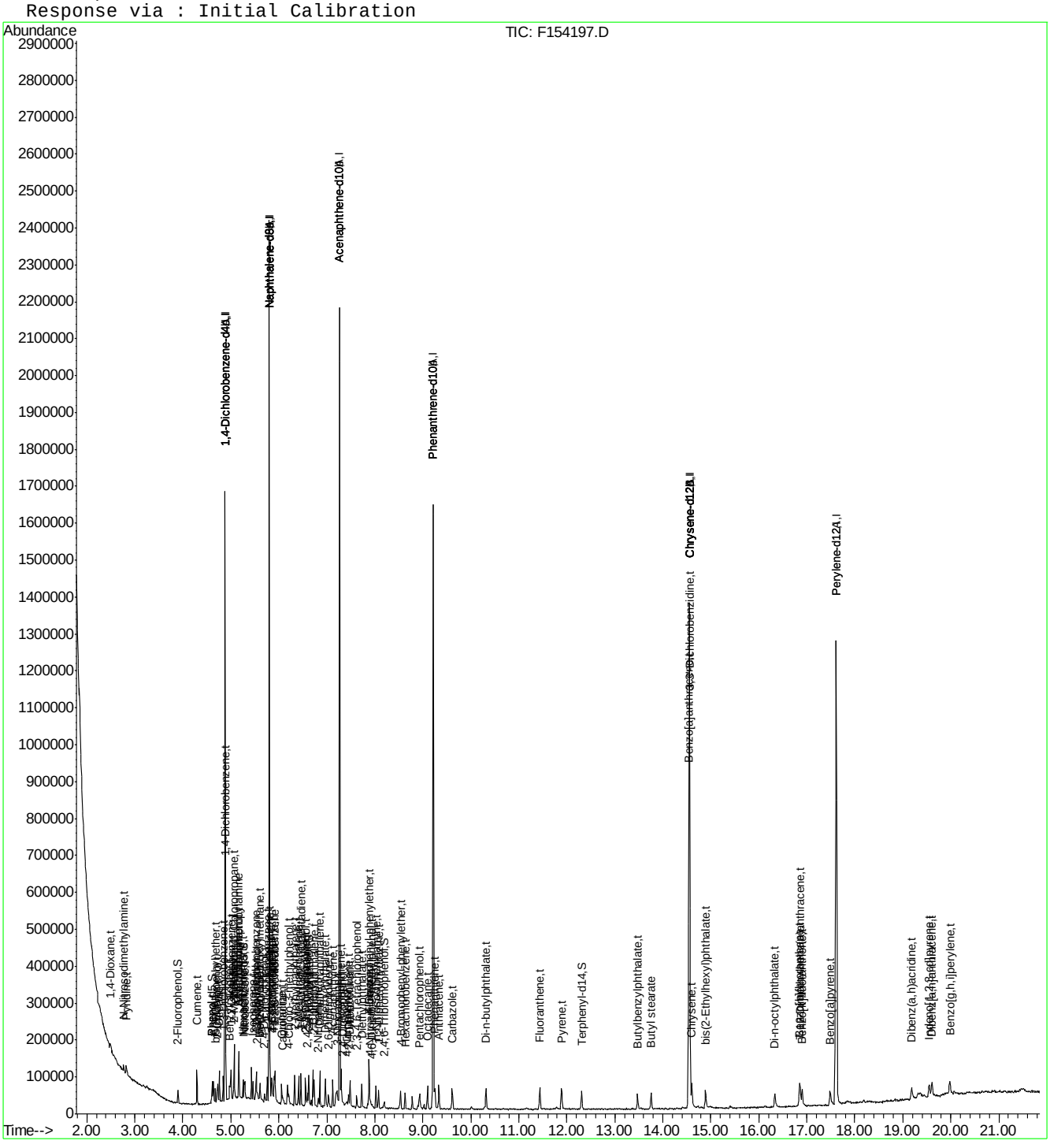
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.93	198	1471	0.51	ppm	70
71)	n-Nitrosodiphenylamine	8.02	169	18529	1.54	ppm	91
72)	1,2-Diphenylhydrazine	8.08	77	22867	1.51	ppm	94
74)	4-Bromophenyl-phenylether	8.54	248	5906	1.62	ppm	91
75)	Hexachlorobenzene	8.63	284	6187	1.62	ppm	96
76)	Pentachlorophenol	8.93	266	7923	2.80	ppm	95
77)	Phenanthrene	9.25	178	34767	1.58	ppm	97
78)	Anthracene	9.33	178	34429	1.55	ppm	94
79)	Carbazole	9.61	167	35320	1.54	ppm	95
80)	Di-n-butylphthalate	10.32	149	39902	1.40	ppm	98
81)	Fluoranthene	11.44	202	34901	1.48	ppm	99
82)	Octadecane	9.10	57	14832	1.50	ppm	99
84)	Pyrene	11.89	202	36610	1.39	ppm	99
86)	Butylbenzylphthalate	13.47	149	15956	1.15	ppm	99
87)	Butyl stearate	13.76	56	9250	1.20	ppm	86
88)	Benzo[a]anthracene	14.54	228	32138	1.44	ppm	94
89)	3,3'-Dichlorobenzidine	14.57	252	8441	1.10	ppm	86
90)	Chrysene	14.61	228	30437	1.39	ppm	95
91)	bis(2-Ethylhexyl)phthalate	14.89	149	23394	1.22	ppm	90
93)	Di-n-octylphthalate	16.33	149	37974	1.21	ppm	99
94)	Benzo[b]fluoranthene	16.85	252	28734m	1.36	ppm	
95)	Benzo[k]fluoranthene	16.90	252	29523	1.52	ppm	97
96)	Benzo[a]pyrene	17.49	252	25705	1.38	ppm	97
97)	Indeno[1,2,3-cd]pyrene	19.55	276	23713	1.30	ppm	97
98)	Dibenz(a,h)acridine	19.18	279	21430	1.25	ppm	97
99)	Dibenz[a,h]anthracene	19.61	278	24107	1.29	ppm	94
100)	7,12-Dimethylbenz(a)anthra	16.87	256	9526	1.01	ppm	96
101)	Benzo[g,h,i]perylene	19.98	276	25915	1.36	ppm	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:36 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Manual Integration Approval Summary

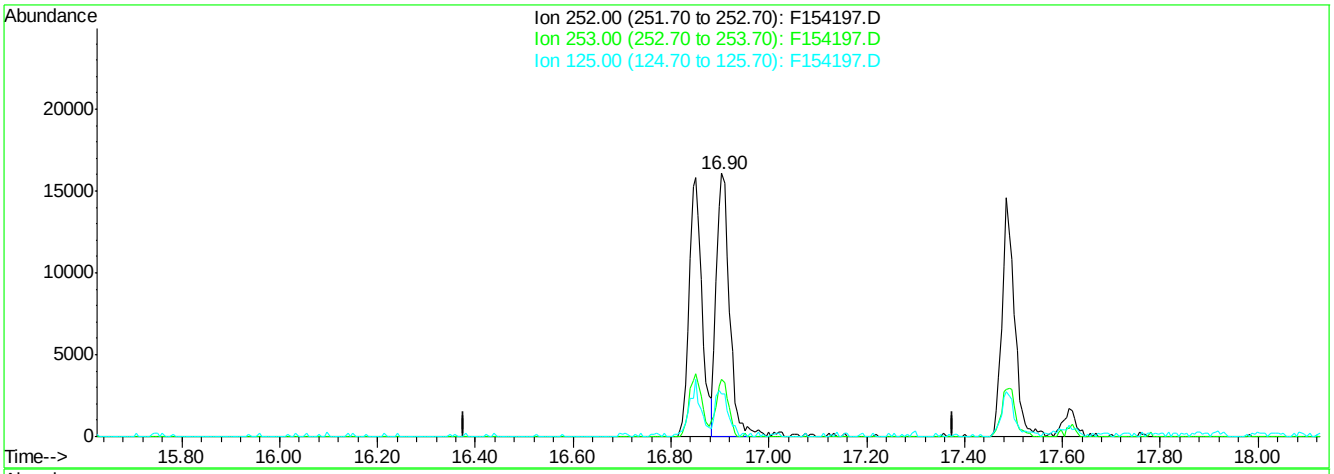
Sample Number:	EF6483-IC6483	**Method:**	EPA 625
Lab FileID:	F154197.D	**Analyst approved:**	02/01/16 16:37 Kristi Schollenberger
Injection Time:	01/30/16 09:06	**Supervisor approved:**	02/02/16 16:08 Nina Pandya

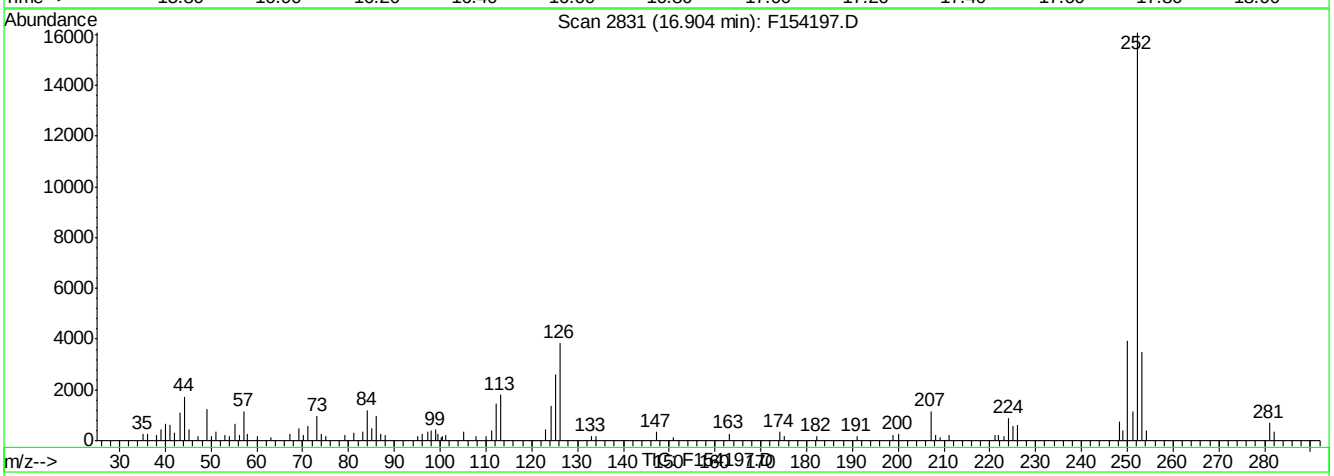
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.08	Split peak
Benzo(b)fluoranthene	205-99-2		16.85	Overlapping peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 9:28 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Multiple Level Calibration





(94) Benzo[b]fluoranthene (t)

16.90min 1.39ppm

response 29523

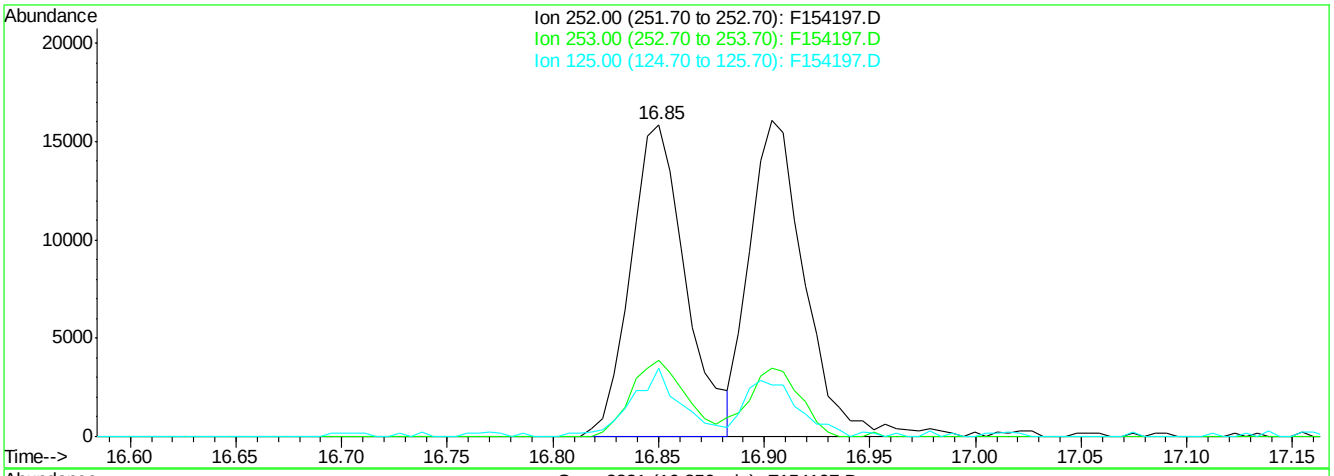
Ion	Exp%	Act%
252.00	100	100
253.00	23.50	20.09
125.00	17.50	15.91
0.00	0.00	0.00

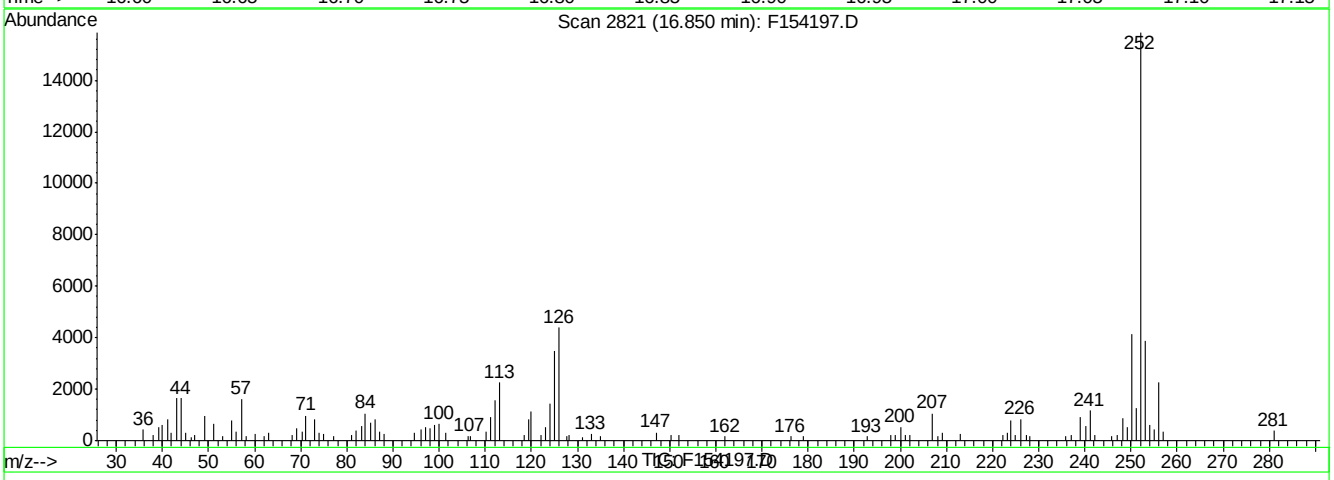
F154197.D MF6483.M Sat Jan 30 09:29:55 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 9:30 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:06:43 2016
Response via : Multiple Level Calibration





(94) Benzo[b]fluoranthene (t)

16.85min 1.36ppm m

response 28734

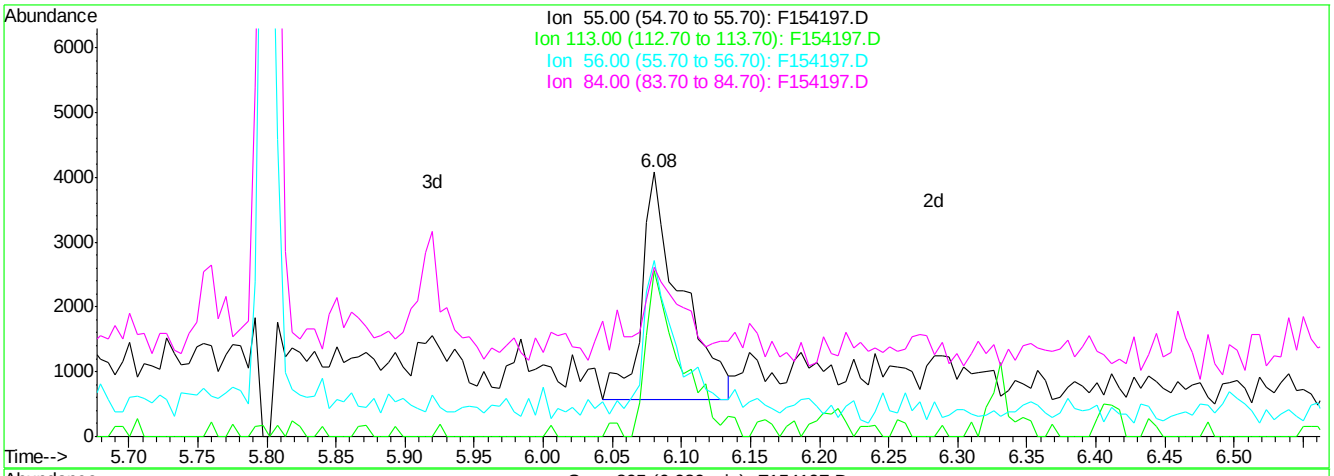
Ion	Exp%	Act%
252.00	100	100
253.00	23.50	24.32
125.00	17.50	22.12
0.00	0.00	0.00

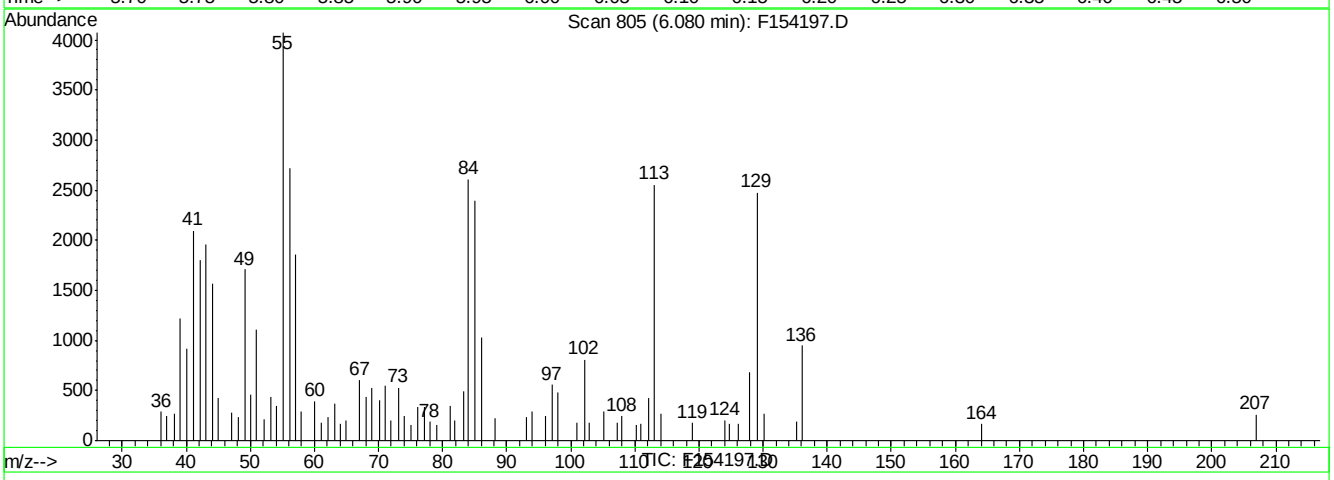
F154197.D MF6483.M Sat Jan 30 09:30:02 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 9:30 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:34:01 2016
Response via : Multiple Level Calibration





(41) Caprolactam (t)

6.08min 1.94ppm

response 6896

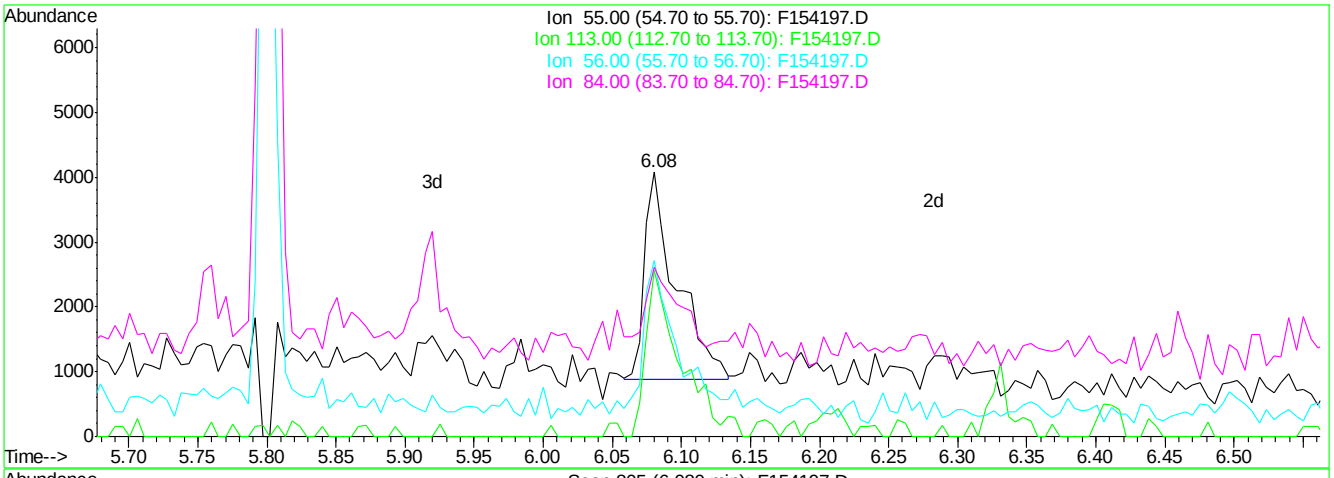
Ion	Exp%	Act%
55.00	100	100
113.00	79.00	72.34
56.00	79.00	65.03
84.00	44.90	29.43

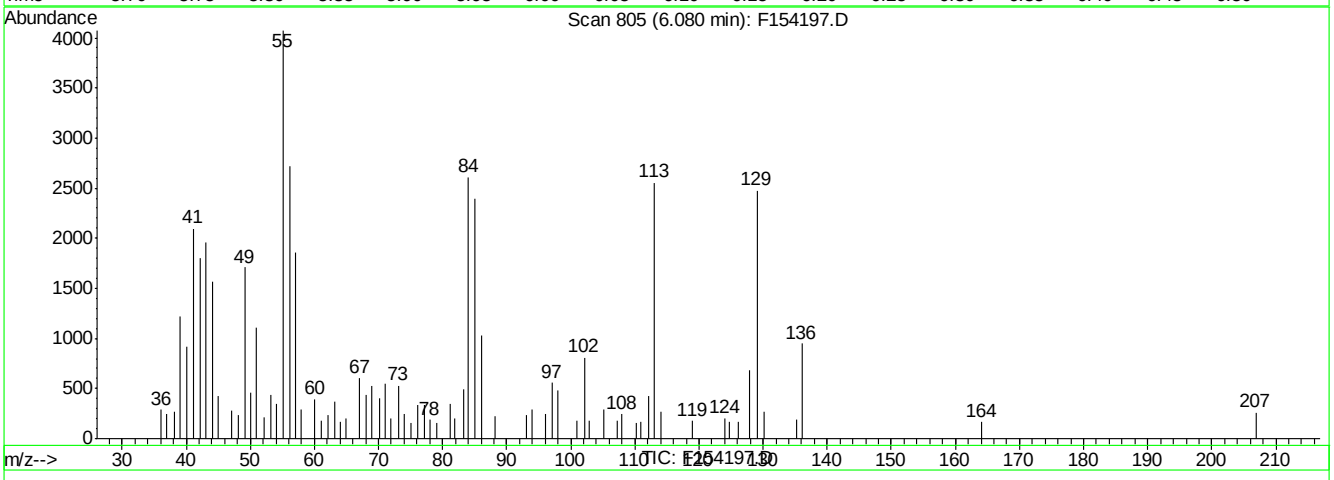
F154197.D MF6483.M Sat Jan 30 11:36:49 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154197.D Vial: 3
Acq On : 30 Jan 2016 9:06 am Operator: kristis
Sample : ic6483-1 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:36 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:34:01 2016
Response via : Multiple Level Calibration





(41) Caprolactam (t)

6.08min 1.43ppm m

response 5094

Ion	Exp%	Act%
55.00	100	100
113.00	79.00	62.75
56.00	79.00	66.68
84.00	44.90	64.13

F154197.D MF6483.M Sat Jan 30 11:36:57 2016 RT1

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
02/02/16 16:08

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:02:05 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	243989	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	901175	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	547630	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	845360	40.00	ppm	-0.01
83) Chrysene-d12	14.56	240	796220	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	732656	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.88	152	243989	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	901175	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	547630	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	845360	40.00	ppm	-0.01
147) Chrysene-d12A	14.56	240	796220	40.00	ppm	-0.01
155) Perylene-d12A	17.61	264	732656	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.88	152	243989	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	901175	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	547630	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	845360	40.00	ppm	-0.01
167) Chrysene-d12b	14.56	240	796220	40.00	ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	243989	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	901175	40.00	ppm	0.00
176) Chrysene-d12c	14.56	240	796220	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	901175	40.00	ppm	0.08
180) Chrysene-d12B	14.56	240	796220	40.00	ppm	0.15
System Monitoring Compounds						
5) 2-Fluorophenol	3.90	112	19726	2.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.06%	
8) Phenol-d5	4.61	99	20508	1.90	ppm	-0.01
Spiked Amount 50.000			Recovery	=	3.80%	
25) Nitrobenzene-d5	5.28	82	17832	1.88	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.76%	
51) 2-Fluorobiphenyl	6.63	172	43612	2.04	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.08%	
73) 2,4,6-Tribromophenol	8.19	330	4138	1.79	ppm	-0.01
Spiked Amount 50.000			Recovery	=	3.58%	
85) Terphenyl-d14	12.31	244	36536	1.90	ppm	-0.02
Spiked Amount 50.000			Recovery	=	3.80%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.49	88	12283	2.21	ppm	93
3) Pyridine	2.82	79	20007	1.95	ppm	92
4) N-Nitrosodimethylamine	2.77	42	8673	2.21	ppm	99
6) Indene	5.07	116	39731	2.11	ppm	94
7) Cumene	4.30	105	51478	2.13	ppm	98
9) Phenol	4.62	94	22089	1.92	ppm	97
10) Aniline	4.64	93	29976	2.13	ppm	98
11) bis(2-Chloroethyl)ether	4.68	93	18172	2.04	ppm	94
12) 2-Chlorophenol	4.73	128	19687	1.95	ppm	97
13) Decane	4.76	43	19875	2.20	ppm	94
14) 1,3-Dichlorobenzene	4.84	146	24128	2.17	ppm	99
15) 1,4-Dichlorobenzene	4.89	146	24696	2.21	ppm	94

(#) = qualifier out of range (m) = manual integration
F154199.D MF6483.M Sat Jan 30 16:32:49 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:02:05 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.97	108	12459	2.05	ppm		90
17)	1,2-Dichlorobenzene	5.01	146	23062	2.15	ppm		99
18)	Acetophenone	5.17	105	27401	2.03	ppm		99
19)	2-Methylphenol	5.05	108	14551	1.95	ppm		95
20)	2,2'-oxybis(1-Chloropropan	5.08	121	7089	2.68	ppm		91
21)	3&4-Methylphenol	5.17	108	14798	1.96	ppm		93
22)	n-Nitroso-di-n-propylamine	5.17	70	12121	2.16	ppm		91
23)	Hexachloroethane	5.26	201	6485	1.91	ppm		90
26)	Nitrobenzene	5.29	77	17911	1.91	ppm		99
27)	Quinoline	6.06	129	41957	1.86	ppm		97
28)	Isophorone	5.46	82	31395	1.89	ppm		99
29)	2-Nitrophenol	5.52	139	8903	1.79	ppm		93
30)	2,4-Dimethylphenol	5.55	107	13407	1.59	ppm		90
31)	Benzoic acid	5.58	105	8634m	1.50	ppm		
32)	bis(2-Chloroethoxy)methane	5.61	93	20085	2.05	ppm		97
33)	2,4-Dichlorophenol	5.70	162	12468	1.87	ppm		94
34)	2,6-Dichlorophenol	5.86	162	14976	2.08	ppm		97
35)	1,3,5-Trichlorobenzene	5.54	180	17994	2.09	ppm		95
36)	1,2,4-Trichlorobenzene	5.76	180	16897	2.09	ppm		95
37)	1,2,3-Trichlorobenzene	5.92	180	16617	2.03	ppm		98
38)	Naphthalene	5.82	128	63003	2.03	ppm		98
39)	4-Chloroaniline	5.85	127	23577	2.25	ppm		97
40)	2,3-Dichloroaniline	6.56	161	20742	1.99	ppm		94
41)	Caprolactam	6.08	55	8006	1.46	ppm		92
42)	Hexachlorobutadiene	5.90	225	8058	2.06	ppm		95
43)	4-Chloro-3-methylphenol	6.20	107	17557	2.01	ppm		90
44)	2-Methylnaphthalene	6.33	141	34545	1.97	ppm		98
45)	1-Methylnaphthalene	6.41	141	36686	2.05	ppm		98
46)	Dimethylnaphthalene	6.85	156	37865	2.03	ppm		98
48)	Hexachlorocyclopentadiene	6.46	237	15616	3.67	ppm		98
49)	2,4,6-Trichlorophenol	6.56	196	9522	1.82	ppm		87
50)	2,4,5-Trichlorophenol	6.59	196	12170	1.88	ppm		91
52)	2-Chloronaphthalene	6.74	162	38922	2.10	ppm		99
53)	Biphenyl	6.71	154	50657	2.03	ppm		99
54)	2-Nitroaniline	6.82	65	8573	1.80	ppm		95
55)	Dimethylphthalate	6.97	163	41243	1.95	ppm		98
56)	Acenaphthylene	7.12	152	61490	1.99	ppm		99
57)	2,6-Dinitrotoluene	7.04	165	6960	1.74	ppm		95
58)	3-Nitroaniline	7.22	138	8335	1.76	ppm		78
59)	Acenaphthene	7.30	153	39415	2.00	ppm		99
60)	2,4-Dinitrophenol	7.32	184	2942	1.85	ppm	#	25
61)	4-Nitrophenol	7.41	109	5288m	1.75	ppm		
62)	Dibenzofuran	7.49	168	54715	2.05	ppm		97
63)	2,4-Dinitrotoluene	7.45	165	9464	1.66	ppm		80
64)	2,3,4,6-Tetrachlorophenol	7.62	232	8475	1.83	ppm		86
65)	Diethylphthalate	7.73	149	42459	1.99	ppm		99
66)	Fluorene	7.89	166	46187	2.14	ppm		92
67)	4-Chlorophenyl-phenylether	7.88	204	18655	2.09	ppm		100
68)	4-Nitroaniline	7.91	138	9507	1.76	ppm		89

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:02:05 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.94	198	2670	1.21	ppm	87
71)	n-Nitrosodiphenylamine	8.02	169	31724	2.06	ppm	96
72)	1,2-Diphenylhydrazine	8.08	77	38590	2.01	ppm	99
74)	4-Bromophenyl-phenylether	8.54	248	9506	1.97	ppm	99
75)	Hexachlorobenzene	8.63	284	10446	2.07	ppm	98
76)	Pentachlorophenol	8.93	266	11836	3.46	ppm	89
77)	Phenanthrene	9.25	178	60128	2.10	ppm	98
78)	Anthracene	9.34	178	58757	2.06	ppm	96
79)	Carbazole	9.62	167	60378	2.05	ppm	99
80)	Di-n-butylphthalate	10.32	149	67913	1.97	ppm	97
81)	Fluoranthene	11.44	202	57686	1.95	ppm	98
82)	Octadecane	9.10	57	25605	2.05	ppm	94
84)	Pyrene	11.89	202	62471	1.94	ppm	98
86)	Butylbenzylphthalate	13.48	149	26856	1.76	ppm	98
87)	Butyl stearate	13.76	56	16206	1.87	ppm	95
88)	Benzo[a]anthracene	14.54	228	52413	1.88	ppm	99
89)	3,3'-Dichlorobenzidine	14.57	252	14087	1.70	ppm	83
90)	Chrysene	14.61	228	52951	1.98	ppm	97
91)	bis(2-Ethylhexyl)phthalate	14.89	149	36844	1.69	ppm	96
93)	Di-n-octylphthalate	16.34	149	58942	1.66	ppm	97
94)	Benzo[b]fluoranthene	16.85	252	47720	1.87	ppm	97
95)	Benzo[k]fluoranthene	16.91	252	51012	2.05	ppm	98
96)	Benzo[a]pyrene	17.49	252	41432	1.83	ppm	94
97)	Indeno[1,2,3-cd]pyrene	19.55	276	39134	1.83	ppm	94
98)	Dibenz(a,h)acridine	19.18	279	35907	1.83	ppm	91
99)	Dibenz[a,h]anthracene	19.61	278	40426	1.85	ppm	98
100)	7,12-Dimethylbenz(a)anthra	16.87	256	17538	1.81	ppm	97
101)	Benzo[g,h,i]perylene	19.98	276	45507	1.99	ppm	100

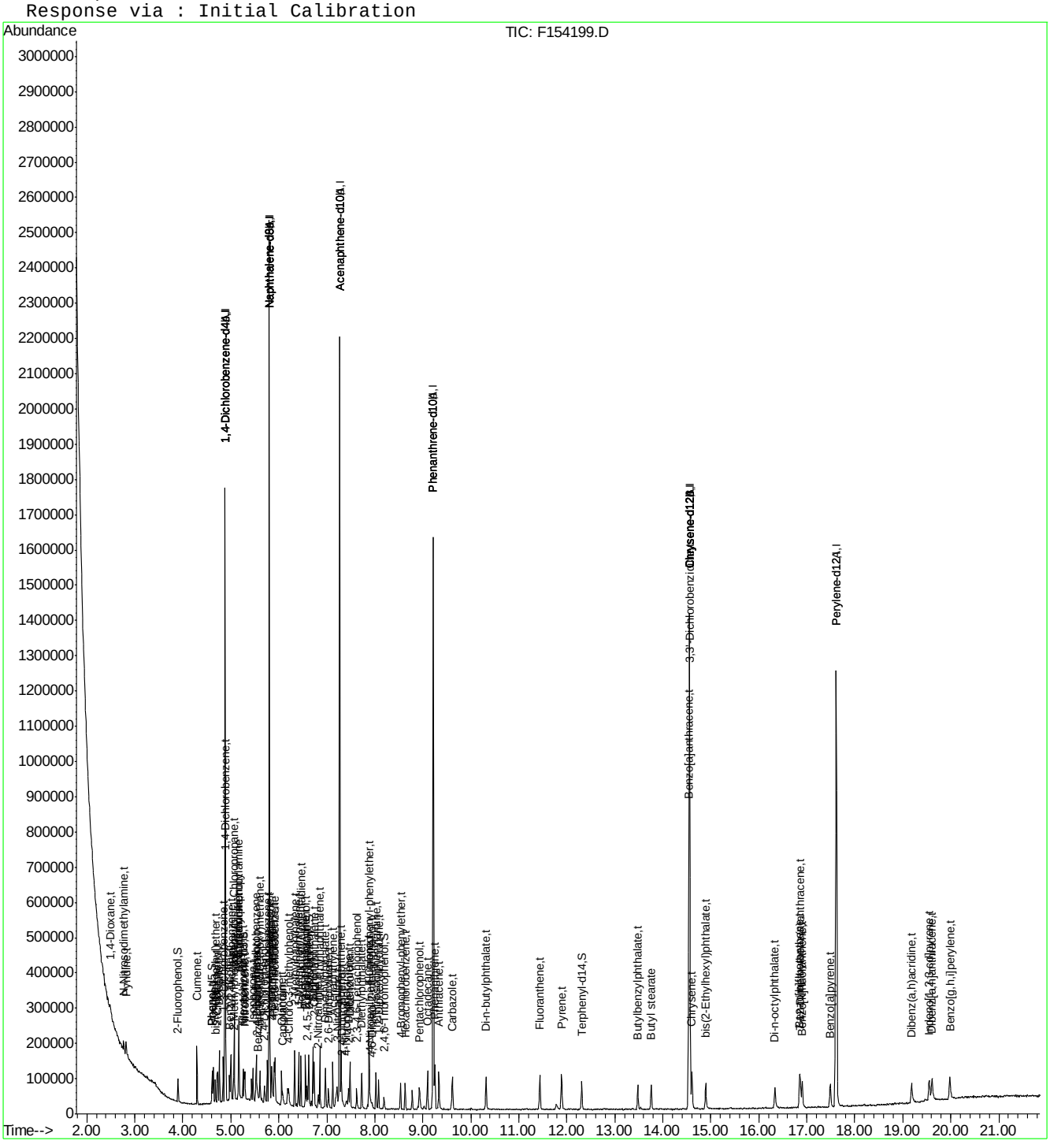
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:06 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Manual Integration Approval Summary

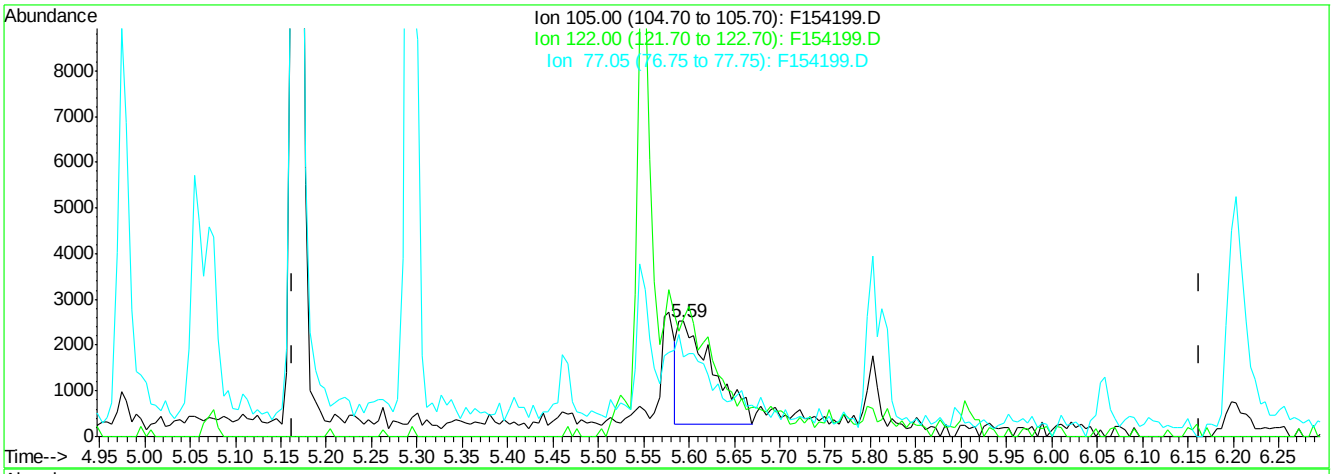
Sample Number:	EF6483-IC6483	**Method:**	EPA 625
Lab FileID:	F154199.D	**Analyst approved:**	02/01/16 16:37 Kristi Schollenberger
Injection Time:	01/30/16 09:41	**Supervisor approved:**	02/02/16 16:08 Nina Pandya

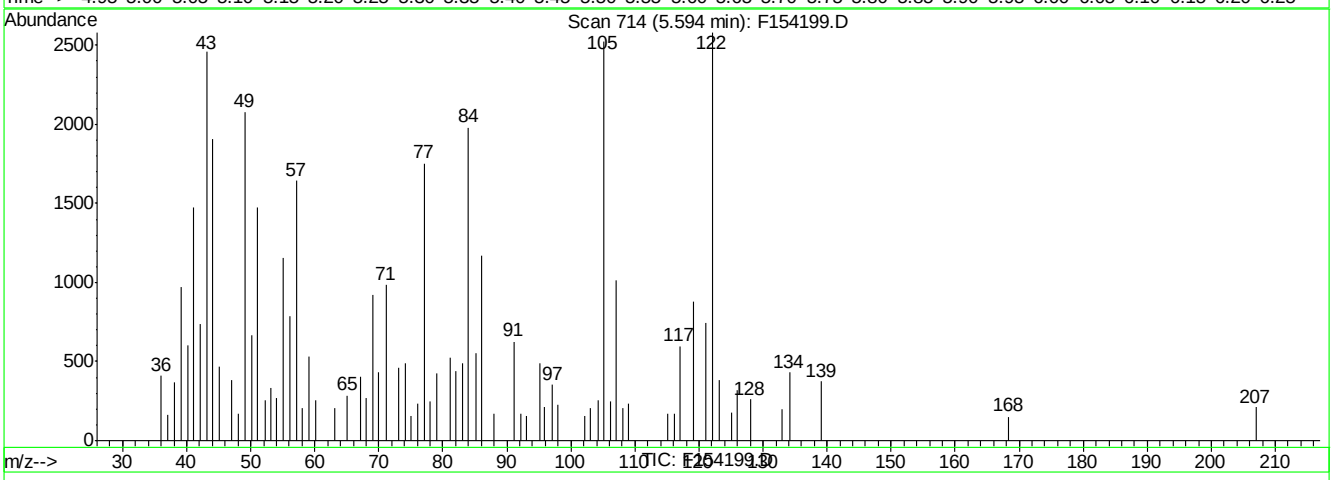
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.58	Split peak
4-Nitrophenol	100-02-7		7.41	Split peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:02 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Multiple Level Calibration





(31) Benzoic acid (t)

5.59min 1.08ppm

response 6187

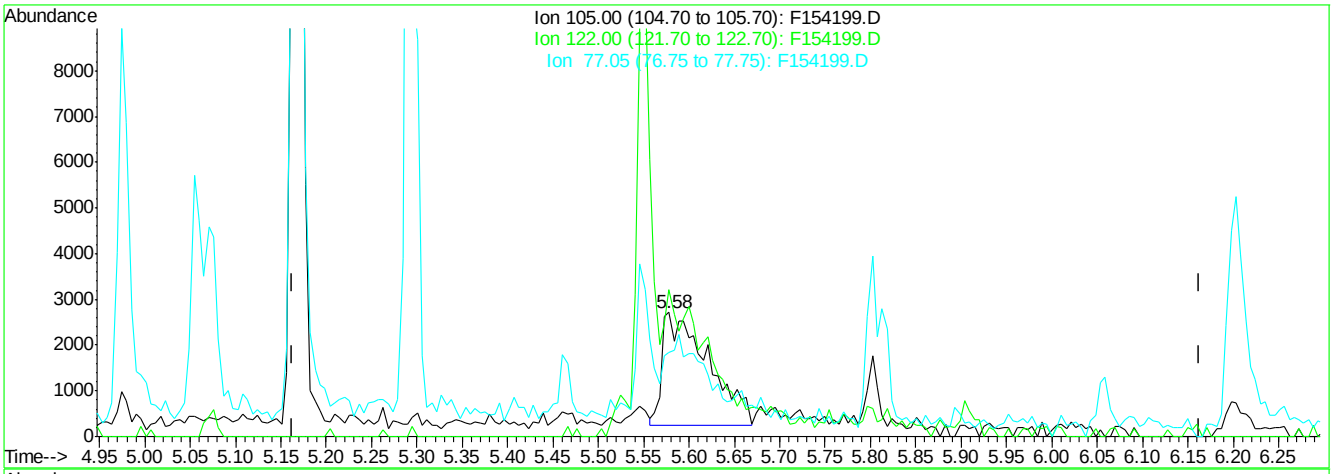
Ion	Exp%	Act%
105.00	100	100
122.00	82.20	69.18
77.05	67.10	34.57#
0.00	0.00	0.00

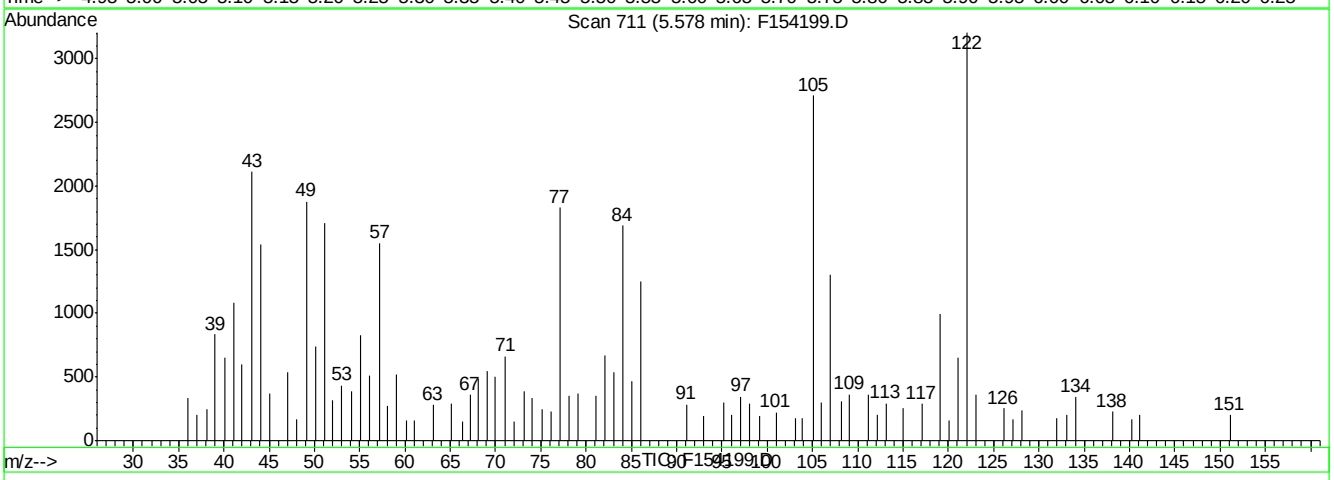
F154199.D MF6483.M Sat Jan 30 10:03:43 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:04 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Multiple Level Calibration





(31) Benzoic acid (t)

5.58min 1.50ppm m

response 8634

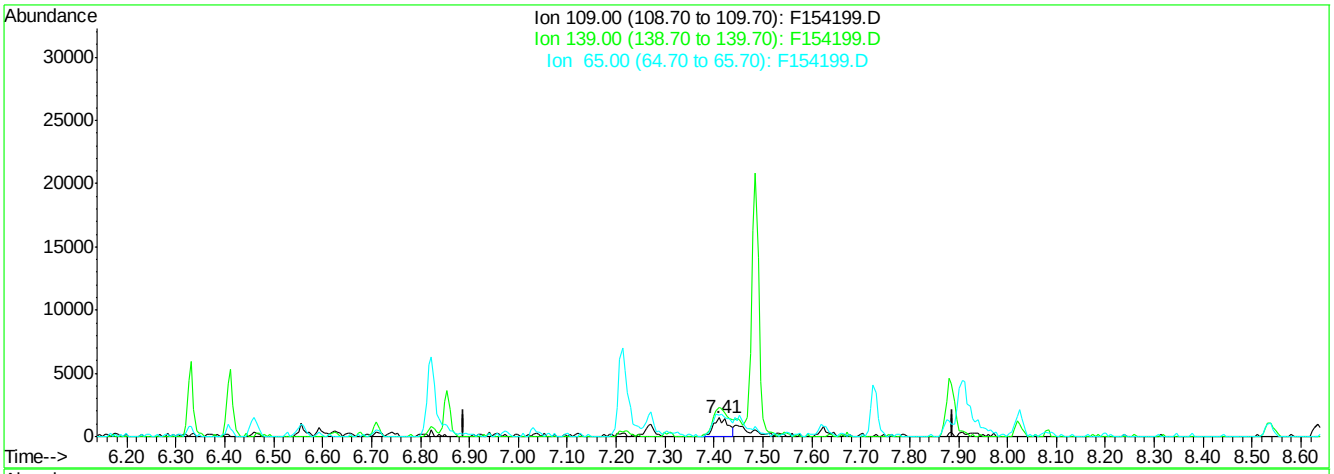
Ion	Exp%	Act%
105.00	100	100
122.00	82.20	118.22#
77.05	67.10	67.48
0.00	0.00	0.00

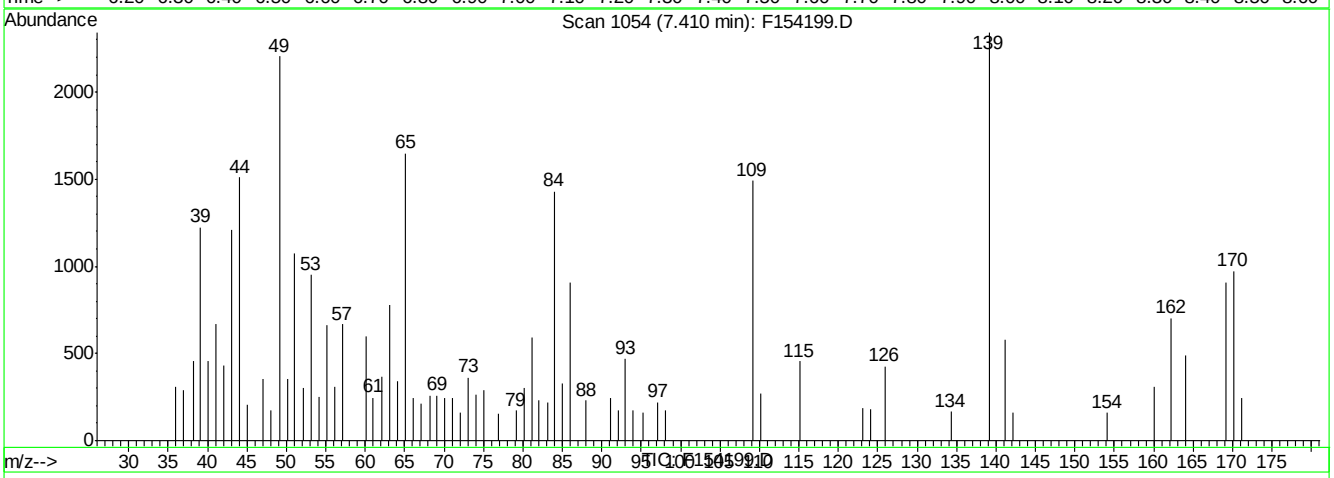
F154199.D MF6483.M Sat Jan 30 10:04:20 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:04 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Multiple Level Calibration





(61) 4-Nitrophenol (t)

7.41min 1.00ppm

response 3021

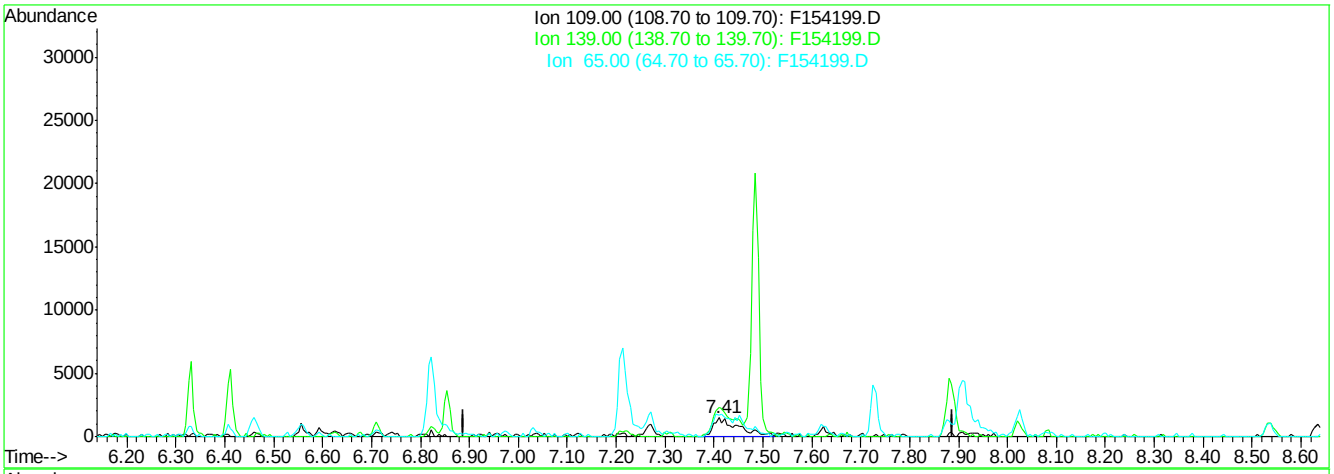
Ion	Exp%	Act%
109.00	100	100
139.00	163.10	145.78
65.00	129.10	98.27#
0.00	0.00	0.00

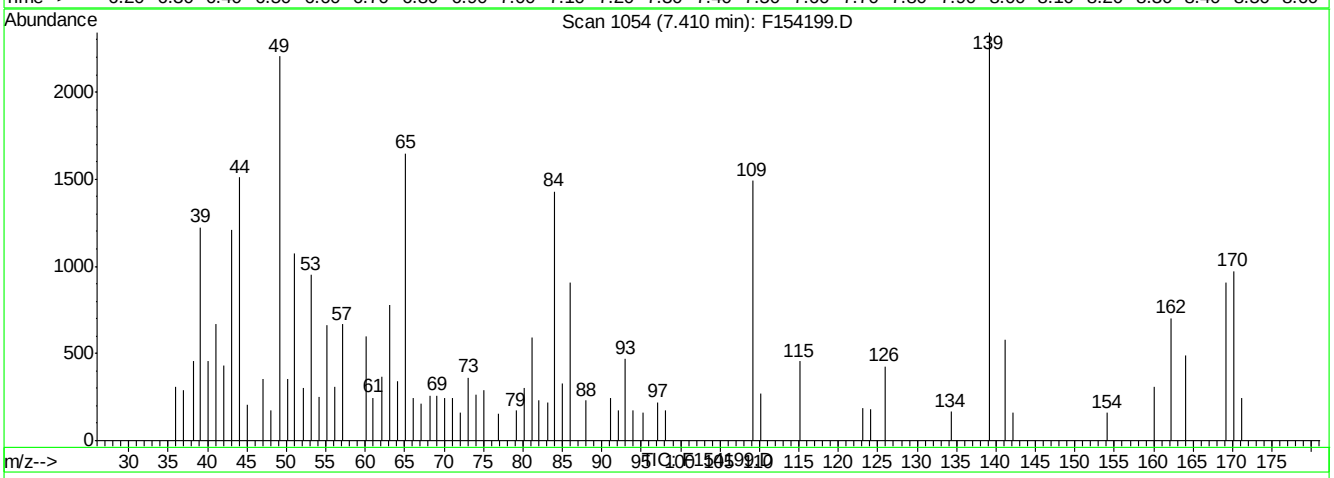
F154199.D MF6483.M Sat Jan 30 10:04:53 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154199.D Vial: 5
Acq On : 30 Jan 2016 9:41 am Operator: kristis
Sample : ic6483-2 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:05 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 09:30:50 2016
Response via : Multiple Level Calibration





(61) 4-Nitrophenol (t)

7.41min 1.75ppm m

response 5288

Ion	Exp%	Act%
109.00	100	100
139.00	163.10	156.90
65.00	129.10	110.39
0.00	0.00	0.00

F154199.D MF6483.M Sat Jan 30 10:05:13 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154200.D Vial: 4
Acq On : 30 Jan 2016 10:08 am Operator: kristis
Sample : ic6483-80 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:30:36 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:06:41 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	219235	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	871551	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	522735	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	805212	40.00	ppm	0.00
83) Chrysene-d12	14.57	240	703332	40.00	ppm	0.00
92) Perylene-d12	17.62	264	683307	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	219235	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	871551	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	522735	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	805212	40.00	ppm	0.00
147) Chrysene-d12A	14.57	240	703332	40.00	ppm	0.00
155) Perylene-d12A	17.62	264	683307	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	219235	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	871551	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	522735	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	805212	40.00	ppm	0.00
167) Chrysene-d12b	14.57	240	703332	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	219235	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	871551	40.00	ppm	0.00
176) Chrysene-d12c	14.57	240	703332	40.00	ppm	0.00
178) Naphthalene-d8a	5.80	136	871551	40.00	ppm	0.08
180) Chrysene-d12B	14.57	240	703332	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	3.91	112	611023	69.56	ppm	0.00
Spiked Amount 50.000			Recovery = 139.12%			
8) Phenol-d5	4.61	99	744085	77.96	ppm	0.00
Spiked Amount 50.000			Recovery = 155.92%			
25) Nitrobenzene-d5	5.28	82	612937	68.15	ppm	0.00
Spiked Amount 50.000			Recovery = 136.30%			
51) 2-Fluorobiphenyl	6.63	172	1318331	64.11	ppm	0.00
Spiked Amount 50.000			Recovery = 128.22%			
73) 2,4,6-Tribromophenol	8.20	330	147246	69.33	ppm	0.00
Spiked Amount 50.000			Recovery = 138.66%			
85) Terphenyl-d14	12.32	244	1144481	68.50	ppm	0.00
Spiked Amount 50.000			Recovery = 137.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.48	88	254873	49.36	ppm	99
3) Pyridine	2.79	79	644961	70.62	ppm	95
4) N-Nitrosodimethylamine	2.76	42	241316	66.03	ppm	94
6) Indene	5.07	116	1091833	63.39	ppm	99
7) Cumene	4.30	105	1456156	65.53	ppm	99
9) Phenol	4.62	94	818636	80.25	ppm	99
10) Aniline	4.64	93	765792	59.33	ppm	99
11) bis(2-Chloroethyl)ether	4.69	93	549847	68.14	ppm	98
12) 2-Chlorophenol	4.73	128	674275	74.96	ppm	98
13) Decane	4.77	43	507662	60.51	ppm	99
14) 1,3-Dichlorobenzene	4.85	146	689522	67.06	ppm	98
15) 1,4-Dichlorobenzene	4.89	146	699381	67.36	ppm	99

(#) = qualifier out of range (m) = manual integration
F154200.D MF6483.M Sat Jan 30 16:32:55 2016 RT1

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154200.D Vial: 4
Acq On : 30 Jan 2016 10:08 am Operator: kristis
Sample : ic6483-80 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:30:36 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:06:41 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
16) Benzyl alcohol	4.98	108	415438	75.45 ppm	96
17) 1,2-Dichlorobenzene	5.01	146	648532	65.60 ppm	97
18) Acetophenone	5.18	105	796610	65.38 ppm	95
19) 2-Methylphenol	5.06	108	558603	84.10 ppm	98
20) 2,2'-oxybis(1-Chloropropan	5.08	121	202465	72.85 ppm	97
21) 3&4-Methylphenol	5.17	108	577368	85.63 ppm	99
22) n-Nitroso-di-n-propylamine	5.17	70	361734	69.81 ppm	98
23) Hexachloroethane	5.26	201	208617	69.35 ppm	97
26) Nitrobenzene	5.30	77	598836	67.01 ppm	96
27) Quinoline	6.06	129	1400981	65.79 ppm	99
28) Isophorone	5.47	82	1060346	67.20 ppm	98
29) 2-Nitrophenol	5.53	139	332422	71.67 ppm	92
30) 2,4-Dimethylphenol	5.55	107	610668	80.21 ppm	98
31) Benzoic acid	5.65	105	517467	101.42 ppm	97
32) bis(2-Chloroethoxy)methane	5.62	93	654510	68.54 ppm	100
33) 2,4-Dichlorophenol	5.70	162	525695	83.42 ppm	98
34) 2,6-Dichlorophenol	5.86	162	497370	70.44 ppm	99
35) 1,3,5-Trichlorobenzene	5.54	180	518688	61.34 ppm	99
36) 1,2,4-Trichlorobenzene	5.76	180	506397	63.79 ppm	99
37) 1,2,3-Trichlorobenzene	5.93	180	506226	63.57 ppm	98
38) Naphthalene	5.82	128	1904505	63.23 ppm	99
39) 4-Chloroaniline	5.85	127	766627	72.66 ppm	97
40) 2,3-Dichloroaniline	6.56	161	616612	61.29 ppm	98
41) Caprolactam	6.13	55	275525	57.00 ppm	99
42) Hexachlorobutadiene	5.91	225	253342	66.27 ppm	98
43) 4-Chloro-3-methylphenol	6.20	107	581790	68.70 ppm	96
44) 2-Methylnaphthalene	6.33	141	1029147	60.98 ppm	99
45) 1-Methylnaphthalene	6.41	141	1081205	61.88 ppm	99
46) Dimethylnaphthalene	6.86	156	1117372	61.64 ppm	100
48) Hexachlorocyclopentadiene	6.46	237	593035	150.12 ppm	100
49) 2,4,6-Trichlorophenol	6.56	196	327237	67.63 ppm	99
50) 2,4,5-Trichlorophenol	6.59	196	363783	60.01 ppm	99
52) 2-Chloronaphthalene	6.74	162	1148988	63.87 ppm	97
53) Biphenyl	6.72	154	1523620	63.58 ppm	98
54) 2-Nitroaniline	6.82	65	316200	71.91 ppm	98
55) Dimethylphthalate	6.98	163	1300642	64.88 ppm	99
56) Acenaphthylene	7.13	152	1906217	64.68 ppm	99
57) 2,6-Dinitrotoluene	7.04	165	290665	79.65 ppm	97
58) 3-Nitroaniline	7.22	138	348386	80.19 ppm	96
59) Acenaphthene	7.31	153	1180740	62.67 ppm	98
60) 2,4-Dinitrophenol	7.32	184	313279	251.33 ppm	98
61) 4-Nitrophenol	7.38	109	182014	65.98 ppm	98
62) Dibenzofuran	7.49	168	1628641	63.41 ppm	99
63) 2,4-Dinitrotoluene	7.46	165	406743	79.25 ppm	83
64) 2,3,4,6-Tetrachlorophenol	7.62	232	281139	65.45 ppm	98
65) Diethylphthalate	7.74	149	1310825	64.46 ppm	98
66) Fluorene	7.89	166	1282468	60.77 ppm	98
67) 4-Chlorophenyl-phenylether	7.88	204	542028	62.59 ppm	97
68) 4-Nitroaniline	7.92	138	365927	73.82 ppm	98

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154200.D Vial: 4
Acq On : 30 Jan 2016 10:08 am Operator: kristis
Sample : ic6483-80 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:30:36 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:06:41 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.95	198	213477	116.84	ppm	98
71)	n-Nitrosodiphenylamine	8.03	169	963103	64.96	ppm	100
72)	1,2-Diphenylhydrazine	8.09	77	1207111	65.99	ppm	98
74)	4-Bromophenyl-phenylether	8.54	248	291546	63.81	ppm	96
75)	Hexachlorobenzene	8.64	284	307233	63.20	ppm	99
76)	Pentachlorophenol	8.93	266	436546	140.23	ppm	100
77)	Phenanthrene	9.26	178	1763268	63.65	ppm	99
78)	Anthracene	9.34	178	1788388	65.09	ppm	98
79)	Carbazole	9.62	167	1862549	65.91	ppm	99
80)	Di-n-butylphthalate	10.32	149	2271901	69.55	ppm	99
81)	Fluoranthene	11.45	202	1885019	67.55	ppm	99
82)	Octadecane	9.10	57	780860	65.12	ppm	99
84)	Pyrene	11.90	202	1970112	69.88	ppm	100
86)	Butylbenzylphthalate	13.48	149	1001684	77.32	ppm	100
87)	Butyl stearate	13.76	56	554735	73.94	ppm	98
88)	Benzo[a]anthracene	14.55	228	1647982	68.21	ppm	99
89)	3,3'-Dichlorobenzidine	14.57	252	572305	82.46	ppm	98
90)	Chrysene	14.63	228	1642666	69.72	ppm	100
91)	bis(2-Ethylhexyl)phthalate	14.89	149	1379491	75.48	ppm	99
93)	Di-n-octylphthalate	16.34	149	2418344	77.54	ppm	100
94)	Benzo[b]fluoranthene	16.88	252	1662191	71.51	ppm	99
95)	Benzo[k]fluoranthene	16.94	252	1531856	65.37	ppm	99
96)	Benzo[a]pyrene	17.51	252	1464708	71.44	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.58	276	1410920	72.81	ppm	98
98)	Dibenz(a,h)acridine	19.21	279	1326260	74.48	ppm	99
99)	Dibenz[a,h]anthracene	19.63	278	1484638	74.75	ppm	98
100)	7,12-Dimethylbenz(a)anthra	16.89	256	738610	84.54	ppm	100
101)	Benzo[g,h,i]perylene	20.02	276	1503108	70.48	ppm	97

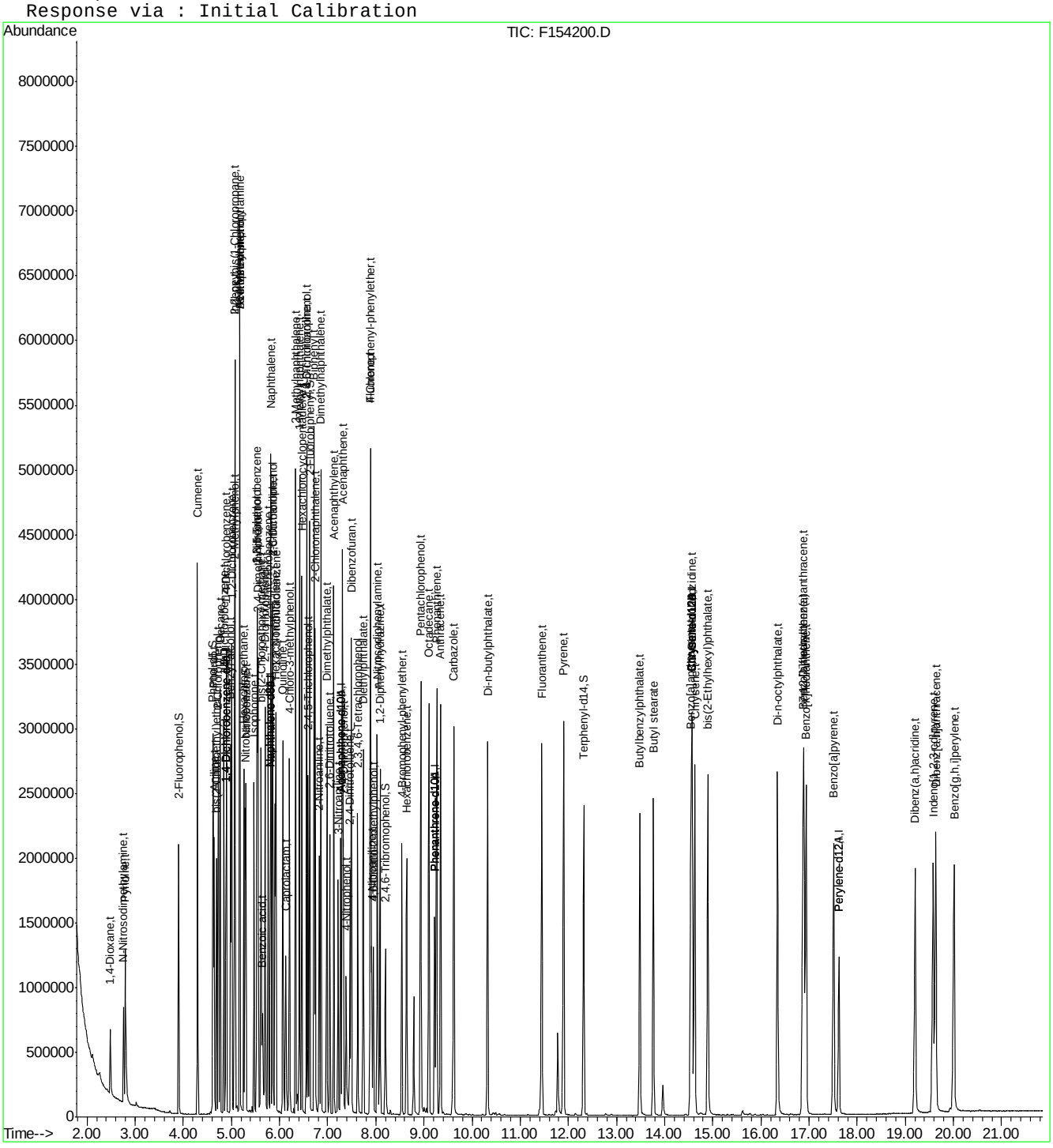
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154200.D Vial: 4
Acq On : 30 Jan 2016 10:08 am Operator: kristis
Sample : ic6483-80 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 10:37 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
02/02/16 16:08

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154201.D Vial: 6
Acq On : 30 Jan 2016 10:40 am Operator: kristis
Sample : ic6483-5 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:02:00 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:37:21 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	230043	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	855130	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	523461	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	805862	40.00	ppm	-0.01
83) Chrysene-d12	14.56	240	743158	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	667436	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.88	152	230043	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	855130	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	523461	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	805862	40.00	ppm	-0.01
147) Chrysene-d12A	14.56	240	743158	40.00	ppm	-0.01
155) Perylene-d12A	17.61	264	667436	40.00	ppm	-0.01
159) 1,4-Dichlorobenzene-d4b	4.88	152	230043	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	855130	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	523461	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	805862	40.00	ppm	-0.01
167) Chrysene-d12b	14.56	240	743158	40.00	ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	230043	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	855130	40.00	ppm	0.00
176) Chrysene-d12c	14.56	240	743158	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	855130	40.00	ppm	0.08
180) Chrysene-d12B	14.56	240	743158	40.00	ppm	0.15

System Monitoring Compounds						
5) 2-Fluorophenol	3.90	112	45935	5.15	ppm	0.00
Spiked Amount 50.000			Recovery = 10.30%			
8) Phenol-d5	4.61	99	51072	5.13	ppm	-0.01
Spiked Amount 50.000			Recovery = 10.26%			
25) Nitrobenzene-d5	5.28	82	43537	5.12	ppm	0.00
Spiked Amount 50.000			Recovery = 10.24%			
51) 2-Fluorobiphenyl	6.63	172	105840	5.41	ppm	0.00
Spiked Amount 50.000			Recovery = 10.82%			
73) 2,4,6-Tribromophenol	8.20	330	10030	4.88	ppm	0.00
Spiked Amount 50.000			Recovery = 9.76%			
85) Terphenyl-d14	12.31	244	83981	4.93	ppm	-0.01
Spiked Amount 50.000			Recovery = 9.86%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.48	88	22847	4.66	ppm	94
3) Pyridine	2.81	79	50837	5.46	ppm	91
4) N-Nitrosodimethylamine	2.76	42	18420	5.02	ppm	95
6) Indene	5.07	116	94545	5.52	ppm	98
7) Cumene	4.30	105	122093	5.48	ppm	98
9) Phenol	4.62	94	57153	5.34	ppm	96
10) Aniline	4.64	93	70769	5.59	ppm	93
11) bis(2-Chloroethyl)ether	4.68	93	42905	5.26	ppm	94
12) 2-Chlorophenol	4.73	128	49989	5.38	ppm	96
13) Decane	4.76	43	45513	5.51	ppm	93
14) 1,3-Dichlorobenzene	4.84	146	56194	5.43	ppm	99
15) 1,4-Dichlorobenzene	4.89	146	56397	5.39	ppm	95

(#) = qualifier out of range (m) = manual integration
F154201.D MF6483.M Sat Jan 30 16:33:03 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154201.D Vial: 6
Acq On : 30 Jan 2016 10:40 am Operator: kristis
Sample : ic6483-5 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:02:00 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:37:21 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16) Benzyl alcohol	4.97	108	28555	5.01	ppm		96
17) 1,2-Dichlorobenzene	5.01	146	53676	5.42	ppm		96
18) Acetophenone	5.17	105	66093	5.42	ppm		96
19) 2-Methylphenol	5.05	108	38738	5.49	ppm		97
20) 2,2'-oxybis(1-Chloropropan	5.08	121	16942	5.99	ppm	#	84
21) 3&4-Methylphenol	5.17	108	39396	5.47	ppm		96
22) n-Nitroso-di-n-propylamine	5.17	70	30196	5.74	ppm		98
23) Hexachloroethane	5.26	201	15785	5.17	ppm		99
26) Nitrobenzene	5.29	77	44766	5.32	ppm		96
27) Quinoline	6.06	129	104544	5.24	ppm		96
28) Isophorone	5.46	82	78232	5.26	ppm		99
29) 2-Nitrophenol	5.52	139	21735	4.90	ppm		94
30) 2,4-Dimethylphenol	5.55	107	35981	4.81	ppm		92
31) Benzoic acid	5.59	105	23635	4.43	ppm		88
32) bis(2-Chloroethoxy)methane	5.61	93	48033	5.32	ppm		99
33) 2,4-Dichlorophenol	5.70	162	30966	4.96	ppm		99
34) 2,6-Dichlorophenol	5.86	162	38039	5.66	ppm		96
35) 1,3,5-Trichlorobenzene	5.54	180	44023	5.63	ppm		95
36) 1,2,4-Trichlorobenzene	5.76	180	40143	5.43	ppm		95
37) 1,2,3-Trichlorobenzene	5.92	180	40883	5.52	ppm		99
38) Naphthalene	5.82	128	149968	5.36	ppm		99
39) 4-Chloroaniline	5.85	127	57691	5.70	ppm		98
40) 2,3-Dichloroaniline	6.56	161	50734	5.46	ppm		96
41) Caprolactam	6.08	55	18011	4.09	ppm		94
42) Hexachlorobutadiene	5.91	225	20348	5.67	ppm		95
43) 4-Chloro-3-methylphenol	6.20	107	41627	5.19	ppm		96
44) 2-Methylnaphthalene	6.33	141	84193	5.41	ppm		97
45) 1-Methylnaphthalene	6.41	141	86456	5.35	ppm		95
46) Dimethylnaphthalene	6.85	156	90676	5.41	ppm		98
48) Hexachlorocyclopentadiene	6.46	237	38979	10.01	ppm		99
49) 2,4,6-Trichlorophenol	6.56	196	24380	5.23	ppm		93
50) 2,4,5-Trichlorophenol	6.59	196	27003	4.74	ppm		96
52) 2-Chloronaphthalene	6.74	162	89974	5.26	ppm		98
53) Biphenyl	6.71	154	122464	5.38	ppm		97
54) 2-Nitroaniline	6.82	65	20430	4.76	ppm		93
55) Dimethylphthalate	6.97	163	101504	5.31	ppm		99
56) Acenaphthylene	7.13	152	146340	5.21	ppm		97
57) 2,6-Dinitrotoluene	7.03	165	17554	4.81	ppm		94
58) 3-Nitroaniline	7.21	138	21649	4.97	ppm		96
59) Acenaphthene	7.30	153	92912	5.21	ppm		96
60) 2,4-Dinitrophenol	7.32	184	8520	5.97	ppm	#	38
61) 4-Nitrophenol	7.42	109	12260m	4.64	ppm		
62) Dibenzofuran	7.49	168	130632	5.36	ppm		98
63) 2,4-Dinitrotoluene	7.45	165	25021	4.88	ppm		94
64) 2,3,4,6-Tetrachlorophenol	7.62	232	19879	4.84	ppm		99
65) Diethylphthalate	7.73	149	99003	5.11	ppm		99
66) Fluorene	7.89	166	107118	5.39	ppm		99
67) 4-Chlorophenyl-phenylether	7.88	204	45274	5.52	ppm		99
68) 4-Nitroaniline	7.91	138	24115	4.95	ppm		92

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154201.D Vial: 6
Acq On : 30 Jan 2016 10:40 am Operator: kristis
Sample : ic6483-5 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:02:00 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:37:21 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.93	198	7346	3.60	ppm	94
71)	n-Nitrosodiphenylamine	8.02	169	73229	5.18	ppm	98
72)	1,2-Diphenylhydrazine	8.08	77	89709	5.12	ppm	96
74)	4-Bromophenyl-phenylether	8.54	248	22189	5.11	ppm	97
75)	Hexachlorobenzene	8.63	284	24293	5.27	ppm	96
76)	Pentachlorophenol	8.93	266	28222	9.35	ppm	99
77)	Phenanthrene	9.25	178	136672	5.19	ppm	98
78)	Anthracene	9.34	178	137281	5.24	ppm	97
79)	Carbazole	9.61	167	139365	5.15	ppm	97
80)	Di-n-butylphthalate	10.32	149	159606	5.05	ppm	99
81)	Fluoranthene	11.44	202	137164	5.11	ppm	100
82)	Octadecane	9.10	57	60957	5.33	ppm	98
84)	Pyrene	11.89	202	148697	5.15	ppm	99
86)	Butylbenzylphthalate	13.48	149	63931	4.71	ppm	99
87)	Butyl stearate	13.76	56	36200	4.65	ppm	98
88)	Benzo[a]anthracene	14.53	228	121173	4.93	ppm	94
89)	3,3'-Dichlorobenzidine	14.57	252	36909	4.99	ppm	98
90)	Chrysene	14.61	228	120775	5.01	ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.89	149	87302	4.59	ppm	99
93)	Di-n-octylphthalate	16.34	149	142088	4.70	ppm	100
94)	Benzo[b]fluoranthene	16.85	252	112119	5.07	ppm	95
95)	Benzo[k]fluoranthene	16.91	252	113816	5.21	ppm	95
96)	Benzo[a]pyrene	17.49	252	103215	5.30	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.55	276	89015	4.81	ppm	94
98)	Dibenz(a,h)acridine	19.18	279	88234	5.16	ppm	100
99)	Dibenz[a,h]anthracene	19.61	278	95646	5.01	ppm	96
100)	7,12-Dimethylbenz(a)anthra	16.87	256	42635	4.93	ppm	97
101)	Benzo[g,h,i]perylene	19.98	276	102963	5.09	ppm	99

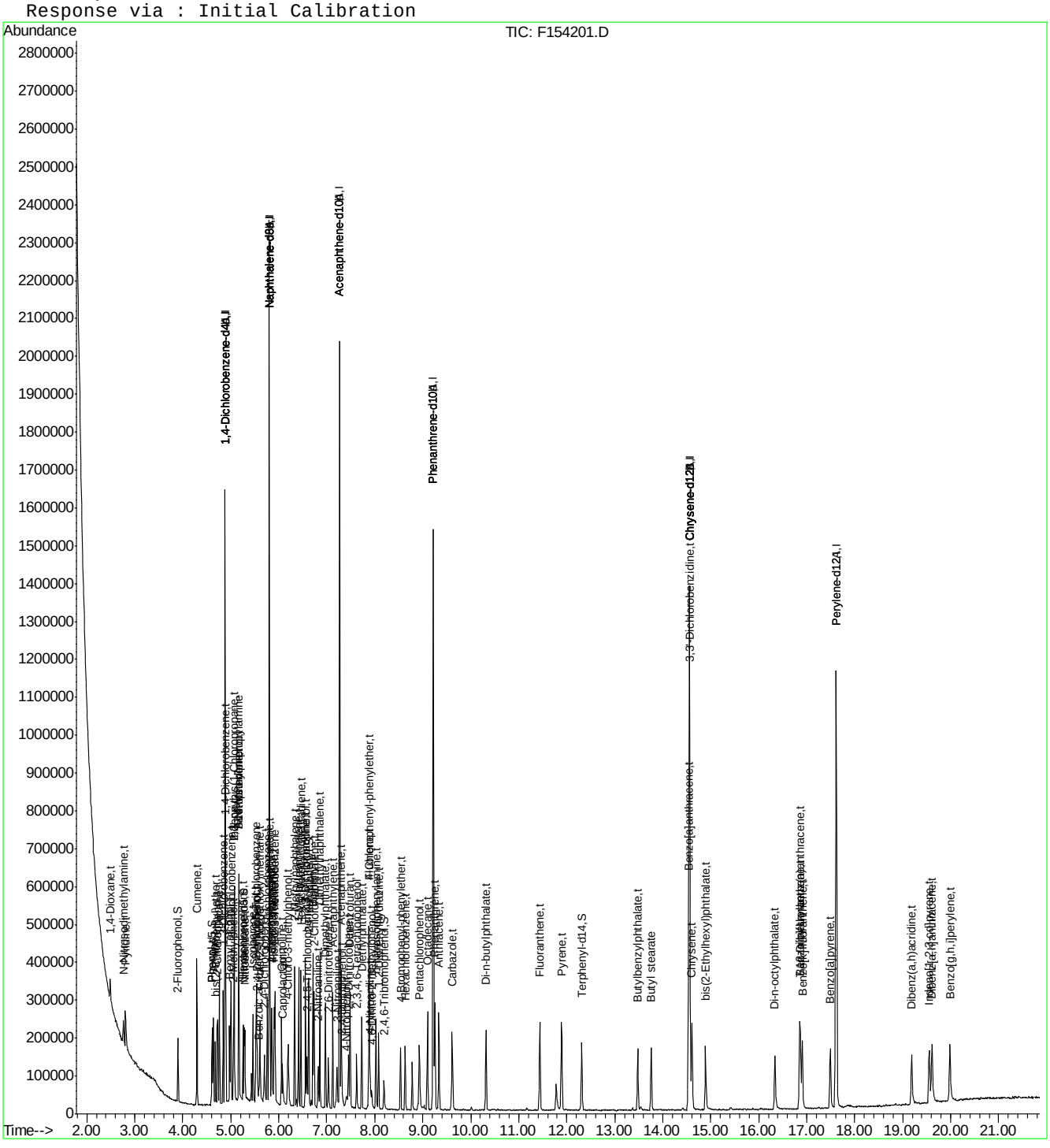
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154201.D Vial: 6
Acq On : 30 Jan 2016 10:40 am Operator: kristis
Sample : ic6483-5 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:04 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Manual Integration Approval Summary

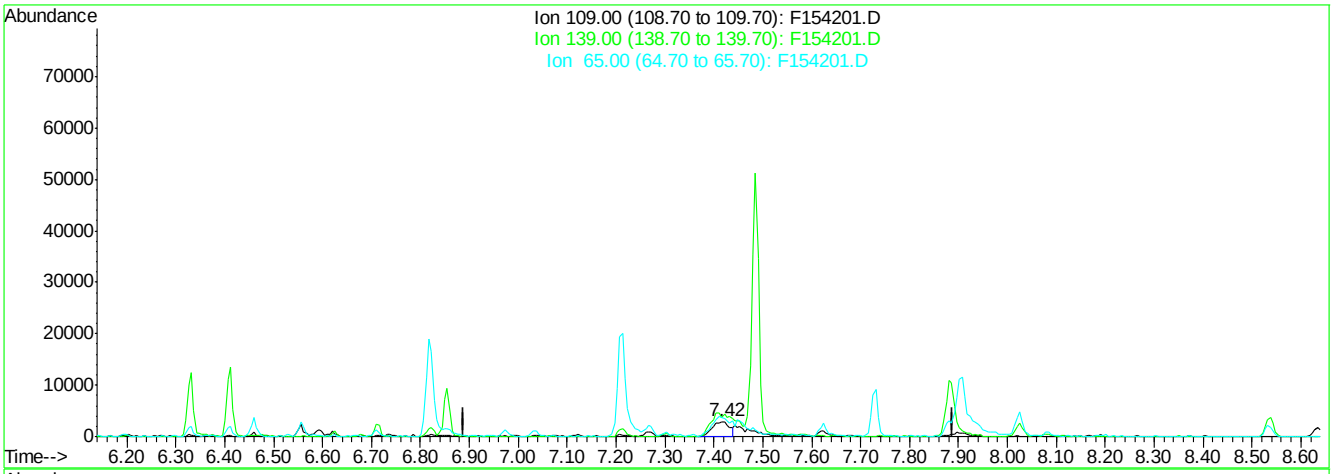
Sample Number:	EF6483-IC6483	**Method:**	EPA 625
Lab FileID:	F154201.D	**Analyst approved:**	02/01/16 16:37 Kristi Schollenberger
Injection Time:	01/30/16 10:40	**Supervisor approved:**	02/02/16 16:08 Nina Pandya

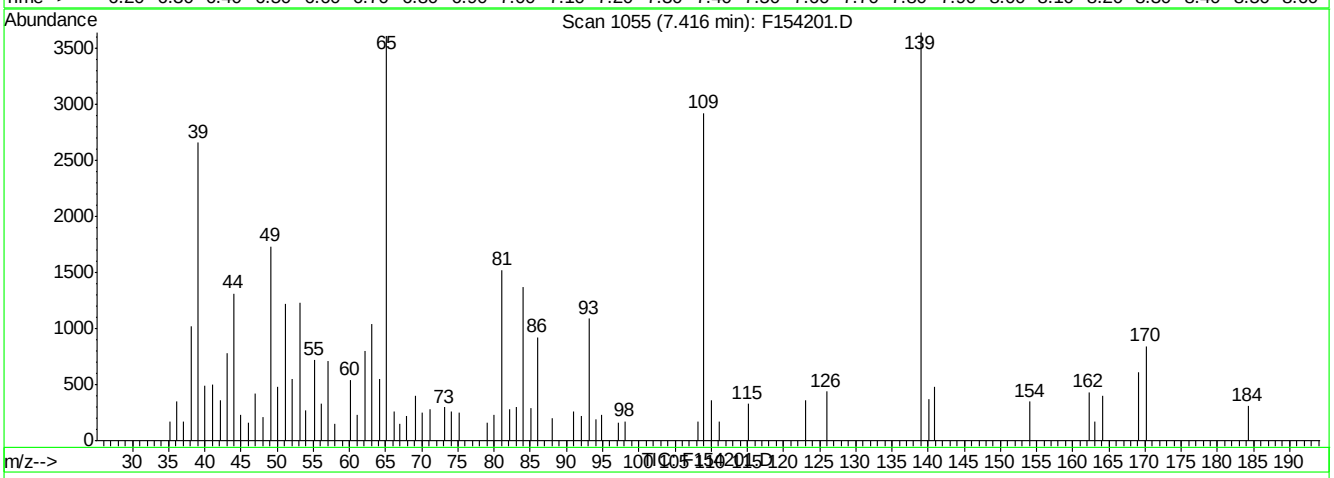
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		7.42	Split peak

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154201.D Vial: 6
Acq On : 30 Jan 2016 10:40 am Operator: kristis
Sample : ic6483-5 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:02 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:37:21 2016
Response via : Multiple Level Calibration





(61) 4-Nitrophenol (t)

7.42min 2.70ppm

response 7131

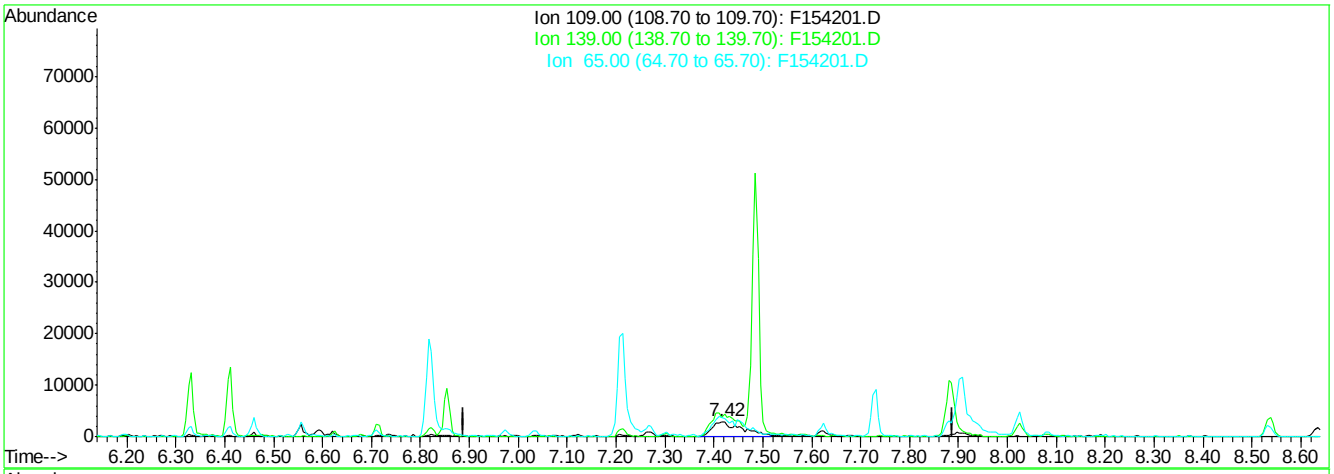
Ion	Exp%	Act%
109.00	100	100
139.00	163.10	91.86#
65.00	129.10	101.78
0.00	0.00	0.00

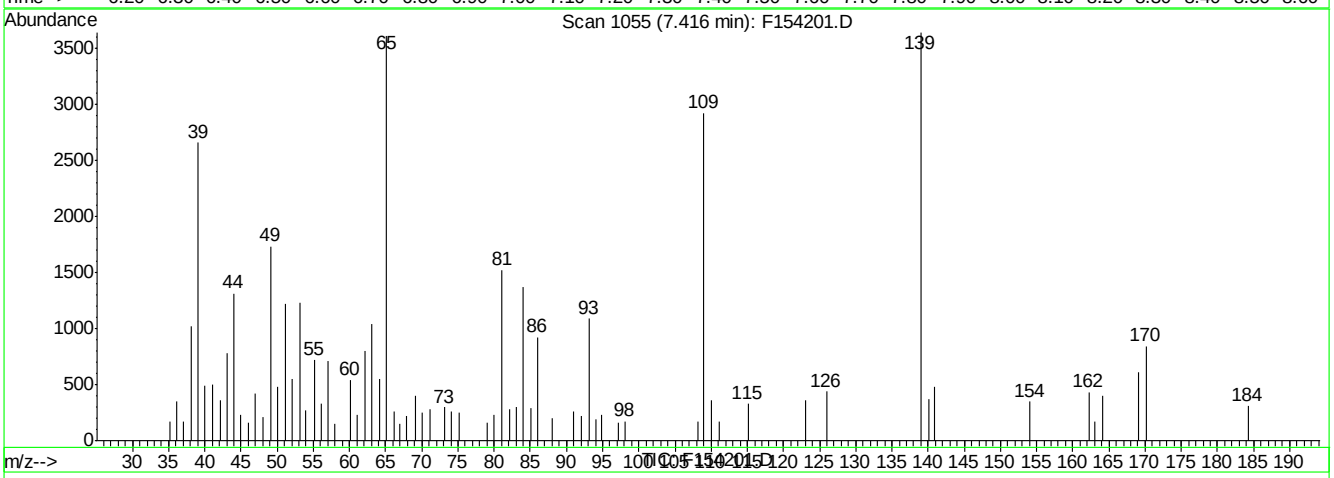
F154201.D MF6483.M Sat Jan 30 11:03:10 2016 RT1

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154201.D Vial: 6
Acq On : 30 Jan 2016 10:40 am Operator: kristis
Sample : ic6483-5 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:03 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 10:37:21 2016
Response via : Multiple Level Calibration





(61) 4-Nitrophenol (t)

7.42min 4.64ppm m

response 12260

Ion	Exp%	Act%
109.00	100	100
139.00	163.10	124.63#
65.00	129.10	123.57
0.00	0.00	0.00

F154201.D MF6483.M Sat Jan 30 11:03:31 2016 RT1

9.6.18.3

9

SGS ACCUTEST JC16038

F154201.D edits: 4-Nitrophenol

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154202.D Vial: 7
Acq On : 30 Jan 2016 11:08 am Operator: kristis
Sample : icc6483-50 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:30:55 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:04:50 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	224237	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	885552	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	540259	40.00 ppm	0.00
69) Phenanthrene-d10	9.22	188	847940	40.00 ppm	0.00
83) Chrysene-d12	14.56	240	761640	40.00 ppm	0.00
92) Perylene-d12	17.62	264	703128	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	224237	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	885552	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	540259	40.00 ppm	0.00
132) Phenanthrene-d10A	9.22	188	847940	40.00 ppm	0.00
147) Chrysene-d12A	14.56	240	761640	40.00 ppm	0.00
155) Perylene-d12A	17.62	264	703128	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	224237	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	885552	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	540259	40.00 ppm	0.00
165) Phenanthrene-d10b	9.22	188	847940	40.00 ppm	0.00
167) Chrysene-d12b	14.56	240	761640	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	224237	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	885552	40.00 ppm	0.00
176) Chrysene-d12c	14.56	240	761640	40.00 ppm	0.00
178) Naphthalene-d8a	5.80	136	885552	40.00 ppm	0.08
180) Chrysene-d12B	14.56	240	761640	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	3.90	112	401503	45.92 ppm	0.00
Spiked Amount 50.000			Recovery = 91.84%		
8) Phenol-d5	4.61	99	476780	48.89 ppm	-0.01
Spiked Amount 50.000			Recovery = 97.78%		
25) Nitrobenzene-d5	5.28	82	394867	44.65 ppm	0.00
Spiked Amount 50.000			Recovery = 89.30%		
51) 2-Fluorobiphenyl	6.62	172	880005	42.87 ppm	0.00
Spiked Amount 50.000			Recovery = 85.74%		
73) 2,4,6-Tribromophenol	8.20	330	94470	43.91 ppm	0.00
Spiked Amount 50.000			Recovery = 87.82%		
85) Terphenyl-d14	12.31	244	750896	43.16 ppm	-0.01
Spiked Amount 50.000			Recovery = 86.32%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.48	88	168687	35.80 ppm	98
3) Pyridine	2.79	79	423135	45.81 ppm	98
4) N-Nitrosodimethylamine	2.76	42	157660	44.06 ppm	90
6) Indene	5.07	116	746436	43.78 ppm	99
7) Cumene	4.30	105	984375	44.50 ppm	99
9) Phenol	4.62	94	540741	51.10 ppm	98
10) Aniline	4.64	93	476356	37.69 ppm	98
11) bis(2-Chloroethyl)ether	4.68	93	373857	46.55 ppm	97
12) 2-Chlorophenol	4.73	128	437569	47.60 ppm	99
13) Decane	4.76	43	344470	41.90 ppm	97
14) 1,3-Dichlorobenzene	4.84	146	470100	45.80 ppm	100
15) 1,4-Dichlorobenzene	4.89	146	473537	45.71 ppm	98

(#) = qualifier out of range (m) = manual integration
F154202.D MF6483.M Sat Jan 30 16:33:08 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154202.D Vial: 7
Acq On : 30 Jan 2016 11:08 am Operator: kristis
Sample : icc6483-50 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:30:55 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:04:50 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
16) Benzyl alcohol	4.98	108	273100	49.17 ppm	99
17) 1,2-Dichlorobenzene	5.01	146	445132	45.34 ppm	98
18) Acetophenone	5.17	105	548339	45.35 ppm	100
19) 2-Methylphenol	5.06	108	371807	53.00 ppm	98
20) 2,2'-oxybis(1-Chloropropan	5.08	121	137431	47.48 ppm	94
21) 3&4-Methylphenol	5.17	108	384858	53.82 ppm	98
22) n-Nitroso-di-n-propylamine	5.17	70	242875	45.98 ppm	99
23) Hexachloroethane	5.26	201	139318	46.52 ppm	95
26) Nitrobenzene	5.29	77	403895	45.77 ppm	98
27) Quinoline	6.06	129	917261	43.95 ppm	99
28) Isophorone	5.47	82	699598	44.98 ppm	99
29) 2-Nitrophenol	5.52	139	216155	47.27 ppm	91
30) 2,4-Dimethylphenol	5.55	107	383769	49.95 ppm	98
31) Benzoic acid	5.63	105	320206	59.25 ppm	98
32) bis(2-Chloroethoxy)methane	5.62	93	447488	47.23 ppm	99
33) 2,4-Dichlorophenol	5.70	162	346028	53.57 ppm	98
34) 2,6-Dichlorophenol	5.86	162	330868	46.32 ppm	98
35) 1,3,5-Trichlorobenzene	5.54	180	350962	42.30 ppm	99
36) 1,2,4-Trichlorobenzene	5.76	180	345315	44.34 ppm	99
37) 1,2,3-Trichlorobenzene	5.92	180	340515	43.47 ppm	98
38) Naphthalene	5.82	128	1280953	43.55 ppm	96
39) 4-Chloroaniline	5.85	127	502954	46.70 ppm	98
40) 2,3-Dichloroaniline	6.56	161	412245	42.06 ppm	98
41) Caprolactam	6.11	55	176265	40.13 ppm	99
42) Hexachlorobutadiene	5.91	225	175094	45.87 ppm	97
43) 4-Chloro-3-methylphenol	6.20	107	373290	44.63 ppm	98
44) 2-Methylnaphthalene	6.33	141	685404	41.82 ppm	99
45) 1-Methylnaphthalene	6.41	141	725081	42.70 ppm	98
46) Dimethylnaphthalene	6.85	156	746718	42.32 ppm	99
48) Hexachlorocyclopentadiene	6.46	237	390631	97.16 ppm	98
49) 2,4,6-Trichlorophenol	6.56	196	211717	43.63 ppm	97
50) 2,4,5-Trichlorophenol	6.59	196	238562	41.03 ppm	99
52) 2-Chloronaphthalene	6.74	162	770660	43.20 ppm	99
53) Biphenyl	6.72	154	1028164	43.11 ppm	99
54) 2-Nitroaniline	6.82	65	200530	45.71 ppm	96
55) Dimethylphthalate	6.98	163	868959	43.49 ppm	100
56) Acenaphthylene	7.13	152	1262383	43.17 ppm	100
57) 2,6-Dinitrotoluene	7.04	165	190392	50.92 ppm	96
58) 3-Nitroaniline	7.21	138	223738	49.85 ppm	97
59) Acenaphthene	7.30	153	786191	42.34 ppm	99
60) 2,4-Dinitrophenol	7.32	184	167886	124.03 ppm	94
61) 4-Nitrophenol	7.38	109	108741	40.47 ppm	98
62) Dibenzofuran	7.49	168	1076525	42.17 ppm	99
63) 2,4-Dinitrotoluene	7.46	165	269635	51.20 ppm	95
64) 2,3,4,6-Tetrachlorophenol	7.62	232	180562	42.88 ppm	99
65) Diethylphthalate	7.74	149	873612	43.50 ppm	99
66) Fluorene	7.89	166	859833	41.29 ppm	97
67) 4-Chlorophenyl-phenylether	7.88	204	367680	42.56 ppm	98
68) 4-Nitroaniline	7.91	138	229375	45.74 ppm	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154202.D Vial: 7
Acq On : 30 Jan 2016 11:08 am Operator: kristis
Sample : icc6483-50 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:30:55 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:04:50 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

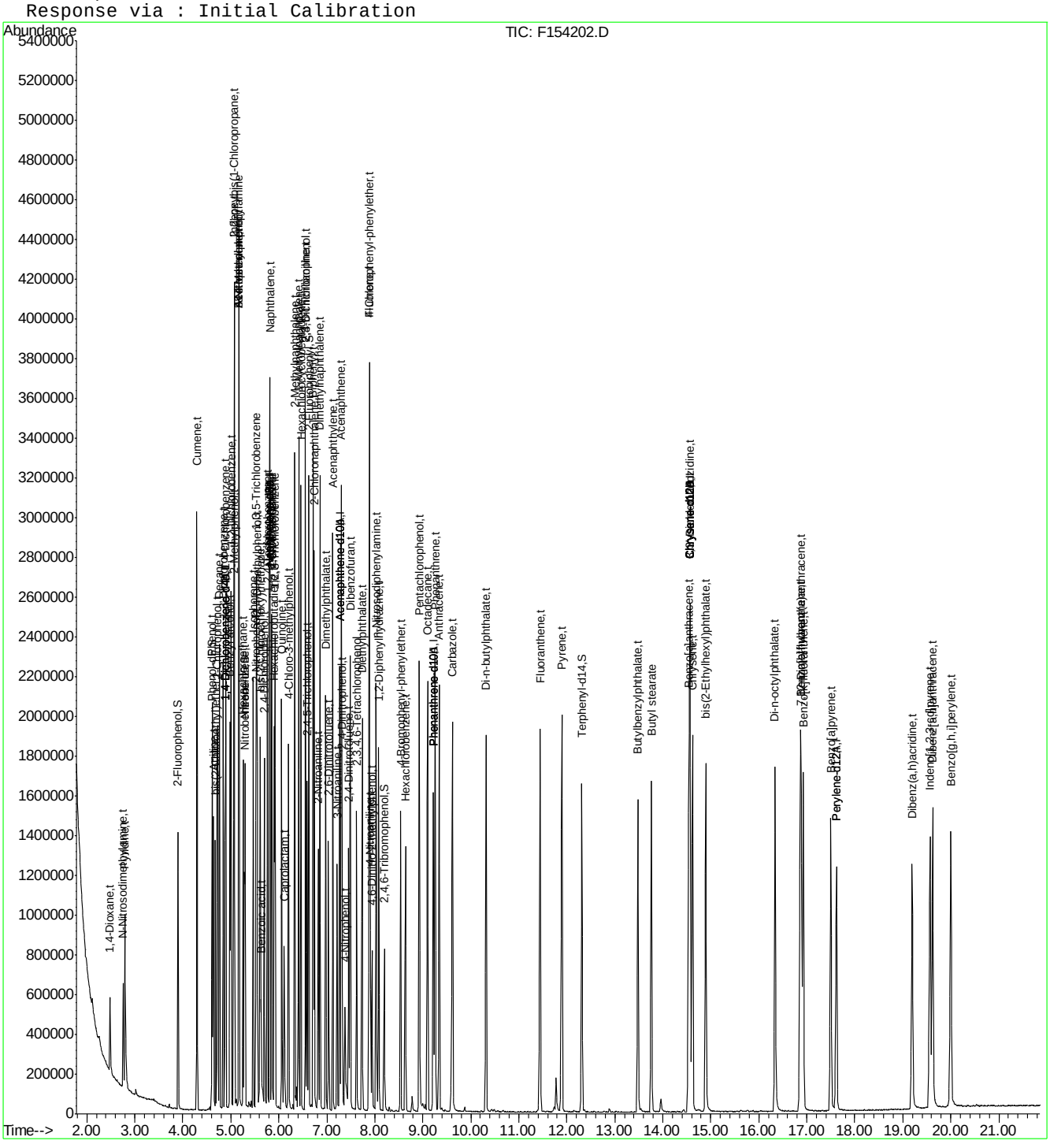
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.94	198	128450	63.41 ppm	98
71)	n-Nitrosodiphenylamine	8.03	169	652105	43.52 ppm	98
72)	1,2-Diphenylhydrazine	8.08	77	801300	43.29 ppm	99
74)	4-Bromophenyl-phenylether	8.54	248	196856	42.90 ppm	99
75)	Hexachlorobenzene	8.64	284	203503	41.51 ppm	96
76)	Pentachlorophenol	8.93	266	283364	90.37 ppm	98
77)	Phenanthrene	9.26	178	1170749	41.96 ppm	98
78)	Anthracene	9.34	178	1167111	41.91 ppm	98
79)	Carbazole	9.62	167	1203342	42.04 ppm	99
80)	Di-n-butylphthalate	10.32	149	1483939	44.51 ppm	100
81)	Fluoranthene	11.44	202	1237525	43.62 ppm	99
82)	Octadecane	9.10	57	519272	42.57 ppm	99
84)	Pyrene	11.90	202	1300674	43.72 ppm	99
86)	Butylbenzylphthalate	13.48	149	649095	47.21 ppm	97
87)	Butyl stearate	13.76	56	375016	47.71 ppm	99
88)	Benzo[a]anthracene	14.54	228	1079918	42.98 ppm	99
89)	3,3'-Dichlorobenzidine	14.57	252	368555	48.67 ppm	99
90)	Chrysene	14.62	228	1078565	43.65 ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.89	149	900667	46.94 ppm	100
93)	Di-n-octylphthalate	16.34	149	1560101	49.58 ppm	99
94)	Benzo[b]fluoranthene	16.87	252	1069689	45.81 ppm	97
95)	Benzo[k]fluoranthene	16.93	252	1022763	44.08 ppm	99
96)	Benzo[a]pyrene	17.50	252	938172	45.16 ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.57	276	878460	45.41 ppm	99
98)	Dibenz(a,h)acridine	19.20	279	852362	47.03 ppm	100
99)	Dibenz[a,h]anthracene	19.62	278	960783	47.77 ppm	98
100)	7,12-Dimethylbenz(a)anthra	16.89	256	474148	52.16 ppm	99
101)	Benzo[g,h,i]perylene	20.00	276	960940	44.96 ppm	99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154202.D Vial: 7
Acq On : 30 Jan 2016 11:08 am Operator: kristis
Sample : icc6483-50 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:33 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154203.D Vial: 8
Acq On : 30 Jan 2016 11:37 am Operator: kristis
Sample : ic6483-10 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:59:32 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:37:05 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	232727	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	875414	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	529494	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	822083	40.00	ppm	0.00
83) Chrysene-d12	14.56	240	760334	40.00	ppm	0.00
92) Perylene-d12	17.61	264	692563	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	232727	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	875414	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	529494	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	822083	40.00	ppm	0.00
147) Chrysene-d12A	14.56	240	760334	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	692563	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	232727	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	875414	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	529494	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	822083	40.00	ppm	0.00
167) Chrysene-d12b	14.56	240	760334	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	232727	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	875414	40.00	ppm	0.00
176) Chrysene-d12c	14.56	240	760334	40.00	ppm	0.00
178) Naphthalene-d8a	5.80	136	875414	40.00	ppm	0.08
180) Chrysene-d12B	14.56	240	760334	40.00	ppm	0.15

System Monitoring Compounds						
5) 2-Fluorophenol	3.90	112	83390	9.32	ppm	0.00
Spiked Amount 50.000			Recovery = 18.64%			
8) Phenol-d5	4.61	99	94203	9.34	ppm	0.00
Spiked Amount 50.000			Recovery = 18.68%			
25) Nitrobenzene-d5	5.28	82	78843	9.18	ppm	0.00
Spiked Amount 50.000			Recovery = 18.36%			
51) 2-Fluorobiphenyl	6.62	172	190376	9.69	ppm	0.00
Spiked Amount 50.000			Recovery = 19.38%			
73) 2,4,6-Tribromophenol	8.19	330	19296	9.44	ppm	0.00
Spiked Amount 50.000			Recovery = 18.88%			
85) Terphenyl-d14	12.31	244	160106	9.43	ppm	0.00
Spiked Amount 50.000			Recovery = 18.86%			

Target Compounds						Qvalue
2) 1,4-Dioxane	2.49	88	40420	8.68	ppm	97
3) Pyridine	2.80	79	88267	9.34	ppm	98
4) N-Nitrosodimethylamine	2.76	42	33793	9.28	ppm	94
6) Indene	5.07	116	168014	9.70	ppm	98
7) Cumene	4.30	105	214975	9.54	ppm	99
9) Phenol	4.61	94	107467	9.75	ppm	98
10) Aniline	4.64	93	124400	9.89	ppm	94
11) bis(2-Chloroethyl)ether	4.68	93	77972	9.46	ppm	96
12) 2-Chlorophenol	4.73	128	91814	9.70	ppm	97
13) Decane	4.76	43	77121	9.29	ppm	97
14) 1,3-Dichlorobenzene	4.84	146	100868	9.60	ppm	98
15) 1,4-Dichlorobenzene	4.89	146	100844	9.52	ppm	99

(#) = qualifier out of range (m) = manual integration
F154203.D MF6483.M Sat Jan 30 16:33:13 2016 RT1

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154203.D Vial: 8
Acq On : 30 Jan 2016 11:37 am Operator: kristis
Sample : ic6483-10 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:59:32 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:37:05 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.97	108	54247	9.44	ppm		98
17)	1,2-Dichlorobenzene	5.01	146	95907	9.56	ppm		99
18)	Acetophenone	5.17	105	122126	9.88	ppm		96
19)	2-Methylphenol	5.05	108	72433	9.85	ppm		99
20)	2,2'-oxybis(1-Chloropropan	5.07	121	31031	10.44	ppm		95
21)	3&4-Methylphenol	5.16	108	75180	10.00	ppm		100
22)	n-Nitroso-di-n-propylamine	5.17	70	53803	9.95	ppm		99
23)	Hexachloroethane	5.26	201	29380	9.56	ppm		99
26)	Nitrobenzene	5.30	77	81829	9.52	ppm		97
27)	Quinoline	6.05	129	191683	9.48	ppm		98
28)	Isophorone	5.46	82	147252	9.74	ppm		98
29)	2-Nitrophenol	5.52	139	42904	9.58	ppm		93
30)	2,4-Dimethylphenol	5.55	107	68410	9.01	ppm		96
31)	Benzoic acid	5.60	105	45855	8.33	ppm		88
32)	bis(2-Chloroethoxy)methane	5.61	93	90865	9.79	ppm		99
33)	2,4-Dichlorophenol	5.70	162	61883	9.58	ppm		98
34)	2,6-Dichlorophenol	5.86	162	64854	9.30	ppm		99
35)	1,3,5-Trichlorobenzene	5.54	180	77498	9.70	ppm		98
36)	1,2,4-Trichlorobenzene	5.76	180	73925	9.79	ppm		100
37)	1,2,3-Trichlorobenzene	5.92	180	73385	9.69	ppm		97
38)	Naphthalene	5.82	128	274488	9.65	ppm		98
39)	4-Chloroaniline	5.85	127	105404	10.01	ppm		96
40)	2,3-Dichloroaniline	6.56	161	92694	9.83	ppm		97
41)	Caprolactam	6.09	55	34812	8.94	ppm		95
42)	Hexachlorobutadiene	5.90	225	37674	10.12	ppm		97
43)	4-Chloro-3-methylphenol	6.20	107	76848	9.46	ppm		97
44)	2-Methylnaphthalene	6.33	141	151356	9.60	ppm		99
45)	1-Methylnaphthalene	6.41	141	155701	9.51	ppm		98
46)	Dimethylnaphthalene	6.86	156	161214	9.48	ppm		97
48)	Hexachlorocyclopentadiene	6.46	237	74550	19.01	ppm		98
49)	2,4,6-Trichlorophenol	6.56	196	44798	9.62	ppm		100
50)	2,4,5-Trichlorophenol	6.59	196	50898	9.21	ppm		95
52)	2-Chloronaphthalene	6.74	162	166308	9.73	ppm		99
53)	Biphenyl	6.71	154	224595	9.83	ppm		100
54)	2-Nitroaniline	6.82	65	37577	8.87	ppm		97
55)	Dimethylphthalate	6.97	163	183818	9.59	ppm		100
56)	Acenaphthylene	7.12	152	271262	9.69	ppm		98
57)	2,6-Dinitrotoluene	7.03	165	35768	9.73	ppm		88
58)	3-Nitroaniline	7.21	138	43376	9.87	ppm		93
59)	Acenaphthene	7.30	153	173255	9.77	ppm		97
60)	2,4-Dinitrophenol	7.31	184	21143	15.32	ppm	#	76
61)	4-Nitrophenol	7.40	109	19533	7.66	ppm		86
62)	Dibenzofuran	7.49	168	235302	9.66	ppm		100
63)	2,4-Dinitrotoluene	7.45	165	49684	9.59	ppm		98
64)	2,3,4,6-Tetrachlorophenol	7.62	232	37585	9.33	ppm		94
65)	Diethylphthalate	7.73	149	183886	9.55	ppm		100
66)	Fluorene	7.89	166	186174	9.40	ppm		98
67)	4-Chlorophenyl-phenylether	7.88	204	81187	9.83	ppm		99
68)	4-Nitroaniline	7.90	138	46298	9.56	ppm		99

(#) = qualifier out of range (m) = manual integration
F154203.D MF6483.M Sat Jan 30 16:33:13 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154203.D Vial: 8
Acq On : 30 Jan 2016 11:37 am Operator: kristis
Sample : ic6483-10 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 11:59:32 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 11:37:05 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.93	198	17442	8.50	ppm	94
71)	n-Nitrosodiphenylamine	8.02	169	138278	9.73	ppm	99
72)	1,2-Diphenylhydrazine	8.08	77	171630	9.78	ppm	98
74)	4-Bromophenyl-phenylether	8.53	248	41106	9.46	ppm	92
75)	Hexachlorobenzene	8.63	284	44440	9.62	ppm	97
76)	Pentachlorophenol	8.93	266	55049	18.40	ppm	97
77)	Phenanthrene	9.25	178	250203	9.50	ppm	98
78)	Anthracene	9.33	178	253345	9.64	ppm	98
79)	Carbazole	9.61	167	254214	9.41	ppm	99
80)	Di-n-butylphthalate	10.32	149	301763	9.51	ppm	100
81)	Fluoranthene	11.44	202	258131	9.59	ppm	100
82)	Octadecane	9.10	57	110116	9.55	ppm	97
84)	Pyrene	11.89	202	277648	9.55	ppm	100
86)	Butylbenzylphthalate	13.48	149	124715	9.17	ppm	98
87)	Butyl stearate	13.76	56	69320	8.90	ppm	98
88)	Benzo[a]anthracene	14.53	228	223755	9.13	ppm	98
89)	3,3'-Dichlorobenzidine	14.56	252	69730	9.27	ppm	95
90)	Chrysene	14.61	228	225282	9.33	ppm	98
91)	bis(2-Ethylhexyl)phthalate	14.89	149	170121	8.97	ppm	97
93)	Di-n-octylphthalate	16.33	149	279257	9.02	ppm	98
94)	Benzo[b]fluoranthene	16.85	252	221931	9.79	ppm	95
95)	Benzo[k]fluoranthene	16.91	252	218333	9.74	ppm	100
96)	Benzo[a]pyrene	17.49	252	192496	9.56	ppm	100
97)	Indeno[1,2,3-cd]pyrene	19.55	276	171846	9.16	ppm	98
98)	Dibenz(a,h)acridine	19.18	279	171677	9.71	ppm	97
99)	Dibenz[a,h]anthracene	19.61	278	189756	9.65	ppm	98
100)	7,12-Dimethylbenz(a)anthra	16.87	256	86850	9.63	ppm	98
101)	Benzo[g,h,i]perylene	19.98	276	195208	9.43	ppm	98

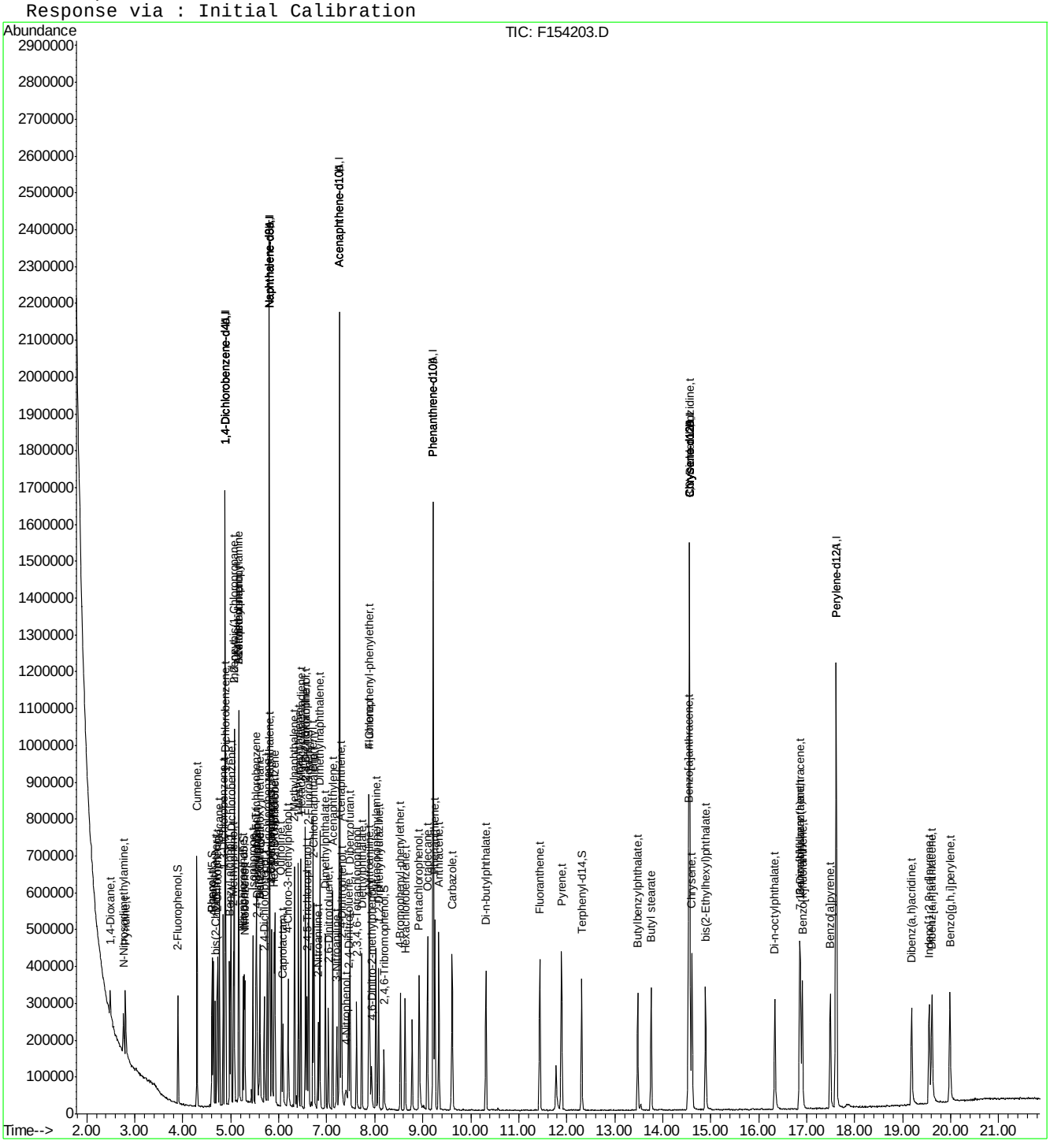
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154203.D Vial: 8
Acq On : 30 Jan 2016 11:37 am Operator: kristis
Sample : ic6483-10 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 12:02 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154204.D Vial: 9
Acq On : 30 Jan 2016 12:06 pm Operator: kristis
Sample : ic6483-25 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 12:28:24 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 12:02:49 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	235515	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	896548	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	531066	40.00 ppm	0.00
69) Phenanthrene-d10	9.22	188	828199	40.00 ppm	0.00
83) Chrysene-d12	14.56	240	760804	40.00 ppm	0.00
92) Perylene-d12	17.62	264	693085	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	235515	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	896548	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	531066	40.00 ppm	0.00
132) Phenanthrene-d10A	9.22	188	828199	40.00 ppm	0.00
147) Chrysene-d12A	14.56	240	760804	40.00 ppm	0.00
155) Perylene-d12A	17.62	264	693085	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	235515	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	896548	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	531066	40.00 ppm	0.00
165) Phenanthrene-d10b	9.22	188	828199	40.00 ppm	0.00
167) Chrysene-d12b	14.56	240	760804	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	235515	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	896548	40.00 ppm	0.00
176) Chrysene-d12c	14.56	240	760804	40.00 ppm	0.00
178) Naphthalene-d8a	5.80	136	896548	40.00 ppm	0.08
180) Chrysene-d12B	14.56	240	760804	40.00 ppm	0.15

System Monitoring Compounds					
5) 2-Fluorophenol	3.90	112	205862	22.95 ppm	0.00
Spiked Amount 50.000			Recovery = 45.90%		
8) Phenol-d5	4.61	99	238799	23.62 ppm	0.00
Spiked Amount 50.000			Recovery = 47.24%		
25) Nitrobenzene-d5	5.28	82	200026	23.02 ppm	0.00
Spiked Amount 50.000			Recovery = 46.04%		
51) 2-Fluorobiphenyl	6.63	172	458451	23.38 ppm	0.00
Spiked Amount 50.000			Recovery = 46.76%		
73) 2,4,6-Tribromophenol	8.20	330	48159	23.58 ppm	0.00
Spiked Amount 50.000			Recovery = 47.16%		
85) Terphenyl-d14	12.31	244	374314	22.22 ppm	0.00
Spiked Amount 50.000			Recovery = 44.44%		

Target Compounds					Qvalue
2) 1,4-Dioxane	2.48	88	91312	19.74 ppm	99
3) Pyridine	2.79	79	217135	22.92 ppm	97
4) N-Nitrosodimethylamine	2.76	42	81113	22.25 ppm	97
6) Indene	5.07	116	396091	22.69 ppm	99
7) Cumene	4.30	105	520787	22.99 ppm	100
9) Phenol	4.62	94	271031	24.38 ppm	97
10) Aniline	4.64	93	255626	20.11 ppm	99
11) bis(2-Chloroethyl)ether	4.68	93	192070	23.21 ppm	97
12) 2-Chlorophenol	4.73	128	222912	23.37 ppm	98
13) Decane	4.76	43	186494	22.42 ppm	96
14) 1,3-Dichlorobenzene	4.84	146	246172	23.29 ppm	97
15) 1,4-Dichlorobenzene	4.89	146	248277	23.31 ppm	99

(#) = qualifier out of range (m) = manual integration
F154204.D MF6483.M Sat Jan 30 16:33:17 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154204.D Vial: 9
Acq On : 30 Jan 2016 12:06 pm Operator: kristis
Sample : ic6483-25 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 12:28:24 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 12:02:49 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16) Benzyl alcohol	4.97	108	135662	23.51 ppm		95
17) 1,2-Dichlorobenzene	5.01	146	230525	22.85 ppm		98
18) Acetophenone	5.17	105	287365	23.02 ppm		97
19) 2-Methylphenol	5.05	108	189997	25.59 ppm		100
20) 2,2'-oxybis(1-Chloropropan	5.08	121	72065	23.78 ppm		97
21) 3&4-Methylphenol	5.16	108	193159	25.40 ppm		99
22) n-Nitroso-di-n-propylamine	5.17	70	129604	23.70 ppm		97
23) Hexachloroethane	5.26	201	72412	23.44 ppm		97
26) Nitrobenzene	5.29	77	206141	23.57 ppm		95
27) Quinoline	6.06	129	462044	22.48 ppm		99
28) Isophorone	5.46	82	359388	23.30 ppm		98
29) 2-Nitrophenol	5.52	139	107446	23.56 ppm		97
30) 2,4-Dimethylphenol	5.55	107	180892	23.59 ppm		98
31) Benzoic acid	5.60	105	144582	26.26 ppm		96
32) bis(2-Chloroethoxy)methane	5.61	93	224397	23.68 ppm		99
33) 2,4-Dichlorophenol	5.70	162	163246	24.82 ppm		97
34) 2,6-Dichlorophenol	5.86	162	170024	24.04 ppm		96
35) 1,3,5-Trichlorobenzene	5.54	180	185310	22.74 ppm		99
36) 1,2,4-Trichlorobenzene	5.76	180	179866	23.32 ppm		99
37) 1,2,3-Trichlorobenzene	5.92	180	178152	23.07 ppm		97
38) Naphthalene	5.82	128	665124	22.94 ppm		98
39) 4-Chloroaniline	5.85	127	248696	23.06 ppm		98
40) 2,3-Dichloroaniline	6.56	161	215560	22.37 ppm		99
41) Caprolactam	6.10	55	86980	22.15 ppm		98
42) Hexachlorobutadiene	5.90	225	88413	23.16 ppm		96
43) 4-Chloro-3-methylphenol	6.20	107	186022	22.54 ppm	#	59
44) 2-Methylnaphthalene	6.33	141	349703	21.79 ppm		99
45) 1-Methylnaphthalene	6.41	141	375760	22.56 ppm		99
46) Dimethylnaphthalene	6.85	156	383109	22.17 ppm		99
48) Hexachlorocyclopentadiene	6.46	237	190907	48.88 ppm		99
49) 2,4,6-Trichlorophenol	6.56	196	105224	22.66 ppm		97
50) 2,4,5-Trichlorophenol	6.59	196	122192	22.29 ppm		98
52) 2-Chloronaphthalene	6.74	162	398526	23.34 ppm		96
53) Biphenyl	6.71	154	524334	22.94 ppm		100
54) 2-Nitroaniline	6.82	65	97044	23.21 ppm		92
55) Dimethylphthalate	6.98	163	438016	22.93 ppm		100
56) Acenaphthylene	7.13	152	648357	23.19 ppm		99
57) 2,6-Dinitrotoluene	7.04	165	90844	24.74 ppm		91
58) 3-Nitroaniline	7.21	138	111625	25.36 ppm		97
59) Acenaphthene	7.30	153	405492	22.87 ppm		98
60) 2,4-Dinitrophenol	7.31	184	63102	47.18 ppm	#	48
61) 4-Nitrophenol	7.38	109	53615	21.69 ppm	#	53
62) Dibenzofuran	7.49	168	553021	22.74 ppm		98
63) 2,4-Dinitrotoluene	7.45	165	133556	25.85 ppm		100
64) 2,3,4,6-Tetrachlorophenol	7.62	232	90966	22.73 ppm		97
65) Diethylphthalate	7.73	149	448133	23.35 ppm		100
66) Fluorene	7.89	166	441385	22.40 ppm		100
67) 4-Chlorophenyl-phenylether	7.88	204	189992	23.00 ppm		99
68) 4-Nitroaniline	7.90	138	112034	23.20 ppm		98

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154204.D Vial: 9
Acq On : 30 Jan 2016 12:06 pm Operator: kristis
Sample : ic6483-25 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 12:28:24 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 12:02:49 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.94	198	52996	26.20	ppm	98
71)	n-Nitrosodiphenylamine	8.02	169	324966	22.78	ppm	99
72)	1,2-Diphenylhydrazine	8.08	77	399564	22.68	ppm	96
74)	4-Bromophenyl-phenylether	8.54	248	98879	22.77	ppm	98
75)	Hexachlorobenzene	8.63	284	106050	22.91	ppm	96
76)	Pentachlorophenol	8.93	266	140386	47.13	ppm	98
77)	Phenanthrene	9.25	178	596627	22.66	ppm	99
78)	Anthracene	9.34	178	601624	22.85	ppm	99
79)	Carbazole	9.61	167	615083	22.79	ppm	99
80)	Di-n-butylphthalate	10.32	149	751731	23.68	ppm	99
81)	Fluoranthene	11.44	202	623798	23.14	ppm	98
82)	Octadecane	9.10	57	262835	22.77	ppm	99
84)	Pyrene	11.89	202	650018	22.49	ppm	99
86)	Butylbenzylphthalate	13.48	149	317558	23.62	ppm	98
87)	Butyl stearate	13.76	56	185325	24.16	ppm	98
88)	Benzo[a]anthracene	14.54	228	542033	22.39	ppm	98
89)	3,3'-Dichlorobenzidine	14.56	252	178602	23.97	ppm	99
90)	Chrysene	14.62	228	542304	22.66	ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.89	149	447522	23.94	ppm	98
93)	Di-n-octylphthalate	16.34	149	745511	24.41	ppm	99
94)	Benzo[b]fluoranthene	16.86	252	532889	23.55	ppm	98
95)	Benzo[k]fluoranthene	16.91	252	520350	23.29	ppm	100
96)	Benzo[a]pyrene	17.50	252	470224	23.48	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.56	276	440071	23.72	ppm	98
98)	Dibenz(a,h)acridine	19.19	279	421760	23.94	ppm	98
99)	Dibenz[a,h]anthracene	19.62	278	465263	23.76	ppm	99
100)	7,12-Dimethylbenz(a)anthra	16.88	256	235357	26.22	ppm	99
101)	Benzo[g,h,i]perylene	19.99	276	479441	23.34	ppm	99

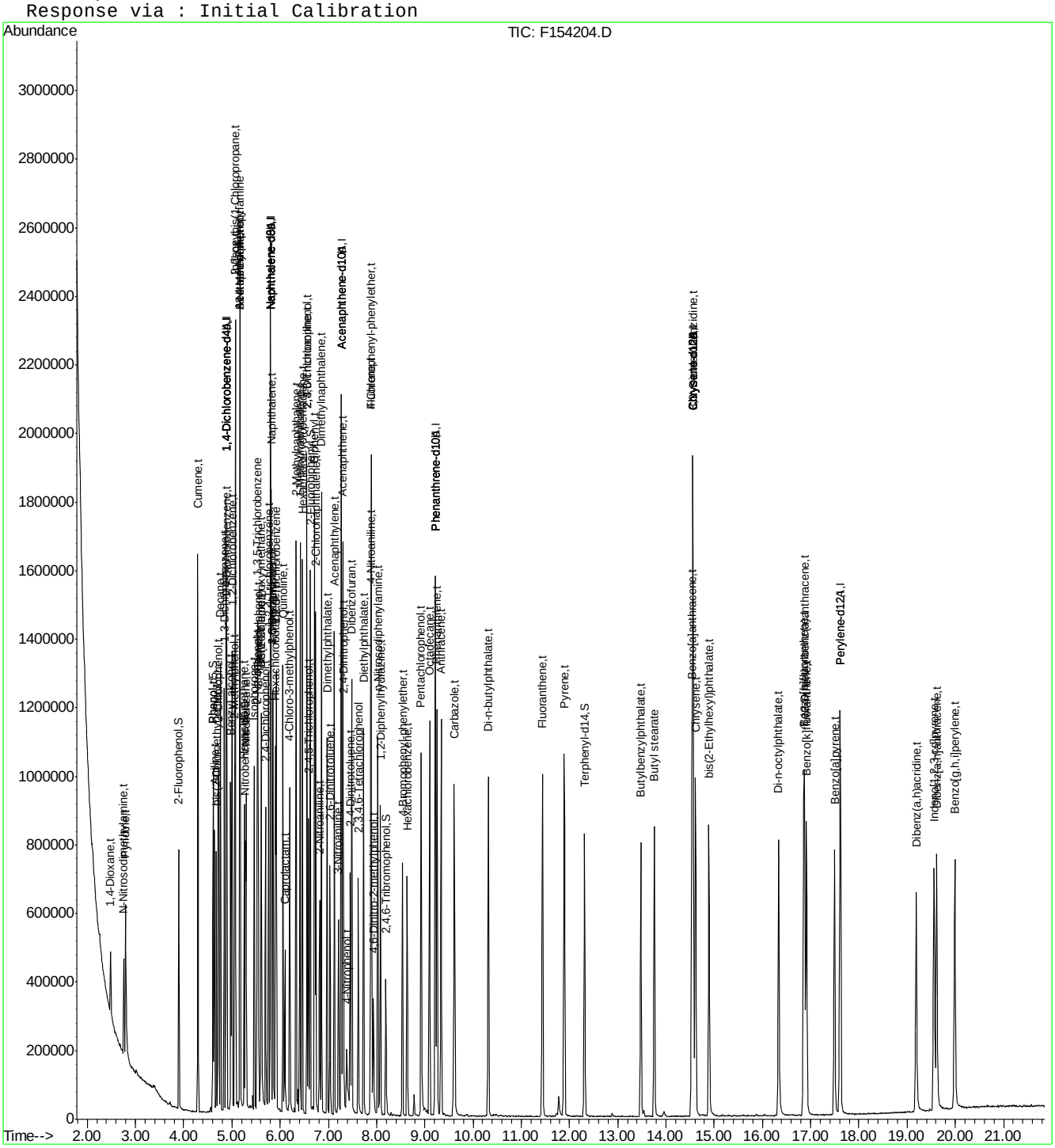
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154204.D Vial: 9
Acq On : 30 Jan 2016 12:06 pm Operator: kristis
Sample : ic6483-25 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 12:31 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154205.D Vial: 10
Acq On : 30 Jan 2016 12:42 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 14:33:57 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 14:19:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	224346	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	919889	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	496317	40.00 ppm	0.00
69) Phenanthrene-d10	9.22	188	727872	40.00 ppm	0.00
83) Chrysene-d12	14.56	240	618675	40.00 ppm	0.00
92) Perylene-d12	17.62	264	520917	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	224346	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	919889	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	496317	40.00 ppm	0.00
132) Phenanthrene-d10A	9.22	188	727872	40.00 ppm	0.00
147) Chrysene-d12A	14.56	240	618675	40.00 ppm	0.00
155) Perylene-d12A	17.62	264	520917	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	224346	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	919889	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	496317	40.00 ppm	0.00
165) Phenanthrene-d10b	9.22	188	727872	40.00 ppm	0.00
167) Chrysene-d12b	14.56	240	618675	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	224346	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	919889	40.00 ppm	0.00
176) Chrysene-d12c	14.56	240	618675	40.00 ppm	0.00
178) Naphthalene-d8a	5.80	136	919889	40.00 ppm	0.08
180) Chrysene-d12B	14.56	240	618675	40.00 ppm	0.15

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

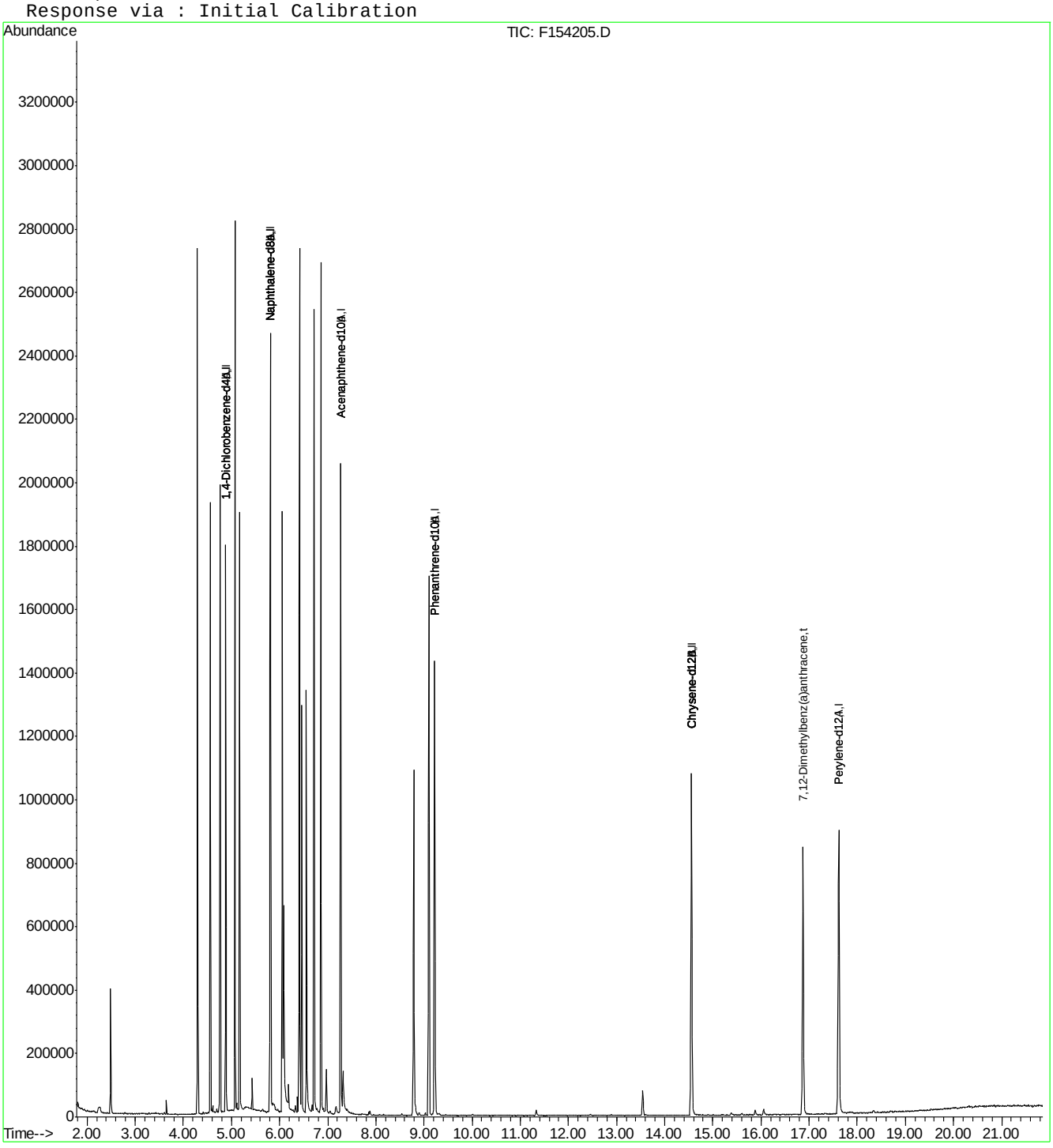
Target Compounds					Qvalue
100) 7,12-Dimethylbenz(a)anthra	16.88	256	269254	39.66 ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154205.D MF6483.M Sat Jan 30 16:33:22 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6483\F154205.D Vial: 10
Acq On : 30 Jan 2016 12:42 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6483,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:00 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



F154205.D MF6483.M Sat Jan 30 16:33:22 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154208.D Vial: 2
Acq On : 30 Jan 2016 2:06 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 14:29:39 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 14:19:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	236303	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	1005254	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	504463	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	734818	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	612112	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	493918	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	236303	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	1005254	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	504463	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	734818	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	612112	40.00	ppm	-0.01
155) Perylene-d12A	17.61	264	493918	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	236303	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	1005254	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	504463	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	734818	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	612112	40.00	ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	236303	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	1005254	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	612112	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	1005254	40.00	ppm	0.08
180) Chrysene-d12B	14.55	240	612112	40.00	ppm	0.14

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds

						Qvalue
2) 1,4-Dioxane	2.50	88	160139	44.25	ppm	99
6) Indene	5.07	116	731235	42.23	ppm	100
7) Cumene	4.30	105	944209	41.96	ppm	99
13) Decane	4.76	43	343182	41.66	ppm	99
18) Acetophenone	5.17	105	532287	42.93	ppm	96
27) Quinoline	6.05	129	794819	34.93	ppm	99
40) 2,3-Dichloroaniline	6.56	161	339568	31.85	ppm	98
41) Caprolactam	6.09	55	150081	36.55	ppm	99
45) 1-Methylnaphthalene	6.41	141	622713	33.76	ppm	99
46) Dimethylnaphthalene	6.85	156	650500	35.85	ppm	98
48) Hexachlorocyclopentadiene	6.46	237	178753	48.32	ppm	98
53) Biphenyl	6.71	154	876569	40.80	ppm	99

(#) = qualifier out of range (m) = manual integration
F154208.D MF6483.M Sat Jan 30 16:35:28 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154208.D Vial: 2
Acq On : 30 Jan 2016 2:06 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 14:29:39 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 14:19:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue

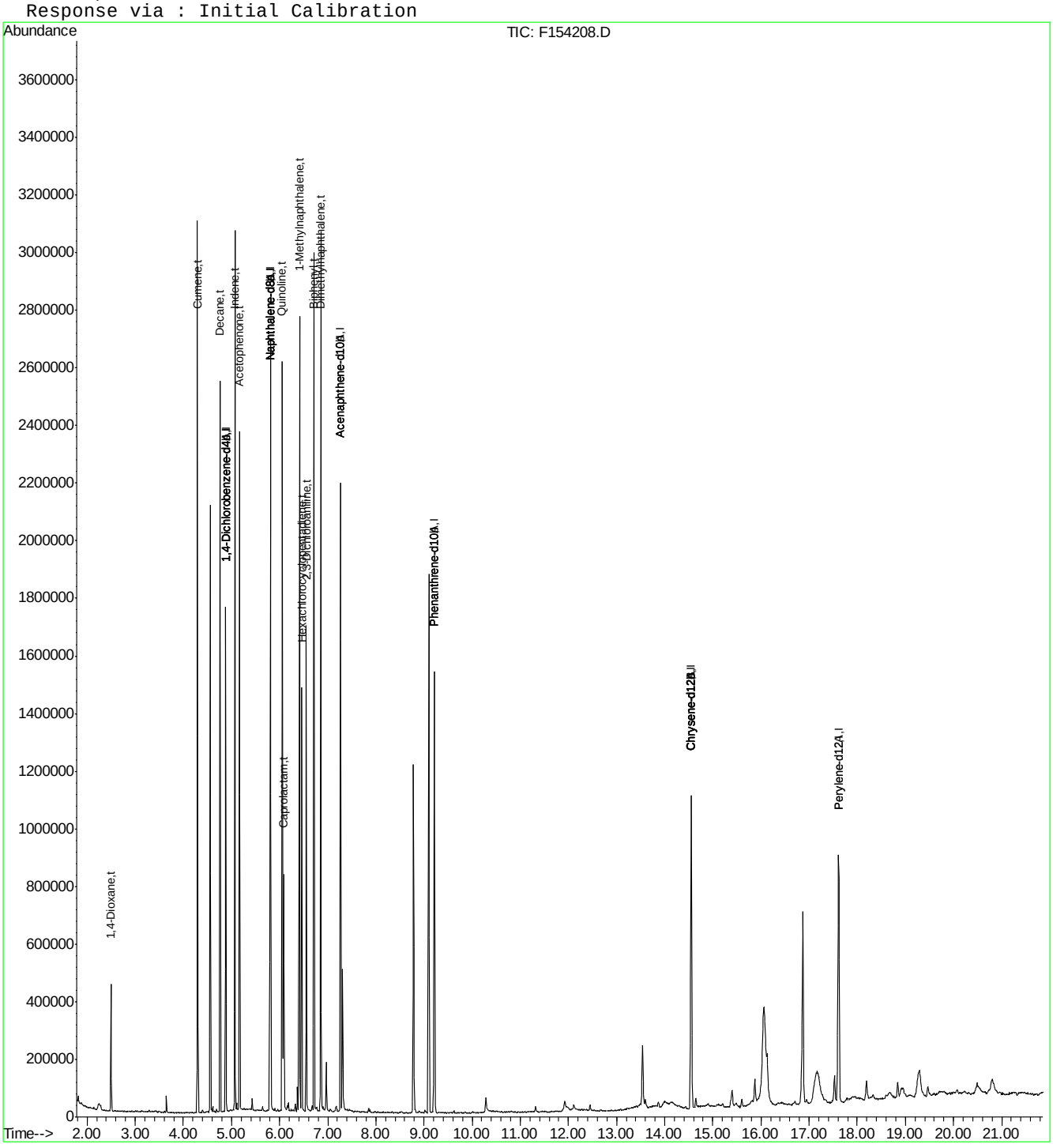
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154208.D Vial: 2
Acq On : 30 Jan 2016 2:06 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:00 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154209.D Vial: 3
Acq On : 30 Jan 2016 2:36 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 14:58:15 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 14:19:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	239575	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	901751	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	509818	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	746203	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	625186	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	532263	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	239575	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	901751	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	509818	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	746203	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	625186	40.00	ppm	-0.01
155) Perylene-d12A	17.61	264	532263	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	239575	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	901751	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	509818	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	746203	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	625186	40.00	ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	239575	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	901751	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	625186	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	901751	40.00	ppm	0.08
180) Chrysene-d12B	14.55	240	625186	40.00	ppm	0.15

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
9) Phenol	4.61	94	458300	40.66	ppm	99
12) 2-Chlorophenol	4.73	128	409293	42.53	ppm	97
19) 2-Methylphenol	5.05	108	355777	46.96	ppm	100
21) 3&4-Methylphenol	5.16	108	372899	48.10	ppm	98
29) 2-Nitrophenol	5.52	139	208572	45.81	ppm	93
30) 2,4-Dimethylphenol	5.55	107	383591	50.09	ppm	98
31) Benzoic acid	5.62	105	277232	49.76	ppm	94
33) 2,4-Dichlorophenol	5.70	162	314499	47.58	ppm	99
34) 2,6-Dichlorophenol	5.86	162	308456	43.58	ppm	99
43) 4-Chloro-3-methylphenol	6.19	107	317453	38.72	ppm	99
49) 2,4,6-Trichlorophenol	6.55	196	199639	45.31	ppm	99
50) 2,4,5-Trichlorophenol	6.58	196	201683	41.70	ppm	96

(#) = qualifier out of range (m) = manual integration
F154209.D MF6483.M Sat Jan 30 16:36:31 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154209.D Vial: 3
Acq On : 30 Jan 2016 2:36 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 14:58:15 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 14:19:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
60)	2,4-Dinitrophenol	7.31	184	63851	50.61 ppm	93
61)	4-Nitrophenol	7.37	109	99104	42.46 ppm	97
64)	2,3,4,6-Tetrachlorophenol	7.62	232	154684	40.72 ppm	95
70)	4,6-Dinitro-2-methylphenol	7.93	198	105253	47.61 ppm	98
76)	Pentachlorophenol	8.92	266	120858	45.35 ppm	99

9.6.24

9

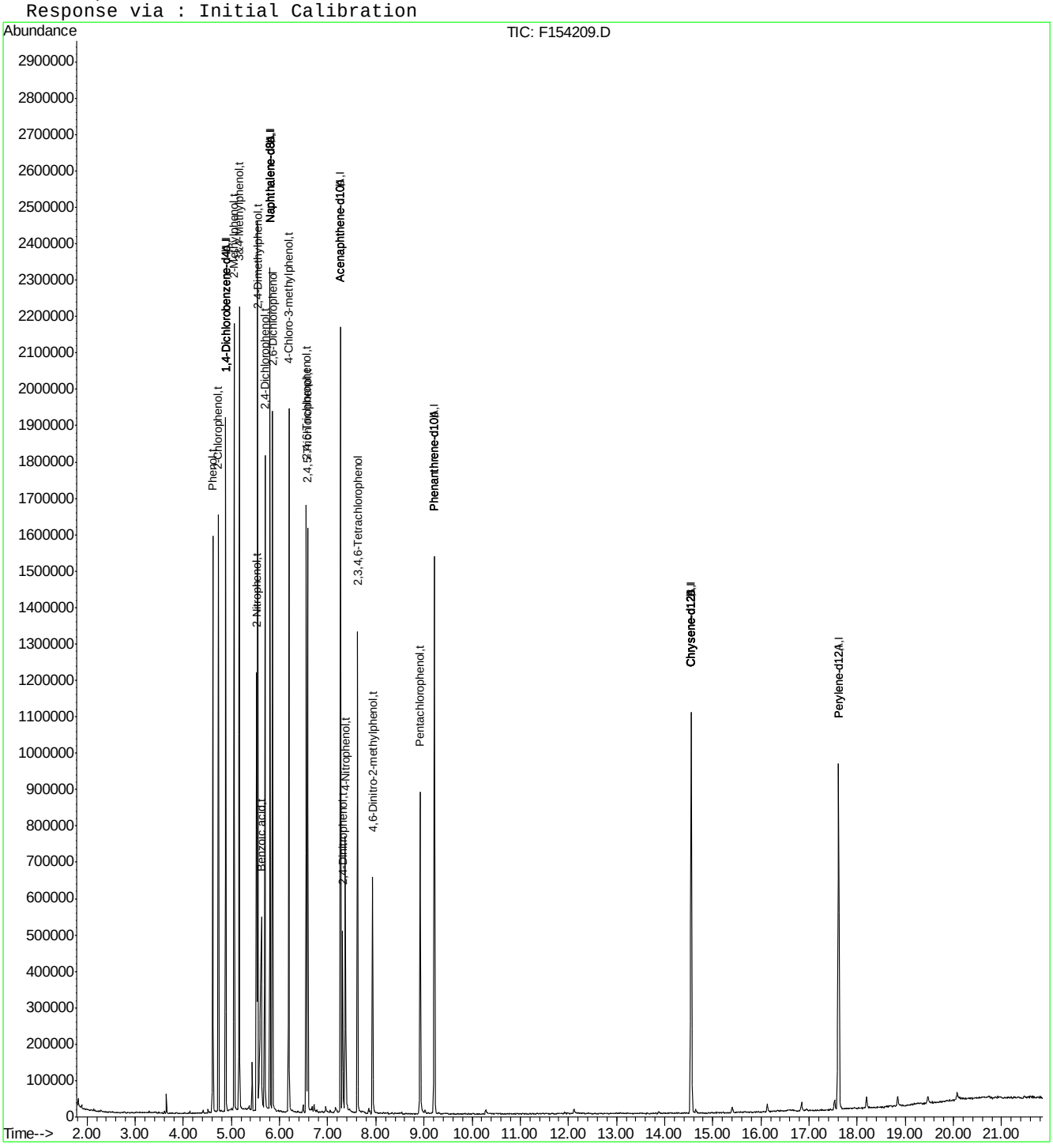
(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154209.D MF6483.M Sat Jan 30 16:36:31 2016 RT1

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154209.D Vial: 3
Acq On : 30 Jan 2016 2:36 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:03 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154210.D Vial: 4
Acq On : 30 Jan 2016 3:05 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:30:07 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	243779	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	912389	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	457679	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	724917	40.00	ppm	0.00
83) Chrysene-d12	14.56	240	604010	40.00	ppm	0.00
92) Perylene-d12	17.61	264	561016	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	243779	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	912389	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	457679	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	724917	40.00	ppm	0.00
147) Chrysene-d12A	14.56	240	604010	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	561016	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	243779	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	912389	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	457679	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	724917	40.00	ppm	0.00
167) Chrysene-d12b	14.56	240	604010	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	243779	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	912389	40.00	ppm	0.00
176) Chrysene-d12c	14.56	240	604010	40.00	ppm	0.00
178) Naphthalene-d8a	5.80	136	912389	40.00	ppm	0.08
180) Chrysene-d12B	14.56	240	604010	40.00	ppm	0.15

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.77	42	152492	40.97	ppm	96
11) bis(2-Chloroethyl)ether	4.68	93	368069	43.36	ppm	94
14) 1,3-Dichlorobenzene	4.84	146	458638	42.28	ppm	98
15) 1,4-Dichlorobenzene	4.89	146	469387	42.94	ppm	99
17) 1,2-Dichlorobenzene	5.01	146	439082	42.51	ppm	98
20) 2,2'-oxybis(1-Chloropropan	5.07	121	127874	39.06	ppm	93
22) n-Nitroso-di-n-propylamine	5.17	70	242467	43.11	ppm	99
23) Hexachloroethane	5.25	201	140613	44.31	ppm	89
26) Nitrobenzene	5.30	77	364467	41.24	ppm	93
28) Isophorone	5.46	82	693766	44.57	ppm	100
32) bis(2-Chloroethoxy)methane	5.61	93	401986	41.97	ppm	98
36) 1,2,4-Trichlorobenzene	5.76	180	329409	42.32	ppm	100

(#) = qualifier out of range (m) = manual integration
F154210.D MF6483.M Sat Jan 30 16:36:37 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154210.D Vial: 4
Acq On : 30 Jan 2016 3:05 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:30:07 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

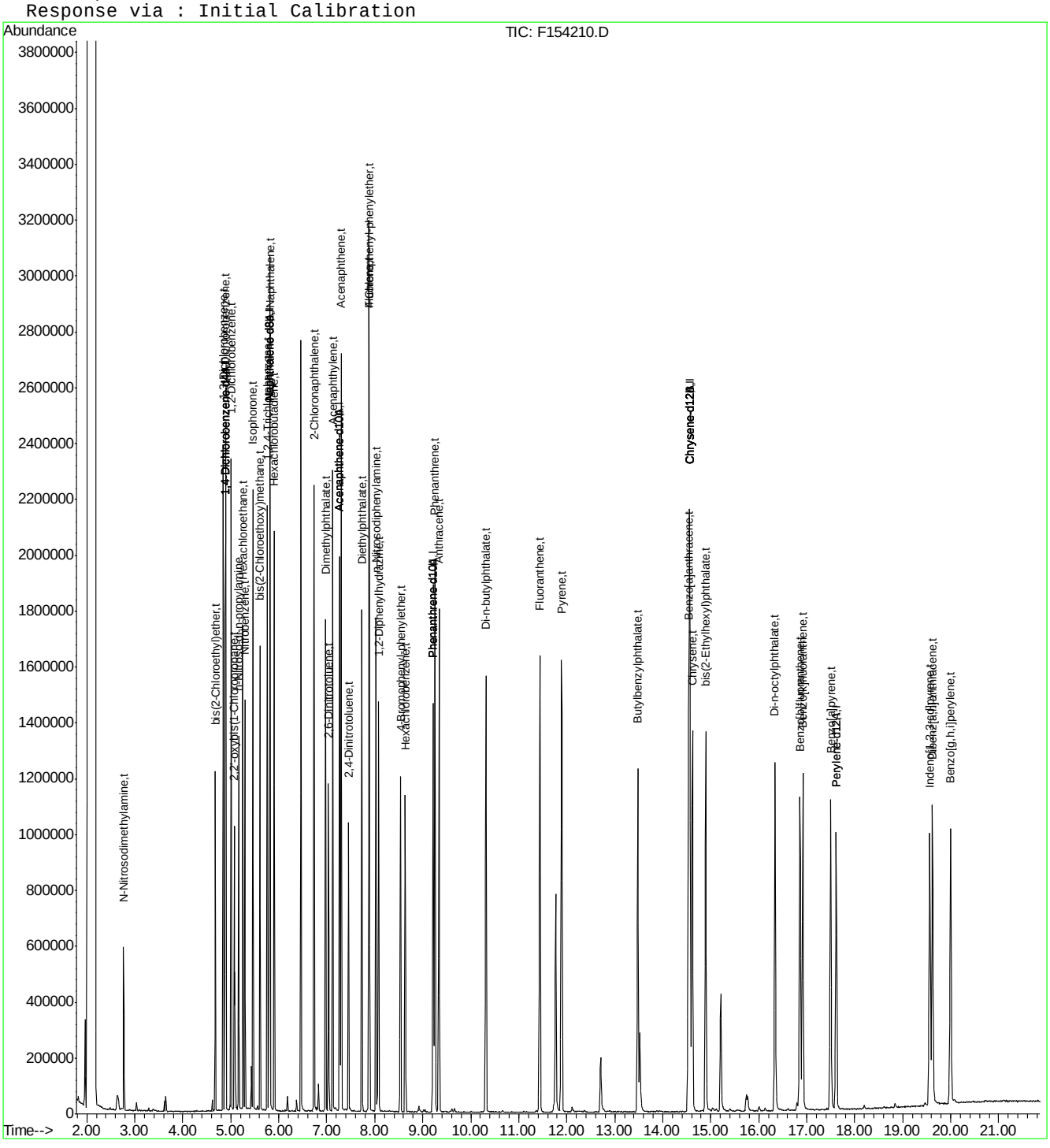
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Naphthalene	5.82	128	1236953	42.36	ppm	97
42)	Hexachlorobutadiene	5.90	225	172190	44.73	ppm	98
52)	2-Chloronaphthalene	6.74	162	696926	47.76	ppm	98
55)	Dimethylphthalate	6.98	163	748365	45.93	ppm	100
56)	Acenaphthylene	7.13	152	1111149	46.53	ppm	98
57)	2,6-Dinitrotoluene	7.04	165	154253	48.80	ppm	95
59)	Acenaphthene	7.30	153	713876	47.23	ppm	100
63)	2,4-Dinitrotoluene	7.45	165	196203	43.87	ppm	98
65)	Diethylphthalate	7.73	149	731044	44.57	ppm	99
66)	Fluorene	7.89	166	748177	44.64	ppm	100
67)	4-Chlorophenyl-phenylether	7.88	204	320553	45.48	ppm	99
71)	n-Nitrosodiphenylamine	8.02	169	526483	42.64	ppm	99
72)	1,2-Diphenylhydrazine	8.08	77	684007	44.87	ppm	99
74)	4-Bromophenyl-phenylether	8.54	248	169326	45.05	ppm	98
75)	Hexachlorobenzene	8.63	284	173320	43.24	ppm	97
77)	Phenanthrene	9.25	178	982322	43.13	ppm	98
78)	Anthracene	9.34	178	991288	43.48	ppm	100
80)	Di-n-butylphthalate	10.32	149	1209764	43.83	ppm	100
81)	Fluoranthene	11.44	202	1002151	42.87	ppm	99
84)	Pyrene	11.89	202	1061268	46.83	ppm	99
86)	Butylbenzylphthalate	13.48	149	484433	45.70	ppm	99
88)	Benzo[a]anthracene	14.54	228	804697	42.42	ppm	99
90)	Chrysene	14.62	228	797305	42.47	ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.90	149	674814	45.71	ppm	99
93)	Di-n-octylphthalate	16.34	149	1132042	45.93	ppm	99
94)	Benzo[b]fluoranthene	16.86	252	742512	40.84	ppm	98
95)	Benzo[k]fluoranthene	16.92	252	751918	41.94	ppm	100
96)	Benzo[a]pyrene	17.50	252	698438	43.42	ppm	98
97)	Indeno[1,2,3-cd]pyrene	19.56	276	637147	42.70	ppm	99
99)	Dibenz[a,h]anthracene	19.62	278	641440	40.72	ppm	99
101)	Benzo[g,h,i]perylene	20.00	276	664797	40.31	ppm	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154210.D Vial: 4
Acq On : 30 Jan 2016 3:05 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:34 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154211.D Vial: 5
Acq On : 30 Jan 2016 3:33 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:55:33 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	227558	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	910397	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	476907	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	798314	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	687433	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	598093	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	227558	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	910397	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	476907	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	798314	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	687433	40.00	ppm	-0.01
155) Perylene-d12A	17.61	264	598093	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	227558	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	910397	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	476907	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	798314	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	687433	40.00	ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	227558	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	910397	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	687433	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	910397	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	687433	40.00	ppm	0.14

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		

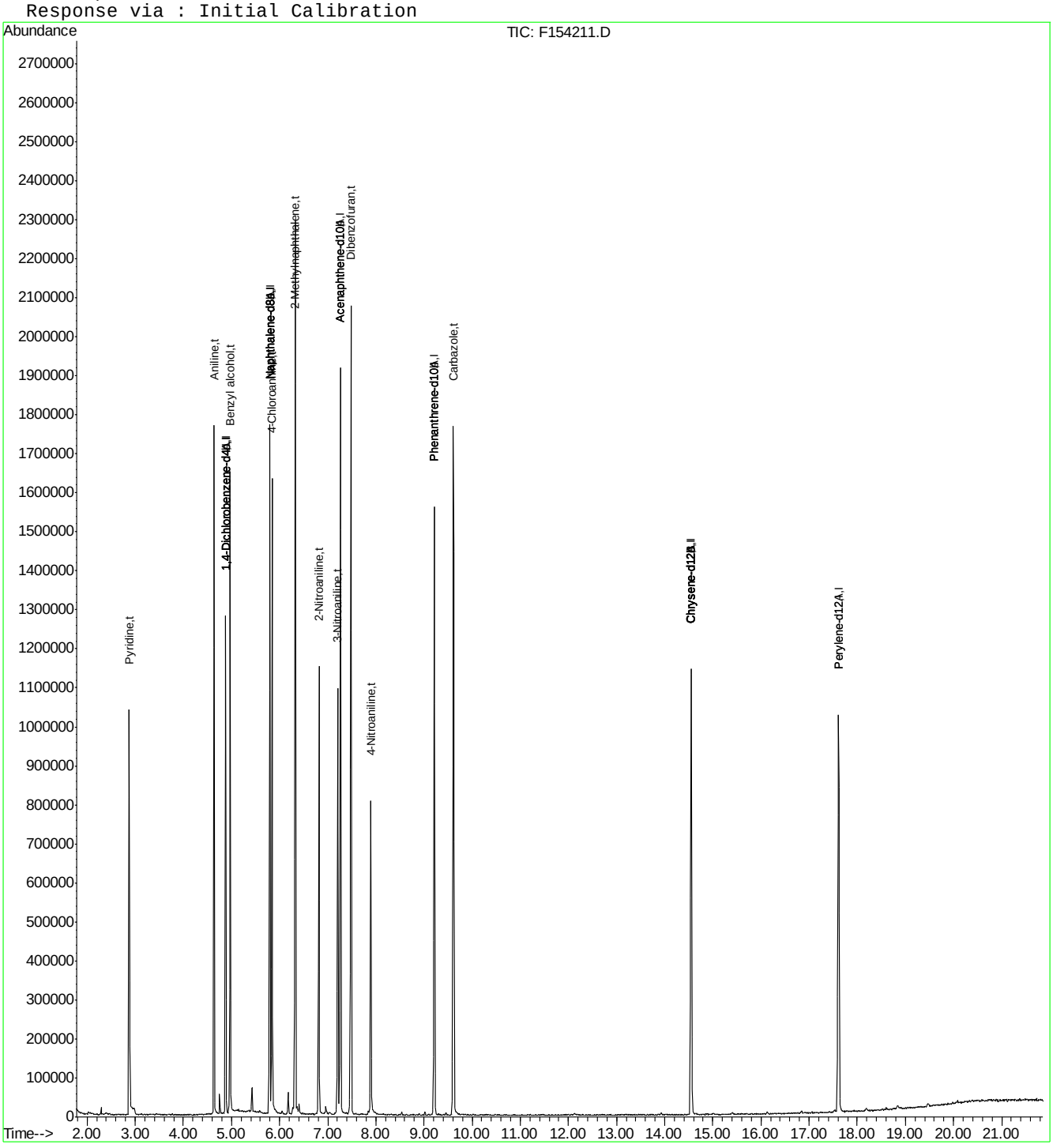
Target Compounds						Qvalue
3) Pyridine	2.87	79	395060	43.61	ppm	97
10) Aniline	4.64	93	591323	52.41	ppm	98
16) Benzyl alcohol	4.97	108	266296	48.12	ppm	97
39) 4-Chloroaniline	5.85	127	502990	46.38	ppm	99
44) 2-Methylnaphthalene	6.33	141	629329	39.25	ppm	99
54) 2-Nitroaniline	6.82	65	181685	48.82	ppm	97
58) 3-Nitroaniline	7.21	138	201541	50.90	ppm	99
62) Dibenzofuran	7.49	168	1032623	47.82	ppm	100
68) 4-Nitroaniline	7.90	138	188497	43.86	ppm	99
79) Carbazole	9.61	167	1051251	40.86	ppm	99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154211.D Vial: 5
Acq On : 30 Jan 2016 3:33 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 15:59 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154213.D Vial: 7
Acq On : 30 Jan 2016 4:02 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 16:24:18 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	234658	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	905583	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	471195	40.00 ppm	0.00
69) Phenanthrene-d10	9.22	188	810945	40.00 ppm	0.00
83) Chrysene-d12	14.55	240	756263	40.00 ppm	-0.01
92) Perylene-d12	17.61	264	746843	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	234658	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	905583	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	471195	40.00 ppm	0.00
132) Phenanthrene-d10A	9.22	188	810945	40.00 ppm	0.00
147) Chrysene-d12A	14.55	240	756263	40.00 ppm	-0.01
155) Perylene-d12A	17.61	264	746843	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	234658	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	905583	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	471195	40.00 ppm	0.00
165) Phenanthrene-d10b	9.22	188	810945	40.00 ppm	0.00
167) Chrysene-d12b	14.55	240	756263	40.00 ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	234658	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	905583	40.00 ppm	0.00
176) Chrysene-d12c	14.55	240	756263	40.00 ppm	-0.01
178) Naphthalene-d8a	5.80	136	905583	40.00 ppm	0.08
180) Chrysene-d12B	14.55	240	756263	40.00 ppm	0.14

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

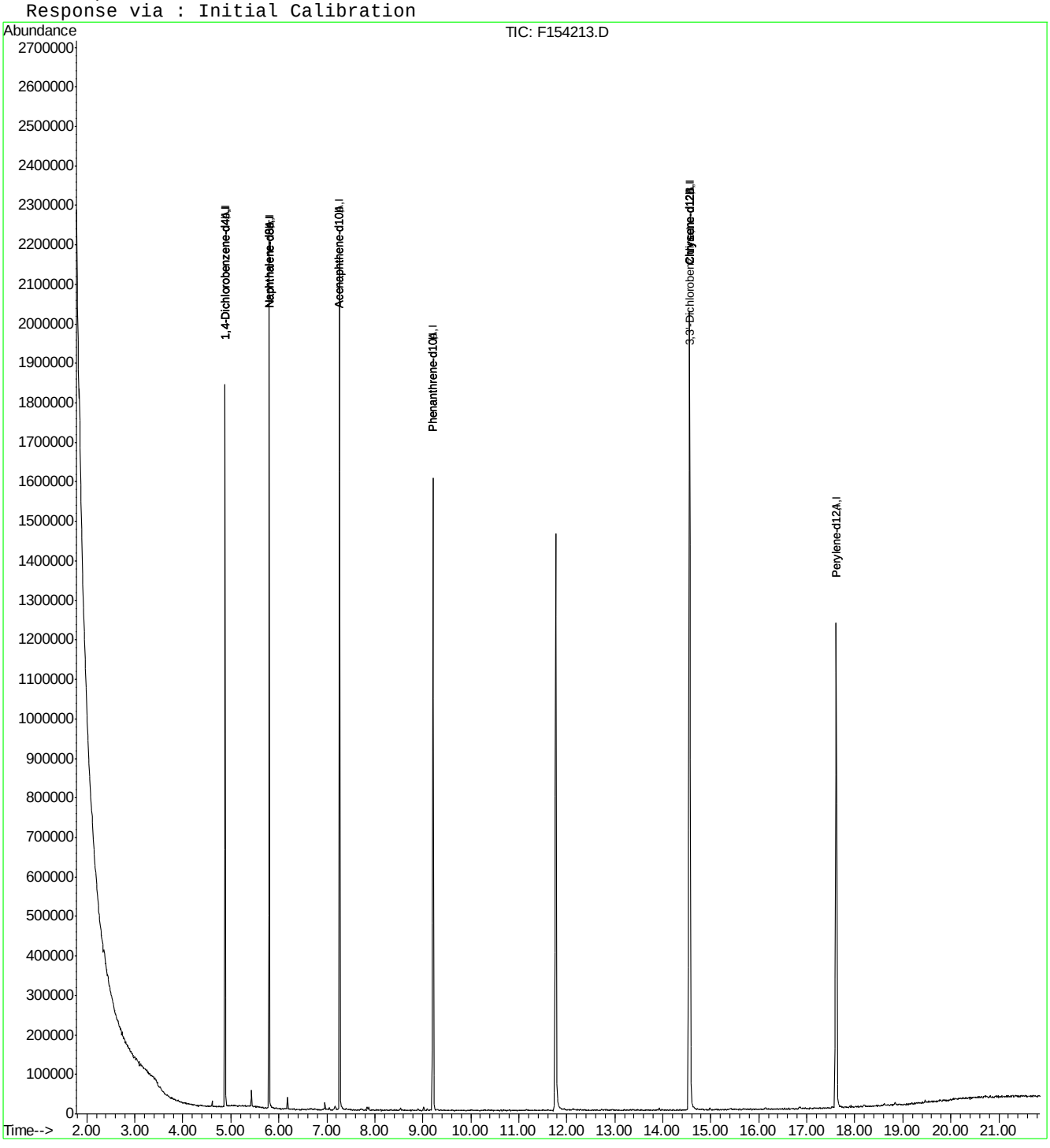
Target Compounds					Qvalue
89) 3,3'-Dichlorobenzidine	14.57	252	428545	58.16 ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154213.D MF6483.M Sat Jan 30 16:36:52 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154213.D Vial: 7
Acq On : 30 Jan 2016 4:02 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 16:31 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154212.D Vial: 6
Acq On : 30 Jan 2016 4:31 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 16:52:58 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	257927	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	971353	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	544423	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	798132	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	663646	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	558951	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	257927	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	971353	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	544423	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	798132	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	663646	40.00	ppm	-0.01
155) Perylene-d12A	17.61	264	558951	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	257927	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	971353	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	544423	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	798132	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	663646	40.00	ppm	-0.01
169) 1,4-Dichlorobenzene-d4c	4.88	152	257927	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	971353	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	663646	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	971353	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	663646	40.00	ppm	0.14

System Monitoring Compounds

5) 2-Fluorophenol	3.91	112	415837	42.77	ppm	0.00
Spiked Amount 50.000			Recovery = 85.54%			
8) Phenol-d5	4.61	99	490586	44.62	ppm	0.00
Spiked Amount 50.000			Recovery = 89.24%			
25) Nitrobenzene-d5	5.28	82	400264	42.93	ppm	0.00
Spiked Amount 50.000			Recovery = 85.86%			
51) 2-Fluorobiphenyl	6.62	172	825423	41.39	ppm	0.00
Spiked Amount 50.000			Recovery = 82.78%			
73) 2,4,6-Tribromophenol	8.19	330	86925	44.48	ppm	0.00
Spiked Amount 50.000			Recovery = 88.96%			
85) Terphenyl-d14	12.31	244	635235	43.84	ppm	0.00
Spiked Amount 50.000			Recovery = 87.68%			

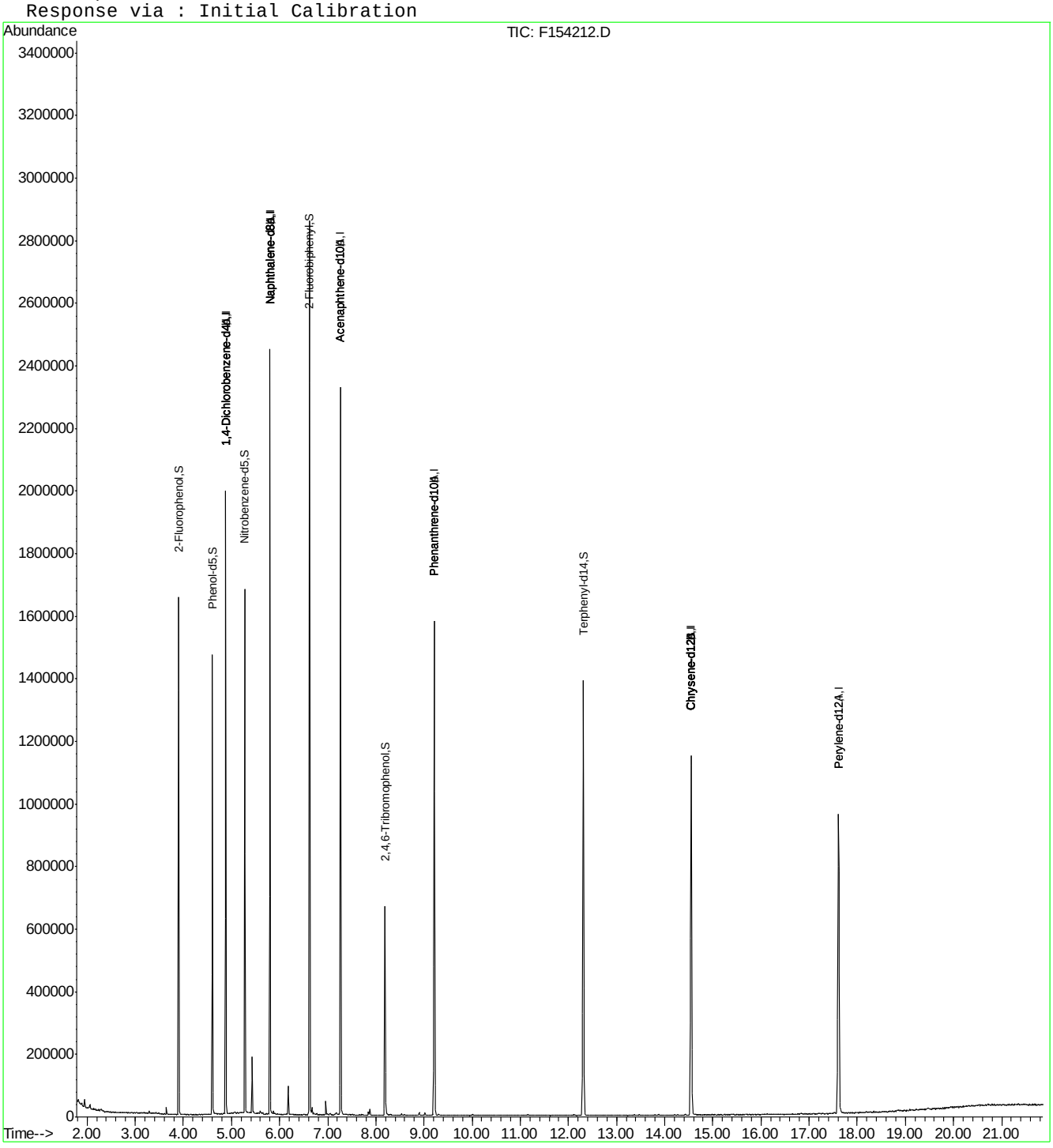
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154212.D MF6483.M Sat Jan 30 16:55:22 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6484\F154212.D Vial: 6
Acq On : 30 Jan 2016 4:31 pm Operator: kristis
Sample : icv6483-50 Inst : MSF
Misc : op90770,ef6484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jan 30 16:55 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sat Jan 30 15:30:25 2016
Response via : Initial Calibration



F154212.D MF6483.M Sat Jan 30 16:55:22 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154268.D Vial: 2
Acq On : 1 Feb 2016 6:08 pm Operator: sarad
Sample : ic6489-100 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 18:54:07 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 18:54:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	220982	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	807542	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	458241	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	682323	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	598081	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	548906	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	220982	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	807542	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	458241	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	682323	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	598081	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	548906	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	220982	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	807542	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	458241	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	682323	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	598081	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	220982	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	807542	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	598081	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	807542	40.00	ppm	0.08
180) Chrysene-d12B	14.55	240	598081	40.00	ppm	0.15

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

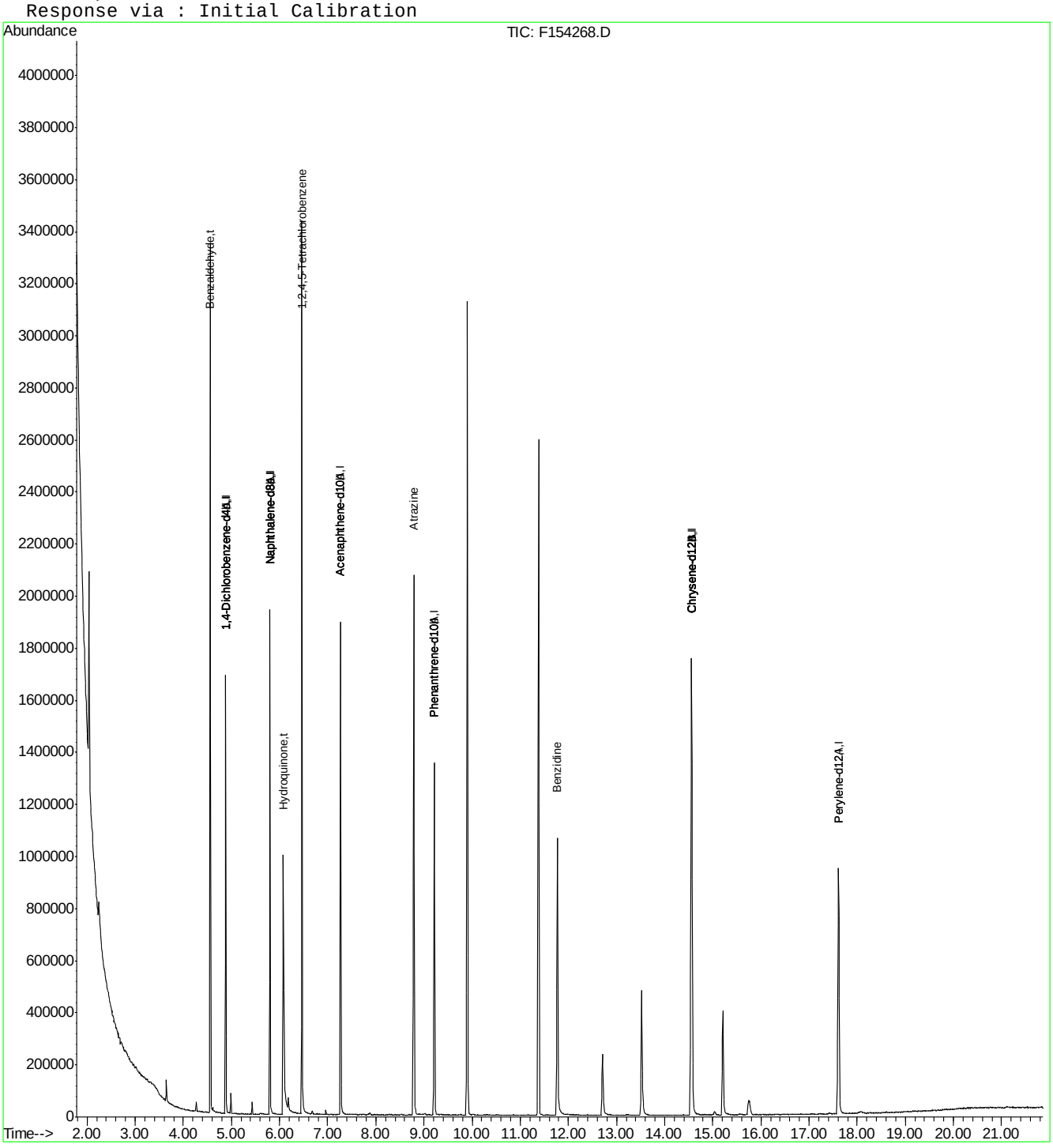
Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	554256	100.00	ppm	100
162) Hydroquinone	6.08	110	656985	100.00	ppm	100
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	537580	100.00	ppm	100
166) Atrazine	8.79	200	331513	100.00	ppm	100
168) Benzidine	11.77	184	638909	100.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154268.D MF6483.M Mon Feb 01 19:34:23 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154268.D Vial: 2
Acq On : 1 Feb 2016 6:08 pm Operator: sarad
Sample : ic6489-100 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 19:34 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:32:00 2016
Response via : Initial Calibration



F154268.D MF6483.M Mon Feb 01 19:34:23 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154269.D Vial: 3
Acq On : 1 Feb 2016 6:40 pm Operator: sarad
Sample : ic6489-80 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 19:29:10 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 18:54:04 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	221341	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	819110	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	482301	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	747601	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	631720	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	575412	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	221341	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	819110	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	482301	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	747601	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	631720	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	575412	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	221341	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	819110	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	482301	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	747601	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	631720	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	221341	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	819110	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	631720	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	819110	40.00	ppm	0.08
180) Chrysene-d12B	14.55	240	631720	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

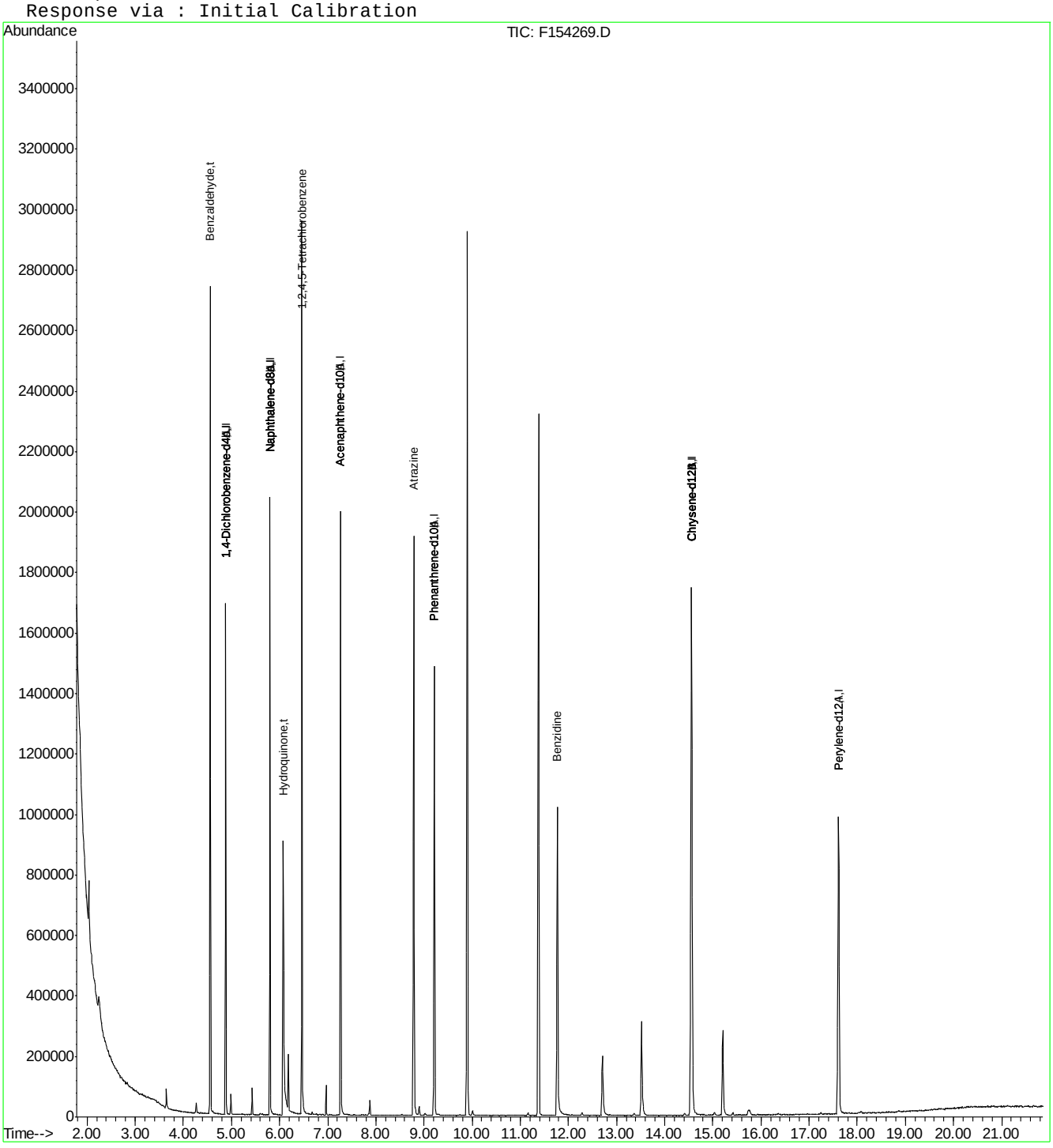
Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	465324	83.82	ppm	99
162) Hydroquinone	6.07	110	573803	86.11	ppm	99
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	459384	81.19	ppm	100
166) Atrazine	8.79	200	296194	81.54	ppm	96
168) Benzidine	11.77	184	612291	90.73	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154269.D MF6483.M Mon Feb 01 19:34:06 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154269.D Vial: 3
Acq On : 1 Feb 2016 6:40 pm Operator: sarad
Sample : ic6489-80 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 19:34 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:32:00 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154270.D Vial: 4
Acq On : 1 Feb 2016 7:09 pm Operator: sarad
Sample : icc6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 19:32:11 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:32:00 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	241784	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	898091	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	539433	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	823095	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	763759	40.00	ppm	-0.02
92) Perylene-d12	17.61	264	718415	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	241784	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	898091	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	539433	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	823095	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	763759	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	718415	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	241784	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	898091	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	539433	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	823095	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	763759	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	241784	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	898091	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	763759	40.00	ppm	-0.02
178) Naphthalene-d8a	5.80	136	898091	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	763759	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

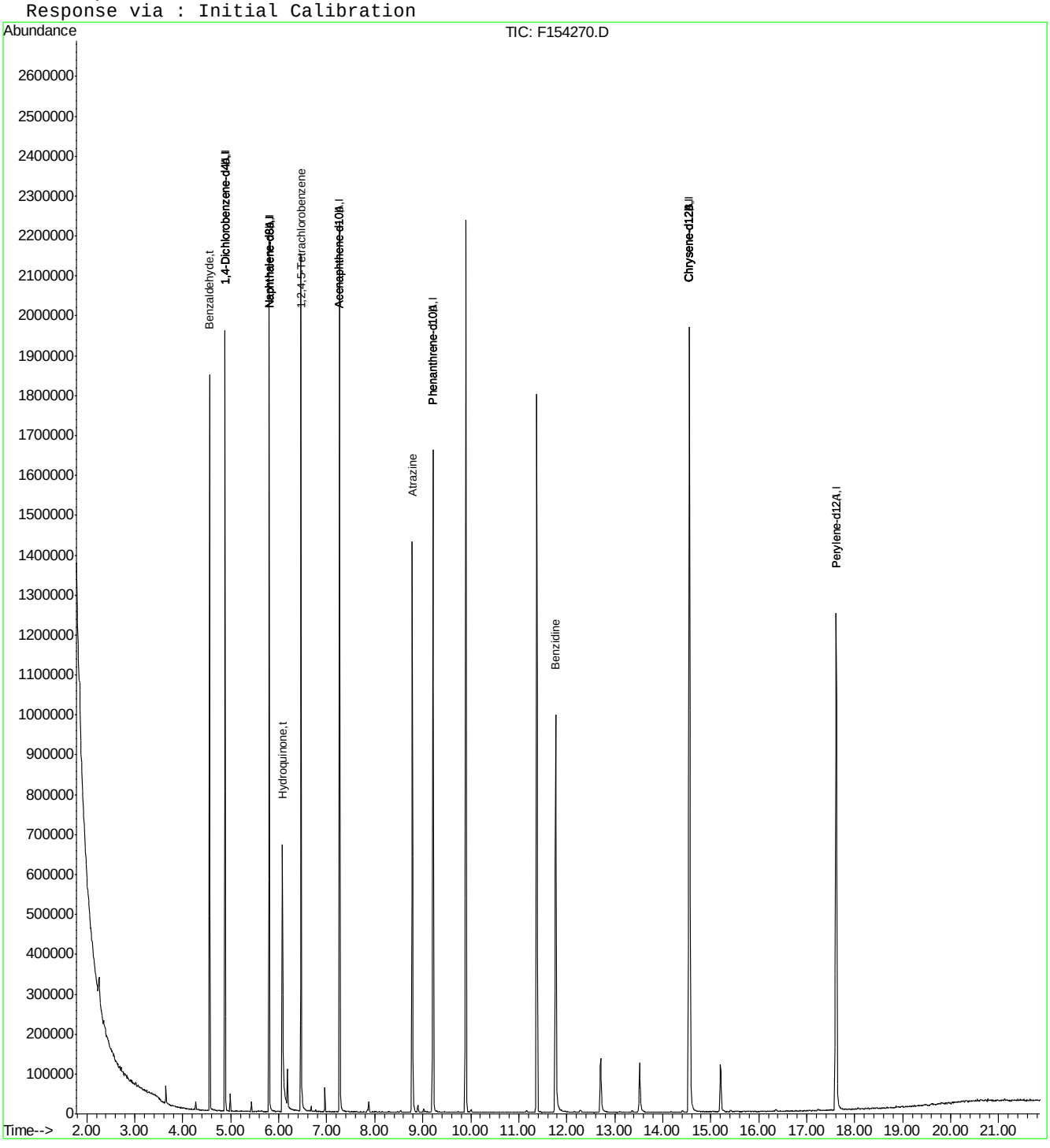
Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	337839	54.41	ppm	98
162) Hydroquinone	6.07	110	424009	55.90	ppm	99
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	332228	52.11	ppm	99
166) Atrazine	8.79	200	216976	53.74	ppm	99
168) Benzidine	11.77	184	586012	67.31	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154270.D MF6483.M Mon Feb 01 19:35:27 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154270.D Vial: 4
Acq On : 1 Feb 2016 7:09 pm Operator: sarad
Sample : icc6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 19:33 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154271.D Vial: 5
Acq On : 1 Feb 2016 7:38 pm Operator: sarad
Sample : ic6489-25 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 21:19:01 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	213882	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	803726	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	474365	40.00	ppm	0.00
69) Phenanthrene-d10	9.22	188	736015	40.00	ppm	0.00
83) Chrysene-d12	14.55	240	672520	40.00	ppm	-0.02
92) Perylene-d12	17.61	264	615231	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	213882	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	803726	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	474365	40.00	ppm	0.00
132) Phenanthrene-d10A	9.22	188	736015	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	672520	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	615231	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	213882	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	803726	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	474365	40.00	ppm	0.00
165) Phenanthrene-d10b	9.22	188	736015	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	672520	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	213882	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	803726	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	672520	40.00	ppm	-0.02
178) Naphthalene-d8a	5.80	136	803726	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	672520	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

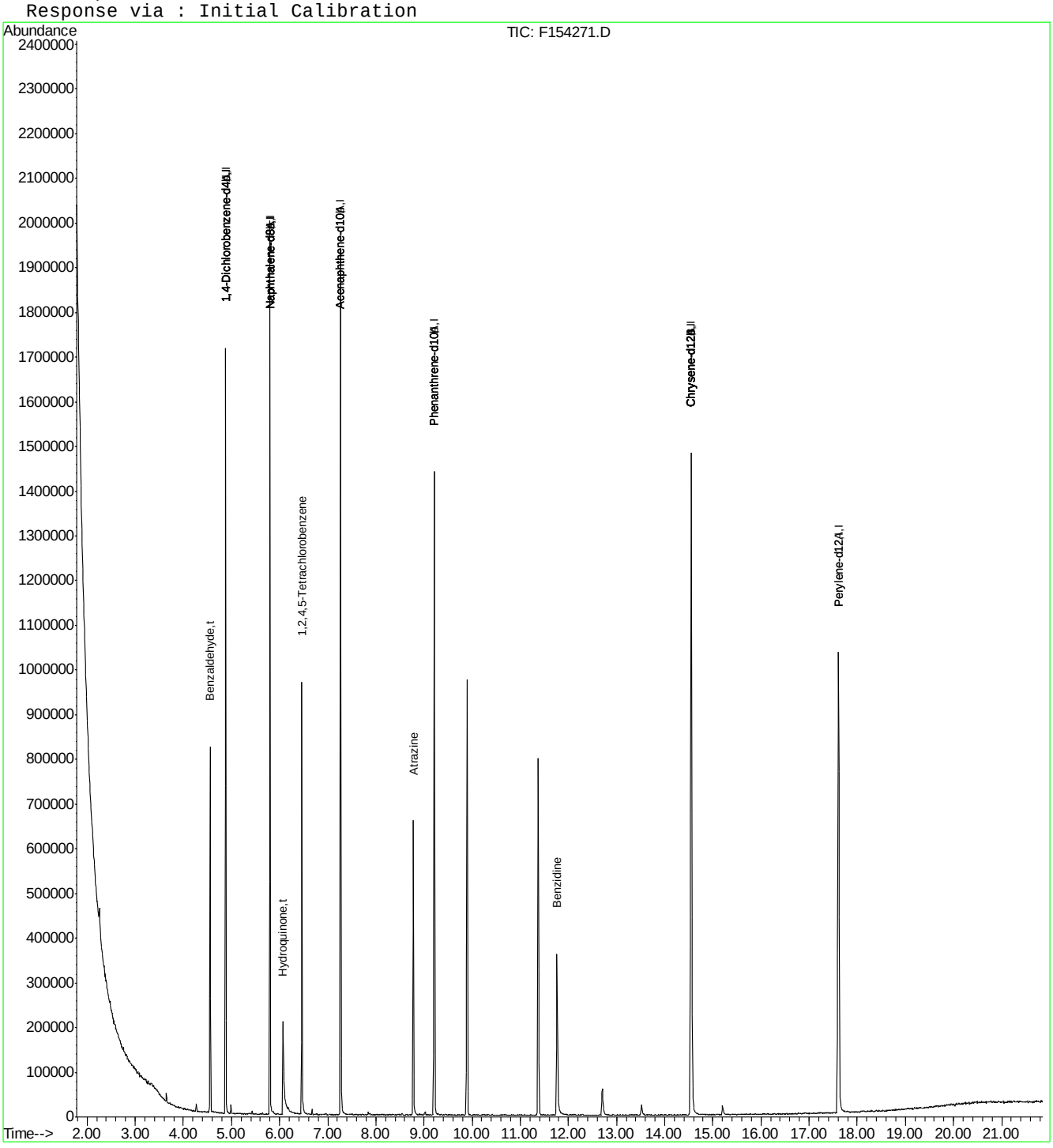
Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	152360	26.95	ppm	98
162) Hydroquinone	6.07	110	151487	21.47	ppm	99
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	150280	26.43	ppm	98
166) Atrazine	8.78	200	93107	25.16	ppm	98
168) Benzidine	11.76	184	227758	26.64	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154271.D MF6483.M Mon Feb 01 21:20:06 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154271.D Vial: 5
Acq On : 1 Feb 2016 7:38 pm Operator: sarad
Sample : ic6489-25 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 21:19 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154272.D Vial: 6
Acq On : 1 Feb 2016 8:06 pm Operator: sarad
Sample : ic6489-10 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 21:20:11 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	224259	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	826758	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	496159	40.00	ppm	0.00
69) Phenanthrene-d10	9.21	188	770777	40.00	ppm	-0.01
83) Chrysene-d12	14.55	240	713797	40.00	ppm	-0.01
92) Perylene-d12	17.61	264	643393	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.88	152	224259	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	826758	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	496159	40.00	ppm	0.00
132) Phenanthrene-d10A	9.21	188	770777	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	713797	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	643393	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	224259	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	826758	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	496159	40.00	ppm	0.00
165) Phenanthrene-d10b	9.21	188	770777	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	713797	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	224259	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	826758	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	713797	40.00	ppm	-0.01
178) Naphthalene-d8a	5.80	136	826758	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	713797	40.00	ppm	0.14

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	63704	10.75	ppm	96
162) Hydroquinone	6.07	110	46631	6.43	ppm	99
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	64680	10.88	ppm	100
166) Atrazine	8.78	200	35188	9.08	ppm	93
168) Benzidine	11.76	184	95481	10.52	ppm	98

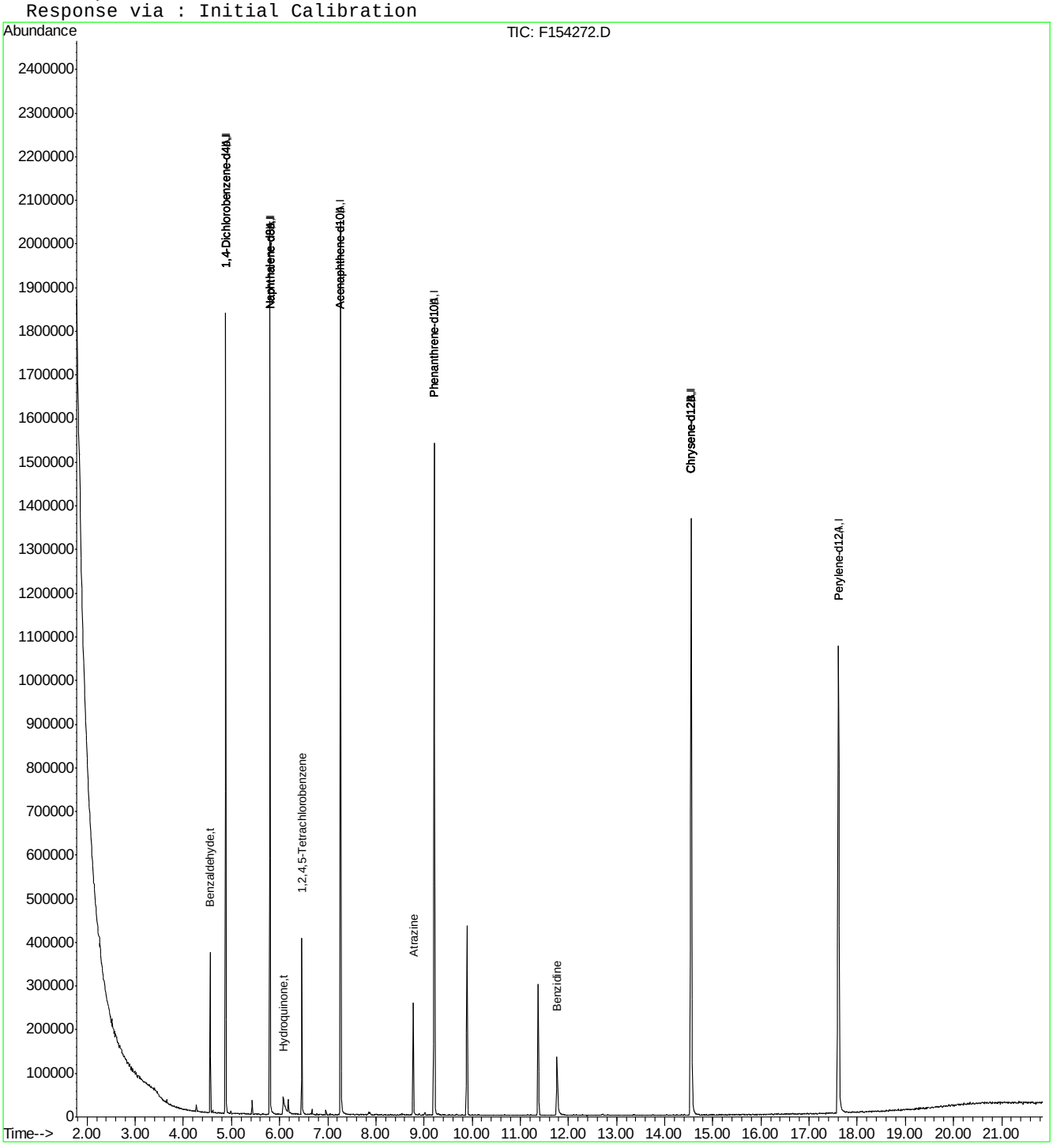
(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154272.D MF6483.M Mon Feb 01 21:21:01 2016 RT1

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154272.D Vial: 6
Acq On : 1 Feb 2016 8:06 pm Operator: sarad
Sample : ic6489-10 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 21:20 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154273.D Vial: 7
Acq On : 1 Feb 2016 8:35 pm Operator: sarad
Sample : ic6489-5 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 21:21:08 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	248760	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	926985	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	552685	40.00 ppm	0.00
69) Phenanthrene-d10	9.22	188	858049	40.00 ppm	0.00
83) Chrysene-d12	14.55	240	785649	40.00 ppm	-0.01
92) Perylene-d12	17.61	264	709447	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	248760	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	926985	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	552685	40.00 ppm	0.00
132) Phenanthrene-d10A	9.22	188	858049	40.00 ppm	0.00
147) Chrysene-d12A	14.55	240	785649	40.00 ppm	0.00
155) Perylene-d12A	17.61	264	709447	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	248760	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	926985	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	552685	40.00 ppm	0.00
165) Phenanthrene-d10b	9.22	188	858049	40.00 ppm	0.00
167) Chrysene-d12b	14.55	240	785649	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	248760	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	926985	40.00 ppm	0.00
176) Chrysene-d12c	14.55	240	785649	40.00 ppm	-0.01
178) Naphthalene-d8a	5.80	136	926985	40.00 ppm	0.08
180) Chrysene-d12B	14.55	240	785649	40.00 ppm	0.14

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

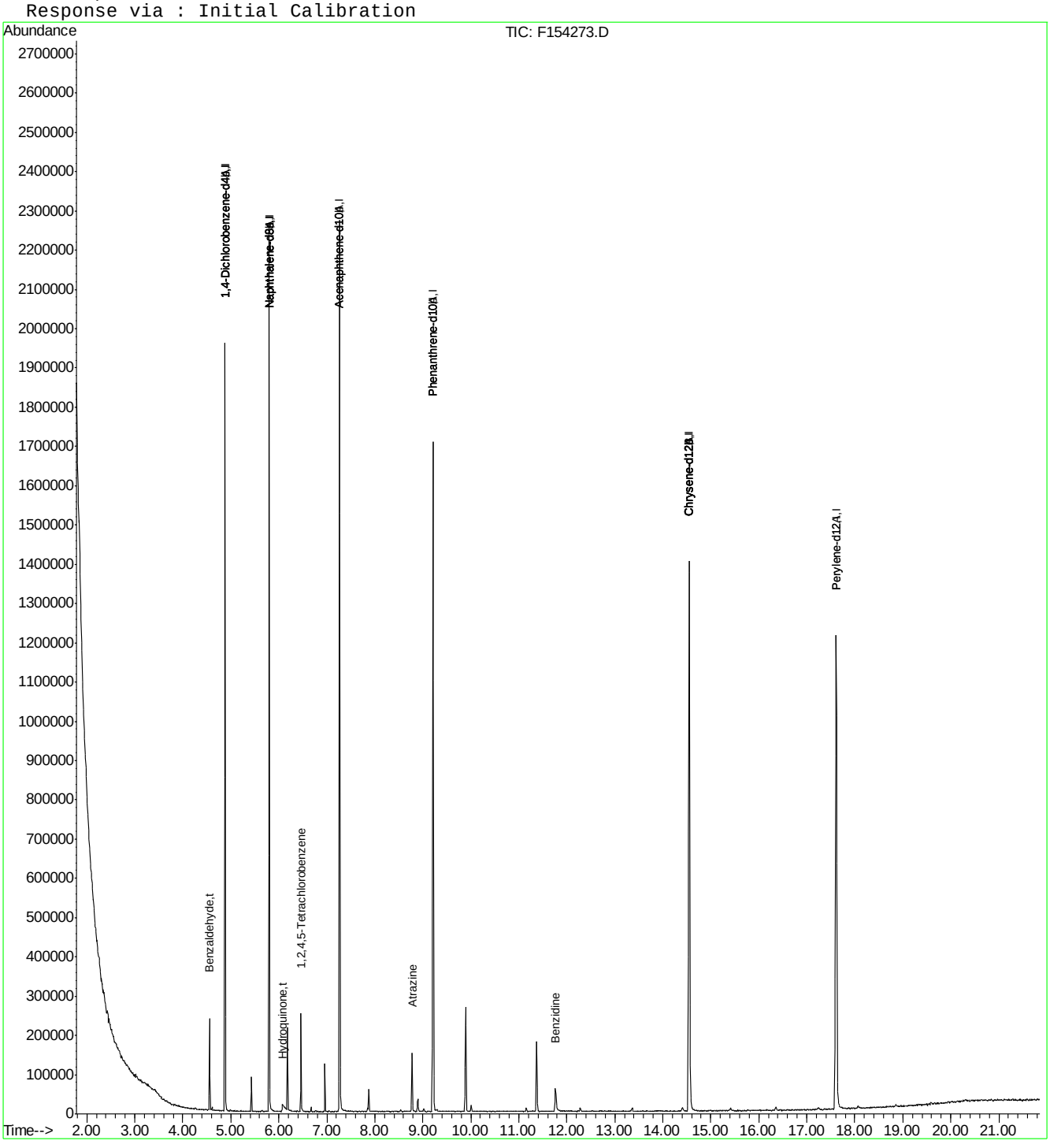
Target Compounds					Qvalue
160) Benzaldehyde	4.56	105	41244	6.27 ppm	98
162) Hydroquinone	6.08	110	28734	3.53 ppm	96
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	39969	6.03 ppm	94
166) Atrazine	8.78	200	20934	4.85 ppm	97
168) Benzidine	11.77	184	47721	4.78 ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154273.D MF6483.M Mon Feb 01 21:22:08 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154273.D Vial: 7
Acq On : 1 Feb 2016 8:35 pm Operator: sarad
Sample : ic6489-5 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 21:21 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 19:35:21 2016
Response via : Initial Calibration



F154273.D MF6483.M Mon Feb 01 21:22:08 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154274.D Vial: 8
Acq On : 1 Feb 2016 9:04 pm Operator: sarad
Sample : ic6489-2 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 21:45:19 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 21:23:55 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	267960	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	993344	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	584238	40.00 ppm	0.00
69) Phenanthrene-d10	9.21	188	911481	40.00 ppm	-0.01
83) Chrysene-d12	14.55	240	836690	40.00 ppm	-0.01
92) Perylene-d12	17.61	264	754422	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	267960	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	993344	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	584238	40.00 ppm	0.00
132) Phenanthrene-d10A	9.21	188	911481	40.00 ppm	0.00
147) Chrysene-d12A	14.55	240	836690	40.00 ppm	0.00
155) Perylene-d12A	17.61	264	754422	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	267960	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	993344	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	584238	40.00 ppm	0.00
165) Phenanthrene-d10b	9.21	188	911481	40.00 ppm	0.00
167) Chrysene-d12b	14.55	240	836690	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	267960	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	993344	40.00 ppm	0.00
176) Chrysene-d12c	14.55	240	836690	40.00 ppm	-0.01
178) Naphthalene-d8a	5.80	136	993344	40.00 ppm	0.07
180) Chrysene-d12B	14.55	240	836690	40.00 ppm	0.15

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

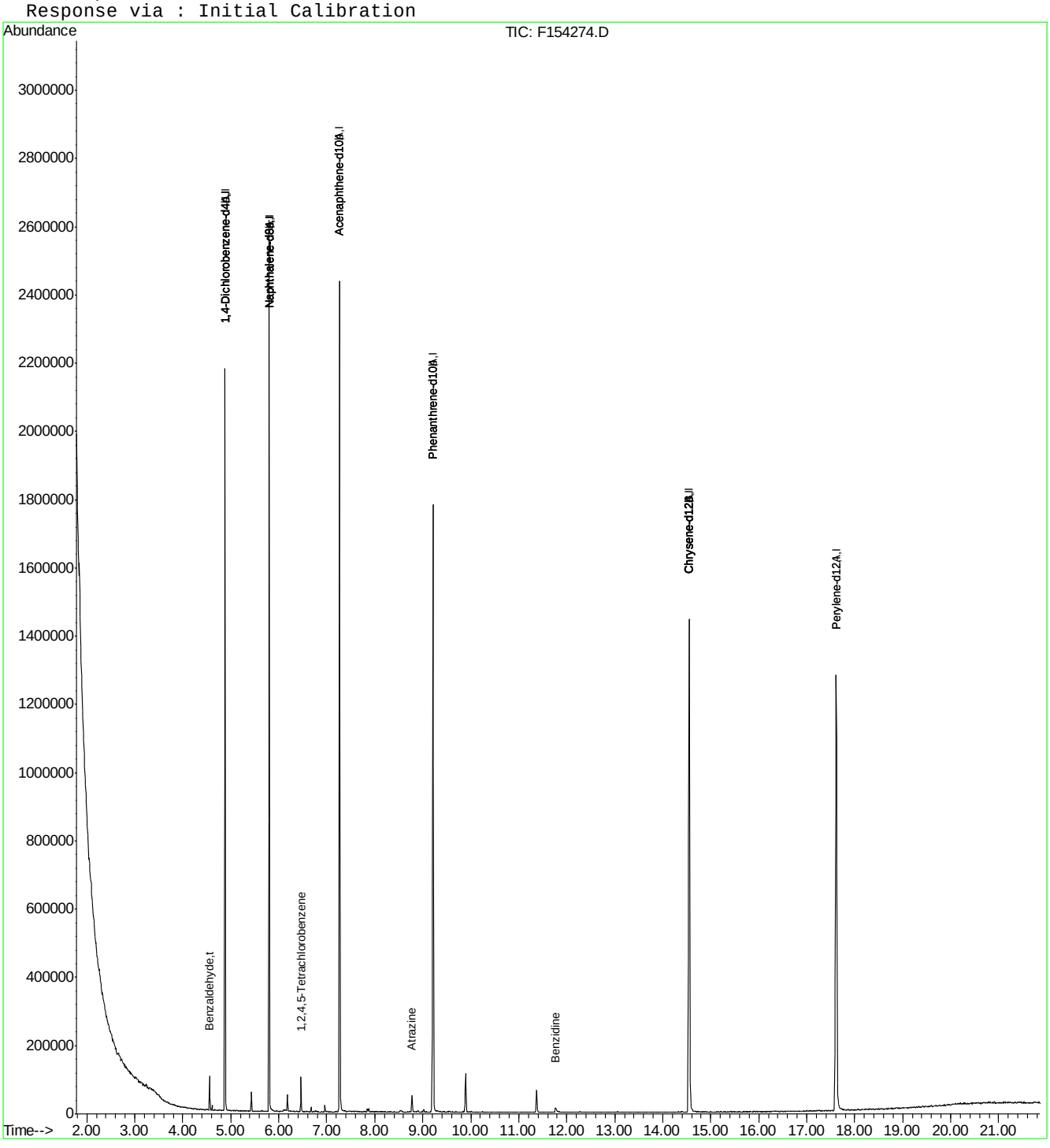
Target Compounds					Qvalue
160) Benzaldehyde	4.56	105	17105	2.26 ppm	97
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	17078	2.30 ppm	92
166) Atrazine	8.78	200	7822	1.74 ppm	96
168) Benzidine	11.77	184	14118	1.31 ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154274.D MF6483.M Mon Feb 01 21:46:34 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154274.D Vial: 8
Acq On : 1 Feb 2016 9:04 pm Operator: sarad
Sample : ic6489-2 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 21:46 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 21:23:55 2016
Response via : Initial Calibration



F154274.D MF6483.M Mon Feb 01 21:46:34 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154275.D Vial: 9
Acq On : 1 Feb 2016 9:33 pm Operator: sarad
Sample : ic6489-1 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 23:07:34 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 21:47:24 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	234155	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	848424	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	498725	40.00	ppm	0.00
69) Phenanthrene-d10	9.21	188	764052	40.00	ppm	-0.01
83) Chrysene-d12	14.55	240	702729	40.00	ppm	-0.02
92) Perylene-d12	17.61	264	630121	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	234155	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	848424	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	498725	40.00	ppm	0.00
132) Phenanthrene-d10A	9.21	188	764052	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	702729	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	630121	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	234155	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	848424	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	498725	40.00	ppm	0.00
165) Phenanthrene-d10b	9.21	188	764052	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	702825	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	234155	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	848424	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	702825	40.00	ppm	-0.02
178) Naphthalene-d8a	5.80	136	848424	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	702825	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	7080	1.05	ppm	95
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	7348	1.14	ppm	91
166) Atrazine	8.78	200	2629	0.71	ppm	87
168) Benzidine	11.77	184	3315	0.39	ppm	90

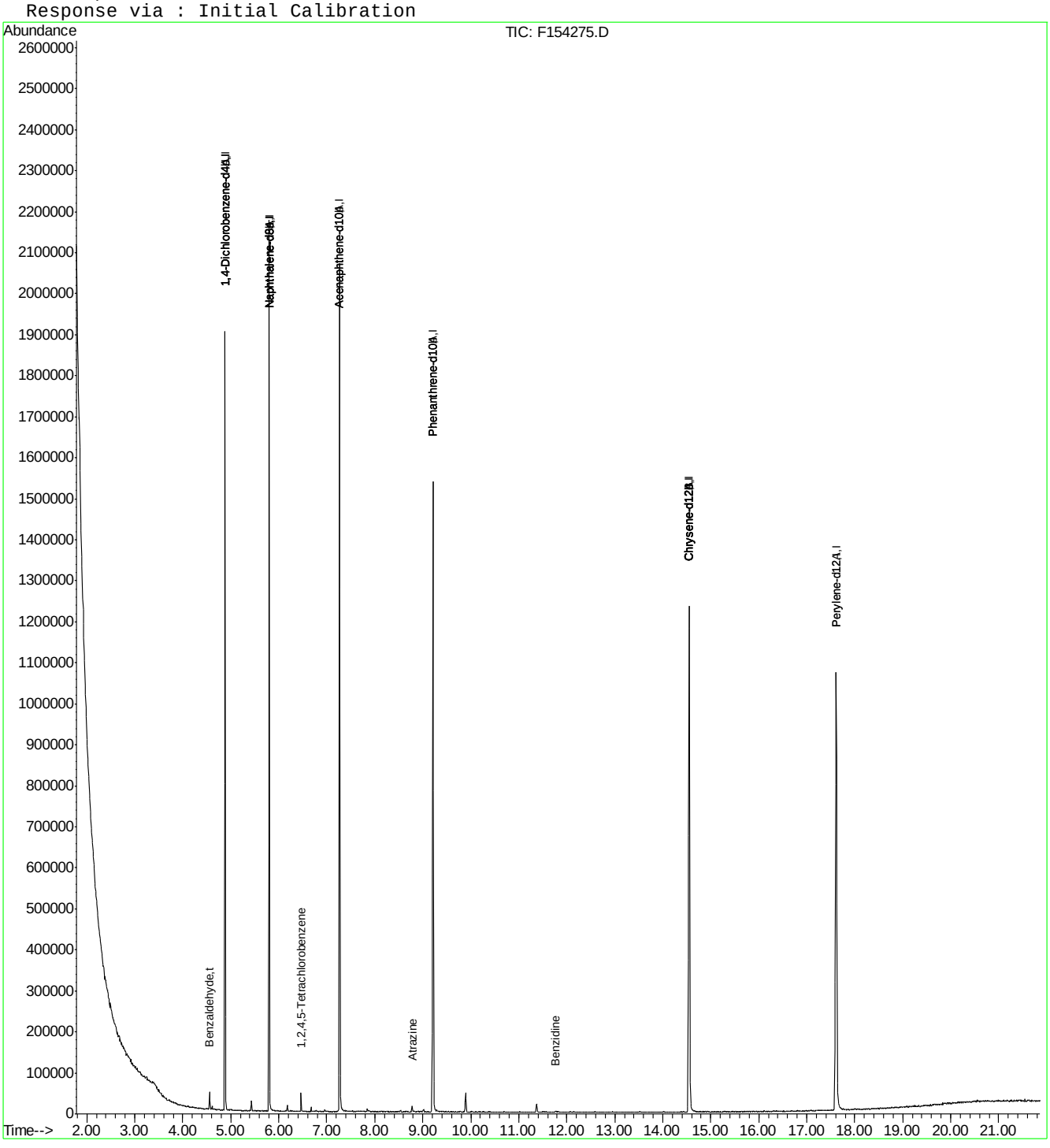
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154275.D Vial: 9
Acq On : 1 Feb 2016 9:33 pm Operator: sarad
Sample : ic6489-1 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 23:07 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 21:47:24 2016
Response via : Initial Calibration



F154275.D MF6483.M Mon Feb 01 23:08:24 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154276.D Vial: 10
Acq On : 1 Feb 2016 10:02 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 23:10:50 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	232303	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	852777	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	429655	40.00 ppm	0.00
69) Phenanthrene-d10	9.22	188	676546	40.00 ppm	0.00
83) Chrysene-d12	14.55	240	592501	40.00 ppm	-0.01
92) Perylene-d12	17.61	264	559343	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	232303	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	852777	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	429655	40.00 ppm	0.00
132) Phenanthrene-d10A	9.22	188	676546	40.00 ppm	0.00
147) Chrysene-d12A	14.55	240	592501	40.00 ppm	0.00
155) Perylene-d12A	17.61	264	559343	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	232303	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	852777	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	429655	40.00 ppm	0.00
165) Phenanthrene-d10b	9.22	188	676546	40.00 ppm	0.00
167) Chrysene-d12b	14.55	240	592501	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	232303	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	852777	40.00 ppm	0.00
176) Chrysene-d12c	14.55	240	592501	40.00 ppm	-0.01
178) Naphthalene-d8a	5.80	136	852777	40.00 ppm	0.08
180) Chrysene-d12B	14.55	240	592501	40.00 ppm	0.15

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

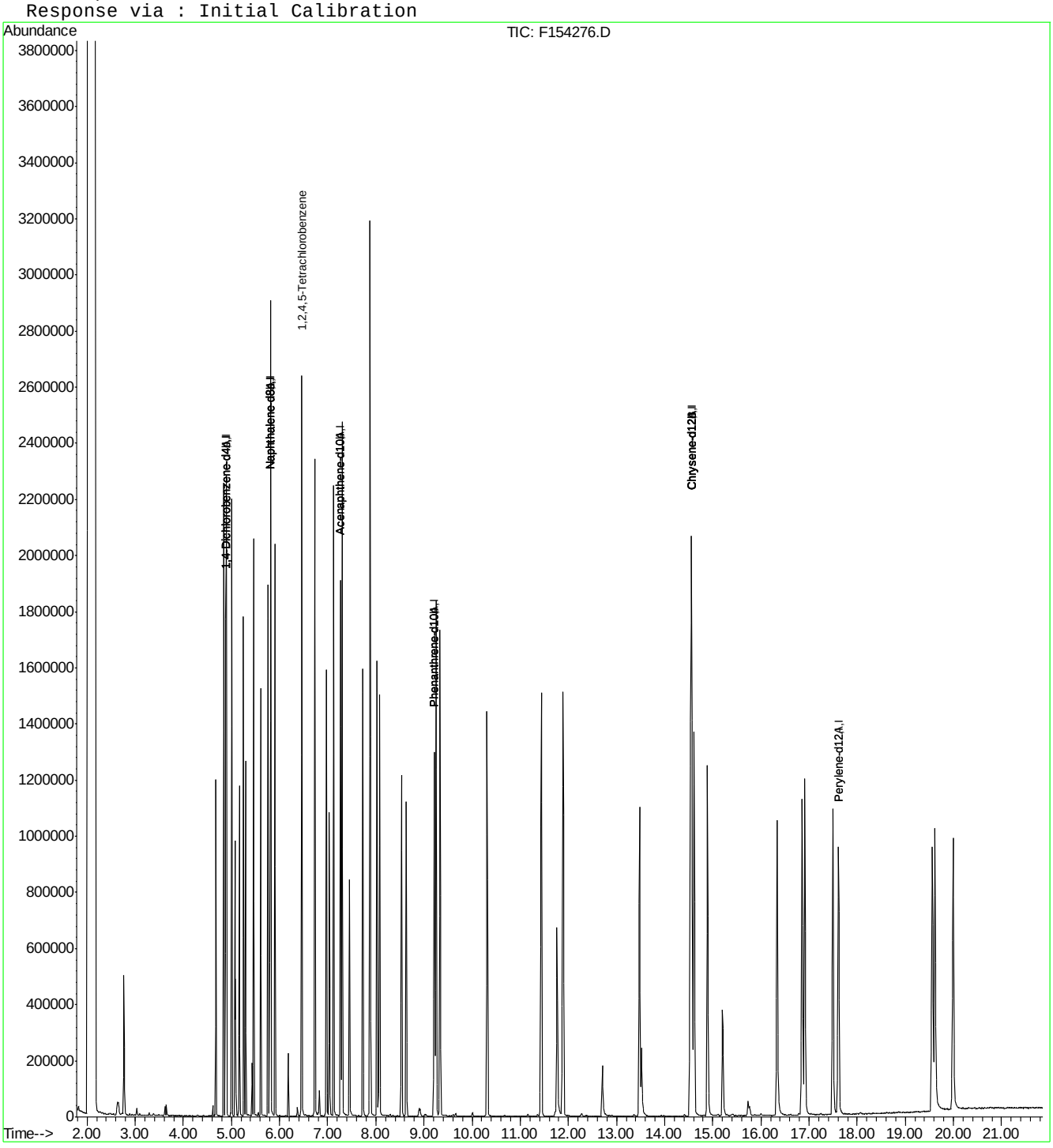
Target Compounds					Qvalue
164) 1,2,4,5-Tetrachlorobenzene	6.46	216	304907	53.82 ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154276.D MF6483.M Mon Feb 01 23:13:05 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154276.D Vial: 10
Acq On : 1 Feb 2016 10:02 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 23:12 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration



F154276.D MF6483.M Mon Feb 01 23:13:05 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154277.D Vial: 11
Acq On : 1 Feb 2016 10:31 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 23:10:56 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	231437	40.00	ppm	0.00
24) Naphthalene-d8	5.80	136	963347	40.00	ppm	0.00
47) Acenaphthene-d10	7.27	164	489442	40.00	ppm	0.00
69) Phenanthrene-d10	9.21	188	708376	40.00	ppm	-0.01
83) Chrysene-d12	14.55	240	593813	40.00	ppm	-0.02
92) Perylene-d12	17.61	264	482292	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.88	152	231437	40.00	ppm	0.00
112) Naphthalene-d8A	5.80	136	963347	40.00	ppm	0.00
121) Acenaphthene-d10A	7.27	164	489442	40.00	ppm	0.00
132) Phenanthrene-d10A	9.21	188	708376	40.00	ppm	0.00
147) Chrysene-d12A	14.55	240	593813	40.00	ppm	0.00
155) Perylene-d12A	17.61	264	482292	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	231437	40.00	ppm	0.00
161) Naphthalene-d8b	5.80	136	963347	40.00	ppm	0.00
163) Acenaphthene-d10b	7.27	164	489442	40.00	ppm	0.00
165) Phenanthrene-d10b	9.21	188	708376	40.00	ppm	0.00
167) Chrysene-d12b	14.55	240	593813	40.00	ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	231437	40.00	ppm	0.00
171) Naphthalene-d8c	5.80	136	963347	40.00	ppm	0.00
176) Chrysene-d12c	14.55	240	593813	40.00	ppm	-0.02
178) Naphthalene-d8a	5.80	136	963347	40.00	ppm	0.07
180) Chrysene-d12B	14.55	240	593813	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

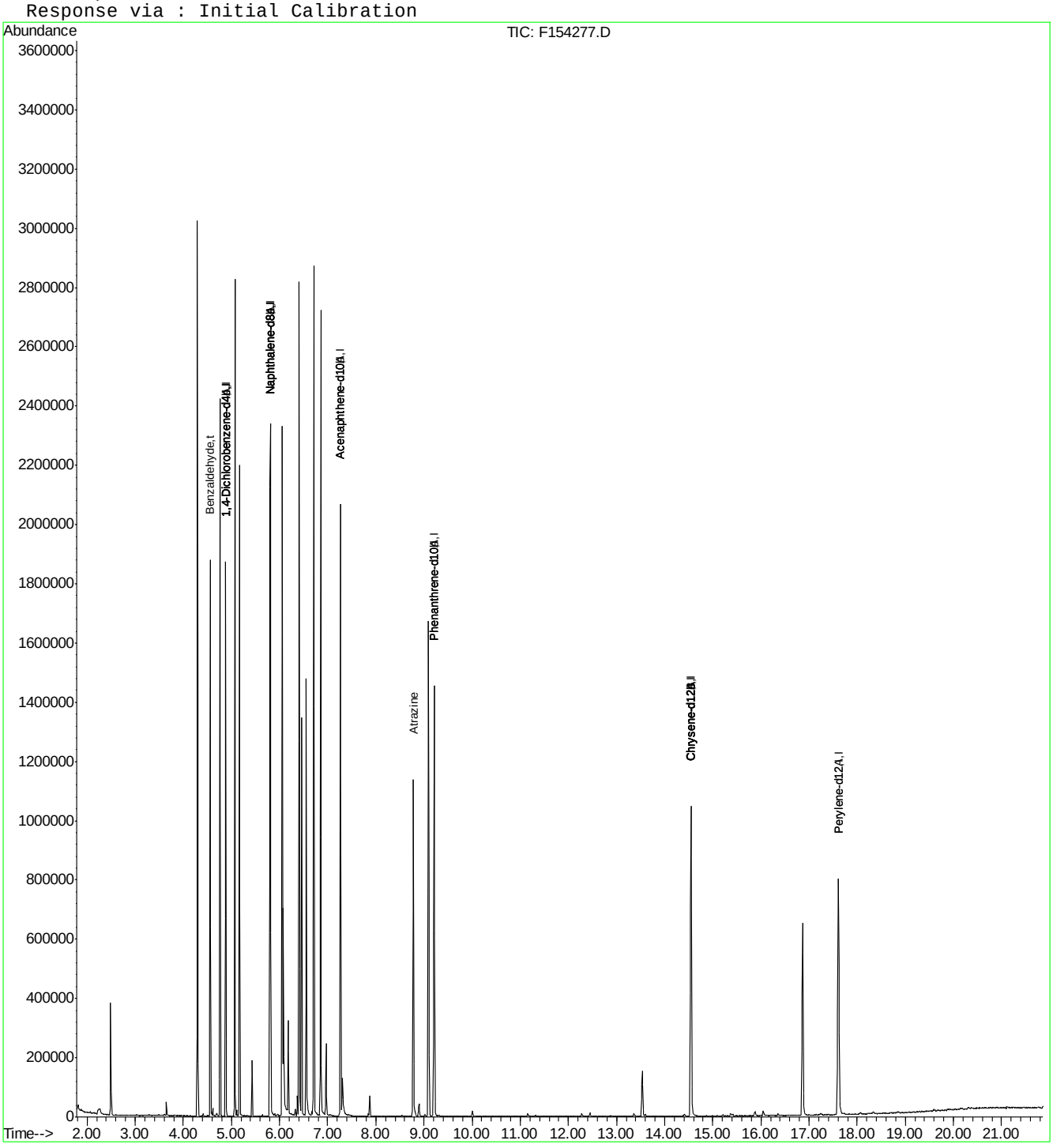
Target Compounds						Qvalue
160) Benzaldehyde	4.56	105	316981	47.33	ppm	98
166) Atrazine	8.78	200	171265	51.83	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154277.D MF6483.M Mon Feb 01 23:12:02 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154277.D Vial: 11
Acq On : 1 Feb 2016 10:31 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 23:11 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154278.D Vial: 12
Acq On : 1 Feb 2016 11:00 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 23:53:42 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	242531	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	925247	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	483008	40.00 ppm	0.00
69) Phenanthrene-d10	9.21	188	826049	40.00 ppm	-0.01
83) Chrysene-d12	14.55	240	791645	40.00 ppm	-0.02
92) Perylene-d12	17.61	264	767069	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	242531	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	925247	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	483008	40.00 ppm	0.00
132) Phenanthrene-d10A	9.21	188	826049	40.00 ppm	0.00
147) Chrysene-d12A	14.55	240	791645	40.00 ppm	0.00
155) Perylene-d12A	17.61	264	767069	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	242531	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	925247	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	483008	40.00 ppm	0.00
165) Phenanthrene-d10b	9.21	188	826049	40.00 ppm	0.00
167) Chrysene-d12b	14.55	240	791645	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	242531	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	925247	40.00 ppm	0.00
176) Chrysene-d12c	14.55	240	791645	40.00 ppm	-0.02
178) Naphthalene-d8a	5.80	136	925247	40.00 ppm	0.07
180) Chrysene-d12B	14.55	240	791645	40.00 ppm	0.14

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
168) Benzidine	11.77	184	923419	95.33 ppm	99

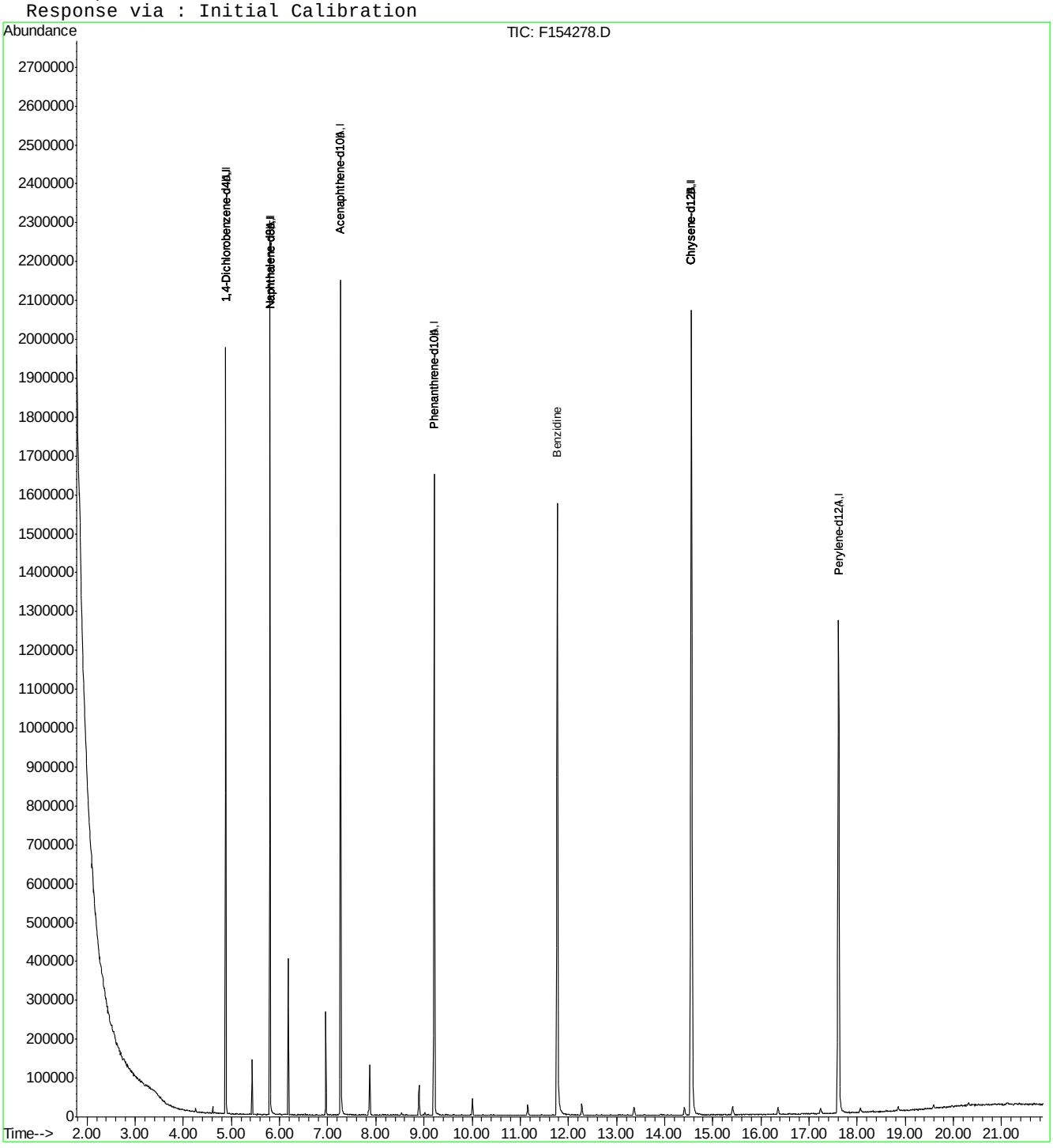
(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154278.D MF6483.M Mon Feb 01 23:54:39 2016 RT1

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154278.D Vial: 12
Acq On : 1 Feb 2016 11:00 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 23:54 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration



F154278.D MF6483.M Mon Feb 01 23:54:40 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154279.D Vial: 13
Acq On : 1 Feb 2016 11:29 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 01 23:56:07 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.88	152	226423	40.00 ppm	0.00
24) Naphthalene-d8	5.80	136	851662	40.00 ppm	0.00
47) Acenaphthene-d10	7.27	164	436934	40.00 ppm	0.00
69) Phenanthrene-d10	9.21	188	724036	40.00 ppm	-0.01
83) Chrysene-d12	14.55	240	685068	40.00 ppm	-0.02
92) Perylene-d12	17.61	264	649579	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.88	152	226423	40.00 ppm	0.00
112) Naphthalene-d8A	5.80	136	851662	40.00 ppm	0.00
121) Acenaphthene-d10A	7.27	164	436934	40.00 ppm	0.00
132) Phenanthrene-d10A	9.21	188	724036	40.00 ppm	0.00
147) Chrysene-d12A	14.55	240	685068	40.00 ppm	0.00
155) Perylene-d12A	17.61	264	649579	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.88	152	226423	40.00 ppm	0.00
161) Naphthalene-d8b	5.80	136	851662	40.00 ppm	0.00
163) Acenaphthene-d10b	7.27	164	436934	40.00 ppm	0.00
165) Phenanthrene-d10b	9.21	188	724036	40.00 ppm	0.00
167) Chrysene-d12b	14.55	240	685068	40.00 ppm	0.00
169) 1,4-Dichlorobenzene-d4c	4.88	152	226423	40.00 ppm	0.00
171) Naphthalene-d8c	5.80	136	851662	40.00 ppm	0.00
176) Chrysene-d12c	14.55	240	685068	40.00 ppm	-0.02
178) Naphthalene-d8a	5.80	136	851662	40.00 ppm	0.07
180) Chrysene-d12B	14.55	240	685068	40.00 ppm	0.14

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

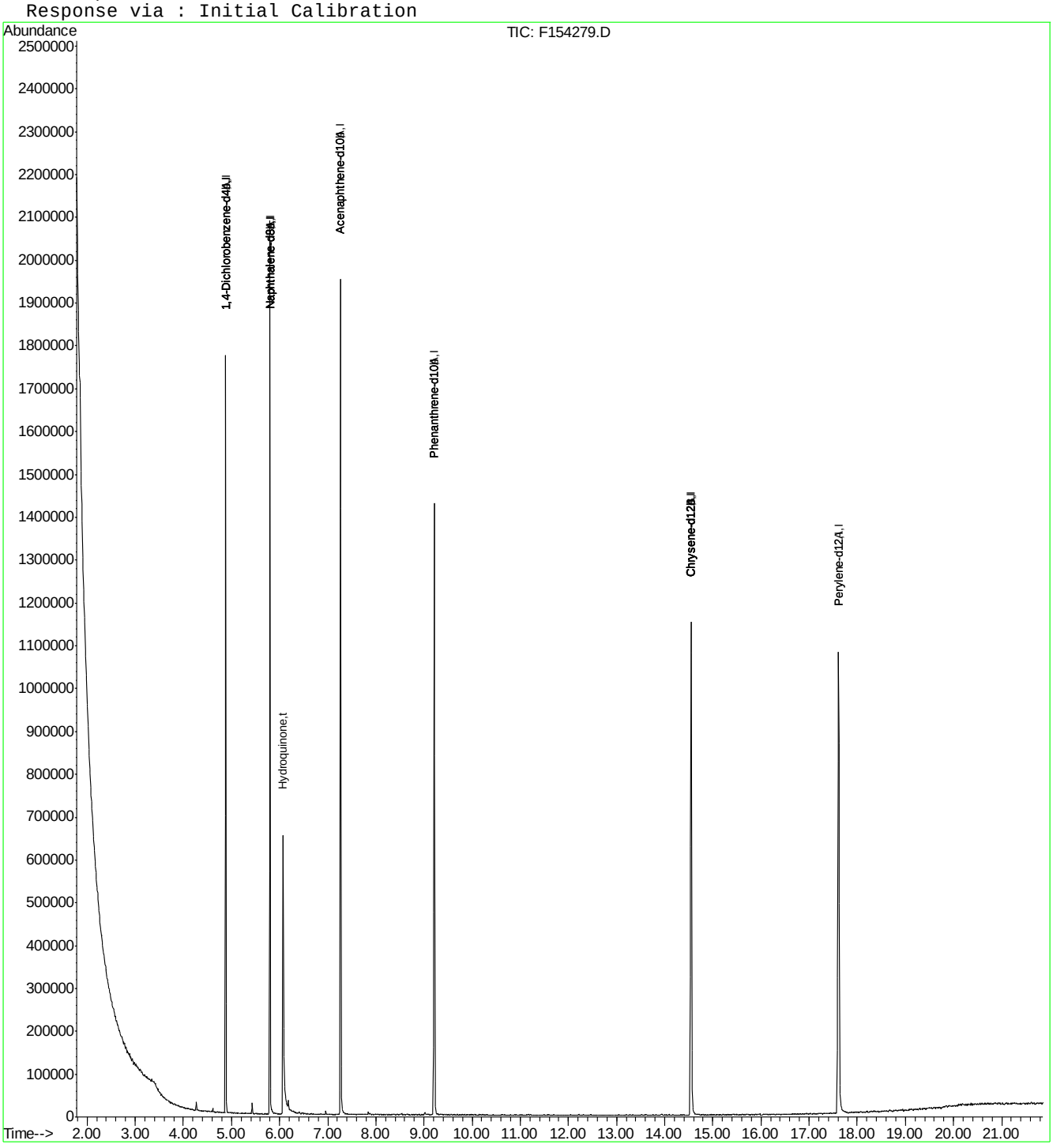
Target Compounds					Qvalue
162) Hydroquinone	6.07	110	382454	58.94 ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F154279.D MF6483.M Mon Feb 01 23:57:07 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6489\F154279.D Vial: 13
Acq On : 1 Feb 2016 11:29 pm Operator: sarad
Sample : icv6489-50 Inst : MSF
Misc : op90770,ef6489 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Feb 1 23:56 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Feb 01 23:10:06 2016
Response via : Initial Calibration



F154279.D MF6483.M Mon Feb 01 23:57:07 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155571.D Vial: 2
Acq On : 15 Mar 2016 9:18 pm Operator: sarad
Sample : cc6483-25 Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 21:40:22 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	170489	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	680978	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	422144	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	676792	40.00	ppm	0.00
83) Chrysene-d12	14.36	240	653539	40.00	ppm	0.00
92) Perylene-d12	17.41	264	550977	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	170489	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	680978	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	422144	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	676792	40.00	ppm	0.00
110) Chrysene-d12b	14.36	240	653539	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.85	112	149317	23.23	ppm	0.04
Spiked Amount 50.000			Recovery = 46.46%			
8) Phenol-d5	4.56	99	184277	25.36	ppm	0.02
Spiked Amount 50.000			Recovery = 50.72%			
25) Nitrobenzene-d5	5.19	82	171613	26.26	ppm	0.00
Spiked Amount 50.000			Recovery = 52.52%			
51) 2-Fluorobiphenyl	6.52	172	352487	22.79	ppm	0.01
Spiked Amount 50.000			Recovery = 45.58%			
73) 2,4,6-Tribromophenol	8.06	330	38433	23.19	ppm	0.00
Spiked Amount 50.000			Recovery = 46.38%			
85) Terphenyl-d14	12.11	244	318154	22.30	ppm	0.00
Spiked Amount 50.000			Recovery = 44.60%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.37	88	66793	24.35	ppm		94
3) Pyridine	2.70	79	155740	22.95	ppm		82
4) N-Nitrosodimethylamine	2.67	42	84669	32.53	ppm	#	65
6) Indene	4.97	116	302559	24.22	ppm		98
7) Cumene	4.19	105	397341	24.47	ppm		97
9) Phenol	4.57	94	215380	26.85	ppm		95
10) Aniline	4.55	93	164328	19.44	ppm		88
11) bis(2-Chloroethyl)ether	4.59	93	144474	24.34	ppm		99
12) 2-Chlorophenol	4.65	128	170215	24.86	ppm		96
13) Decane	4.66	43	198528	33.41	ppm		84
14) 1,3-Dichlorobenzene	4.74	146	177034	23.34	ppm		96
15) 1,4-Dichlorobenzene	4.80	146	182300	23.85	ppm		98
16) Benzyl alcohol	4.89	108	106164	25.60	ppm		87
17) 1,2-Dichlorobenzene	4.91	146	173999	24.09	ppm		98
18) Acetophenone	5.08	105	231905	25.92	ppm		99
19) 2-Methylphenol	5.00	108	147977	27.45	ppm		98
20) 2,2'-oxybis(1-Chloropropan	4.98	121	57494	25.11	ppm	#	43
21) 3&4-Methylphenol	5.10	108	160007	29.00	ppm		94
22) n-Nitroso-di-n-propylamine	5.08	70	111809	28.43	ppm		97
23) Hexachloroethane	5.16	201	55936	25.21	ppm		98
26) Nitrobenzene	5.20	77	172817	26.20	ppm		97
27) Quinoline	5.96	129	345790	22.44	ppm		97
28) Isophorone	5.37	82	286538	24.67	ppm		92

(#) = qualifier out of range (m) = manual integration
F155571.D MF6483.M Wed Mar 16 15:04:06 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155571.D Vial: 2
Acq On : 15 Mar 2016 9:18 pm Operator: sarad
Sample : cc6483-25 Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 21:40:22 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2-Nitrophenol	5.43	139	88144	25.64	ppm		89
30)	2,4-Dimethylphenol	5.47	107	147939	25.58	ppm		97
31)	Benzoic acid	5.56	105	133681	31.77	ppm		97
32)	bis(2-Chloroethoxy)methane	5.52	93	171781	24.03	ppm		97
33)	2,4-Dichlorophenol	5.62	162	134295	26.90	ppm		97
34)	2,6-Dichlorophenol	5.77	162	131181	24.54	ppm		98
35)	1,3,5-Trichlorobenzene	5.44	180	139001	22.71	ppm		100
36)	1,2,4-Trichlorobenzene	5.66	180	136341	23.47	ppm		99
37)	1,2,3-Trichlorobenzene	5.82	180	133126	22.91	ppm		100
38)	Naphthalene	5.72	128	506786	23.25	ppm		90
39)	4-Chloroaniline	5.76	127	178853	22.05	ppm		99
40)	2,3-Dichloroaniline	6.46	161	165751	22.95	ppm		99
41)	Caprolactam	6.02	55	84042	30.21	ppm		89
42)	Hexachlorobutadiene	5.81	225	72298	25.16	ppm		97
43)	4-Chloro-3-methylphenol	6.13	107	152798	24.68	ppm		86
44)	2-Methylnaphthalene	6.22	141	266942	22.25	ppm		98
45)	1-Methylnaphthalene	6.30	141	286196	22.90	ppm		98
46)	Dimethylnaphthalene	6.74	156	300483	24.45	ppm		100
48)	Hexachlorocyclopentadiene	6.35	237	145332	46.94	ppm		99
49)	2,4,6-Trichlorophenol	6.46	196	88762	24.33	ppm		99
50)	2,4,5-Trichlorophenol	6.51	196	91891	22.95	ppm		98
52)	2-Chloronaphthalene	6.63	162	301898	22.43	ppm		94
53)	Biphenyl	6.60	154	411229	22.87	ppm		99
54)	2-Nitroaniline	6.72	65	100840	30.61	ppm		86
55)	Dimethylphthalate	6.87	163	347950	23.15	ppm		99
56)	Acenaphthylene	7.00	152	499323	22.67	ppm		99
57)	2,6-Dinitrotoluene	6.93	165	80581	27.64	ppm		91
58)	3-Nitroaniline	7.11	138	84273	24.05	ppm		90
59)	Acenaphthene	7.18	153	309822	22.22	ppm		96
60)	2,4-Dinitrophenol	7.21	184	83977	72.55	ppm	#	45
61)	4-Nitrophenol	7.32	109	56207	29.09	ppm		87
62)	Dibenzofuran	7.36	168	432758	22.64	ppm		98
63)	2,4-Dinitrotoluene	7.34	165	113323	27.47	ppm		93
64)	2,3,4,6-Tetrachlorophenol	7.51	232	70219	22.33	ppm		92
65)	Diethylphthalate	7.60	149	355360	23.49	ppm		99
66)	Fluorene	7.75	166	351052	22.71	ppm		99
67)	4-Chlorophenyl-phenylether	7.74	204	159014	24.46	ppm		96
68)	4-Nitroaniline	7.79	138	76836	20.20	ppm		89
70)	4,6-Dinitro-2-methylphenol	7.82	198	60951	32.31	ppm		96
71)	n-Nitrosodiphenylamine	7.89	169	258942	22.46	ppm		98
72)	1,2-Diphenylhydrazine	7.94	77	344987	24.24	ppm		97
74)	4-Bromophenyl-phenylether	8.39	248	80746	23.01	ppm		98
75)	Hexachlorobenzene	8.48	284	84922	22.69	ppm		96
76)	Pentachlorophenol	8.79	266	106039	43.87	ppm		98
77)	Phenanthrene	9.09	178	463300	21.79	ppm		99
78)	Anthracene	9.17	178	470020	22.08	ppm		99
79)	Carbazole	9.46	167	486627	22.31	ppm		98
80)	Di-n-butylphthalate	10.14	149	611336	23.72	ppm		99
81)	Fluoranthene	11.26	202	518050	23.74	ppm		95

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155571.D Vial: 2
Acq On : 15 Mar 2016 9:18 pm Operator: sarad
Sample : cc6483-25 Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 21:40:22 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

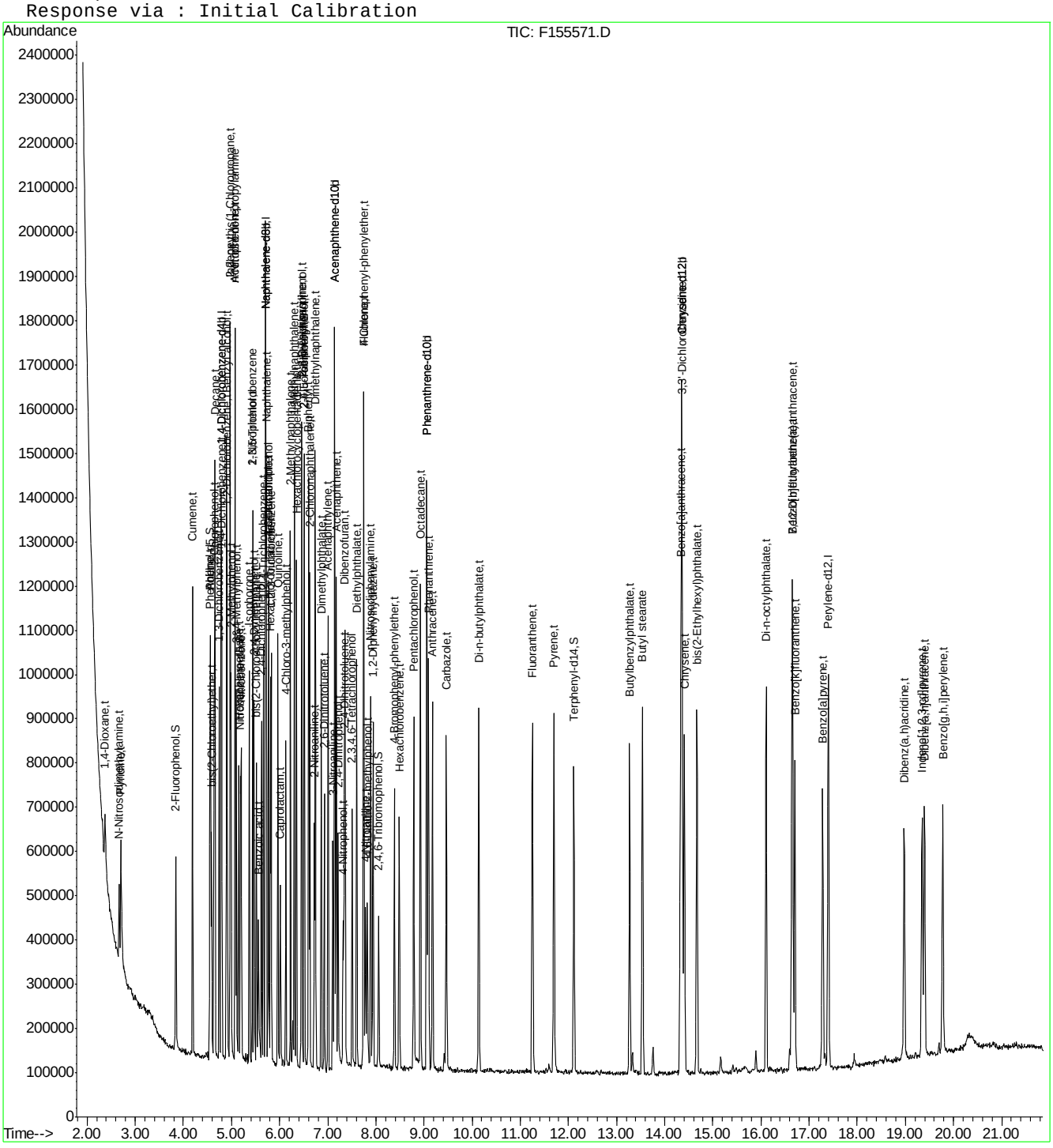
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
82)	Octadecane	8.93	57	258814	27.75 ppm	90
84)	Pyrene	11.70	202	535883	21.86 ppm	97
86)	Butylbenzylphthalate	13.28	149	274012	23.89 ppm	97
87)	Butyl stearate	13.54	56	190318	29.01 ppm	94
88)	Benzo[a]anthracene	14.33	228	447334	21.80 ppm	100
89)	3,3'-Dichlorobenzidine	14.37	252	160200	25.16 ppm	98
90)	Chrysene	14.41	228	435909	21.46 ppm	99
91)	bis(2-Ethylhexyl)phthalate	14.67	149	370744	23.21 ppm	99
93)	Di-n-octylphthalate	16.11	149	641994	26.52 ppm	98
94)	Benzo[b]fluoranthene	16.65	252	431883	24.19 ppm	98
95)	Benzo[k]fluoranthene	16.71	252	412948	23.45 ppm	98
96)	Benzo[a]pyrene	17.28	252	375630	23.78 ppm	98
97)	Indeno[1,2,3-cd]pyrene	19.35	276	356643	24.34 ppm	93
98)	Dibenz(a,h)acridine	18.98	279	338791	24.32 ppm	99
99)	Dibenz[a,h]anthracene	19.40	278	369351	23.88 ppm	98
100)	7,12-Dimethylbenz(a)anthra	16.66	256	175123	24.39 ppm	97
101)	Benzo[g,h,i]perylene	19.78	276	363864	22.46 ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155571.D Vial: 2
Acq On : 15 Mar 2016 9:18 pm Operator: sarad
Sample : cc6483-25 Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:03 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155572.D Vial: 3
Acq On : 15 Mar 2016 9:46 pm Operator: sarad
Sample : cc6489-25 Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 15 22:08:47 2016 Quant Results File: MF6483.RES

Quant Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration
DataAcq Meth : MF6483

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.78	152	184821	40.00	ppm	0.05
24) Naphthalene-d8	5.71	136	730578	40.00	ppm	0.00
47) Acenaphthene-d10	7.14	164	450943	40.00	ppm	0.00
69) Phenanthrene-d10	9.06	188	734218	40.00	ppm	0.00
83) Chrysene-d12	14.35	240	706445	40.00	ppm	0.00
92) Perylene-d12	17.40	264	614641	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4b	4.78	152	184821	40.00	ppm	0.06
104) Naphthalene-d8b	5.71	136	730578	40.00	ppm	0.00
106) Acenaphthene-d10b	7.14	164	450943	40.00	ppm	0.00
108) Phenanthrene-d10b	9.06	188	734218	40.00	ppm	0.00
110) Chrysene-d12b	14.35	240	706445	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

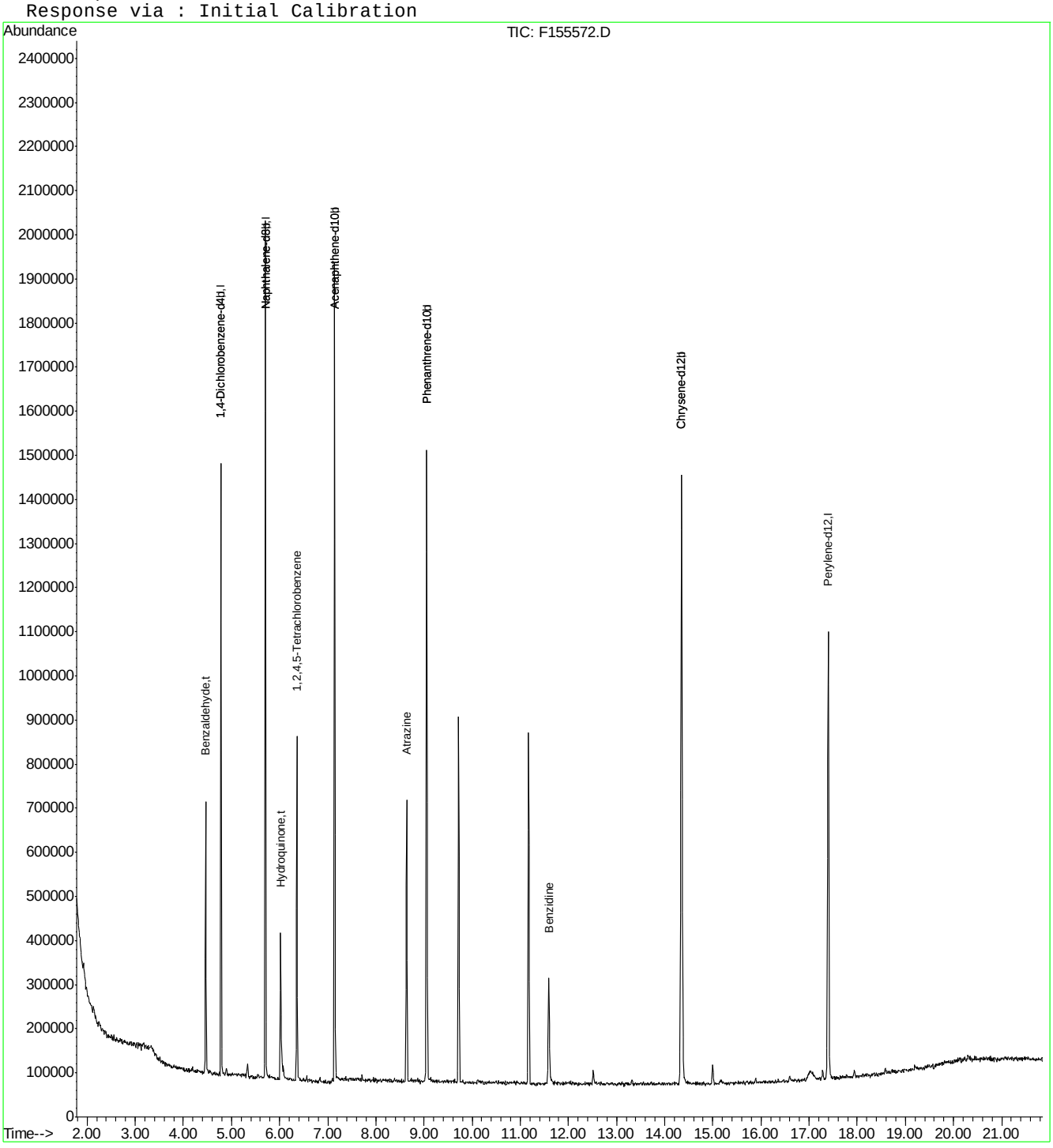
Target Compounds						Qvalue
103) Benzaldehyde	4.46	105	113866	21.29	ppm	91
105) Hydroquinone	6.02	110	149305	26.82	ppm	91
107) 1,2,4,5-Tetrachlorobenzene	6.36	216	120064	20.19	ppm	98
109) Atrazine	8.64	200	86781	25.34	ppm	93
111) Benzidine	11.59	184	164119	18.99	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
F155572.D MF6483.M Wed Mar 16 15:04:54 2016 RT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EF6543\F155572.D Vial: 3
Acq On : 15 Mar 2016 9:46 pm Operator: sarad
Sample : cc6489-25 Inst : MSF
Misc : op92047,ef6543 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 16 15:04 2016 Quant Results File: MF6483.RES

Method : C:\MSDCHEM\1\METHODS\MF6483.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 17:21:13 2016
Response via : Initial Calibration



F155572.D MF6483.M Wed Mar 16 15:04:54 2016 RT1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102787.D Vial: 10
Acq On : 24 Feb 2016 2:07 am Operator: sarad
Sample : ic4514-100 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:43 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	126755	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	450907	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	254484	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	412235	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	351857	40.00 ppm	0.00
92) Perylene-d12	18.52	264	355480	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	126755	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	450907	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	254484	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	412235	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	351857	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	355480	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	126755	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	412235	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	351857	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	450907	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	254484	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	450907	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	126755	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	351857	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	351857	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	450907	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	272885	71.62 ppm	99
162) Atrazine	10.88	200	197090	93.69 ppm	93
164) Benzidine	13.59	184	399210	67.45 ppm	99
166) Hydroquinone	6.81	110	439864	106.41 ppm	97
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	279294	79.97 ppm	99

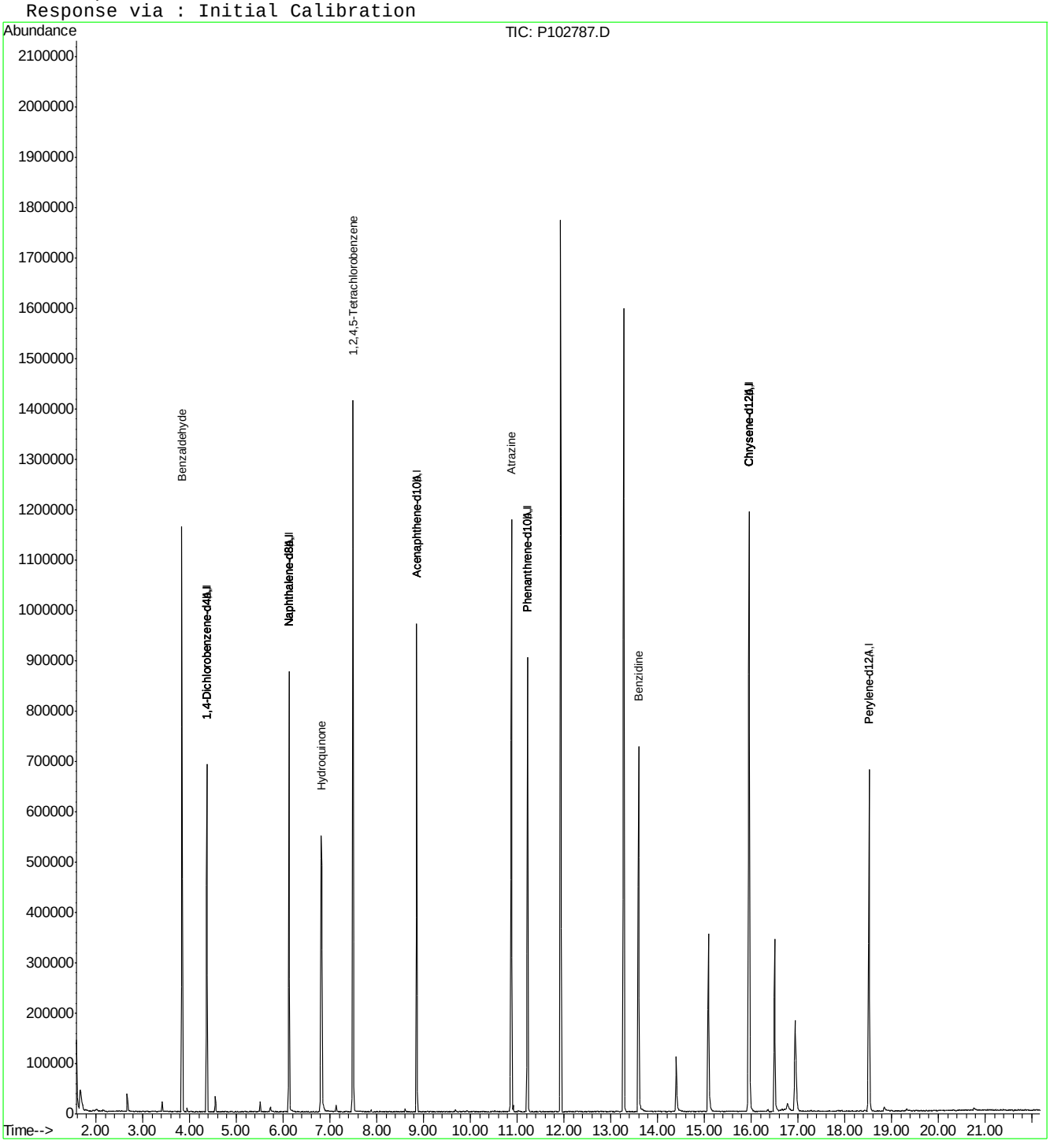
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102787.D Vial: 10
Acq On : 24 Feb 2016 2:07 am Operator: sarad
Sample : ic4514-100 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:34 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102788.D Vial: 11
Acq On : 24 Feb 2016 2:36 am Operator: sarad
Sample : ic4514-80 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:07 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	119957	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	428470	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	236592	40.00	ppm	0.00
69) Phenanthrene-d10	11.23	188	390766	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	333749	40.00	ppm	0.00
92) Perylene-d12	18.52	264	337313	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	119957	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	428470	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	236592	40.00	ppm	0.00
132) Phenanthrene-d10A	11.23	188	390766	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	333749	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	337313	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	119957	40.00	ppm	0.00
161) Phenanthrene-d10b	11.23	188	390766	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	333749	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	428470	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	236592	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	428470	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	119957	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	333749	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	333749	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	428470	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

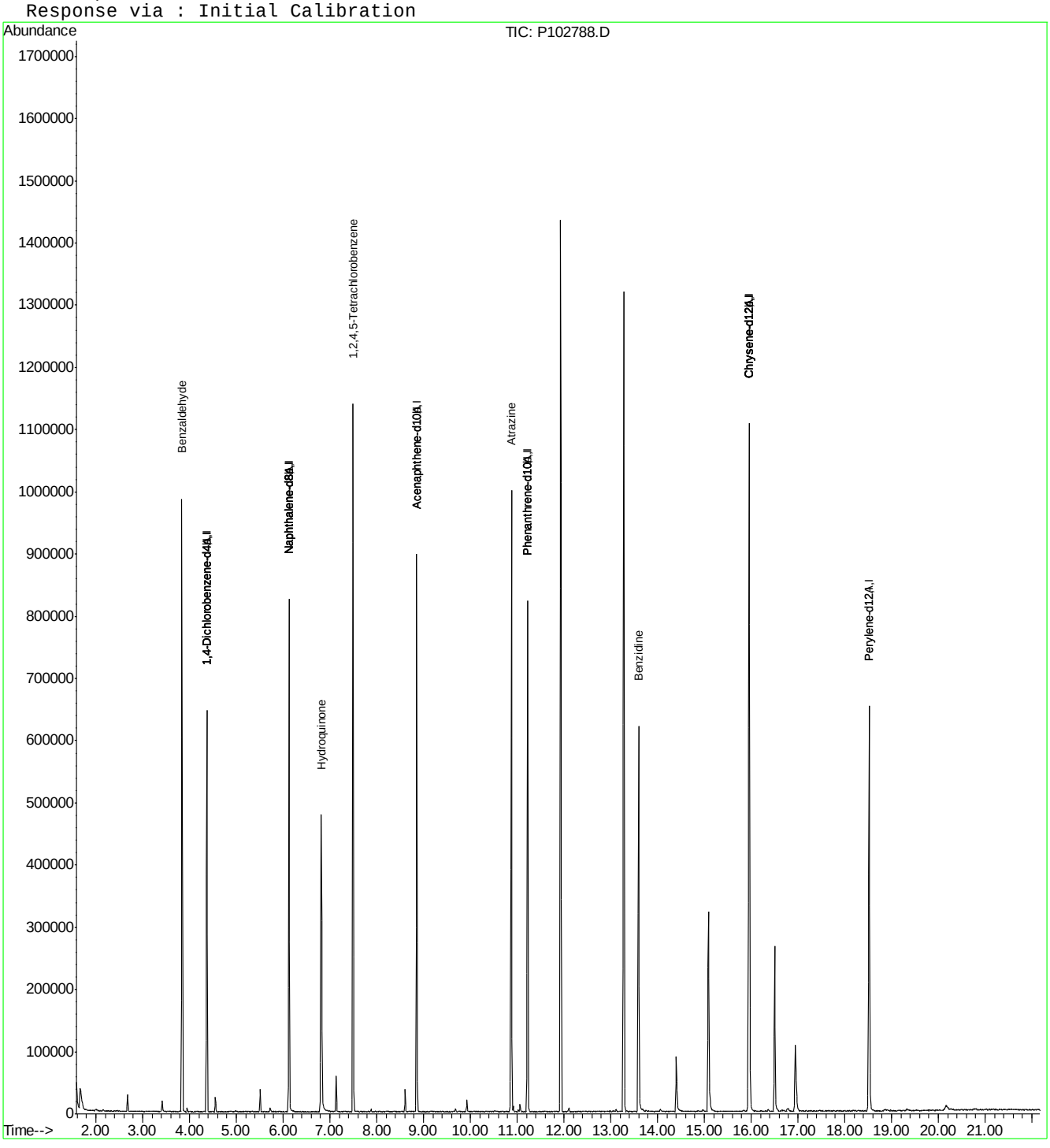
Target Compounds						Qvalue
160) Benzaldehyde	3.84	105	232196	64.39	ppm	99
162) Atrazine	10.88	200	152338	76.39	ppm	97
164) Benzidine	13.59	184	323040	57.54	ppm	99
166) Hydroquinone	6.81	110	341882	87.04	ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	220907	68.03	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102788.D MP4513.M Wed Feb 24 14:35:08 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102788.D Vial: 11
Acq On : 24 Feb 2016 2:36 am Operator: sarad
Sample : ic4514-80 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:34 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102789.D Vial: 12
Acq On : 24 Feb 2016 3:06 am Operator: sarad
Sample : ic4514-10 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:10 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	136729	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	481198	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	270846	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	430378	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	374718	40.00 ppm	0.00
92) Perylene-d12	18.52	264	368292	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	136729	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	481198	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	270846	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	430378	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	374718	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	368292	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	136729	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	430378	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	374718	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	481198	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	270846	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	481198	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	136729	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	374718	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	374718	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	481198	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

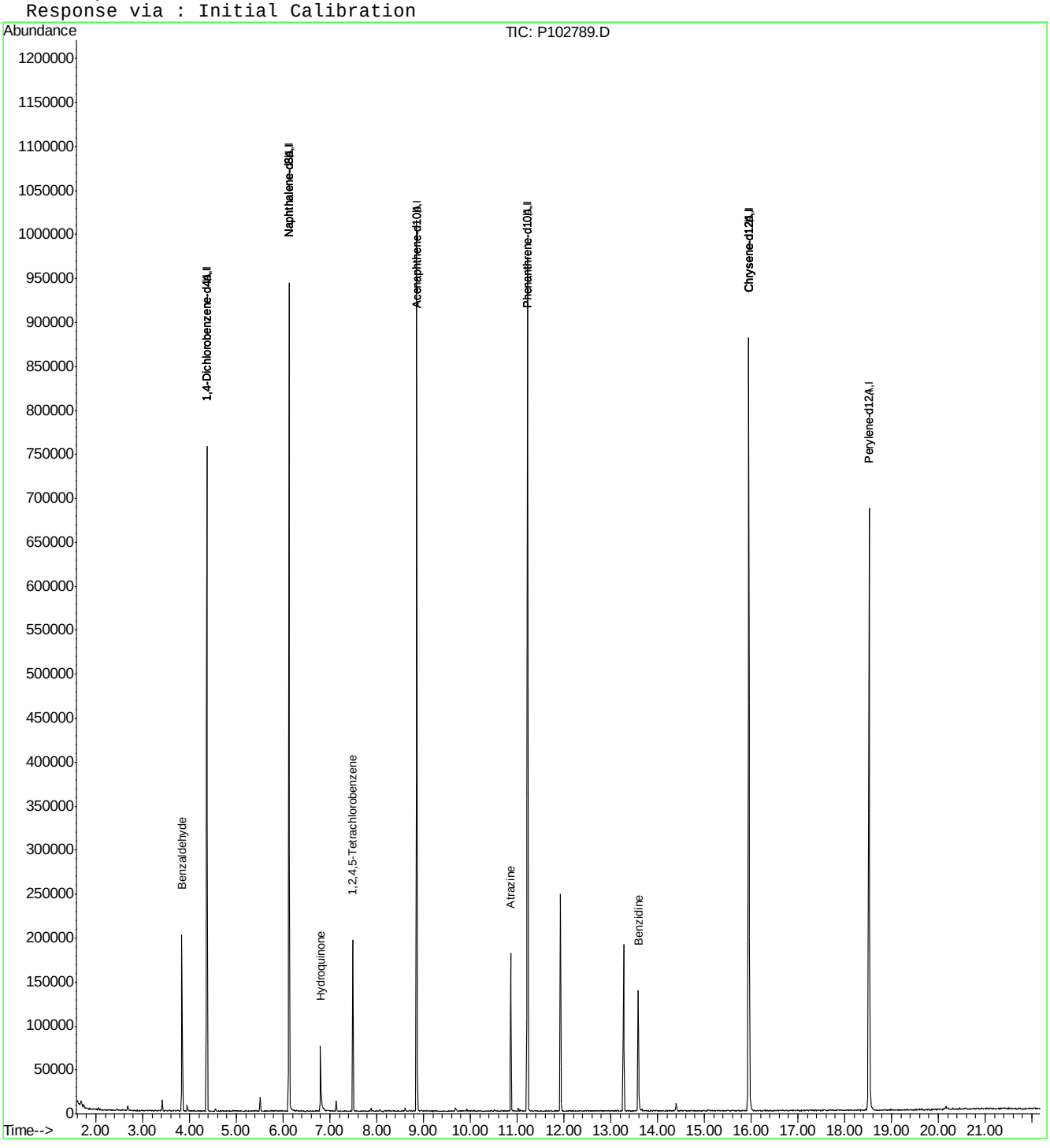
Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	43208	10.51 ppm	98
162) Atrazine	10.86	200	22196	10.11 ppm	90
164) Benzidine	13.59	184	76244	12.10 ppm	99
166) Hydroquinone	6.80	110	41650	9.44 ppm	98
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	37002	9.95 ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102789.D MP4513.M Wed Feb 24 14:35:39 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102789.D Vial: 12
Acq On : 24 Feb 2016 3:06 am Operator: sarad
Sample : ic4514-10 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:35 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102790.D Vial: 13
Acq On : 24 Feb 2016 3:35 am Operator: sarad
Sample : ic4514-5 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:14 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	164954	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	563561	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	313072	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	511186	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	452088	40.00 ppm	0.00
92) Perylene-d12	18.52	264	443331	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	164954	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	563561	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	313072	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	511186	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	452088	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	443331	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	164954	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	511186	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	452088	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	563561	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	313072	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	563561	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	164954	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	452088	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	452088	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	563561	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

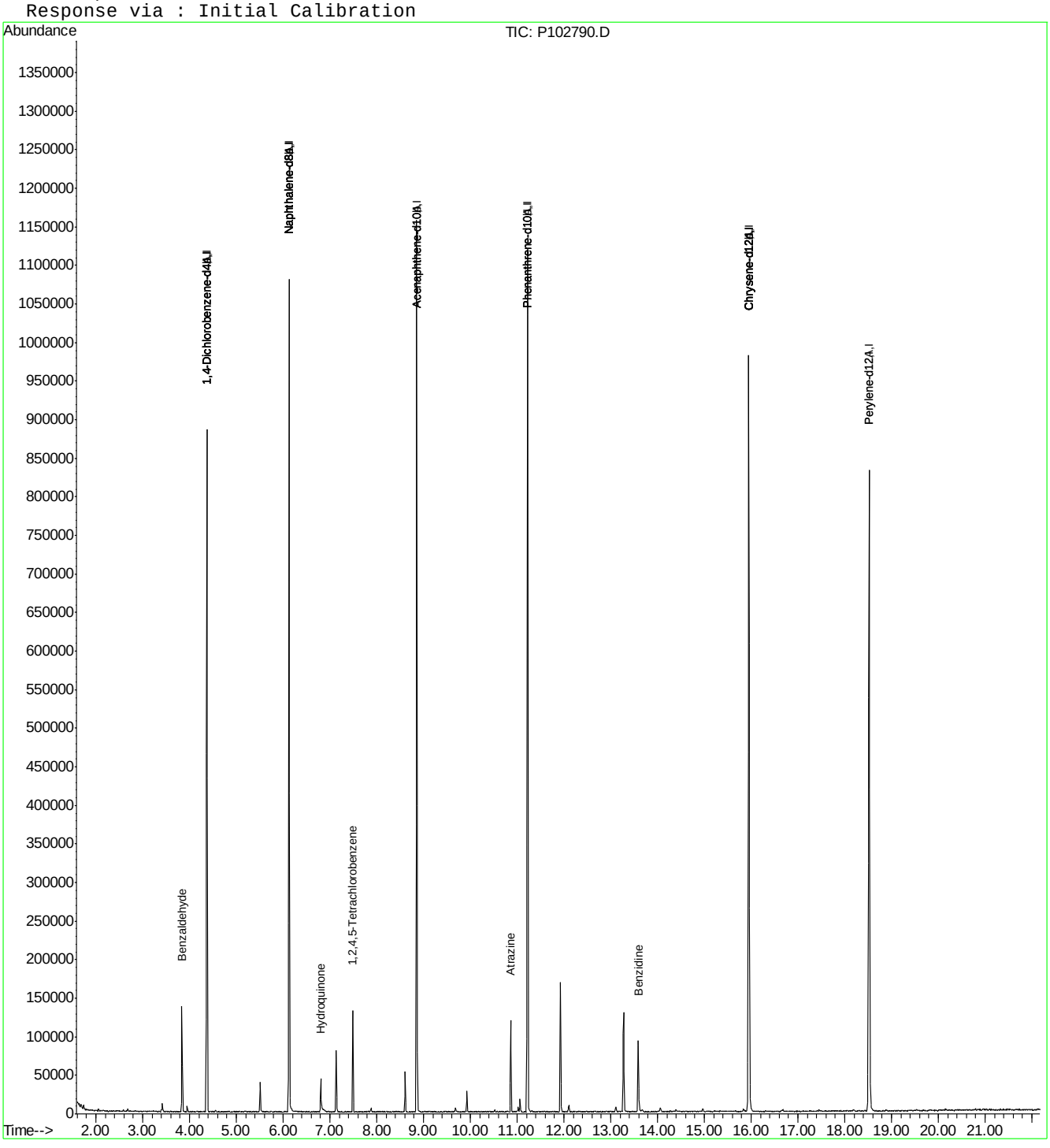
Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	29655	5.98 ppm	99
162) Atrazine	10.86	200	14635	5.61 ppm	98
164) Benzidine	13.59	184	52465	6.90 ppm	98
166) Hydroquinone	6.80	110	26007	5.03 ppm	94
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	25271	5.88 ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102790.D MP4513.M Wed Feb 24 14:36:07 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102790.D Vial: 13
Acq On : 24 Feb 2016 3:35 am Operator: sarad
Sample : ic4514-5 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:35 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102791.D Vial: 14
Acq On : 24 Feb 2016 4:05 am Operator: sarad
Sample : ic4514-2 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:19 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	157400	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	549331	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	307207	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	486864	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	411356	40.00 ppm	0.00
92) Perylene-d12	18.52	264	397949	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	157400	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	549331	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	307207	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	486864	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	411356	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	397949	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	157400	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	486864	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	411356	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	549331	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	307207	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	549331	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	157400	40.00 ppm	-0.09
176) Chrysene-d12c	15.95	240	411356	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	411356	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	549331	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

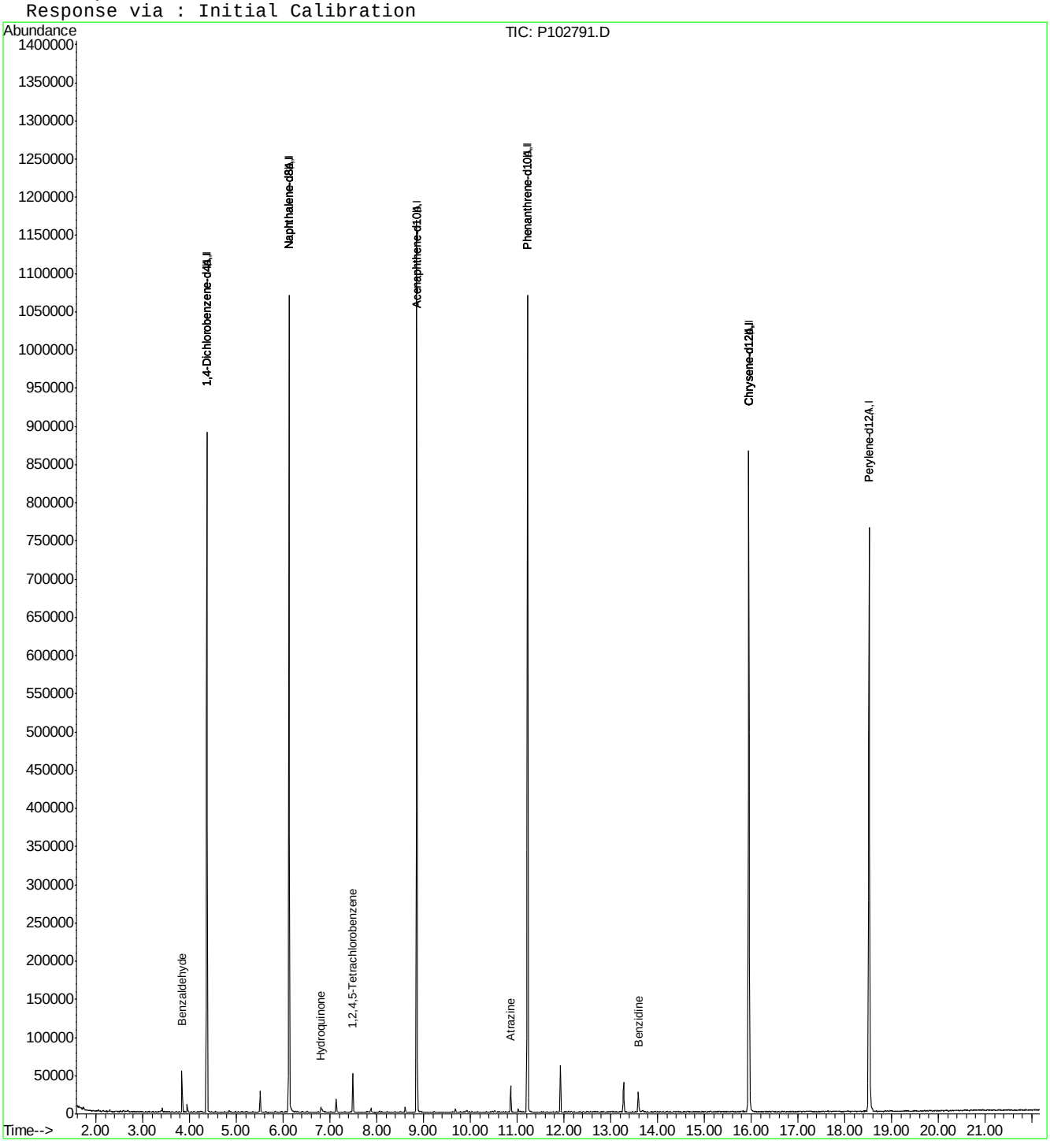
Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	11747	2.48 ppm	96
162) Atrazine	10.86	200	4998	2.01 ppm	93
164) Benzidine	13.59	184	16474	2.38 ppm	99
166) Hydroquinone	6.81	110	7600	1.51 ppm	92
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	9946	2.36 ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102791.D MP4513.M Wed Feb 24 14:36:37 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102791.D Vial: 14
Acq On : 24 Feb 2016 4:05 am Operator: sarad
Sample : ic4514-2 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:36 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102792.D Vial: 15
Acq On : 24 Feb 2016 4:34 am Operator: sarad
Sample : ic4514-1 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:21 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	135191	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	472196	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	264454	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	432389	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	378494	40.00	ppm	0.00
92) Perylene-d12	18.52	264	356091	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	135191	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	472196	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	264454	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	432389	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	378494	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	356091	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	135191	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	432389	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	378494	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	472196	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	264454	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	472196	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	135191	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	378441	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	378441	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	472196	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

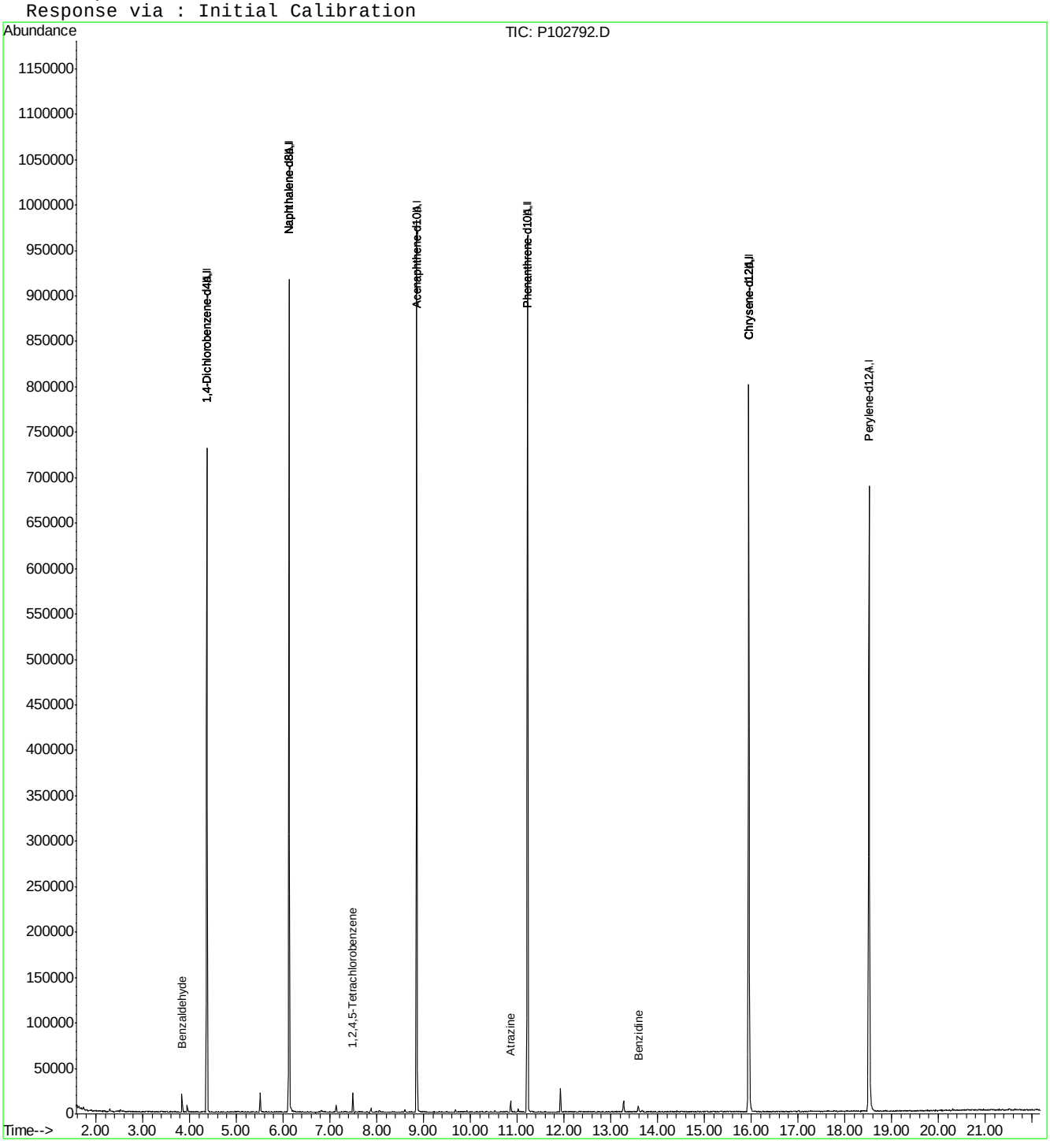
Target Compounds							Qvalue
160) Benzaldehyde	3.84	105	4552	1.12	ppm		97
162) Atrazine	10.86	200	2144	0.97	ppm		82
164) Benzidine	13.59	184	5187	0.81	ppm	#	66
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	4065	1.12	ppm		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102792.D MP4513.M Wed Feb 24 14:37:07 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102792.D Vial: 15
Acq On : 24 Feb 2016 4:34 am Operator: sarad
Sample : ic4514-1 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



P102792.D MP4513.M Wed Feb 24 14:37:08 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102793.D Vial: 16
Acq On : 24 Feb 2016 5:04 am Operator: sarad
Sample : ic4514-25 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:28 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	124747	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	436946	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	242658	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	388953	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	333803	40.00	ppm	0.00
92) Perylene-d12	18.51	264	324604	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	124747	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	436946	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	242658	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	388953	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	333803	40.00	ppm	0.00
155) Perylene-d12A	18.51	264	324604	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	124747	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	388953	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	333803	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	436946	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	242658	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	436946	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	124747	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	333803	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	333803	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	436946	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds

						Qvalue
160) Benzaldehyde	3.84	105	91859	24.50	ppm	96
162) Atrazine	10.87	200	50010	25.20	ppm	97
164) Benzidine	13.59	184	153732	27.38	ppm	99
166) Hydroquinone	6.80	110	108014	26.96	ppm	99
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	81204	24.38	ppm	98

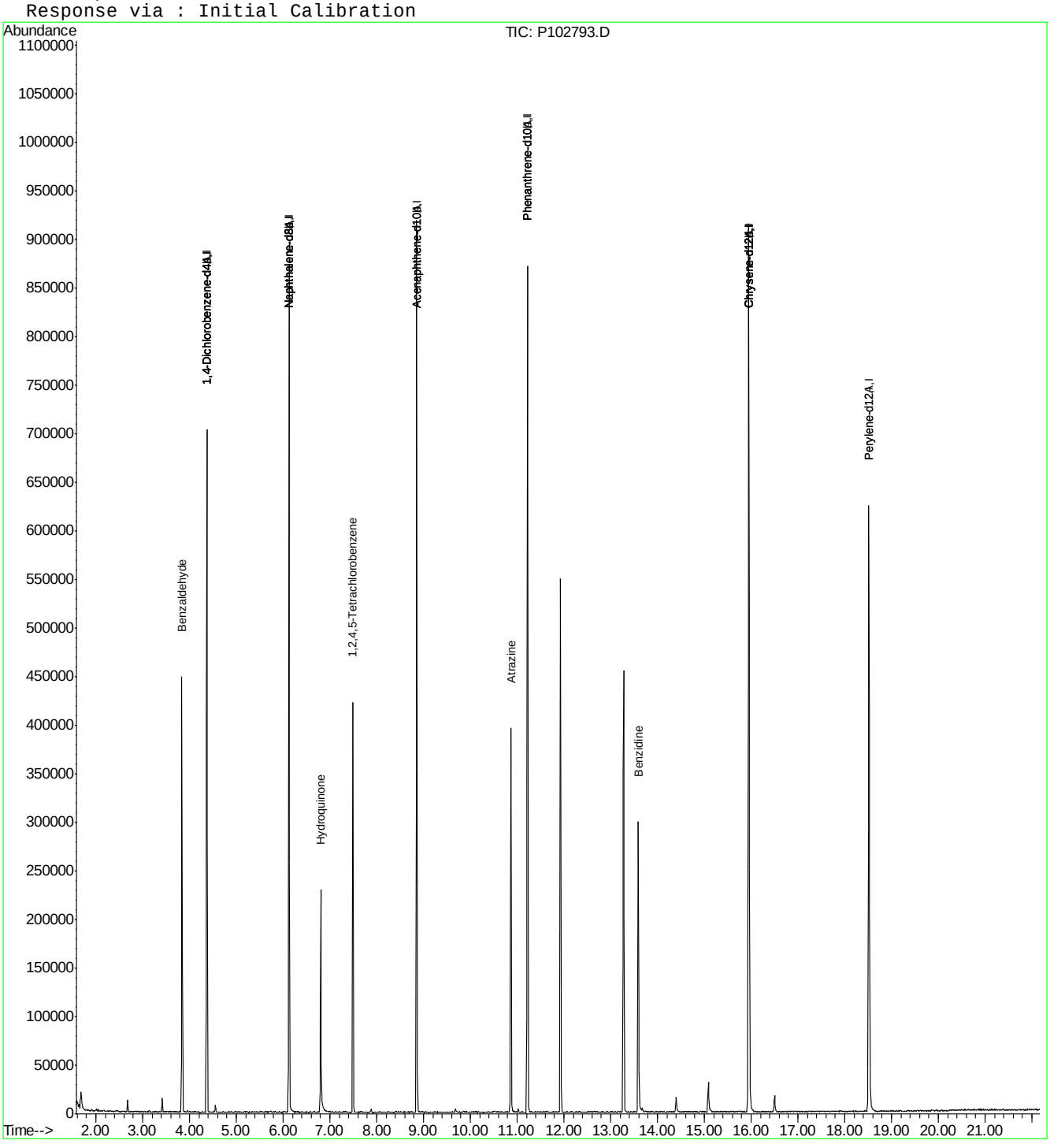
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102793.D Vial: 16
Acq On : 24 Feb 2016 5:04 am Operator: sarad
Sample : ic4514-25 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102794.D Vial: 17
Acq On : 24 Feb 2016 5:33 am Operator: sarad
Sample : icc4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:33:33 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	123738	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	444756	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	244838	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	386844	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	326980	40.00 ppm	0.00
92) Perylene-d12	18.52	264	322241	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	123738	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	444756	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	244838	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	386844	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	326980	40.00 ppm	0.00
155) Perylene-d12A	18.52	264	322241	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	123738	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	386844	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	326980	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	444756	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	244838	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	444756	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	123738	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	326980	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	326980	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	444756	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	165508	44.50 ppm	100
162) Atrazine	10.88	200	97727	49.51 ppm	100
164) Benzidine	13.59	184	251988	45.82 ppm	100
166) Hydroquinone	6.81	110	216907	53.20 ppm	100
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	151776	45.17 ppm	100

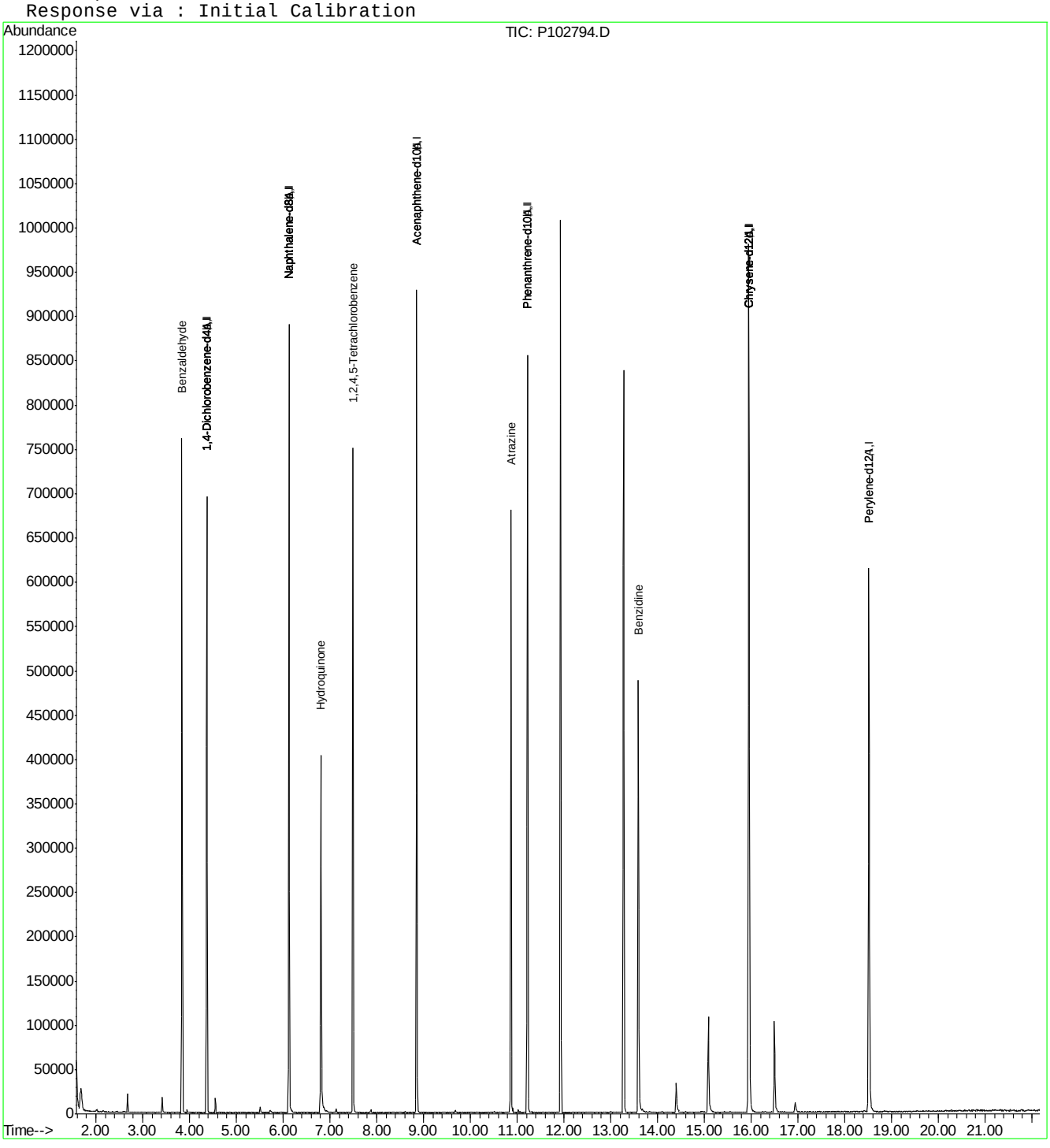
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102794.D Vial: 17
Acq On : 24 Feb 2016 5:33 am Operator: sarad
Sample : icc4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 14:37 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 14:32:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
Acq On : 24 Feb 2016 7:31 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 12:54:33 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	117275	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	407577	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	231457	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	379681	40.00	ppm	0.00
83) Chrysene-d12	15.96	240	296388	40.00	ppm	0.00
92) Perylene-d12	18.52	264	300664	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	117275	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	407577	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	231457	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	379681	40.00	ppm	0.00
147) Chrysene-d12A	15.96	240	296388	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	300664	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	117275	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	379681	40.00	ppm	0.00
163) Chrysene-d12b	15.96	240	296388	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	407577	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	231457	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	407577	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	117275	40.00	ppm	-0.08
176) Chrysene-d12c	15.96	240	296388	40.00	ppm	0.00
178) Chrysene-d12d	15.96	240	296388	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	407577	40.00	ppm	0.16

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
168) 1,2,4,5-Tetrachlorobenzene	7.49	216	147147	46.32	ppm	100

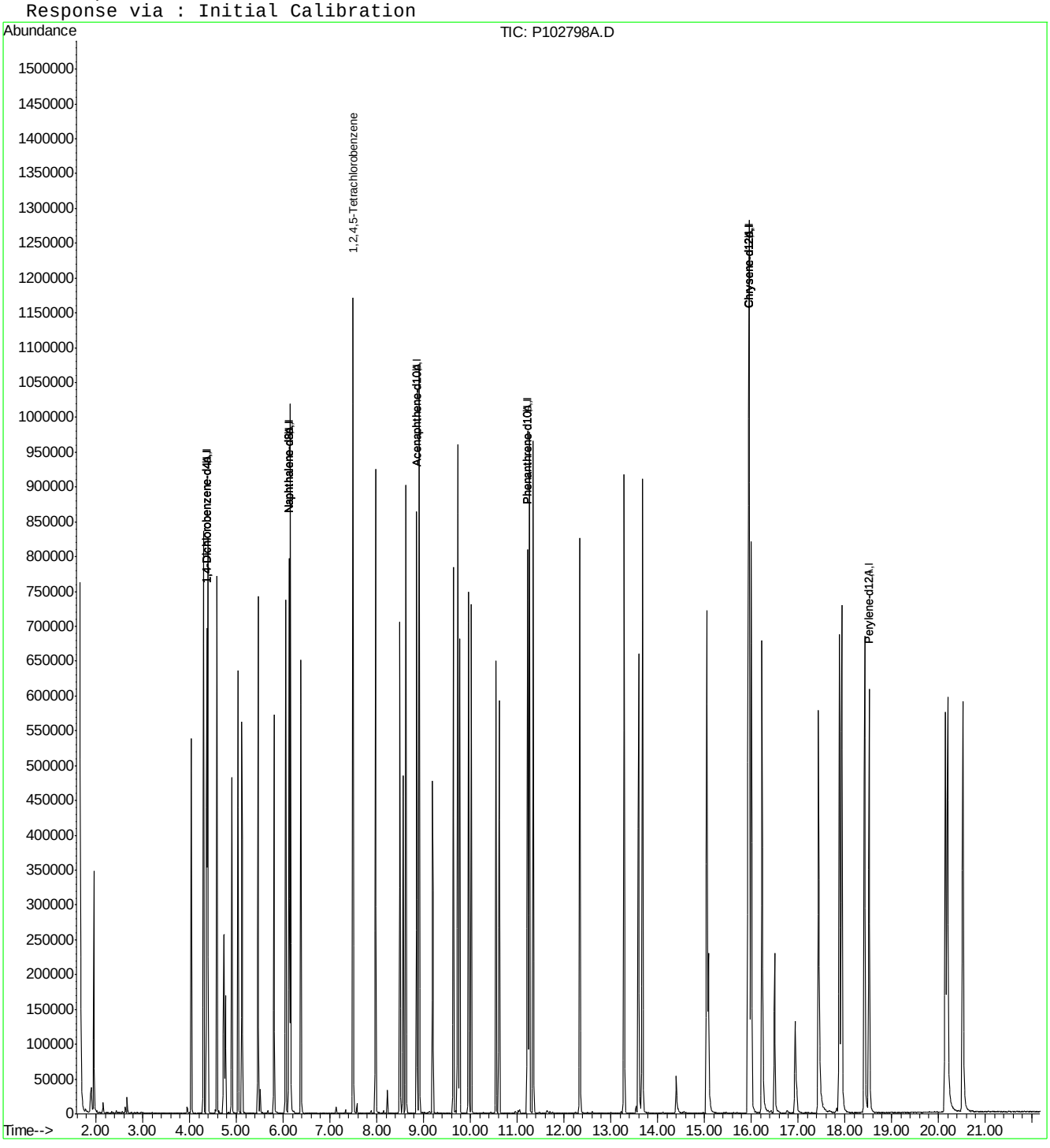
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102798A.D Vial: 21
Acq On : 24 Feb 2016 7:31 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 25 16:19 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 16:59:22 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
Acq On : 24 Feb 2016 8:00 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 12:59:11 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	117905	40.00 ppm	0.00
24) Naphthalene-d8	6.13	136	432668	40.00 ppm	0.00
47) Acenaphthene-d10	8.86	164	239323	40.00 ppm	0.00
69) Phenanthrene-d10	11.22	188	363483	40.00 ppm	0.00
83) Chrysene-d12	15.95	240	338502	40.00 ppm	0.00
92) Perylene-d12	18.51	264	316787	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	117905	40.00 ppm	0.00
112) Naphthalene-d8A	6.13	136	432668	40.00 ppm	0.00
121) Acenaphthene-d10A	8.86	164	239323	40.00 ppm	0.00
132) Phenanthrene-d10A	11.22	188	363483	40.00 ppm	0.00
147) Chrysene-d12A	15.95	240	338502	40.00 ppm	0.00
155) Perylene-d12A	18.51	264	316787	40.00 ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	117905	40.00 ppm	0.00
161) Phenanthrene-d10b	11.22	188	363483	40.00 ppm	0.00
163) Chrysene-d12b	15.95	240	338502	40.00 ppm	0.00
165) Naphthalene-d8b	6.13	136	432668	40.00 ppm	0.00
167) Acenaphthene-d10b	8.86	164	239323	40.00 ppm	0.00
169) Naphthalene-d8c	6.13	136	432668	40.00 ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	117905	40.00 ppm	-0.08
176) Chrysene-d12c	15.95	240	338502	40.00 ppm	0.00
178) Chrysene-d12d	15.95	240	338502	40.00 ppm	0.00
180) Naphthalene-d8a	6.13	136	432668	40.00 ppm	0.16

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

Target Compounds					Qvalue
160) Benzaldehyde	3.84	105	170305	48.05 ppm	97
162) Atrazine	10.88	200	91512	49.34 ppm	98

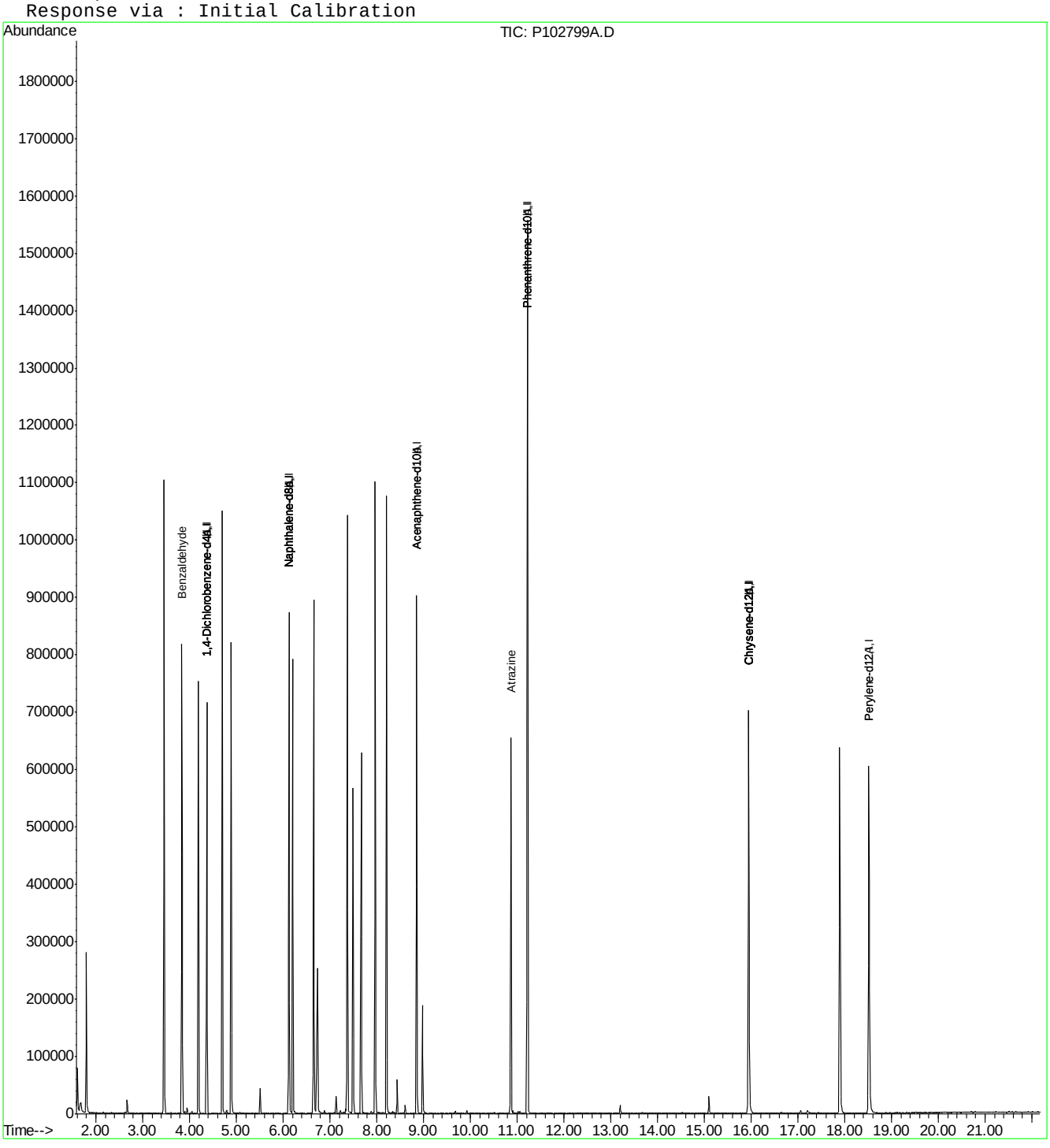
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102799A.D Vial: 22
Acq On : 24 Feb 2016 8:00 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 25 16:20 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 16:59:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
Acq On : 24 Feb 2016 8:29 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 13:00:48 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	131165	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	459959	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	224297	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	391280	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	349495	40.00	ppm	0.00
92) Perylene-d12	18.52	264	345730	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	131165	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	459959	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	224297	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	391280	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	349495	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	345730	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	131165	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	391280	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	349495	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	459959	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	224297	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	459959	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	131165	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	349495	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	349495	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	459959	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

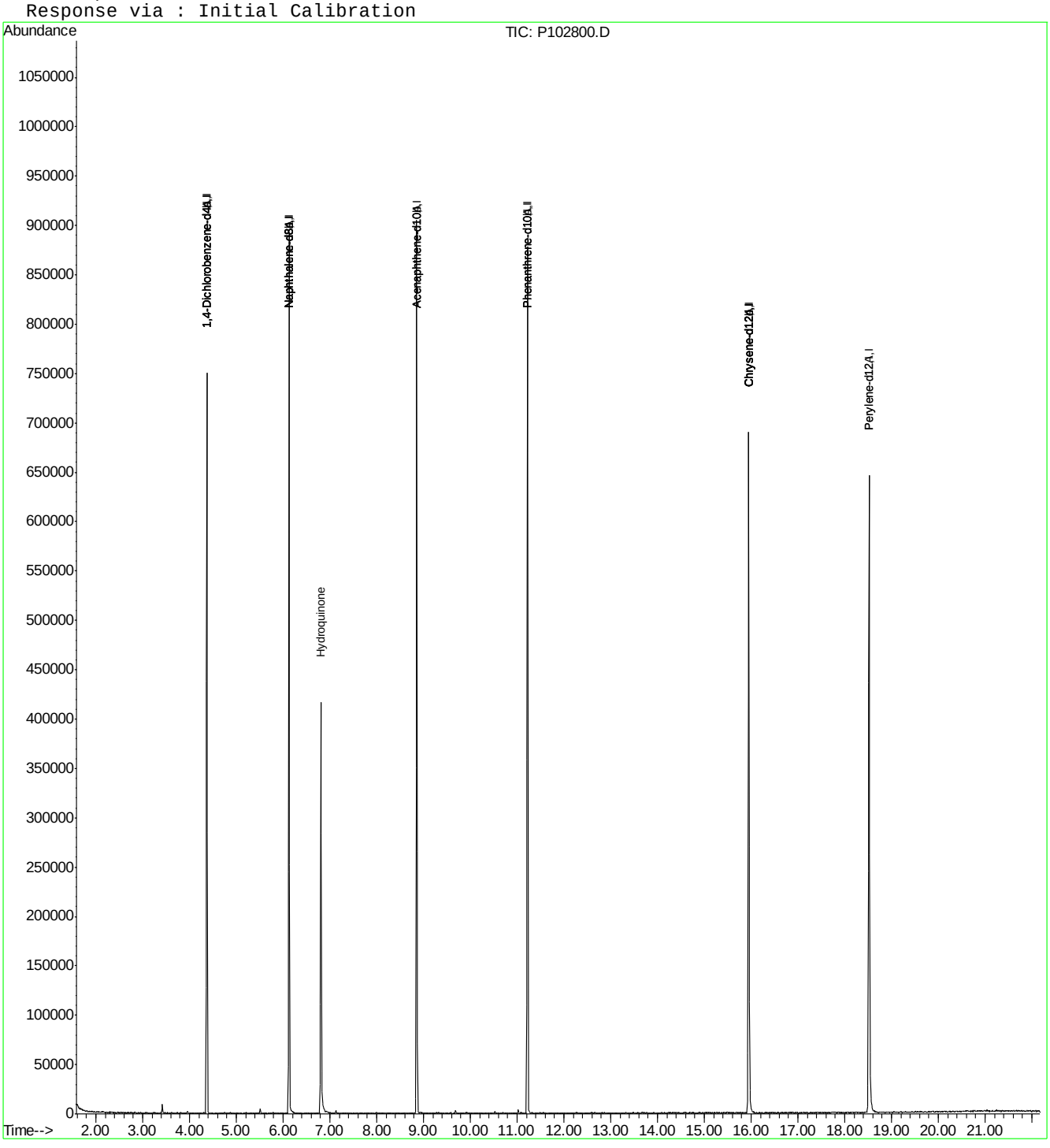
Target Compounds						Qvalue
166) Hydroquinone	6.81	110	221965	52.64	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P102800.D MP4513.M Wed Feb 24 13:01:22 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102800.D Vial: 23
Acq On : 24 Feb 2016 8:29 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 13:01 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration



P102800.D MP4513.M Wed Feb 24 13:01:22 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
Acq On : 24 Feb 2016 8:58 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 24 13:01:35 2016 Quant Results File: MP4513.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 12:45:32 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.37	152	151289	40.00	ppm	0.00
24) Naphthalene-d8	6.13	136	527124	40.00	ppm	0.00
47) Acenaphthene-d10	8.86	164	254350	40.00	ppm	0.00
69) Phenanthrene-d10	11.22	188	443644	40.00	ppm	0.00
83) Chrysene-d12	15.95	240	368888	40.00	ppm	0.00
92) Perylene-d12	18.52	264	382458	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.37	152	151289	40.00	ppm	0.00
112) Naphthalene-d8A	6.13	136	527124	40.00	ppm	0.00
121) Acenaphthene-d10A	8.86	164	254350	40.00	ppm	0.00
132) Phenanthrene-d10A	11.22	188	443644	40.00	ppm	0.00
147) Chrysene-d12A	15.95	240	368888	40.00	ppm	0.00
155) Perylene-d12A	18.52	264	382458	40.00	ppm	0.00
159) 1,4-Dichlorobenzene-d4b	4.37	152	151289	40.00	ppm	0.00
161) Phenanthrene-d10b	11.22	188	443644	40.00	ppm	0.00
163) Chrysene-d12b	15.95	240	368888	40.00	ppm	0.00
165) Naphthalene-d8b	6.13	136	527124	40.00	ppm	0.00
167) Acenaphthene-d10b	8.86	164	254350	40.00	ppm	0.00
169) Naphthalene-d8c	6.13	136	527124	40.00	ppm	0.00
174) 1,4-Dichlorobenzene-d4a	4.37	152	151289	40.00	ppm	-0.08
176) Chrysene-d12c	15.95	240	368888	40.00	ppm	0.00
178) Chrysene-d12d	15.95	240	368888	40.00	ppm	0.00
180) Naphthalene-d8a	6.13	136	527124	40.00	ppm	0.16

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
164) Benzidine	13.59	184	502401	77.37	ppm	99

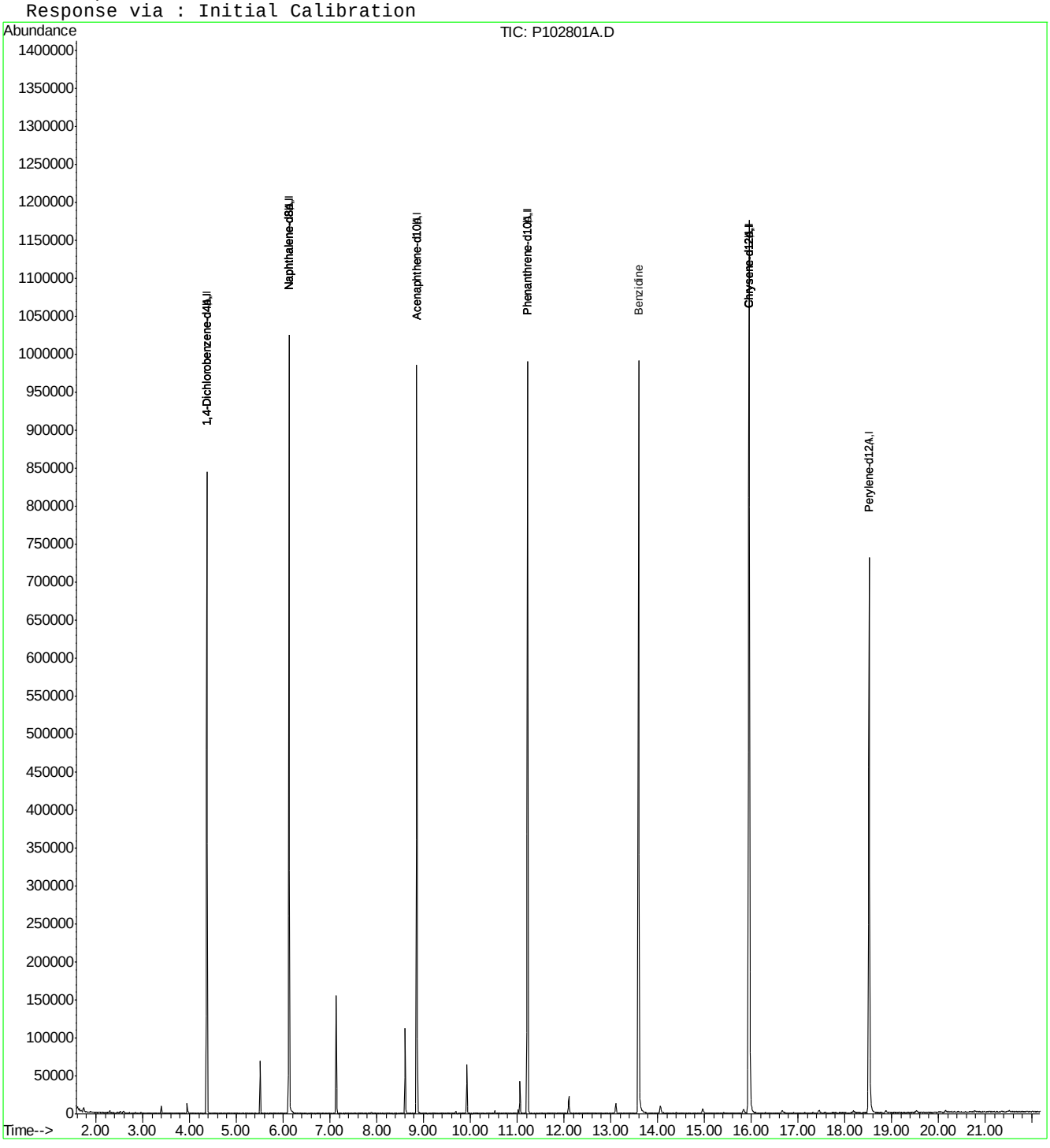
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4513\P102801A.D Vial: 24
Acq On : 24 Feb 2016 8:58 am Operator: sarad
Sample : icv4514-50 Inst : MSP
Misc : op91338,ep4514 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 25 16:21 2016 Quant Results File: MP4513.RES

Method : C:\MSDCHEM\1\METHODS\MP4513.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Feb 24 16:59:22 2016
Response via : Initial Calibration



P102801A.D MP4513.M Thu Feb 25 16:22:00 2016 Page 2

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	176183	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	619829	40.00	ppm	0.00
47) Acenaphthene-d10	8.83	164	355407	40.00	ppm	0.00
69) Phenanthrene-d10	11.20	188	512187	40.00	ppm	0.00
83) Chrysene-d12	15.92	240	467796	40.00	ppm	0.00
92) Perylene-d12	18.48	264	486176	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	176183	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	619829	40.00	ppm	-0.02
121) Acenaphthene-d10A	8.83	164	355407	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.20	188	512187	40.00	ppm	-0.03
147) Chrysene-d12A	15.92	240	467796	40.00	ppm	-0.03
155) Perylene-d12A	18.48	264	486176	40.00	ppm	-0.04
159) 1,4-Dichlorobenzene-d4b	4.35	152	176183	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.20	188	512187	40.00	ppm	-0.03
163) Chrysene-d12b	15.92	240	467796	40.00	ppm	-0.03
165) Naphthalene-d8b	6.10	136	619829	40.00	ppm	-0.02
167) Acenaphthene-d10b	8.83	164	355407	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	619829	40.00	ppm	-0.02
174) 1,4-Dichlorobenzene-d4a	4.35	152	176183	40.00	ppm	-0.11
176) Chrysene-d12c	15.92	240	467796	40.00	ppm	-0.03
178) Chrysene-d12d	15.92	240	467796	40.00	ppm	-0.03
180) Naphthalene-d8a	6.10	136	619829	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	570985	93.30	ppm	0.00
Spiked Amount 50.000			Recovery = 186.60%			
8) Phenol-d5	3.96	99	627844	83.61	ppm	0.00
Spiked Amount 50.000			Recovery = 167.22%			
25) Nitrobenzene-d5	5.08	82	582783	98.09	ppm	0.00
Spiked Amount 50.000			Recovery = 196.18%			
51) 2-Fluorobiphenyl	7.80	172	870565	80.04	ppm	0.00
Spiked Amount 50.000			Recovery = 160.08%			
73) 2,4,6-Tribromophenol	10.11	330	131612	118.89	ppm	0.00
Spiked Amount 50.000			Recovery = 237.78%			
85) Terphenyl-d14	14.02	244	882195	98.61	ppm	0.00
Spiked Amount 50.000			Recovery = 197.22%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	275570	89.87	ppm	98
3) Pyridine	1.97	79	625045	93.10	ppm	92
4) N-Nitrosodimethylamine	1.94	42	238728	96.60	ppm	94
6) Indene	4.68	116	842496	86.20	ppm	97
7) Cumene	3.44	105	1110136	77.47	ppm	94
9) Phenol	3.98	94	709824	95.03	ppm	89
10) Aniline	3.95	93	638029	73.70	ppm	77
11) bis(2-Chloroethyl)ether	4.03	93	497004	93.03	ppm	98
12) 2-Chlorophenol	4.12	128	498225	86.03	ppm	95
13) Decane	4.17	43	369574	82.31	ppm	96
14) 1,3-Dichlorobenzene	4.28	146	545682	82.60	ppm	98
15) 1,4-Dichlorobenzene	4.37	146	531119	83.51	ppm	97

(#) = qualifier out of range (m) = manual integration
P103011.D MP4524.M Thu Mar 03 09:00:36 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.54	108	302600	85.76	ppm		96
17)	1,2-Dichlorobenzene	4.57	146	481791	78.82	ppm		95
18)	Acetophenone	4.88	105	684389	85.99	ppm		96
19)	2-Methylphenol	4.73	108	455556	92.82	ppm		100
20)	2,2'-oxybis(1-Chloropropan	4.71	121	169965	94.83	ppm	#	99
21)	3&4-Methylphenol	4.94	108	497101	96.56	ppm		97
22)	n-Nitroso-di-n-propylamine	4.90	70	349466	94.00	ppm		98
23)	Hexachloroethane	5.01	201	189667	96.96	ppm		92
26)	Nitrobenzene	5.11	77	529194	92.25	ppm		96
27)	Quinoline	6.66	129	1009644	91.70	ppm		97
28)	Isophorone	5.45	82	929548	91.48	ppm		97
29)	2-Nitrophenol	5.56	139	291563	100.49	ppm		88
30)	2,4-Dimethylphenol	5.69	107	498439	97.43	ppm		96
31)	Benzoic acid	5.96	105	420356	112.35	ppm		96
32)	bis(2-Chloroethoxy)methane	5.79	93	572823	92.08	ppm		97
33)	2,4-Dichlorophenol	5.95	162	405260	96.09	ppm		97
34)	2,6-Dichlorophenol	6.26	162	380206	93.29	ppm		96
35)	1,3,5-Trichlorobenzene	5.58	180	406052	81.82	ppm		98
36)	1,2,4-Trichlorobenzene	6.03	180	413411	84.87	ppm		99
37)	1,2,3-Trichlorobenzene	6.36	180	363649	80.87	ppm		98
38)	Naphthalene	6.14	128	1217903	80.13	ppm		95
39)	4-Chloroaniline	6.25	127	554419	82.52	ppm		99
40)	2,3-Dichloroaniline	7.65	161	496811	94.91	ppm		96
41)	Caprolactam	6.79	55	219369m	107.52	ppm		
42)	Hexachlorobutadiene	6.36	225	209515	93.01	ppm		99
43)	4-Chloro-3-methylphenol	7.09	107	462362	99.17	ppm	#	42
44)	2-Methylnaphthalene	7.20	141	706818	83.64	ppm		97
45)	1-Methylnaphthalene	7.35	142	869043	84.23	ppm		97
46)	Dimethylnaphthalene	8.19	156	769096	85.59	ppm		98
48)	Hexachlorocyclopentadiene	7.47	237	490346	194.12	ppm		98
49)	2,4,6-Trichlorophenol	7.69	196	276998	101.75	ppm		99
50)	2,4,5-Trichlorophenol	7.78	196	293890	101.38	ppm		99
52)	2-Chloronaphthalene	7.96	162	758937	82.32	ppm		97
53)	Biphenyl	7.95	154	928981	76.13	ppm		96
54)	2-Nitroaniline	8.16	65	285397	105.21	ppm		95
55)	Dimethylphthalate	8.48	163	970545	90.20	ppm		97
56)	Acenaphthylene	8.60	152	1222694	78.81	ppm		95
57)	2,6-Dinitrotoluene	8.55	165	242513	110.57	ppm		98
58)	3-Nitroaniline	8.81	138	278297	96.07	ppm		92
59)	Acenaphthene	8.88	153	785358	83.79	ppm		100
60)	2,4-Dinitrophenol	8.98	184	287438	203.82	ppm		98
61)	4-Nitrophenol	9.26	109	170879	114.27	ppm		97
62)	Dibenzofuran	9.17	168	1087992	84.28	ppm		97
63)	2,4-Dinitrotoluene	9.19	165	311807	103.79	ppm		99
64)	2,3,4,6-Tetrachlorophenol	9.40	232	230485	108.28	ppm		98
65)	Diethylphthalate	9.62	149	968281	89.11	ppm		97
66)	Fluorene	9.71	166	921407	88.88	ppm		99
67)	4-Chlorophenyl-phenylether	9.74	204	422718	93.14	ppm		98
68)	4-Nitroaniline	9.81	138	278252	106.61	ppm		96

(#) = qualifier out of range (m) = manual integration
P103011.D MP4524.M Thu Mar 03 09:00:36 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.84	198	196683	105.35	ppm	97
71)	n-Nitrosodiphenylamine	9.95	169	700545	101.13	ppm	99
72)	1,2-Diphenylhydrazine	9.99	77	928012	94.85	ppm	99
74)	4-Bromophenyl-phenylether	10.52	248	251581	105.30	ppm	100
75)	Hexachlorobenzene	10.59	284	257612	102.37	ppm	92
76)	Pentachlorophenol	10.94	266	332916	203.41	ppm	97
77)	Phenanthrene	11.24	178	1156803	88.24	ppm	96
78)	Anthracene	11.32	178	1189353	89.49	ppm	96
79)	Carbazole	11.62	167	1226554	94.89	ppm	97
80)	Di-n-butylphthalate	12.30	149	1524547	95.65	ppm	96
81)	Fluoranthene	13.26	202	1310898	99.03	ppm	99
82)	Octadecane	11.18	57	481755	105.14	ppm	95
84)	Pyrene	13.65	202	1350284	87.92	ppm	99
86)	Butylbenzylphthalate	15.01	149	765646	104.04	ppm	97
87)	Butyl stearate	15.23	56	363522	105.15	ppm	97
88)	Benzo[a]anthracene	15.90	228	1191767	96.57	ppm	98
89)	3,3'-Dichlorobenzidine	15.93	252	473076	111.18	ppm	97
90)	Chrysene	15.98	228	1142770	93.42	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.18	149	991080	101.19	ppm	92
93)	Di-n-octylphthalate	17.39	149	1680169	99.74	ppm	95
94)	Benzo[b]fluoranthene	17.85	252	1296844	98.82	ppm	97
95)	Benzo[k]fluoranthene	17.92	252	1156230	89.91	ppm	98
96)	Benzo[a]pyrene	18.39	252	1156450	97.79	ppm	97
97)	Indeno[1,2,3-cd]pyrene	20.12	276	1128833	106.11	ppm	95
98)	Dibenz(a,h)acridine	19.81	279	1014285	105.93	ppm	98
99)	Dibenz[a,h]anthracene	20.17	278	1149581	103.89	ppm	96
100)	7,12-Dimethylbenz(a)anthra	17.87	256	576640	103.98	ppm	98
101)	Benzo[g,h,i]perylene	20.50	276	1181370	101.52	ppm	98

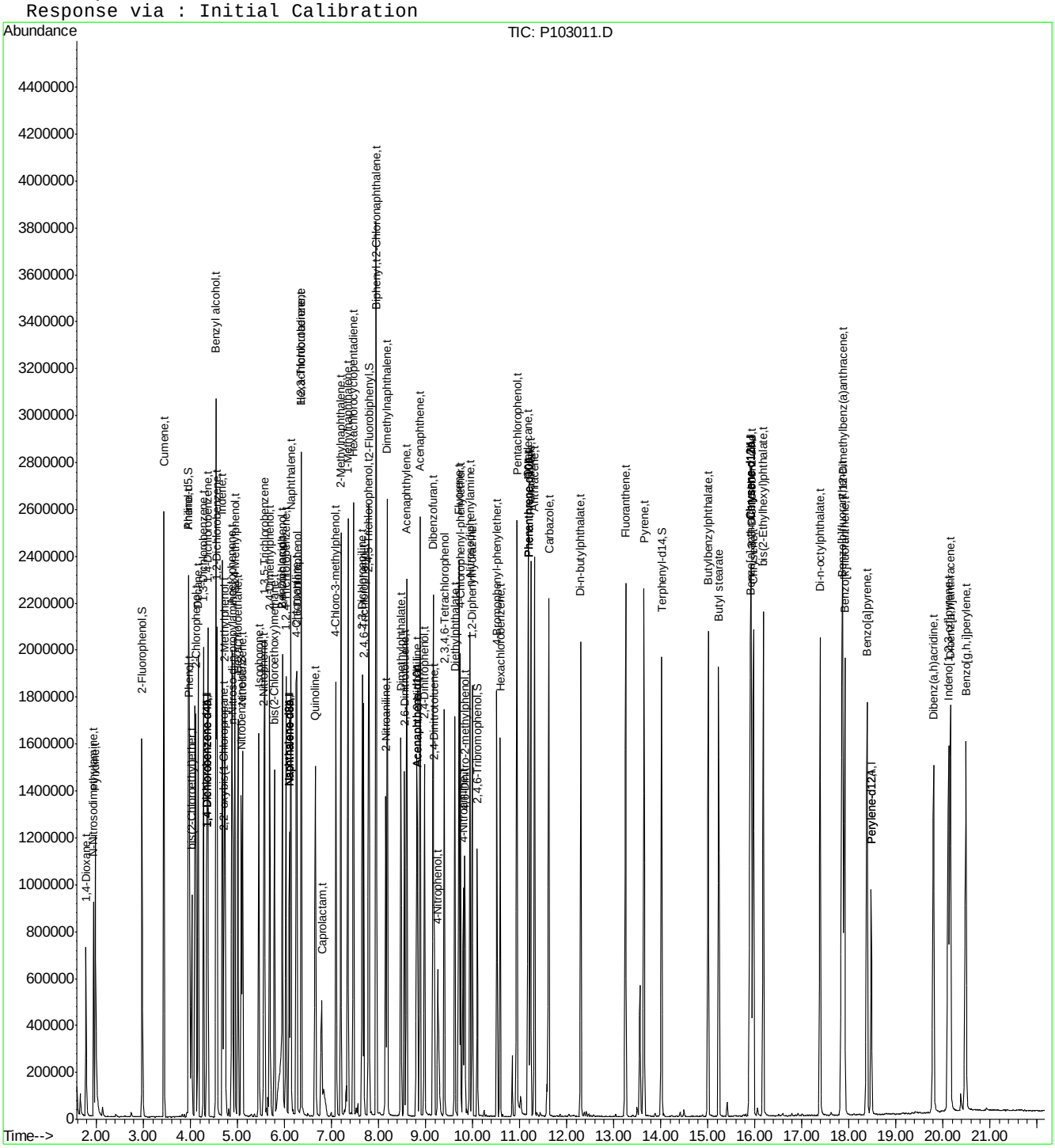
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:00 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Manual Integration Approval Summary

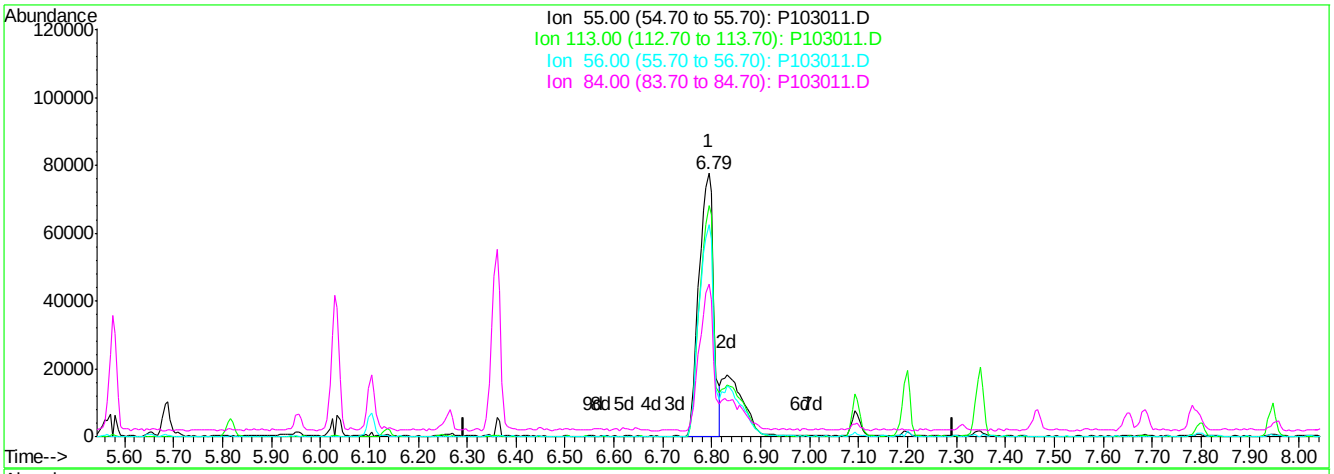
Sample Number:	EP4524-IC4524	**Method:**	SW846 8270D
Lab FileID:	P103011.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 17:10	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

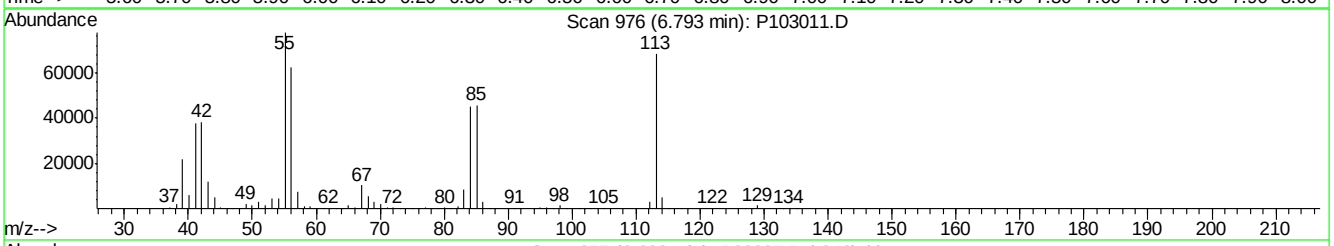
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.79	Split peak

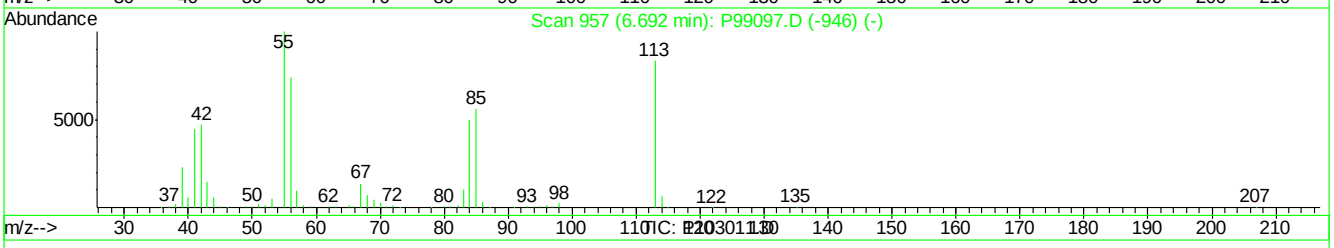
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 8:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Multiple Level Calibration







(41) Caprolactam (t)

6.79min 79.82ppm

response 162838

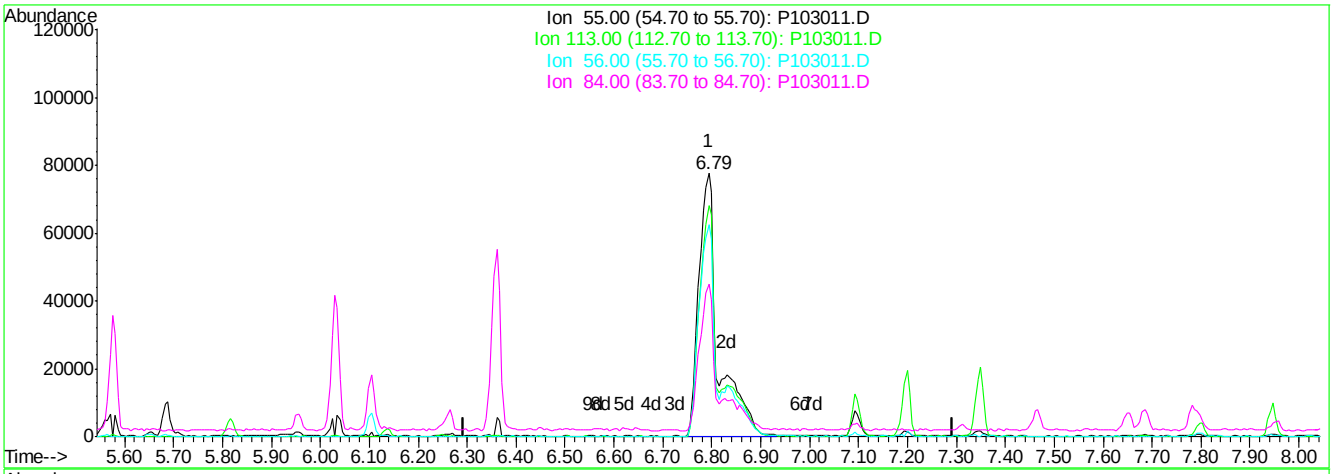
Ion	Exp%	Act%
55.00	100	100
113.00	88.10	87.95
56.00	77.60	81.09
84.00	52.10	55.97

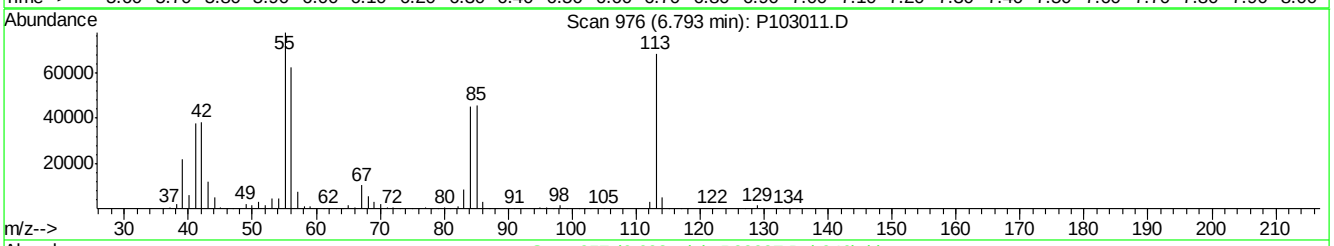
P103011.D MP4524.M Thu Mar 03 08:59:22 2016

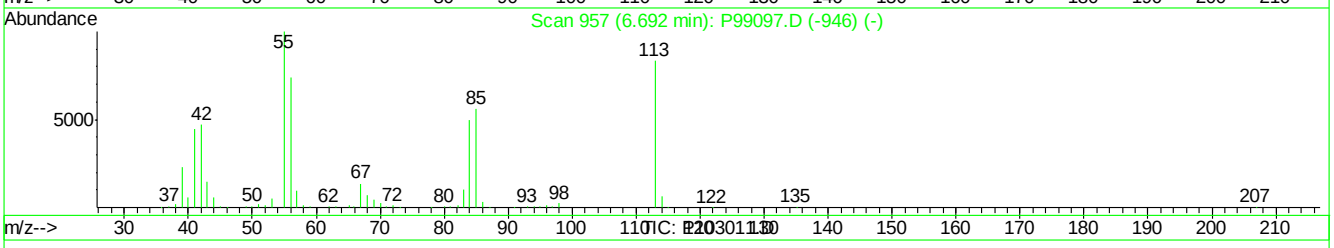
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103011.D Vial: 2
Acq On : 2 Mar 2016 5:10 pm Operator: sarad
Sample : ic4524-100 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 8:59 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Multiple Level Calibration







(41) Caprolactam (t)

6.79min 107.52ppm m

response 219369

Ion	Exp%	Act%
55.00	100	100
113.00	88.10	87.80
56.00	77.60	80.48
84.00	52.10	57.88

P103011.D MP4524.M Thu Mar 03 08:59:31 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	178586	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	620528	40.00	ppm	0.00
47) Acenaphthene-d10	8.83	164	360281	40.00	ppm	0.00
69) Phenanthrene-d10	11.20	188	528608	40.00	ppm	0.00
83) Chrysene-d12	15.92	240	473646	40.00	ppm	0.00
92) Perylene-d12	18.48	264	491928	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	178586	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	620528	40.00	ppm	-0.02
121) Acenaphthene-d10A	8.83	164	360281	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.20	188	528608	40.00	ppm	-0.03
147) Chrysene-d12A	15.92	240	473646	40.00	ppm	-0.03
155) Perylene-d12A	18.48	264	491928	40.00	ppm	-0.04
159) 1,4-Dichlorobenzene-d4b	4.35	152	178586	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.20	188	528608	40.00	ppm	-0.03
163) Chrysene-d12b	15.92	240	473646	40.00	ppm	-0.03
165) Naphthalene-d8b	6.10	136	620528	40.00	ppm	-0.02
167) Acenaphthene-d10b	8.83	164	360281	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	620528	40.00	ppm	-0.02
174) 1,4-Dichlorobenzene-d4a	4.35	152	178586	40.00	ppm	-0.11
176) Chrysene-d12c	15.92	240	473646	40.00	ppm	-0.04
178) Chrysene-d12d	15.92	240	473646	40.00	ppm	-0.04
180) Naphthalene-d8a	6.10	136	620528	40.00	ppm	0.14

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	465094	74.97	ppm	0.00
Spiked Amount 50.000			Recovery = 149.94%			
8) Phenol-d5	3.96	99	523320	68.75	ppm	0.00
Spiked Amount 50.000			Recovery = 137.50%			
25) Nitrobenzene-d5	5.08	82	471793	79.32	ppm	0.00
Spiked Amount 50.000			Recovery = 158.64%			
51) 2-Fluorobiphenyl	7.80	172	732307	66.42	ppm	0.00
Spiked Amount 50.000			Recovery = 132.84%			
73) 2,4,6-Tribromophenol	10.10	330	106345	93.08	ppm	0.00
Spiked Amount 50.000			Recovery = 186.16%			
85) Terphenyl-d14	14.02	244	728869	80.47	ppm	0.00
Spiked Amount 50.000			Recovery = 160.94%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	222785	71.68	ppm	98
3) Pyridine	1.97	79	500405	73.53	ppm	93
4) N-Nitrosodimethylamine	1.94	42	194874	77.79	ppm	93
6) Indene	4.68	116	704226	71.09	ppm	96
7) Cumene	3.44	105	946025	65.13	ppm	96
9) Phenol	3.98	94	583308	77.04	ppm	92
10) Aniline	3.95	93	537736	61.28	ppm	78
11) bis(2-Chloroethyl)ether	4.03	93	400655	73.98	ppm	97
12) 2-Chlorophenol	4.12	128	416149	70.89	ppm	96
13) Decane	4.17	43	310686	68.27	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	458830	68.52	ppm	100
15) 1,4-Dichlorobenzene	4.37	146	442639	68.66	ppm	98

(#) = qualifier out of range (m) = manual integration
P103012.D MP4524.M Thu Mar 03 09:01:53 2016

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.54	108	252119	70.49	ppm		97
17)	1,2-Dichlorobenzene	4.57	146	404580	65.29	ppm		97
18)	Acetophenone	4.88	105	566522	70.23	ppm		97
19)	2-Methylphenol	4.73	108	367071	73.78	ppm		100
20)	2,2'-oxybis(1-Chloropropan	4.72	121	136332	75.04	ppm	#	95
21)	3&4-Methylphenol	4.94	108	410262	78.62	ppm		99
22)	n-Nitroso-di-n-propylamine	4.90	70	286991	76.16	ppm		98
23)	Hexachloroethane	5.01	201	153332	77.33	ppm		92
26)	Nitrobenzene	5.11	77	436257	75.96	ppm		97
27)	Quinoline	6.65	129	829668	75.27	ppm		97
28)	Isophorone	5.45	82	762842	74.99	ppm		98
29)	2-Nitrophenol	5.56	139	238435	82.08	ppm		90
30)	2,4-Dimethylphenol	5.68	107	407424	79.55	ppm		99
31)	Benzoic acid	5.94	105	344557	91.99	ppm		98
32)	bis(2-Chloroethoxy)methane	5.79	93	473263	75.99	ppm		99
33)	2,4-Dichlorophenol	5.95	162	338773	80.23	ppm		98
34)	2,6-Dichlorophenol	6.26	162	314906	77.18	ppm		97
35)	1,3,5-Trichlorobenzene	5.58	180	336682	67.77	ppm		99
36)	1,2,4-Trichlorobenzene	6.03	180	344599	70.67	ppm		98
37)	1,2,3-Trichlorobenzene	6.36	180	303801	67.48	ppm		98
38)	Naphthalene	6.14	128	1040109	68.36	ppm		96
39)	4-Chloroaniline	6.25	127	462641	68.78	ppm		98
40)	2,3-Dichloroaniline	7.65	161	408885	78.02	ppm		96
41)	Caprolactam	6.78	55	174783	85.57	ppm		96
42)	Hexachlorobutadiene	6.35	225	172834	76.64	ppm		100
43)	4-Chloro-3-methylphenol	7.09	107	375944	80.55	ppm	#	30
44)	2-Methylnaphthalene	7.19	141	595854	70.43	ppm		97
45)	1-Methylnaphthalene	7.35	142	729873	70.66	ppm		99
46)	Dimethylnaphthalene	8.19	156	636599	70.76	ppm		99
48)	Hexachlorocyclopentadiene	7.47	237	397814	155.36	ppm		98
49)	2,4,6-Trichlorophenol	7.69	196	229870	83.30	ppm		99
50)	2,4,5-Trichlorophenol	7.78	196	236902	80.62	ppm		98
52)	2-Chloronaphthalene	7.95	162	632054	67.63	ppm		98
53)	Biphenyl	7.94	154	796865	64.42	ppm		98
54)	2-Nitroaniline	8.15	65	229126	83.33	ppm		94
55)	Dimethylphthalate	8.48	163	802593	73.58	ppm		97
56)	Acenaphthylene	8.60	152	1034752	65.79	ppm		98
57)	2,6-Dinitrotoluene	8.55	165	198006	89.06	ppm		99
58)	3-Nitroaniline	8.81	138	228215	77.72	ppm		91
59)	Acenaphthene	8.88	153	652927	68.71	ppm		98
60)	2,4-Dinitrophenol	8.97	184	230535	164.09	ppm		100
61)	4-Nitrophenol	9.26	109	133510	88.07	ppm		99
62)	Dibenzofuran	9.16	168	920930	70.38	ppm		98
63)	2,4-Dinitrotoluene	9.18	165	253510	80.31	ppm		100
64)	2,3,4,6-Tetrachlorophenol	9.40	232	187545	86.91	ppm		98
65)	Diethylphthalate	9.62	149	804416	73.03	ppm		97
66)	Fluorene	9.70	166	770464	73.31	ppm		98
67)	4-Chlorophenyl-phenylether	9.74	204	351230	76.35	ppm		96
68)	4-Nitroaniline	9.80	138	222666	84.16	ppm		93

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:31 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

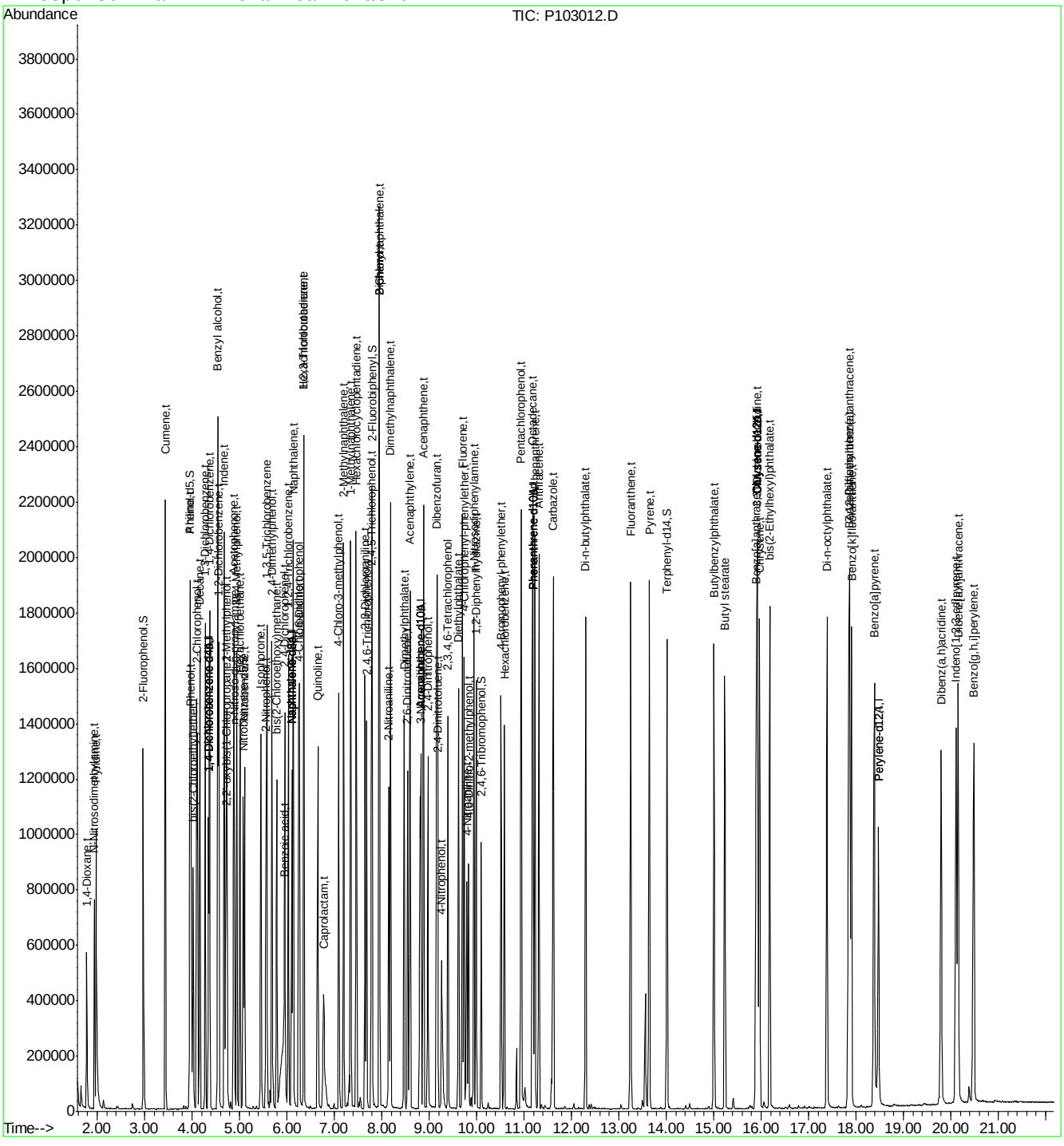
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.83	198	155961	82.07	ppm	94
71)	n-Nitrosodiphenylamine	9.95	169	583030	81.55	ppm	99
72)	1,2-Diphenylhydrazine	9.99	77	778787	77.13	ppm	99
74)	4-Bromophenyl-phenylether	10.52	248	204104	82.78	ppm	96
75)	Hexachlorobenzene	10.59	284	208450	80.26	ppm	96
76)	Pentachlorophenol	10.94	266	268273	150.32	ppm	98
77)	Phenanthrene	11.23	178	970432	71.73	ppm	97
78)	Anthracene	11.31	178	1003378	73.15	ppm	98
79)	Carbazole	11.62	167	1030855	77.27	ppm	98
80)	Di-n-butylphthalate	12.30	149	1289557	78.39	ppm	96
81)	Fluoranthene	13.25	202	1105211	80.90	ppm	99
82)	Octadecane	11.18	57	406806	86.03	ppm	95
84)	Pyrene	13.65	202	1138686	73.23	ppm	97
86)	Butylbenzylphthalate	15.00	149	630046	84.56	ppm	96
87)	Butyl stearate	15.23	56	306617	87.60	ppm	95
88)	Benzo[a]anthracene	15.90	228	980886	78.50	ppm	99
89)	3,3'-Dichlorobenzidine	15.93	252	385724	89.53	ppm	96
90)	Chrysene	15.97	228	934208	75.43	ppm	99
91)	bis(2-Ethylhexyl)phthalate	16.18	149	832867	83.98	ppm	95
93)	Di-n-octylphthalate	17.39	149	1403680	73.23	ppm	96
94)	Benzo[b]fluoranthene	17.85	252	1069927	80.57	ppm	99
95)	Benzo[k]fluoranthene	17.91	252	946696	72.76	ppm	96
96)	Benzo[a]pyrene	18.39	252	948815	79.29	ppm	98
97)	Indeno[1,2,3-cd]pyrene	20.11	276	891968	82.87	ppm	100
98)	Dibenz(a,h)acridine	19.80	279	835853	86.28	ppm	100
99)	Dibenz[a,h]anthracene	20.15	278	929880	83.06	ppm	97
100)	7,12-Dimethylbenz(a)anthra	17.86	256	476117	84.85	ppm	98
101)	Benzo[g,h,i]perylene	20.49	276	949594	80.65	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103012.D Vial: 3
Acq On : 2 Mar 2016 5:40 pm Operator: sarad
Sample : ic4524-80 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:01 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155426	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	552817	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	324485	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	498966	40.00	ppm	-0.01
83) Chrysene-d12	15.91	240	463163	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	421054	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155426	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	552817	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	324485	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	498966	40.00	ppm	-0.04
147) Chrysene-d12A	15.91	240	463163	40.00	ppm	-0.04
155) Perylene-d12A	18.47	264	421054	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155426	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	498966	40.00	ppm	-0.04
163) Chrysene-d12b	15.91	240	463163	40.00	ppm	-0.04
165) Naphthalene-d8b	6.10	136	552817	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	324485	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	552817	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155426	40.00	ppm	-0.11
176) Chrysene-d12c	15.91	240	463163	40.00	ppm	-0.05
178) Chrysene-d12d	15.91	240	463163	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	552817	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	55136	10.21	ppm	0.00
Spiked Amount 50.000			Recovery = 20.42%			
8) Phenol-d5	3.97	99	68507	10.34	ppm	0.01
Spiked Amount 50.000			Recovery = 20.68%			
25) Nitrobenzene-d5	5.07	82	56575	10.68	ppm	-0.01
Spiked Amount 50.000			Recovery = 21.36%			
51) 2-Fluorobiphenyl	7.79	172	102683	10.34	ppm	-0.02
Spiked Amount 50.000			Recovery = 20.68%			
73) 2,4,6-Tribromophenol	10.09	330	10993	10.19	ppm	-0.02
Spiked Amount 50.000			Recovery = 20.38%			
85) Terphenyl-d14	14.01	244	88944	10.04	ppm	-0.02
Spiked Amount 50.000			Recovery = 20.08%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	24506	9.06	ppm	95
3) Pyridine	1.97	79	63167	10.66	ppm	93
4) N-Nitrosodimethylamine	1.94	42	22730	10.43	ppm	94
6) Indene	4.68	116	91808	10.65	ppm	97
7) Cumene	3.44	105	131818	10.43	ppm	99
9) Phenol	3.99	94	69485	10.54	ppm	97
10) Aniline	3.95	93	77890	10.20	ppm	99
11) bis(2-Chloroethyl)ether	4.02	93	49772	10.56	ppm	97
12) 2-Chlorophenol	4.12	128	54613	10.69	ppm	99
13) Decane	4.16	43	42382	10.70	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	60103	10.31	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	57065	10.17	ppm	99

(#) = qualifier out of range (m) = manual integration
P103013.D MP4524.M Thu Mar 03 09:06:42 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16) Benzyl alcohol	4.53	108	31766	10.21	ppm		98
17) 1,2-Dichlorobenzene	4.56	146	54367	10.08	ppm		99
18) Acetophenone	4.87	105	70625	10.06	ppm		99
19) 2-Methylphenol	4.73	108	45378	10.48	ppm		95
20) 2,2'-oxybis(1-Chloropropan	4.71	121	16189	10.24	ppm	#	99
21) 3&4-Methylphenol	4.94	108	48892	10.77	ppm		95
22) n-Nitroso-di-n-propylamine	4.88	70	36256	11.06	ppm		96
23) Hexachloroethane	5.01	201	18214	10.55	ppm		91
26) Nitrobenzene	5.10	77	54545	10.66	ppm		97
27) Quinoline	6.63	129	97447	9.92	ppm		97
28) Isophorone	5.44	82	94489	10.43	ppm		97
29) 2-Nitrophenol	5.55	139	26353	10.18	ppm		86
30) 2,4-Dimethylphenol	5.68	107	44496	9.75	ppm		96
31) Benzoic acid	5.82	105	25492	7.64	ppm		91
32) bis(2-Chloroethoxy)methane	5.78	93	56753	10.23	ppm		98
33) 2,4-Dichlorophenol	5.95	162	40441	10.75	ppm		98
34) 2,6-Dichlorophenol	6.25	162	38262	10.53	ppm		98
35) 1,3,5-Trichlorobenzene	5.57	180	44259	10.00	ppm		97
36) 1,2,4-Trichlorobenzene	6.02	180	43968	10.12	ppm		94
37) 1,2,3-Trichlorobenzene	6.36	180	41326	10.30	ppm		97
38) Naphthalene	6.13	128	139418	10.29	ppm		97
39) 4-Chloroaniline	6.24	127	61411	10.25	ppm		98
40) 2,3-Dichloroaniline	7.64	161	49954	10.70	ppm		99
41) Caprolactam	6.71	55	17813	9.79	ppm		97
42) Hexachlorobutadiene	6.35	225	21189	10.55	ppm		99
43) 4-Chloro-3-methylphenol	7.09	107	43449	10.45	ppm		99
44) 2-Methylnaphthalene	7.19	141	79541	10.55	ppm		99
45) 1-Methylnaphthalene	7.34	142	95406	10.37	ppm		98
46) Dimethylnaphthalene	8.18	156	83542	10.42	ppm		100
48) Hexachlorocyclopentadiene	7.46	237	44535	19.31	ppm		96
49) 2,4,6-Trichlorophenol	7.67	196	26349	10.60	ppm		95
50) 2,4,5-Trichlorophenol	7.78	196	27159	10.26	ppm		96
52) 2-Chloronaphthalene	7.94	162	88123	10.47	ppm		99
53) Biphenyl	7.94	154	114437	10.27	ppm		97
54) 2-Nitroaniline	8.13	65	25270	10.20	ppm		92
55) Dimethylphthalate	8.46	163	100109	10.19	ppm		99
56) Acenaphthylene	8.59	152	139479	9.85	ppm		97
57) 2,6-Dinitrotoluene	8.53	165	22361	11.17	ppm		100
58) 3-Nitroaniline	8.79	138	25976	9.82	ppm		98
59) Acenaphthene	8.87	153	85464	9.99	ppm		96
60) 2,4-Dinitrophenol	8.96	184	14131	16.88	ppm		93
61) 4-Nitrophenol	9.28	109	12377	9.07	ppm		91
62) Dibenzofuran	9.15	168	121720	10.33	ppm		97
63) 2,4-Dinitrotoluene	9.17	165	28231	9.50	ppm		94
64) 2,3,4,6-Tetrachlorophenol	9.39	232	19384	9.97	ppm		94
65) Diethylphthalate	9.60	149	99740	10.05	ppm		97
66) Fluorene	9.69	166	100352	10.60	ppm		98
67) 4-Chlorophenyl-phenylether	9.74	204	44163	10.66	ppm		96
68) 4-Nitroaniline	9.76	138	24865	10.43	ppm		95

(#) = qualifier out of range (m) = manual integration
P103013.D MP4524.M Thu Mar 03 09:06:42 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:05:20 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

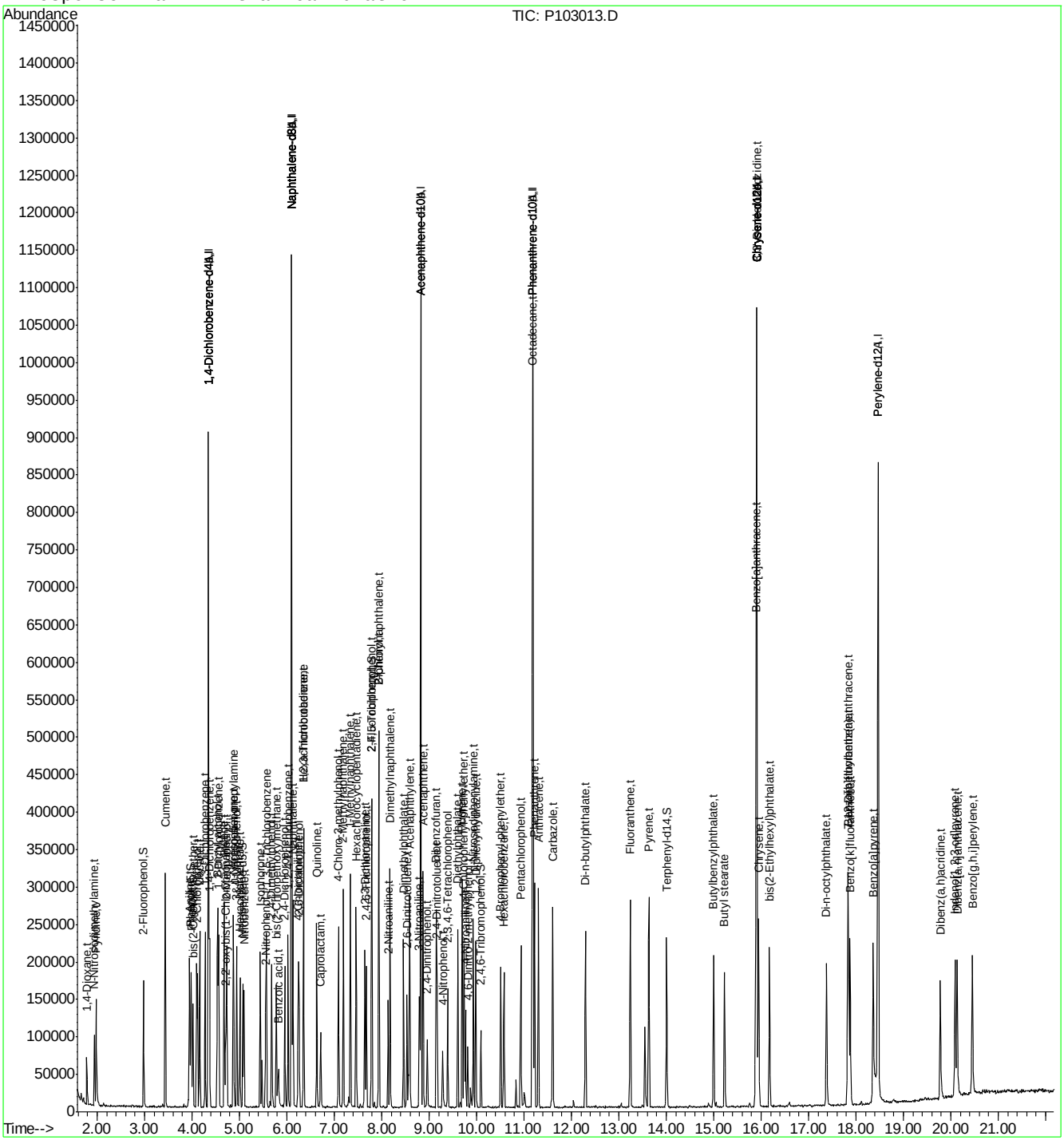
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	12476	11.42	ppm	90
71)	n-Nitrosodiphenylamine	9.93	169	71605	10.61	ppm	99
72)	1,2-Diphenylhydrazine	9.98	77	101728	10.67	ppm	95
74)	4-Bromophenyl-phenylether	10.51	248	24024	10.32	ppm	97
75)	Hexachlorobenzene	10.58	284	26016	10.61	ppm	88
76)	Pentachlorophenol	10.93	266	23396	15.80	ppm	97
77)	Phenanthrene	11.22	178	129538	10.14	ppm	98
78)	Anthracene	11.30	178	133090	10.28	ppm	98
79)	Carbazole	11.61	167	134489	10.68	ppm	99
80)	Di-n-butylphthalate	12.30	149	164165	10.57	ppm	98
81)	Fluoranthene	13.24	202	140545	10.90	ppm	97
82)	Octadecane	11.17	57	50585	11.33	ppm	97
84)	Pyrene	13.63	202	149529	9.83	ppm	98
86)	Butylbenzylphthalate	15.00	149	68466	9.40	ppm	98
87)	Butyl stearate	15.22	56	32764	9.57	ppm	96
88)	Benzo[a]anthracene	15.89	228	115379	9.44	ppm	99
89)	3,3'-Dichlorobenzidine	15.91	252	40668	9.65	ppm	96
90)	Chrysene	15.95	228	118321	9.77	ppm	97
91)	bis(2-Ethylhexyl)phthalate	16.17	149	88395	9.12	ppm	99
93)	Di-n-octylphthalate	17.38	149	146382	9.00	ppm	98
94)	Benzo[b]fluoranthene	17.83	252	121995	10.73	ppm	97
95)	Benzo[k]fluoranthene	17.87	252	116254	10.44	ppm	99
96)	Benzo[a]pyrene	18.36	252	110921	10.83	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.09	276	94257	10.23	ppm	95
98)	Dibenz(a,h)acridine	19.78	279	89244	10.76	ppm	100
99)	Dibenz[a,h]anthracene	20.13	278	100671	10.51	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.84	256	47828	9.96	ppm	97
101)	Benzo[g,h,i]perylene	20.45	276	106051	10.52	ppm	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103013.D Vial: 4
Acq On : 2 Mar 2016 6:09 pm Operator: sarad
Sample : ic4524-10 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:06 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155607	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	540889	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	318775	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	495165	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	453126	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	406577	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155607	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	540889	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	318775	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	495165	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	453126	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	406577	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155607	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	495165	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	453126	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	540889	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	318775	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	540889	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155607	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	453126	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	453126	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	540889	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	26969	4.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.98%	
8) Phenol-d5	3.97	99	33602	5.07	ppm	0.01
Spiked Amount 50.000			Recovery	=	10.14%	
25) Nitrobenzene-d5	5.07	82	26904	5.19	ppm	-0.01
Spiked Amount 50.000			Recovery	=	10.38%	
51) 2-Fluorobiphenyl	7.79	172	51547	5.28	ppm	-0.02
Spiked Amount 50.000			Recovery	=	10.56%	
73) 2,4,6-Tribromophenol	10.09	330	4944	4.62	ppm	-0.02
Spiked Amount 50.000			Recovery	=	9.24%	
85) Terphenyl-d14	14.01	244	42527	4.91	ppm	-0.02
Spiked Amount 50.000			Recovery	=	9.82%	

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	13932	5.14	ppm	96
3) Pyridine	1.98	79	32165	5.42	ppm	98
4) N-Nitrosodimethylamine	1.94	42	11536	5.29	ppm	89
6) Indene	4.67	116	46488	5.39	ppm	96
7) Cumene	3.44	105	66227	5.23	ppm	97
9) Phenol	3.99	94	33826	5.13	ppm	98
10) Aniline	3.95	93	40145	5.25	ppm	94
11) bis(2-Chloroethyl)ether	4.02	93	25050	5.31	ppm	98
12) 2-Chlorophenol	4.12	128	26588	5.20	ppm	96
13) Decane	4.16	43	21057	5.31	ppm	98
14) 1,3-Dichlorobenzene	4.28	146	29636	5.08	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	27956	4.98	ppm	97

(#) = qualifier out of range (m) = manual integration
P103014.D MP4524.M Thu Mar 03 09:08:06 2016

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.53	108	15363	4.93	ppm		95
17)	1,2-Dichlorobenzene	4.56	146	27909	5.17	ppm		97
18)	Acetophenone	4.87	105	36422	5.18	ppm		96
19)	2-Methylphenol	4.73	108	21653	4.99	ppm		99
20)	2,2'-oxybis(1-Chloropropan	4.71	121	8174	5.16	ppm	#	94
21)	3&4-Methylphenol	4.94	108	23708	5.21	ppm		98
22)	n-Nitroso-di-n-propylamine	4.88	70	17413	5.30	ppm		98
23)	Hexachloroethane	5.01	201	9201	5.33	ppm		92
26)	Nitrobenzene	5.10	77	26808	5.36	ppm		96
27)	Quinoline	6.63	129	49913	5.19	ppm		98
28)	Isophorone	5.44	82	44969	5.07	ppm		97
29)	2-Nitrophenol	5.55	139	12006	4.74	ppm		85
30)	2,4-Dimethylphenol	5.68	107	21081	4.72	ppm		99
31)	Benzoic acid	5.81	105	9949	3.05	ppm		94
32)	bis(2-Chloroethoxy)methane	5.78	93	28551	5.26	ppm		98
33)	2,4-Dichlorophenol	5.95	162	19286	5.24	ppm		97
34)	2,6-Dichlorophenol	6.25	162	19007	5.34	ppm		95
35)	1,3,5-Trichlorobenzene	5.57	180	22364	5.16	ppm		98
36)	1,2,4-Trichlorobenzene	6.02	180	22530	5.30	ppm		92
37)	1,2,3-Trichlorobenzene	6.35	180	20382	5.19	ppm		91
38)	Naphthalene	6.13	128	71028	5.36	ppm		99
39)	4-Chloroaniline	6.24	127	30237	5.16	ppm		99
40)	2,3-Dichloroaniline	7.64	161	25352	5.55	ppm		98
41)	Caprolactam	6.71	55	8639	4.85	ppm		94
42)	Hexachlorobutadiene	6.35	225	11099	5.65	ppm		94
43)	4-Chloro-3-methylphenol	7.09	107	20273	4.98	ppm		96
44)	2-Methylnaphthalene	7.19	141	39005	5.29	ppm		97
45)	1-Methylnaphthalene	7.34	142	48329	5.37	ppm		97
46)	Dimethylnaphthalene	8.18	156	40886	5.21	ppm		98
48)	Hexachlorocyclopentadiene	7.46	237	18369	8.11	ppm		98
49)	2,4,6-Trichlorophenol	7.67	196	11786	4.83	ppm		96
50)	2,4,5-Trichlorophenol	7.78	196	12956	4.98	ppm		94
52)	2-Chloronaphthalene	7.94	162	45135	5.46	ppm		98
53)	Biphenyl	7.94	154	56812	5.19	ppm		96
54)	2-Nitroaniline	8.13	65	11086	4.56	ppm		94
55)	Dimethylphthalate	8.46	163	49583	5.14	ppm		98
56)	Acenaphthylene	8.59	152	69909	5.02	ppm		96
57)	2,6-Dinitrotoluene	8.53	165	9473	4.82	ppm		92
58)	3-Nitroaniline	8.79	138	11577	4.46	ppm		88
59)	Acenaphthene	8.87	153	42922	5.11	ppm		95
60)	2,4-Dinitrophenol	8.96	184	4195	9.06	ppm		93
61)	4-Nitrophenol	9.29	109	5034	3.75	ppm		90
62)	Dibenzofuran	9.15	168	61714	5.33	ppm		95
63)	2,4-Dinitrotoluene	9.17	165	12512	4.60	ppm		99
64)	2,3,4,6-Tetrachlorophenol	9.39	232	9273	4.86	ppm		94
65)	Diethylphthalate	9.60	149	48549	4.98	ppm		99
66)	Fluorene	9.69	166	50498	5.43	ppm		96
67)	4-Chlorophenyl-phenylether	9.73	204	22699	5.58	ppm		91
68)	4-Nitroaniline	9.76	138	10988	4.69	ppm		96

(#) = qualifier out of range (m) = manual integration
P103014.D MP4524.M Thu Mar 03 09:08:06 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:35 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

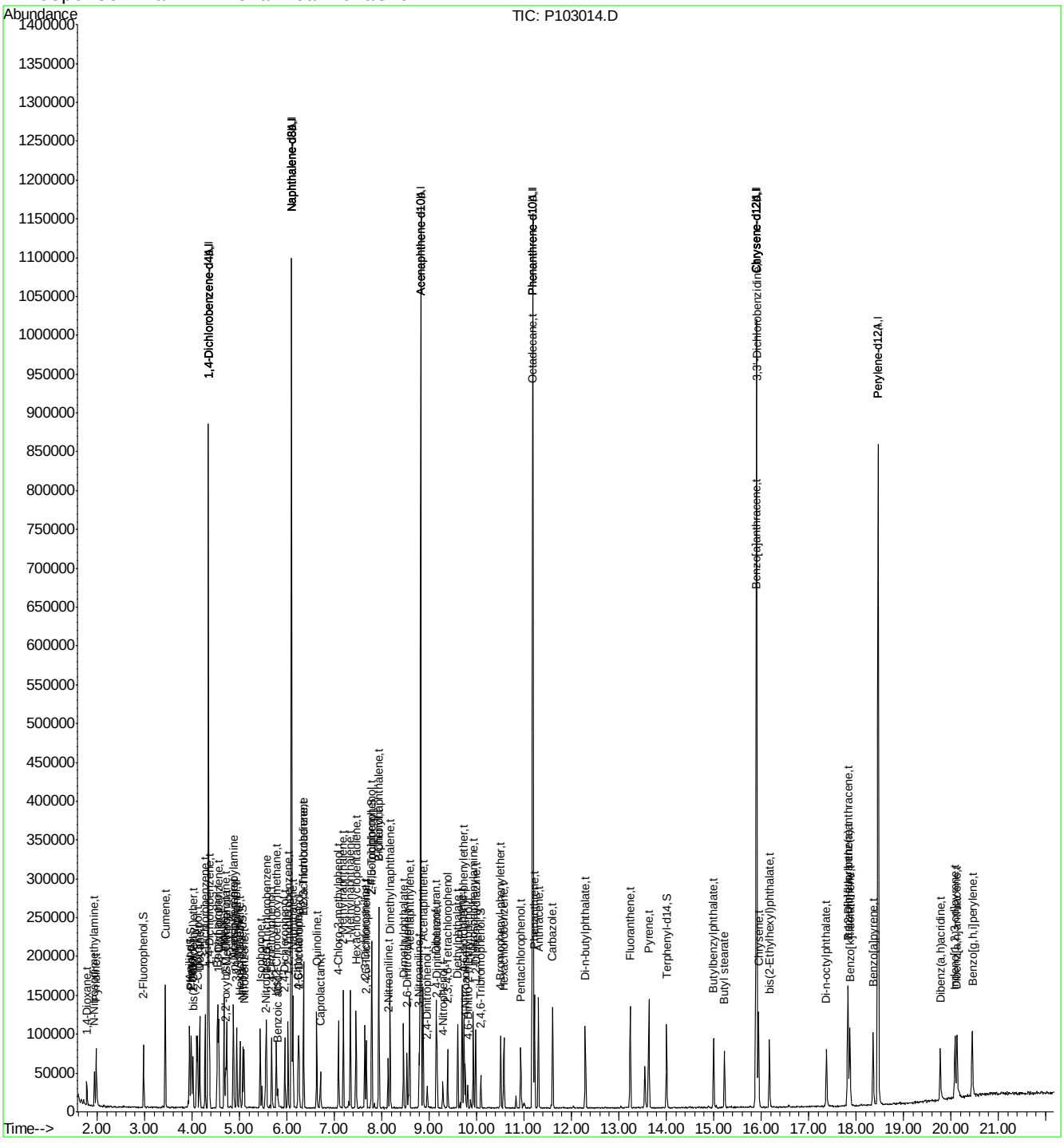
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	4274	7.14	ppm	94
71)	n-Nitrosodiphenylamine	9.93	169	35277	5.27	ppm	99
72)	1,2-Diphenylhydrazine	9.98	77	49064	5.19	ppm	95
74)	4-Bromophenyl-phenylether	10.51	248	11636	5.04	ppm	91
75)	Hexachlorobenzene	10.58	284	12826	5.27	ppm	95
76)	Pentachlorophenol	10.93	266	8538	8.36	ppm	94
77)	Phenanthrene	11.22	178	63535	5.01	ppm	100
78)	Anthracene	11.30	178	64555	5.02	ppm	99
79)	Carbazole	11.61	167	66824	5.35	ppm	98
80)	Di-n-butylphthalate	12.30	149	72767	4.72	ppm	98
81)	Fluoranthene	13.24	202	66948	5.23	ppm	97
82)	Octadecane	11.17	57	24057	5.43	ppm	95
84)	Pyrene	13.63	202	72231	4.86	ppm	99
86)	Butylbenzylphthalate	15.00	149	30411	4.27	ppm	94
87)	Butyl stearate	15.22	56	13848	4.14	ppm	91
88)	Benzo[a]anthracene	15.89	228	55988	4.68	ppm	97
89)	3,3'-Dichlorobenzidine	15.91	252	17340	4.21	ppm	91
90)	Chrysene	15.94	228	56260	4.75	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.17	149	37454	3.95	ppm	100
93)	Di-n-octylphthalate	17.38	149	58128	5.00	ppm	98
94)	Benzo[b]fluoranthene	17.83	252	58241	5.31	ppm	99
95)	Benzo[k]fluoranthene	17.87	252	58022	5.40	ppm	95
96)	Benzo[a]pyrene	18.36	252	50767	5.13	ppm	96
97)	Indeno[1,2,3-cd]pyrene	20.08	276	43144	4.85	ppm	95
98)	Dibenz(a,h)acridine	19.77	279	38461	4.80	ppm	96
99)	Dibenz[a,h]anthracene	20.13	278	46854	5.06	ppm	96
100)	7,12-Dimethylbenz(a)anthra	17.84	256	21729	4.69	ppm	99
101)	Benzo[g,h,i]perylene	20.45	276	51032	5.24	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103014.D Vial: 5
Acq On : 2 Mar 2016 6:39 pm Operator: sarad
Sample : ic4524-5 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:07 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:05:16 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	148071	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	519283	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	303889	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	468881	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	427194	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	384484	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	148071	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	519283	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	303889	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	468881	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	427194	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	384484	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	148071	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	468881	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	427194	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	519283	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	303889	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	519283	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	148071	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	427194	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	427194	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	519283	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.98	112	9792	1.90	ppm	0.01
Spiked Amount 50.000			Recovery = 3.80%			
8) Phenol-d5	3.98	99	13152	2.08	ppm	0.02
Spiked Amount 50.000			Recovery = 4.16%			
25) Nitrobenzene-d5	5.07	82	10608	2.13	ppm	-0.01
Spiked Amount 50.000			Recovery = 4.26%			
51) 2-Fluorobiphenyl	7.79	172	19830	2.13	ppm	-0.02
Spiked Amount 50.000			Recovery = 4.26%			
73) 2,4,6-Tribromophenol	10.09	330	1548	1.53	ppm	-0.02
Spiked Amount 50.000			Recovery = 3.06%			
85) Terphenyl-d14	14.01	244	15913	1.95	ppm	-0.02
Spiked Amount 50.000			Recovery = 3.90%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	5752	2.23	ppm	92
3) Pyridine	1.98	79	11702	2.07	ppm	96
4) N-Nitrosodimethylamine	1.94	42	4545	2.19	ppm	92
6) Indene	4.67	116	17006	2.07	ppm	95
7) Cumene	3.44	105	25241	2.10	ppm	97
9) Phenol	3.99	94	13209	2.10	ppm	97
10) Aniline	3.95	93	15193	2.09	ppm	79
11) bis(2-Chloroethyl)ether	4.02	93	10462	2.33	ppm	96
12) 2-Chlorophenol	4.12	128	10670	2.19	ppm	97
13) Decane	4.16	43	8913	2.36	ppm	89
14) 1,3-Dichlorobenzene	4.28	146	11777	2.12	ppm	89
15) 1,4-Dichlorobenzene	4.37	146	11491	2.15	ppm	89

(#) = qualifier out of range (m) = manual integration
P103015.D MP4524.M Thu Mar 03 09:10:04 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16) Benzyl alcohol	4.53	108	5754	1.94 ppm		83
17) 1,2-Dichlorobenzene	4.56	146	10342	2.01 ppm		95
18) Acetophenone	4.87	105	13254	1.98 ppm		92
19) 2-Methylphenol	4.73	108	8340	2.02 ppm		96
20) 2,2'-oxybis(1-Chloropropan	4.72	121	3109	2.06 ppm		95
21) 3&4-Methylphenol	4.95	108	8900	2.06 ppm		98
22) n-Nitroso-di-n-propylamine	4.88	70	6765	2.17 ppm		97
23) Hexachloroethane	5.01	201	3499	2.13 ppm		90
26) Nitrobenzene	5.10	77	9920	2.06 ppm		95
27) Quinoline	6.63	129	18405	2.00 ppm		95
28) Isophorone	5.44	82	15954	1.87 ppm		95
29) 2-Nitrophenol	5.55	139	4542	1.87 ppm		91
30) 2,4-Dimethylphenol	5.68	107	7536	1.76 ppm		95
31) Benzoic acid	5.79	105	2676	0.85 ppm		87
32) bis(2-Chloroethoxy)methane	5.78	93	10818	2.08 ppm		92
33) 2,4-Dichlorophenol	5.96	162	6748	1.91 ppm		84
34) 2,6-Dichlorophenol	6.25	162	6535	1.91 ppm		91
35) 1,3,5-Trichlorobenzene	5.57	180	8324	2.00 ppm		95
36) 1,2,4-Trichlorobenzene	6.02	180	8294	2.03 ppm		89
37) 1,2,3-Trichlorobenzene	6.36	180	8219	2.18 ppm		95
38) Naphthalene	6.13	128	27359	2.15 ppm		96
39) 4-Chloroaniline	6.24	127	10739	1.91 ppm		94
40) 2,3-Dichloroaniline	7.64	161	9506	2.17 ppm		97
41) Caprolactam	6.70	55	2827	1.65 ppm		78
42) Hexachlorobutadiene	6.35	225	4199	2.22 ppm		95
43) 4-Chloro-3-methylphenol	7.09	107	6722	1.72 ppm		95
44) 2-Methylnaphthalene	7.19	141	14472	2.04 ppm		92
45) 1-Methylnaphthalene	7.34	142	17995	2.08 ppm		94
46) Dimethylnaphthalene	8.18	156	15216	2.02 ppm		92
48) Hexachlorocyclopentadiene	7.46	237	6584	3.05 ppm		96
49) 2,4,6-Trichlorophenol	7.67	196	4312	1.85 ppm		99
50) 2,4,5-Trichlorophenol	7.79	196	4313	1.74 ppm		95
52) 2-Chloronaphthalene	7.94	162	17541	2.23 ppm		94
53) Biphenyl	7.94	154	22996	2.20 ppm		97
54) 2-Nitroaniline	8.13	65	3978	1.72 ppm		83
55) Dimethylphthalate	8.46	163	18317	1.99 ppm		99
56) Acenaphthylene	8.59	152	25872	1.95 ppm		94
57) 2,6-Dinitrotoluene	8.53	165	3010	1.60 ppm		93
58) 3-Nitroaniline	8.79	138	3802	1.53 ppm		98
59) Acenaphthene	8.87	153	15999	2.00 ppm		93
60) 2,4-Dinitrophenol	8.96	184	785	6.33 ppm		82
61) 4-Nitrophenol	9.29	109	1841	1.44 ppm	#	83
62) Dibenzofuran	9.15	168	23300	2.11 ppm		98
63) 2,4-Dinitrotoluene	9.17	165	3967	1.95 ppm		92
64) 2,3,4,6-Tetrachlorophenol	9.39	232	2826	1.55 ppm		80
65) Diethylphthalate	9.60	149	18236	1.96 ppm		95
66) Fluorene	9.69	166	18432	2.08 ppm		93
67) 4-Chlorophenyl-phenylether	9.73	204	8412	2.17 ppm		98
68) 4-Nitroaniline	9.76	138	3584	1.61 ppm		94

(#) = qualifier out of range (m) = manual integration
P103015.D MP4524.M Thu Mar 03 09:10:04 2016

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:08:34 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

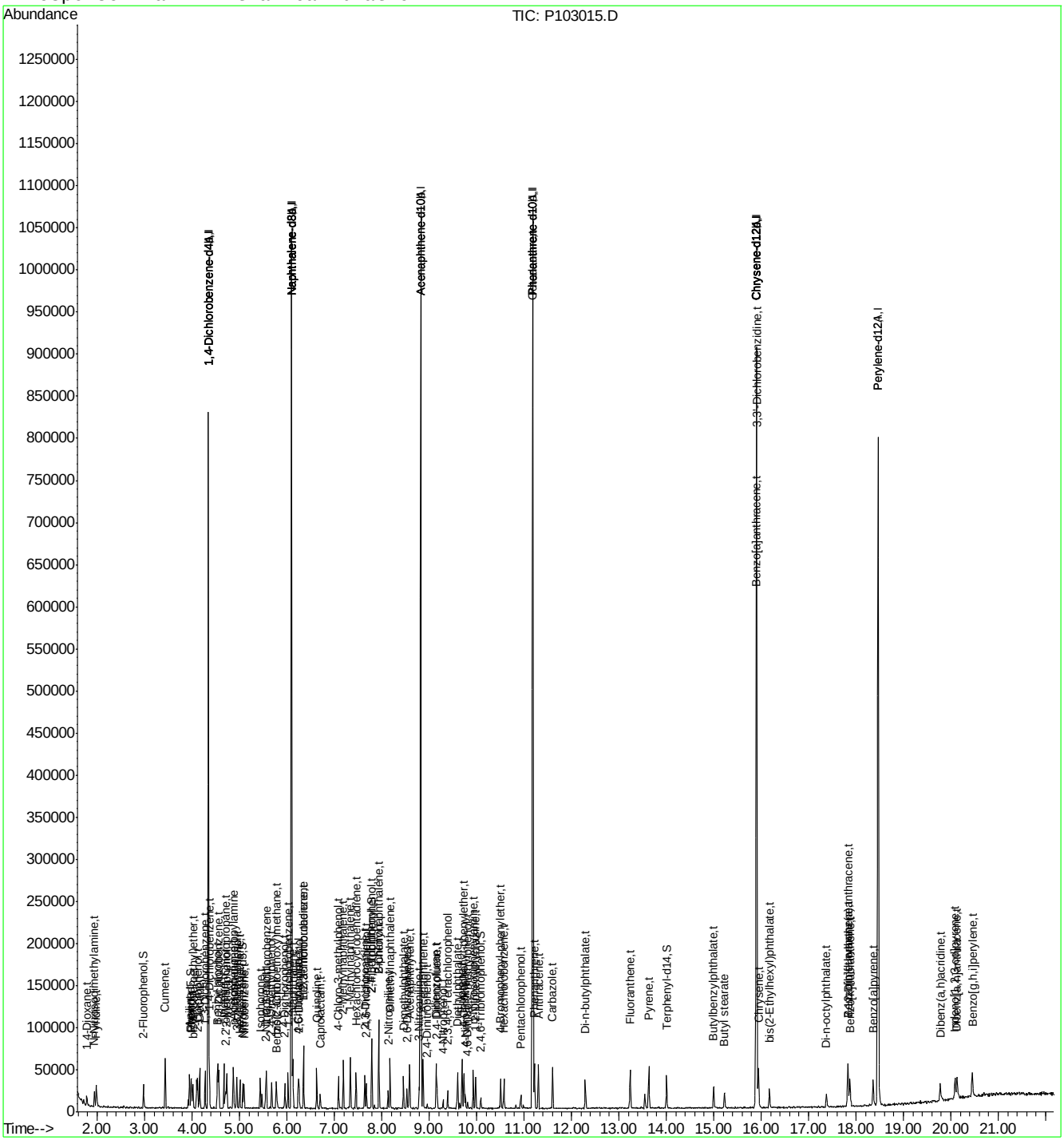
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	1004	5.44	ppm	92
71)	n-Nitrosodiphenylamine	9.93	169	12791	2.02	ppm	95
72)	1,2-Diphenylhydrazine	9.98	77	17812	1.99	ppm	91
74)	4-Bromophenyl-phenylether	10.51	248	4180	1.91	ppm	92
75)	Hexachlorobenzene	10.58	284	5013	2.18	ppm	90
76)	Pentachlorophenol	10.93	266	2234	5.26	ppm	89
77)	Phenanthrene	11.22	178	24318	2.03	ppm	98
78)	Anthracene	11.30	178	23432	1.93	ppm	99
79)	Carbazole	11.60	167	23377	1.98	ppm	99
80)	Di-n-butylphthalate	12.29	149	23363	1.60	ppm	93
81)	Fluoranthene	13.24	202	23983	1.98	ppm	97
82)	Octadecane	11.17	57	8767	2.09	ppm	97
84)	Pyrene	13.63	202	26127	1.86	ppm	93
86)	Butylbenzylphthalate	14.99	149	8941	1.33	ppm	90
87)	Butyl stearate	15.22	56	3624	1.15	ppm	87
88)	Benzo[a]anthracene	15.89	228	20705	1.84	ppm	99
89)	3,3'-Dichlorobenzidine	15.91	252	5154	1.33	ppm	87
90)	Chrysene	15.94	228	22166	1.98	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.17	149	10184	1.14	ppm	92
93)	Di-n-octylphthalate	17.38	149	13602	2.95	ppm	97
94)	Benzo[b]fluoranthene	17.83	252	20465	1.97	ppm	94
95)	Benzo[k]fluoranthene	17.87	252	20495	2.02	ppm	91
96)	Benzo[a]pyrene	18.36	252	16901	1.81	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.08	276	13908m	1.65	ppm	
98)	Dibenz(a,h)acridine	19.78	279	11517	1.52	ppm	97
99)	Dibenz[a,h]anthracene	20.13	278	16778	1.92	ppm	92
100)	7,12-Dimethylbenz(a)anthra	17.83	256	7263	1.66	ppm	87
101)	Benzo[g,h,i]perylene	20.45	276	17502	1.90	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:09 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Manual Integration Approval Summary

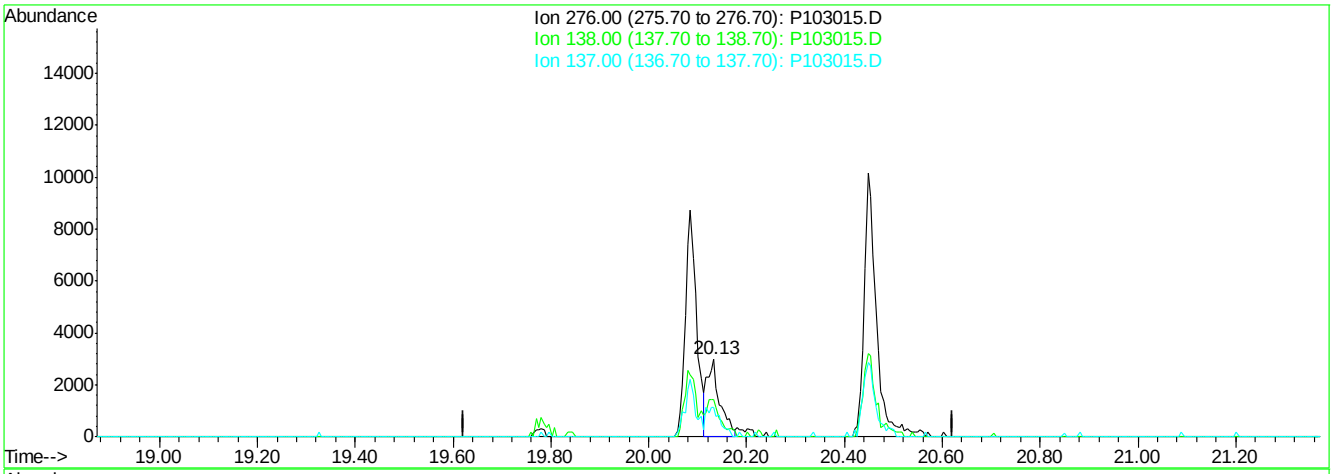
Sample Number:	EP4524-IC4524	**Method:**	SW846 8270D
Lab FileID:	P103015.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 19:08	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

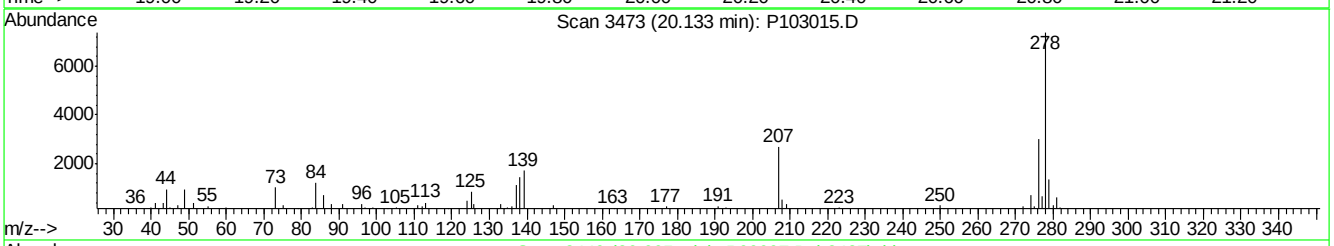
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.08	Poor instrument integration

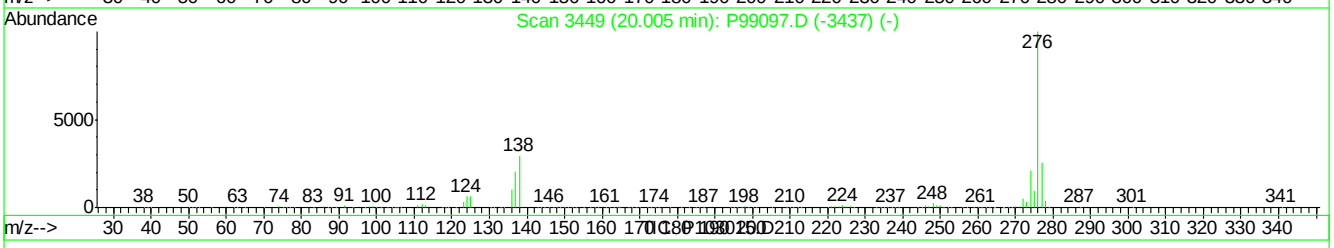
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:08 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







(97) Indeno[1,2,3-cd]pyrene (t)

20.13min 0.65ppm

response 5497

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	45.22
137.00	20.50	50.31
0.00	0.00	0.00

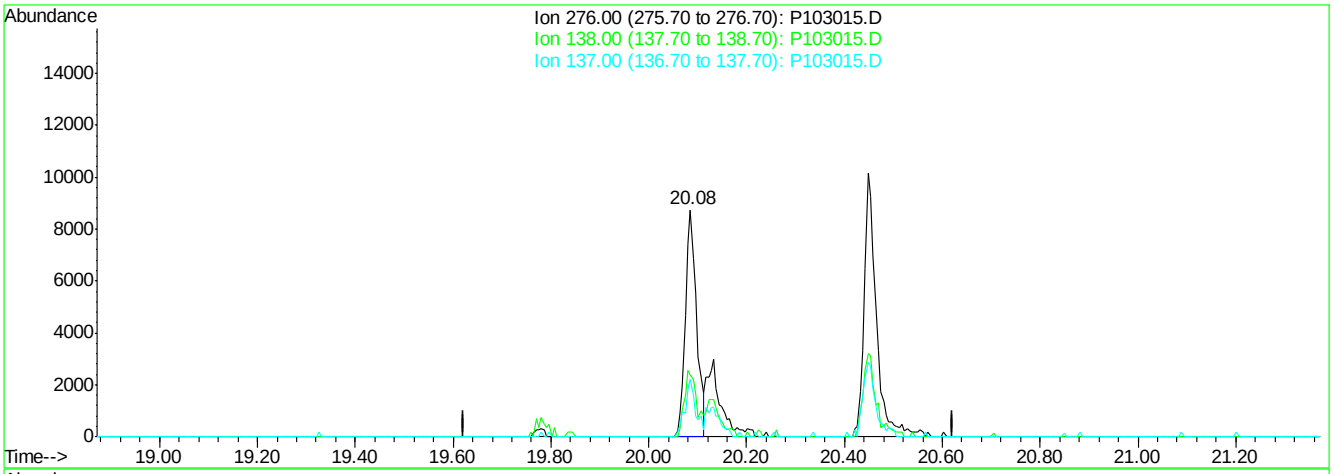
P103015.D MP4524.M Thu Mar 03 09:09:23 2016

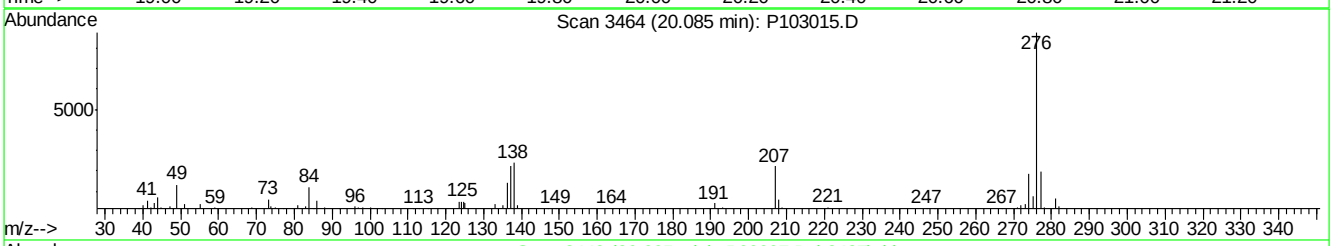
SGS ACCUTEST JC16038

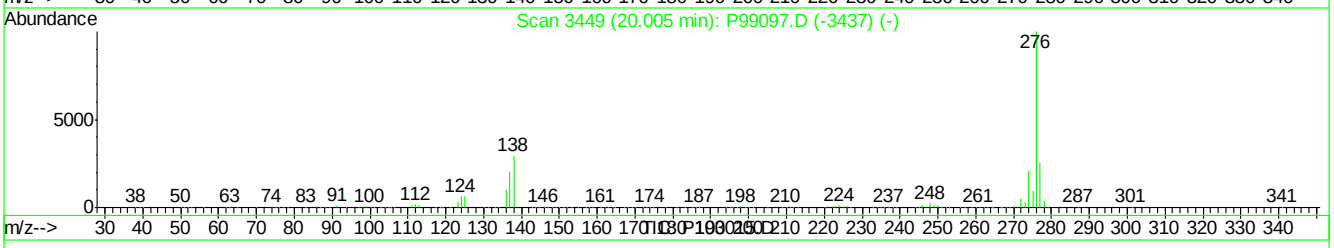
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103015.D Vial: 6
Acq On : 2 Mar 2016 7:08 pm Operator: sarad
Sample : ic4524-2 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:09 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







(97) Indeno[1,2,3-cd]pyrene (t)

20.08min 1.65ppm m

response 13908

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	27.33
137.00	20.50	25.37
0.00	0.00	0.00

P103015.D MP4524.M Thu Mar 03 09:09:29 2016

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	155171	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	555275	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	323538	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	495080	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	448414	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	398461	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	155171	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	555275	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	323538	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	495080	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	448414	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	398461	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	155171	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	495080	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	448414	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	555275	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	323538	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	555275	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	155171	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	448414	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	448414	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	555275	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	4980	0.92	ppm	0.00
Spiked Amount 50.000			Recovery = 1.84%			
8) Phenol-d5	3.98	99	6538	0.99	ppm	0.02
Spiked Amount 50.000			Recovery = 1.98%			
25) Nitrobenzene-d5	5.07	82	5331	1.00	ppm	-0.01
Spiked Amount 50.000			Recovery = 2.00%			
51) 2-Fluorobiphenyl	7.79	172	10228	1.03	ppm	-0.02
Spiked Amount 50.000			Recovery = 2.06%			
73) 2,4,6-Tribromophenol	10.09	330	673	0.63	ppm	-0.02
Spiked Amount 50.000			Recovery = 1.26%			
85) Terphenyl-d14	14.01	244	8345	0.97	ppm	-0.02
Spiked Amount 50.000			Recovery = 1.94%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	3235	1.20	ppm	91
3) Pyridine	1.99	79	6499	1.10	ppm	98
4) N-Nitrosodimethylamine	1.94	42	2444	1.12	ppm	90
6) Indene	4.67	116	8844	1.03	ppm	91
7) Cumene	3.44	105	14638	1.16	ppm	92
9) Phenol	3.99	94	6552	1.00	ppm	93
10) Aniline	3.95	93	8065	1.06	ppm	87
11) bis(2-Chloroethyl)ether	4.02	93	5482	1.17	ppm	98
12) 2-Chlorophenol	4.12	128	4814	0.94	ppm	97
13) Decane	4.16	43	4471	1.13	ppm	89
14) 1,3-Dichlorobenzene	4.28	146	6006	1.03	ppm	99
15) 1,4-Dichlorobenzene	4.36	146	5565	0.99	ppm	82

(#) = qualifier out of range (m) = manual integration
P103016.D MP4524.M Thu Mar 03 09:14:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.53	108	2890	0.93	ppm		97
17)	1,2-Dichlorobenzene	4.56	146	5817	1.08	ppm		95
18)	Acetophenone	4.87	105	7136	1.02	ppm		95
19)	2-Methylphenol	4.73	108	4147	0.96	ppm		91
20)	2,2'-oxybis(1-Chloropropan	4.72	121	1794	1.14	ppm		98
21)	3&4-Methylphenol	4.94	108	4450	0.98	ppm		86
22)	n-Nitroso-di-n-propylamine	4.88	70	3507	1.07	ppm		89
23)	Hexachloroethane	5.00	201	1742	1.01	ppm		90
26)	Nitrobenzene	5.09	77	5747	1.12	ppm		89
27)	Quinoline	6.63	129	9837	1.00	ppm		90
28)	Isophorone	5.44	82	8238	0.91	ppm		95
29)	2-Nitrophenol	5.55	139	2172	0.84	ppm		84
30)	2,4-Dimethylphenol	5.68	107	3754	0.82	ppm		90
31)	Benzoic acid	5.79	105	835	0.25	ppm		95
32)	bis(2-Chloroethoxy)methane	5.78	93	5666	1.02	ppm		95
33)	2,4-Dichlorophenol	5.96	162	3337	0.88	ppm		97
34)	2,6-Dichlorophenol	6.25	162	3575	0.98	ppm		94
35)	1,3,5-Trichlorobenzene	5.57	180	4850	1.09	ppm		85
36)	1,2,4-Trichlorobenzene	6.02	180	4557	1.04	ppm		86
37)	1,2,3-Trichlorobenzene	6.35	180	4197	1.04	ppm		93
38)	Naphthalene	6.13	128	14418	1.06	ppm		98
39)	4-Chloroaniline	6.24	127	5443	0.90	ppm		97
40)	2,3-Dichloroaniline	7.64	161	4523	0.96	ppm		91
41)	Caprolactam	6.70	55	1510	0.83	ppm	#	76
42)	Hexachlorobutadiene	6.35	225	2229	1.10	ppm		90
43)	4-Chloro-3-methylphenol	7.09	107	3059	0.73	ppm	#	67
44)	2-Methylnaphthalene	7.19	141	7623	1.01	ppm		98
45)	1-Methylnaphthalene	7.34	142	9057	0.98	ppm		93
46)	Dimethylnaphthalene	8.18	156	8233	1.02	ppm		96
48)	Hexachlorocyclopentadiene	7.46	237	2913	1.27	ppm		88
49)	2,4,6-Trichlorophenol	7.68	196	2008	0.81	ppm		98
50)	2,4,5-Trichlorophenol	7.79	196	1993	0.76	ppm		97
52)	2-Chloronaphthalene	7.94	162	8595	1.02	ppm		90
53)	Biphenyl	7.94	154	11633	1.05	ppm		95
54)	2-Nitroaniline	8.13	65	1760	0.71	ppm		95
55)	Dimethylphthalate	8.46	163	9365	0.96	ppm		96
56)	Acenaphthylene	8.59	152	13949	0.99	ppm		95
57)	2,6-Dinitrotoluene	8.53	165	1603	0.80	ppm		93
58)	3-Nitroaniline	8.79	138	1709	0.65	ppm		73
59)	Acenaphthene	8.87	153	8759	1.03	ppm		92
60)	2,4-Dinitrophenol	8.96	184	259	5.87	ppm	#	22
61)	4-Nitrophenol	9.30	109	572	0.42	ppm	#	56
62)	Dibenzofuran	9.15	168	11667	0.99	ppm		98
63)	2,4-Dinitrotoluene	9.17	165	1578	1.12	ppm		88
64)	2,3,4,6-Tetrachlorophenol	9.39	232	1177	0.61	ppm		89
65)	Diethylphthalate	9.60	149	8984	0.91	ppm		98
66)	Fluorene	9.69	166	9121	0.97	ppm		89
67)	4-Chlorophenyl-phenylether	9.73	204	4077	0.99	ppm		96
68)	4-Nitroaniline	9.76	138	1447	0.61	ppm		92

(#) = qualifier out of range (m) = manual integration
P103016.D MP4524.M Thu Mar 03 09:14:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:39 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

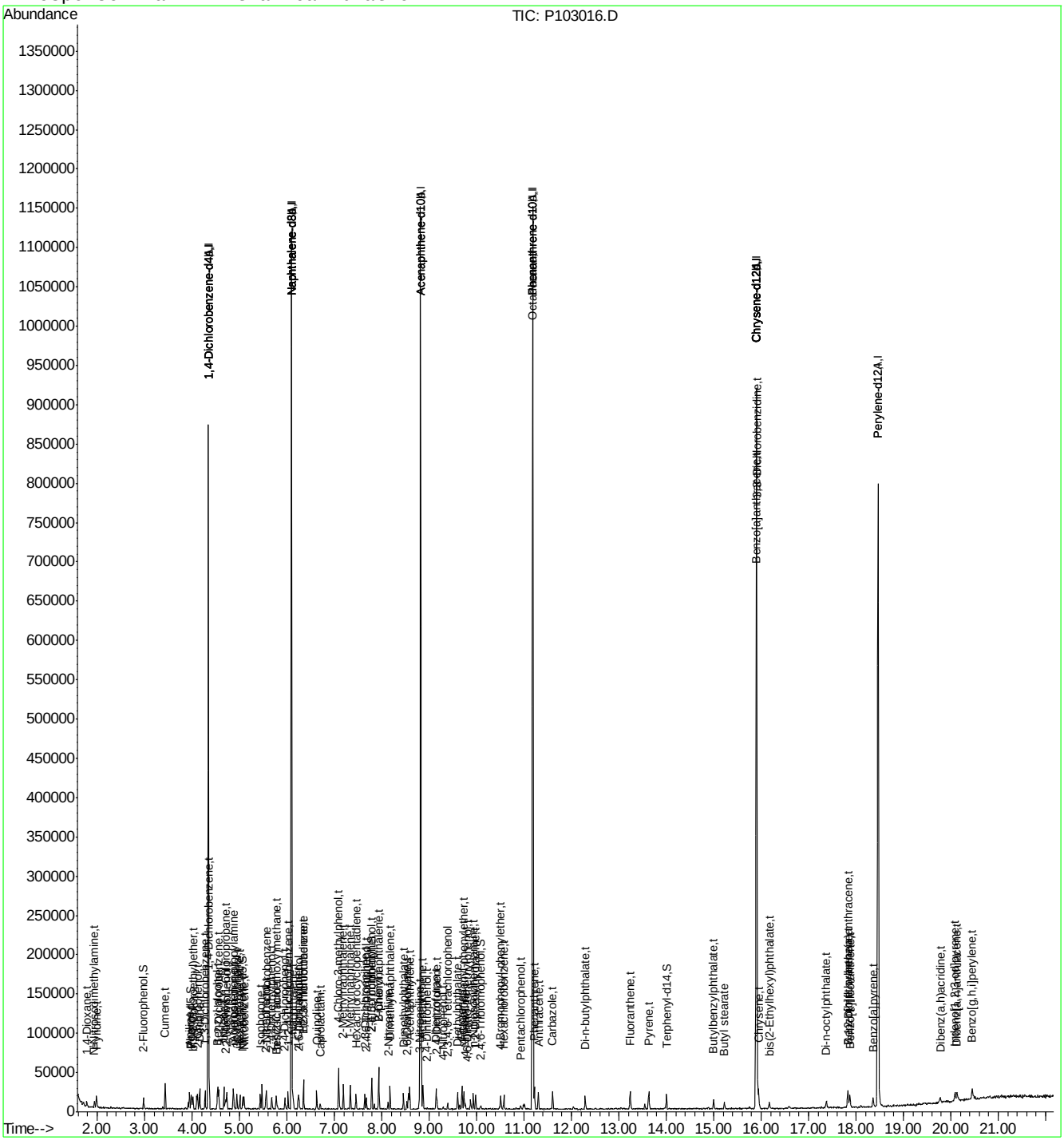
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	406	5.09	ppm	#	29
71)	n-Nitrosodiphenylamine	9.93	169	6294	0.94	ppm		96
72)	1,2-Diphenylhydrazine	9.98	77	8640	0.91	ppm		90
74)	4-Bromophenyl-phenylether	10.51	248	2225	0.96	ppm		96
75)	Hexachlorobenzene	10.58	284	2726	1.12	ppm		95
76)	Pentachlorophenol	10.93	266	748	4.45	ppm		78
77)	Phenanthrene	11.22	178	12359	0.98	ppm		98
78)	Anthracene	11.30	178	11081	0.86	ppm		93
79)	Carbazole	11.60	167	11258	0.90	ppm		93
80)	Di-n-butylphthalate	12.29	149	11428	0.74	ppm		98
81)	Fluoranthene	13.24	202	12351	0.97	ppm		94
82)	Octadecane	11.17	57	4325	0.98	ppm		95
84)	Pyrene	13.63	202	13036	0.89	ppm		96
86)	Butylbenzylphthalate	15.00	149	3399	0.48	ppm		87
87)	Butyl stearate	15.22	56	1463	0.44	ppm		73
88)	Benzo[a]anthracene	15.89	228	10942	0.92	ppm		97
89)	3,3'-Dichlorobenzidine	15.91	252	2232	0.55	ppm		86
90)	Chrysene	15.94	228	10699	0.91	ppm		93
91)	bis(2-Ethylhexyl)phthalate	16.17	149	3603	0.38	ppm		96
93)	Di-n-octylphthalate	17.38	149	5368	2.53	ppm		95
94)	Benzo[b]fluoranthene	17.83	252	9472	0.88	ppm		98
95)	Benzo[k]fluoranthene	17.87	252	10371	0.98	ppm		91
96)	Benzo[a]pyrene	18.36	252	7839	0.81	ppm		97
97)	Indeno[1,2,3-cd]pyrene	20.09	276	6348m	0.73	ppm		
98)	Dibenz(a,h)acridine	19.78	279	5613	0.72	ppm		86
99)	Dibenz[a,h]anthracene	20.13	278	7251	0.80	ppm		92
100)	7,12-Dimethylbenz(a)anthra	17.84	256	2773	0.61	ppm		87
101)	Benzo[g,h,i]perylene	20.45	276	8994	0.94	ppm		87

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:14 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



Manual Integration Approval Summary

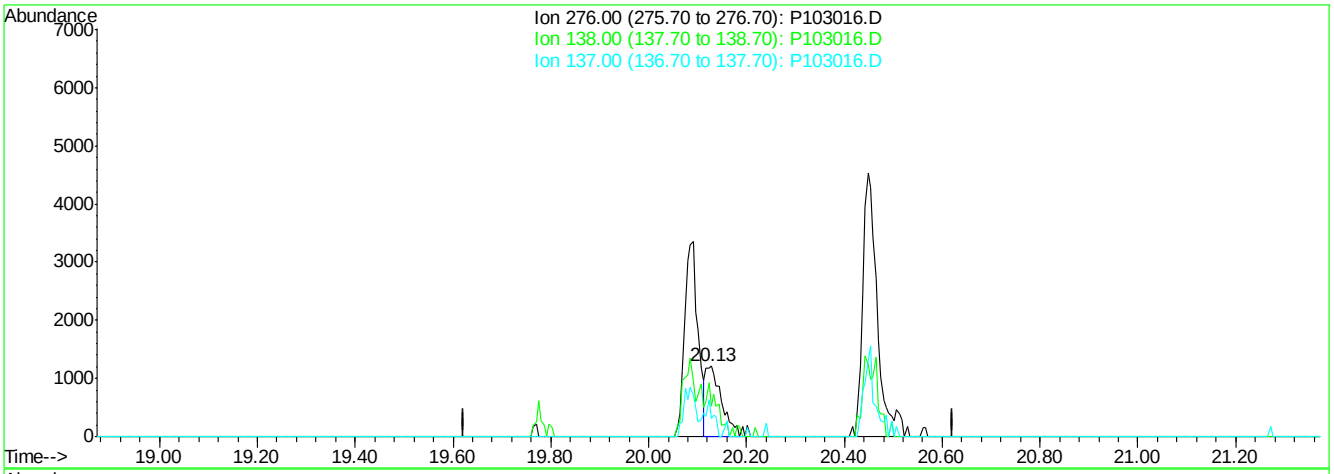
Sample Number:	EP4524-IC4524	**Method:**	SW846 8270D
Lab FileID:	P103016.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 19:37	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

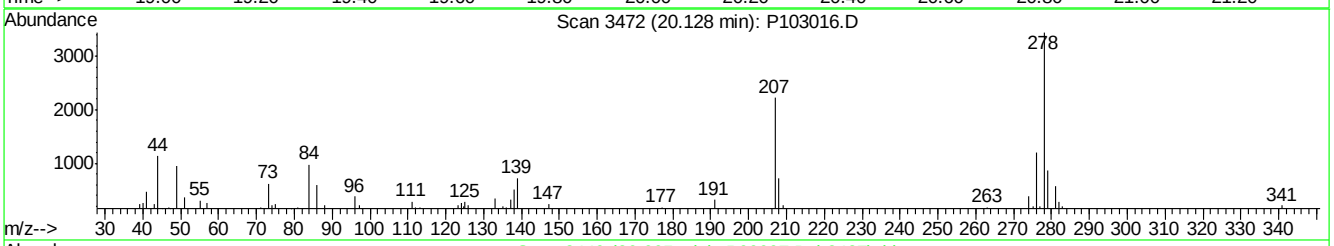
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.09	Poor instrument integration

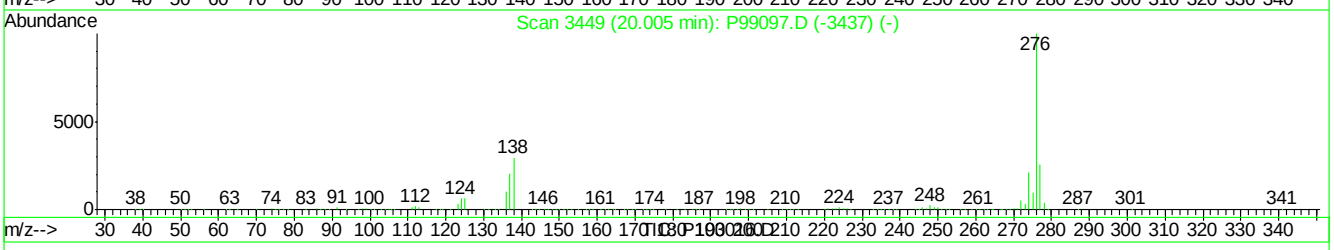
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 8:58 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







(97) Indeno[1,2,3-cd]pyrene (t)

20.13min 0.32ppm

response 2751

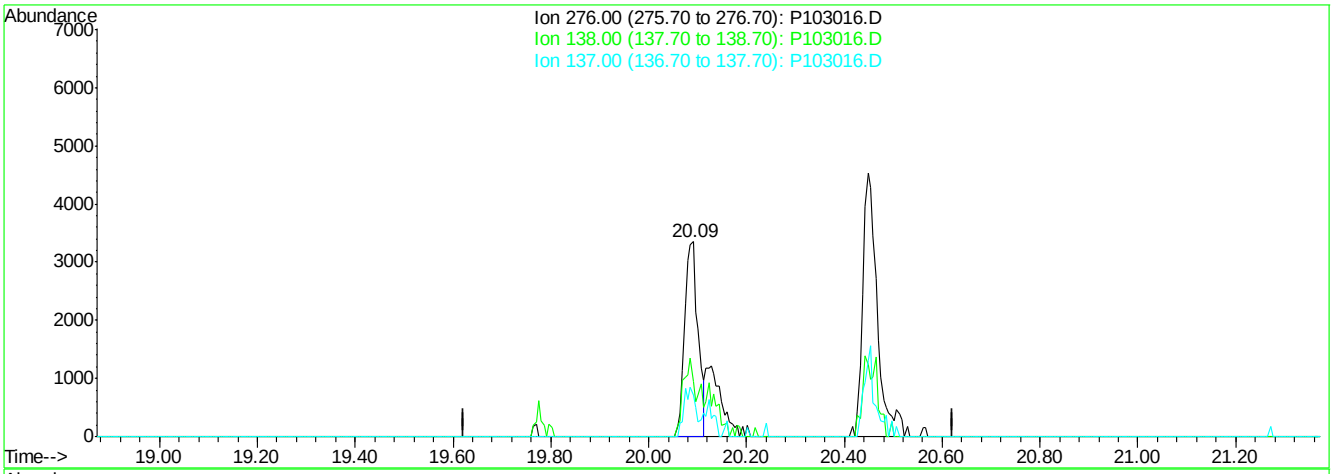
Ion	Exp%	Act%
276.00	100	100
138.00	28.90	24.11
137.00	20.50	15.27
0.00	0.00	0.00

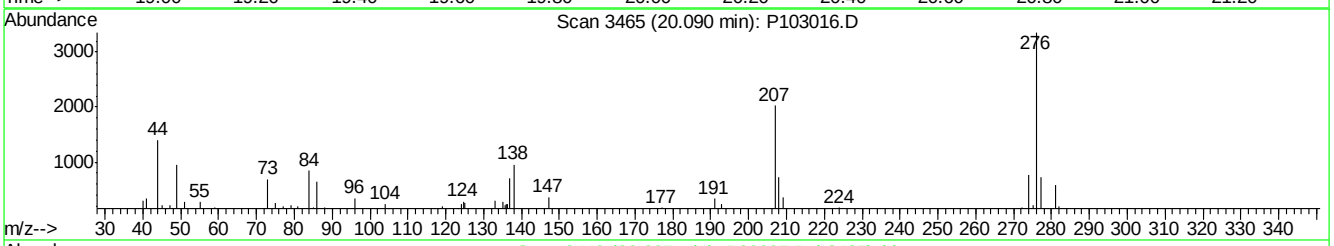
P103016.D MP4524.M Thu Mar 03 09:14:13 2016

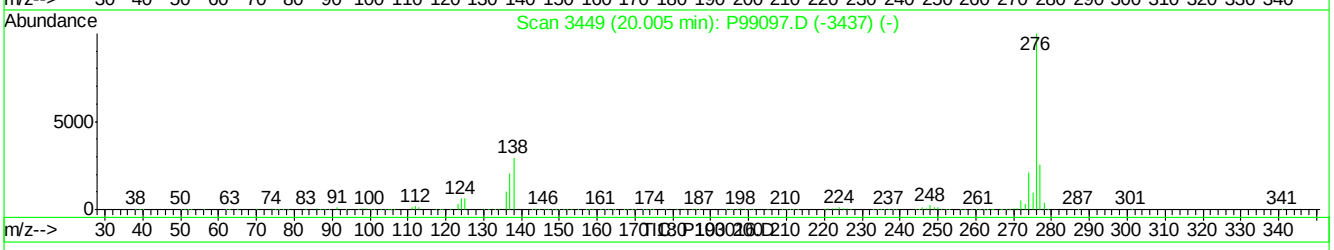
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103016.D Vial: 7
Acq On : 2 Mar 2016 7:37 pm Operator: sarad
Sample : ic4524-1 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:14 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Multiple Level Calibration







(97) Indeno[1,2,3-cd]pyrene (t)

20.09min 0.73ppm m

response 6348

Ion	Exp%	Act%
276.00	100	100
138.00	28.90	28.36
137.00	20.50	21.29
0.00	0.00	0.00

P103016.D MP4524.M Thu Mar 03 09:14:20 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	124231	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	437439	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	253741	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	378134	40.00	ppm	-0.01
83) Chrysene-d12	15.91	240	350683	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	328054	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	124231	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	437439	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	253741	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	378134	40.00	ppm	-0.04
147) Chrysene-d12A	15.91	240	350683	40.00	ppm	-0.04
155) Perylene-d12A	18.47	264	328054	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	124231	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	378134	40.00	ppm	-0.04
163) Chrysene-d12b	15.91	240	350683	40.00	ppm	-0.04
165) Naphthalene-d8b	6.10	136	437439	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	253741	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	437439	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	124231	40.00	ppm	-0.11
176) Chrysene-d12c	15.91	240	350683	40.00	ppm	-0.05
178) Chrysene-d12d	15.91	240	350683	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	437439	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	244782	56.72	ppm	0.00
Spiked Amount 50.000			Recovery = 113.44%			
8) Phenol-d5	3.96	99	291076	54.97	ppm	0.00
Spiked Amount 50.000			Recovery = 109.94%			
25) Nitrobenzene-d5	5.07	82	243526	58.08	ppm	-0.01
Spiked Amount 50.000			Recovery = 116.16%			
51) 2-Fluorobiphenyl	7.79	172	409109	52.68	ppm	-0.01
Spiked Amount 50.000			Recovery = 105.36%			
73) 2,4,6-Tribromophenol	10.09	330	54000	66.07	ppm	-0.01
Spiked Amount 50.000			Recovery = 132.14%			
85) Terphenyl-d14	14.01	244	395789	59.01	ppm	-0.01
Spiked Amount 50.000			Recovery = 118.02%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	117581	54.38	ppm	95
3) Pyridine	1.97	79	268554	56.73	ppm	95
4) N-Nitrosodimethylamine	1.94	42	101045	57.99	ppm	98
6) Indene	4.68	116	387000	56.16	ppm	98
7) Cumene	3.44	105	542916	53.73	ppm	99
9) Phenol	3.98	94	292195	55.48	ppm	91
10) Aniline	3.95	93	305737	50.09	ppm	93
11) bis(2-Chloroethyl)ether	4.02	93	208557	55.36	ppm	97
12) 2-Chlorophenol	4.11	128	223091	54.63	ppm	97
13) Decane	4.16	43	168665	53.28	ppm	99
14) 1,3-Dichlorobenzene	4.28	146	244389	52.47	ppm	99
15) 1,4-Dichlorobenzene	4.37	146	237485	52.96	ppm	100

(#) = qualifier out of range (m) = manual integration
P103017.D MP4524.M Thu Mar 03 09:16:27 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.53	108	141064	56.70	ppm		99
17)	1,2-Dichlorobenzene	4.56	146	222053	51.52	ppm		99
18)	Acetophenone	4.87	105	303490	54.08	ppm		97
19)	2-Methylphenol	4.73	108	193523	55.92	ppm		98
20)	2,2'-oxybis(1-Chloropropan	4.71	121	70318	55.64	ppm	#	84
21)	3&4-Methylphenol	4.94	108	215516	59.37	ppm		99
22)	n-Nitroso-di-n-propylamine	4.89	70	153156	58.43	ppm		97
23)	Hexachloroethane	5.01	201	77555	56.23	ppm		94
26)	Nitrobenzene	5.10	77	225838	55.78	ppm		98
27)	Quinoline	6.64	129	437092	56.25	ppm		99
28)	Isophorone	5.44	82	413211	57.62	ppm		99
29)	2-Nitrophenol	5.55	139	123178	60.15	ppm		92
30)	2,4-Dimethylphenol	5.68	107	209702	58.08	ppm		98
31)	Benzoic acid	5.88	105	155312	58.82	ppm		96
32)	bis(2-Chloroethoxy)methane	5.78	93	252768	57.57	ppm		98
33)	2,4-Dichlorophenol	5.95	162	177728	59.71	ppm		99
34)	2,6-Dichlorophenol	6.26	162	165495	57.54	ppm		97
35)	1,3,5-Trichlorobenzene	5.57	180	185172	52.87	ppm		99
36)	1,2,4-Trichlorobenzene	6.02	180	181262	52.73	ppm		95
37)	1,2,3-Trichlorobenzene	6.36	180	164492	51.83	ppm		99
38)	Naphthalene	6.13	128	585134	54.55	ppm		99
39)	4-Chloroaniline	6.24	127	257943	54.40	ppm		98
40)	2,3-Dichloroaniline	7.64	161	220036	59.56	ppm		98
41)	Caprolactam	6.75	55	86330	59.96	ppm		97
42)	Hexachlorobutadiene	6.35	225	90265	56.78	ppm		99
43)	4-Chloro-3-methylphenol	7.08	107	201867	61.35	ppm		95
44)	2-Methylnaphthalene	7.19	141	326822	54.80	ppm		98
45)	1-Methylnaphthalene	7.34	142	397618	54.61	ppm		99
46)	Dimethylnaphthalene	8.18	156	352622	55.60	ppm		100
48)	Hexachlorocyclopentadiene	7.46	237	206540	114.53	ppm		100
49)	2,4,6-Trichlorophenol	7.67	196	116436	59.91	ppm		100
50)	2,4,5-Trichlorophenol	7.78	196	125359	60.57	ppm		99
52)	2-Chloronaphthalene	7.95	162	352021	53.48	ppm		99
53)	Biphenyl	7.94	154	450733	51.74	ppm		100
54)	2-Nitroaniline	8.14	65	117767	60.81	ppm		91
55)	Dimethylphthalate	8.47	163	428351	55.76	ppm		98
56)	Acenaphthylene	8.59	152	586858	52.98	ppm		100
57)	2,6-Dinitrotoluene	8.54	165	101635	64.90	ppm		94
58)	3-Nitroaniline	8.80	138	120352	58.19	ppm		95
59)	Acenaphthene	8.87	153	363738	54.35	ppm		97
60)	2,4-Dinitrophenol	8.96	184	102911	107.60	ppm		98
61)	4-Nitrophenol	9.26	109	64581	60.49	ppm		97
62)	Dibenzofuran	9.15	168	510264	55.37	ppm		98
63)	2,4-Dinitrotoluene	9.17	165	131015	57.04	ppm		98
64)	2,3,4,6-Tetrachlorophenol	9.39	232	95041	62.54	ppm		97
65)	Diethylphthalate	9.61	149	434775	56.04	ppm		99
66)	Fluorene	9.70	166	423992	57.28	ppm		100
67)	4-Chlorophenyl-phenylether	9.74	204	185974	57.40	ppm		97
68)	4-Nitroaniline	9.78	138	115638	62.06	ppm		100

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 09:15:05 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

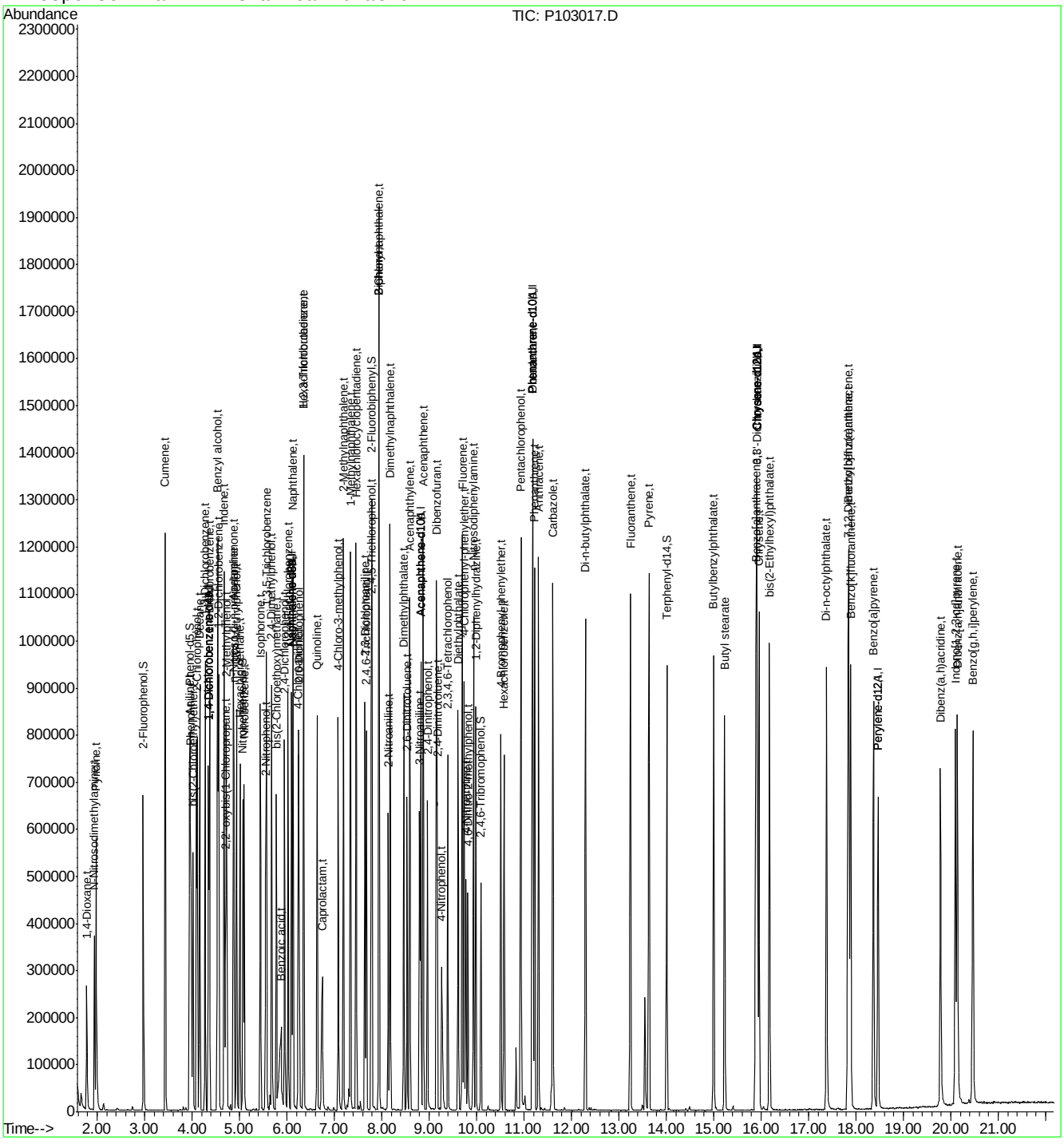
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.82	198	74923	56.72	ppm	96
71)	n-Nitrosodiphenylamine	9.93	169	316794	61.94	ppm	99
72)	1,2-Diphenylhydrazine	9.98	77	426774	59.08	ppm	95
74)	4-Bromophenyl-phenylether	10.51	248	107403	60.89	ppm	99
75)	Hexachlorobenzene	10.58	284	109393	58.88	ppm	94
76)	Pentachlorophenol	10.93	266	131524	98.75	ppm	97
77)	Phenanthrene	11.23	178	542665	56.07	ppm	99
78)	Anthracene	11.31	178	562547	57.33	ppm	99
79)	Carbazole	11.61	167	581354	60.92	ppm	99
80)	Di-n-butylphthalate	12.30	149	728458	61.91	ppm	100
81)	Fluoranthene	13.25	202	609214	62.34	ppm	98
82)	Octadecane	11.17	57	230371	68.10	ppm	97
84)	Pyrene	13.64	202	625809	54.36	ppm	97
86)	Butylbenzylphthalate	15.00	149	332955	60.35	ppm	98
87)	Butyl stearate	15.23	56	163184	62.97	ppm	94
88)	Benzo[a]anthracene	15.89	228	528127	57.08	ppm	100
89)	3,3'-Dichlorobenzidine	15.92	252	197984	62.07	ppm	98
90)	Chrysene	15.96	228	504341	55.00	ppm	99
91)	bis(2-Ethylhexyl)phthalate	16.17	149	438733	59.75	ppm	98
93)	Di-n-octylphthalate	17.38	149	753065	55.08	ppm	98
94)	Benzo[b]fluoranthene	17.84	252	554377	62.60	ppm	99
95)	Benzo[k]fluoranthene	17.89	252	512346	59.04	ppm	100
96)	Benzo[a]pyrene	18.37	252	498096	62.42	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.10	276	455306	63.43	ppm	98
98)	Dibenz(a,h)acridine	19.79	279	433348	67.08	ppm	98
99)	Dibenz[a,h]anthracene	20.14	278	481767	64.53	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.85	256	243106	64.97	ppm	99
101)	Benzo[g,h,i]perylene	20.47	276	499527	63.61	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103017.D Vial: 8
Acq On : 2 Mar 2016 8:06 pm Operator: sarad
Sample : icc4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:16 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	124470	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	442285	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	259301	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	393353	40.00	ppm	-0.01
83) Chrysene-d12	15.90	240	355354	40.00	ppm	-0.02
92) Perylene-d12	18.47	264	330253	40.00	ppm	-0.01
102) 1,4-Dichlorobenzene-d4A	4.35	152	124470	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	442285	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	259301	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	393353	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	355354	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	330253	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	124470	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	393353	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	355354	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	442285	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	259301	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	442285	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	124470	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	355354	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	355354	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	442285	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	120675	27.91	ppm	0.00
Spiked Amount 50.000			Recovery = 55.82%			
8) Phenol-d5	3.97	99	145695	27.46	ppm	0.00
Spiked Amount 50.000			Recovery = 54.92%			
25) Nitrobenzene-d5	5.07	82	121082	28.56	ppm	-0.01
Spiked Amount 50.000			Recovery = 57.12%			
51) 2-Fluorobiphenyl	7.79	172	209611	26.41	ppm	-0.01
Spiked Amount 50.000			Recovery = 52.82%			
73) 2,4,6-Tribromophenol	10.09	330	25324	29.79	ppm	-0.02
Spiked Amount 50.000			Recovery = 59.58%			
85) Terphenyl-d14	14.01	244	192291	28.30	ppm	-0.02
Spiked Amount 50.000			Recovery = 56.60%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	56098	25.90	ppm	96
3) Pyridine	1.97	79	136188	28.71	ppm	97
4) N-Nitrosodimethylamine	1.94	42	49690	28.46	ppm	99
6) Indene	4.67	116	194064	28.11	ppm	98
7) Cumene	3.43	105	283811	28.04	ppm	98
9) Phenol	3.98	94	147604	27.97	ppm	97
10) Aniline	3.95	93	167753	27.43	ppm	82
11) bis(2-Chloroethyl)ether	4.02	93	103434	27.40	ppm	99
12) 2-Chlorophenol	4.11	128	111889	27.35	ppm	96
13) Decane	4.16	43	87928	27.72	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	124339	26.64	ppm	97
15) 1,4-Dichlorobenzene	4.37	146	121849	27.12	ppm	98

(#) = qualifier out of range (m) = manual integration
P103018.D MP4524.M Thu Mar 03 09:17:56 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16) Benzyl alcohol	4.53	108	69022	27.69 ppm		96
17) 1,2-Dichlorobenzene	4.56	146	113594	26.30 ppm		100
18) Acetophenone	4.87	105	153764	27.35 ppm		99
19) 2-Methylphenol	4.73	108	97495	28.12 ppm		99
20) 2,2'-oxybis(1-Chloropropan	4.71	121	35279	27.86 ppm	#	88
21) 3&4-Methylphenol	4.94	108	106602	29.31 ppm		98
22) n-Nitroso-di-n-propylamine	4.88	70	77193	29.39 ppm		97
23) Hexachloroethane	5.01	201	39144	28.32 ppm		92
26) Nitrobenzene	5.10	77	114670	28.01 ppm		98
27) Quinoline	6.63	129	217173	27.64 ppm		98
28) Isophorone	5.44	82	205558	28.35 ppm		97
29) 2-Nitrophenol	5.55	139	60673	29.31 ppm		91
30) 2,4-Dimethylphenol	5.68	107	99929	27.38 ppm		99
31) Benzoic acid	5.84	105	66251	24.82 ppm		97
32) bis(2-Chloroethoxy)methane	5.78	93	126470	28.49 ppm		98
33) 2,4-Dichlorophenol	5.95	162	89796	29.84 ppm		97
34) 2,6-Dichlorophenol	6.25	162	83622	28.76 ppm		99
35) 1,3,5-Trichlorobenzene	5.57	180	94745	26.75 ppm		99
36) 1,2,4-Trichlorobenzene	6.02	180	91759	26.40 ppm		98
37) 1,2,3-Trichlorobenzene	6.36	180	83571	26.04 ppm		98
38) Naphthalene	6.13	128	301381	27.79 ppm		98
39) 4-Chloroaniline	6.24	127	131232	27.37 ppm		98
40) 2,3-Dichloroaniline	7.64	161	108904	29.16 ppm		99
41) Caprolactam	6.72	55	41224	28.32 ppm		98
42) Hexachlorobutadiene	6.35	225	46039	28.64 ppm		97
43) 4-Chloro-3-methylphenol	7.08	107	97636	29.35 ppm		98
44) 2-Methylnaphthalene	7.19	141	166891	27.68 ppm		97
45) 1-Methylnaphthalene	7.34	142	203584	27.65 ppm		99
46) Dimethylnaphthalene	8.18	156	179244	27.95 ppm		99
48) Hexachlorocyclopentadiene	7.46	237	98948	53.69 ppm		99
49) 2,4,6-Trichlorophenol	7.67	196	57772	29.09 ppm		97
50) 2,4,5-Trichlorophenol	7.78	196	58929	27.86 ppm		97
52) 2-Chloronaphthalene	7.94	162	182832	27.18 ppm		99
53) Biphenyl	7.94	154	234397	26.33 ppm		99
54) 2-Nitroaniline	8.13	65	56891	28.75 ppm		90
55) Dimethylphthalate	8.46	163	213580	27.21 ppm		99
56) Acenaphthylene	8.59	152	302131	26.69 ppm		98
57) 2,6-Dinitrotoluene	8.54	165	47737	29.83 ppm		97
58) 3-Nitroaniline	8.79	138	58009	27.45 ppm		95
59) Acenaphthene	8.87	153	185046	27.06 ppm		97
60) 2,4-Dinitrophenol	8.96	184	40855	45.93 ppm		98
61) 4-Nitrophenol	9.27	109	29246	26.81 ppm		98
62) Dibenzofuran	9.15	168	263103	27.94 ppm		97
63) 2,4-Dinitrotoluene	9.17	165	64864	26.76 ppm		94
64) 2,3,4,6-Tetrachlorophenol	9.39	232	44863	28.89 ppm		96
65) Diethylphthalate	9.60	149	214134	27.01 ppm		98
66) Fluorene	9.69	166	212970	28.16 ppm		99
67) 4-Chlorophenyl-phenylether	9.73	204	95178	28.75 ppm		98
68) 4-Nitroaniline	9.77	138	55005	28.89 ppm		97

(#) = qualifier out of range (m) = manual integration
P103018.D MP4524.M Thu Mar 03 09:17:56 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 08:58:43 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 08:58:05 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	9.81	198	32324	26.38	ppm	96
71)	n-Nitrosodiphenylamine	9.93	169	157662	29.63	ppm	98
72)	1,2-Diphenylhydrazine	9.98	77	217259	28.91	ppm	97
74)	4-Bromophenyl-phenylether	10.51	248	51682	28.17	ppm	96
75)	Hexachlorobenzene	10.58	284	54145	28.02	ppm	98
76)	Pentachlorophenol	10.93	266	57853	41.80	ppm	100
77)	Phenanthrene	11.22	178	279626	27.77	ppm	98
78)	Anthracene	11.30	178	284194	27.84	ppm	98
79)	Carbazole	11.61	167	295428	29.76	ppm	99
80)	Di-n-butylphthalate	12.29	149	359469	29.37	ppm	99
81)	Fluoranthene	13.24	202	306291	30.13	ppm	98
82)	Octadecane	11.17	57	112226	31.89	ppm	95
84)	Pyrene	13.63	202	321366	27.55	ppm	97
86)	Butylbenzylphthalate	15.00	149	156979	28.08	ppm	99
87)	Butyl stearate	15.22	56	77227	29.41	ppm	93
88)	Benzo[a]anthracene	15.89	228	257688	27.49	ppm	99
89)	3,3'-Dichlorobenzidine	15.91	252	94027	29.09	ppm	99
90)	Chrysene	15.95	228	253919	27.33	ppm	97
91)	bis(2-Ethylhexyl)phthalate	16.17	149	206131	27.70	ppm	99
93)	Di-n-octylphthalate	17.38	149	346960	23.67	ppm	99
94)	Benzo[b]fluoranthene	17.83	252	263165	29.52	ppm	98
95)	Benzo[k]fluoranthene	17.88	252	258312	29.57	ppm	97
96)	Benzo[a]pyrene	18.36	252	243353	30.29	ppm	99
97)	Indeno[1,2,3-cd]pyrene	20.09	276	214090	29.63	ppm	96
98)	Dibenz(a,h)acridine	19.78	279	198286	30.49	ppm	99
99)	Dibenz[a,h]anthracene	20.13	278	225316	29.98	ppm	98
100)	7,12-Dimethylbenz(a)anthra	17.84	256	115782	30.74	ppm	99
101)	Benzo[g,h,i]perylene	20.46	276	234554	29.67	ppm	98

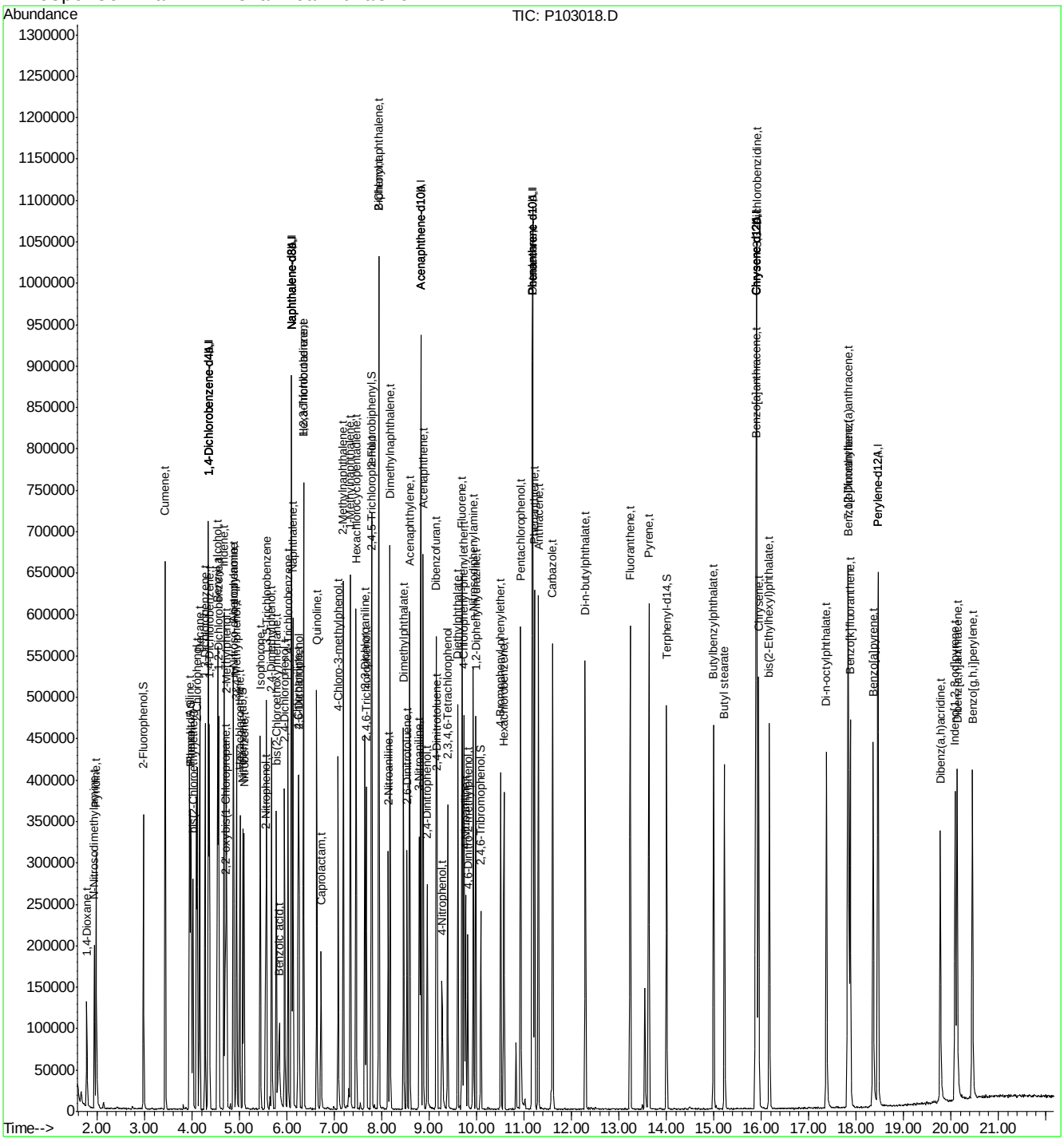
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103018.D Vial: 9
Acq On : 2 Mar 2016 8:36 pm Operator: sarad
Sample : ic4524-25 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 9:17 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 09:08:31 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
Acq On : 2 Mar 2016 9:05 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:47:37 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	149576	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	503799	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	294376	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	436802	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	397805	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	355781	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	149576	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	503799	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	294376	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	436802	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	397805	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	355781	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	149576	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	436802	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	397805	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	503799	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	294376	40.00	ppm	-0.04
169) Naphthalene-d8c	6.10	136	503799	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	149576	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	397753	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	397753	40.00	ppm	-0.06
180) Naphthalene-d8a	6.10	136	503799	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
9) Phenol	3.98	94	310486	47.36	ppm	88
12) 2-Chlorophenol	4.11	128	241093	48.54	ppm	99
19) 2-Methylphenol	4.72	108	214907	50.87	ppm	98
21) 3&4-Methylphenol	4.93	108	226649	49.17	ppm	99
29) 2-Nitrophenol	5.55	139	127036	52.92	ppm	98
30) 2,4-Dimethylphenol	5.67	107	227368	55.77	ppm	99
31) Benzoic acid	5.87	105	147006	46.42	ppm	97
33) 2,4-Dichlorophenol	5.95	162	177172	49.74	ppm	96
34) 2,6-Dichlorophenol	6.25	162	177036	51.78	ppm	96
43) 4-Chloro-3-methylphenol	7.07	107	196038	51.51	ppm	99
49) 2,4,6-Trichlorophenol	7.67	196	120063	52.06	ppm	100
50) 2,4,5-Trichlorophenol	7.77	196	117443	48.94	ppm	97

(#) = qualifier out of range (m) = manual integration
P103019.D MP4524.M Thu Mar 03 10:49:19 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
Acq On : 2 Mar 2016 9:05 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:47:37 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) 2,4-Dinitrophenol	8.96	184	39439	39.37	ppm	96
61) 4-Nitrophenol	9.26	109	61537	50.38	ppm	99
64) 2,3,4,6-Tetrachlorophenol	9.39	232	87709	47.57	ppm	97
70) 4,6-Dinitro-2-methylphenol	9.81	198	67907	42.45	ppm	96
76) Pentachlorophenol	10.93	266	58985	43.19	ppm	98

9.6.63

9

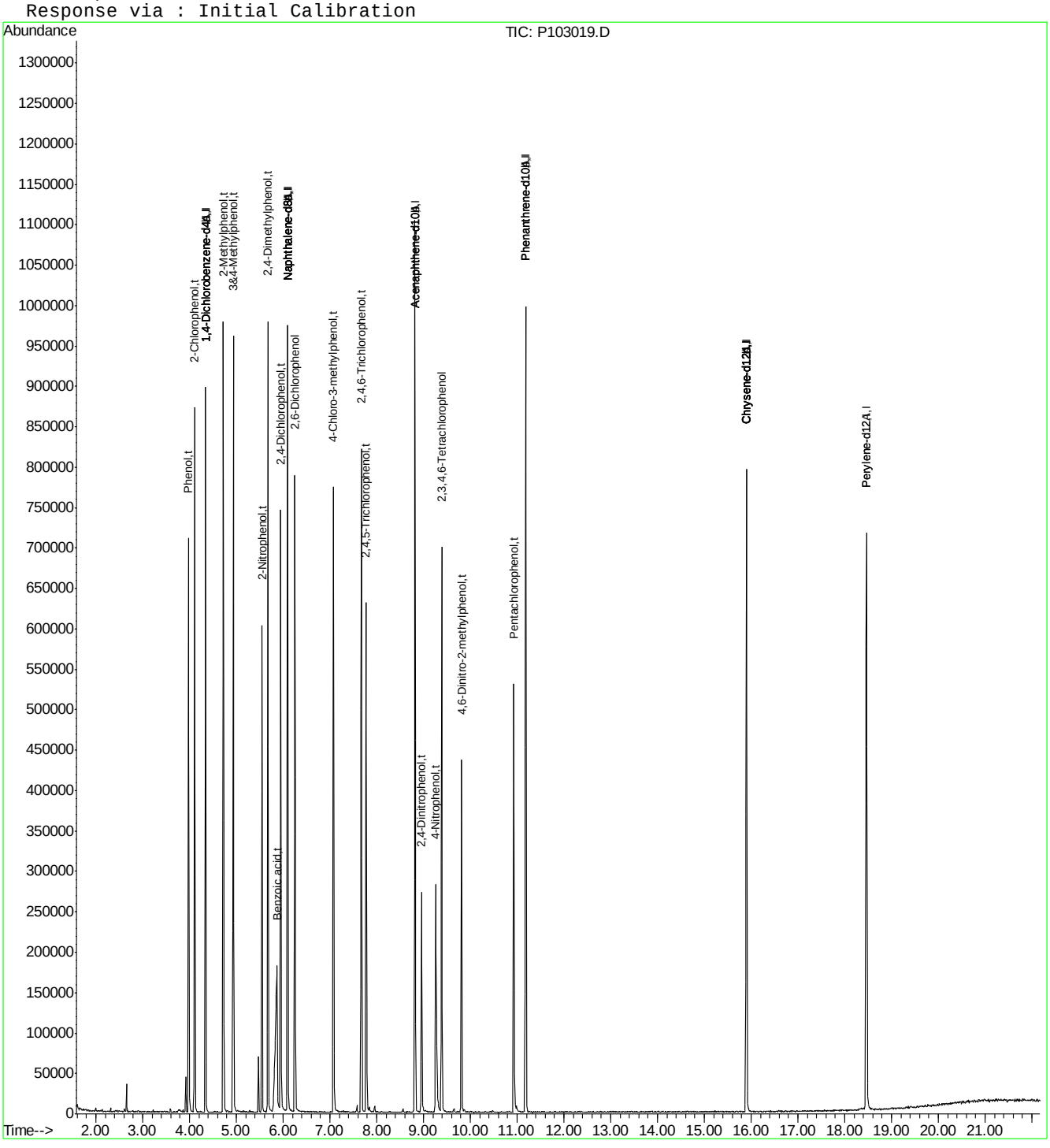
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103019.D Vial: 10
Acq On : 2 Mar 2016 9:05 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:49 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



P103019.D MP4524.M Thu Mar 03 10:49:20 2016 Page 3

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
Acq On : 2 Mar 2016 9:34 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:51:46 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.35	152	165057	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	607388	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	330896	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	536143	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	470505	40.00	ppm	0.00
92) Perylene-d12	18.47	264	408173	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.35	152	165057	40.00	ppm	-0.02
112) Naphthalene-d8A	6.10	136	607388	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	330896	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	536143	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	470505	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	408173	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.35	152	165057	40.00	ppm	-0.02
161) Phenanthrene-d10b	11.18	188	536143	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	470505	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	607388	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	330896	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	607388	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.35	152	165057	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	470505	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	470505	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	607388	40.00	ppm	0.13

System Monitoring Compounds

5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds

						Qvalue
3) Pyridine	2.05	79	343881	51.94	ppm	97
10) Aniline	3.96	93	418196	53.06	ppm	82
16) Benzyl alcohol	4.54	108	174956	53.69	ppm	98
39) 4-Chloroaniline	6.24	127	275208	42.97	ppm	99
44) 2-Methylnaphthalene	7.19	141	392398	47.02	ppm	97
54) 2-Nitroaniline	8.14	65	143073	56.92	ppm	96
58) 3-Nitroaniline	8.80	138	136496	54.11	ppm	98
62) Dibenzofuran	9.15	168	626653	51.53	ppm	99
68) 4-Nitroaniline	9.77	138	138652	54.71	ppm	96
79) Carbazole	11.61	167	687445	48.68	ppm	100

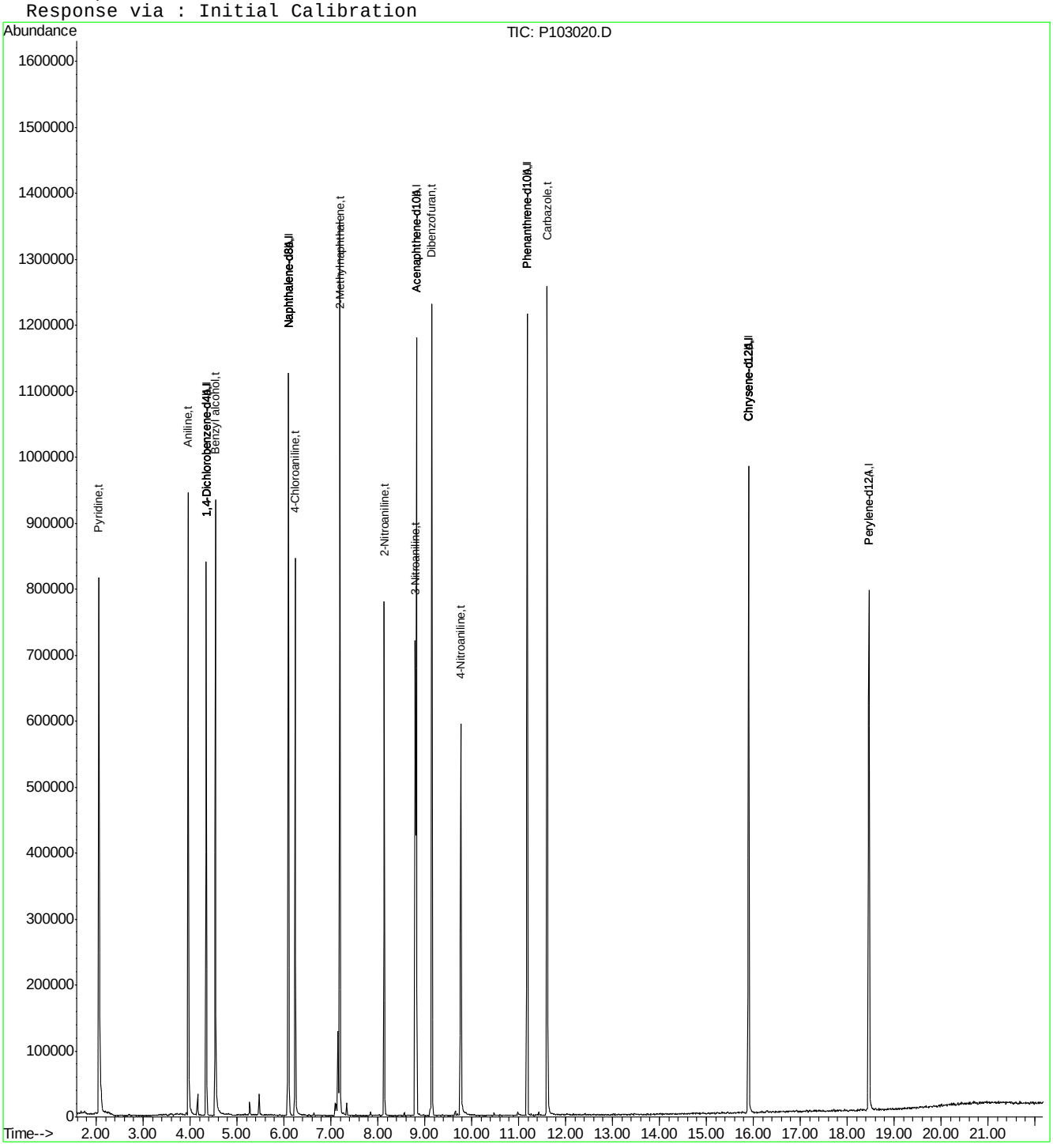
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103020.D Vial: 11
Acq On : 2 Mar 2016 9:34 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:53 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
Acq On : 2 Mar 2016 10:03 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:53:33 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	147735	40.00	ppm	0.00
24) Naphthalene-d8	6.09	136	516601	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	290907	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	432489	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	382422	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	337814	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	147735	40.00	ppm	-0.03
112) Naphthalene-d8A	6.09	136	516601	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	290907	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	432489	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	382422	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	337814	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	147735	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	432489	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	382422	40.00	ppm	-0.05
165) Naphthalene-d8b	6.09	136	516601	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	290907	40.00	ppm	-0.04
169) Naphthalene-d8c	6.09	136	516601	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	147735	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	382422	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	382422	40.00	ppm	-0.06
180) Naphthalene-d8a	6.09	136	516601	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	2.97	112	255627	49.71	ppm	0.00
Spiked Amount 50.000			Recovery = 99.42%			
8) Phenol-d5	3.96	99	316260	50.41	ppm	0.00
Spiked Amount 50.000			Recovery = 100.82%			
25) Nitrobenzene-d5	5.07	82	261274	49.96	ppm	0.00
Spiked Amount 50.000			Recovery = 99.92%			
51) 2-Fluorobiphenyl	7.79	172	434452	49.23	ppm	0.00
Spiked Amount 50.000			Recovery = 98.46%			
73) 2,4,6-Tribromophenol	10.09	330	48286	47.75	ppm	0.00
Spiked Amount 50.000			Recovery = 95.50%			
85) Terphenyl-d14	14.01	244	381107	50.61	ppm	0.00
Spiked Amount 50.000			Recovery = 101.22%			

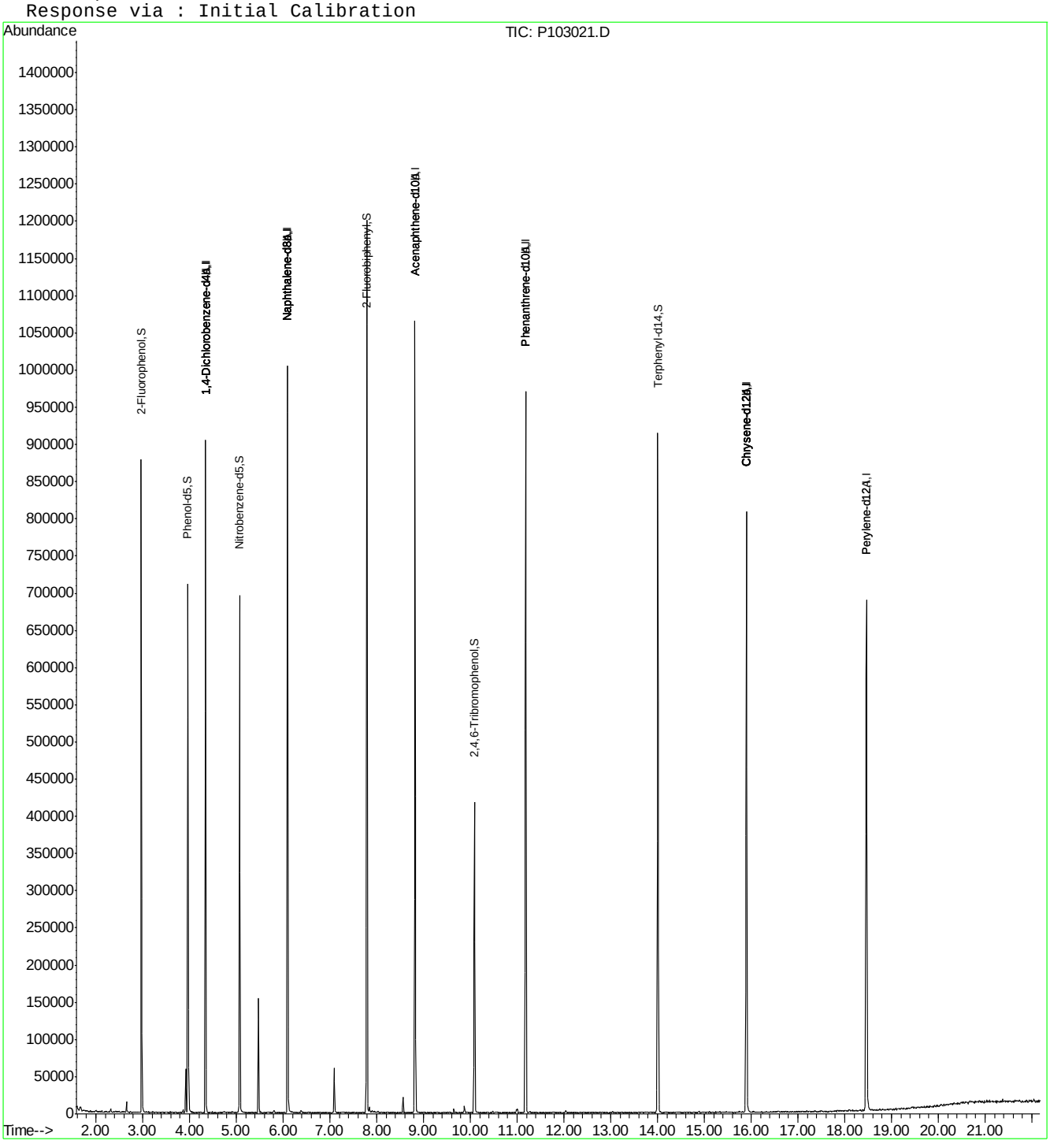
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103021.D Vial: 12
Acq On : 2 Mar 2016 10:03 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:55 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



P103021.D MP4524.M Thu Mar 03 10:55:49 2016 Page 2

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/03/16 15:11

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:55:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	147977	40.00	ppm	0.00
24) Naphthalene-d8	6.10	136	502321	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	292838	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	450924	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	354813	40.00	ppm	0.00
92) Perylene-d12	18.47	264	324202	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	147977	40.00	ppm	-0.03
112) Naphthalene-d8A	6.10	136	502321	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	292838	40.00	ppm	-0.03
132) Phenanthrene-d10A	11.18	188	450924	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	354813	40.00	ppm	-0.05
155) Perylene-d12A	18.47	264	324202	40.00	ppm	-0.05
159) 1,4-Dichlorobenzene-d4b	4.34	152	147977	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	450924	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	354813	40.00	ppm	-0.05
165) Naphthalene-d8b	6.10	136	502321	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	292838	40.00	ppm	-0.03
169) Naphthalene-d8c	6.10	136	502321	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	147977	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	354813	40.00	ppm	-0.05
178) Chrysene-d12d	15.90	240	354813	40.00	ppm	-0.05
180) Naphthalene-d8a	6.10	136	502321	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
4) N-Nitrosodimethylamine	1.94	42	100466	45.27	ppm	97
11) bis(2-Chloroethyl)ether	4.02	93	250856	52.58	ppm	97
14) 1,3-Dichlorobenzene	4.28	146	267100	48.52	ppm	100
15) 1,4-Dichlorobenzene	4.36	146	254446	48.13	ppm	96
17) 1,2-Dichlorobenzene	4.56	146	252827	50.40	ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.70	121	70906m	45.19	ppm	
22) n-Nitroso-di-n-propylamine	4.88	70	165394	49.53	ppm	98
23) Hexachloroethane	5.00	201	85287	49.50	ppm	93
26) Nitrobenzene	5.10	77	235985	48.37	ppm	96
28) Isophorone	5.44	82	440842	53.28	ppm	99
32) bis(2-Chloroethoxy)methane	5.78	93	262567	50.25	ppm	97
36) 1,2,4-Trichlorobenzene	6.02	180	194922	49.53	ppm	96

(#) = qualifier out of range (m) = manual integration
P103022.D MP4524.M Thu Mar 03 11:02:09 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 10:55:57 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

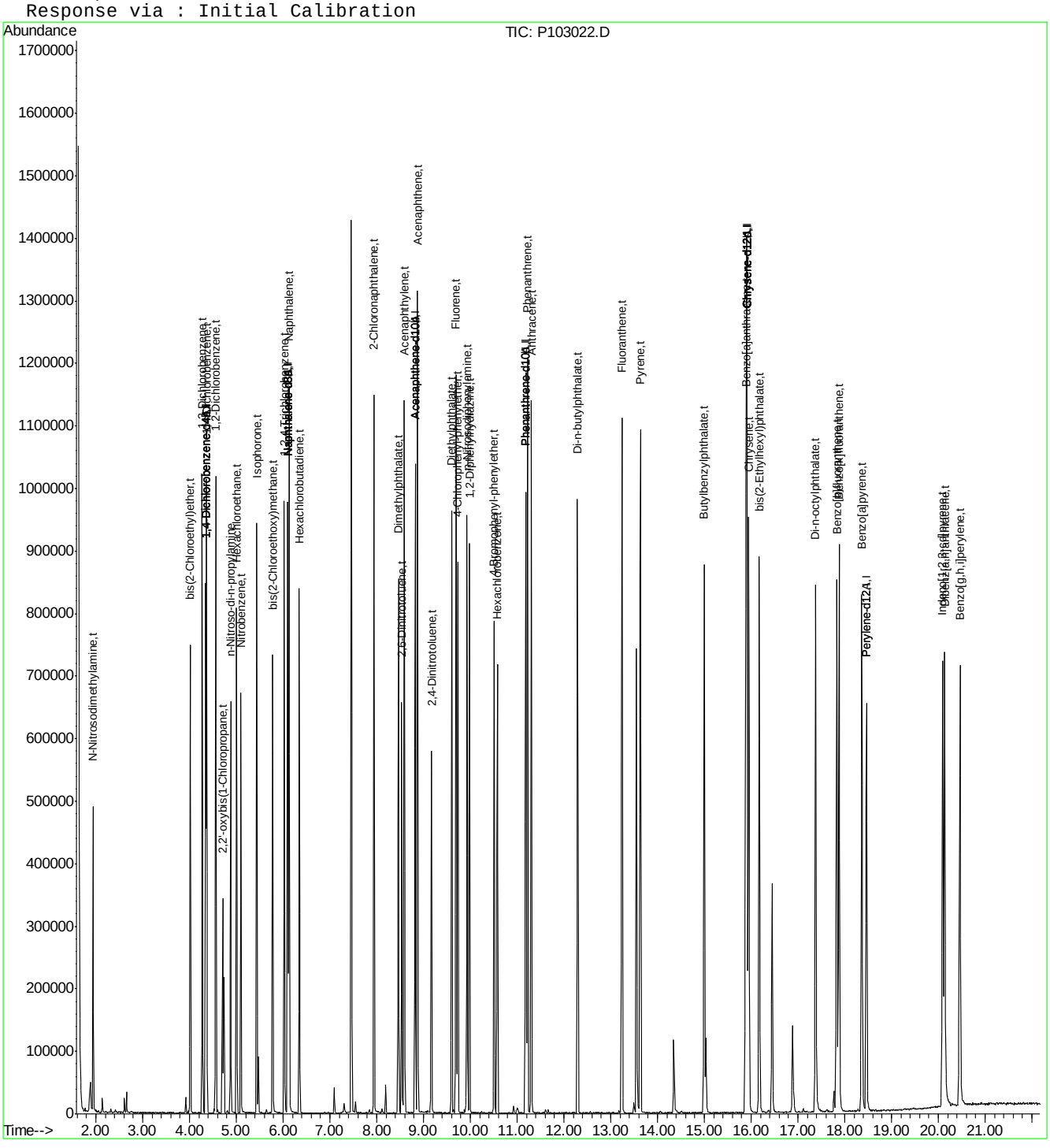
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Naphthalene	6.13	128	620274	49.79	ppm	99
42)	Hexachlorobutadiene	6.34	225	101443	51.87	ppm	99
52)	2-Chloronaphthalene	7.94	162	394779	51.32	ppm	98
55)	Dimethylphthalate	8.47	163	428353	48.18	ppm	99
56)	Acenaphthylene	8.59	152	579395	47.15	ppm	99
57)	2,6-Dinitrotoluene	8.54	165	93484	49.29	ppm	91
59)	Acenaphthene	8.87	153	372302	48.75	ppm	99
63)	2,4-Dinitrotoluene	9.17	165	127397	43.76	ppm	96
65)	Diethylphthalate	9.60	149	422921	47.86	ppm	99
66)	Fluorene	9.69	166	427669	48.67	ppm	99
67)	4-Chlorophenyl-phenylether	9.74	204	185257	46.99	ppm	97
71)	n-Nitrosodiphenylamine	9.93	169	302754	46.62	ppm	97
72)	1,2-Diphenylhydrazine	9.98	77	418609	47.05	ppm	97
74)	4-Bromophenyl-phenylether	10.51	248	108414	49.14	ppm	94
75)	Hexachlorobenzene	10.58	284	106751	44.57	ppm	96
77)	Phenanthrene	11.22	178	553887	47.89	ppm	100
78)	Anthracene	11.30	178	548726	47.32	ppm	98
80)	Di-n-butylphthalate	12.29	149	700159	50.57	ppm	100
81)	Fluoranthene	13.24	202	605721	48.66	ppm	100
84)	Pyrene	13.63	202	617401	54.68	ppm	99
86)	Butylbenzylphthalate	15.00	149	309331	56.34	ppm	98
88)	Benzo[a]anthracene	15.89	228	503192	54.35	ppm	99
90)	Chrysene	15.95	228	477209	52.08	ppm	98
91)	bis(2-Ethylhexyl)phthalate	16.17	149	398242	46.47	ppm	99
93)	Di-n-octylphthalate	17.38	149	677691	48.96	ppm	99
94)	Benzo[b]fluoranthene	17.83	252	483064	52.39	ppm	98
95)	Benzo[k]fluoranthene	17.88	252	499185	56.20	ppm	98
96)	Benzo[a]pyrene	18.37	252	467487	57.48	ppm	97
97)	Indeno[1,2,3-cd]pyrene	20.09	276	415393	57.85	ppm	98
99)	Dibenz[a,h]anthracene	20.14	278	434182	56.12	ppm	98
101)	Benzo[g,h,i]perylene	20.46	276	443324	53.91	ppm	99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 11:02 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Manual Integration Approval Summary

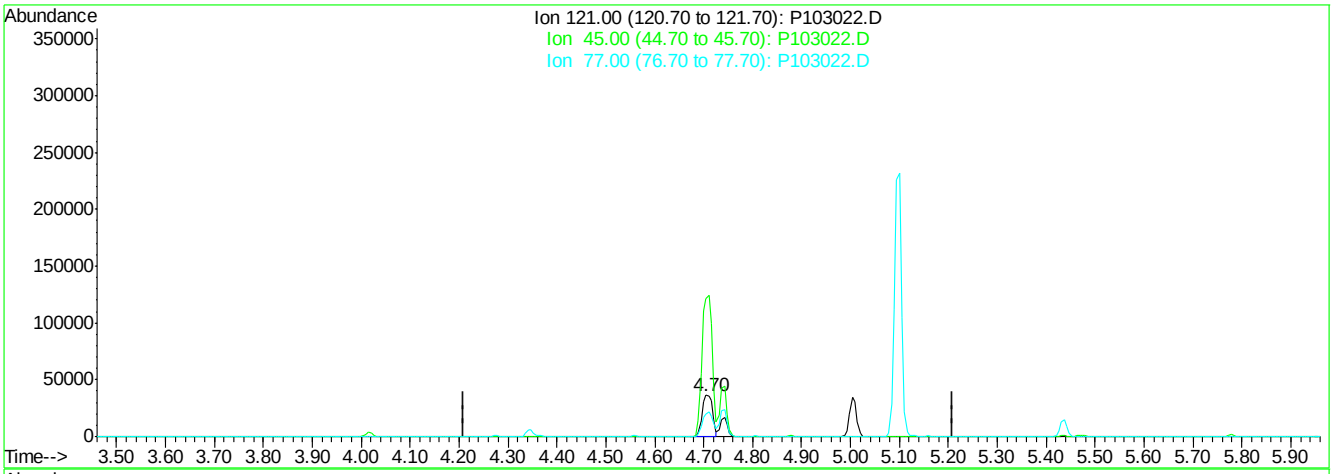
Sample Number:	EP4524-ICV4524	**Method:**	SW846 8270D
Lab FileID:	P103022.D	**Analyst approved:**	03/03/16 11:25 Linsey Kirschmann
Injection Time:	03/02/16 22:32	**Supervisor approved:**	03/03/16 15:11 Nina Pandya

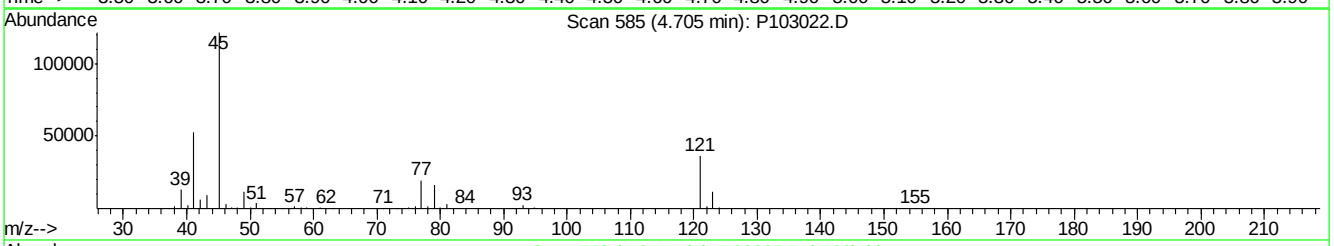
Parameter	CAS	Sig#	R.T. (min.)	Reason
bis(2-Chloroisopropyl)ether	108-60-1		4.70	Split peak

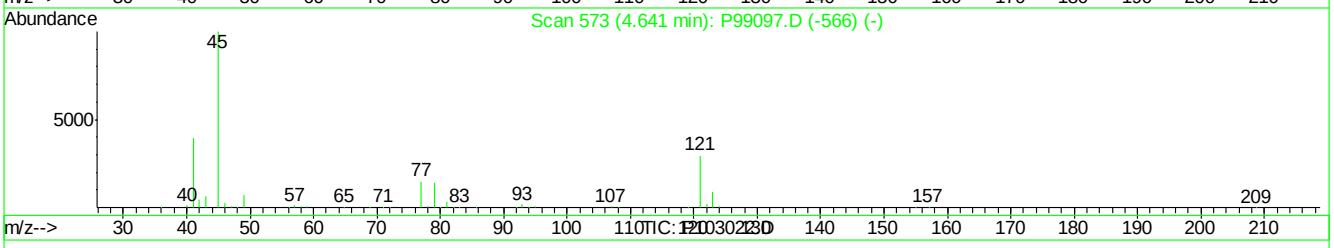
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration







(20) 2,2'-oxybis(1-Chloropropane (t)

4.70min 34.84ppm

response 54660

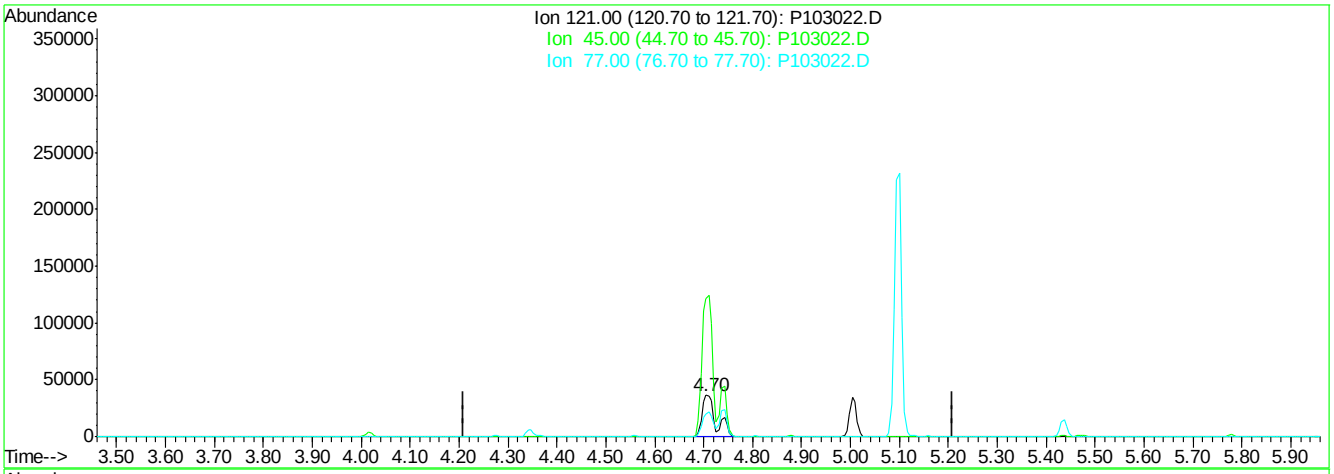
Ion	Exp%	Act%
121.00	100	100
45.00	344.10	335.24
77.00	51.90	46.67
0.00	0.00	0.00

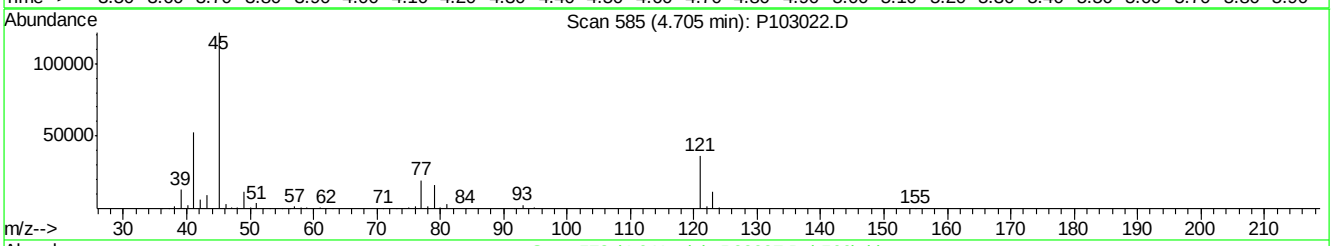
P103022.D MP4524.M Thu Mar 03 10:56:43 2016

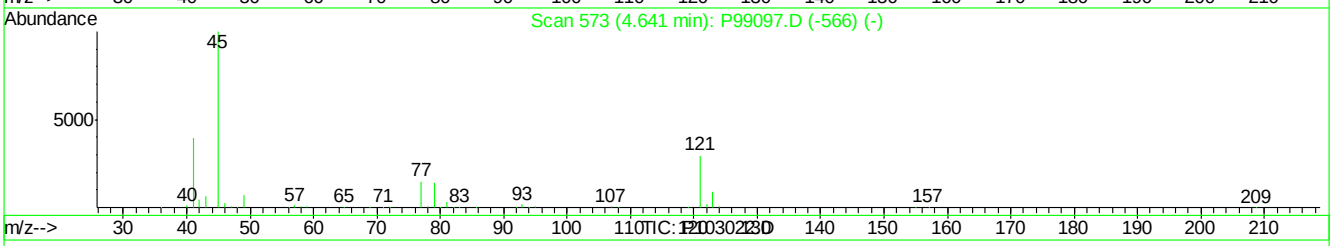
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103022.D Vial: 13
Acq On : 2 Mar 2016 10:32 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Multiple Level Calibration







(20) 2,2'-oxybis(1-Chloropropane (t)

4.70min 45.19ppm m

response 70906

Ion	Exp%	Act%
121.00	100	100
45.00	344.10	333.44
77.00	51.90	53.69
0.00	0.00	0.00

P103022.D MP4524.M Thu Mar 03 10:56:49 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
Acq On : 2 Mar 2016 11:02 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 11:20:23 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	127339	40.00	ppm	0.00
24) Naphthalene-d8	6.09	136	457549	40.00	ppm	0.00
47) Acenaphthene-d10	8.82	164	255729	40.00	ppm	0.00
69) Phenanthrene-d10	11.18	188	363505	40.00	ppm	0.00
83) Chrysene-d12	15.90	240	347332	40.00	ppm	-0.01
92) Perylene-d12	18.46	264	296697	40.00	ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	127339	40.00	ppm	-0.03
112) Naphthalene-d8A	6.09	136	457549	40.00	ppm	-0.03
121) Acenaphthene-d10A	8.82	164	255729	40.00	ppm	-0.04
132) Phenanthrene-d10A	11.18	188	363505	40.00	ppm	-0.04
147) Chrysene-d12A	15.90	240	347332	40.00	ppm	-0.05
155) Perylene-d12A	18.46	264	296697	40.00	ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	127339	40.00	ppm	-0.03
161) Phenanthrene-d10b	11.18	188	363505	40.00	ppm	-0.04
163) Chrysene-d12b	15.90	240	347332	40.00	ppm	-0.05
165) Naphthalene-d8b	6.09	136	457549	40.00	ppm	-0.03
167) Acenaphthene-d10b	8.82	164	255729	40.00	ppm	-0.04
169) Naphthalene-d8c	6.09	136	457549	40.00	ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	127339	40.00	ppm	-0.11
176) Chrysene-d12c	15.90	240	347332	40.00	ppm	-0.06
178) Chrysene-d12d	15.90	240	347332	40.00	ppm	-0.06
180) Naphthalene-d8a	6.09	136	457549	40.00	ppm	0.13

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.00	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.00	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.78	88	98061	43.34	ppm	91
6) Indene	4.67	116	344256	47.53	ppm	98
7) Cumene	3.43	105	482301	46.10	ppm	99
13) Decane	4.16	43	153028	45.48	ppm	98
18) Acetophenone	4.86	105	265568	46.37	ppm	98
27) Quinoline	6.63	129	360557	43.73	ppm	99
40) 2,3-Dichloroaniline	7.64	161	168248	40.93	ppm	99
41) Caprolactam	6.71	55	69184	45.49	ppm	93
45) 1-Methylnaphthalene	7.34	142	345005	44.99	ppm	100
46) Dimethylnaphthalene	8.18	156	303892	45.31	ppm	99
48) Hexachlorocyclopentadiene	7.46	237	86594	51.98	ppm	99
53) Biphenyl	7.94	154	416380	48.21	ppm	99

(#) = qualifier out of range (m) = manual integration
P103023.D MP4524.M Thu Mar 03 11:22:12 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
Acq On : 2 Mar 2016 11:02 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 11:20:23 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

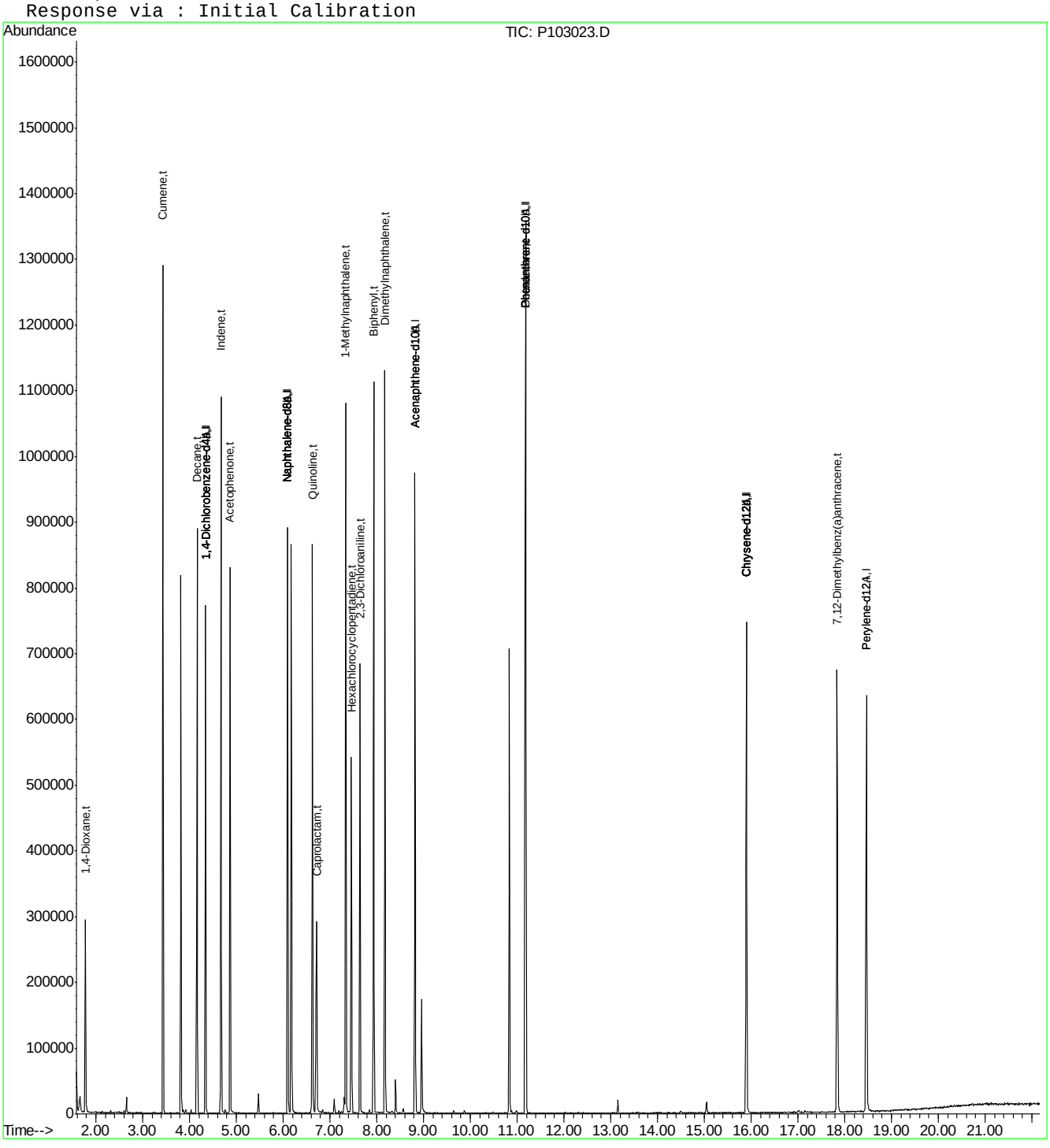
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	Octadecane	11.17	57	187929	51.34	ppm	97
100)	7,12-Dimethylbenz(a)anthra	17.84	256	191465	53.59	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P103023.D MP4524.M Thu Mar 03 11:22:13 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103023.D Vial: 14
Acq On : 2 Mar 2016 11:02 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 11:22 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



P103023.D MP4524.M Thu Mar 03 11:22:13 2016 Page 3

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
Acq On : 2 Mar 2016 11:31 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 03 11:03:32 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration
DataAcq Meth : MP4513

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.34	152	158201	40.00 ppm	0.00
24) Naphthalene-d8	6.10	136	545592	40.00 ppm	0.00
47) Acenaphthene-d10	8.82	164	322768	40.00 ppm	0.00
69) Phenanthrene-d10	11.18	188	489171	40.00 ppm	0.00
83) Chrysene-d12	15.90	240	437455	40.00 ppm	-0.01
92) Perylene-d12	18.46	264	397000	40.00 ppm	0.00
102) 1,4-Dichlorobenzene-d4A	4.34	152	158201	40.00 ppm	-0.03
112) Naphthalene-d8A	6.10	136	545592	40.00 ppm	-0.03
121) Acenaphthene-d10A	8.82	164	322768	40.00 ppm	-0.04
132) Phenanthrene-d10A	11.18	188	489171	40.00 ppm	-0.04
147) Chrysene-d12A	15.90	240	437455	40.00 ppm	-0.05
155) Perylene-d12A	18.46	264	397000	40.00 ppm	-0.06
159) 1,4-Dichlorobenzene-d4b	4.34	152	158201	40.00 ppm	-0.03
161) Phenanthrene-d10b	11.18	188	489171	40.00 ppm	-0.04
163) Chrysene-d12b	15.90	240	437455	40.00 ppm	-0.05
165) Naphthalene-d8b	6.10	136	545592	40.00 ppm	-0.03
167) Acenaphthene-d10b	8.82	164	322768	40.00 ppm	-0.04
169) Naphthalene-d8c	6.10	136	545592	40.00 ppm	-0.03
174) 1,4-Dichlorobenzene-d4a	4.34	152	158201	40.00 ppm	-0.11
176) Chrysene-d12c	15.90	240	437455	40.00 ppm	-0.06
178) Chrysene-d12d	15.90	240	437455	40.00 ppm	-0.06
180) Naphthalene-d8a	6.10	136	545592	40.00 ppm	0.13

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery = 0.00%		

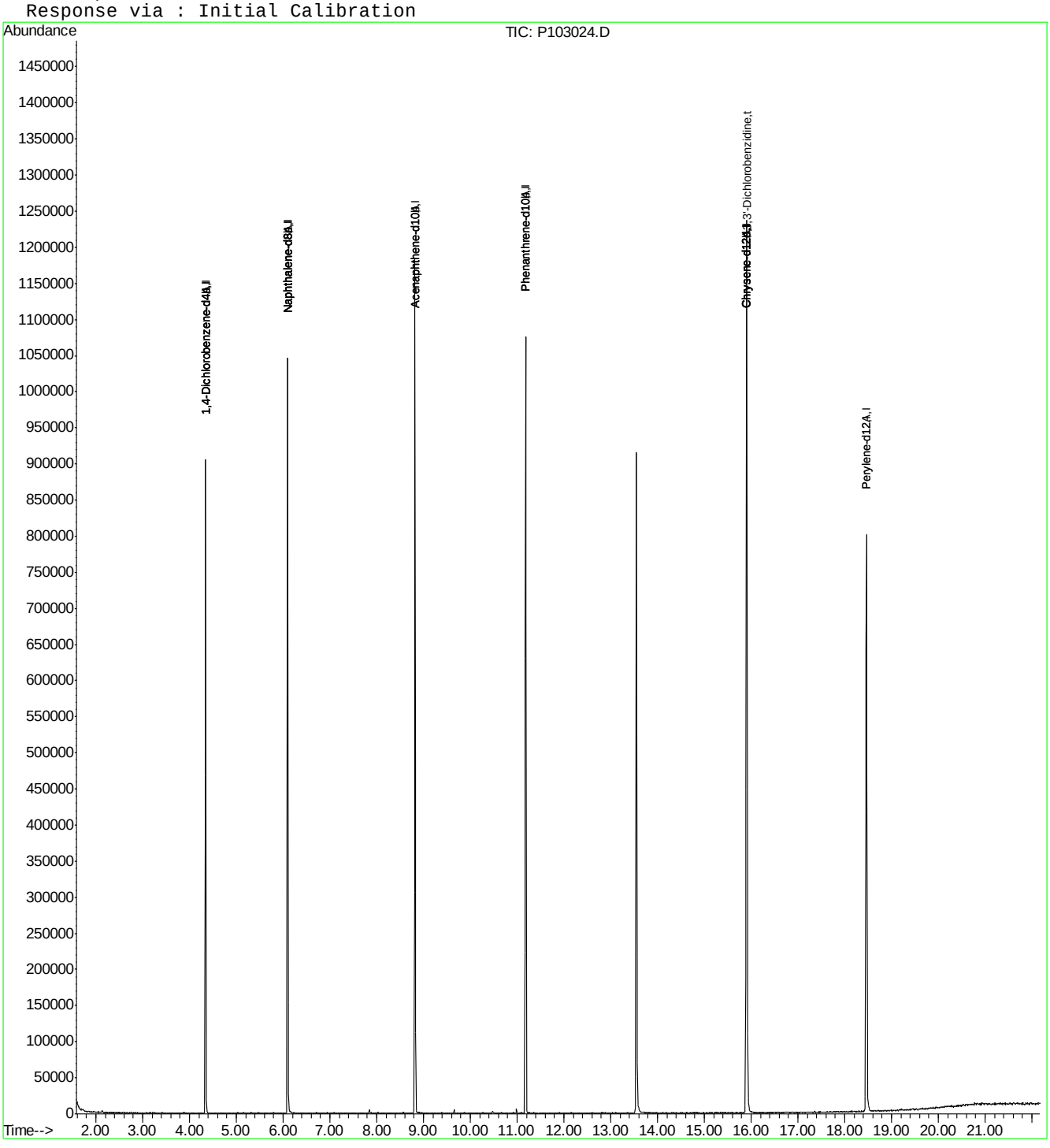
Target Compounds					Qvalue
89) 3,3'-Dichlorobenzidine	15.91	252	206949	43.27 ppm	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4524\P103024.D Vial: 15
Acq On : 2 Mar 2016 11:31 pm Operator: sarad
Sample : icv4524-50 Inst : MSP
Misc : op91633,ep4524 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 3 11:04 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 03 10:44:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103360.D Vial: 2
Acq On : 16 Mar 2016 12:14 pm Operator: linseyk
Sample : cc4524-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 12:38:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 12:38:26 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.19	152	111501	40.00 ppm	-0.01
24) Naphthalene-d8	5.93	136	396816	40.00 ppm	-0.01
47) Acenaphthene-d10	8.64	164	228415	40.00 ppm	-0.04
69) Phenanthrene-d10	11.00	188	342027	40.00 ppm	-0.04
83) Chrysene-d12	15.68	240	306829	40.00 ppm	-0.04
92) Perylene-d12	18.23	264	288710	40.00 ppm	-0.08
102) 1,4-Dichlorobenzene-d4b	4.19	152	111501	40.00 ppm	-0.04
104) Phenanthrene-d10b	11.00	188	342027	40.00 ppm	-0.05
106) Chrysene-d12b	15.68	240	306829	40.00 ppm	-0.07
108) Naphthalene-d8b	5.93	136	396816	40.00 ppm	-0.05
110) Acenaphthene-d10b	8.64	164	228415	40.00 ppm	-0.05

System Monitoring Compounds					
5) 2-Fluorophenol	2.81	112	210286	54.19 ppm	-0.04
Spiked Amount 50.000			Recovery = 108.38%		
8) Phenol-d5	3.79	99	256261	54.12 ppm	-0.01
Spiked Amount 50.000			Recovery = 108.24%		
25) Nitrobenzene-d5	4.91	82	211046	52.54 ppm	-0.03
Spiked Amount 50.000			Recovery = 105.08%		
51) 2-Fluorobiphenyl	7.62	172	339731	49.02 ppm	-0.05
Spiked Amount 50.000			Recovery = 98.04%		
73) 2,4,6-Tribromophenol	9.90	330	44360	55.47 ppm	-0.06
Spiked Amount 50.000			Recovery = 110.94%		
85) Terphenyl-d14	13.80	244	315605	52.24 ppm	-0.05
Spiked Amount 50.000			Recovery = 104.48%		

Target Compounds					Qvalue
2) 1,4-Dioxane	1.67	88	100885	50.93 ppm	97
3) Pyridine	1.86	79	233019	52.10 ppm	96
4) N-Nitrosodimethylamine	1.83	42	95667	57.21 ppm	86
6) Indene	4.51	116	316872	49.96 ppm	99
7) Cumene	3.28	105	459513	50.16 ppm	98
9) Phenol	3.80	94	260819	53.37 ppm	69
10) Aniline	3.79	93	291540	54.76 ppm	57
11) bis(2-Chloroethyl)ether	3.87	93	184996	51.46 ppm	93
12) 2-Chlorophenol	3.94	128	193030	52.14 ppm	95
13) Decane	4.00	43	160375	54.44 ppm	98
14) 1,3-Dichlorobenzene	4.12	146	204299	49.25 ppm	98
15) 1,4-Dichlorobenzene	4.21	146	199049	49.96 ppm	100
16) Benzyl alcohol	4.37	108	121981	55.41 ppm	98
17) 1,2-Dichlorobenzene	4.40	146	184019	48.69 ppm	98
18) Acetophenone	4.71	105	264446	52.74 ppm	95
19) 2-Methylphenol	4.55	108	165176	52.45 ppm	99
20) 2,2'-oxybis(1-Chloropropan	4.55	121	57570	48.69 ppm #	61
21) 3&4-Methylphenol	4.76	108	184229	53.61 ppm	99
22) n-Nitroso-di-n-propylamine	4.73	70	139128	55.29 ppm	97
23) Hexachloroethane	4.84	201	65050	50.10 ppm	93
26) Nitrobenzene	4.93	77	204715	53.11 ppm	98
27) Quinoline	6.46	129	356721	49.89 ppm	97
28) Isophorone	5.28	82	361184	55.26 ppm	97

(#) = qualifier out of range (m) = manual integration
P103360.D MP4524.M Thu Mar 17 12:31:30 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103360.D Vial: 2
Acq On : 16 Mar 2016 12:14 pm Operator: linseyk
Sample : cc4524-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 12:38:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 12:38:26 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 2-Nitrophenol	5.38	139	105049	55.56	ppm	95
30) 2,4-Dimethylphenol	5.50	107	191268	59.57	ppm	96
31) Benzoic acid	5.69	105	154710	62.03	ppm	96
32) bis(2-Chloroethoxy)methane	5.62	93	222025	53.79	ppm	97
33) 2,4-Dichlorophenol	5.76	162	150153	53.52	ppm	97
34) 2,6-Dichlorophenol	6.08	162	139797	51.92	ppm	99
35) 1,3,5-Trichlorobenzene	5.40	180	154317	49.08	ppm	99
36) 1,2,4-Trichlorobenzene	5.85	180	152552	49.07	ppm	100
37) 1,2,3-Trichlorobenzene	6.18	180	138039	48.36	ppm	99
38) Naphthalene	5.95	128	495549	50.35	ppm	99
39) 4-Chloroaniline	6.07	127	227446	54.36	ppm	97
40) 2,3-Dichloroaniline	7.47	161	180928	50.75	ppm	99
41) Caprolactam	6.58	55	79246	60.08	ppm	91
42) Hexachlorobutadiene	6.18	225	73875	47.82	ppm	99
43) 4-Chloro-3-methylphenol	6.88	107	175865	58.67	ppm	99
44) 2-Methylnaphthalene	7.02	141	276480	50.71	ppm	99
45) 1-Methylnaphthalene	7.16	142	332712	50.03	ppm	98
46) Dimethylnaphthalene	8.00	156	291173	50.06	ppm	99
48) Hexachlorocyclopentadiene	7.28	237	170134	114.34	ppm	99
49) 2,4,6-Trichlorophenol	7.49	196	99464	55.58	ppm	98
50) 2,4,5-Trichlorophenol	7.56	196	104447	56.09	ppm	99
52) 2-Chloronaphthalene	7.77	162	295658	49.28	ppm	98
53) Biphenyl	7.76	154	378678	49.09	ppm	98
54) 2-Nitroaniline	7.96	65	105409	60.75	ppm	98
55) Dimethylphthalate	8.29	163	364675	52.58	ppm	99
56) Acenaphthylene	8.41	152	494742	51.62	ppm	99
57) 2,6-Dinitrotoluene	8.36	165	82384	55.69	ppm	94
58) 3-Nitroaniline	8.62	138	102187	58.68	ppm	98
59) Acenaphthene	8.69	153	303474	50.95	ppm	98
60) 2,4-Dinitrophenol	8.79	184	97623	109.54	ppm	96
61) 4-Nitrophenol	9.02	109	54325	57.32	ppm	98
62) Dibenzofuran	8.97	168	431571	51.41	ppm	95
63) 2,4-Dinitrotoluene	8.99	165	109730	48.81	ppm	98
64) 2,3,4,6-Tetrachlorophenol	9.20	232	80397	56.19	ppm	97
65) Diethylphthalate	9.43	149	369011	53.53	ppm	99
66) Fluorene	9.51	166	356205	51.97	ppm	100
67) 4-Chlorophenyl-phenylether	9.56	204	156840	51.00	ppm	100
68) 4-Nitroaniline	9.59	138	98666	56.40	ppm	96
70) 4,6-Dinitro-2-methylphenol	9.64	198	64040	50.51	ppm	93
71) n-Nitrosodiphenylamine	9.75	169	256408	52.06	ppm	98
72) 1,2-Diphenylhydrazine	9.80	77	375991	55.71	ppm	98
74) 4-Bromophenyl-phenylether	10.32	248	86653	51.78	ppm	97
75) Hexachlorobenzene	10.39	284	91749	50.50	ppm	99
76) Pentachlorophenol	10.74	266	114940	102.39	ppm	98
77) Phenanthrene	11.04	178	448848	51.17	ppm	99
78) Anthracene	11.12	178	466318	53.02	ppm	100
79) Carbazole	11.41	167	479708	53.25	ppm	100
80) Di-n-butylphthalate	12.10	149	620699	59.11	ppm	100
81) Fluoranthene	13.03	202	505610	53.55	ppm	98

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103360.D Vial: 2
Acq On : 16 Mar 2016 12:14 pm Operator: linseyk
Sample : cc4524-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 12:38:29 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 12:38:26 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	Octadecane	11.00	57	201053	58.37	ppm	98
84)	Pyrene	13.42	202	508581	52.08	ppm	95
86)	Butylbenzylphthalate	14.79	149	284166	59.85	ppm	97
87)	Butyl stearate	15.02	56	152200	56.43	ppm	98
88)	Benzo[a]anthracene	15.66	228	433478	54.14	ppm	99
89)	3,3'-Dichlorobenzidine	15.69	252	165844	49.74	ppm	97
90)	Chrysene	15.73	228	417867	52.73	ppm	99
91)	bis(2-Ethylhexyl)phthalate	15.96	149	374260	50.91	ppm	100
93)	Di-n-octylphthalate	17.16	149	642271	52.81	ppm	98
94)	Benzo[b]fluoranthene	17.60	252	448134	54.57	ppm	99
95)	Benzo[k]fluoranthene	17.65	252	420089	53.11	ppm	98
96)	Benzo[a]pyrene	18.13	252	411958	56.87	ppm	98
97)	Indeno[1,2,3-cd]pyrene	19.85	276	372060	58.18	ppm	96
98)	Dibenz(a,h)acridine	19.54	279	348192	57.19	ppm	99
99)	Dibenz[a,h]anthracene	19.90	278	392620	56.99	ppm	99
100)	7,12-Dimethylbenz(a)anthra	17.61	256	202520	58.25	ppm	98
101)	Benzo[g,h,i]perylene	20.21	276	399685	54.58	ppm	99

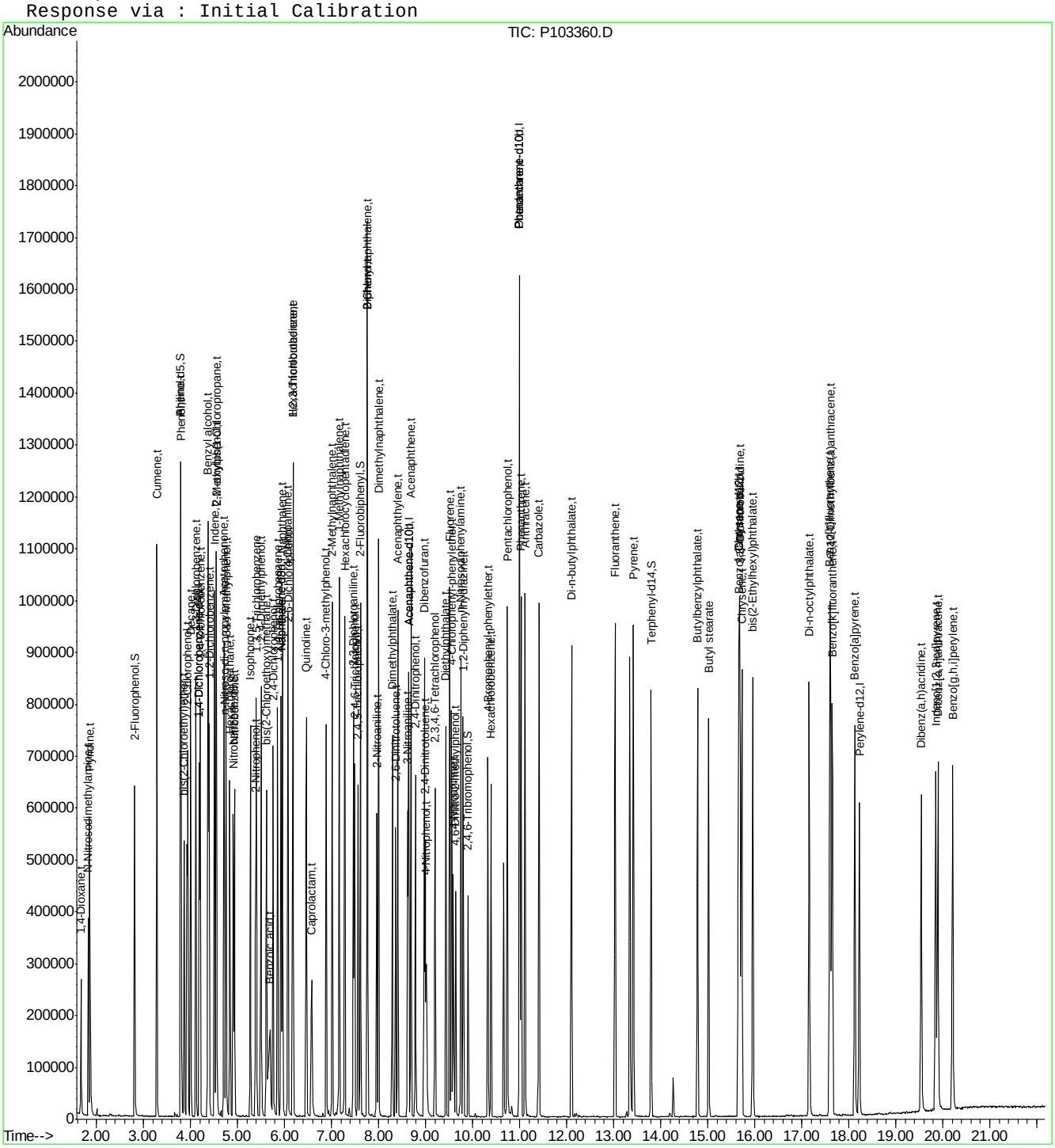
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103360.D Vial: 2
Acq On : 16 Mar 2016 12:14 pm Operator: linseyk
Sample : cc4524-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 12:39 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 21:54:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103361.D Vial: 3
Acq On : 16 Mar 2016 12:45 pm Operator: linseyk
Sample : cc4514-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 13:07:13 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 15 09:15:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.18	152	149889	40.00	ppm	-0.02
24) Naphthalene-d8	5.92	136	529615	40.00	ppm	-0.02
47) Acenaphthene-d10	8.64	164	304254	40.00	ppm	-0.04
69) Phenanthrene-d10	10.99	188	455641	40.00	ppm	-0.04
83) Chrysene-d12	15.67	240	419842	40.00	ppm	-0.05
92) Perylene-d12	18.23	264	392952	40.00	ppm	-0.08
102) 1,4-Dichlorobenzene-d4b	4.18	152	149889	40.00	ppm	-0.05
104) Phenanthrene-d10b	10.99	188	455641	40.00	ppm	-0.06
106) Chrysene-d12b	15.67	240	419842	40.00	ppm	-0.07
108) Naphthalene-d8b	5.92	136	529615	40.00	ppm	-0.05
110) Acenaphthene-d10b	8.64	164	304254	40.00	ppm	-0.06

System Monitoring Compounds						
5) 2-Fluorophenol	0.00	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.00	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	13.80	244	220	0.03	ppm	-0.05
Spiked Amount 50.000			Recovery	=	0.06%	

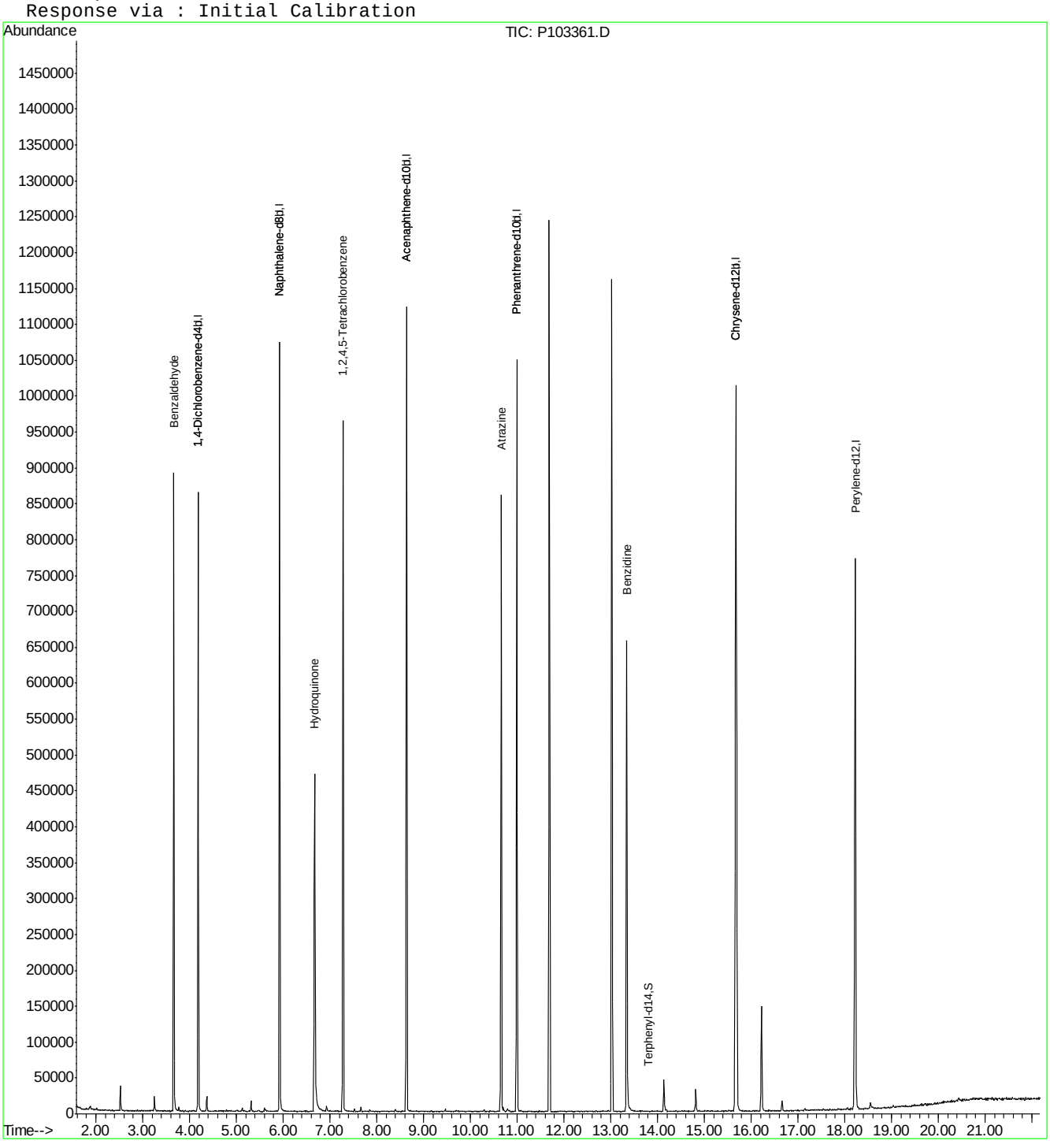
Target Compounds						Qvalue
103) Benzaldehyde	3.66	105	178819	39.69	ppm	98
105) Atrazine	10.67	200	121678	52.33	ppm	92
107) Benzidine	13.34	184	338527	45.81	ppm	99
109) Hydroquinone	6.68	110	273323	56.29	ppm	97
111) 1,2,4,5-Tetrachlorobenzene	7.28	216	190158	45.54	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P103361.D MP4524.M Thu Mar 17 12:31:48 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4542\P103361.D Vial: 3
Acq On : 16 Mar 2016 12:45 pm Operator: linseyk
Sample : cc4514-50 Inst : MSP
Misc : op92089,ep4542 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 13:08 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Mar 16 21:54:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103409.D Vial: 2
Acq On : 17 Mar 2016 10:42 pm Operator: sarad
Sample : cc4524-25 Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 23:05:08 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.17	152	224794	40.00 ppm	-0.01
24) Naphthalene-d8	5.91	136	763285	40.00 ppm	-0.01
47) Acenaphthene-d10	8.62	164	454447	40.00 ppm	-0.01
69) Phenanthrene-d10	10.98	188	682115	40.00 ppm	-0.01
83) Chrysene-d12	15.66	240	628774	40.00 ppm	-0.01
92) Perylene-d12	18.21	264	593654	40.00 ppm	-0.01
102) 1,4-Dichlorobenzene-d4b	4.17	152	224794	40.00 ppm	-0.01
104) Phenanthrene-d10b	10.98	188	682115	40.00 ppm	-0.01
106) Chrysene-d12b	15.66	240	628774	40.00 ppm	-0.01
108) Naphthalene-d8b	5.91	136	763285	40.00 ppm	-0.01
110) Acenaphthene-d10b	8.62	164	454447	40.00 ppm	-0.01

System Monitoring Compounds					
5) 2-Fluorophenol	2.80	112	202437	25.87 ppm	-0.02
Spiked Amount 50.000			Recovery = 51.74%		
8) Phenol-d5	3.77	99	251400	26.33 ppm	0.00
Spiked Amount 50.000			Recovery = 52.66%		
25) Nitrobenzene-d5	4.89	82	209466	27.11 ppm	-0.03
Spiked Amount 50.000			Recovery = 54.22%		
51) 2-Fluorobiphenyl	7.59	172	335785	24.35 ppm	-0.03
Spiked Amount 50.000			Recovery = 48.70%		
73) 2,4,6-Tribromophenol	9.88	330	45709	28.66 ppm	-0.03
Spiked Amount 50.000			Recovery = 57.32%		
85) Terphenyl-d14	13.77	244	313288	25.30 ppm	-0.03
Spiked Amount 50.000			Recovery = 50.60%		

Target Compounds						Qvalue
2) 1,4-Dioxane	1.66	88	97630	24.44 ppm		99
3) Pyridine	1.85	79	224209	24.87 ppm		97
4) N-Nitrosodimethylamine	1.83	42	90378	26.81 ppm		92
6) Indene	4.49	116	319897	25.02 ppm		98
7) Cumene	3.27	105	458407	24.82 ppm		99
9) Phenol	3.78	94	246127	24.98 ppm		95
10) Aniline	3.78	93	234503	21.85 ppm		49
11) bis(2-Chloroethyl)ether	3.85	93	174532	24.08 ppm		95
12) 2-Chlorophenol	3.92	128	183342	24.56 ppm		99
13) Decane	3.99	43	155076	26.11 ppm		96
14) 1,3-Dichlorobenzene	4.10	146	202107	24.17 ppm		99
15) 1,4-Dichlorobenzene	4.19	146	192164	23.93 ppm		98
16) Benzyl alcohol	4.35	108	117739	26.53 ppm		90
17) 1,2-Dichlorobenzene	4.38	146	180610	23.70 ppm		98
18) Acetophenone	4.69	105	256797	25.40 ppm		95
19) 2-Methylphenol	4.53	108	155947	24.56 ppm		98
20) 2,2'-oxybis(1-Chloropropan	4.53	121	54003	22.66 ppm	#	59
21) 3&4-Methylphenol	4.74	108	176165	25.43 ppm		99
22) n-Nitroso-di-n-propylamine	4.70	70	132217	26.06 ppm		97
23) Hexachloroethane	4.82	201	63675	24.33 ppm		91
26) Nitrobenzene	4.91	77	195350	26.35 ppm		97
27) Quinoline	6.44	129	353168	25.68 ppm		98
28) Isophorone	5.25	82	352879	28.07 ppm		96

(#) = qualifier out of range (m) = manual integration
P103409.D MP4524.M Fri Mar 18 15:30:41 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103409.D Vial: 2
Acq On : 17 Mar 2016 10:42 pm Operator: sarad
Sample : cc4524-25 Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 23:05:08 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 2-Nitrophenol	5.37	139	100839	27.73 ppm	96
30) 2,4-Dimethylphenol	5.48	107	161787	26.19 ppm	96
31) Benzoic acid	5.68	105	146078	30.45 ppm	98
32) bis(2-Chloroethoxy)methane	5.60	93	213285	26.86 ppm	99
33) 2,4-Dichlorophenol	5.74	162	144139	26.71 ppm	98
34) 2,6-Dichlorophenol	6.06	162	133917	25.86 ppm	97
35) 1,3,5-Trichlorobenzene	5.38	180	149683	24.75 ppm	96
36) 1,2,4-Trichlorobenzene	5.83	180	148688	24.87 ppm	96
37) 1,2,3-Trichlorobenzene	6.16	180	135851	24.74 ppm	97
38) Naphthalene	5.93	128	471940	24.93 ppm	100
39) 4-Chloroaniline	6.05	127	208314	25.88 ppm	98
40) 2,3-Dichloroaniline	7.45	161	179683	26.20 ppm	98
41) Caprolactam	6.56	55	79882	31.48 ppm	93
42) Hexachlorobutadiene	6.15	225	72750	24.48 ppm	98
43) 4-Chloro-3-methylphenol	6.87	107	167097	28.98 ppm	98
44) 2-Methylnaphthalene	6.99	141	262993	25.08 ppm	99
45) 1-Methylnaphthalene	7.14	142	322516	25.21 ppm	98
46) Dimethylnaphthalene	7.98	156	286686	25.62 ppm	99
48) Hexachlorocyclopentadiene	7.26	237	155676	52.59 ppm	99
49) 2,4,6-Trichlorophenol	7.47	196	95659	26.87 ppm	97
50) 2,4,5-Trichlorophenol	7.54	196	103216	27.86 ppm	97
52) 2-Chloronaphthalene	7.74	162	292864	24.53 ppm	99
53) Biphenyl	7.74	154	372553	24.27 ppm	99
54) 2-Nitroaniline	7.94	65	103822	30.08 ppm	97
55) Dimethylphthalate	8.27	163	357146	25.88 ppm	99
56) Acenaphthylene	8.39	152	465774	24.43 ppm	99
57) 2,6-Dinitrotoluene	8.34	165	83427	28.35 ppm	95
58) 3-Nitroaniline	8.60	138	97982	28.28 ppm	99
59) Acenaphthene	8.67	153	291553	24.60 ppm	98
60) 2,4-Dinitrophenol	8.76	184	80992	50.02 ppm	99
61) 4-Nitrophenol	8.99	109	52160	27.66 ppm	94
62) Dibenzofuran	8.95	168	420440	25.17 ppm	99
63) 2,4-Dinitrotoluene	8.97	165	112328	24.22 ppm	95
64) 2,3,4,6-Tetrachlorophenol	9.18	232	77542	27.24 ppm	96
65) Diethylphthalate	9.41	149	359469	26.21 ppm	100
66) Fluorene	9.49	166	347829	25.51 ppm	100
67) 4-Chlorophenyl-phenylether	9.53	204	153676	25.12 ppm	99
68) 4-Nitroaniline	9.57	138	90757	26.08 ppm	93
70) 4,6-Dinitro-2-methylphenol	9.62	198	59726	25.23 ppm	93
71) n-Nitrosodiphenylamine	9.73	169	257307	26.19 ppm	98
72) 1,2-Diphenylhydrazine	9.78	77	364655	27.09 ppm	100
74) 4-Bromophenyl-phenylether	10.30	248	87873	26.33 ppm	97
75) Hexachlorobenzene	10.37	284	88627	24.46 ppm	94
76) Pentachlorophenol	10.71	266	108915	50.28 ppm	99
77) Phenanthrene	11.01	178	432060	24.70 ppm	99
78) Anthracene	11.09	178	452958	25.82 ppm	99
79) Carbazole	11.39	167	476362	26.51 ppm	99
80) Di-n-butylphthalate	12.08	149	605983	28.93 ppm	99
81) Fluoranthene	13.01	202	494549	26.27 ppm	98

(#) = qualifier out of range (m) = manual integration
P103409.D MP4524.M Fri Mar 18 15:30:41 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103409.D Vial: 2
Acq On : 17 Mar 2016 10:42 pm Operator: sarad
Sample : cc4524-25 Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 23:05:08 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	Octadecane	10.98	57	178338	25.96	ppm	99
84)	Pyrene	13.39	202	519083	25.94	ppm	97
86)	Butylbenzylphthalate	14.76	149	278295	28.60	ppm	98
87)	Butyl stearate	14.99	56	146798	25.48	ppm	96
88)	Benzo[a]anthracene	15.63	228	423270	25.80	ppm	97
89)	3,3'-Dichlorobenzidine	15.67	252	153756	22.47	ppm	98
90)	Chrysene	15.70	228	402861	24.81	ppm	98
91)	bis(2-Ethylhexyl)phthalate	15.94	149	375024	24.34	ppm	99
93)	Di-n-octylphthalate	17.14	149	639765	23.99	ppm	99
94)	Benzo[b]fluoranthene	17.57	252	447412	26.50	ppm	99
95)	Benzo[k]fluoranthene	17.63	252	413208	25.40	ppm	99
96)	Benzo[a]pyrene	18.11	252	400598	26.90	ppm	99
97)	Indeno[1,2,3-cd]pyrene	19.83	276	365619	27.81	ppm	96
98)	Dibenz(a,h)acridine	19.52	279	342280	27.34	ppm	97
99)	Dibenz[a,h]anthracene	19.88	278	386287	27.27	ppm	100
100)	7,12-Dimethylbenz(a)anthra	17.59	256	183312	25.64	ppm	98
101)	Benzo[g,h,i]perylene	20.19	276	393521	26.13	ppm	99

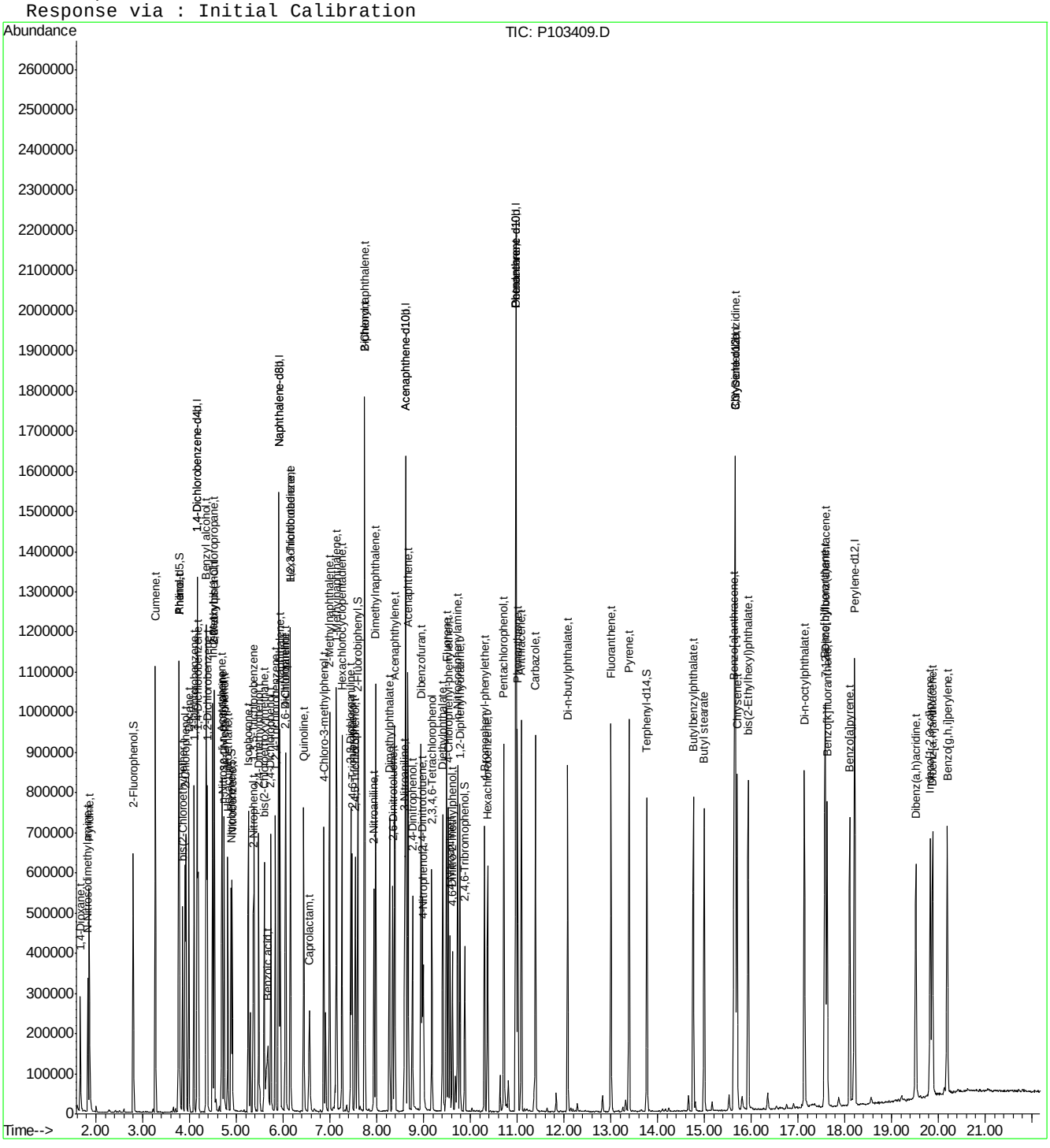
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103409.D Vial: 2
Acq On : 17 Mar 2016 10:42 pm Operator: sarad
Sample : cc4524-25 Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 15:30 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 18 14:46:17 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103410.D Vial: 3
Acq On : 17 Mar 2016 11:12 pm Operator: sarad
Sample : cc4514-25 Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 23:34:26 2016 Quant Results File: MP4524.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Mar 17 12:43:48 2016
Response via : Initial Calibration
DataAcq Meth : MP4524

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.16	152	165060	40.00	ppm	-0.01
24) Naphthalene-d8	5.90	136	572263	40.00	ppm	-0.02
47) Acenaphthene-d10	8.62	164	319032	40.00	ppm	-0.02
69) Phenanthrene-d10	10.97	188	491017	40.00	ppm	-0.02
83) Chrysene-d12	15.65	240	447184	40.00	ppm	-0.02
92) Perylene-d12	18.20	264	414028	40.00	ppm	-0.02
102) 1,4-Dichlorobenzene-d4b	4.16	152	165060	40.00	ppm	-0.01
104) Phenanthrene-d10b	10.97	188	491017	40.00	ppm	-0.02
106) Chrysene-d12b	15.65	240	447184	40.00	ppm	-0.02
108) Naphthalene-d8b	5.90	136	572263	40.00	ppm	-0.02
110) Acenaphthene-d10b	8.62	164	319032	40.00	ppm	-0.02

System Monitoring Compounds					
5) 2-Fluorophenol	0.00	112	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
8) Phenol-d5	0.00	99	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
25) Nitrobenzene-d5	0.00	82	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
51) 2-Fluorobiphenyl	0.00	172	0d	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
73) 2,4,6-Tribromophenol	0.00	330	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		
85) Terphenyl-d14	0.00	244	0	0.00	ppm
Spiked Amount 50.000			Recovery = 0.00%		

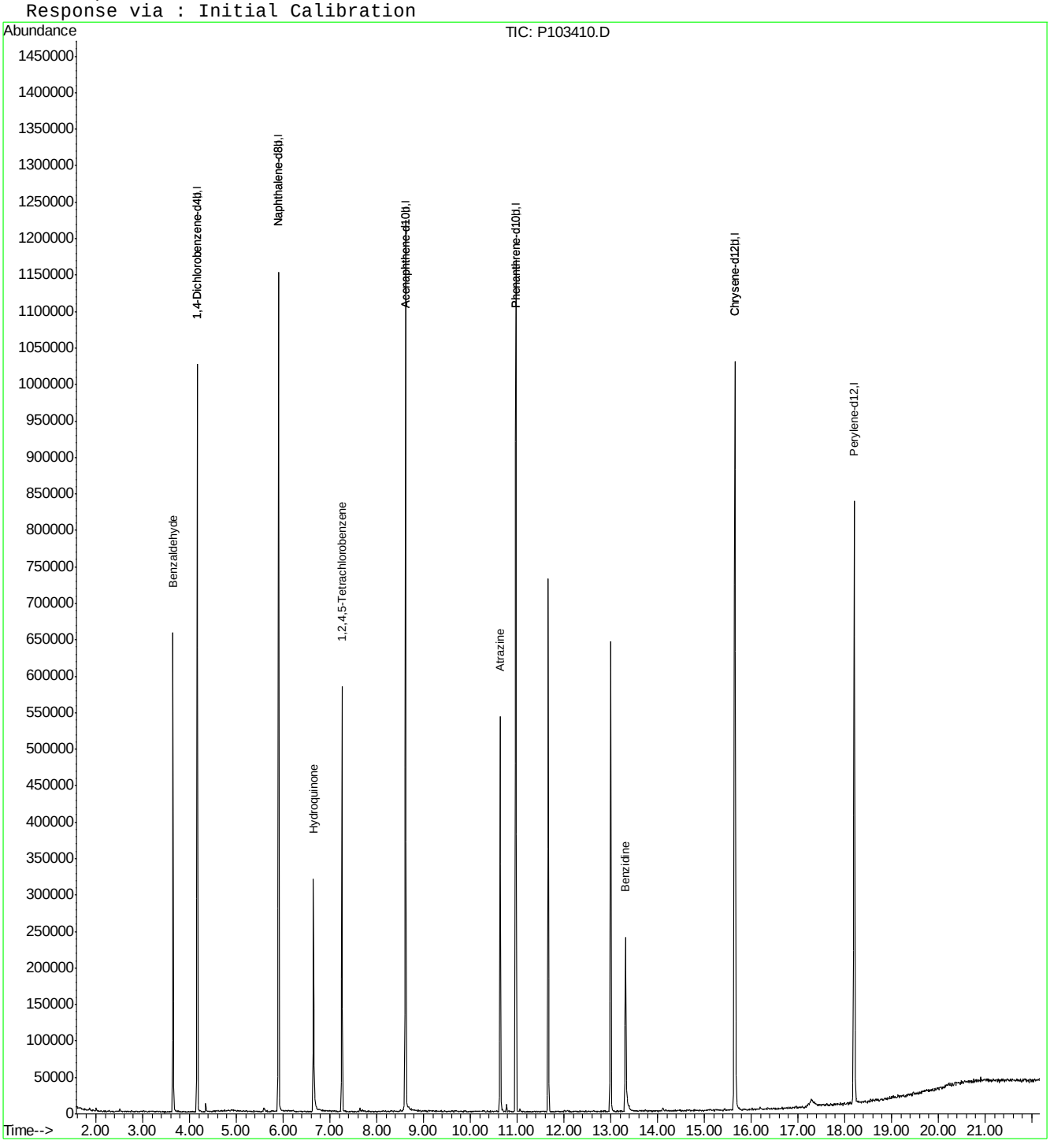
Target Compounds						Qvalue
103) Benzaldehyde	3.65	105	127118	25.62	ppm	96
105) Atrazine	10.64	200	65952	26.32	ppm	88
107) Benzidine	13.32	184	146537	18.62	ppm	98
109) Hydroquinone	6.65	110	151843	28.94	ppm	98
111) 1,2,4,5-Tetrachlorobenzene	7.26	216	106122	24.24	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P103410.D MP4524.M Fri Mar 18 15:31:27 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4545\P103410.D Vial: 3
Acq On : 17 Mar 2016 11:12 pm Operator: sarad
Sample : cc4514-25 Inst : MSP
Misc : op92138,ep4545 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 15:31 2016 Quant Results File: MP4524.RES

Method : C:\MSDCHEM\1\METHODS\MP4524.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Mar 18 14:46:17 2016
Response via : Initial Calibration



ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4P767

Date: 2/1/16

Analyst Signature: [illegible]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151769121	DFTPP	50ppm
SV151829113A	Sim std	1ppm
~~SV151829113A~~		
AMO 2/2/16		
58933	DCM (Fisher)	—

Columns: Rtx5silms 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method IM4P714 (2/1/16) Sim

Injection Volume: 1µL

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: AMO

Date: 2/2/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4P14945	DFTPP				1					OK	4:06pm
	14946	CC741-1.0				2					Not Using	Repeatedly benzene low. Re-injecting different lot #
	14947	CC741-1.0				2					↓	
	14948	ic767-0.5 (AMO 2/1/16)		BNA Sim		3					OK	SV151829113B
	14949	icc767-1.0				4					OK	SV151829113A
	14950	ic767-0.2				5					OK	SV151769921E
	14951	ic767-0.1				6					OK	SV151769921F
	14952	ic767-0.05				7					OK	SV151769921G
	14953	ic767-0.02				8					OK	SV151769921H
	14954	ic767-0.01				9					OK	SV151769921I
	14955	ic767-5				10					OK	SV151769921A
	14956	ic767-2.5				11					OK	SV151769921B
	14957	icv767-1.0		BSim		12					OK	OP15162430
	14958	icv767-1.0		BN2 2nd		13					OK	SV15182985
	14959	icv767-1.0		Acid 2nd		14					OK	SV15176906

AMO

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

ample volume/weight used and final volumes refer to extraction log.

47

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

rm: OR015-05
v. Date: 1/16/2006

9.7.1

9

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4P804

Date: 3/16/16

Analyst Signature: DMJ

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Page 167	

Columns: RX5Sil ms 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M4P643sim

Injection Volume: 1µl

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: 3/24/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	4P15643	JC16038-9	92078	BSim14Diox + N4P		18			✓	✓	OK	
	15644	-10		↓		19			✓	✓	OK	6:31am

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

169

All strikeouts must be initialed, dated and reason code applied as follows:
1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

9.7.2 9

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: E4P8034 (R) mj 3/16/16

Date: 3/16/16

Analyst Signature: mj

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
SV15829108	DFTPP	50ppm
SV15827482C	(R) mj 3/16/16 SimStd	1ppm
SV15827153	Sim IS	400ppm
161592	DCM (Fisher)	—

Columns: RX15Si/ms30m×.25mm×.25μm

Method 8270D/625

Initial Cal. Method MY4P469sim

Injection Volume: 1μl

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: 3/24/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	UP15626	DFTPP				1					ok	9:30pm
	15627	CC467-1.0				2					ok	
	15628	OP92131a-MB1	92131a	B8270		3			✓	✓	ok	
	15629	-BS12				4			✓	✓	ok	
	15630A	-BSD12				5			✓	✓	ok	software shutdown, saved as "A" file
	15631	JC16101-4		BSimNJ		6			✓	✓	ok	
	15632	OP92078a-MB1	92078	B8270		7			✓	✓	ok	
	15633	-BS12				8			✓	✓	ok	
	15634	-MS				9			✓	✓	ok	
	15635	-MSD				10			✓	✓	ok	
	15636	JC16038-1		BSim 14Dioxane + NAP		11			✓	✓	ok	
	15637	-2				12			✓	✓	ok	
	15638	-3				13			✓	✓	ok	
	15639	-4				14			✓	✓	ok	
	15640	-5				15			✓	✓	ok	
	15641	-6				16			✓	✓	ok	
	15642	-8				17			✓	✓	ok	

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

167

All strikeouts must be initialed, dated and reason code applied as follows:
1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

9.7.2 9

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EF6483

Date: 1-30-16

Analyst Signature: [illegible]

Columns: Rxi 5Sil MS 30m x .25mm x .25u

Method: 8270d/1625

Initial Cal. Method: MF6483

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.
SUS1625-76A	BNA	100ppm
SUS1625-76B		80ppm
SUS1625-91C		50ppm
SUS1625-91D		20ppm
SUS1625-76E		10ppm
SUS1625-76F		5ppm

Standard Data

Lot #	Description	Conc.
SUS1625-12	DFTPP	50ppm
SUS1625-44	BNA	2ppm
SUS1625-76F		1ppm
CM5572	Internal Std	40000ppm
154433	Surr-Std	

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: AMO

Date: 2/2/16.

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	154194	DFTPP			W	1					not using	poor baseline - Reject
	154195	DFTPP			W	1					ok	9:22am
	154196	IC6483-100			W	2					ok	
	154197	IC6483-1			W	3					ok	
	154198	IC6483-80			W	4					not run	Restart system Application Error
	154199	IC6483-2			W	5					ok	
	154200	IC6483-80			W	4					ok	
	154201	IC6483-5			W	6					ok	
	154202	IC6483-50			W	7					ok	
	154203	IC6483-10			W	8					ok	
	154204	IC6483-25			W	9					ok	
	154205	ICV6483-50	BN#2		W	10					not using	1-30-16 SUS1625-92 4/+
	154206	ICV6483-50	BN#2		W	11					not using	SUS1625-111 4/+ Reinstall

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

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All strikeouts must be initialed, dated and reason code applied as follows:
1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EF6484

Date: 1-30-16

Analyst Signature:

Columns: 2x15' Sil 45 30m x .25mm x .25u

Method: 8270D / 625

Initial Cal. Method: 6389

Injection Volume: 1ul

Standard Data

Lot #	Description	Conc.
SUS1525-76A	BNA	100ppm
SUS1525-76B		80ppm
SUS1525-76C		50ppm
SUS1525-76D		20ppm
SUS1525-76E		10ppm
SUS1525-76F		5ppm

Standard Data

Lot #	Description	Conc.
SUS1525121	DFTPP	50ppm
SUS1525-64	BNA	2ppm
SUS1525-24		1ppm
CM5732	Int Std	400ppm
524433	DCM - Ether	

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: AMM.

Date: 2/2/16.

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	EF5207	DFTPP			W	1					d	1:53pm
	154208	ICV6483-50	BW#2		W	2					d	SUS1525-111
	154209	ICV6483-50	Acid Spike		W	3					d	SUS1525-94
	154210	ICV6483-50	BW#1		W	4					d	SUS1525-80
	154211	ICV6483-50	Aniline		W	5					d	SUS1525-65
	154212	ICV6483-50	ABN Sample		W	6					d	Sub. SUS1525-42
	154213	ICV6483-50	Benzidines		W	7					d	run before 154212 SUS1525-85C

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

TOT 23

All strikeouts must be initialed, dated and reason code applied as follows:
1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

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ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EF6489

Date: 2/1/2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.
SV151829-107C	TCL42	50 ppm
-107D	↓	25 ppm
SV151829-90A		100 ppm
-90B		50 ppm
-90E		10 ppm
-90G		5 ppm

Standard Data

Lot #	Description	Conc.
SV151769-111	DFTPP	50 ppm
SV151829-90H	TCL42	2 ppm
-90I	↓	1 ppm
CM5732	Internal Std	4000 ppm
158433	DCM (Fisher)	—

Columns: Rx-5sil ms 30m x .25mm x .25um

Method 8270/625

Initial Cal. Method MF6483

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: AMO.

Date: 2/2/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	F154267	DFTPP			W	1					OK	5:54 pm
	154268	TC6489-100		TCL42	W	2					OK	
	154269	TC6489-80				3					OK	
	154270	TC6489-50				4					OK	
	154271	TC6489-25				5					OK	
	154272	TC6489-10				6					OK	
	154273	TC6489-5				7					OK	
	154274	TC6489-2				8					OK	
	154275	TC6489-1				9					OK	
	154276	TCV6489-50		BN1		10					OK	SV151829-80
	154277	TCV6489-50		BN2		11					OK	-111
	154278	TCV6489-50		Benzidine 3rd		12					OK	-88C
	154279	TCV6489-50		HQ		13					OK	-64C 11:29pm

MTX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample volume/weight used and final volumes refer to extraction log.

33

All strikeouts must be initialed, dated and reason code applied as follows:
1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

9.7.5

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EF6543

Print Analyst Name: Sara Davis

Date: 3/15/2016

Analyst Signature: SED

Columns: Rxi-5sIMS 30M x .25mm x .25um

Method 8270 D/625

Initial Cal. Method MF6483

Injection Volume: 1 ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151829-108	DFTPP	250ppm
-118	BNA	25 ppm
-258	TCL42	25 ppm
CM-5732	Internal Std	4000 ppm
160906	DCM (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: AMR Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	F155570	DFTPP			W	1					OK	9:06am
	155571	CC6483-25		BNA	W	2					OK	4,13,31,41,54,60, for ANL
	155572	CC6489-25		TCL42	W	3					OK	
	155573	OP92078-MB1	92078	~~OP~~ AB8270	W	4			/	/	OK	
	155574	-BS1				5			/	/	OK	
	155575	JC16090-9		A24DMP		6			/	/	OK	
	155576	JC16038-9		ABTCL20-14Diox		7			/	/	OK	
	155577	-1		↓		8			/	/	OK	
	155578	-2				9			/	/	OK	
	155579	-3				10			/	/	OK	
	155580	-4				11			/	/	OK	
	155581	-5				12			/	/	OK	
	155582	-6				13			/	/	OK	
	155583	-8				14			/		~~OK~~	~~OK~~ 1,4 diox
	155584	-10		↓		15			/		↓	↓
	155585	JC16090-1		A24DMP		16			/	/	OK	
	155586	-2		↓		17			/	/	OK	

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: OR015-07
Rev. Date: 1/19/16

SGS ACCUTEST JC16038

SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID EF6543

Print Analyst Name: Julius Johnson

Date: 3/15/16

Analyst Signature: JMJ

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See Page 29	

Columns: Rxissilms 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method MF6483

Injection Volume: 1µl

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: AMW

Date: 3/16/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	F155587	JC16090-3	92078	A240MP		18			/	/	OK	
	155588	-4				19			/	/	OK	
	155589	-5				20			/	/	OK	
	155590	-6				21			/	/	OK	
	155591	-7				22			/	/	OK	
	155592	-8				23			/	/	OK	
	155593	OP92078-MS		AB8270		24			/	/	OK	
	155594	-MSD				25			/	/	OK	8:10AM

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: OR015-07
Rev. Date: 1/19/16

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

SD ② 2/24/16

Batch ID: EP4514

Date: 2/~~23~~ 24/ 2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.
SV151828-102	TCL42	100 ppm
-103	↓	80 ↓
-105		10
-106		5
-107		2
-108	↓	1 ↓

Standard Data

Lot #	Description	Conc.
SV151828-108	DFTPP	50 ppm
SV151829-107A	TCL42	50 ppm
-107B	↓	25 ppm
CM-5732	SD ② ~~CM-5732~~ I Std	4000 ppm
160168	2/24/16 ~~Internal S~~ Dcm (Fluor)	—

Columns: Rxi-5sil ms 30m x .25mm x .25um

Method 8270 D/625

Initial Cal. Method MP4513

Injection Volume: 1 ul

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: 2/29/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P102786	DFTPP			W	1					OK	1:55 am
	102787	TC4514-100		TCL42	W	10					OK	
	102788	-80				11					OK	
	102789	-10				12					OK	
	102790	-5				13					OK	
	102791	-2				14					OK	
	102792	-1				15					OK	
	102793	-25				16					OK	
	102794	TCC4514-50				17					OK	
	102795	TCV4513-50		Acids		18					OK	SV151829-128 ~~Lot~~
	102796	-50		Anilines		19					OK	-129
	102797	-50		ABN SUR		20					OK	OP15162442
	102798	-50		BN1		21					OK	SV151827-26
	102799	-50		BN2		22					OK	SV151829-116
	102800	TCV4514-50		HQ		23					OK	-64D
	102801	-50		Benzidine 3rd		24					OK	-88C 8:58 am

MTX = Matrix. Designate W for water, S for soil, O for oil. ~~L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.~~

Sample volume/weight used and final volumes refer to extraction log.

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All strikeouts must be initialed, dated and reason code applied as follows:
1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR015-05
Rev. Date: 1/16/2006

SGS ACCUTEST JC16038

ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EP4524

Date: 3/2/16

Analyst Signature: [illegible]

Standard Data

Lot #	Description	Conc.
SV151824-134A	BNA	100
-134B		80
-134E		10
-134F		5
-134G		2
-134H		1

Standard Data

Lot #	Description	Conc.
SV151829-108	DFTPP	50 ppm
SV151827-30A	BNA	50 ppm
-30B	↓	25 ppm
CM-5732	Internal Std	4000 ppm
160906	DCM (Fisher)	—

Columns: Rxi-5ilms 30mX.25mmX.25um

Method 8270D/625

Initial Cal. Method MP4513 24 JK3216

Injection Volume: 1uL

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: [illegible]

Date: 3/3/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P102997	DFTPP			W	1					NG	127↑ reinject
	102998	DFTPP			W	1					↓	127↑ reinjec
	102999	DFTPP			W	1					NG	127↑ retune
	103000	DFTPP			W	1					↓	127↑ reinject JK3216
	103001	DFTPP			W	1					↓	127↑ retune
	103002	DFTPP			W	1					NG	127↑ retune
	103003	DFTPP			W	1					NG	12:38pm
	103004	CC451350		BNA	W	2					↓	RT↑ reinjec
	103005	DFTPP			W	1					NG	127↑ reinject
	103006	DFTPP			W	1					↓	127↑ reinjec
	103007	DFTPP			W	1					NG	127↑, retune
	103008	DFTPP			W	1					↓	127↑, retune
	103009	DFTPP			W	1					↓	127↑, retune
	103010	DFTPP			W	1					OK	
	103011	IC4524-100		BNA		2					OK	
	103012	-80				3					OK	
	103013	-10				4					OK	

TX = Matrix. Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

ample volume/weight used and final volumes refer to extraction log.

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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rm: OR015-05
ev. Date: 1/16/2006

SGS ACCUTEST JC16038

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ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID: EP4524

Date: 3/2/2016

Analyst Signature: SED

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	see page 151	

Columns: Rxi-5silms 30m x .25mm x .25um

Method 8270 D/625

Initial Cal. Method MP4524

Injection Volume: 1 ul

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: AMO Date: 3/3/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P103014	ICC4524-5		BNA	W	5					OK	
	103015	-2				6					OK	
	103016	-1				7					OK	
	103017	ICC4524-~~25~~ 50	SD ② 3/2/16			8					OK	
	103018	ICC4524-25 ~~ICC4524-50~~				9					OK	
	103019	ICV4524-50		Acids		10					OK	SV151829-128
	103020	-50		Aniline		11					OK	-114
	103021	-50		ABN surr		12					OK	OP1516244 2
	103022	-50		BN1		13					OK	SV151827-26
	103023	-50		BN2		14					OK	-2
	103024	-50		Benzidine 3rd		15					OK	-38F

TX = Matrix. Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.

ample volume/weight used and final volumes refer to extraction log.

153

ll strikeouts must be initialed, dated and reason code applied as follows:
= reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

orm: OR015-05
ev. Date: 1/16/2006

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: EP4542

Print Analyst Name: Linsey K.

Analyst Signature: LK

Date: 3/16/16

Columns: Rxi-5ssilms 30mx.25mm x.25um

Method: 8270D/625

Initial Cal. Method: MP4524

Injection Volume: 1ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SMS1824-108	DFTPP	50ppm
-101E	B/N	50ppm
SMS1821-107	TCL42	50ppm
CM3744	Internals	400ppm
1601542	(Methods)	—

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: AMW

Date: 3/12/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	RD33551	DFTPP			W	1					OK	12:03pm
	103360	CC45245D		B/N	W	2					OK	31,41,54↑
	103361	CC4514-50		TCL42	W	3					OK	103↑
	103362	TCL42wr-1ppm			W	4					OK	SMS1827-21B
	103363	JC15698-16	91987-1	SIM1,4dix	W	5			/		~~Reviewed~~ Notching	Nr 1:5
	103364	-18				6			/		Notching	Nr 1:10
	103365	JC15712-1		SIM1,4dix		7			/	/	OK	
	103366	JC16066-7	92089-1	B/N TCL20	W	8		+	/	/	OK	
	103367	-8				9		+	/	/	OK	
	103368	JC15698-16	91987-1	SIM1,4dix	W	10	5		/	/	OK	
	103369	-18				11	10		/	/	OK	
	103370	CP92078-MS	92078-1	ABS 270	W	12			/	/	OK	
	103371	JC16038-8		ABS TCL20		13			/		Nr	RR 1:20 Nr for 103
	103372	-10				14			/	/	OK	RR 1:5
	103373	-8				15	20		/		Notching	RR 1:40
	103374	-10				16	5		/	/	OK	
	103375	-8				17	40		/	/	OK	7:35pm

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: OR015-07

Rev. Date: 1/19/16

9.7.9

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SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID EP4545

Print Analyst Name: Sara Davis

Date: 3/17/2016

Analyst Signature: SED

Columns: Rxi-5sil ms 30 m x 25 mm x .25 mm

Method 8270 D/625

Initial Cal. Method M P4524

Injection Volume: 1 ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151824-108	DFTPP	50 ppm
-1340	BNA	25 ppm
SV151827-74 J	TCL42	25 ppm
CM5732	Internal std	4000 ppm
161542	DCM (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: AMO Date: 3/15/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P103407	DFTPP			W	1					OK	
	103408	CC4524-25		BNA	W	2					Not using	wrong lot SV151827-28B SD@3/17/16
	103409	CC4524-25		BNA	W	2					OK	#31,41,54↑
	103410	CC4514-25		TCL42	W	3					OK	
	103411	JC16038-8	92078	ABTCL20-1.40ppm		4			/	/	OK	
	103412	JC16174-6	92149	ABTCL20+		5		+	/	/	OK	
	103413	-8		↓		6		+	/	/	OK	
	103414	-7				7		+	/	/	OK	
	103415	-10				8		+	/	/	OK	3:06AM
	103416	DCM clean-up				9					dcm	ran after P103412
	103417	Aniline spike SV151827-77				10			/	–	OK	
	103418	BNA spike SV151827-76				11			/	–	OK	↓

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: OR015-07

Rev. Date: 1/19/16

SGS ACCUTEST JC16038

6-1670

LOGBOOK ID:

Date Started: ~~3/14/16~~ 3/15/16 Time Started: 0700

Date Finished: ~~3/14/16~~ 3/15/16 Time Finished: 6:00p

ABN Aqueous Extraction Logbook

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM_____

Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 92078	RACK# B-13
Extracted by:	EJC
Concentrated by:	YB, FA
Vialed by:	NG, YB, FA
Relinquished by:	FA
Accepted by:	
Supervisor Review:	3/15/16

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:

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) <2 H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DI H2O	1000	1	4	Clear	1		
	BS1			DI H2O	1000	1	4	Yellow	1		
	JC16090-1 MS		1	Clear	500	1	4	Yellow	1		
	1 MSD		1	Clear	500	1	4	Yellow	1		
	BS	12 SIM		DI H2O	1000	1	4	1-Yellow	1		
	~~JC16038-2~~ MS	A	1	LT Yellow	500	1	4	1-Yellow	~~1~~ 50		
	~~1~~ MSD	A	1	LT Yellow	500	1	4	1-Yellow	1		
1	JC16038-8	ABN	2	LT YELLOW	990	1	4	1-Yellow	1		
2	-9		1	CLEAR	1000	1	4	Clear	1		
3	-10		1	CLEAR	970	1	4	Clear	1		
4	~~JC16038-1~~		~~2~~	~~LT YELLOW~~	~~1000~~	~~1~~	~~4~~				
5	~~-2~~		~~2~~	~~LT YELLOW~~	~~1000~~	~~1~~	~~4~~				
6	~~-3~~		~~2~~	~~YELLOW~~	~~1000~~	~~1~~	~~4~~				
7	~~-4~~		~~2~~	~~LT YELLOW~~	~~1000~~	~~1~~	~~4~~	3/15/16			
8	~~-5~~		~~2~~	~~CLEAR~~	~~1000~~	~~1~~	~~4~~				
9	JC16038-6		2	CLEAR	970	1	4	1-Yellow	1		
10	JC16090-1		2	CLEAR	930	1	4	LYellow	1		
11	-2		2	LT YELLOW	930	1	4	Yellow	1		
12	-3		1	Clear	1000	1	4	1-Yellow	1		
13	-4		2	clear	1000	1	4	1-Yellow	1		
14	-5		1	clear	1000	1	4	1-Yellow	1		
15	-6		2	yellow	980	1	4	Yellow	1		
16	-7		1	gold	980	1	4	Yellow	1		
17	-8		1	gold	1000	1	4	Yellow	1		
18	-9		1	Clear	1000	1	4	Clear	1		
19	JC16038-2	MSA Sim	1	LT Yellow	500	1	4	1-Yellow	1		
20	1	MSDA Sim	1	LT Yellow	500	1	4	1-Yellow	1		

Comments: Okay to split sim ms/msd not enough bottles.

JC16090-1 Bottle #5 ; JC16038-4 Bottle #2

JC16038-2		2	clear	930	1	4	Clear	1
-3		2	Yellow	1000	1	4	1-Yellow	1
-4		1	LYellow	930	1	4	LYellow	1
-5		2	clear	930	1	4	clear	1
-1		1	clear	1000	1	4	clear	1

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	67	75.35	1.6, 1.2	77.76	N/A
Waterbath Chiller (GPM)	F2	-4	–	–	2
NEVAP (32-38°C; LPM)					

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	1516-24136	50	1

WITNESS SIGN: SPIKE SIGN: EJC

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	15182767	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	15182463	50	1
Base #2	15182745	50	1
Anilines	15182746	50	1
BSIM	1516-24132	1	1

WITNESS SIGN: SPIKE SIGN: EJC

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	161592	Fisher	600

REAGENT	LOT #	BRAND
NaOH	153809	Fisher
H2SO4	2809429	Ricca
Sodium Sulfate	158459	Fisher
Glass Wool	0923-2	CAB
Filter Paper		
pH strips		

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC16090-1

Final Volume:

Other: MSA JC16038-2.1 500ml
MSDA LT Yellow 500

SGS ACCUTEST INC.
Form: OP022A-08
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6-1670

LOGBOOK ID:

Date Started: 3/14/16 3/15/16 Time Started: 0700
Date Finished: 3/14/16 3/15/16 Time Finished: 6:00p

ABN Aqueous Extraction Logbook

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other_____ 3510C SIM_____
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 92078 RACK# B-13

Extracted by: EJC
Concentrated by: YB, FA
Vialed by: NG, YB, FA
Relinquished by: FA
Accepted by:
Supervisor Review: 3/15/16

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	67	75.35	1.6, 1.2	77.76	N/A
Waterbath Chiller (GPM)	F2	-4	–	–	2
NEVAP (32-38°C; LPM)					

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	1516-24136	50	1

WITNESS SIGN: SPIKE SIGN: EJC

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	15182767	56	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	15182469	50	1
Base #2	15182745	56	1
Anilines	15182746	50	1
BSIM	1516-24132	1	1

WITNESS SIGN: SPIKE SIGN: EJC

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	161592	Fisher	600

REAGENT	LOT #	BRAND
NaOH	153809	Fisher
H2SO4	2809429	Ricca
Sodium Sulfate	158459	Fisher
Glass Wool	0923-2	LAB
Filter Paper		
pH strips		

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: JC16090-1

Final Volume:

Other: MSA JC16038-2.1 500ml
MSDA LTYellow 500

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust(mL) <2 H2SO4	pH Adjust(mL) >11 NaOH	Final Extract Color	Final Extract Vol(mL)	Misc. GPC Cleanup	Misc. Comments
	MB1	ABN		DI H2O	1000	1	4	Clear	1		
	BS1			DI H2O	1000	1	4	Yellow	1		
	JC16090-1 MS		1	Clear	500	1	4	Yellow	1		
	-1 MSD		1	Clear	500	1	4	Yellow	1		
	BS	12 SIM		DI H2O	1000	1	4	1-Yellow	1		
	~~JC16038-2 MS~~	A	1	LT Yellow	500	1	4	1-Yellow	~~1~~ 50		
	~~-1 MSD~~	A	1	LT Yellow	500	1	4	1-Yellow	1		
1	JC16038-8	ABN	2	LT YELLOW	990	1	4	1-Yellow	1		
2	-9		1	CLEAR	1000	1	4	Clear	1		
3	-10		1	CLEAR	970	1	4	Clear	1		
4	~~JC16038-1~~		~~2~~	~~LT YELLOW~~	~~1000~~	~~1~~	~~4~~				
5	~~-2~~		~~2~~	~~LT YELLOW~~	~~1000~~	~~1~~	~~4~~				
6	~~-3~~		~~2~~	~~YELLOW~~	~~1000~~	~~1~~	~~4~~				
7	~~-4~~		~~1~~	~~LT YELLOW~~	~~1000~~	~~1~~	~~4~~	3/15/16			
8	~~-5~~		~~2~~	~~CLEAR~~	~~1000~~	~~1~~	~~4~~				
9	JC16038-6		2	CLEAR	970	1	4	1-Yellow	1		
10	JC16090-1		~~2~~ 1	~~CLEAR~~	950	1	4	LYellow	1		
11	-2		2	LT YELLOW	930	1	4	Yellow	1		
12	-3		1	Clear	1000	1	4	1-Yellow	1		
13	-4		2	clear	1000	1	4	1-Yellow	1		
14	-5		1	clear	1000	1	4	1-Yellow	1		
15	-6		2	yellow	980	1	4	Yellow	1		
16	-7		1	gold	980	1	4	Yellow	1		
17	-8		1	gold	1000	1	4	Yellow	1		
18	-9		1	Clear	1000	1	4	Clear	1		
19	JC16038-2	MSA Sim	1	LT Yellow	500	1	4	1-Yellow	1		
20	1	MSDA Sim	1	LT Yellow	500	1	4	1-Yellow	1		

Comments: Okay to split sim ms/msd not enough bottles.
JC16090-1 Bottle #5 ; JC16038-2 Bottle #2

JC16038-2	2	clear	950	1	4	Clear	1
-3	2	Yellow	1000	1	4	1-Yellow	1
-4	1	LYellow	930	1	4	LYellow	1
-5	2	clear	950	1	4	clear	1
-7	1	clear	1000	1	4	clear	1

SGS ACCUTEST INC.
Form: OP022A-08
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GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-MB2	GH103785.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-8, JC16038-10

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	96%	56-145%
111-27-3	Hexanol	90%	56-145%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-MB3	GH103792.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-9

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	95%	56-145%
111-27-3	Hexanol	85%	56-145%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5213-MB1	GH103817.D	1	03/18/16	XPL	n/a	n/a	GGH5213

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	93%	56-145%
111-27-3	Hexanol	88%	56-145%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5213-MB2	GH103828.D	1	03/18/16	XPL	n/a	n/a	GGH5213

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-7

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	99%	56-145%
111-27-3	Hexanol	82%	56-145%

Method Blank Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-MB1	GH103775.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

GGH5211-BS, JC15796-1MS, JC15796-1MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	100	55	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	36	ug/l	
67-63-0	Isopropyl Alcohol	ND	100	68	ug/l	
71-23-8	n-Propyl Alcohol	ND	100	43	ug/l	
71-36-3	n-Butyl Alcohol	ND	100	87	ug/l	
78-92-2	sec-Butyl Alcohol	ND	100	66	ug/l	
67-56-1	Methanol	ND	200	71	ug/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	99%	56-145%
111-27-3	Hexanol	96%	56-145%

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5211-BS	GH103776.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	4970	99	74-123
78-83-1	Isobutyl Alcohol	5000	4740	95	70-124
67-63-0	Isopropyl Alcohol	5000	4450	89	76-121
71-23-8	n-Propyl Alcohol	5000	4680	94	73-122
71-36-3	n-Butyl Alcohol	5000	4390	88	67-116
78-92-2	sec-Butyl Alcohol	5000	4470	89	74-118
67-56-1	Methanol	5000	3360	67	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	98%	56-145%
111-27-3	Hexanol	90%	56-145%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5213-BS	GH103818.D	1	03/18/16	XPL	n/a	n/a	GGH5213

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	5400	108	74-123
78-83-1	Isobutyl Alcohol	5000	5250	105	70-124
67-63-0	Isopropyl Alcohol	5000	5370	107	76-121
71-23-8	n-Propyl Alcohol	5000	5410	108	73-122
71-36-3	n-Butyl Alcohol	5000	5000	100	67-116
78-92-2	sec-Butyl Alcohol	5000	5200	104	74-118
67-56-1	Methanol	5000	4880	98	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	101%	56-145%
111-27-3	Hexanol	101%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC15796-1MS	GH103778.D	1	03/17/16	XPL	n/a	n/a	GGH5211
JC15796-1MSD	GH103779.D	1	03/17/16	XPL	n/a	n/a	GGH5211
JC15796-1	GH103777.D	1	03/17/16	XPL	n/a	n/a	GGH5211

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	JC15796-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	ND		5000	5200	104	5000	5310	106	2	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	5290	106	5000	5230	105	1	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	5300	106	5000	5330	107	1	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	5290	106	5000	5020	100	5	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	4850	97	5000	4750	95	2	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5270	105	5000	5190	104	2	64-136/25
67-56-1	Methanol	ND		5000	4940	99	5000	5040	101	2	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC15796-1	Limits
111-27-3	Hexanol	100%	96%	93%	56-145%
111-27-3	Hexanol	91%	90%	86%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC16038-1MS	GH103820.D	1	03/18/16	XPL	n/a	n/a	GGH5213
JC16038-1MSD	GH103821.D	1	03/18/16	XPL	n/a	n/a	GGH5213
JC16038-1	GH103819.D	1	03/18/16	XPL	n/a	n/a	GGH5213

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC16038-1, JC16038-2, JC16038-3, JC16038-4, JC16038-5, JC16038-6, JC16038-7

CAS No.	Compound	JC16038-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	ND		5000	5450	109	5000	5130	103	6	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	5220	104	5000	5020	100	4	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	5310	106	5000	5160	103	3	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	5360	107	5000	5350	107	0	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	4680	94	5000	4400	88	6	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5080	102	5000	5020	100	1	64-136/25
67-56-1	Methanol	ND		5000	4960	99	5000	4800	96	3	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC16038-1	Limits
111-27-3	Hexanol	85%	89%	77%	56-145%
111-27-3	Hexanol	81%	87%	75%	56-145%

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5213-CC5193	**Injection Date:**	03/18/16
Lab File ID:	GH103816.D	**Injection Time:**	14:58
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5213-BS	**Injection Date:**	03/18/16
Lab File ID:	GH103818.D	**Injection Time:**	16:21
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1 [a]	1.83	1.83	5400		ug/l	2.7
Ethanol	2	1.00	1.01	5550		ug/l	
Isobutyl Alcohol	1 [a]	3.77	3.78	5250		ug/l	5.9
Isobutyl Alcohol	2	2.68	2.69	5570		ug/l	
Isopropyl Alcohol	1 [a]	2.20	2.21	5370		ug/l	6.0
Isopropyl Alcohol	2	1.22	1.24	5700		ug/l	
n-Propyl Alcohol	1 [a]	2.96	2.97	5410		ug/l	1.1
n-Propyl Alcohol	2	1.74	1.76	5470		ug/l	
n-Butyl Alcohol	1 [a]	4.19	4.20	5000		ug/l	1.2
n-Butyl Alcohol	2	3.16	3.18	5060		ug/l	
sec-Butyl Alcohol	1 [a]	3.39	3.40	5200		ug/l	6.7
sec-Butyl Alcohol	2	2.29	2.31	5560		ug/l	
Methanol	1 [a]	1.40	1.40	4880		ug/l	0.6
Methanol	2	0.77	0.79	4910		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	**Injection Date:**	03/17/16
Lab File ID:	GH103774.D	**Injection Time:**	10:39
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5211-BS	**Injection Date:**	03/17/16
Lab File ID:	GH103776.D	**Injection Time:**	11:08
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.83	1.83	5080		ug/l	2.2
Ethanol	2 [a]	1.00	1.00	4970		ug/l	
Isobutyl Alcohol	1 [a]	3.79	3.79	4740		ug/l	11.3
Isobutyl Alcohol	2	2.65	2.65	5310		ug/l	
Isopropyl Alcohol	1 [a]	2.21	2.21	4450		ug/l	13.6
Isopropyl Alcohol	2	1.22	1.22	5100		ug/l	
n-Propyl Alcohol	1 [a]	2.97	2.97	4680		ug/l	5.2
n-Propyl Alcohol	2	1.74	1.74	4930		ug/l	
n-Butyl Alcohol	1 [a]	4.21	4.21	4390		ug/l	3.4
n-Butyl Alcohol	2	3.14	3.14	4540		ug/l	
sec-Butyl Alcohol	1 [a]	3.40	3.41	4470		ug/l	11.8
sec-Butyl Alcohol	2	2.27	2.27	5030		ug/l	
Methanol	1 [a]	1.40	1.40	3360		ug/l	21.0
Methanol	2	0.78	0.78	4150		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	**Injection Date:**	03/17/16
Lab File ID:	GH103774.D	**Injection Time:**	10:39
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC15796-1MS	**Injection Date:**	03/17/16
Lab File ID:	GH103778.D	**Injection Time:**	12:03
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.83	1.83	4570		ug/l	12.9
Ethanol	2 [a]	1.00	1.00	5200		ug/l	
Isobutyl Alcohol	1	3.79	3.79	4950		ug/l	6.6
Isobutyl Alcohol	2 [a]	2.65	2.65	5290		ug/l	
Isopropyl Alcohol	1	2.21	2.21	4540		ug/l	15.4
Isopropyl Alcohol	2 [a]	1.22	1.22	5300		ug/l	
n-Propyl Alcohol	1	2.97	2.97	4640		ug/l	13.1
n-Propyl Alcohol	2 [a]	1.74	1.74	5290		ug/l	
n-Butyl Alcohol	1	4.21	4.21	4830		ug/l	0.4
n-Butyl Alcohol	2 [a]	3.14	3.14	4850		ug/l	
sec-Butyl Alcohol	1	3.40	3.41	4540		ug/l	14.9
sec-Butyl Alcohol	2 [a]	2.28	2.27	5270		ug/l	
Methanol	1	1.40	1.40	4500		ug/l	9.3
Methanol	2 [a]	0.78	0.78	4940		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5213-CC5193	**Injection Date:**	03/18/16
Lab File ID:	GH103816.D	**Injection Time:**	14:58
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC16038-1MS	**Injection Date:**	03/18/16
Lab File ID:	GH103820.D	**Injection Time:**	16:49
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.83	1.83	4840		ug/l	11.9
Ethanol	2 [a]	1.01	1.01	5450		ug/l	
Isobutyl Alcohol	1	3.77	3.78	4940		ug/l	5.5
Isobutyl Alcohol	2 [a]	2.69	2.69	5220		ug/l	
Isopropyl Alcohol	1	2.21	2.21	4840		ug/l	9.3
Isopropyl Alcohol	2 [a]	1.24	1.24	5310		ug/l	
n-Propyl Alcohol	1	2.97	2.97	4910		ug/l	8.8
n-Propyl Alcohol	2 [a]	1.76	1.76	5360		ug/l	
n-Butyl Alcohol	1	4.20	4.20	4850		ug/l	3.6
n-Butyl Alcohol	2 [a]	3.18	3.18	4680		ug/l	
sec-Butyl Alcohol	1	3.39	3.40	4830		ug/l	5.0
sec-Butyl Alcohol	2 [a]	2.31	2.31	5080		ug/l	
Methanol	1	1.40	1.40	4480		ug/l	10.2
Methanol	2 [a]	0.79	0.79	4960		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	**Injection Date:**	03/17/16
Lab File ID:	GH103774.D	**Injection Time:**	10:39
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC15796-1MSD	**Injection Date:**	03/17/16
Lab File ID:	GH103779.D	**Injection Time:**	12:17
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.84	1.83	5470		ug/l	3.0
Ethanol	2 [a]	1.00	1.00	5310		ug/l	
Isobutyl Alcohol	1	3.79	3.79	5120		ug/l	2.1
Isobutyl Alcohol	2 [a]	2.65	2.65	5230		ug/l	
Isopropyl Alcohol	1	2.21	2.21	5350		ug/l	0.4
Isopropyl Alcohol	2 [a]	1.22	1.22	5330		ug/l	
n-Propyl Alcohol	1	2.98	2.97	4970		ug/l	1.0
n-Propyl Alcohol	2 [a]	1.73	1.74	5020		ug/l	
n-Butyl Alcohol	1	4.21	4.21	5240		ug/l	9.8
n-Butyl Alcohol	2 [a]	3.13	3.14	4750		ug/l	
sec-Butyl Alcohol	1	3.41	3.41	4860		ug/l	6.6
sec-Butyl Alcohol	2 [a]	2.27	2.27	5190		ug/l	
Methanol	1	1.40	1.40	4700		ug/l	7.0
Methanol	2 [a]	0.78	0.78	5040		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5213-CC5193	**Injection Date:**	03/18/16
Lab File ID:	GH103816.D	**Injection Time:**	14:58
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC16038-1MSD	**Injection Date:**	03/18/16
Lab File ID:	GH103821.D	**Injection Time:**	17:04
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	1.83	1.83	4710		ug/l	8.5
Ethanol	2 [a]	1.01	1.01	5130		ug/l	
Isobutyl Alcohol	1	3.78	3.78	4910		ug/l	2.2
Isobutyl Alcohol	2 [a]	2.68	2.69	5020		ug/l	
Isopropyl Alcohol	1	2.21	2.21	4690		ug/l	9.5
Isopropyl Alcohol	2 [a]	1.24	1.24	5160		ug/l	
n-Propyl Alcohol	1	2.97	2.97	4830		ug/l	10.2
n-Propyl Alcohol	2 [a]	1.76	1.76	5350		ug/l	
n-Butyl Alcohol	1	4.20	4.20	4900		ug/l	10.8
n-Butyl Alcohol	2 [a]	3.18	3.18	4400		ug/l	
sec-Butyl Alcohol	1	3.39	3.40	4760		ug/l	5.3
sec-Butyl Alcohol	2 [a]	2.31	2.31	5020		ug/l	
Methanol	1	1.40	1.40	4630		ug/l	3.6
Methanol	2 [a]	0.79	0.79	4800		ug/l	

(a) QC results reported from this column.

Volatile Surrogate Recovery Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Method: SW846-8015C (DAI) **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
JC16038-1	GH103819.D	77	75
JC16038-2	GH103822.D	93	94
JC16038-3	GH103823.D	93	91
JC16038-4	GH103824.D	100	97
JC16038-5	GH103825.D	96	93
JC16038-6	GH103826.D	98	94
JC16038-7	GH103829.D	99	91
JC16038-8	GH103789.D	98	90
JC16038-9	GH103799.D	102	90
JC16038-10	GH103788.D	95	85
GGH5211-BS	GH103776.D	98	90
GGH5211-MB2	GH103785.D	96	90
GGH5211-MB3	GH103792.D	95	85
GGH5213-BS	GH103818.D	101	101
GGH5213-MB1	GH103817.D	93	88
GGH5213-MB2	GH103828.D	99	82
JC15796-1MS	GH103778.D	100	91
JC15796-1MSD	GH103779.D	96	90
JC16038-1MS	GH103820.D	85	81
JC16038-1MSD	GH103821.D	89	87
GGH5211-MB1	GH103775.D	99	96

Surrogate Compounds	Recovery Limits
S1 = Hexanol	56-145%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	**Injection Date:**	03/17/16
Lab File ID:	GH103774.D	**Injection Time:**	10:39
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.29	5.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5211-MB1	GH103775.D	03/17/16	10:54	5.29	5.87
GGH5211-BS	GH103776.D	03/17/16	11:08	5.30	5.87
JC15796-1	GH103777.D	03/17/16	11:48	5.29	5.87
JC15796-1MS	GH103778.D	03/17/16	12:03	5.30	5.87
JC15796-1MSD	GH103779.D	03/17/16	12:17	5.29	5.87
ZZZZZZ	GH103780.D	03/17/16	12:32	5.30	5.87
ZZZZZZ	GH103781.D	03/17/16	12:46	5.29	5.87
ZZZZZZ	GH103782.D	03/17/16	13:03	5.29	5.87
ZZZZZZ	GH103783.D	03/17/16	13:20	5.29	5.87

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	**Injection Date:**	03/17/16
Lab File ID:	GH103784.D	**Injection Time:**	13:56
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.29	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5211-MB2	GH103785.D	03/17/16	14:11	5.29	5.87
ZZZZZZ	GH103786.D	03/17/16	14:29	5.29	5.86
ZZZZZZ	GH103787.D	03/17/16	14:44	5.29	5.87
JC16038-10	GH103788.D	03/17/16	14:58	5.29	5.87
JC16038-8	GH103789.D	03/17/16	15:13	5.29	5.87
ZZZZZZ	GH103790.D	03/17/16	15:27	5.29	5.87

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5211-CC5193	**Injection Date:**	03/17/16
Lab File ID:	GH103791.D	**Injection Time:**	16:08
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.29	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5211-MB3	GH103792.D	03/17/16	16:23	5.29	5.87
ZZZZZZ	GH103793.D	03/17/16	16:37	5.29	5.86
ZZZZZZ	GH103794.D	03/17/16	16:52	5.29	5.86
ZZZZZZ	GH103795.D	03/17/16	17:06	5.29	5.87
ZZZZZZ	GH103796.D	03/17/16	17:21	5.29	5.87
ZZZZZZ	GH103797.D	03/17/16	17:35	5.29	5.87
ZZZZZZ	GH103798.D	03/17/16	17:50	5.29	5.86
JC16038-9	GH103799.D	03/17/16	18:04	5.29	5.87

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5213-CC5193	**Injection Date:**	03/18/16
Lab File ID:	GH103816.D	**Injection Time:**	14:58
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.32	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5213-MB1	GH103817.D	03/18/16	15:59	5.31	5.86
GGH5213-BS	GH103818.D	03/18/16	16:21	5.30	5.85
JC16038-1	GH103819.D	03/18/16	16:35	5.31	5.86
JC16038-1MS	GH103820.D	03/18/16	16:49	5.31	5.86
JC16038-1MSD	GH103821.D	03/18/16	17:04	5.30	5.86
JC16038-2	GH103822.D	03/18/16	17:18	5.30	5.86
JC16038-3	GH103823.D	03/18/16	17:33	5.30	5.86
JC16038-4	GH103824.D	03/18/16	17:47	5.30	5.86
JC16038-5	GH103825.D	03/18/16	18:02	5.30	5.86
JC16038-6	GH103826.D	03/18/16	18:23	5.30	5.86

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5213-CC5193	**Injection Date:**	03/18/16
Lab File ID:	GH103827.D	**Injection Time:**	18:38
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	5.30	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5213-MB2	GH103828.D	03/18/16	18:52	5.30	5.86
JC16038-7	GH103829.D	03/18/16	19:07	5.30	5.86
ZZZZZZ	GH103830.D	03/18/16	19:21	5.30	5.86
ZZZZZZ	GH103831.D	03/18/16	19:36	5.30	5.86

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

Initial Calibration Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: GGH5193-ICC5193
Lab FileID: GH103541.D

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 12:10:59 2016
Response via : Initial Calibration

Calibration Files
0.5 =GH103543.D 1 =GH103536.D 5 =GH103541.D 10 =GH103538.D
50 =GH103539.D 100 =GH103540.D 0.1 =GH103544.D =

Compound	0.5	1	5	10	50	100	0.1	Avg	%RSD
1) Methanol	1.426	1.841	1.852	1.703	1.663	1.780	1.952	1.745 E1	9.79
2) Ethanol	2.194	2.249	2.373	2.356	2.184	2.349	2.002	2.244 E1	5.89
3) Tert-Butyl A	2.774	3.753	3.616	3.510	3.237	3.492	3.482	3.409 E1	9.40
4) 1-Propanol	2.092	3.059	3.087	2.991	2.821	3.030	3.265	2.907 E1	13.16
5) 2-Propanol	1.682	2.949	2.637	2.504	2.346	2.529	2.559	2.458 E1	15.80
6) Propionitril									
7) Isobutanol	2.896	3.485	3.556	3.505	3.219	3.484	3.542	3.384 E1	7.18
8) 1-Butanol	2.743	3.627	3.420	3.389	3.054	3.265	3.899	3.343 E1	11.25
9) 2-Butanol	2.347	3.176	3.154	3.122	2.873	3.066	3.756	3.071 E1	13.64
10) Hexanol	1.693	1.305	1.255	1.265	1.256	0.953	1.202	1.275 E2	17.09

Signal #2

1) Methanol	1.818	1.614	1.723	1.711	1.573	1.708	2.010	1.736 E1	8.31
2) Ethanol	2.024	2.267	2.294	2.284	2.092	2.288	2.194	2.206 E1	4.91
3) Tert-Butyl A	2.906	3.370	3.219	3.317	3.054	3.303	3.221	3.198 E1	5.13
4) 1-Propanol	2.365	2.891	3.042	2.928	2.683	2.894	3.320	2.875 E1	10.31
5) 2-Propanol	2.053	2.413	2.353	2.406	2.218	2.413	2.475	2.333 E1	6.33
6) Propionitril									
7) Isobutanol	2.864	3.107	3.214	3.374	3.059	3.290	3.670	3.226 E1	7.97
8) 1-Butanol	** This compound does not meet initial calibration criteria.								
	3.431	3.074	3.191	3.268	2.937	3.245	5.688	3.548 E1	26.96
9) 2-Butanol	2.452	2.996	2.918	2.985	2.721	2.924	3.049	2.864 E1	7.31
10) Hexanol	1.783	1.289	1.223	1.238	1.230	0.945	1.219	1.275 E2	19.65

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

MGH5193.M Tue Mar 01 12:19:45 2016 GCGH

Initial Calibration Verification

Job Number: JC16038 **Sample:** GGH5193-ICV5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103545.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
Acq On    : 29 Feb 2016   1:20 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
Acq On    : 29 Feb 2016   1:36 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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		Methanol	17.453	17.951	-2.9	97	0.00	1.33- 1.50
2		Ethanol	22.440	23.663	-5.5	100	0.00	1.80- 1.89
3		Tert-Butyl Alcohol	34.092	35.190	-3.2	97	0.00	2.47- 2.56
4		1-Propanol	29.066	30.968	-6.5	100	0.00	2.96- 3.03
5		2-Propanol	24.580	25.257	-2.8	96	0.00	2.18- 2.27
6		Propionitrile		----------NA----------				
7		Isobutanol	33.839	34.562	-2.1	97	0.00	3.76- 3.85
8		1-Butanol	33.426	33.817	-1.2	99	0.00	4.18- 4.27
9		2-Butanol	30.706	31.208	-1.6	99	0.00	3.37- 3.47
10	S	Hexanol	127.542	124.268	2.6	99	0.00	5.85- 5.91

***** Signal #2 *****

1		Methanol	17.364	17.370	-0.0	101	0.00	0.77- 0.83
2		Ethanol	22.062	22.926	-3.9	100	0.00	0.99- 1.05
3		Tert-Butyl Alcohol	31.985	33.340	-4.2	104	0.00	1.44- 1.50
4		1-Propanol	28.748	29.155	-1.4	96	0.00	1.74- 1.80
5		2-Propanol	23.330	24.634	-5.6	105	0.00	1.22- 1.28
6		Propionitrile		----------NA----------				
7		Isobutanol	32.255	33.041	-2.4	103	0.00	2.67- 2.73
8		1-Butanol	35.477	32.815	7.5	103	0.00	3.16- 3.22
9		2-Butanol	28.637	29.520	-3.1	101	0.00	2.29- 2.35
10	S	Hexanol	127.519	121.131	5.0	99	0.00	5.29- 5.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Tue Mar 01 12:26:43 2016 GCGH

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5211-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103774.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103774.D\FID1A.CH        Vial: 92
Acq On    : 17 Mar 2016  10:39 am                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID2B.CH        Vial: 92
Acq On    : 17 Mar 2016  10:54 am                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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	Methanol	17.453	15.660	10.3	85	0.00	1.31- 1.49
2	Ethanol	22.440	22.702	-1.2	96	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	36.852	-8.1	102	0.00	2.45- 2.54
4	1-Propanol	29.066	31.171	-7.2	101	0.00	2.94- 3.01
5	2-Propanol	24.580	25.641	-4.3	97	0.00	2.17- 2.26
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	36.787	-8.7	103	0.00	3.75- 3.84
8	1-Butanol	33.426	32.720	2.1	96	0.00	4.17- 4.26
9	2-Butanol	30.706	33.330	-8.5	106	0.00	3.36- 3.45
10 S	Hexanol	127.542	122.573	3.9	98	0.00	5.84- 5.90

***** Signal #2 *****

1	Methanol	17.364	15.656	9.8	91	0.00	0.75- 0.81
2	Ethanol	22.062	24.115	-9.3	105	0.00	0.97- 1.03
3	Tert-Butyl Alcohol	31.985	37.406	-16.9	116	0.00	1.40- 1.46
4	1-Propanol	28.748	32.420	-12.8	107	0.00	1.71- 1.77
5	2-Propanol	23.330	26.641	-14.2	113	0.00	1.19- 1.25
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	39.197	-21.5#	122	0.00	2.62- 2.68
8	1-Butanol	35.477	35.472	0.0	111	0.00	3.11- 3.17
9	2-Butanol	28.637	33.141	-15.7	114	0.00	2.24- 2.30
10 S	Hexanol	127.519	129.238	-1.3	106	0.00	5.24- 5.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Thu Mar 17 13:06:17 2016 GCGH

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5211-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103784.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103784.D\FID1A.CH        Vial: 95
Acq On    : 17 Mar 2016   1:56 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID2B.CH        Vial: 95
Acq On    : 17 Mar 2016   2:11 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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	Methanol	17.453	15.256	12.6	90	0.00	1.32- 1.49
2	Ethanol	22.440	20.526	8.5	87	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	31.434	7.8	90	0.00	2.45- 2.54
4	1-Propanol	29.066	28.039	3.5	94	0.00	2.94- 3.01
5	2-Propanol	24.580	21.580	12.2	86	0.00	2.17- 2.26
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	34.781	-2.8	99	0.00	3.74- 3.84
8	1-Butanol	33.426	32.180	3.7	95	0.00	4.16- 4.26
9	2-Butanol	30.706	29.883	2.7	96	0.00	3.36- 3.45
10 S	Hexanol	127.542	125.961	1.2	100	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	15.317	11.8	90	0.00	0.75- 0.81
2	Ethanol	22.062	22.326	-1.2	98	0.00	0.97- 1.03
3	Tert-Butyl Alcohol	31.985	34.045	-6.4	103	0.00	1.40- 1.46
4	1-Propanol	28.748	31.231	-8.6	107	0.00	1.70- 1.76
5	2-Propanol	23.330	24.191	-3.7	101	0.00	1.19- 1.25
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	34.713	-7.6	103	0.00	2.62- 2.68
8	1-Butanol	35.477	32.773	7.6	100	0.00	3.11- 3.17
9	2-Butanol	28.637	29.555	-3.2	99	0.00	2.24- 2.30
10 S	Hexanol	127.519	132.252	-3.7	107	0.00	5.24- 5.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103538.D MGH5193.M Fri Mar 18 08:10:02 2016 GCGH

10.7.4 10

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5211-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103791.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103791.D\FID1A.CH        Vial: 95
Acq On    : 17 Mar 2016   4:08 pm                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID2B.CH        Vial: 95
Acq On    : 17 Mar 2016   4:23 pm                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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	Methanol	17.453	14.077	19.3	76	0.00	1.32- 1.49
2	Ethanol	22.440	21.445	4.4	90	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	36.207	-6.2	100	0.00	2.45- 2.54
4	1-Propanol	29.066	32.783	-12.8	106	0.00	2.94- 3.01
5	2-Propanol	24.580	23.529	4.3	89	0.00	2.17- 2.26
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	43.601	-28.8#	123	0.00	3.74- 3.84
8	1-Butanol	33.426	33.021	1.2	97	0.00	4.16- 4.26
9	2-Butanol	30.706	29.296	4.6	93	0.00	3.36- 3.45
10 S	Hexanol	127.542	116.052	9.0	92	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	17.661	-1.7	103	0.00	0.75- 0.81
2	Ethanol	22.062	25.277	-14.6	110	0.00	0.97- 1.03
3	Tert-Butyl Alcohol	31.985	37.300	-16.6	116	0.00	1.40- 1.46
4	1-Propanol	28.748	32.743	-13.9	108	0.00	1.70- 1.76
5	2-Propanol	23.330	27.041	-15.9	115	0.00	1.19- 1.25
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	37.273	-15.6	116	0.00	2.62- 2.68
8	1-Butanol	35.477	37.665	-6.2	118	0.00	3.10- 3.16
9	2-Butanol	28.637	34.006	-18.7	117	0.00	2.24- 2.30
10 S	Hexanol	127.519	126.456	0.8	103	0.00	5.24- 5.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Fri Mar 18 09:05:29 2016 GCGH

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5211-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103800.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103800.D\FID1A.CH        Vial: 8
Acq On    : 17 Mar 2016   6:26 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103800.D\FID2B.CH        Vial: 8
Acq On    : 17 Mar 2016   6:40 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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		Methanol	17.453	15.283	12.4	90	0.00	1.32- 1.49
2		Ethanol	22.440	21.959	2.1	93	0.00	1.79- 1.88
3		Tert-Butyl Alcohol	34.092	33.388	2.1	95	0.00	2.45- 2.55
4		1-Propanol	29.066	29.305	-0.8	98	0.00	2.94- 3.01
5		2-Propanol	24.580	23.199	5.6	93	0.00	2.17- 2.26
6		Propionitrile		----------NA----------				
7		Isobutanol	33.839	35.942	-6.2	103	0.00	3.75- 3.84
8		1-Butanol	33.426	33.319	0.3	98	0.00	4.17- 4.26
9		2-Butanol	30.706	30.618	0.3	98	0.00	3.36- 3.45
10	S	Hexanol	127.542	119.275	6.5	94	0.00	5.83- 5.89

***** Signal #2 *****

1		Methanol	17.364	16.998	2.1	99	0.00	0.74- 0.80
2		Ethanol	22.062	24.227	-9.8	106	0.00	0.96- 1.02
3		Tert-Butyl Alcohol	31.985	35.361	-10.6	107	0.00	1.40- 1.46
4		1-Propanol	28.748	31.472	-9.5	107	0.00	1.70- 1.76
5		2-Propanol	23.330	25.893	-11.0	108	0.00	1.19- 1.25
6		Propionitrile		----------NA----------				
7		Isobutanol	32.255	37.329	-15.7	111	0.00	2.61- 2.67
8		1-Butanol	35.477	34.660	2.3	106	0.00	3.11- 3.17
9		2-Butanol	28.637	31.704	-10.7	106	0.00	2.24- 2.30
10	S	Hexanol	127.519	129.056	-1.2	104	0.00	5.24- 5.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103538.D MGH5193.M Fri Mar 18 09:03:52 2016 GCGH

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5213-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103816.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103816.D\FID1A.CH         Vial: 94
Acq On    : 18 Mar 2016   2:58 pm                    Operator: XULIU
Sample    : CC5193-5000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103816.D\FID2B.CH         Vial: 94
Acq On    : 18 Mar 2016   3:19 pm                    Operator: XULIU
Sample    : CC5193-5000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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	Methanol	17.453	16.109	7.7	87	0.00	1.31- 1.49
2	Ethanol	22.440	22.449	-0.0	95	0.00	1.78- 1.88
3	Tert-Butyl Alcohol	34.092	32.674	4.2	90	0.00	2.45- 2.54
4	1-Propanol	29.066	28.444	2.1	92	0.00	2.93- 3.00
5	2-Propanol	24.580	23.825	3.1	90	0.00	2.16- 2.25
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	29.306	13.4	82	0.00	3.73- 3.82
8	1-Butanol	33.426	29.499	11.7	86	0.00	4.15- 4.24
9	2-Butanol	30.706	28.332	7.7	90	0.00	3.35- 3.44
10 S	Hexanol	127.542	114.876	9.9	92	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	16.165	6.9	94	0.00	0.76- 0.82
2	Ethanol	22.062	24.093	-9.2	105	0.00	0.98- 1.04
3	Tert-Butyl Alcohol	31.985	33.461	-4.6	104	0.00	1.42- 1.48
4	1-Propanol	28.748	30.269	-5.3	99	0.00	1.73- 1.79
5	2-Propanol	23.330	25.246	-8.2	107	0.00	1.21- 1.27
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	33.902	-5.1	105	0.00	2.66- 2.72
8	1-Butanol	35.477	28.421	19.9	89	0.00	3.15- 3.21
9	2-Butanol	28.637	29.192	-1.9	100	0.00	2.28- 2.34
10 S	Hexanol	127.519	115.144	9.7	94	0.00	5.27- 5.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Sun Mar 20 08:16:52 2016 GCGH

10.7.7 10

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5213-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103827.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103827.D\FID1A.CH        Vial: 95
Acq On    : 18 Mar 2016   6:38 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103827.D\FID2B.CH        Vial: 95
Acq On    : 18 Mar 2016   6:52 pm                   Operator: XULIU
Sample    : CC5193-10000                            Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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	Methanol	17.453	15.465	11.4	91	0.00	1.32- 1.49
2	Ethanol	22.440	22.573	-0.6	96	0.00	1.79- 1.88
3	Tert-Butyl Alcohol	34.092	31.243	8.4	89	0.00	2.46- 2.55
4	1-Propanol	29.066	31.079	-6.9	104	0.00	2.94- 3.01
5	2-Propanol	24.580	22.336	9.1	89	0.00	2.17- 2.26
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	34.440	-1.8	98	0.00	3.74- 3.83
8	1-Butanol	33.426	31.460	5.9	93	0.00	4.16- 4.25
9	2-Butanol	30.706	30.440	0.9	97	0.00	3.36- 3.45
10 S	Hexanol	127.542	130.559	-2.4	103	0.00	5.83- 5.89

***** Signal #2 *****

1	Methanol	17.364	16.565	4.6	97	0.00	0.76- 0.82
2	Ethanol	22.062	23.900	-8.3	105	0.00	0.98- 1.04
3	Tert-Butyl Alcohol	31.985	35.518	-11.0	107	0.00	1.42- 1.48
4	1-Propanol	28.748	30.976	-7.8	106	0.00	1.73- 1.79
5	2-Propanol	23.330	25.890	-11.0	108	0.00	1.21- 1.27
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	35.482	-10.0	105	0.00	2.66- 2.72
8	1-Butanol	35.477	33.940	4.3	104	0.00	3.15- 3.21
9	2-Butanol	28.637	30.889	-7.9	103	0.00	2.28- 2.34
10 S	Hexanol	127.519	132.186	-3.7	107	0.00	5.25- 5.35

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103538.D MGH5193.M Sun Mar 20 07:49:03 2016 GCGH

Continuing Calibration Summary

Job Number: JC16038 **Sample:** GGH5213-CC5193
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH103835.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH103835.D\FID1A.CH        Vial: 93
Acq On    : 18 Mar 2016   8:33 pm                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103835.D\FID2B.CH        Vial: 93
Acq On    : 18 Mar 2016   8:55 pm                   Operator: XULIU
Sample    : CC5193-5000                             Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
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	Methanol	17.453	14.960	14.3	81	0.00	1.36- 1.53
2	Ethanol	22.440	20.231	9.8	85	0.00	1.83- 1.92
3	Tert-Butyl Alcohol	34.092	32.621	4.3	90	0.00	2.48- 2.57
4	1-Propanol	29.066	28.807	0.9	93	0.00	2.96- 3.03
5	2-Propanol	24.580	20.891	15.0	79	0.00	2.20- 2.29
6	Propionitrile		----------NA----------				
7	Isobutanol	33.839	34.733	-2.6	98	0.00	3.75- 3.84
8	1-Butanol	33.426	28.418	15.0	83	0.00	4.17- 4.26
9	2-Butanol	30.706	30.511	0.6	97	0.00	3.37- 3.46
10 S	Hexanol	127.542	109.961	13.8	88	0.00	5.83- 5.89
*****	Signal #2 *****						
1	Methanol	17.364	16.930	2.5	98	0.00	0.76- 0.82
2	Ethanol	22.062	24.402	-10.6	106	0.00	0.98- 1.04
3	Tert-Butyl Alcohol	31.985	35.088	-9.7	109	0.00	1.42- 1.48
4	1-Propanol	28.748	31.117	-8.2	102	0.00	1.73- 1.79
5	2-Propanol	23.330	25.835	-10.7	110	0.00	1.21- 1.27
6	Propionitrile		----------NA----------				
7	Isobutanol	32.255	34.250	-6.2	107	0.00	2.66- 2.72
8	1-Butanol	35.477	34.516	2.7	108	0.00	3.15- 3.21
9	2-Butanol	28.637	30.465	-6.4	104	0.00	2.28- 2.34
10 S	Hexanol	127.519	125.625	1.5	103	0.00	5.25- 5.35

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH103541.D MGH5193.M Sun Mar 20 08:21:00 2016 GCGH

10.7.9 10

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103819.D\FID1A.CH          Vial: 1
Acq On    : 18 Mar 2016   4:35 pm                     Operator: XULIU
Sample    : JC16038-1                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103819.D\FID2B.CH          Vial: 1
Acq On    : 18 Mar 2016   4:49 pm                     Operator: XULIU
Sample    : JC16038-1                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.31    477585   493956 3744.538  3873.579
  Spiked Amount   5000.000                 Recovery     =   74.89%    77.47%

Target Compounds
```

11.1.1

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103819.D  MGH5193.M      Sun Mar 20 07:34:39 2016      GCGH
```

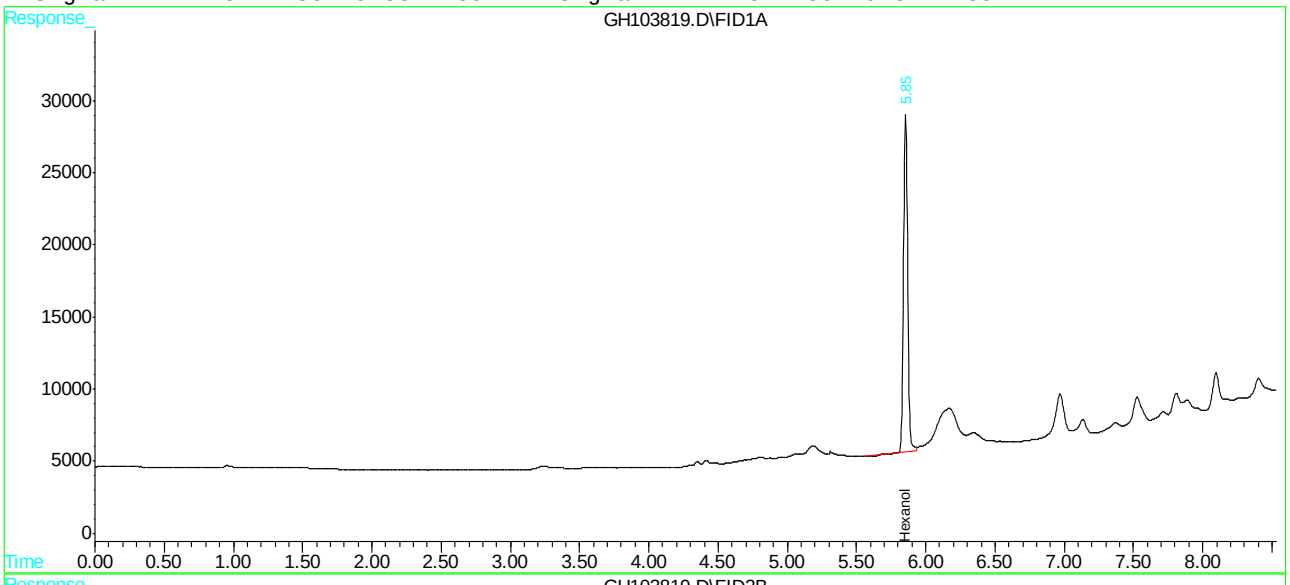
Quantitation Report (QT Reviewed)

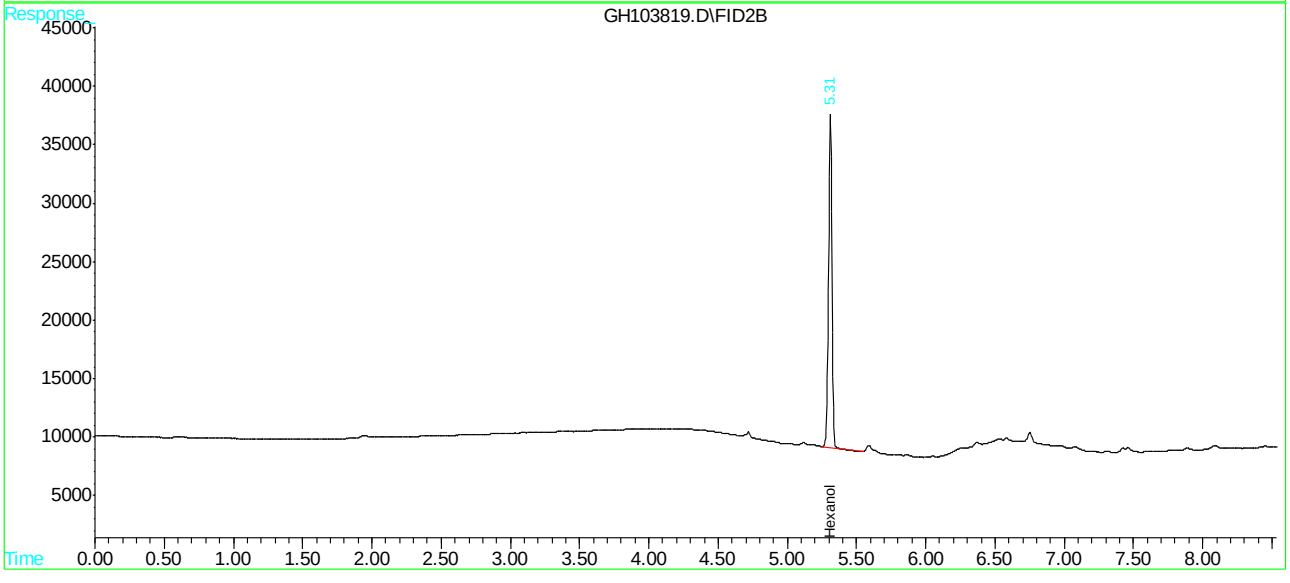
```
Data File : C:\HPCHEM\1\DATA\GH103819.D\FID1A.CH          Vial: 1
Acq On    : 18 Mar 2016   4:35 pm                     Operator: XULIU
Sample    : JC16038-1                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103819.D\FID2B.CH          Vial: 1
Acq On    : 18 Mar 2016   4:49 pm                     Operator: XULIU
Sample    : JC16038-1                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103822.D\FID1A.CH          Vial: 4
Acq On    : 18 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC16038-2                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103822.D\FID2B.CH          Vial: 4
Acq On    : 18 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC16038-2                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:20 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    597374   595718 4683.758  4671.593
  Spiked Amount   5000.000                  Recovery     =   93.68%    93.43%

Target Compounds
```

11.1.2

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103822.D  MGH5193.M      Sun Mar 20 07:35:22 2016      GCGH
```


SGS ACCUTEST JC16038

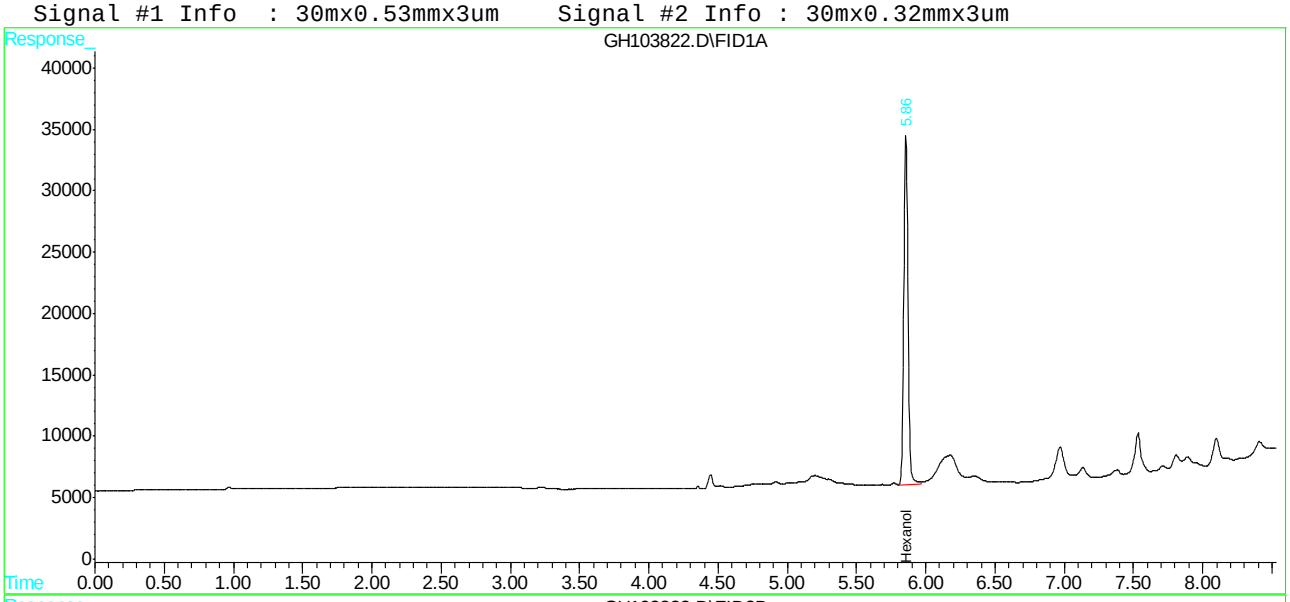
Quantitation Report (QT Reviewed)

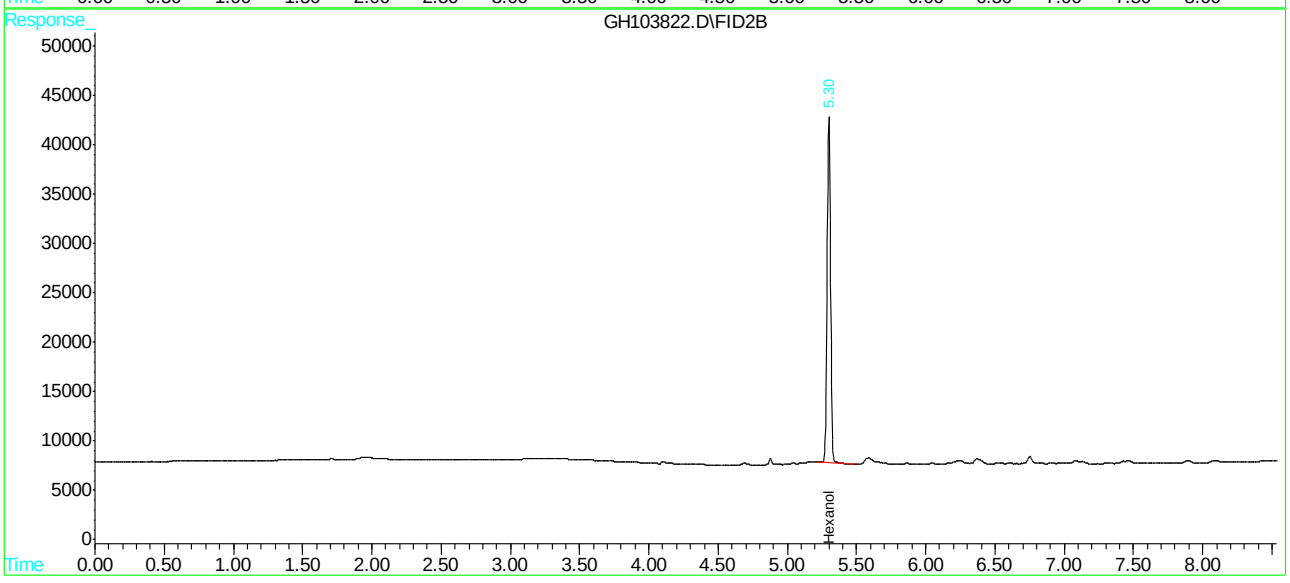
```
Data File : C:\HPCHEM\1\DATA\GH103822.D\FID1A.CH          Vial: 4
Acq On    : 18 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC16038-2                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103822.D\FID2B.CH          Vial: 4
Acq On    : 18 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC16038-2                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:20 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103823.D\FID1A.CH          Vial: 5
Acq On    : 18 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC16038-3                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103823.D\FID2B.CH          Vial: 5
Acq On    : 18 Mar 2016   5:47 pm                     Operator: XULIU
Sample    : JC16038-3                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:20 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    579679   592473 4545.014  4646.141
  Spiked Amount   5000.000                  Recovery     =   90.90%    92.92%

Target Compounds
```

11.1.3

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103823.D  MGH5193.M      Sun Mar 20 07:35:33 2016      GCGH
```

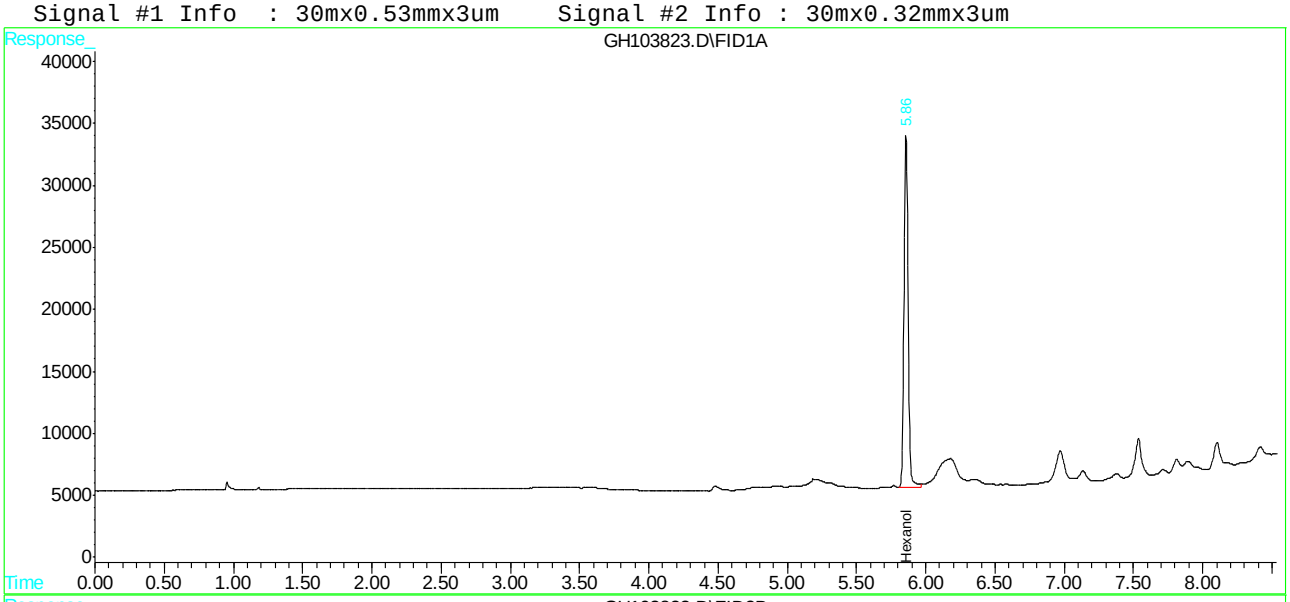
Quantitation Report (QT Reviewed)

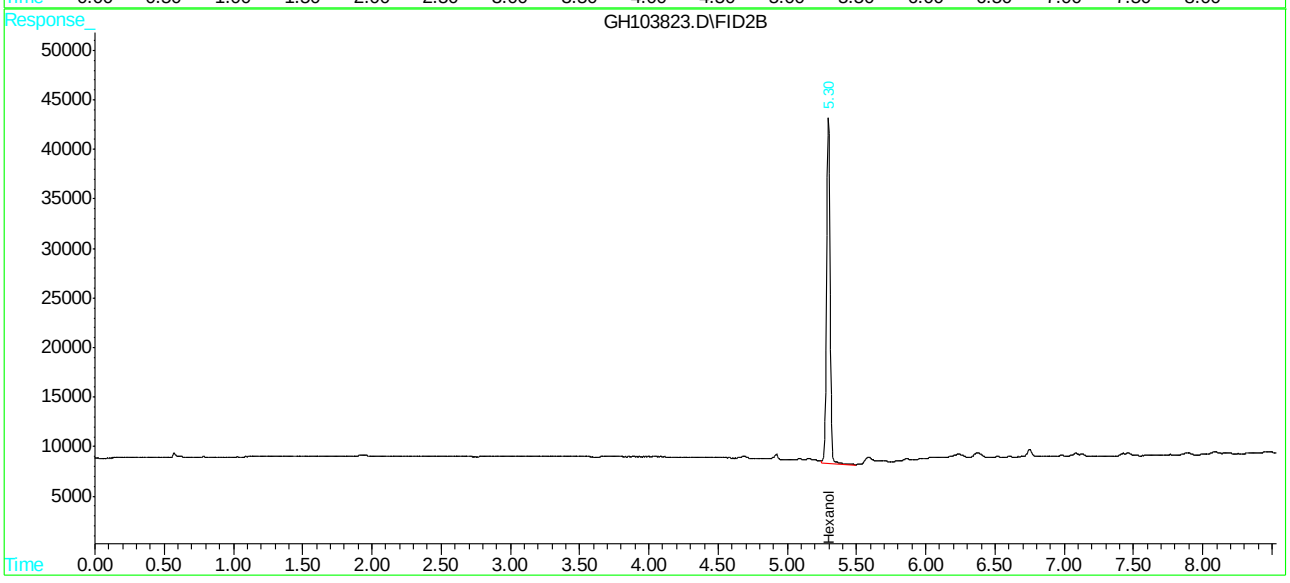
```
Data File : C:\HPCHEM\1\DATA\GH103823.D\FID1A.CH          Vial: 5
Acq On    : 18 Mar 2016   5:33 pm                     Operator: XULIU
Sample    : JC16038-3                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103823.D\FID2B.CH          Vial: 5
Acq On    : 18 Mar 2016   5:47 pm                     Operator: XULIU
Sample    : JC16038-3                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:20 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103824.D\FID1A.CH          Vial: 6
Acq On    : 18 Mar 2016   5:47 pm                     Operator: XULIU
Sample    : JC16038-4                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103824.D\FID2B.CH          Vial: 6
Acq On    : 18 Mar 2016   6:02 pm                     Operator: XULIU
Sample    : JC16038-4                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:35 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    616399   639013 4832.921  5011.109
  Spiked Amount   5000.000                  Recovery     =   96.66%   100.22%

Target Compounds
```

11.1.4

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103824.D  MGH5193.M      Sun Mar 20 07:35:48 2016      GCGH
```

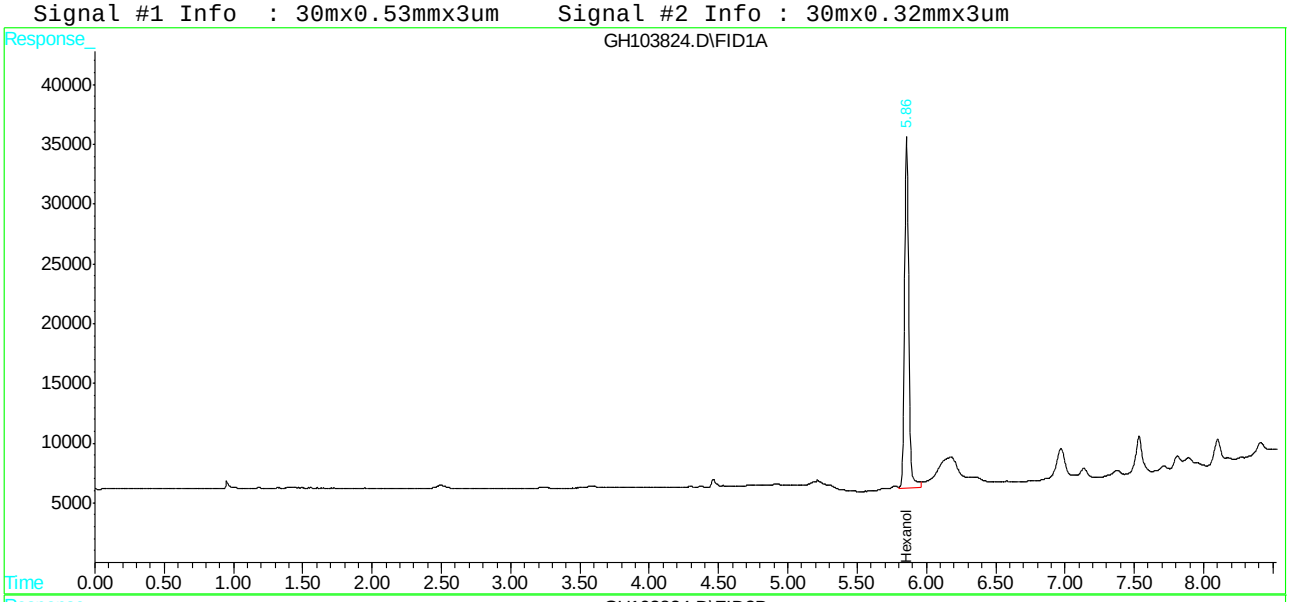
Quantitation Report (QT Reviewed)

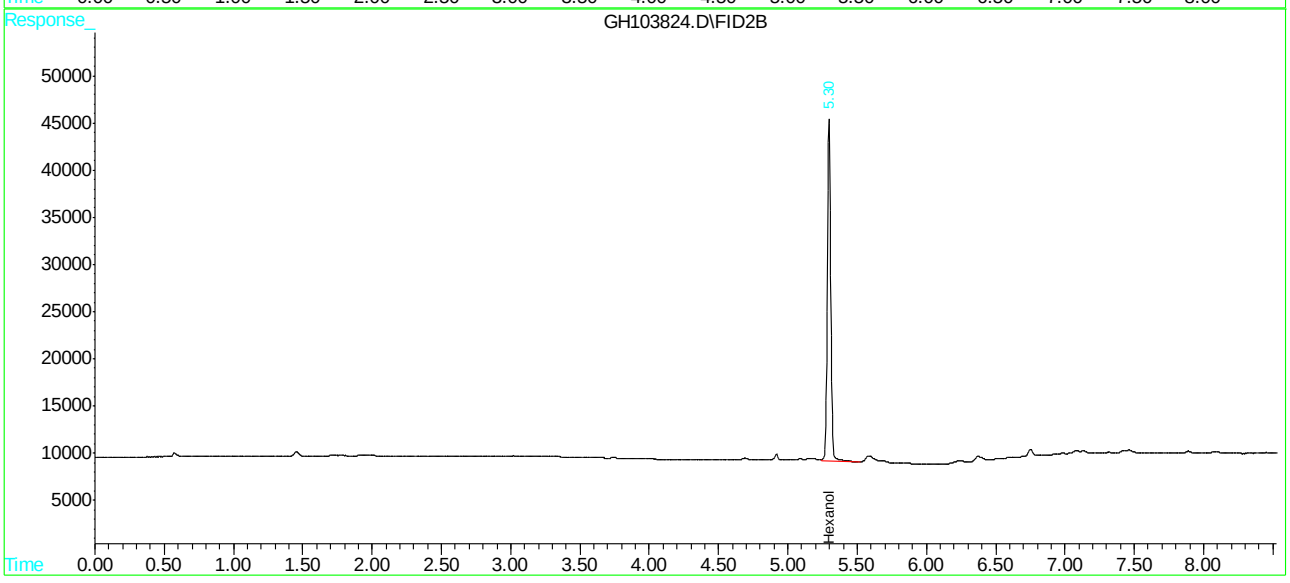
Data File : C:\HPCHEM\1\DATA\GH103824.D\FID1A.CH Vial: 6
Acq On : 18 Mar 2016 5:47 pm Operator: XULIU
Sample : JC16038-4 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103824.D\FID2B.CH Vial: 6
Acq On : 18 Mar 2016 6:02 pm Operator: XULIU
Sample : JC16038-4 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 7:35 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103825.D\FID1A.CH          Vial: 7
Acq On    : 18 Mar 2016   6:02 pm                     Operator: XULIU
Sample    : JC16038-5                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103825.D\FID2B.CH          Vial: 7
Acq On    : 18 Mar 2016   6:23 pm                     Operator: XULIU
Sample    : JC16038-5                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:21 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    596229   612163 4674.779  4800.556
  Spiked Amount   5000.000                  Recovery     =   93.50%    96.01%

Target Compounds
```

11.1.5

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103825.D  MGH5193.M      Sun Mar 20 07:36:00 2016      GCGH
```

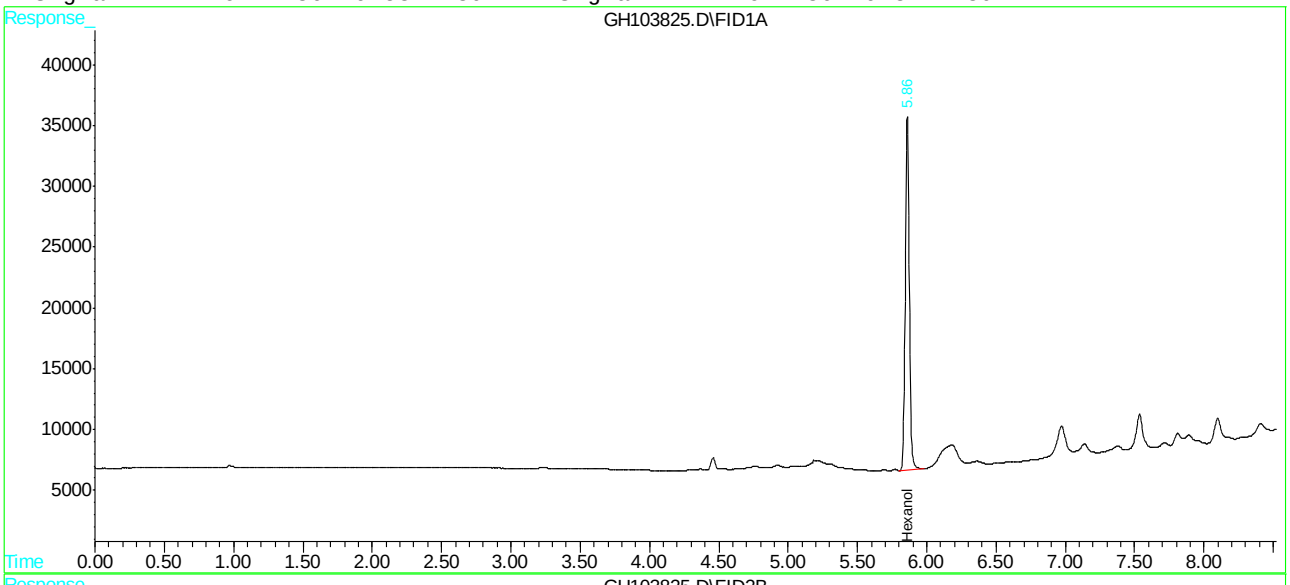
Quantitation Report (QT Reviewed)

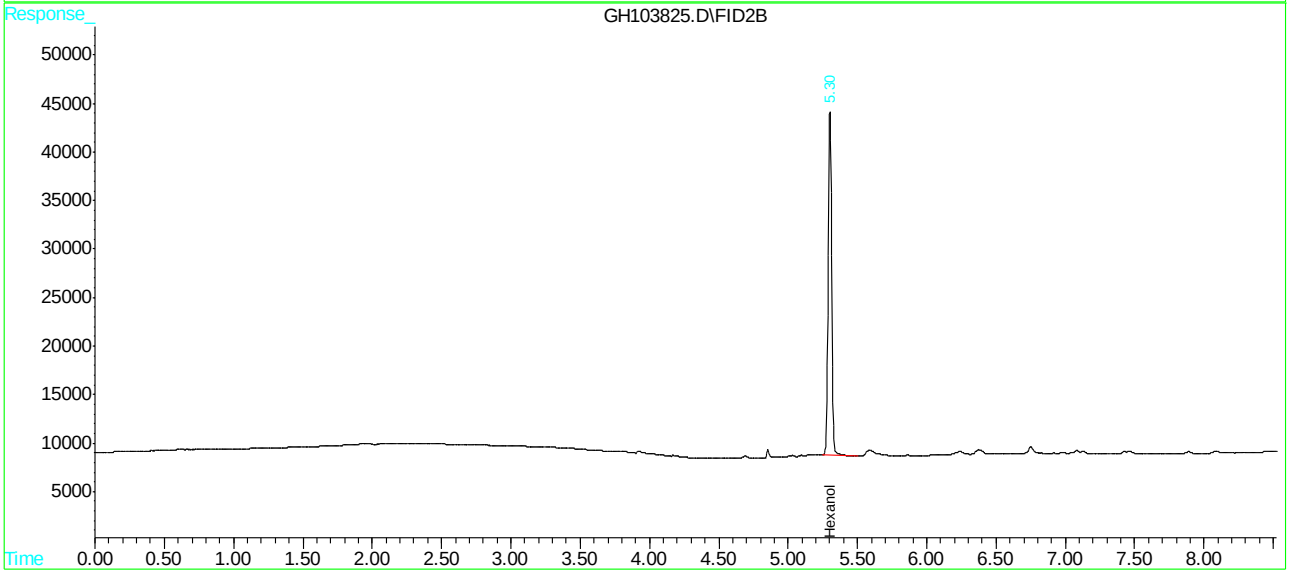
```
Data File : C:\HPCHEM\1\DATA\GH103825.D\FID1A.CH          Vial: 7
Acq On    : 18 Mar 2016   6:02 pm                     Operator: XULIU
Sample    : JC16038-5                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103825.D\FID2B.CH          Vial: 7
Acq On    : 18 Mar 2016   6:23 pm                     Operator: XULIU
Sample    : JC16038-5                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:21 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103826.D\FID1A.CH          Vial: 8
Acq On    : 18 Mar 2016   6:23 pm                     Operator: XULIU
Sample    : JC16038-6                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103826.D\FID2B.CH          Vial: 8
Acq On    : 18 Mar 2016   6:38 pm                     Operator: XULIU
Sample    : JC16038-6                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:21 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    599983   626183 4704.213  4910.496
  Spiked Amount   5000.000                  Recovery     =   94.08%    98.21%

Target Compounds
```

11.1.6

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103826.D  MGH5193.M      Sun Mar 20 07:36:11 2016      GCGH
```

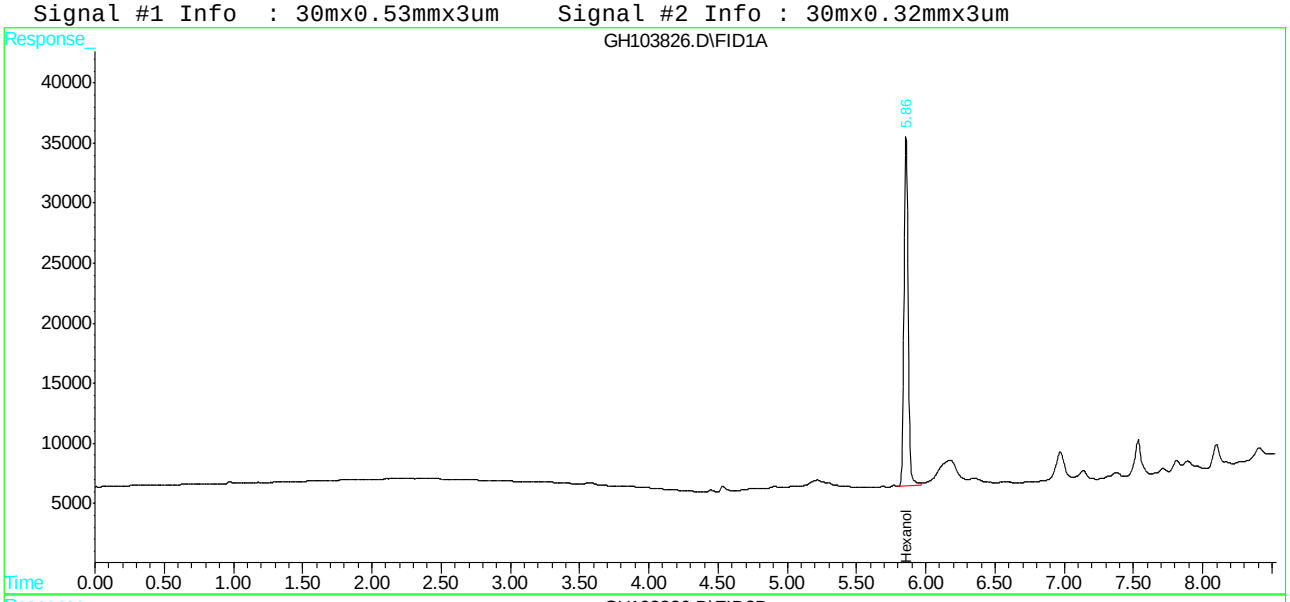
Quantitation Report (QT Reviewed)

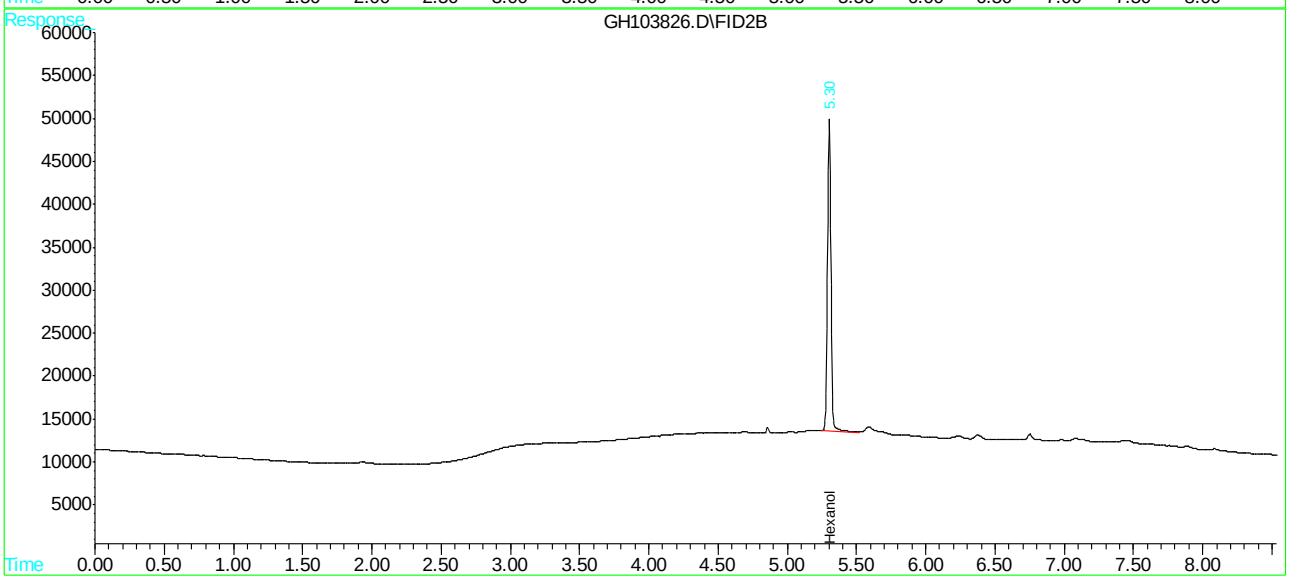
Data File : C:\HPCHEM\1\DATA\GH103826.D\FID1A.CH Vial: 8
Acq On : 18 Mar 2016 6:23 pm Operator: XULIU
Sample : JC16038-6 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103826.D\FID2B.CH Vial: 8
Acq On : 18 Mar 2016 6:38 pm Operator: XULIU
Sample : JC16038-6 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 7:21 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103829.D\FID1A.CH          Vial: 10
Acq On    : 18 Mar 2016   7:07 pm                     Operator: XULIU
Sample    : JC16038-7                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103829.D\FID2B.CH          Vial: 10
Acq On    : 18 Mar 2016   7:21 pm                     Operator: XULIU
Sample    : JC16038-7                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  8:00 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    578376   628139 4534.800  4925.838
  Spiked Amount   5000.000                  Recovery     =   90.70%    98.52%

Target Compounds
```

11.1.7

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103829.D  MGH5193.M      Sun Mar 20 08:08:08 2016      GCGH
```

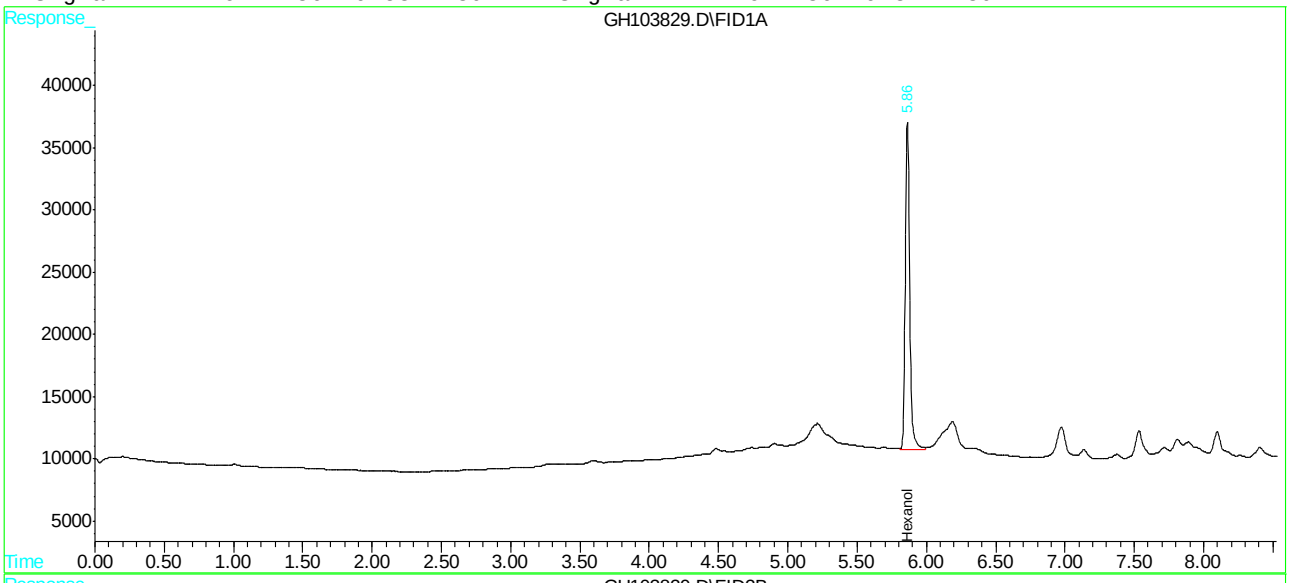
Quantitation Report (QT Reviewed)

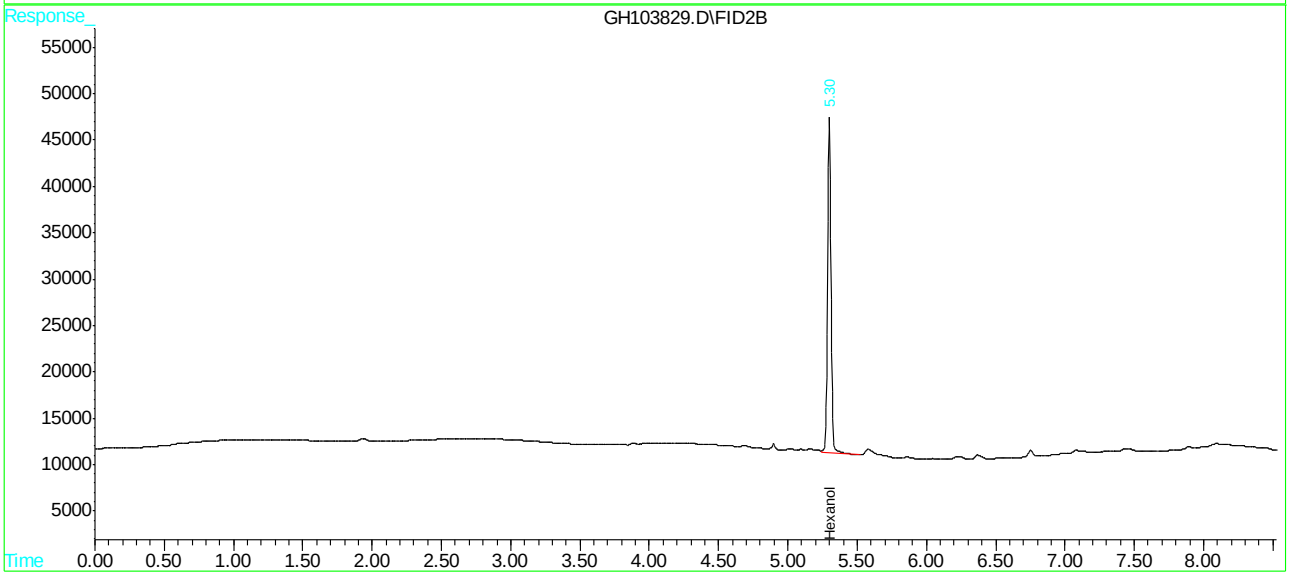
```
Data File : C:\HPCHEM\1\DATA\GH103829.D\FID1A.CH          Vial: 10
Acq On    : 18 Mar 2016   7:07 pm                     Operator: XULIU
Sample    : JC16038-7                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103829.D\FID2B.CH          Vial: 10
Acq On    : 18 Mar 2016   7:21 pm                     Operator: XULIU
Sample    : JC16038-7                                 Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  8:00 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103789.D\FID1A.CH          Vial: 28
Acq On    : 17 Mar 2016   3:13 pm                     Operator: XULIU
Sample    : JC16038-8                                 Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103789.D\FID2B.CH          Vial: 28
Acq On    : 17 Mar 2016   3:27 pm                     Operator: XULIU
Sample    : JC16038-8                                 Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:37 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 18 07:56:55 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.87   5.29    574695   625663 4505.941  4906.416
  Spiked Amount   5000.000                  Recovery     =   90.12%    98.13%

Target Compounds
```

11.1.8

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103789.D  MGH5193.M      Fri Mar 18 08:37:39 2016      GCGH
```

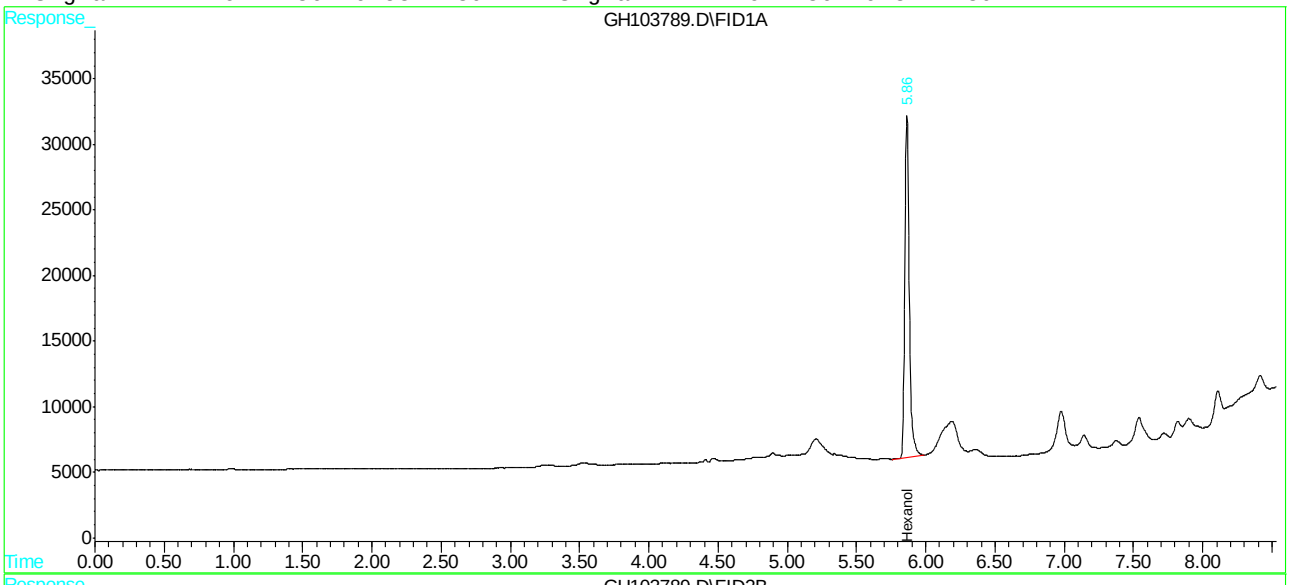
Quantitation Report (QT Reviewed)

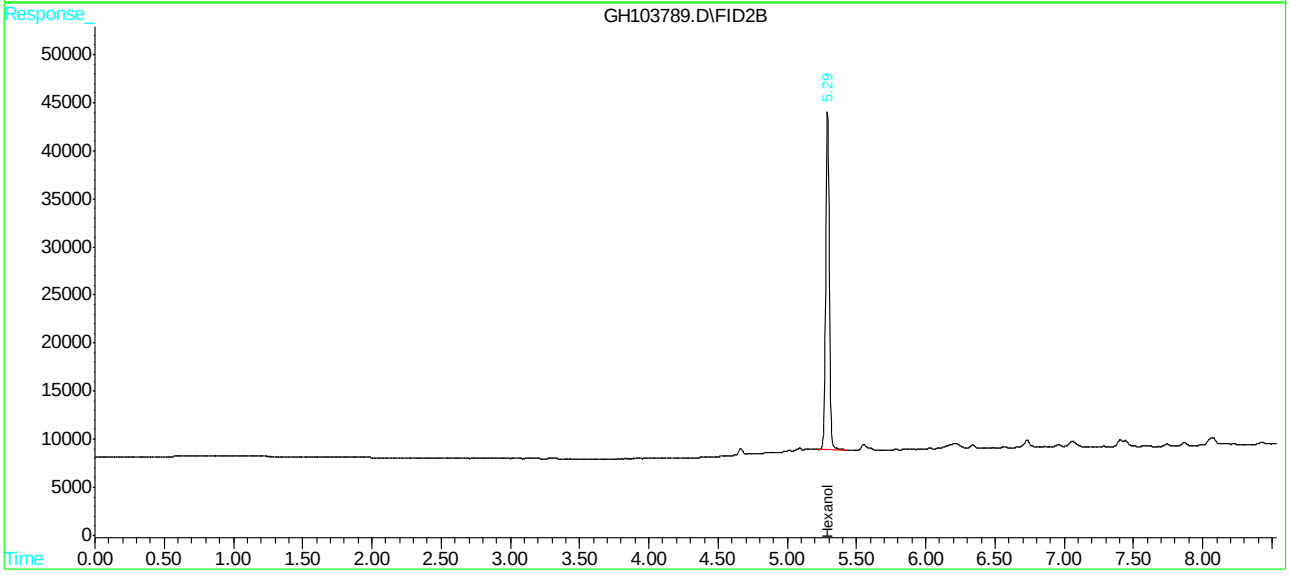
```
Data File : C:\HPCHEM\1\DATA\GH103789.D\FID1A.CH          Vial: 28
Acq On    : 17 Mar 2016   3:13 pm                     Operator: XULIU
Sample    : JC16038-8                                 Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103789.D\FID2B.CH          Vial: 28
Acq On    : 17 Mar 2016   3:27 pm                     Operator: XULIU
Sample    : JC16038-8                                 Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:37 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 18 07:56:55 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103799.D\FID1A.CH          Vial: 7
Acq On    : 17 Mar 2016   6:04 pm                     Operator: XULIU
Sample    : JC16038-9                                 Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103799.D\FID2B.CH          Vial: 7
Acq On    : 17 Mar 2016   6:26 pm                     Operator: XULIU
Sample    : JC16038-9                                 Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:43 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:47:14 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.87   5.29    574537   648116 4504.700  5082.495
  Spiked Amount   5000.000                  Recovery     =   90.09%   101.65%

Target Compounds
```

11.1.9

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103799.D  MGH5193.M      Fri Mar 18 09:12:11 2016      GCGH
```

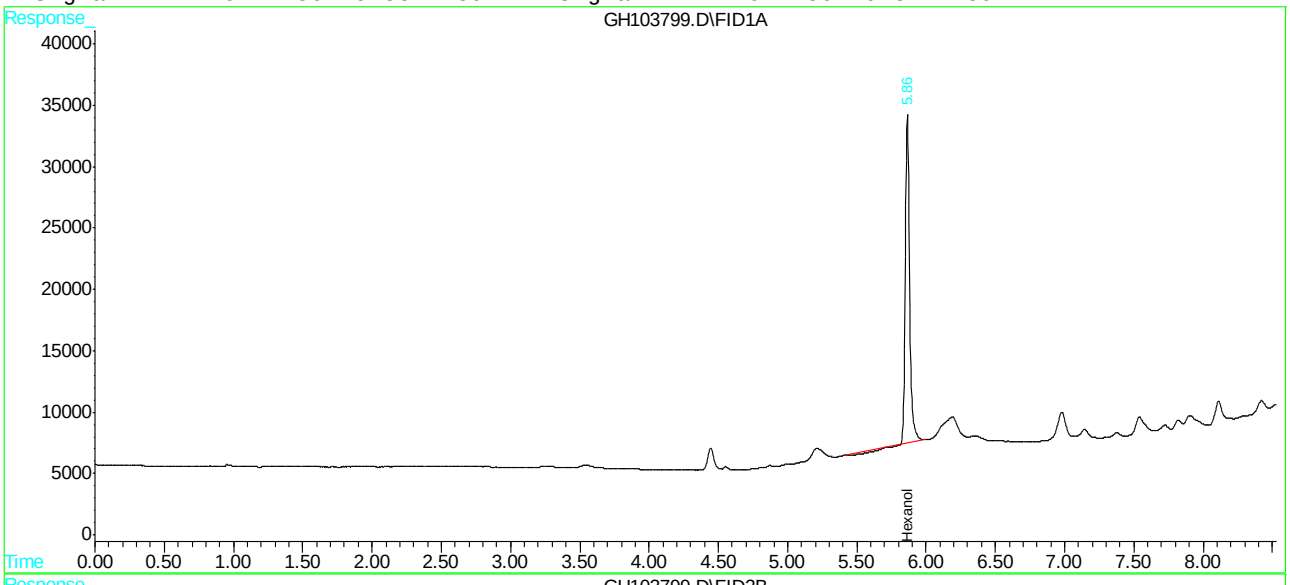
Quantitation Report (QT Reviewed)

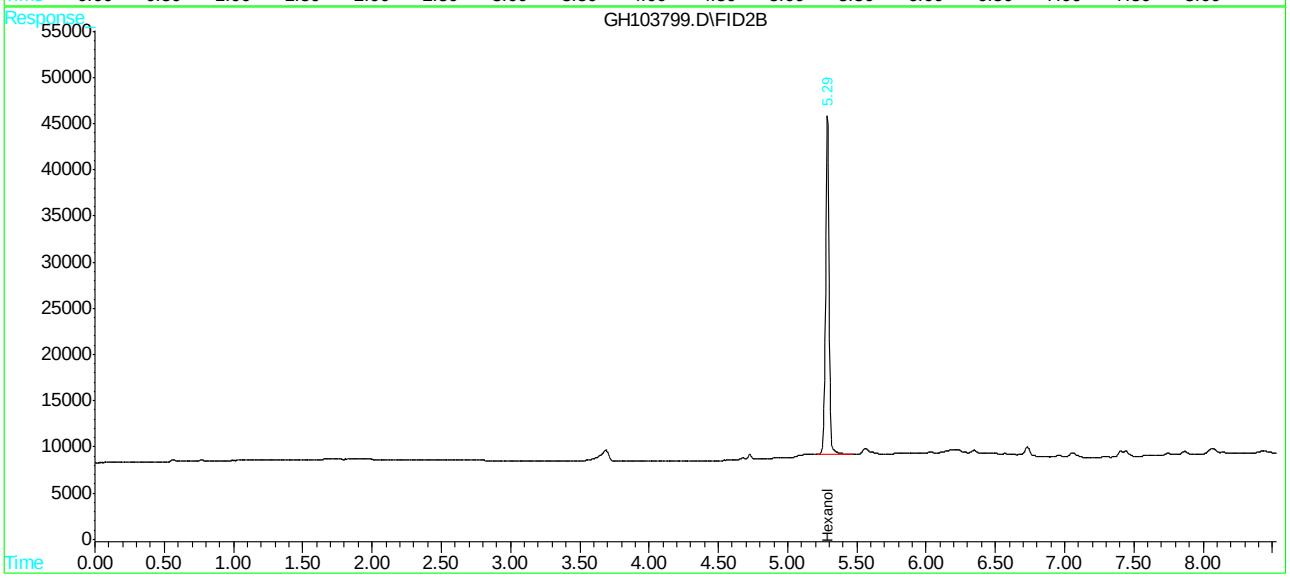
Data File : C:\HPCHEM\1\DATA\GH103799.D\FID1A.CH Vial: 7
Acq On : 17 Mar 2016 6:04 pm Operator: XULIU
Sample : JC16038-9 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103799.D\FID2B.CH Vial: 7
Acq On : 17 Mar 2016 6:26 pm Operator: XULIU
Sample : JC16038-9 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:43 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:47:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103788.D\FID1A.CH          Vial: 27
Acq On    : 17 Mar 2016   2:58 pm                     Operator: XULIU
Sample    : JC16038-10                                Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103788.D\FID2B.CH          Vial: 27
Acq On    : 17 Mar 2016   3:13 pm                     Operator: XULIU
Sample    : JC16038-10                                Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:37 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 18 07:56:55 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.87   5.29    542672   604680 4254.862  4741.868
  Spiked Amount   5000.000                  Recovery     =   85.10%    94.84%

Target Compounds
```

11.1.10

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103788.D  MGH5193.M      Fri Mar 18 08:37:17 2016      GCGH
```

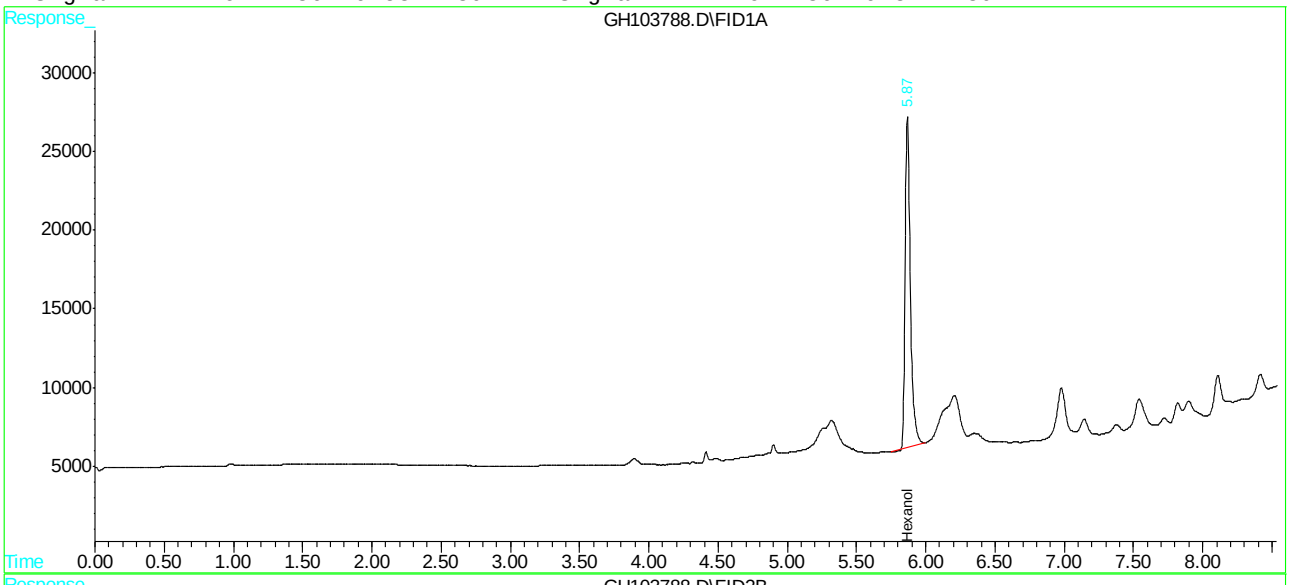
Quantitation Report (QT Reviewed)

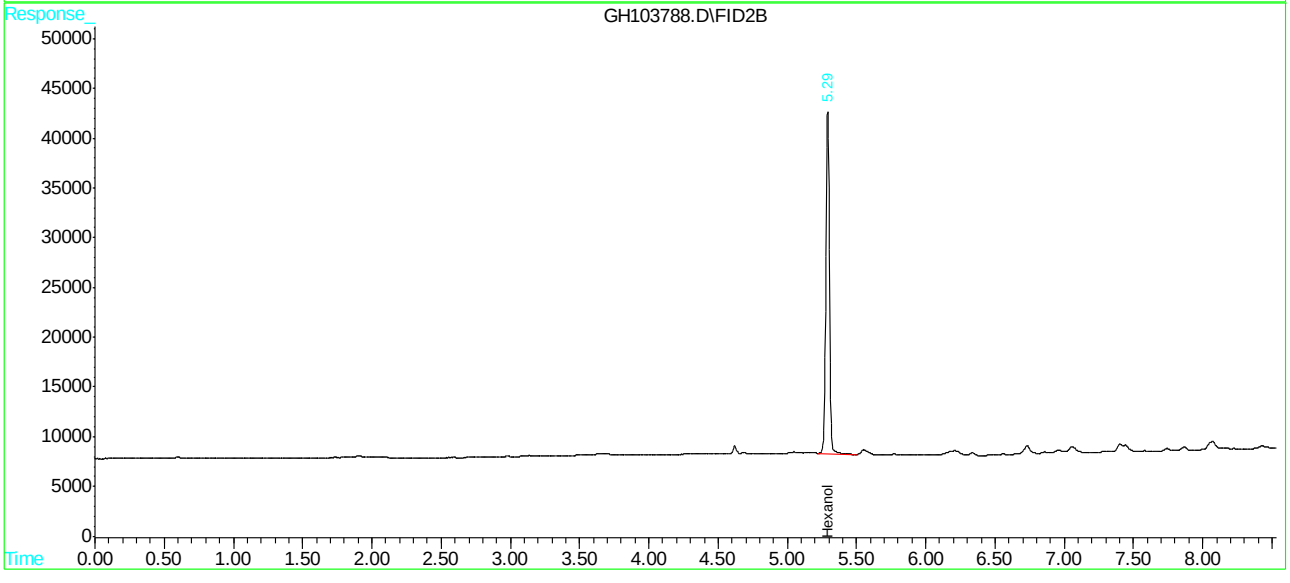
```
Data File : C:\HPCHEM\1\DATA\GH103788.D\FID1A.CH          Vial: 27
Acq On    : 17 Mar 2016   2:58 pm                     Operator: XULIU
Sample    : JC16038-10                                Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103788.D\FID2B.CH          Vial: 27
Acq On    : 17 Mar 2016   3:13 pm                     Operator: XULIU
Sample    : JC16038-10                                Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:37 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Fri Mar 18 07:56:55 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103785.D\FID1A.CH          Vial: 91
Acq On    : 17 Mar 2016   2:11 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103785.D\FID2B.CH          Vial: 91
Acq On    : 17 Mar 2016   2:29 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  7:38 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:47:14 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.87   5.29    571458   610194 4480.562  4785.110
  Spiked Amount   5000.000                  Recovery     =   89.61%    95.70%

Target Compounds
```

11.2.1

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103785.D  MGH5193.M      Fri Mar 18 08:36:15 2016      GCGH
```


SGS ACCUTEST JC16038

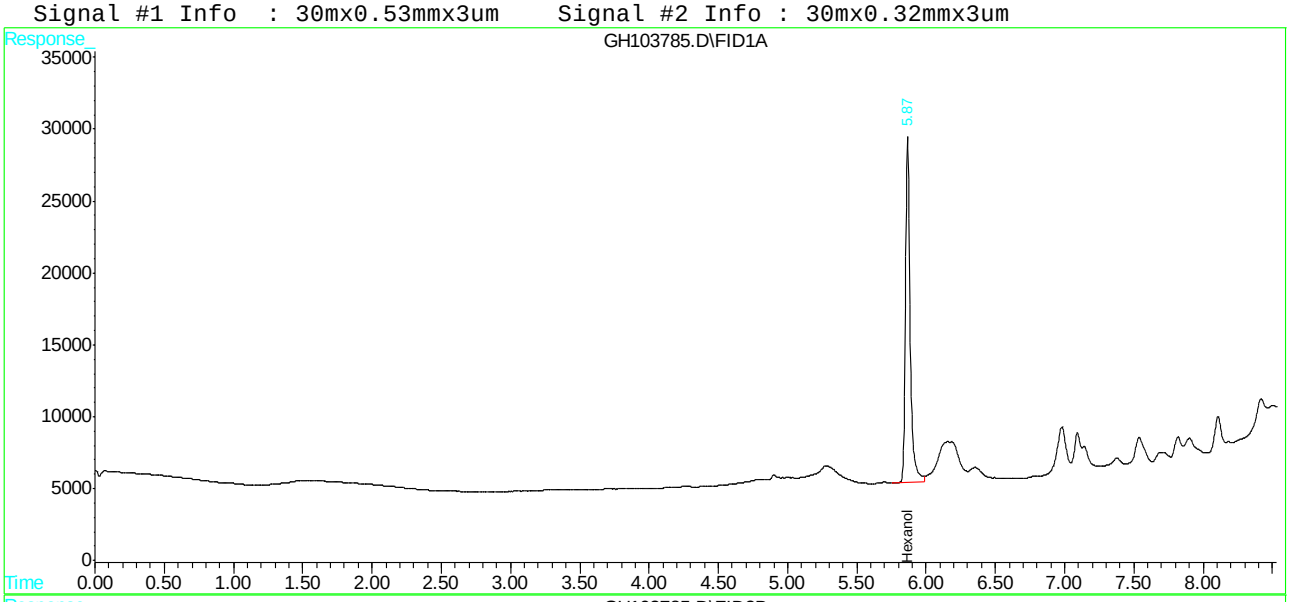
Quantitation Report (QT Reviewed)

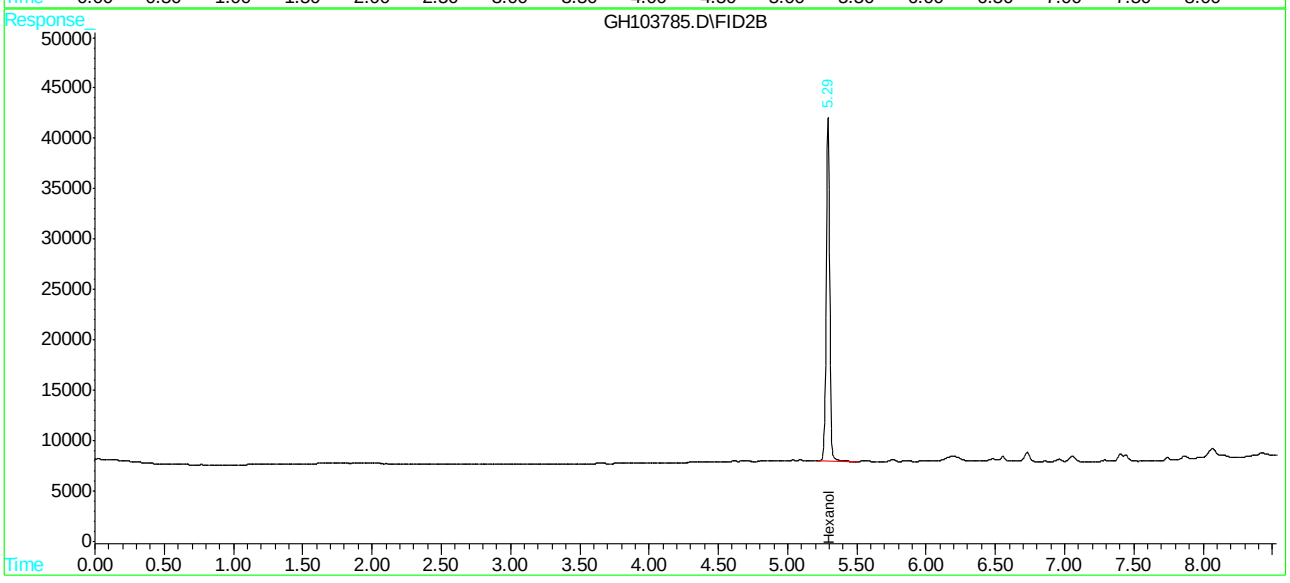
```
Data File : C:\HPCHEM\1\DATA\GH103785.D\FID1A.CH          Vial: 91
Acq On    : 17 Mar 2016   2:11 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103785.D\FID2B.CH          Vial: 91
Acq On    : 17 Mar 2016   2:29 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  7:38 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:47:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103792.D\FID1A.CH          Vial: 91
Acq On    : 17 Mar 2016   4:23 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103792.D\FID2B.CH          Vial: 91
Acq On    : 17 Mar 2016   4:37 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  7:39 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:47:14 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.87   5.29    542499   604519 4253.500  4740.606
  Spiked Amount   5000.000                  Recovery     =   85.07%    94.81%

Target Compounds
```

11.2.2

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103792.D  MGH5193.M      Fri Mar 18 08:38:22 2016      GCGH
```

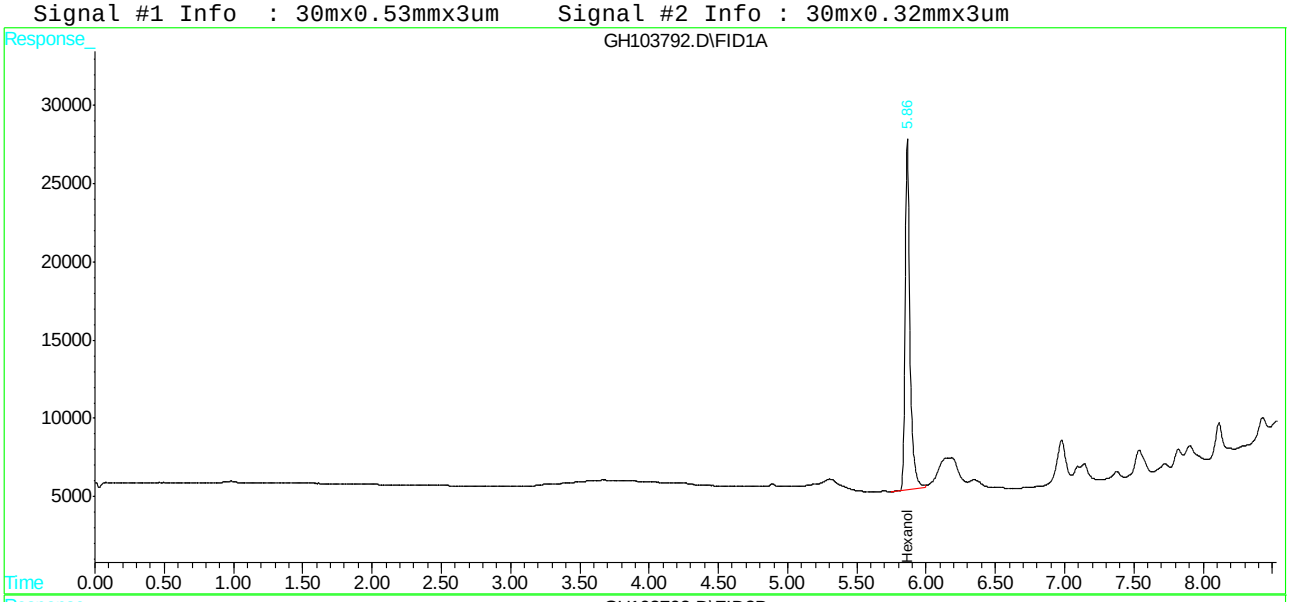
Quantitation Report (QT Reviewed)

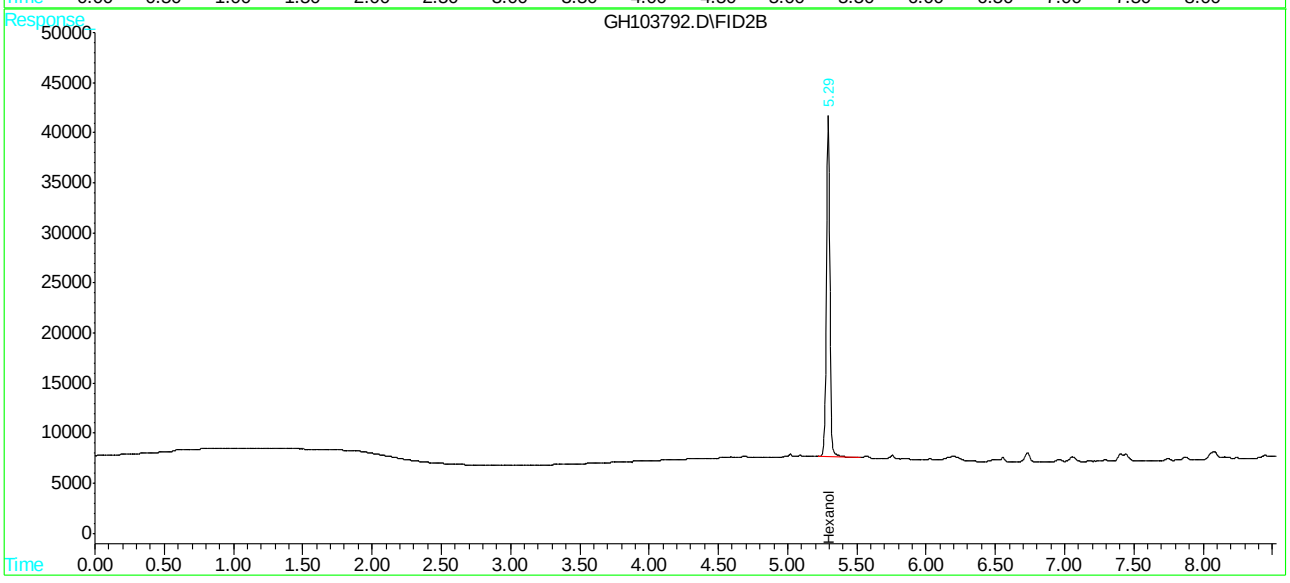
```
Data File : C:\HPCHEM\1\DATA\GH103792.D\FID1A.CH          Vial: 91
Acq On    : 17 Mar 2016   4:23 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103792.D\FID2B.CH          Vial: 91
Acq On    : 17 Mar 2016   4:37 pm                     Operator: XULIU
Sample    : MB3                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  7:39 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:47:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103817.D\FID1A.CH          Vial: 91
Acq On    : 18 Mar 2016   3:59 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103817.D\FID2B.CH          Vial: 91
Acq On    : 18 Mar 2016   4:21 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.31    558803   590141 4381.339  4627.857
  Spiked Amount   5000.000                  Recovery     =   87.63%    92.56%

Target Compounds
```

11.2.3

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103817.D  MGH5193.M      Sun Mar 20 07:34:11 2016      GCGH
```


SGS ACCUTEST JC16038

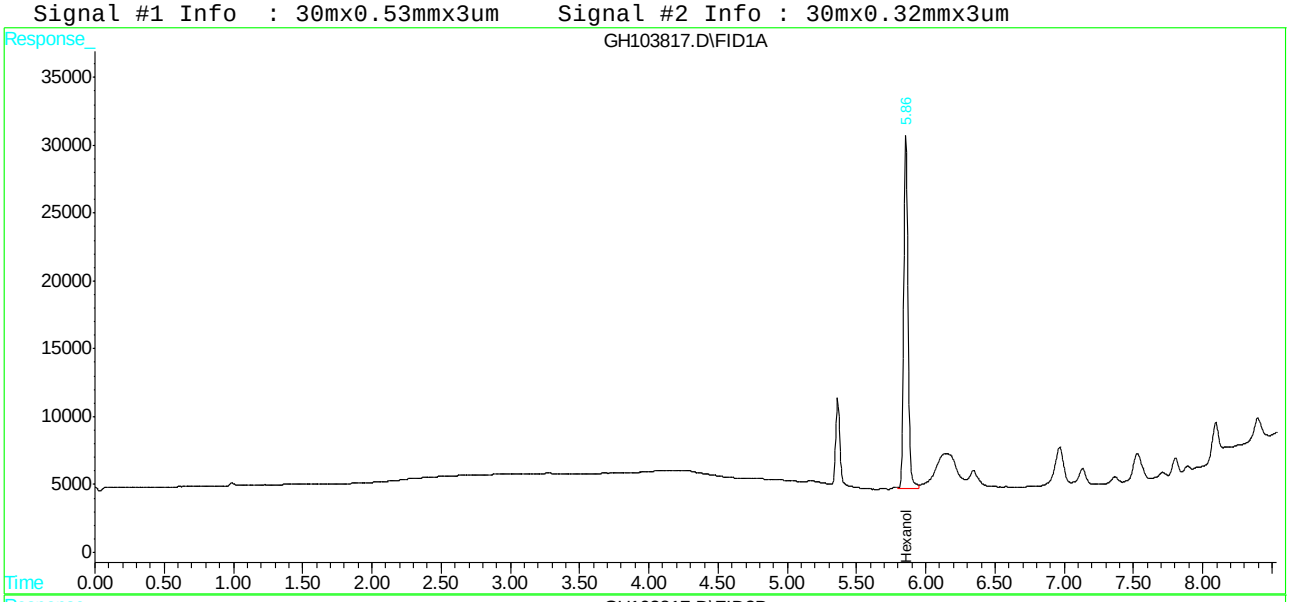
Quantitation Report (QT Reviewed)

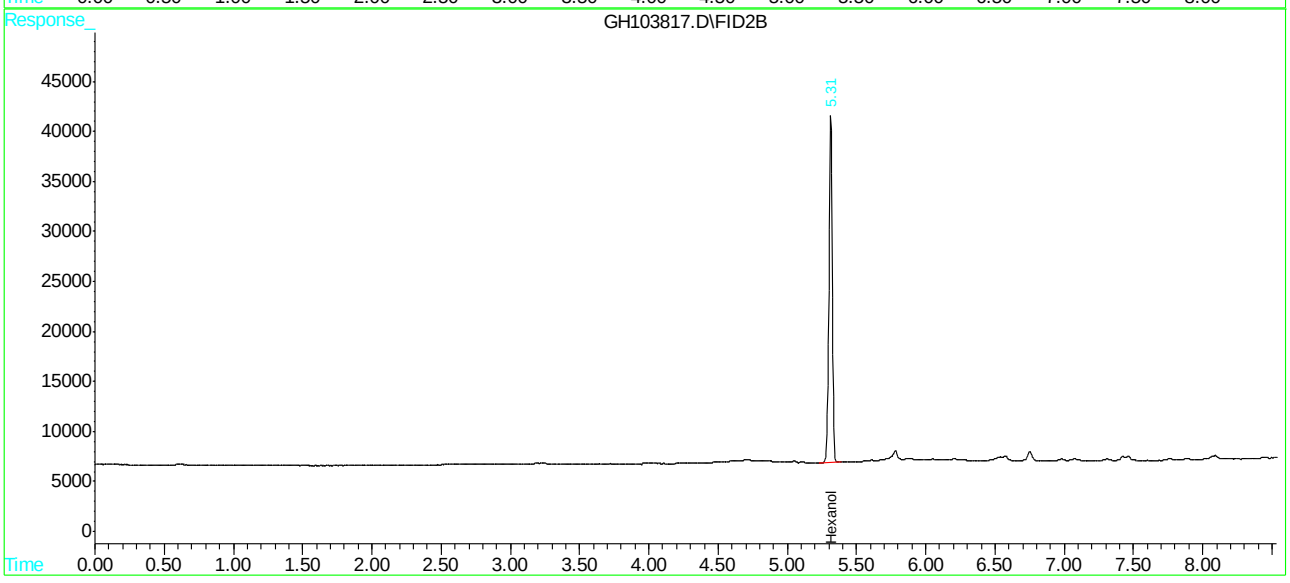
```
Data File : C:\HPCHEM\1\DATA\GH103817.D\FID1A.CH          Vial: 91
Acq On    : 18 Mar 2016   3:59 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103817.D\FID2B.CH          Vial: 91
Acq On    : 18 Mar 2016   4:21 pm                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103828.D\FID1A.CH          Vial: 91
Acq On    : 18 Mar 2016   6:52 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103828.D\FID2B.CH          Vial: 91
Acq On    : 18 Mar 2016   7:07 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.86   5.30    521868   628774 4091.748  4930.812
  Spiked Amount   5000.000                  Recovery     =   81.83%    98.62%

Target Compounds
```

11.2.4

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103828.D  MGH5193.M      Sun Mar 20 08:07:57 2016      GCGH
```


SGS ACCUTEST JC16038

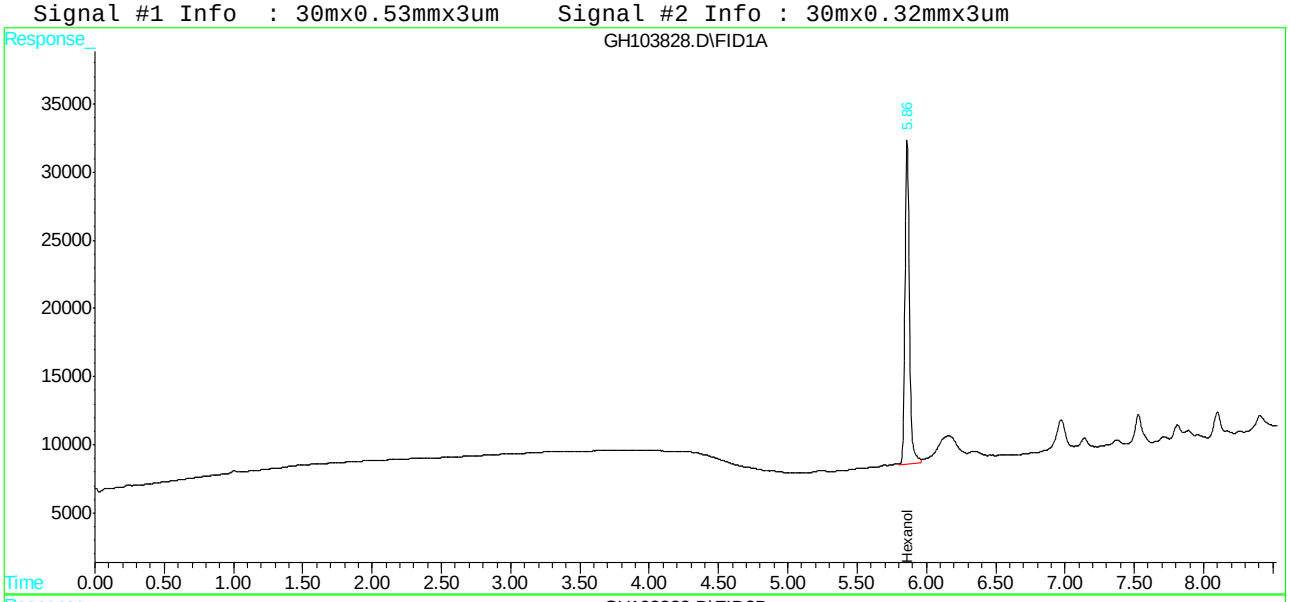
Quantitation Report (QT Reviewed)

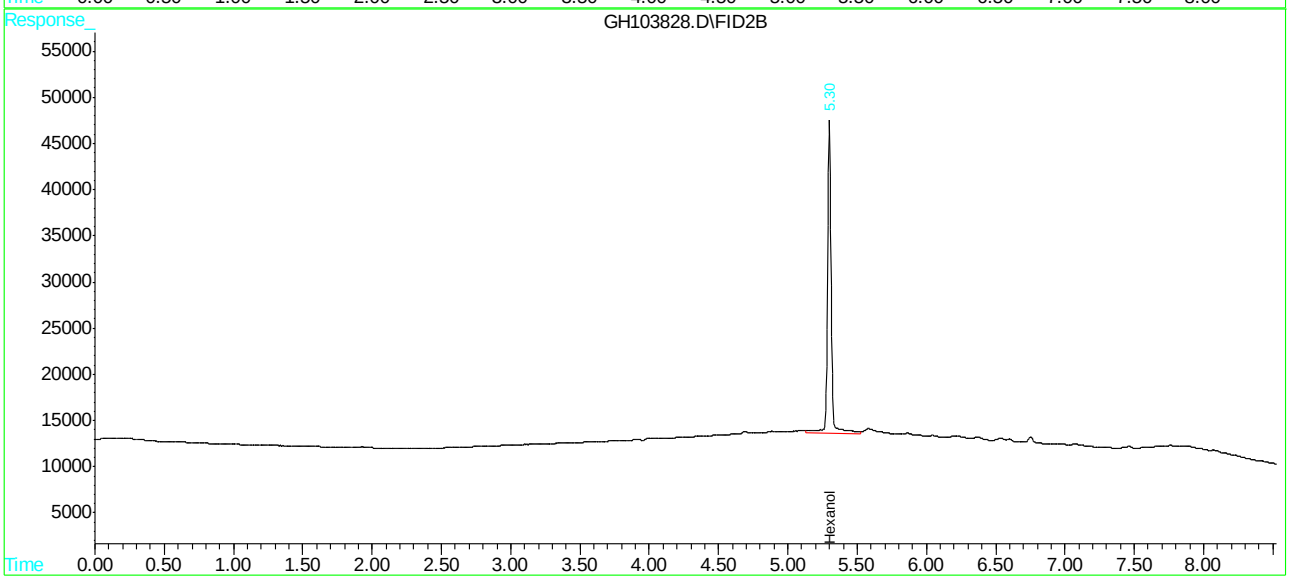
```
Data File : C:\HPCHEM\1\DATA\GH103828.D\FID1A.CH          Vial: 91
Acq On    : 18 Mar 2016   6:52 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103828.D\FID2B.CH          Vial: 91
Acq On    : 18 Mar 2016   7:07 pm                     Operator: XULIU
Sample    : MB2                                       Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:19 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103775.D\FID1A.CH          Vial: 93
Acq On    : 17 Mar 2016  10:54 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103775.D\FID2B.CH          Vial: 93
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:52 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:48:46 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um

 Compound          RT#1   RT#2    Resp#1   Resp#2     PPB       PPB
---------------------------------------------------------------------

System Monitoring Compounds
10) S   Hexanol           5.87   5.29    610713   628642 4788.340  4929.778
  Spiked Amount   5000.000                  Recovery     =   95.77%    98.60%

Target Compounds
```

11.2.5

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH103775.D  MGH5193.M      Thu Mar 17 12:59:33 2016      GCGH
```

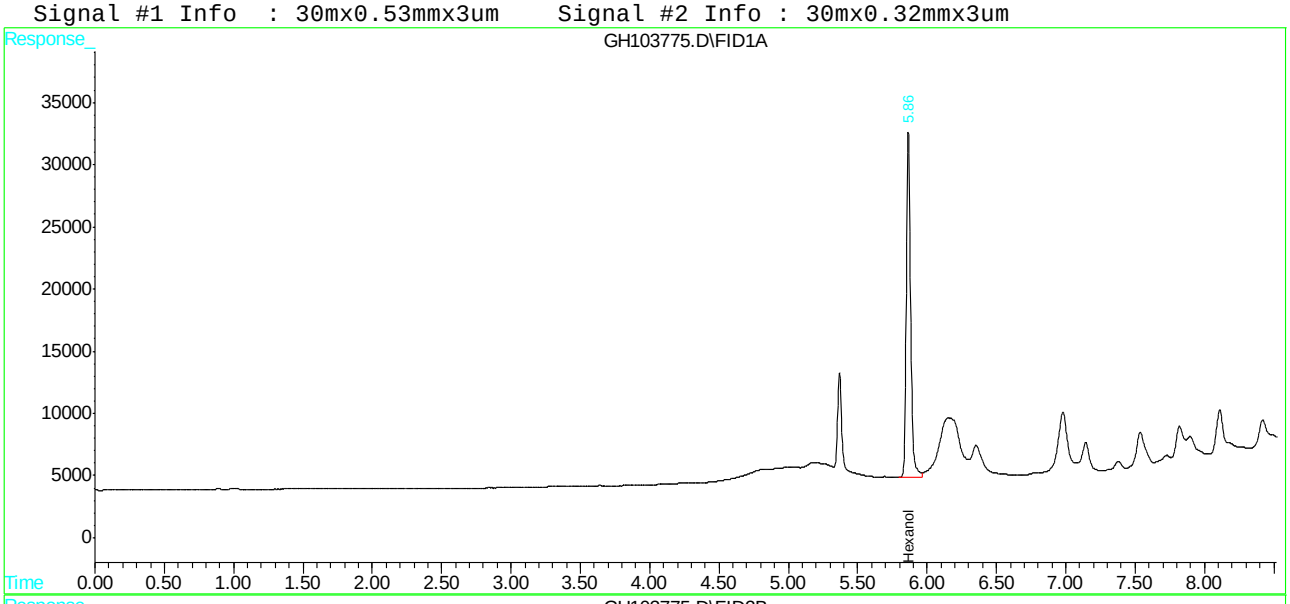
Quantitation Report (QT Reviewed)

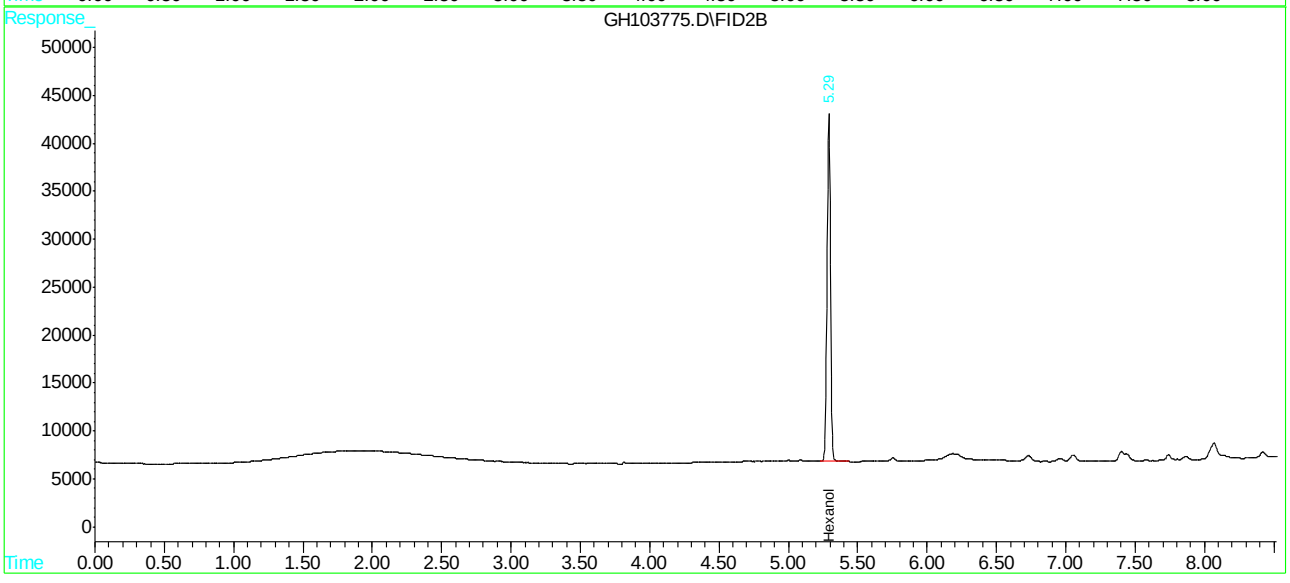
```
Data File : C:\HPCHEM\1\DATA\GH103775.D\FID1A.CH          Vial: 93
Acq On    : 17 Mar 2016  10:54 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103775.D\FID2B.CH          Vial: 93
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:52 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:48:46 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Manual Integrations
APPROVED
(compounds with "m" flag)
Dana Tryon
03/21/16 10:38

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH          Vial: 94
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH          Vial: 94
Acq On    : 17 Mar 2016  11:23 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 13:01 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:55:32 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.87	5.30	576512	622119	4520.181	4878.625
	Spiked Amount 5000.000			Recovery	=	90.40%	97.57%
	Target Compounds						
1)	Methanol	1.40	0.78	58590	72090	3357.055m	4151.672
2)	Ethanol	1.83	1.00	114105	109673	5084.881m	4971.209
3)	Tert-Butyl Alcoh	2.50	1.43	153607	164870	4505.641	5154.645
4)	1-Propanol	2.97	1.74	135918	141739	4676.229	4930.465
5)	2-Propanol	2.21	1.22	109490	118997	4454.459	5100.696
7)	Isobutanol	3.79	2.65	160357	171127	4738.784	5305.368
8)	1-Butanol	4.21	3.14	146884	161229	4394.352	4544.630
9)	2-Butanol	3.40	2.27	137254	143932	4469.958	5026.034

11.3.1

11

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

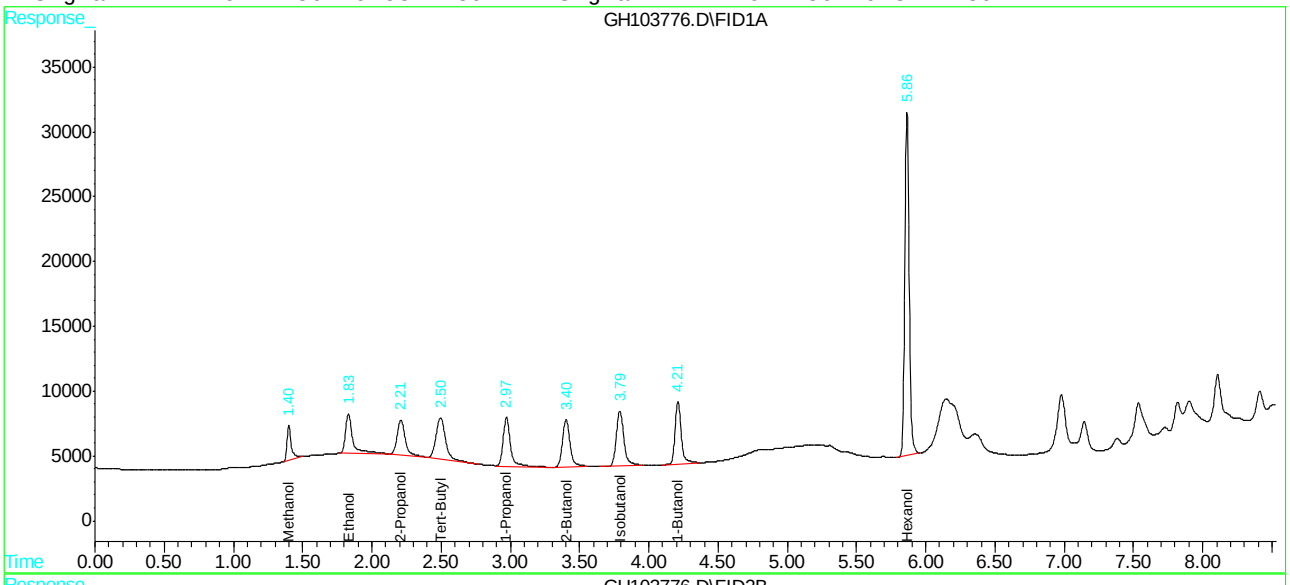
Quantitation Report (QT Reviewed)

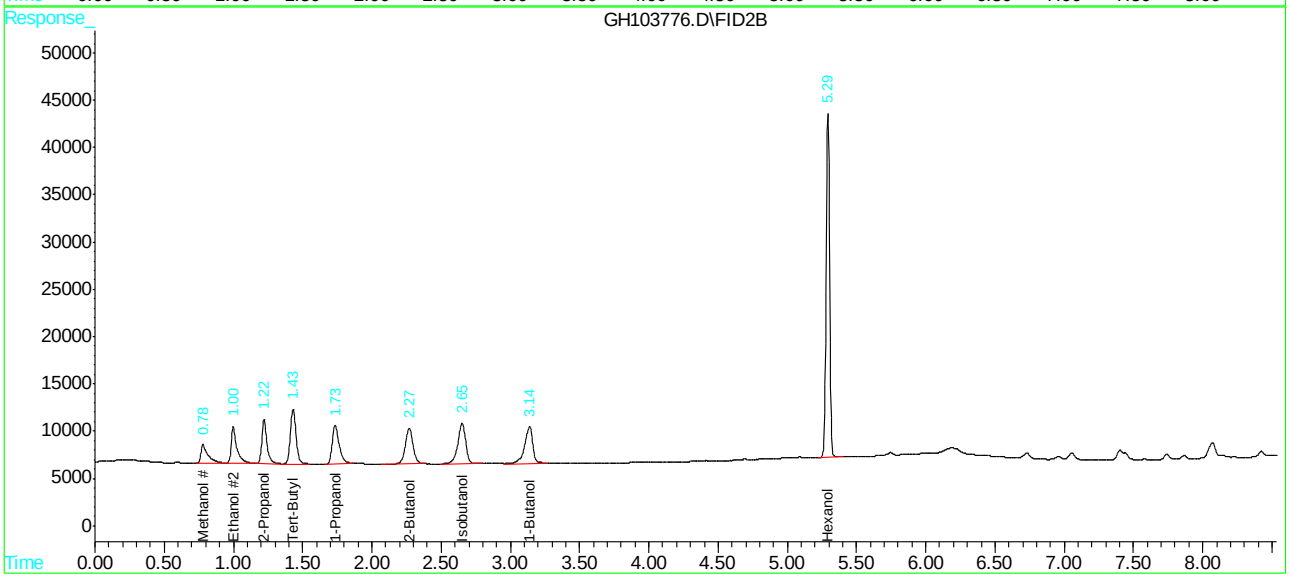
Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH Vial: 94
Acq On : 17 Mar 2016 11:08 am Operator: XULIU
Sample : BS Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH Vial: 94
Acq On : 17 Mar 2016 11:23 am Operator: XULIU
Sample : BS Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 17 13:01 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 12:55:32 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integration Approval Summary

Sample Number:	GGH5211-BS	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103776.D	**Analyst approved:**	03/18/16 08:52 Xu Liu
Injection Time:	03/17/16 11:08	**Supervisor approved:**	03/21/16 10:38 Dana Tryon

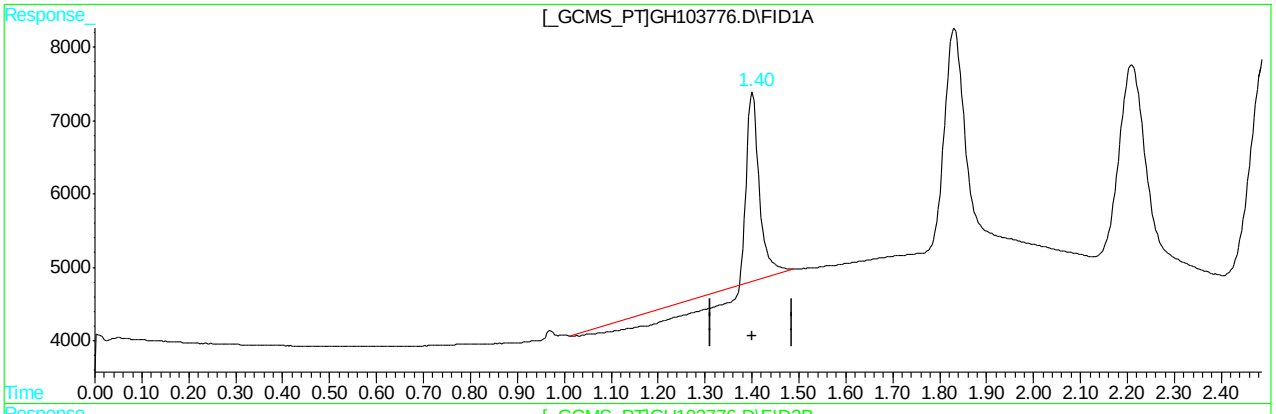
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	1	1.40	Poor instrument integration
Ethanol	64-17-5	1	1.83	Poor instrument integration

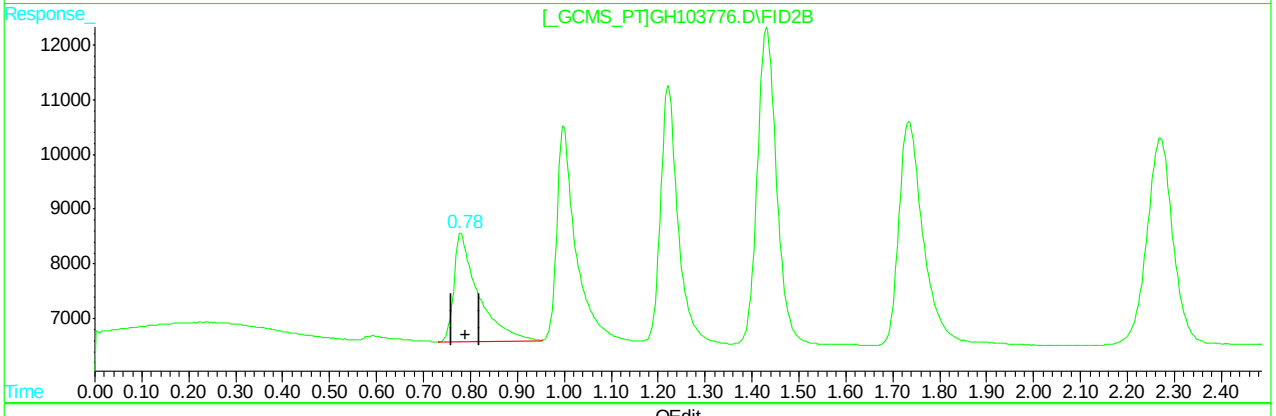
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH          Vial: 94
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH          Vial: 94
Acq On    : 17 Mar 2016  11:23 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:56 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:55:32 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.40min 1065.509PPB

response 18596

(1) Methanol #2

0.78min 4151.672PPB

response 72090

(+) = Expected Retention Time

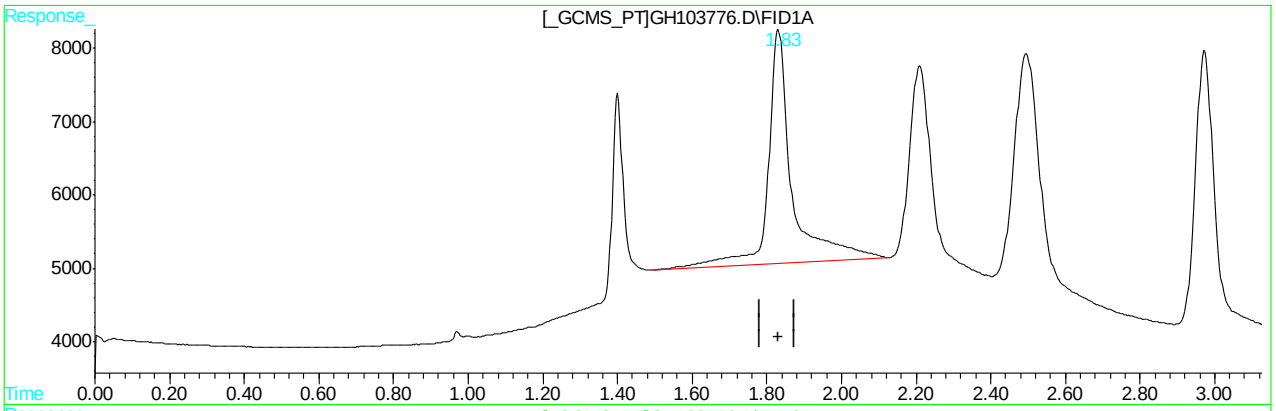
GH103776.D MGH5193.M Thu Mar 17 12:59:52 2016 GCGH

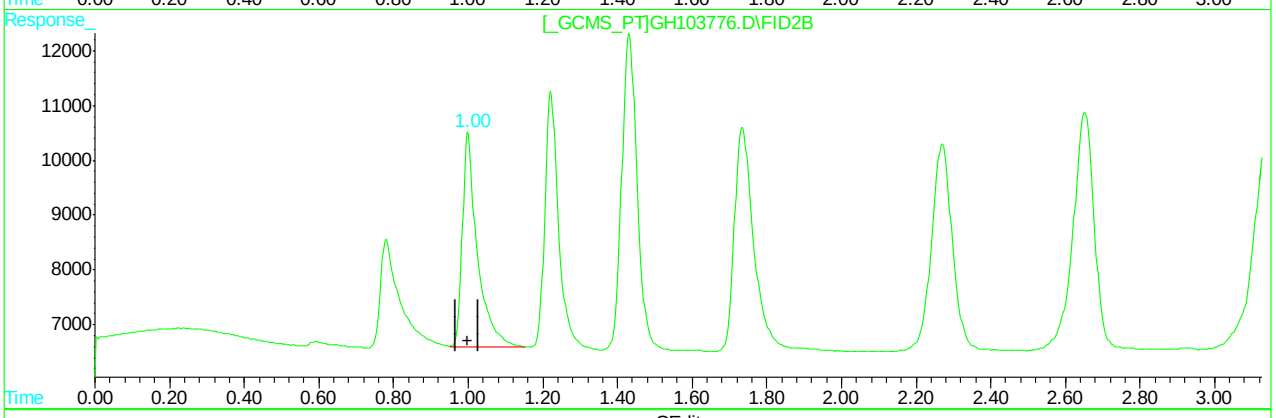
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH          Vial: 94
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH          Vial: 94
Acq On    : 17 Mar 2016  11:23 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:56 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:55:32 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.83min 6321.842PPB

response 141862

(2) Ethanol #2

1.00min 4971.209PPB

response 109673

(+) = Expected Retention Time

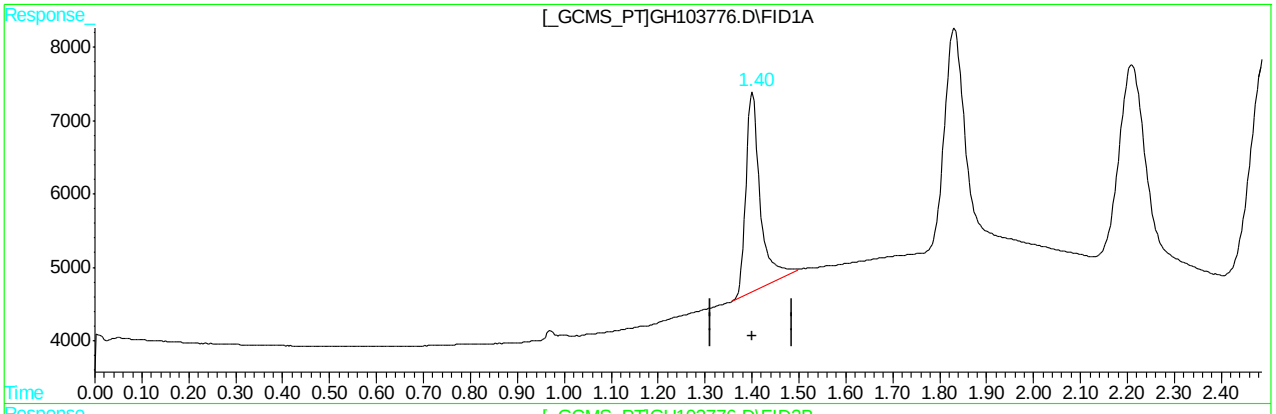
GH103776.D MGH5193.M Thu Mar 17 12:59:58 2016 GCGH

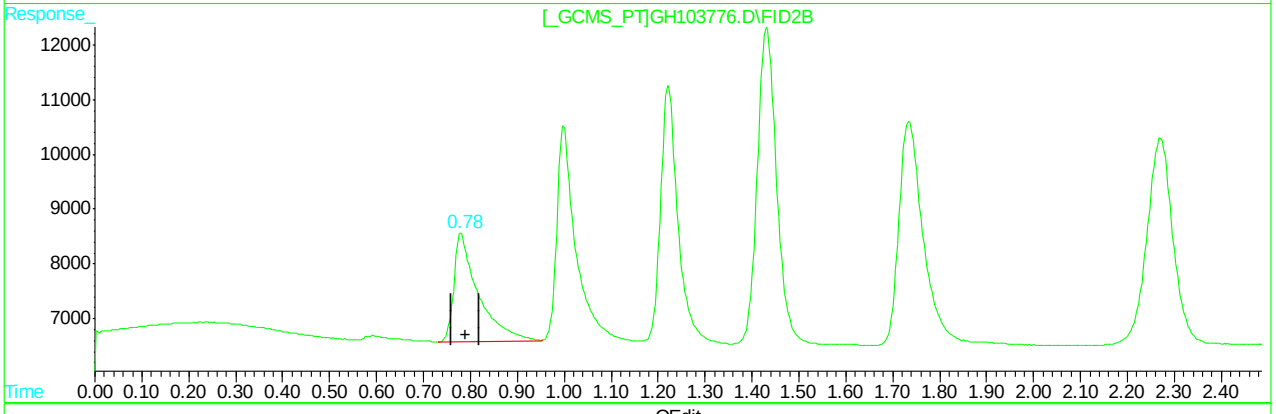
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH          Vial: 94
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH          Vial: 94
Acq On    : 17 Mar 2016  11:23 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:56 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:55:32 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.40min 3357.055PPB m

response 58590

(1) Methanol #2

0.78min 4151.672PPB

response 72090

(+) = Expected Retention Time

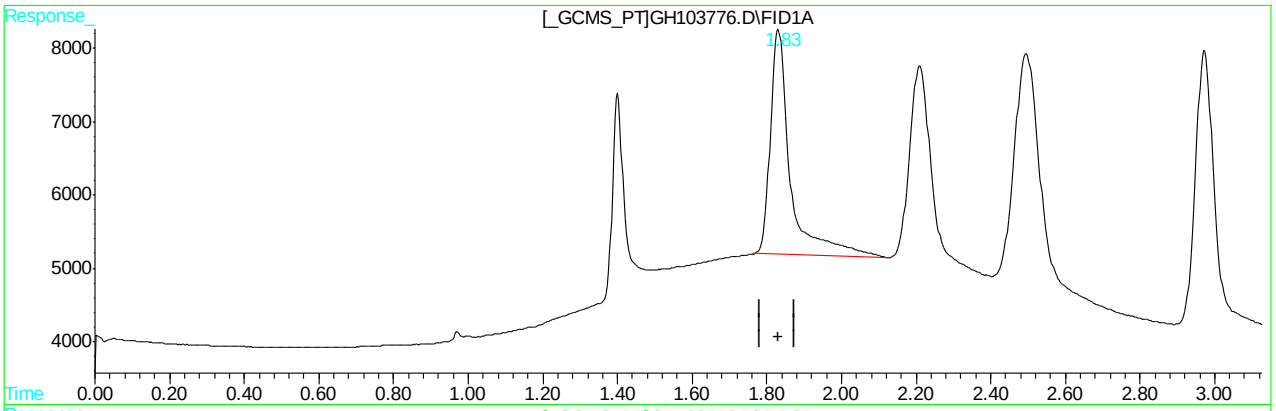
GH103776.D MGH5193.M Thu Mar 17 13:01:16 2016 GCGH

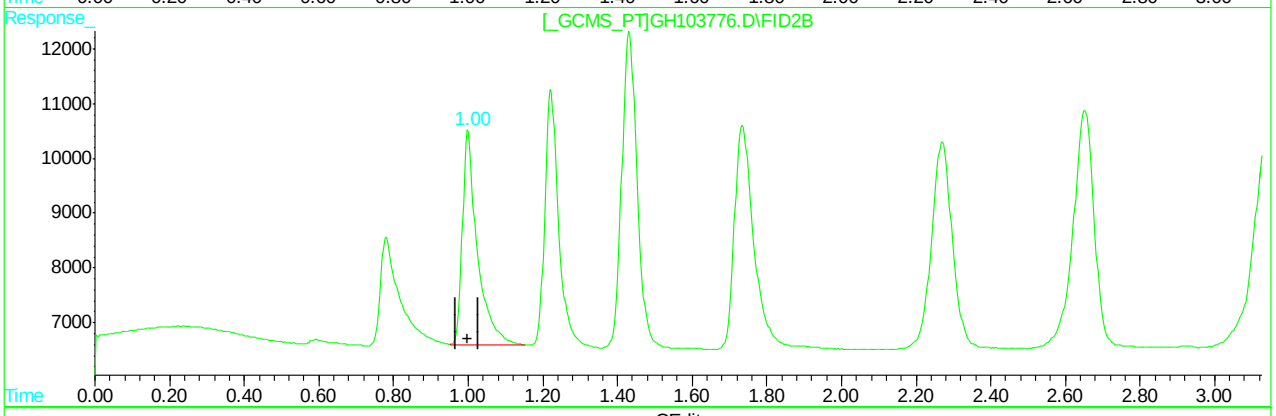
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103776.D\FID1A.CH          Vial: 94
Acq On    : 17 Mar 2016  11:08 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103776.D\FID2B.CH          Vial: 94
Acq On    : 17 Mar 2016  11:23 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:56 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:55:32 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.83min 5084.881PPB m

response 114105

(2) Ethanol #2

1.00min 4971.209PPB

response 109673

(+) = Expected Retention Time

GH103776.D MGH5193.M Thu Mar 17 13:01:49 2016 GCGH

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103818.D\FID1A.CH          Vial: 93
Acq On    : 18 Mar 2016   4:21 pm                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103818.D\FID2B.CH          Vial: 93
Acq On    : 18 Mar 2016   4:35 pm                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:34 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 06:58:33 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.85	5.30	641031	645631	5026.054	5063.003
	Spiked Amount 5000.000			Recovery	=	100.52%	101.26%
	Target Compounds						
1)	Methanol	1.40	0.77	85162	85213	4879.584	4907.445
2)	Ethanol	1.83	1.00	121171	122415	5399.750	5548.746
3)	Tert-Butyl Alcoh	2.49	1.44	182103	183706	5341.494	5743.549
4)	1-Propanol	2.96	1.74	157383	157238	5414.735	5469.607
5)	2-Propanol	2.20	1.22	131965	133006	5368.800	5701.144
7)	Isobutanol	3.77	2.68	177701	179673	5251.321	5570.329
8)	1-Butanol	4.19	3.16	166981	179480	4995.620	5059.067
9)	2-Butanol	3.39	2.29	159736	159153	5202.108	5557.537

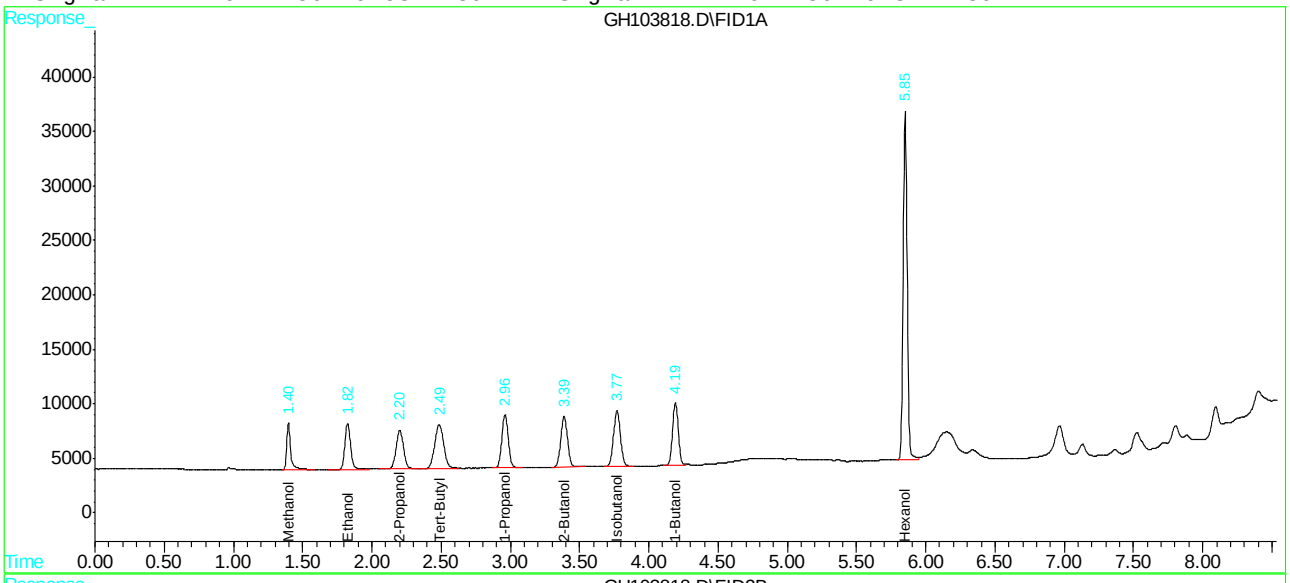
Quantitation Report (QT Reviewed)

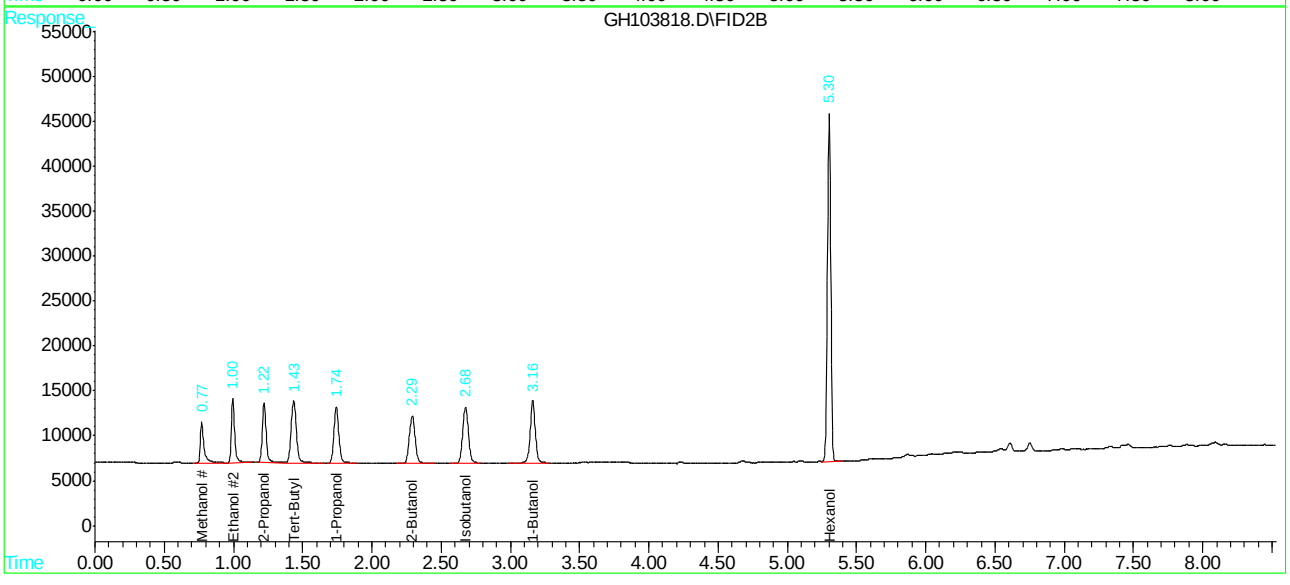
```
Data File : C:\HPCHEM\1\DATA\GH103818.D\FID1A.CH          Vial: 93
Acq On    : 18 Mar 2016   4:21 pm                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103818.D\FID2B.CH          Vial: 93
Acq On    : 18 Mar 2016   4:35 pm                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:34 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 06:58:33 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID1A.CH Vial: 16
Acq On : 17 Mar 2016 12:03 pm Operator: XULIU
Sample : JC15796-1MS Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID2B.CH Vial: 16
Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
Sample : JC15796-1MS Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 7:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:45:36 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.87	5.30	580397	636112	4550.649	4988.355
Spiked Amount	5000.000			Recovery	=	91.01%	99.77%
	Target Compounds						
1)	Methanol	1.40	0.78	78456	85773	4495.341	4939.679
2)	Ethanol	1.83	1.00	102574	114781	4571.040	5202.732
3)	Tert-Butyl Alcoh	2.50	1.43	161373	170756	4733.412	5338.666
4)	1-Propanol	2.97	1.74	134809	152026	4638.079	5288.319
5)	2-Propanol	2.21	1.22	111525	123731	4537.255	5303.596
7)	Isobutanol	3.79	2.65	167638	170515	4953.951	5286.406
8)	1-Butanol	4.21	3.14	161452	171971	4830.206	4847.408
9)	2-Butanol	3.40	2.28	139371	150894	4538.898	5269.134

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103778.D MGH5193.M Fri Mar 18 07:59:55 2016 GCGH

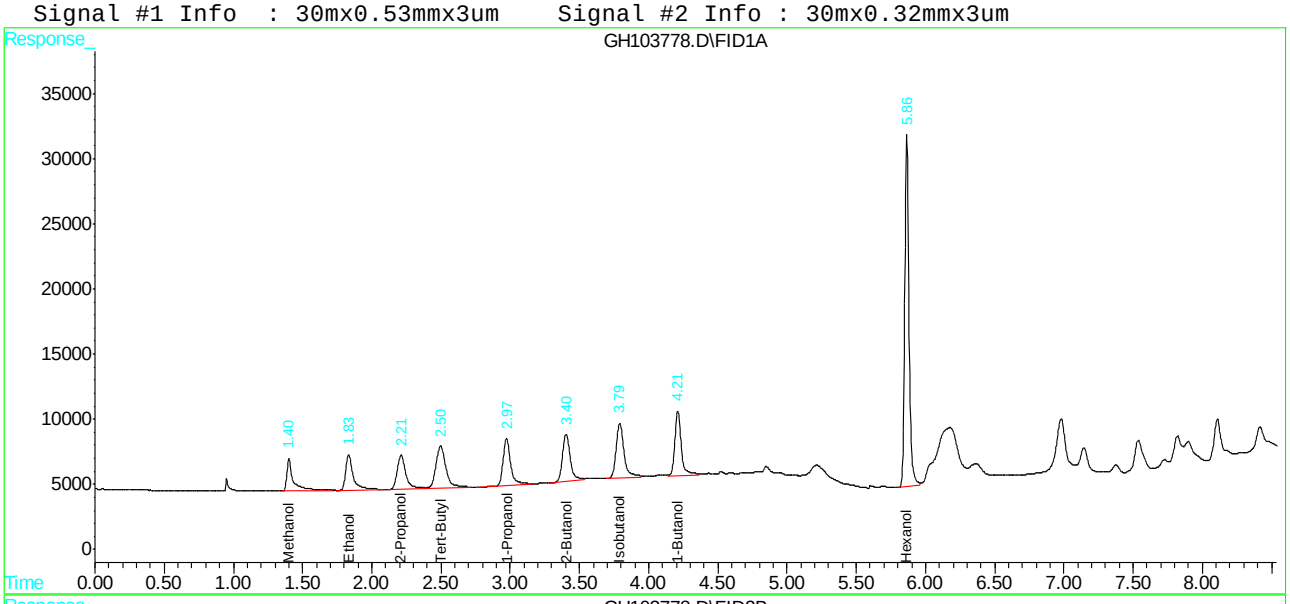
Quantitation Report (QT Reviewed)

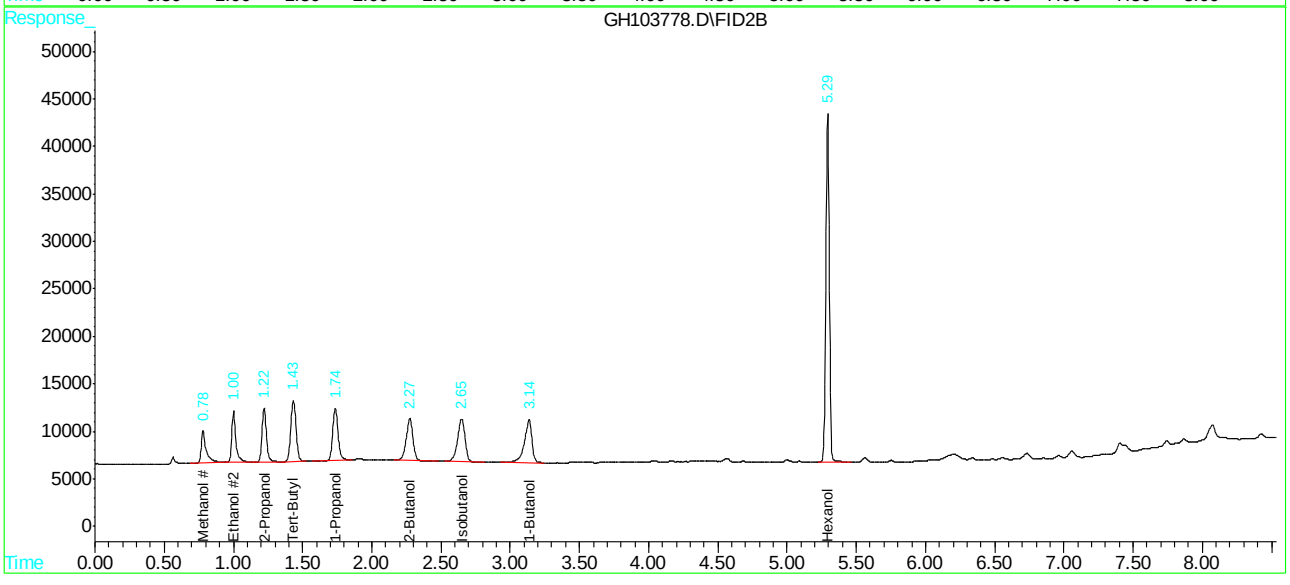
Data File : C:\HPCHEM\1\DATA\GH103778.D\FID1A.CH Vial: 16
Acq On : 17 Mar 2016 12:03 pm Operator: XULIU
Sample : JC15796-1MS Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103778.D\FID2B.CH Vial: 16
Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
Sample : JC15796-1MS Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 7:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:45:36 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID1A.CH Vial: 17
Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
Sample : JC15796-1MSD Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID2B.CH Vial: 17
Acq On : 17 Mar 2016 12:32 pm Operator: XULIU
Sample : JC15796-1MSD Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:00 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:47:14 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.87	5.29	572920	609303	4492.020	4778.127
Spiked Amount	5000.000			Recovery	=	89.84%	95.56%
	Target Compounds						
1)	Methanol	1.40	0.78	82029	87576	4700.075	5043.502
2)	Ethanol	1.84	1.00	122692	117175	5467.569	5311.238
3)	Tert-Butyl Alcoh	2.50	1.43	175658	170308	5152.448	5324.668
4)	1-Propanol	2.98	1.73	144353	144220	4966.428	5016.792
5)	2-Propanol	2.21	1.22	131509	124402	5350.250	5332.367
7)	Isobutanol	3.79	2.65	173143	168805	5116.610	5233.388
8)	1-Butanol	4.21	3.13	175241	168365	5242.716	4745.755
9)	2-Butanol	3.41	2.27	149213	148651	4859.409	5190.831

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103779.D MGH5193.M Fri Mar 18 08:00:10 2016 GCGH

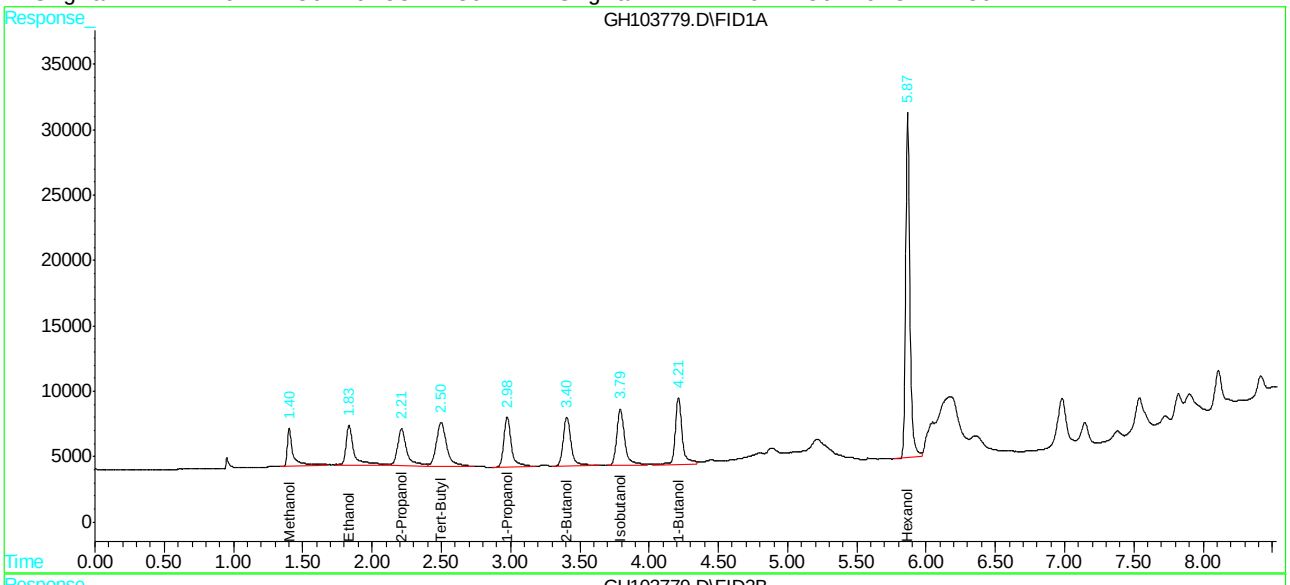
Quantitation Report (QT Reviewed)

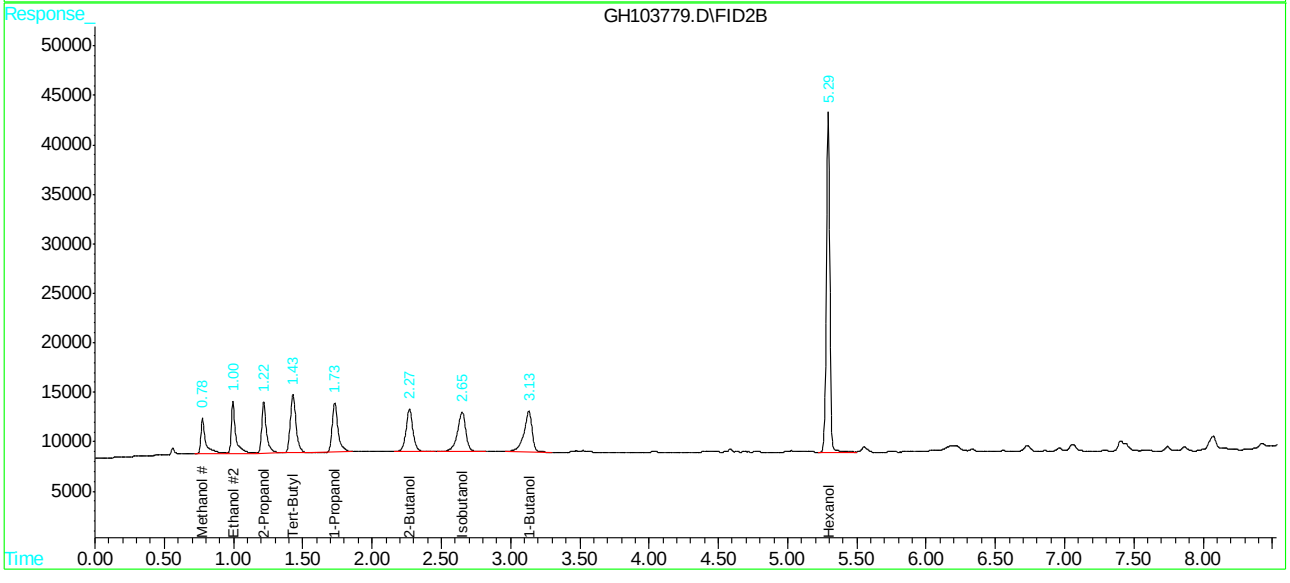
Data File : C:\HPCHEM\1\DATA\GH103779.D\FID1A.CH Vial: 17
Acq On : 17 Mar 2016 12:17 pm Operator: XULIU
Sample : JC15796-1MSD Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103779.D\FID2B.CH Vial: 17
Acq On : 17 Mar 2016 12:32 pm Operator: XULIU
Sample : JC15796-1MSD Inst : GCGH
Misc : GC47904,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:00 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:47:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103820.D\FID1A.CH Vial: 2
Acq On : 18 Mar 2016 4:49 pm Operator: XULIU
Sample : JC16038-1MS Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103820.D\FID2B.CH Vial: 2
Acq On : 18 Mar 2016 5:04 pm Operator: XULIU
Sample : JC16038-1MS Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 7:34 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 07:24:02 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.31	519541	542656	4073.498	4255.479
Spiked Amount	5000.000			Recovery	=	81.47%	85.11%
	Target Compounds						
1)	Methanol	1.40	0.79	78152	86161	4477.928	4962.008
2)	Ethanol	1.83	1.01	108598	120294	4839.456	5452.595
3)	Tert-Butyl Alcoh	2.49	1.46f	166161	165545	4873.875	5175.750
4)	1-Propanol	2.97	1.76	142750	154059	4911.295	5359.024
5)	2-Propanol	2.21	1.24	119003	123856	4841.472	5308.945
7)	Isobutanol	3.77	2.69	167283	168333	4943.463	5218.763
8)	1-Butanol	4.20	3.18	162005	165969	4846.736	4678.239
9)	2-Butanol	3.39	2.31	148411	145569	4833.293	5083.195

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103820.D MGH5193.M Sun Mar 20 07:34:54 2016 GCGH

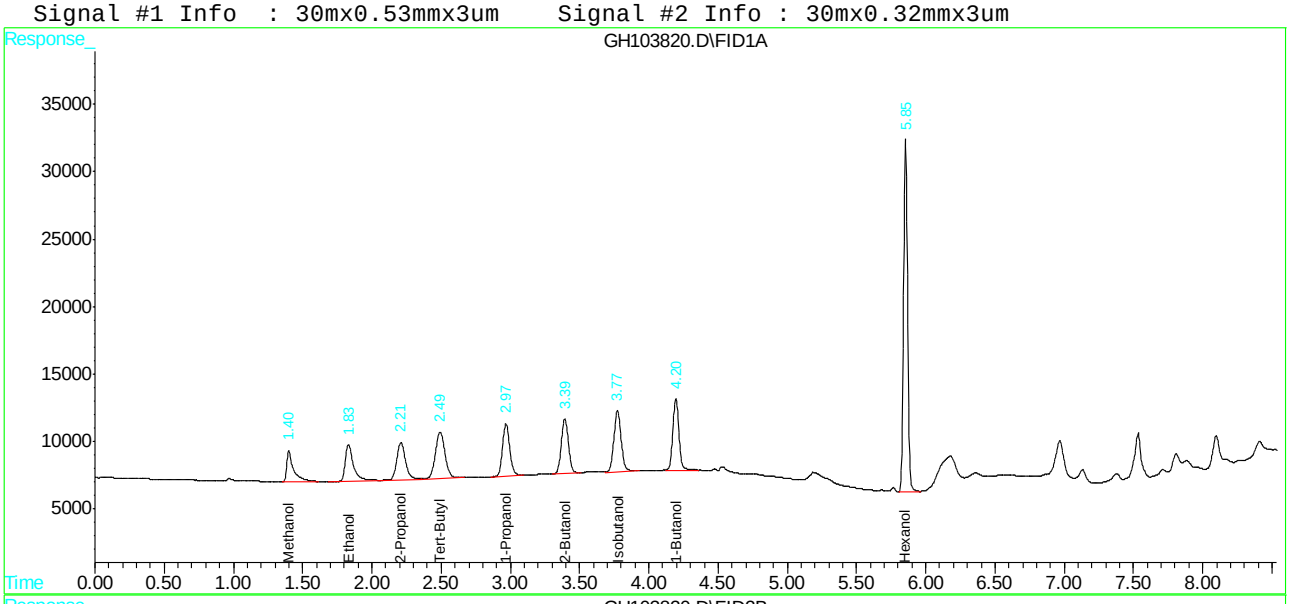
Quantitation Report (QT Reviewed)

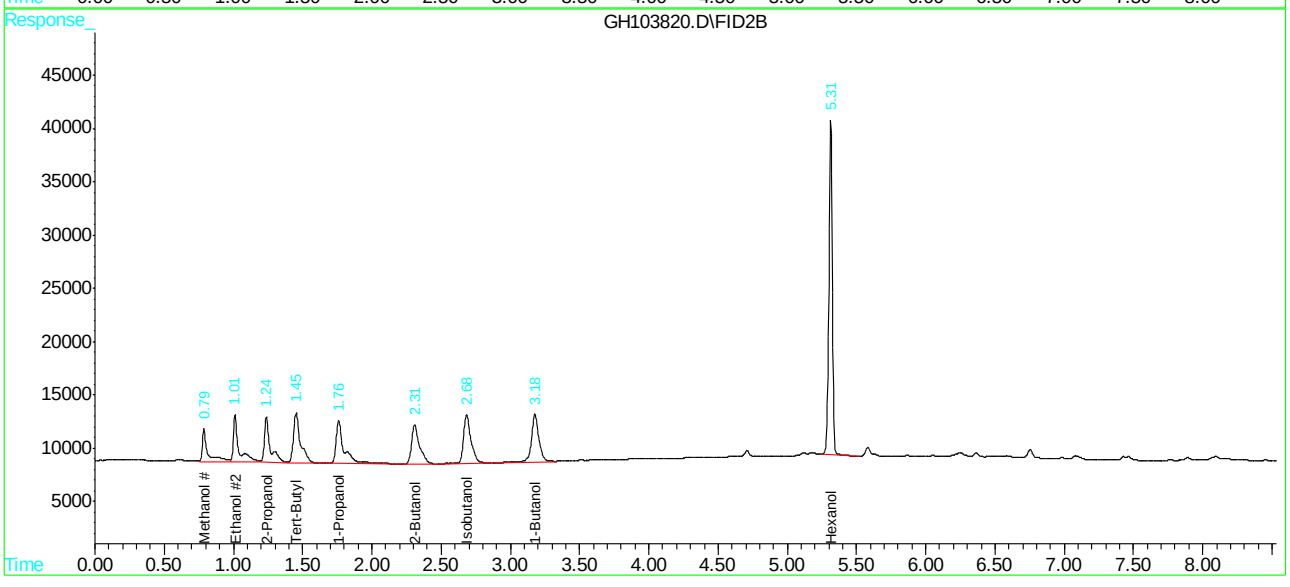
```
Data File : C:\HPCHEM\1\DATA\GH103820.D\FID1A.CH          Vial: 2
Acq On    : 18 Mar 2016   4:49 pm                     Operator: XULIU
Sample    : JC16038-1MS                               Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103820.D\FID2B.CH          Vial: 2
Acq On    : 18 Mar 2016   5:04 pm                     Operator: XULIU
Sample    : JC16038-1MS                               Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:34 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103821.D\FID1A.CH          Vial: 3
Acq On    : 18 Mar 2016   5:04 pm                     Operator: XULIU
Sample    : JC16038-1MSD                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103821.D\FID2B.CH          Vial: 3
Acq On    : 18 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC16038-1MSD                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:35 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.30	552348	566157	4330.723	4439.778
	Spiked Amount 5000.000			Recovery =		86.61%	88.80%
	Target Compounds						
1)	Methanol	1.40	0.79	80729	83399	4625.617	4802.977
2)	Ethanol	1.83	1.01	105611	113079	4706.360	5125.551
3)	Tert-Butyl Alcoh	2.49	1.45	160789	165526	4716.284	5175.165
4)	1-Propanol	2.97	1.76	140276	153837	4826.158	5351.303
5)	2-Propanol	2.21	1.24	115246	120354	4688.600	5158.830
7)	Isobutanol	3.78	2.68	166275	161914	4913.657	5019.741
8)	1-Butanol	4.20	3.18	163878	156127	4902.777	4400.797
9)	2-Butanol	3.39	2.31	146055	143631	4756.560	5015.533

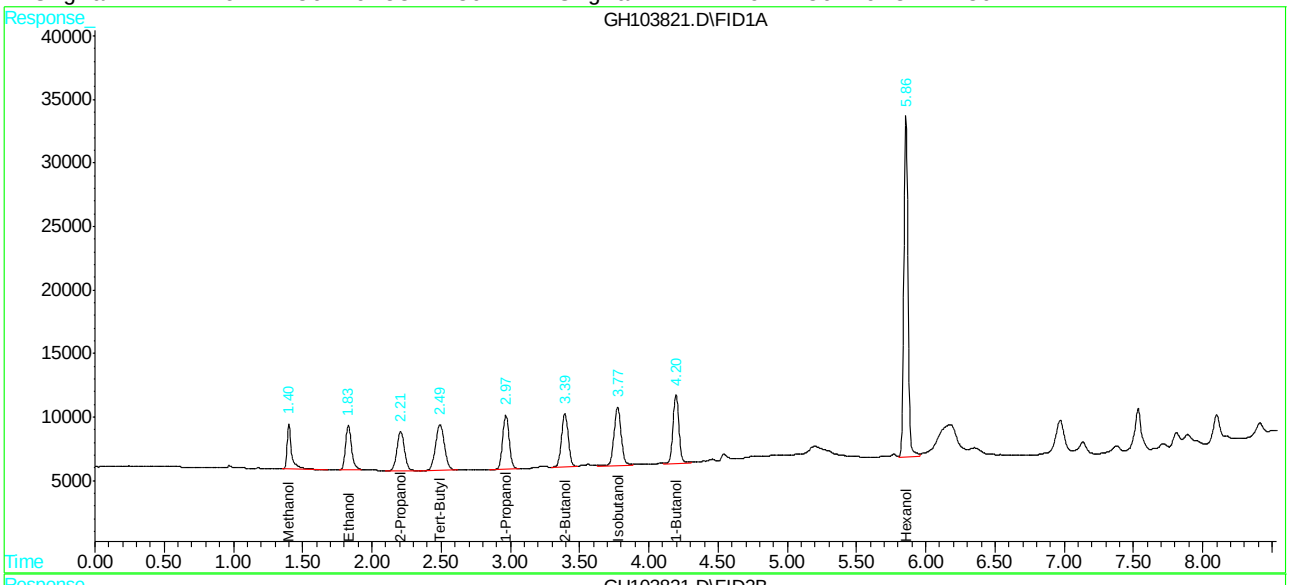
Quantitation Report (QT Reviewed)

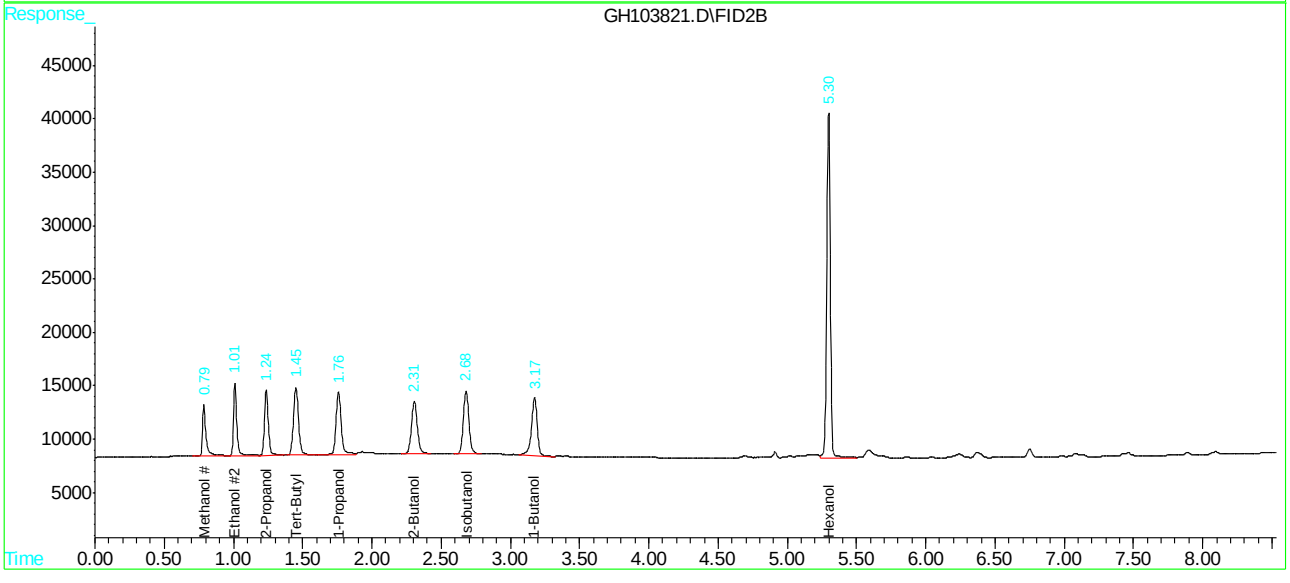
```
Data File : C:\HPCHEM\1\DATA\GH103821.D\FID1A.CH          Vial: 3
Acq On    : 18 Mar 2016   5:04 pm                     Operator: XULIU
Sample    : JC16038-1MSD                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103821.D\FID2B.CH          Vial: 3
Acq On    : 18 Mar 2016   5:18 pm                     Operator: XULIU
Sample    : JC16038-1MSD                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:35 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:41 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:34:22 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.89	5.34	521870	515664	4414.308	4449.995
	Spiked Amount 5000.000			Recovery	=	88.29%	89.00%
	Target Compounds						
1)	Methanol	1.43	0.80	18411	16136	1052.348	961.397
2)	Ethanol	1.86	1.02	22490	22670	971.203	1012.320
3)	Tert-Butyl Alcoh	2.52	1.47	37533	33699	1083.596	1045.494
4)	1-Propanol	3.00	1.78	30594	28909	1025.859	1001.376m
5)	2-Propanol	2.24	1.25	29488	24128	1177.659	1027.831
7)	Isobutanol	3.82	2.71	34848	31069	1012.693	960.595
8)	1-Butanol	4.24	3.19	36273	30738	1105.147	972.642
9)	2-Butanol	3.43	2.33	31759	29963	1039.954	1037.836

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC16038

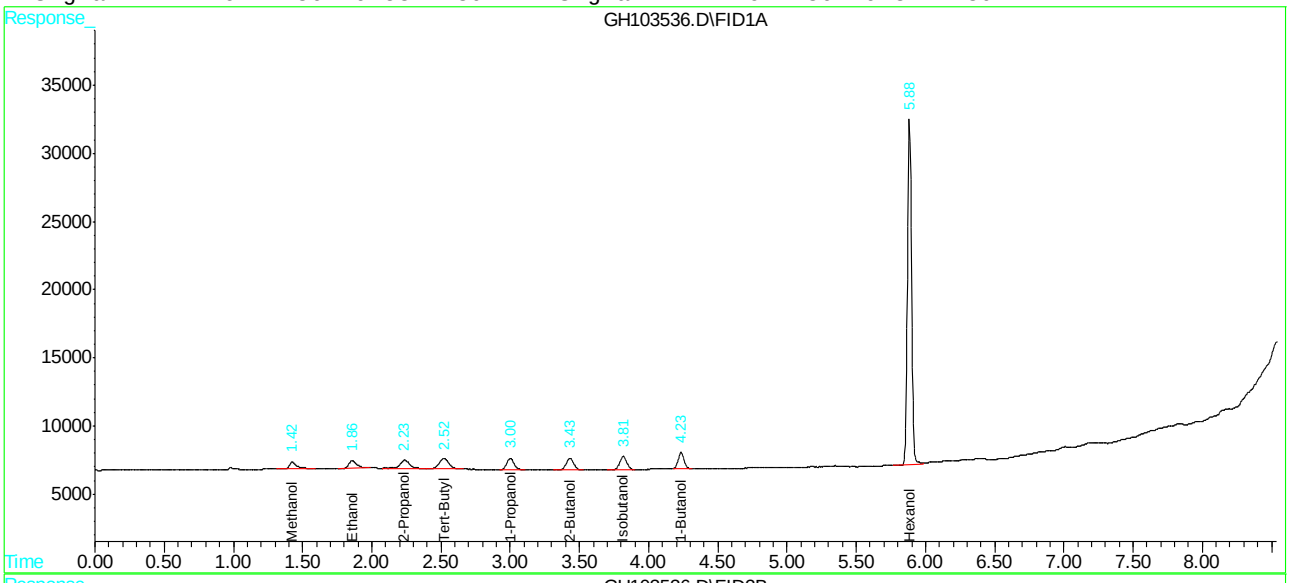
Quantitation Report (QT Reviewed)

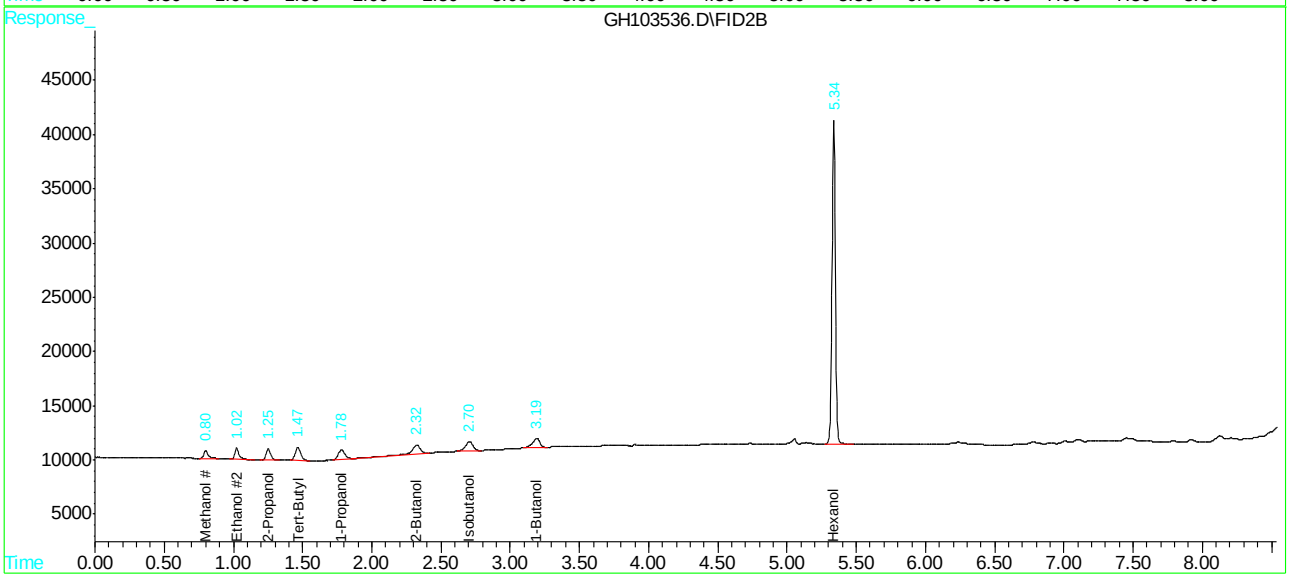
```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:41 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:34:22 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Manual Integration Approval Summary

Sample Number:	GGH5193-IC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103536.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 09:41	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

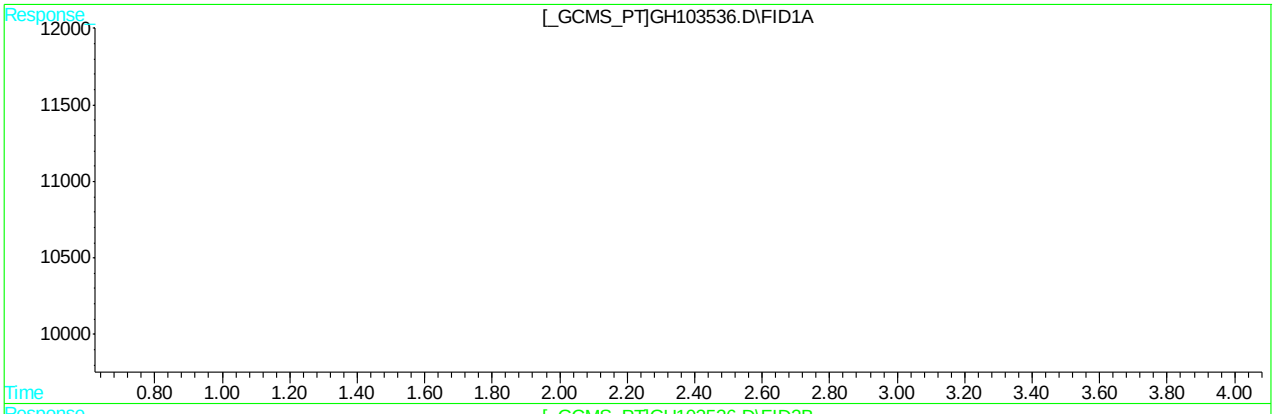
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Propyl Alcohol	71-23-8	2	1.78	Poorly defined baseline

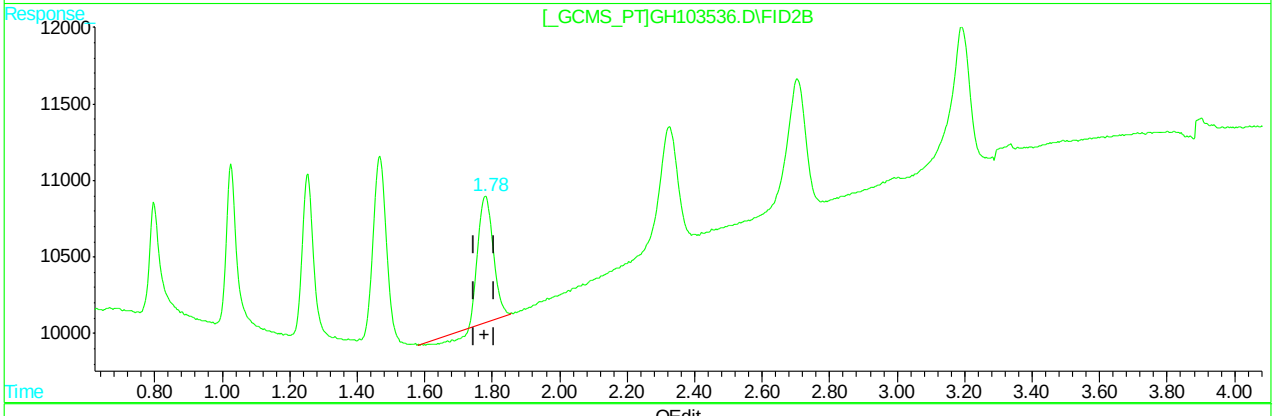
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH        Vial: 17
Acq On    : 29 Feb 2016   9:41 am                   Operator: XULIU
Sample    : IC5193-1000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH        Vial: 17
Acq On    : 29 Feb 2016   9:56 am                   Operator: XULIU
Sample    : IC5193-1000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:39 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:39:43 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.00min 1025.859PPB

response 30594

(4) 1-Propanol #2

1.78min 805.984PPB

response 23268

(+) = Expected Retention Time

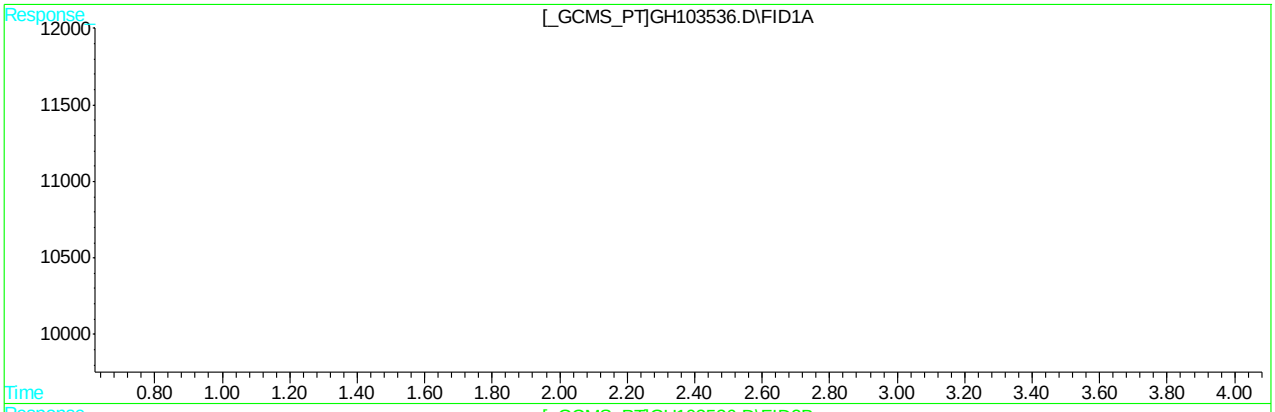
GH103536.D MGH5193.M Mon Feb 29 13:40:46 2016 GCGH

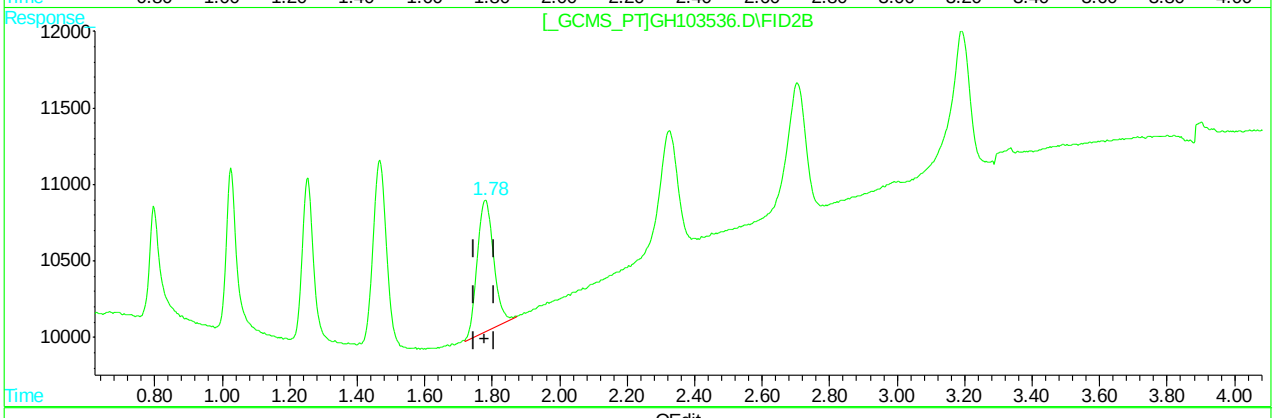
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103536.D\FID1A.CH          Vial: 17
Acq On    : 29 Feb 2016   9:41 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103536.D\FID2B.CH          Vial: 17
Acq On    : 29 Feb 2016   9:56 am                     Operator: XULIU
Sample    : IC5193-1000                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:39 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:39:43 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.00min 1025.859PPB

response 30594

(4) 1-Propanol #2

1.78min 1001.376PPB m

response 28909

(+) = Expected Retention Time

GH103536.D MGH5193.M Mon Feb 29 13:41:35 2016 GCGH

SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103538.D\FID1A.CH          Vial: 19
Acq On    : 29 Feb 2016  10:10 am                     Operator: XULIU
Sample    : IC5193-10000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID2B.CH          Vial: 19
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-10000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:24 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.88	5.34	632380	618892	5290.958	5011.876
	Spiked Amount 5000.000			Recovery	=	105.82%	100.24%
	Target Compounds						
1)	Methanol	1.42	0.80	170293	171065	11684.918	11628.082
2)	Ethanol	1.85	1.02	235648	228413	11443.732	11055.620
3)	Tert-Butyl Alcoh	2.52	1.47	350977	331750	10799.667	10330.810
4)	1-Propanol	2.99	1.78	299088	292838	10599.555	10839.016
5)	2-Propanol	2.23	1.25	250373	240597	11170.240	10725.872
7)	Isobutanol	3.81	2.70	350529	337406	10985.588	10485.575
8)	1-Butanol	4.23	3.19	338910	326780	10764.220	10083.368
9)	2-Butanol	3.43	2.33	312227	298461	10912.214	11064.895

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

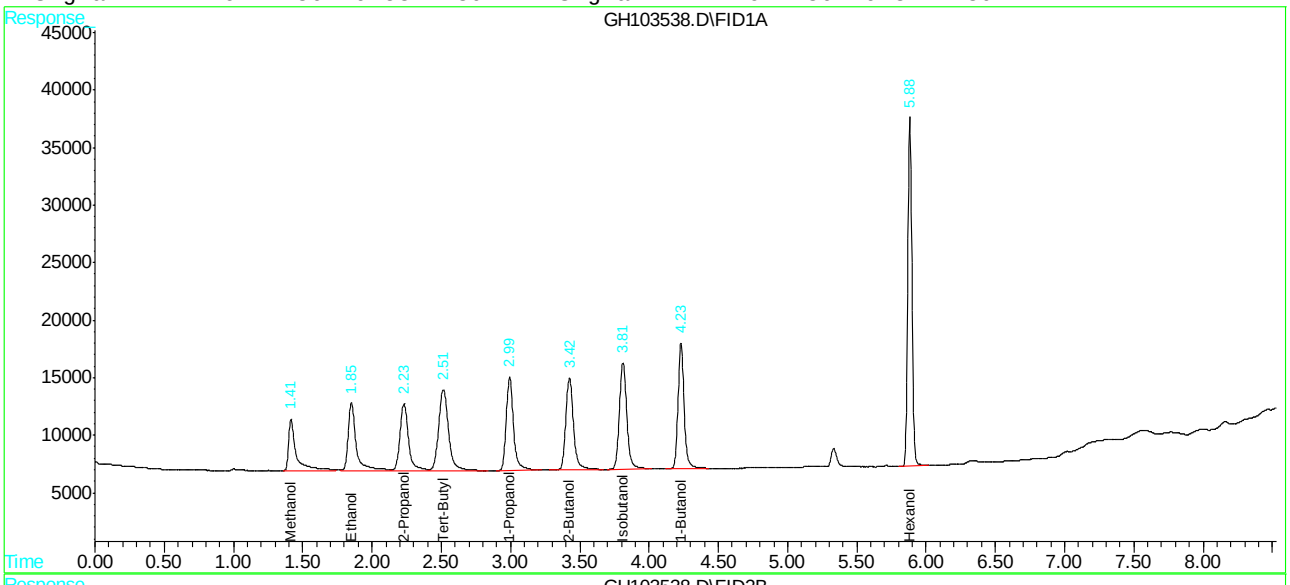
Quantitation Report (QT Reviewed)

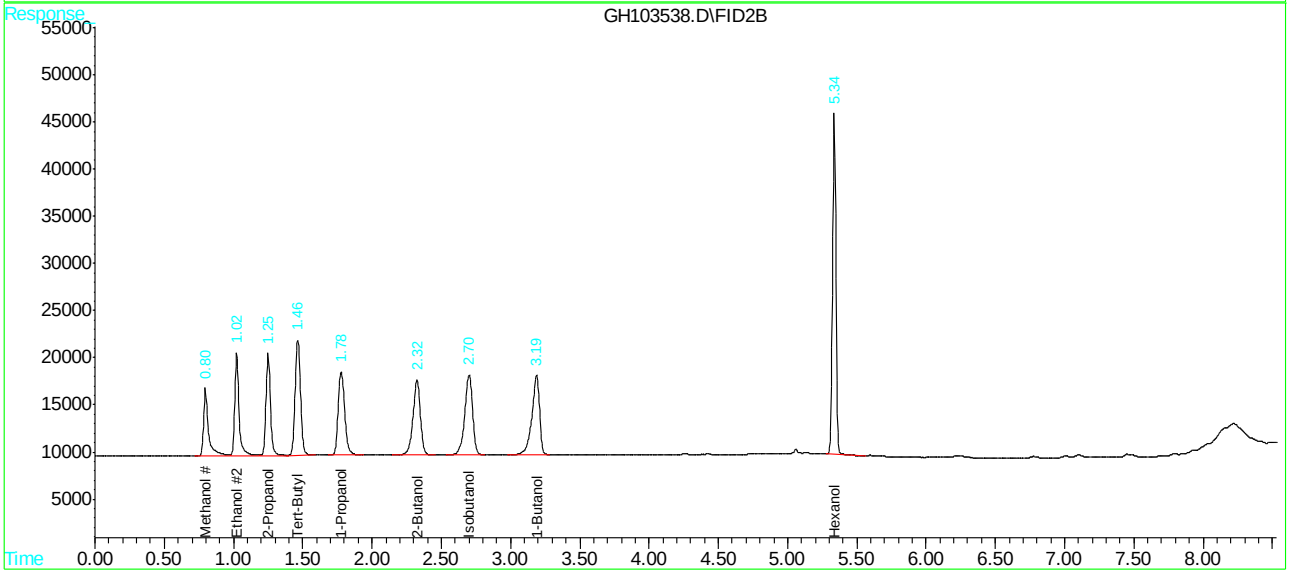
Data File : C:\HPCHEM\1\DATA\GH103538.D\FID1A.CH Vial: 19
Acq On : 29 Feb 2016 10:10 am Operator: XULIU
Sample : IC5193-10000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103538.D\FID2B.CH Vial: 19
Acq On : 29 Feb 2016 10:25 am Operator: XULIU
Sample : IC5193-10000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:24 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 10:49:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103539.D\FID1A.CH          Vial: 20
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID2B.CH          Vial: 20
Acq On    : 29 Feb 2016  10:39 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:25 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.89	5.34	753846	737708	6307.224	5974.064
	Spiked Amount 5000.000			Recovery	=	126.14%	119.48%
	Target Compounds						
1)	Methanol	1.42	0.80	831725	786308	57070.044	53449.149
2)	Ethanol	1.85	1.02	1091869	1046013	53024.163	50628.896
3)	Tert-Butyl Alcoh	2.51	1.47	1618405	1527069	49798.786	47553.501
4)	1-Propanol	2.99	1.78	1410633	1341483	49992.231	49653.259
5)	2-Propanol	2.23	1.25	1173173	1108753	52340.302	49428.497
7)	Isobutanol	3.82	2.70	1609558	1529443	50443.618	47530.526
8)	1-Butanol	4.23	3.20	1527185	1468644	48505.323	45317.541
9)	2-Butanol	3.43	2.32	1436581	1360726	50207.941	50446.386

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC16038

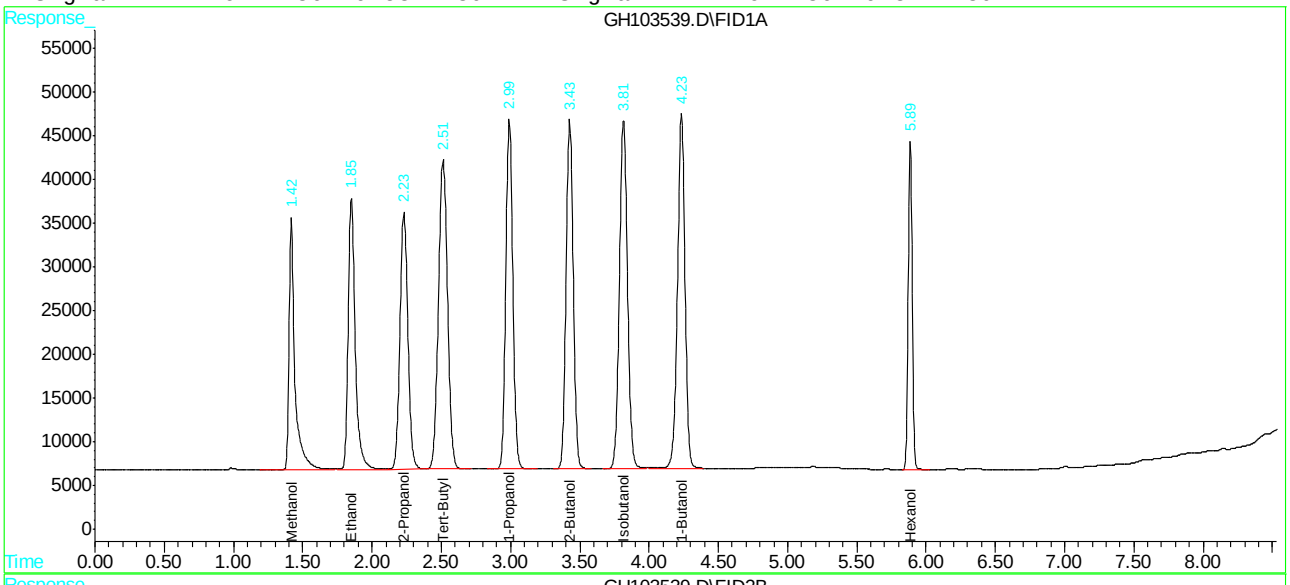
Quantitation Report (QT Reviewed)

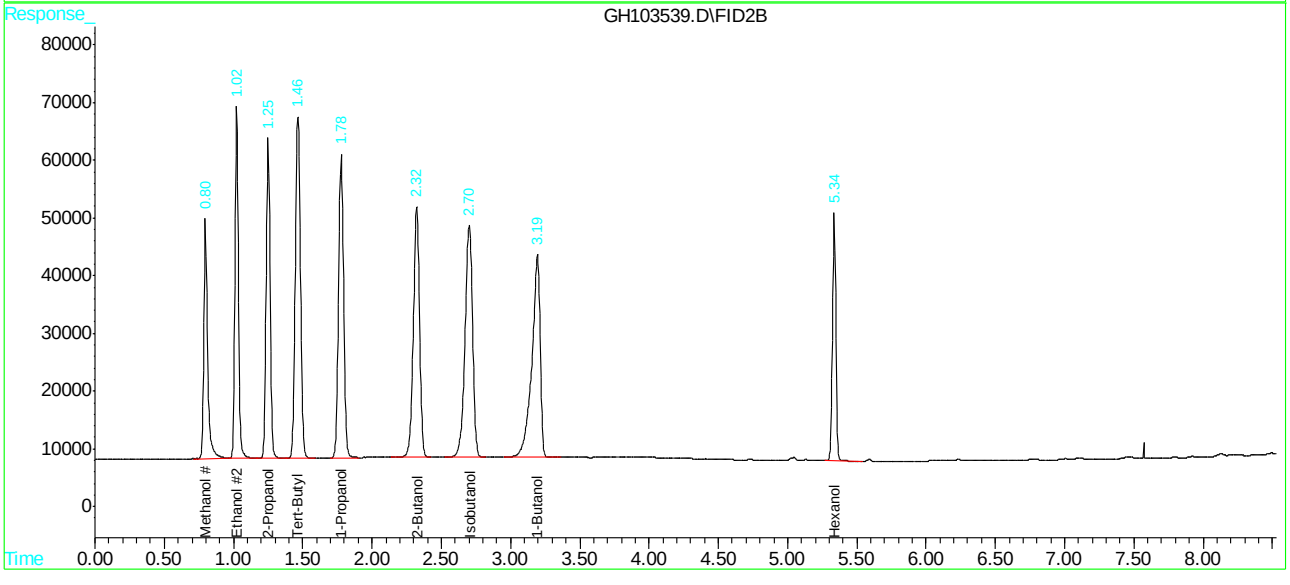
```
Data File : C:\HPCHEM\1\DATA\GH103539.D\FID1A.CH          Vial: 20
Acq On    : 29 Feb 2016  10:25 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103539.D\FID2B.CH          Vial: 20
Acq On    : 29 Feb 2016  10:39 am                     Operator: XULIU
Sample    : IC5193-50000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:25 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 10:49:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID1A.CH Vial: 21
Acq On : 29 Feb 2016 10:39 am Operator: XULIU
Sample : IC5193-100000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID2B.CH Vial: 21
Acq On : 29 Feb 2016 10:57 am Operator: XULIU
Sample : IC5193-100000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 10:49:38 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.89	5.34	762379	756038	6378.624	6122.502
Spiked Amount	5000.000			Recovery	=	127.57%	122.45%
	Target Compounds						
1)	Methanol	1.42	0.80	1779651	1707777	122113.328	116085.808
2)	Ethanol	1.85	1.02	2349319	2287965	114089.375	110741.557
3)	Tert-Butyl Alcoh	2.51	1.46	3492408	3302691	107462.375	102847.039
4)	1-Propanol	2.99	1.78	3029689	2893990	107370.879	107117.291
5)	2-Propanol	2.23	1.25	2529033	2413432	112831.064	107591.432
7)	Isobutanol	3.82	2.70	3484319	3290247	109198.681	102251.057
8)	1-Butanol	4.23	3.19	3265181	3245269	103706.261	100138.368
9)	2-Butanol	3.43	2.32	3066220	2923878	107163.152	108397.288

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103540.D MGH5193.M Mon Feb 29 13:25:30 2016 GCGH

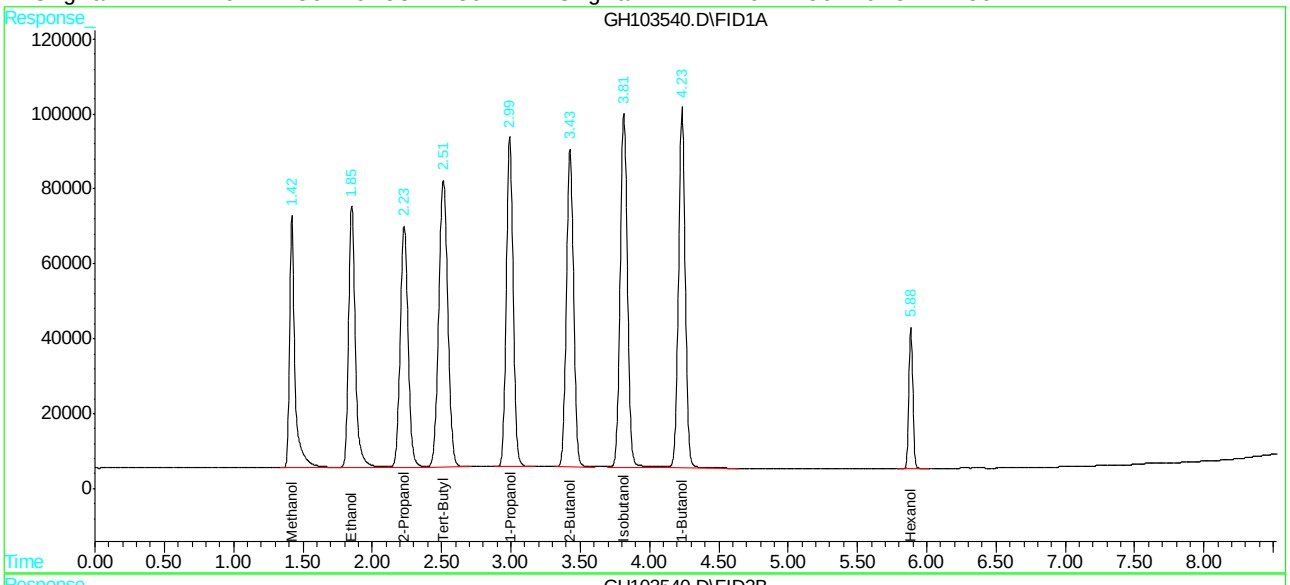
Quantitation Report (QT Reviewed)

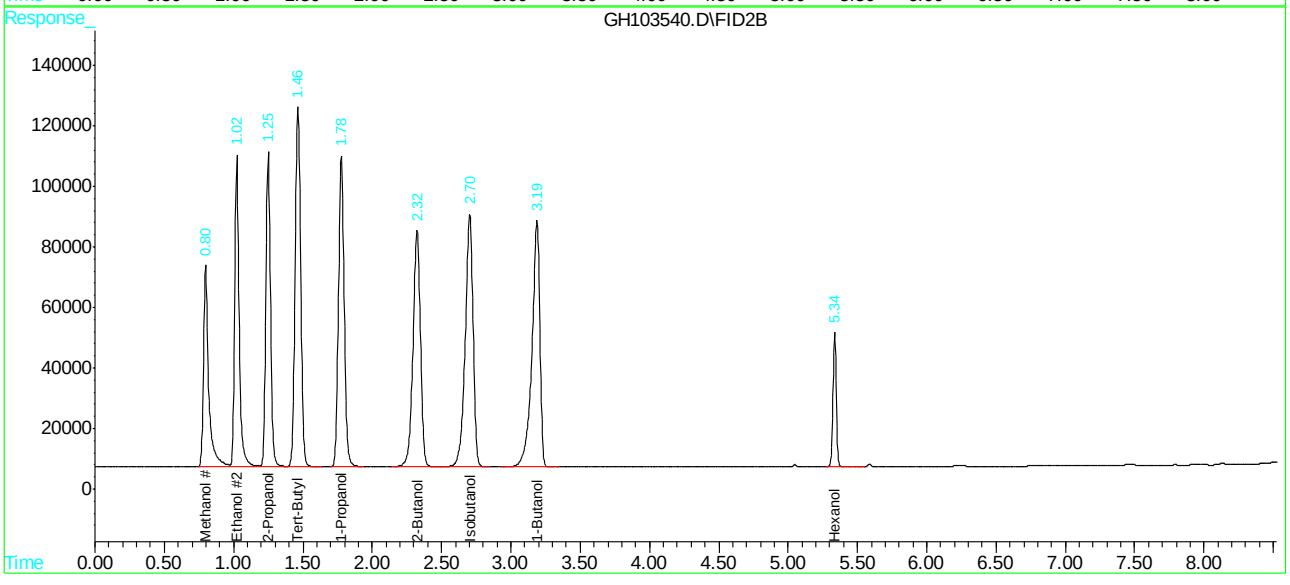
Data File : C:\HPCHEM\1\DATA\GH103540.D\FID1A.CH Vial: 21
Acq On : 29 Feb 2016 10:39 am Operator: XULIU
Sample : IC5193-100000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103540.D\FID2B.CH Vial: 21
Acq On : 29 Feb 2016 10:57 am Operator: XULIU
Sample : IC5193-100000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:25 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 10:49:38 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH          Vial: 22
Acq On    : 29 Feb 2016  10:57 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH          Vial: 22
Acq On    : 29 Feb 2016  11:10 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:34 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:27:39 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.88	5.34	627374	611421	5306.730	5276.343
	Spiked Amount 5000.000			Recovery	=	106.13%	105.53%
	Target Compounds						
1)	Methanol	1.42	0.80	92609	86129	5293.274	5131.587
2)	Ethanol	1.85	1.03	118659	114677	5124.160	5120.833
3)	Tert-Butyl Alcoh	2.51	1.47	180800	160931	5219.790	4965.652
4)	1-Propanol	2.99	1.78	154372	152110	5176.241	5084.369
5)	2-Propanol	2.23	1.25	131831	117651	5264.955	5011.800
7)	Isobutanol	3.81	2.70	177787	160719	5166.554	4673.557
8)	1-Butanol	4.23	3.19	171004	159534	5210.074	5016.629
9)	2-Butanol	3.42	2.33	157688	145917	5163.577	4269.357m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

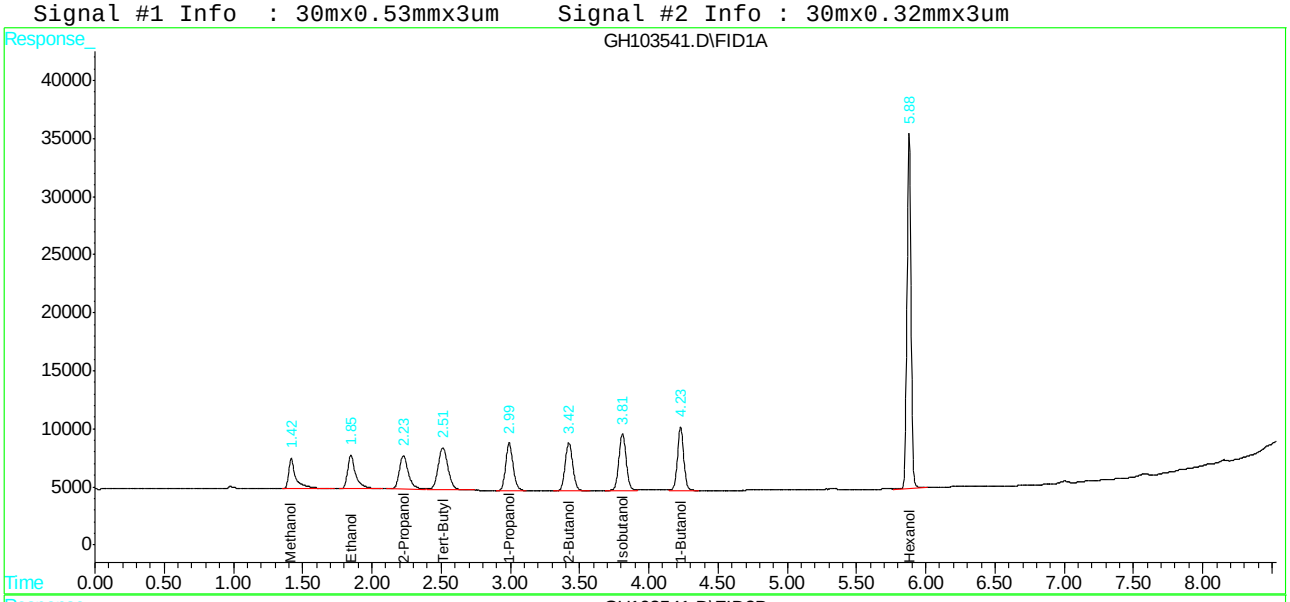
Quantitation Report (QT Reviewed)

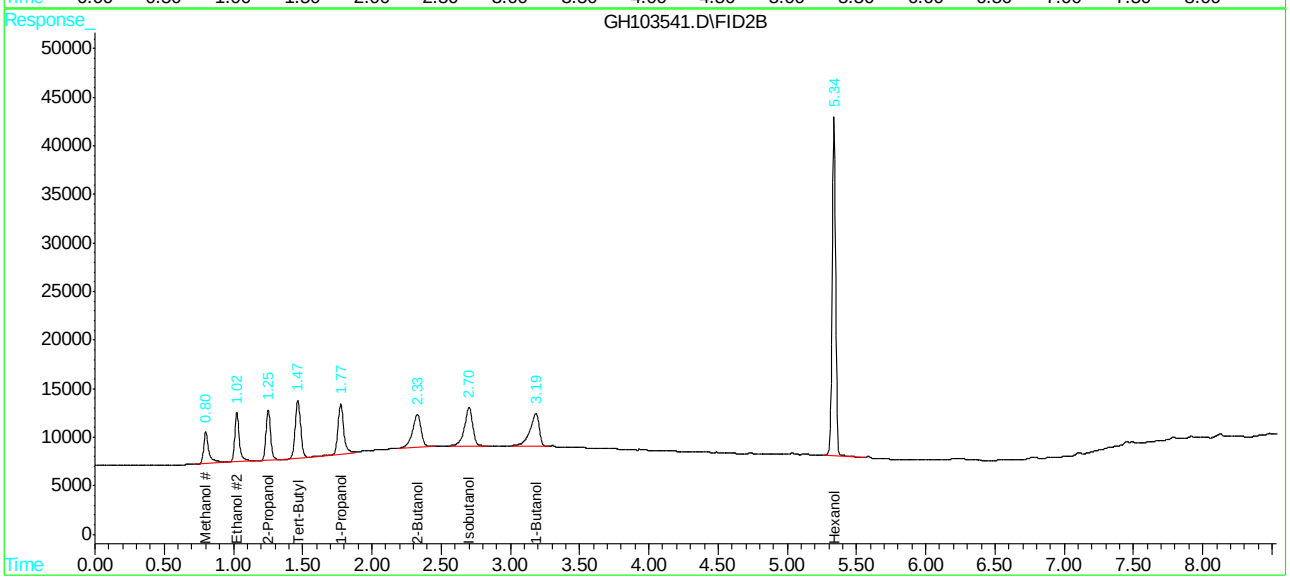
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH Vial: 22
Acq On : 29 Feb 2016 10:57 am Operator: XULIU
Sample : ICC5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH Vial: 22
Acq On : 29 Feb 2016 11:10 am Operator: XULIU
Sample : ICC5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Feb 29 13:34 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Feb 29 13:27:39 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integration Approval Summary

Sample Number:	GGH5193-ICC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103541.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 10:57	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

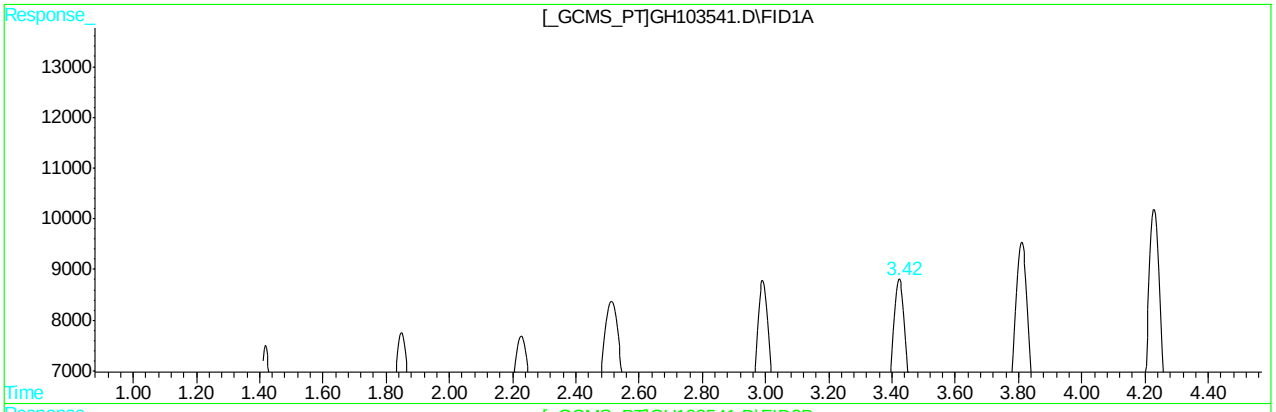
Parameter	CAS	Sig#	R.T. (min.)	Reason
sec-Butyl Alcohol	78-92-2	2	2.33	Poorly defined baseline

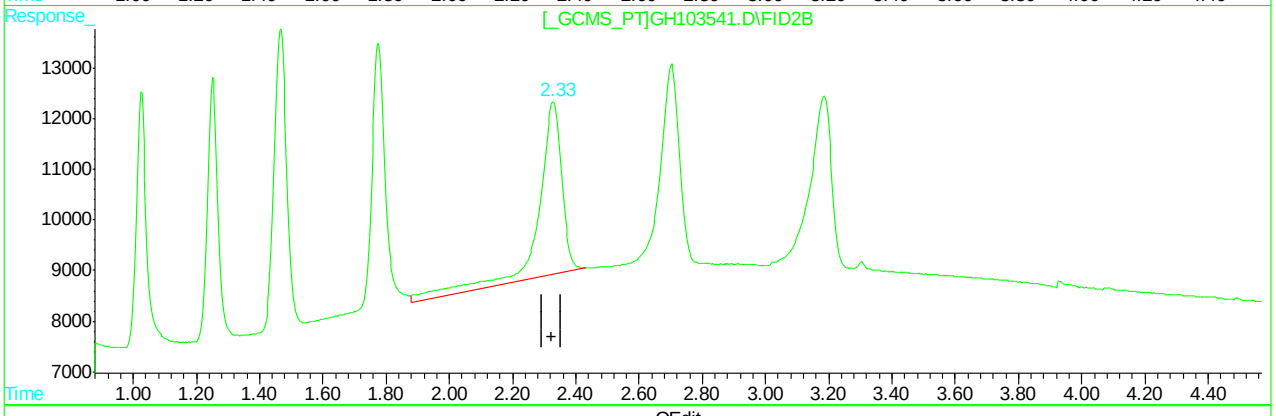
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH          Vial: 22
Acq On    : 29 Feb 2016  10:57 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH          Vial: 22
Acq On    : 29 Feb 2016  11:10 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:32 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:32:26 2016
Response via : Multiple Level Calibration
```





QEdit

(9) 2-Butanol

3.42min 5163.577PPB

response 157688

(9) 2-Butanol #2

2.33min 5176.951PPB

response 176936

(+) = Expected Retention Time

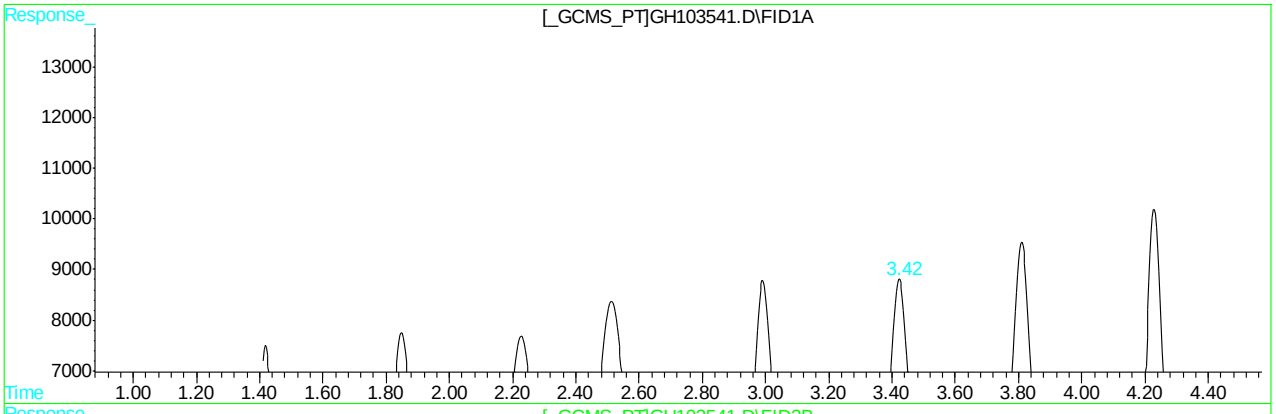
GH103541.D MGH5193.M Mon Feb 29 13:33:18 2016 GCGH

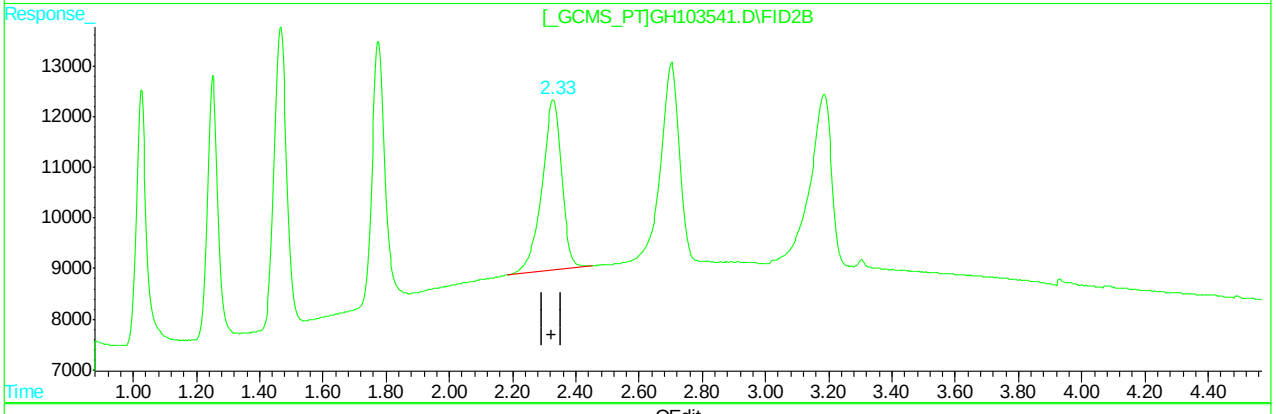
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103541.D\FID1A.CH          Vial: 22
Acq On    : 29 Feb 2016  10:57 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103541.D\FID2B.CH          Vial: 22
Acq On    : 29 Feb 2016  11:10 am                     Operator: XULIU
Sample    : ICC5193-5000                              Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Feb 29 13:32 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Feb 29 13:32:26 2016
Response via : Multiple Level Calibration
```





QEdit

(9) 2-Butanol

3.42min 5163.577PPB

response 157688

(9) 2-Butanol #2

2.33min 4269.357PPB m

response 145917

(+) = Expected Retention Time

GH103541.D MGH5193.M Mon Feb 29 13:34:08 2016 GCGH

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 12:07 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 07:54:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.88	5.34	338506	356649	2628.802	2776.345
	Spiked Amount 5000.000			Recovery	=	52.58%	55.53%
	Target Compounds						
1)	Methanol	1.45f	0.80	7128	9089	416.617	502.554m
2)	Ethanol	1.87f	1.03	10970	10120	480.229	458.322
3)	Tert-Butyl Alcoh	2.52	1.47	13871	14529	388.904m	454.774
4)	1-Propanol	3.01f	1.78	10460	11823	355.989m	422.185
5)	2-Propanol	2.24	1.25	8410	10264	318.255m	444.470
7)	Isobutanol	3.82	2.70	14482	14321	431.331	454.428
8)	1-Butanol	4.23	3.19	13713	17157	421.970	537.665
9)	2-Butanol	3.45f	2.33	11734	12260	396.922	432.808

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103543.D MGH5193.M Tue Mar 01 12:07:19 2016 GCGH

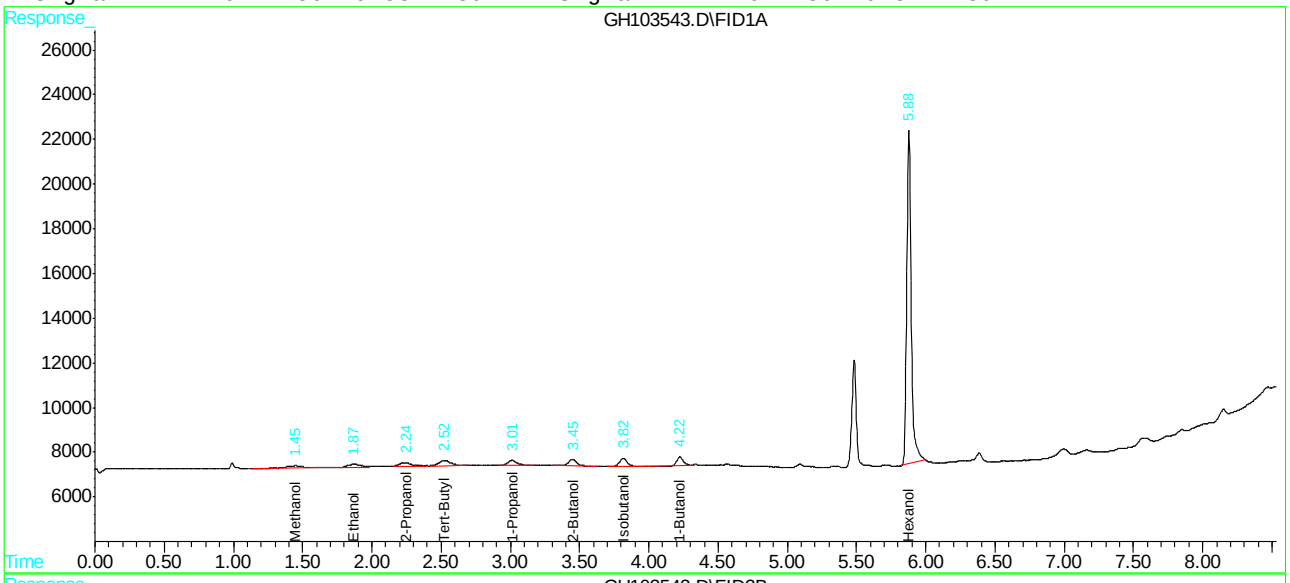
Quantitation Report (QT Reviewed)

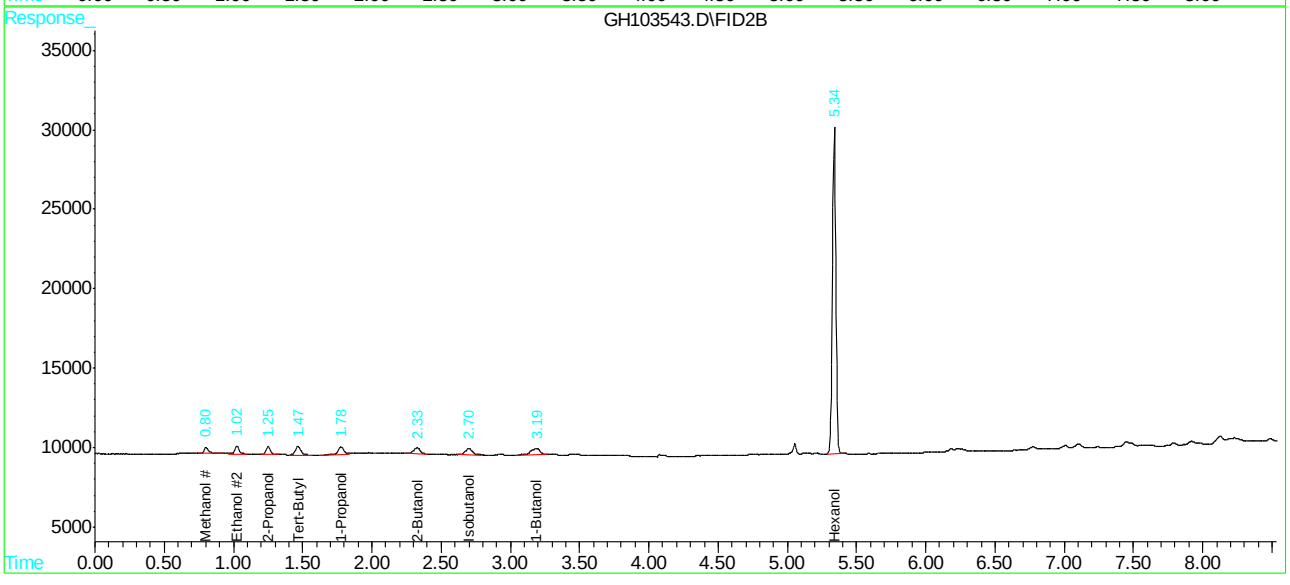
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On : 29 Feb 2016 12:05 pm Operator: XULIU
Sample : IC5193-500 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
Sample : IC5193-500 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 1 12:07 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 07:54:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integration Approval Summary

Sample Number:	GGH5193-IC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103543.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 12:05	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

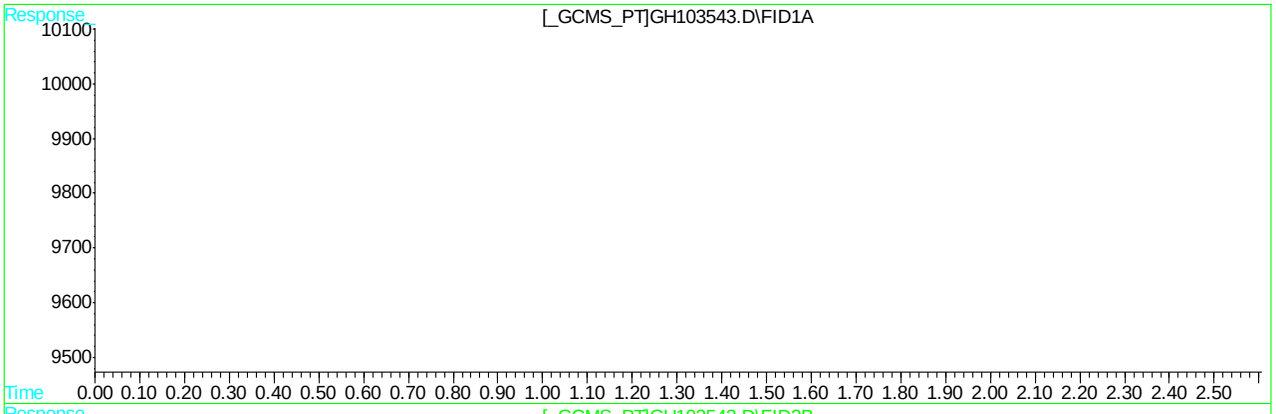
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.80	Poorly defined baseline
Isopropyl Alcohol	67-63-0	1	2.24	Poorly defined baseline
Tertiary Butyl Alcohol	75-65-0	1	2.52	Poorly defined baseline
n-Propyl Alcohol	71-23-8	1	3.01	Poorly defined baseline

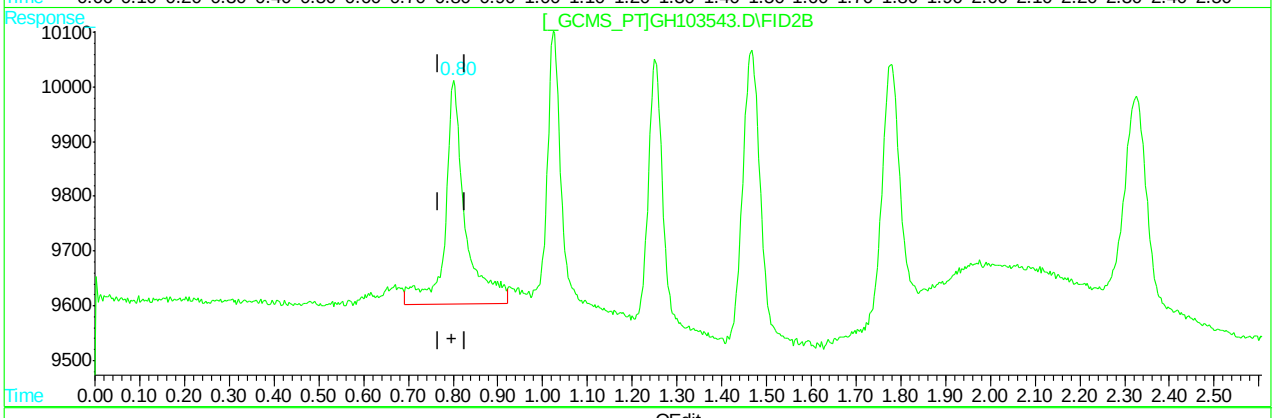
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103543.D\FID1A.CH          Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID2B.CH          Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  7:57 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.45min 416.617PPB

response 7128

(1) Methanol #2

0.80min 697.836PPB

response 12621

(+) = Expected Retention Time

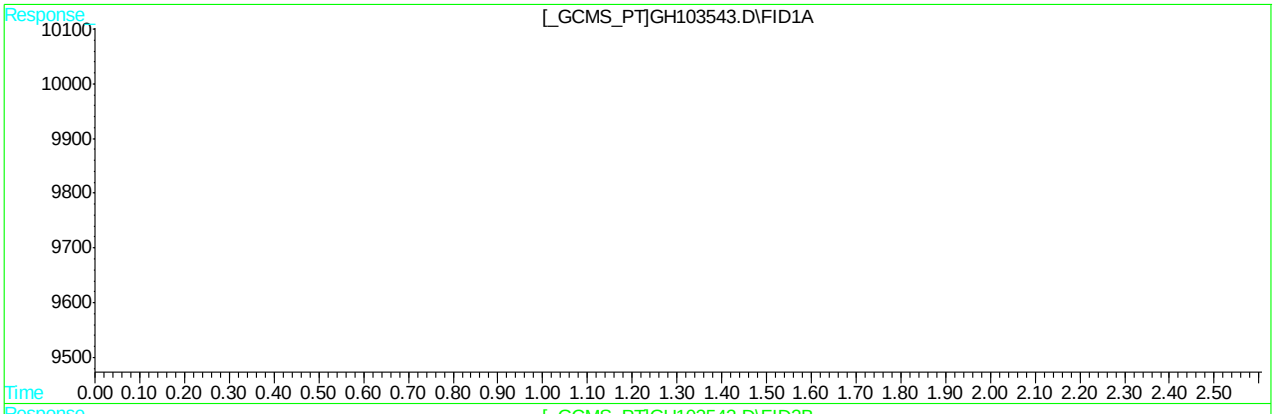
GH103543.D MGH5193.M Tue Mar 01 08:16:04 2016 GCGH

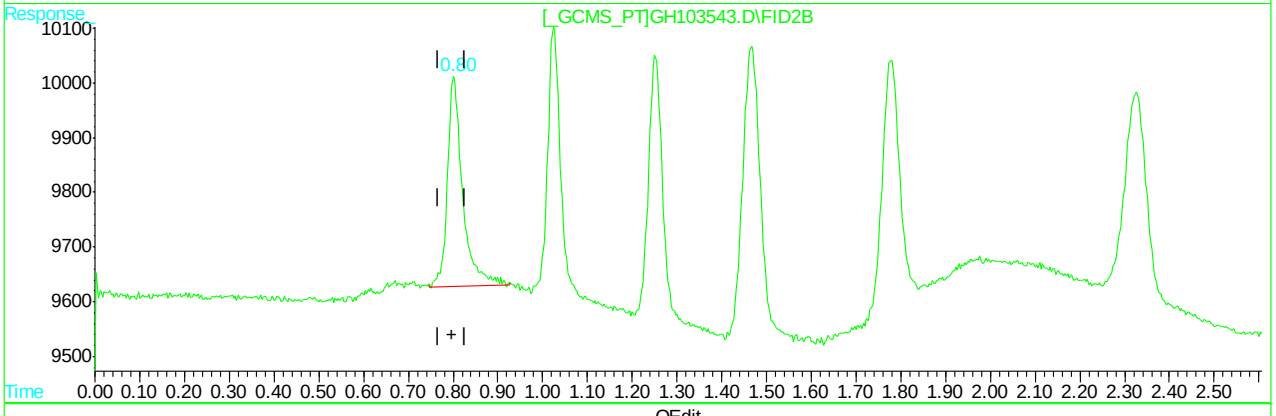
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103543.D\FID1A.CH          Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103543.D\FID2B.CH          Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-500                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  7:57 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.45min 416.617PPB

response 7128

(1) Methanol #2

0.80min 502.554PPB m

response 9089

(+) = Expected Retention Time

GH103543.D MGH5193.M Tue Mar 01 08:16:50 2016 GCGH

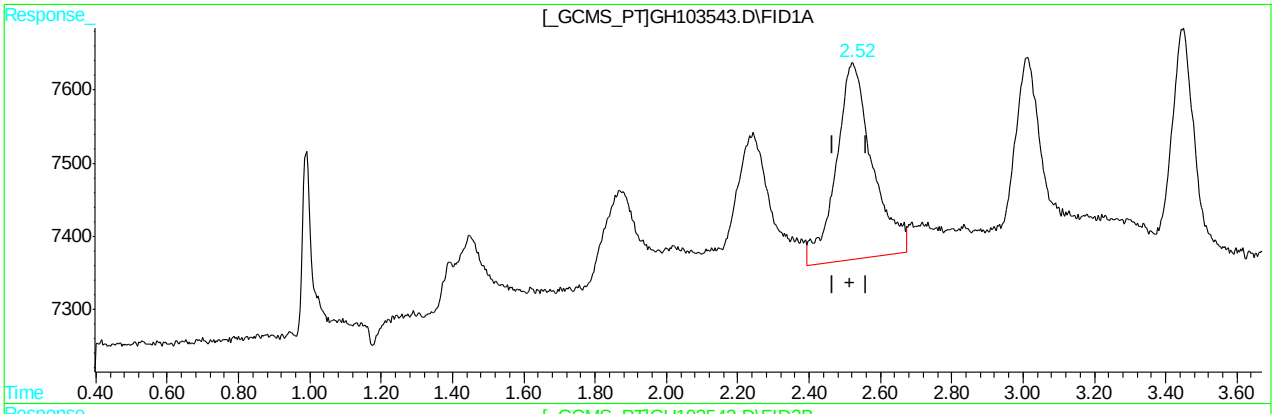
SGS ACCUTEST JC16038

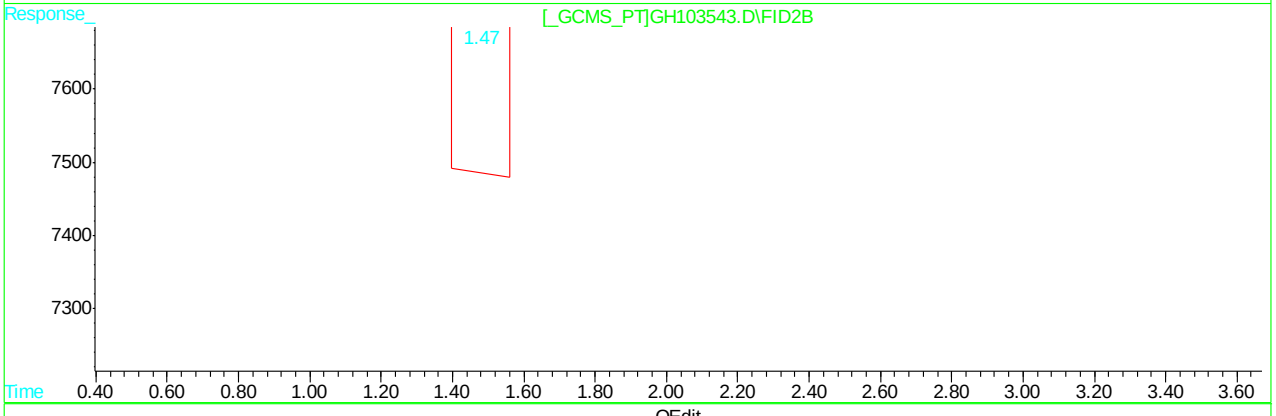
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

2.52min 531.527PPB

response 18958

(3) Tert-Butyl Alcohol #2

1.47min 454.774PPB

response 14529

(+) = Expected Retention Time

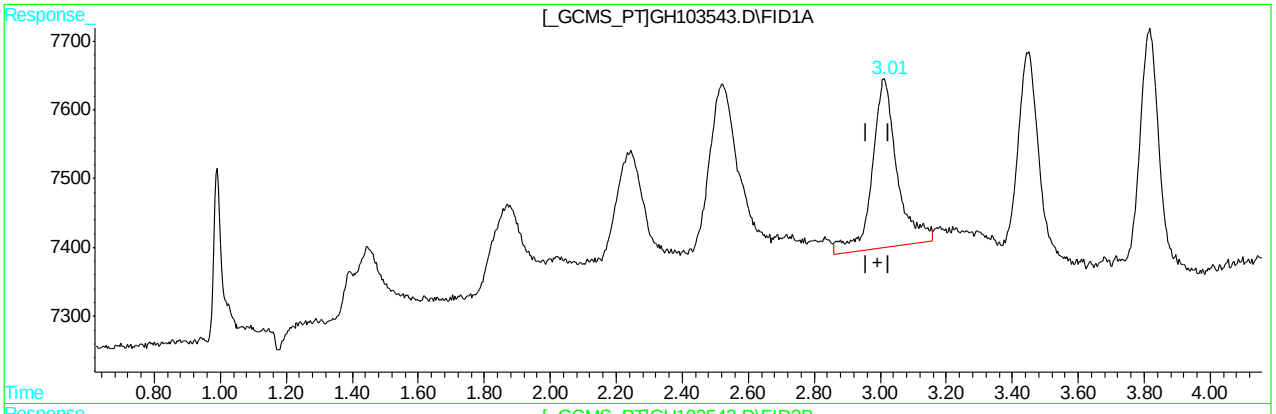
GH103543.D MGH5193.M Tue Mar 01 10:16:49 2016 GCGH

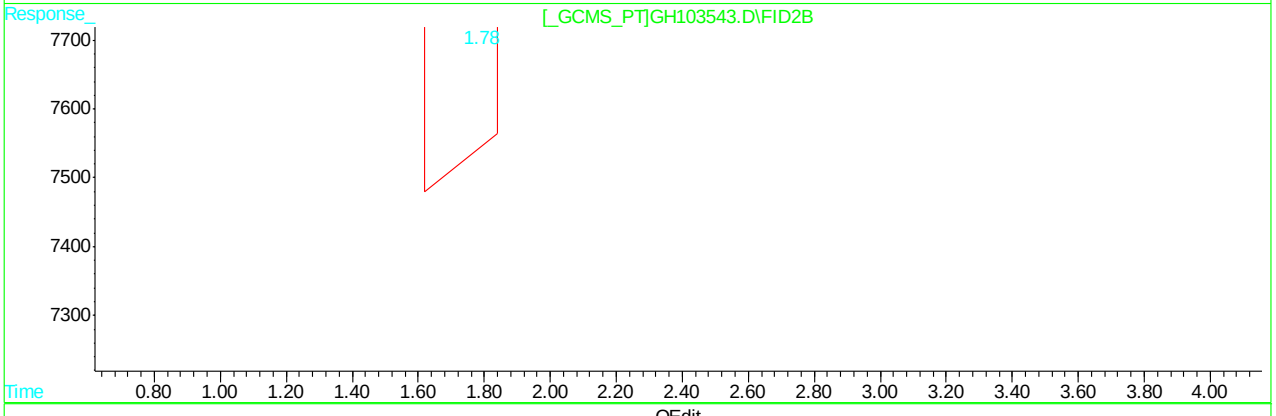
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.01min 449.441PPB

response 13206

(4) 1-Propanol #2

1.78min 422.185PPB

response 11823

(+) = Expected Retention Time

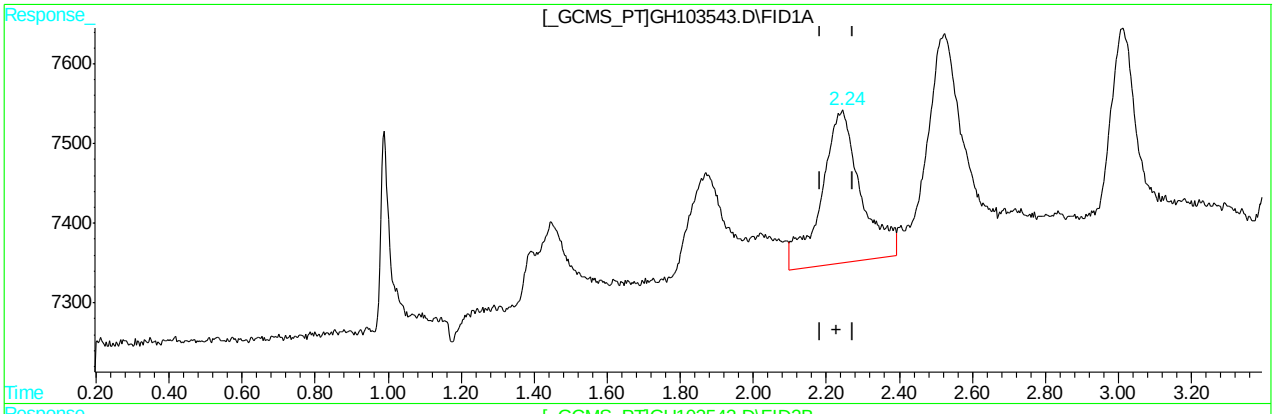
GH103543.D MGH5193.M Tue Mar 01 10:17:11 2016 GCGH

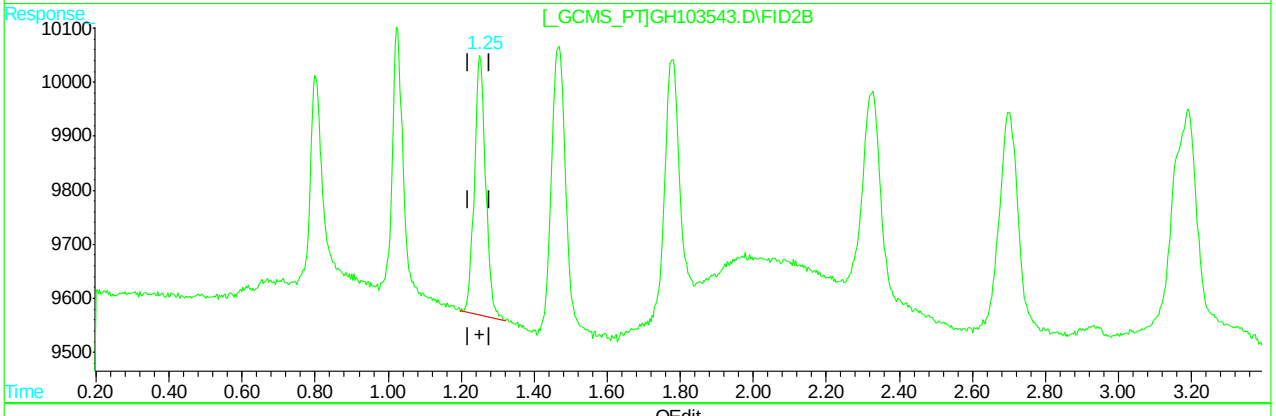
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

2.24min 546.957PPB

response 14454

(5) 2-Propanol #2

1.25min 444.470PPB

response 10264

(+) = Expected Retention Time

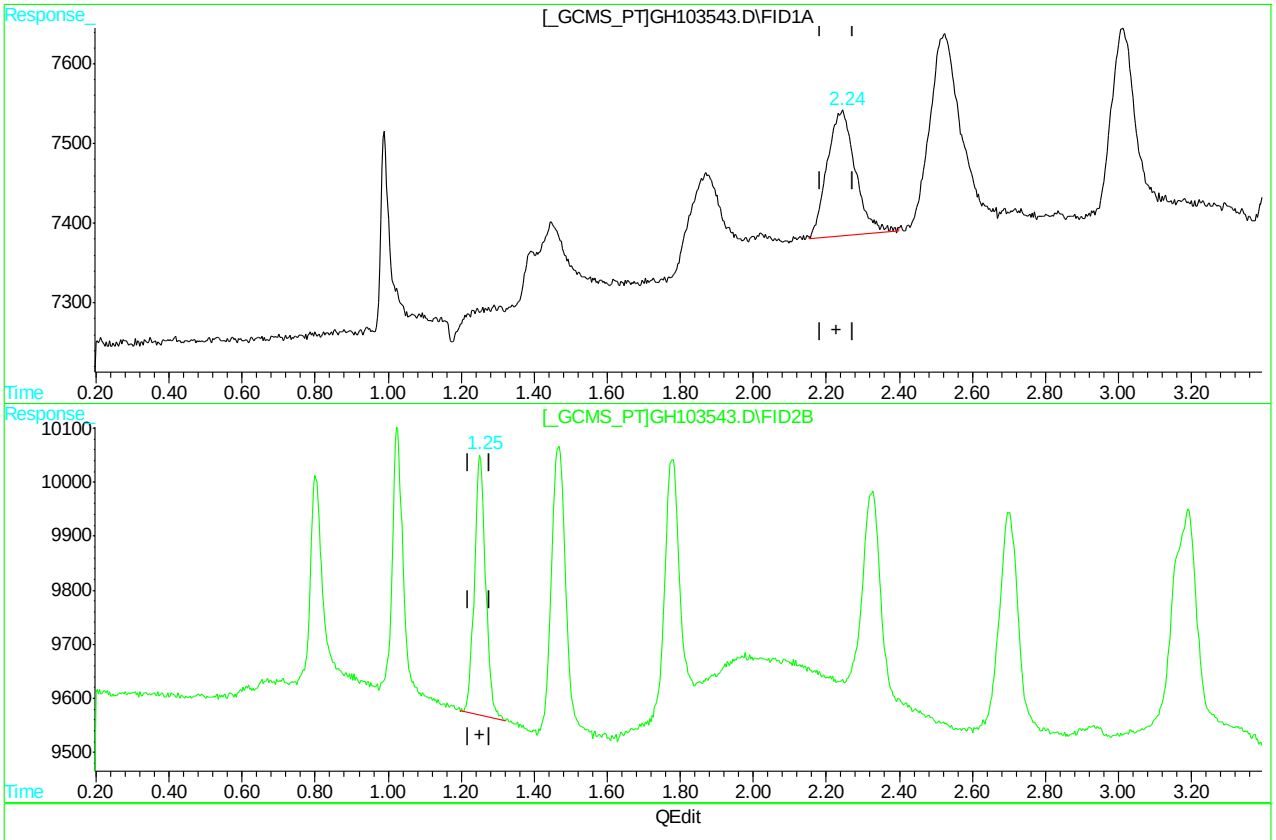
GH103543.D MGH5193.M Tue Mar 01 10:17:42 2016 GCGH

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:16 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```



(5) 2-Propanol

2.24min 318.255PPB m

response 8410

(5) 2-Propanol #2

1.25min 444.470PPB

response 10264

(+) = Expected Retention Time

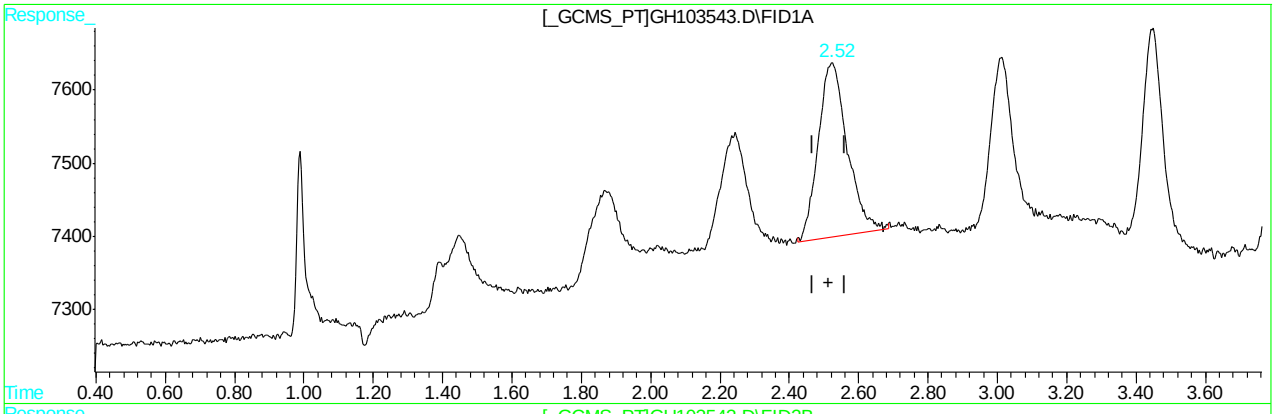
GH103543.D MGH5193.M Tue Mar 01 10:18:02 2016 GCGH

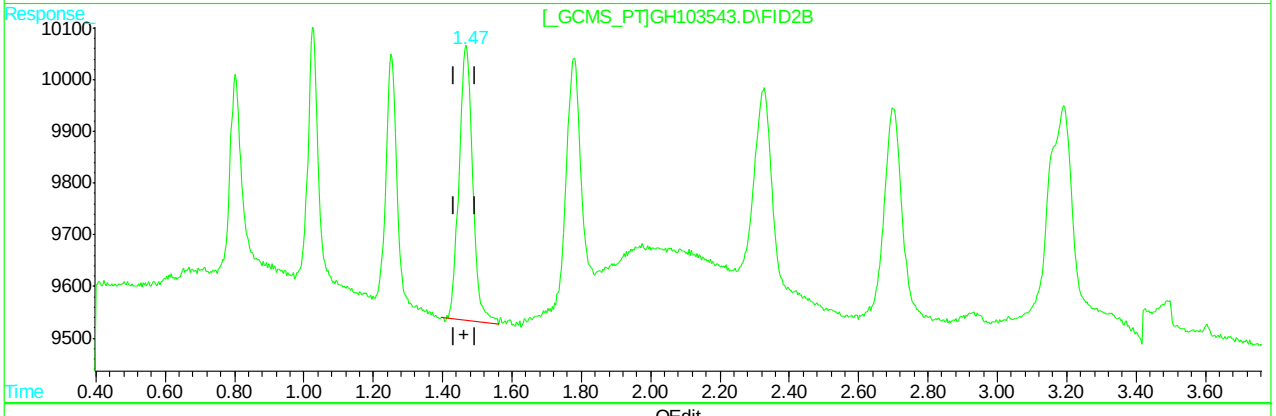
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 10:17 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 11:02:24 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

2.52min 388.904PPB m

response 13871

(3) Tert-Butyl Alcohol #2

1.47min 454.774PPB

response 14529

(+) = Expected Retention Time

GH103543.D MGH5193.M Tue Mar 01 12:06:57 2016 GCGH

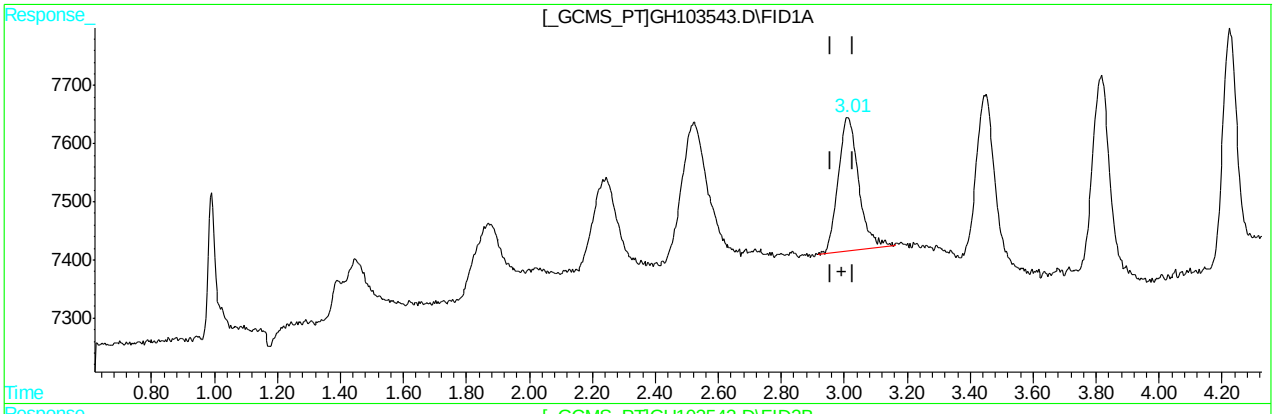
SGS ACCUTEST JC16038

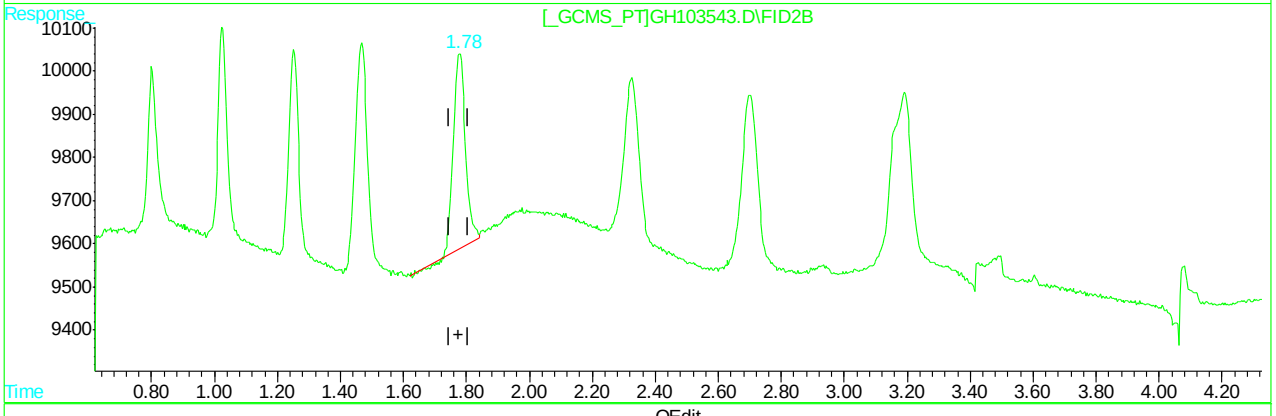
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID1A.CH Vial: 10
Acq On    : 29 Feb 2016  12:05 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103543.D\FID2B.CH Vial: 10
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-500                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 10:17 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 11:02:24 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

3.01min 355.989PPB m

response 10460

(4) 1-Propanol #2

1.78min 422.185PPB

response 11823

(+) = Expected Retention Time

GH103543.D MGH5193.M Tue Mar 01 12:07:11 2016 GCGH

GH103544.D

Manual Integrations APPROVED (compounds with "m" flag)

Jessica Reitan-Chu 03/01/16 14:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 10:15 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:10:45 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.88	5.34	96146	97501	753.837	764.597
	Spiked Amount 5000.000			Recovery	=	15.08%	15.29%
	Target Compounds						
1)	Methanol	1.42	0.80	1952	2010	111.847	109.390
2)	Ethanol	1.85	1.02	2002	2194	82.002m	99.470
3)	Tert-Butyl Alcoh	2.51	1.47	3482	3221	97.961	100.694
4)	1-Propanol	2.99	1.78	3265	3320	109.388	115.495
5)	2-Propanol	2.22	1.25	2559	2475	96.011m	106.098
7)	Isobutanol	3.81	2.70	3542	3670	104.664	113.781
8)	1-Butanol	4.23	3.18	3899	5688	116.654	155.884m
9)	2-Butanol	3.42	2.32	3756	3049	122.321	106.484

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

GH103544.D MGH5193.M Tue Mar 01 10:16:01 2016 GCGH

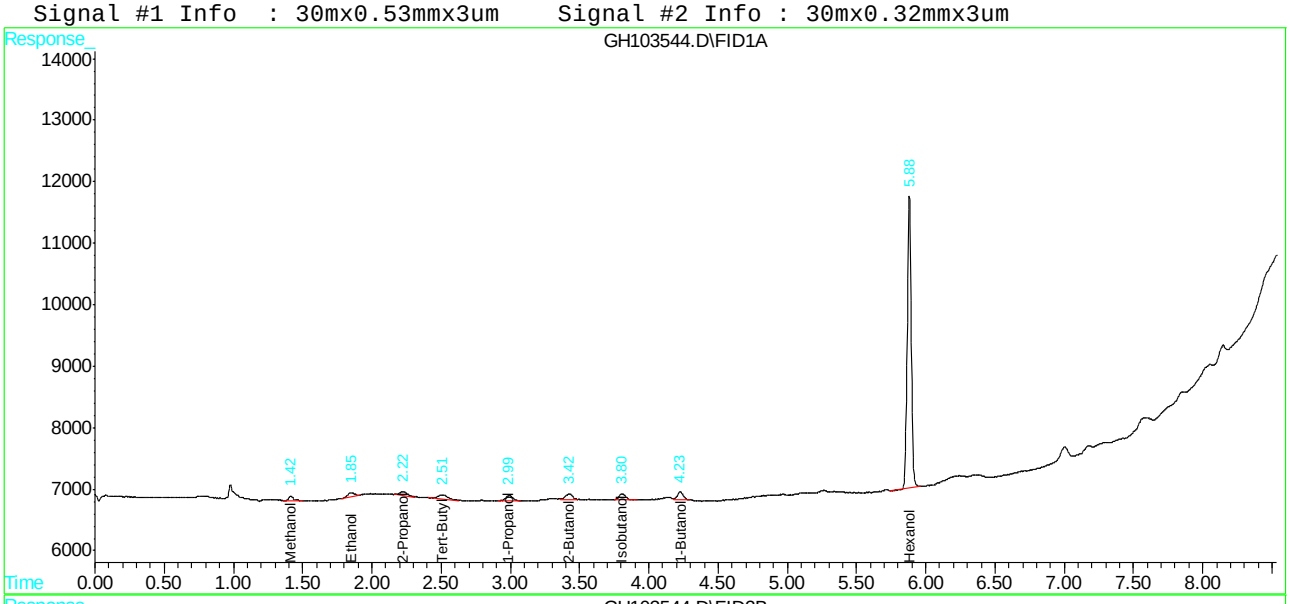
Quantitation Report (QT Reviewed)

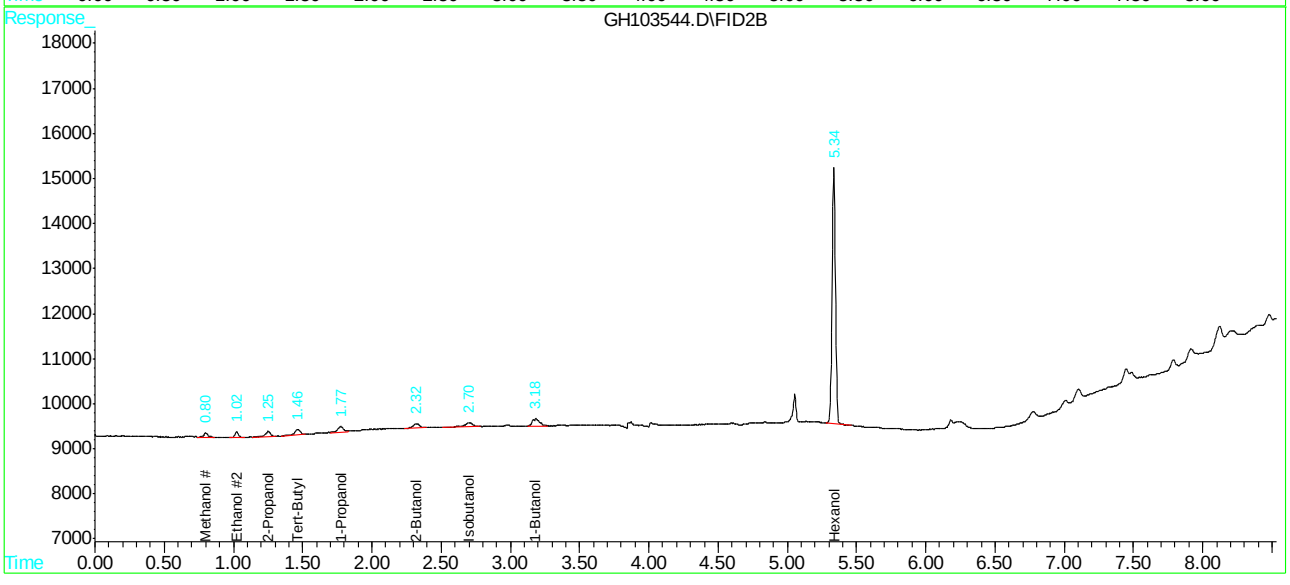
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On : 29 Feb 2016 12:23 pm Operator: XULIU
Sample : IC5193-100 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On : 29 Feb 2016 12:38 pm Operator: XULIU
Sample : IC5193-100 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 1 10:15 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 08:10:45 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integration Approval Summary

Sample Number:	GGH5193-IC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103544.D	**Analyst approved:**	03/01/16 13:28 Xu Liu
Injection Time:	02/29/16 12:23	**Supervisor approved:**	03/01/16 14:34 Jessica Reitan-Chu

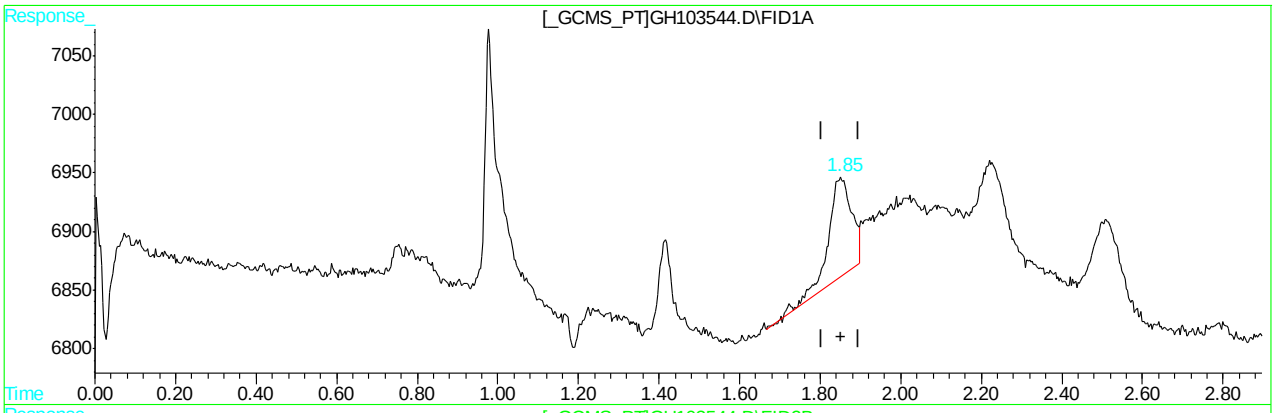
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethanol	64-17-5	1	1.85	Poorly defined baseline
Isopropyl Alcohol	67-63-0	1	2.22	Missed peak
n-Butyl Alcohol	71-36-3	2	3.18	Split peak

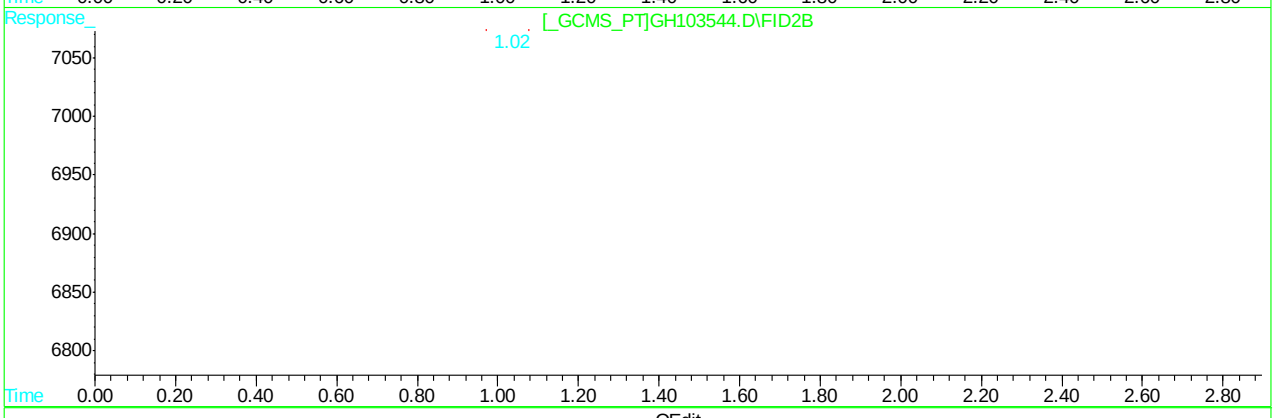
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:12 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.85min 138.711PPB

response 3387

(2) Ethanol #2

1.02min 99.470PPB

response 2194

(+) = Expected Retention Time

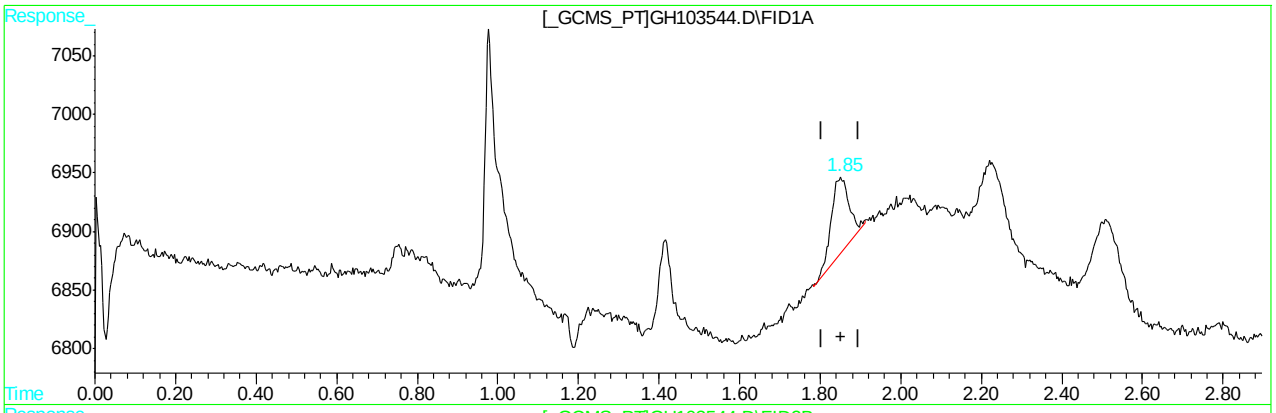
GH103544.D MGH5193.M Tue Mar 01 08:18:52 2016 GCGH

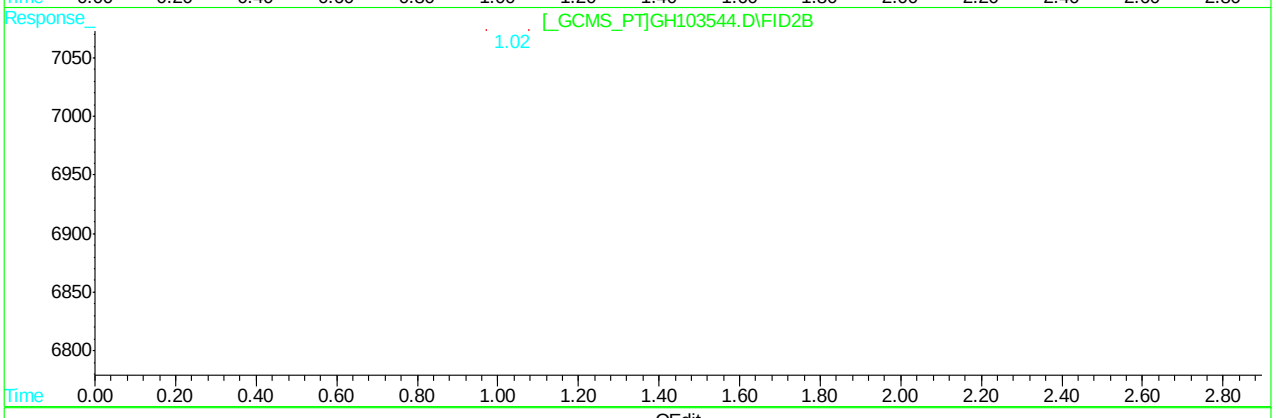
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:12 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:12:38 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

1.85min 82.002PPB m

response 2002

(2) Ethanol #2

1.02min 99.470PPB

response 2194

(+) = Expected Retention Time

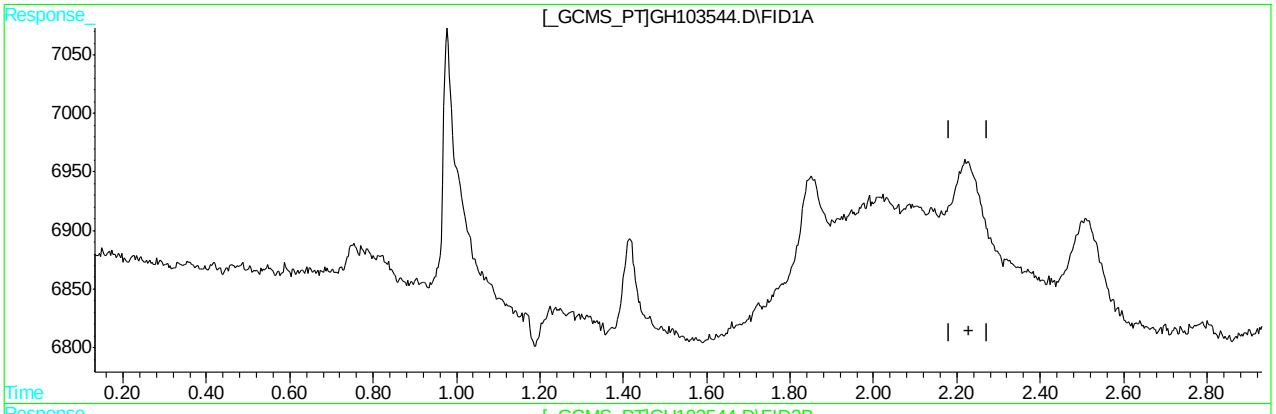
GH103544.D MGH5193.M Tue Mar 01 08:20:10 2016 GCGH

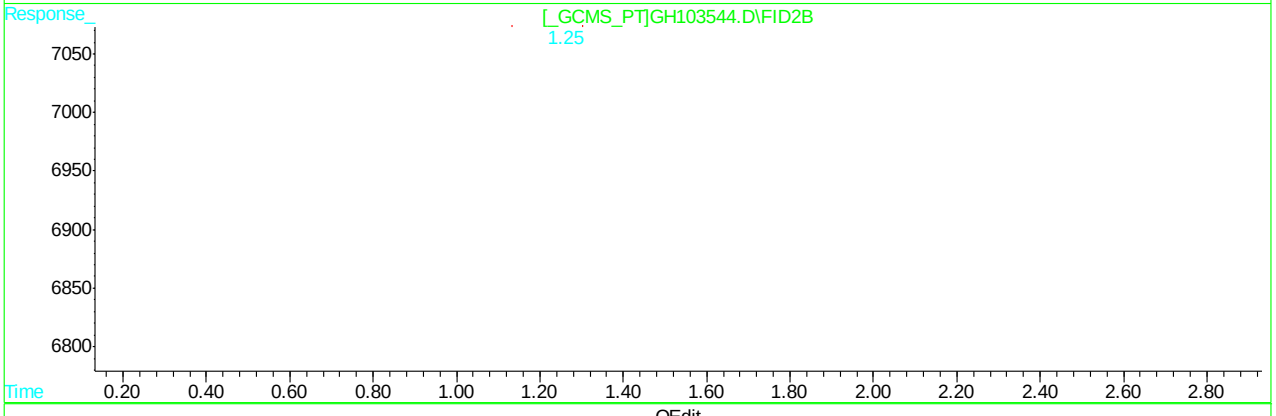
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:19 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:23:36 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

0.00min 0.000PPB

response 0

(5) 2-Propanol #2

1.25min 106.098PPB

response 2475

(+) = Expected Retention Time

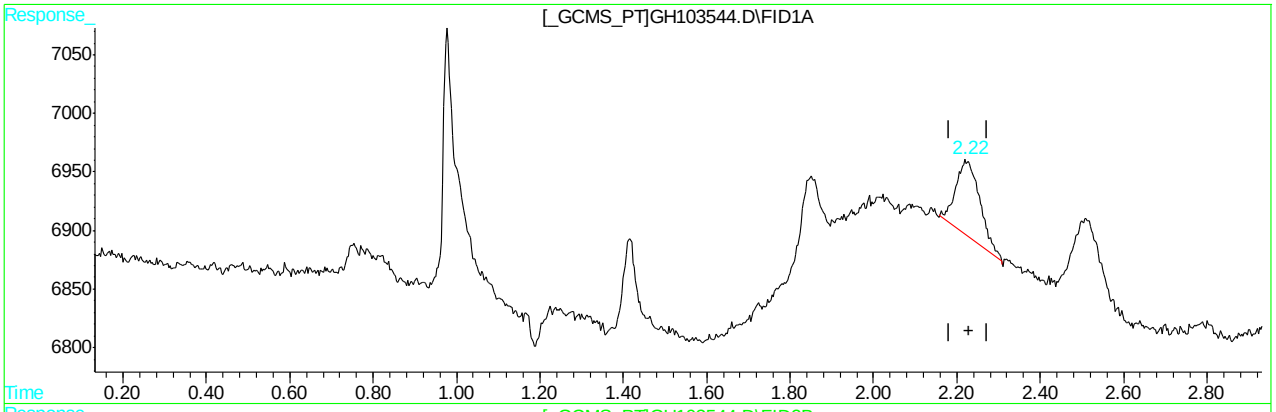
GH103544.D MGH5193.M Tue Mar 01 08:24:02 2016 GCGH

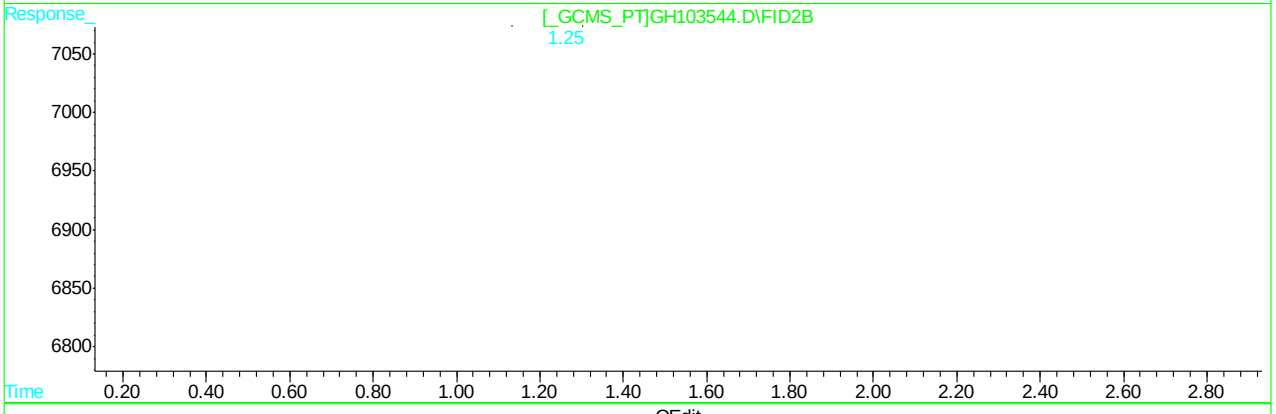
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103544.D\FID1A.CH          Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103544.D\FID2B.CH          Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                     Operator: XULIU
Sample    : IC5193-100                                Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:19 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:23:36 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

2.22min 96.011PPB m

response 2559

(5) 2-Propanol #2

1.25min 106.098PPB

response 2475

(+) = Expected Retention Time

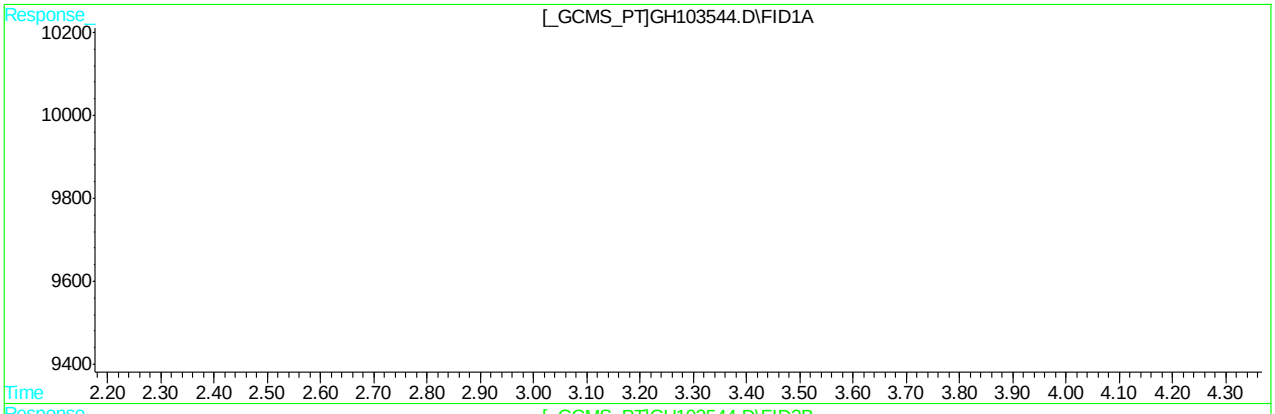
GH103544.D MGH5193.M Tue Mar 01 08:25:29 2016 GCGH

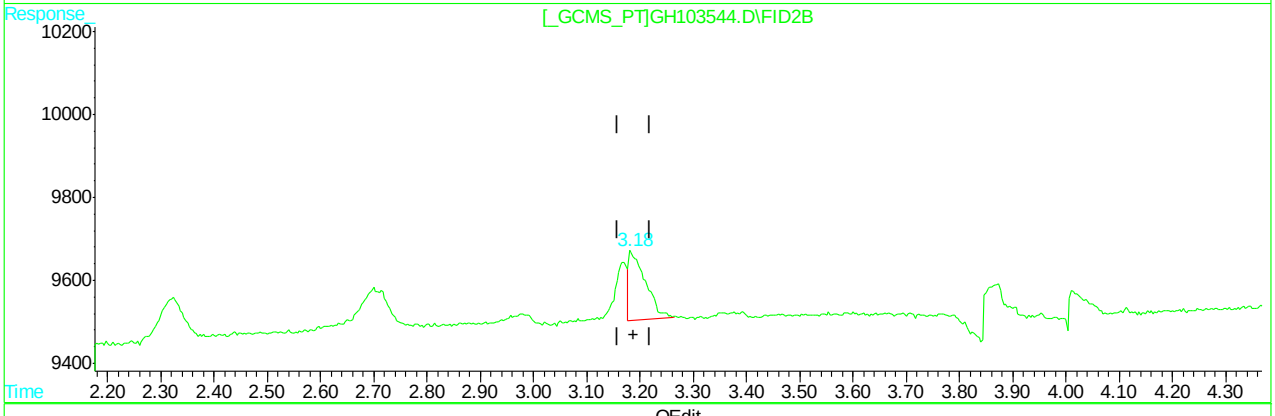
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:25 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 1-Butanol

4.23min 116.654PPB

response 3899

(8) 1-Butanol #2

3.18min 104.373PPB

response 3808

(+) = Expected Retention Time

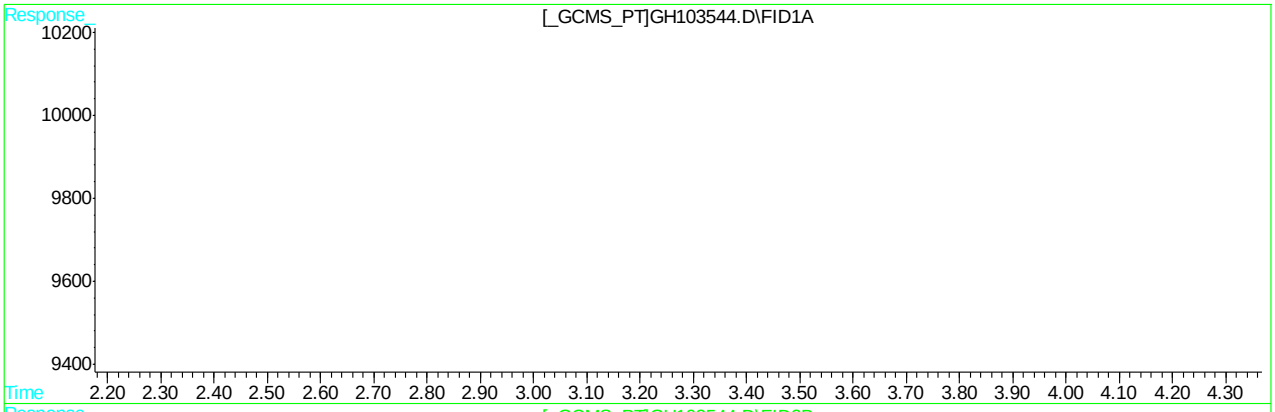
GH103544.D MGH5193.M Tue Mar 01 10:15:45 2016 GCGH

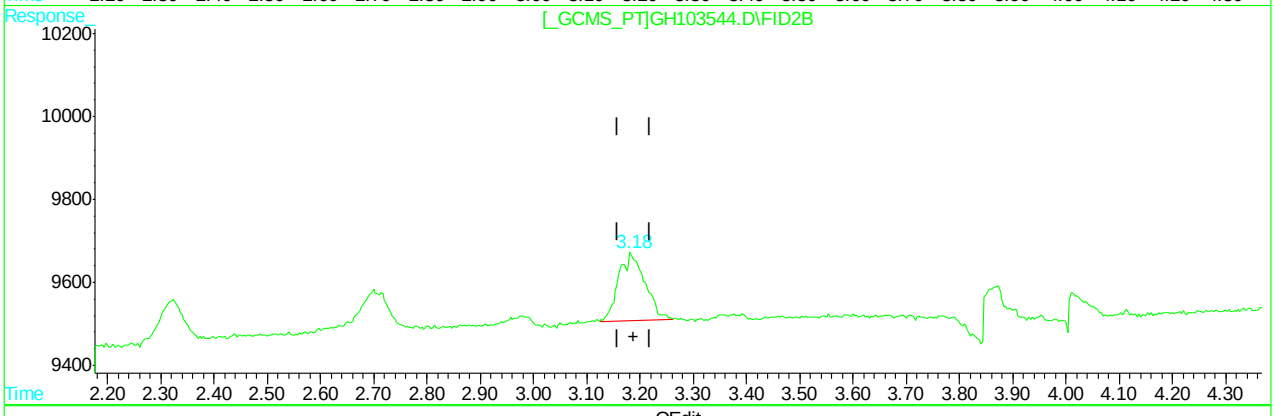
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID1A.CH Vial: 5
Acq On    : 29 Feb 2016  12:23 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103544.D\FID2B.CH Vial: 5
Acq On    : 29 Feb 2016  12:38 pm                    Operator: XULIU
Sample    : IC5193-100                               Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1  8:25 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 08:26:22 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 1-Butanol

4.23min 116.654PPB

response 3899

(8) 1-Butanol #2

3.18min 155.884PPB m

response 5688

(+) = Expected Retention Time

GH103544.D MGH5193.M Tue Mar 01 10:15:55 2016 GCGH

11.5.7.7

11

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
Acq On    : 29 Feb 2016   1:20 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
Acq On    : 29 Feb 2016   1:36 pm                    Operator: XULIU
Sample    : ICV5193-5000                             Inst    : GCGH
Misc      : GC47719,GGH5193,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar  1 12:24 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Mar 01 12:10:59 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.88	5.34	621339	605656	4871.651	4749.523
	Spiked Amount 5000.000			Recovery	=	97.43%	94.99%
	Target Compounds						
1)	Methanol	1.42	0.80	89753	86850	5142.658	5001.679
2)	Ethanol	1.85	1.02	118314	114631	5272.444	5195.921
3)	Tert-Butyl Alcoh	2.51	1.47	175949	166701	5160.980	5211.888
4)	1-Propanol	2.99	1.77	154839	145777	5327.199	5070.941
5)	2-Propanol	2.23	1.25	126287	123170	5137.821	5279.569
7)	Isobutanol	3.81	2.70	172809	165206	5106.756	5121.827
8)	1-Butanol	4.23	3.19	169085	164075	5058.564	4624.847
9)	2-Butanol	3.42	2.32	156041	147599	5081.800	5154.079

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC16038

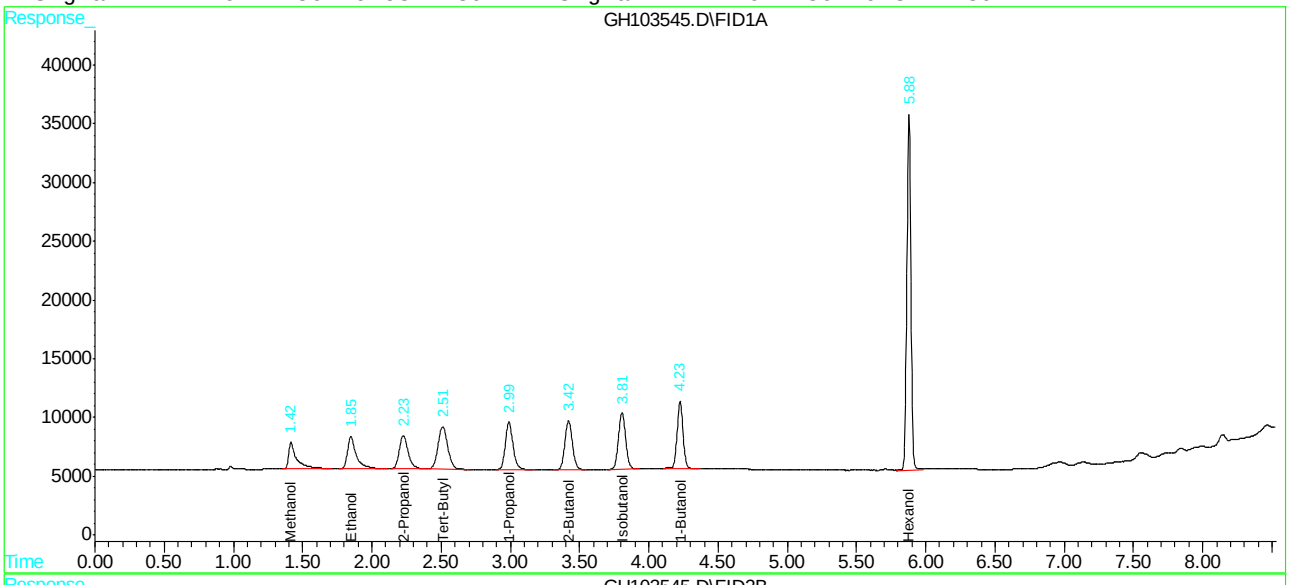
Quantitation Report (QT Reviewed)

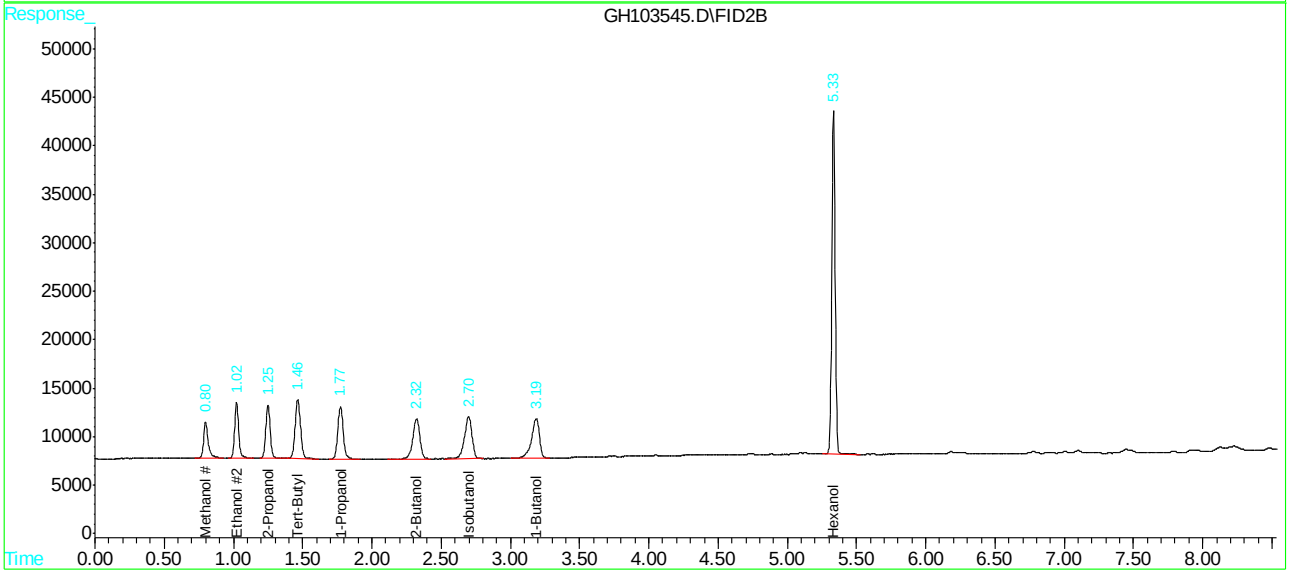
Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID1A.CH Vial: 20
Acq On : 29 Feb 2016 1:20 pm Operator: XULIU
Sample : ICV5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\DATA1035\GH103545.D\FID2B.CH Vial: 20
Acq On : 29 Feb 2016 1:36 pm Operator: XULIU
Sample : ICV5193-5000 Inst : GCGH
Misc : GC47719,GGH5193,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 1 12:24 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Mar 01 12:10:59 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103774.D\FID1A.CH          Vial: 92
Acq On    : 17 Mar 2016  10:39 am                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID2B.CH          Vial: 92
Acq On    : 17 Mar 2016  10:54 am                     Operator: XULIU
Sample    : CC5193-5000                               Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 17 12:59 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 12:48:46 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.87	5.29	612866	646191	4805.221	5067.398
	Spiked Amount 5000.000			Recovery	=	96.10%	101.35%
	Target Compounds						
1)	Methanol	1.40	0.78	78302	78281	4486.542	4508.229
2)	Ethanol	1.83	1.00	113509	120573	5058.329	5465.251
3)	Tert-Butyl Alcoh	2.50	1.43	184260	187029	5404.746	5847.439
4)	1-Propanol	2.97	1.74	155855	162099	5362.145	5638.694
5)	2-Propanol	2.21	1.22	128205	133206	5215.824	5709.744
7)	Isobutanol	3.79	2.65	183935	195984	5435.556	6076.002
8)	1-Butanol	4.21	3.14	163599	177360	4894.442	4999.304
9)	2-Butanol	3.41	2.27	166651	165707	5427.326	5786.407

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

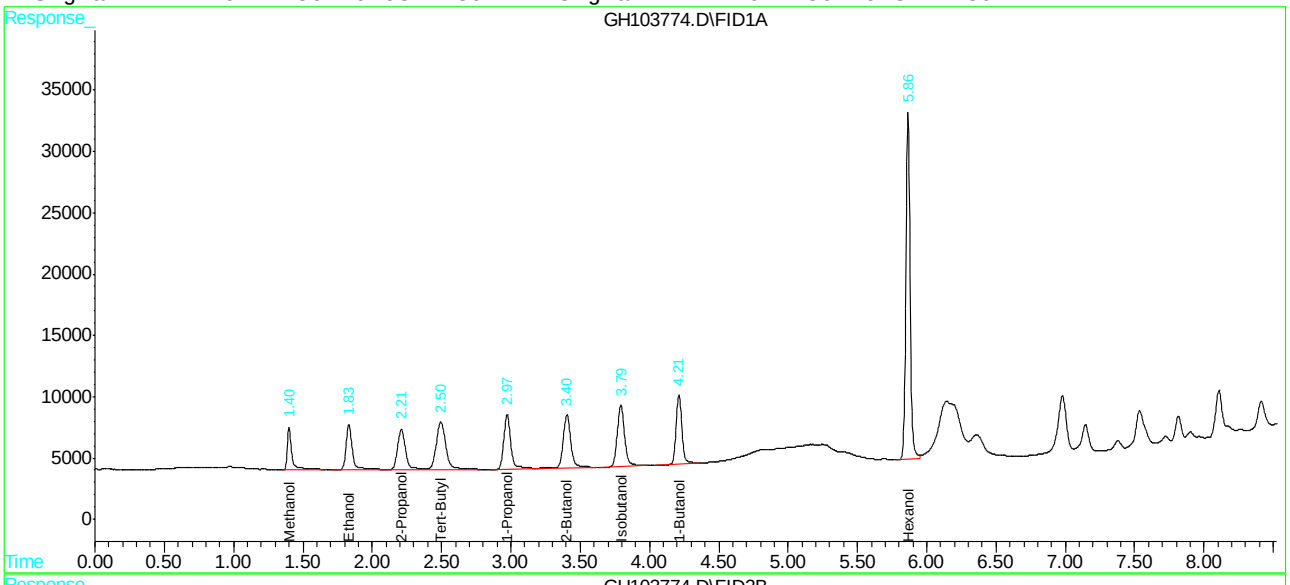
Quantitation Report (QT Reviewed)

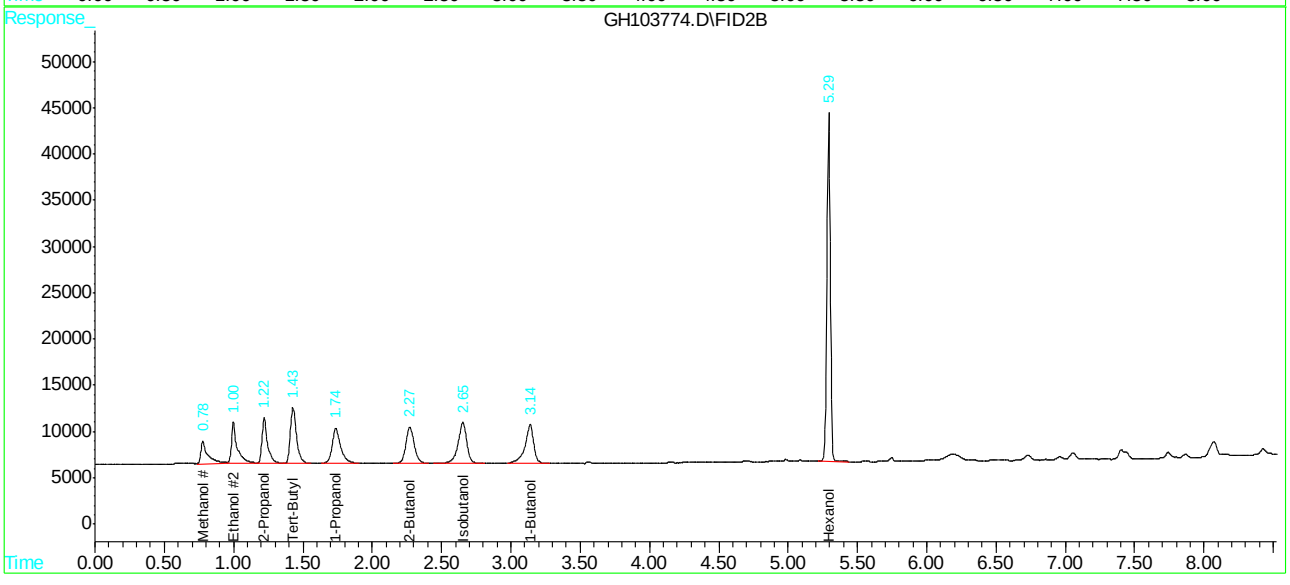
Data File : C:\HPCHEM\1\DATA\GH103774.D\FID1A.CH Vial: 92
Acq On : 17 Mar 2016 10:39 am Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103774.D\FID2B.CH Vial: 92
Acq On : 17 Mar 2016 10:54 am Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 17 12:59 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 12:48:46 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103784.D\FID1A.CH          Vial: 95
Acq On    : 17 Mar 2016   1:56 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID2B.CH          Vial: 95
Acq On    : 17 Mar 2016   2:11 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:02 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:45:36 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.29	629806	661262	4938.039	5185.584
	Spiked Amount 5000.000			Recovery	=	98.76%	103.71%
	Target Compounds						
1)	Methanol	1.40	0.78	152563	153170	8741.553	8821.050
2)	Ethanol	1.83	1.00	205260	223257	9147.047	10119.633
3)	Tert-Butyl Alcoh	2.50	1.43	314338	340447	9220.215	10644.067
4)	1-Propanol	2.97	1.73	280389	312315	9646.721	10864.050
5)	2-Propanol	2.21	1.22	215803	241908	8779.637	10369.142
7)	Isobutanol	3.79	2.65	347810	347134	10278.295	10762.045
8)	1-Butanol	4.21	3.14	321796	327729	9627.266	9237.822
9)	2-Butanol	3.40	2.27	298832	295550	9732.046	10320.476

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

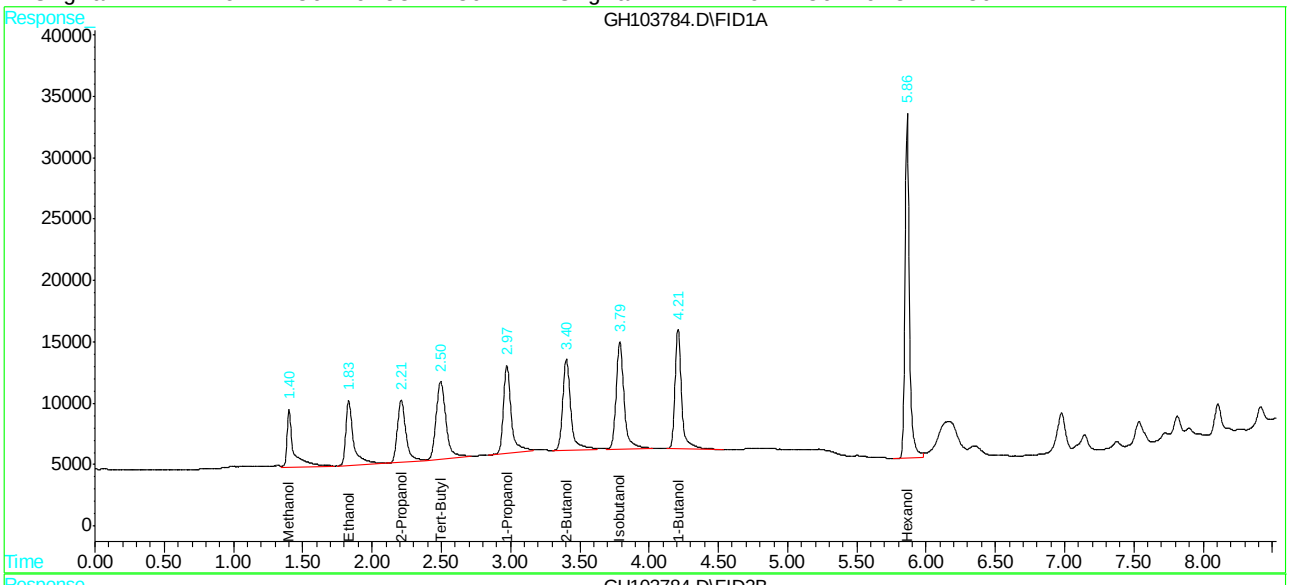
Quantitation Report (QT Reviewed)

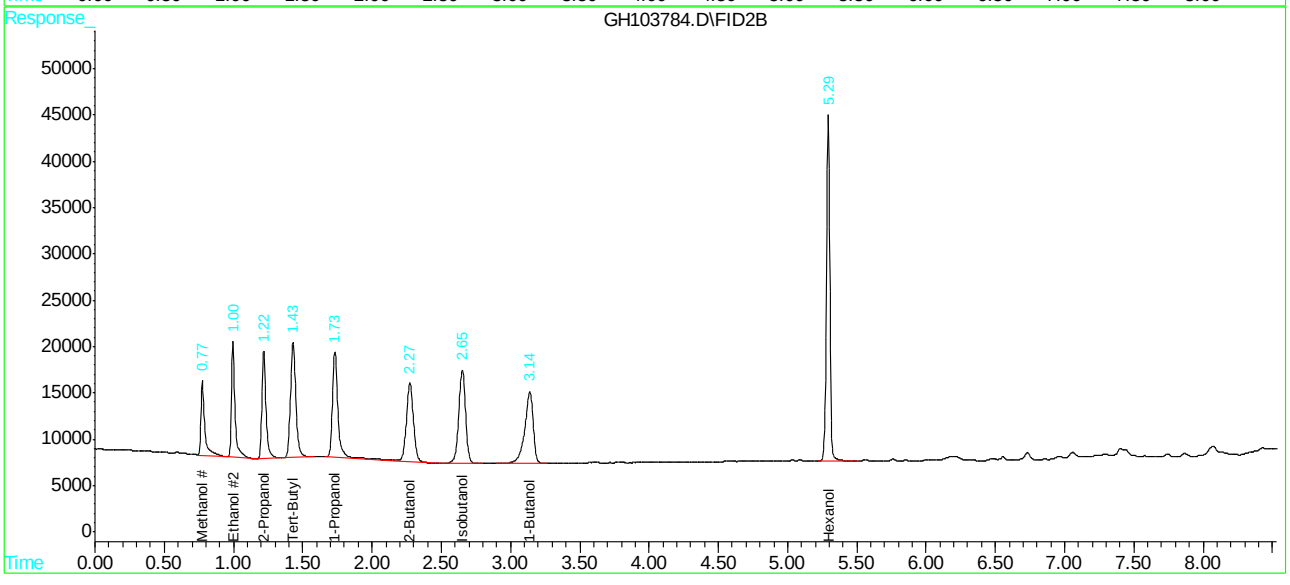
```
Data File : C:\HPCHEM\1\DATA\GH103784.D\FID1A.CH          Vial: 95
Acq On    : 17 Mar 2016   1:56 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103784.D\FID2B.CH          Vial: 95
Acq On    : 17 Mar 2016   2:11 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47946,GGH5211,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 18  8:02 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Mar 17 15:45:36 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```





SGS ACCUTEST JC16038

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID1A.CH Vial: 95
Acq On : 17 Mar 2016 4:08 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID2B.CH Vial: 95
Acq On : 17 Mar 2016 4:23 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:38 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:47:14 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.29	580261	632281	4549.577	4958.319
Spiked Amount	5000.000			Recovery	=	90.99%	99.17%
	Target Compounds						
1)	Methanol	1.40	0.78	70385	88305	4032.922	5085.511
2)	Ethanol	1.83	1.00	107223	126386	4778.191	5728.742
3)	Tert-Butyl Alcoh	2.50	1.43	181035	186500	5310.155	5830.899
4)	1-Propanol	2.97	1.73	163913	163713	5639.401	5694.859
5)	2-Propanol	2.21	1.22	117644	135207	4786.195	5795.500
7)	Isobutanol	3.79	2.65	218004	186364	6442.336	5777.763
8)	1-Butanol	4.21	3.13	165107	188325	4939.555	5308.373
9)	2-Butanol	3.40	2.27	146481	170031	4770.435	5937.383

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103791.D MGH5193.M Fri Mar 18 08:38:12 2016 GCGH

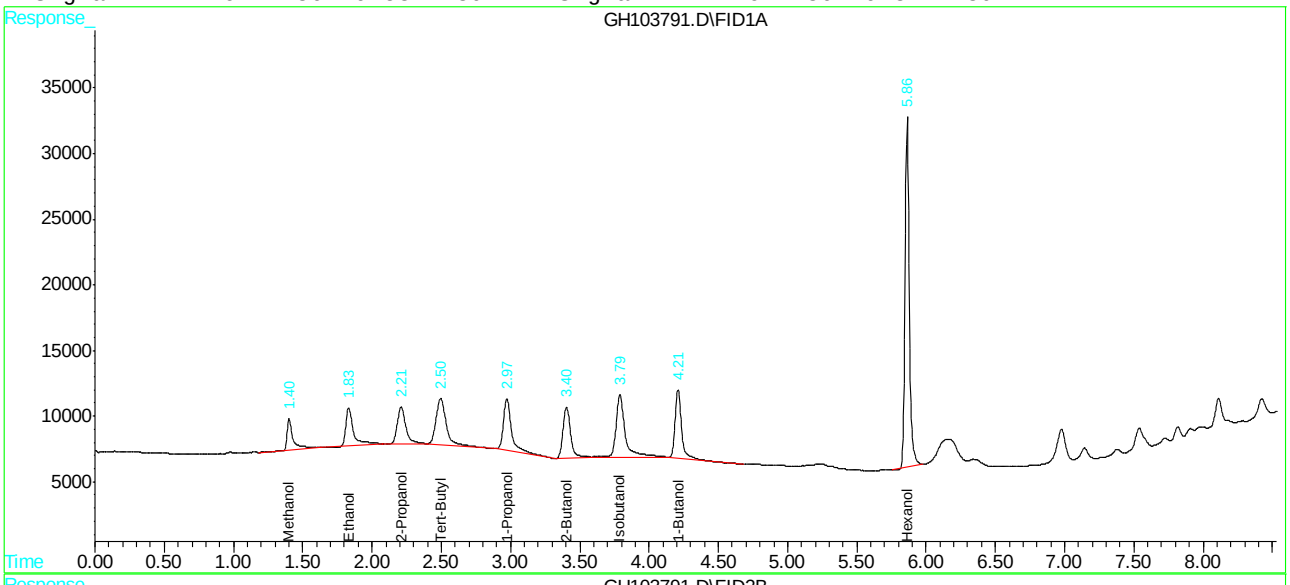
Quantitation Report (QT Reviewed)

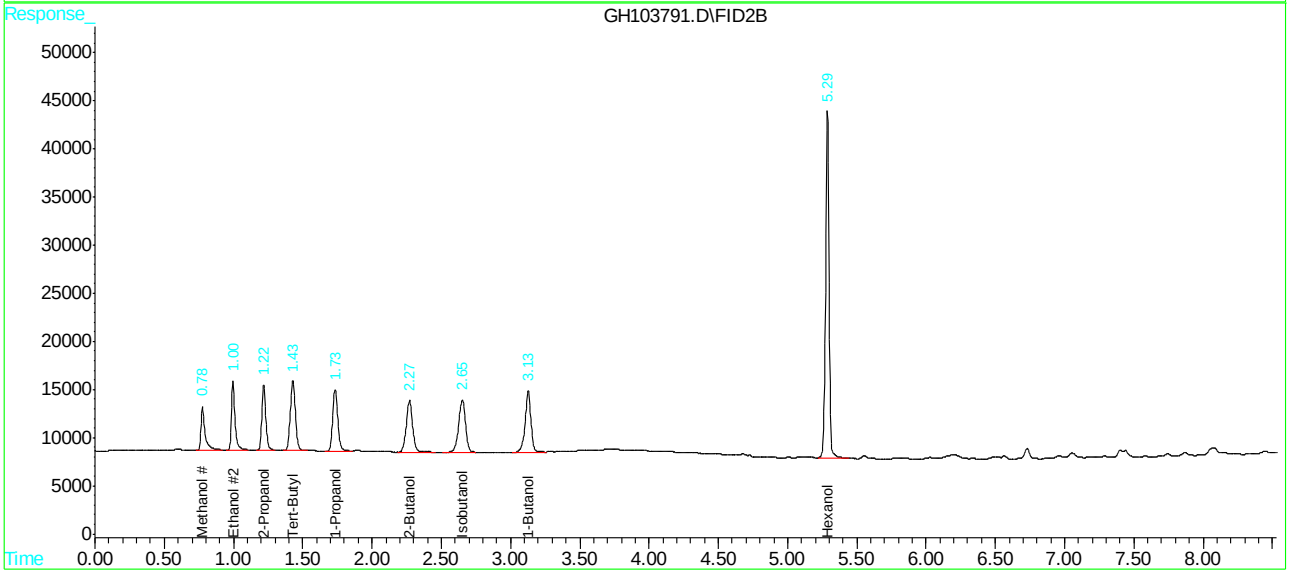
Data File : C:\HPCHEM\1\DATA\GH103791.D\FID1A.CH Vial: 95
Acq On : 17 Mar 2016 4:08 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103791.D\FID2B.CH Vial: 95
Acq On : 17 Mar 2016 4:23 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:38 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Mar 17 15:47:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103800.D\FID1A.CH Vial: 8
Acq On : 17 Mar 2016 6:26 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103800.D\FID2B.CH Vial: 8
Acq On : 17 Mar 2016 6:40 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:44 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 18 07:56:55 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.29	596375	645279	4675.923	5060.245
Spiked Amount	5000.000			Recovery	=	93.52%	101.20%
	Target Compounds						
1)	Methanol	1.40	0.77	152826	169975	8756.585	9788.887
2)	Ethanol	1.84	0.99	219592	242271	9785.742	10981.489
3)	Tert-Butyl Alcoh	2.50	1.43	333878	353607	9793.368	11055.497
4)	1-Propanol	2.98	1.73	293048	314720	10082.265	10947.721
5)	2-Propanol	2.21	1.22	231985	258926	9437.993	11098.570
7)	Isobutanol	3.79	2.64	359422	373291	10621.447	11573.004
8)	1-Butanol	4.21	3.14	333194	346604	9968.255	9769.848
9)	2-Butanol	3.41	2.27	306183	317043	9971.462	11070.983

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103800.D MGH5193.M Fri Mar 18 08:44:13 2016 GCGH

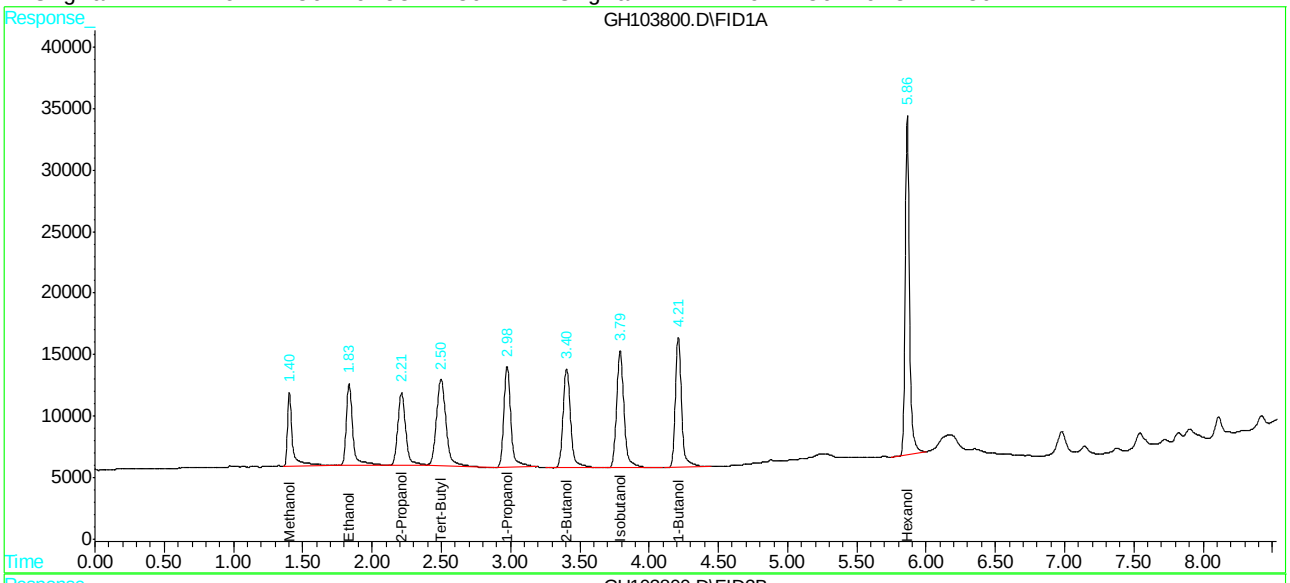
Quantitation Report (QT Reviewed)

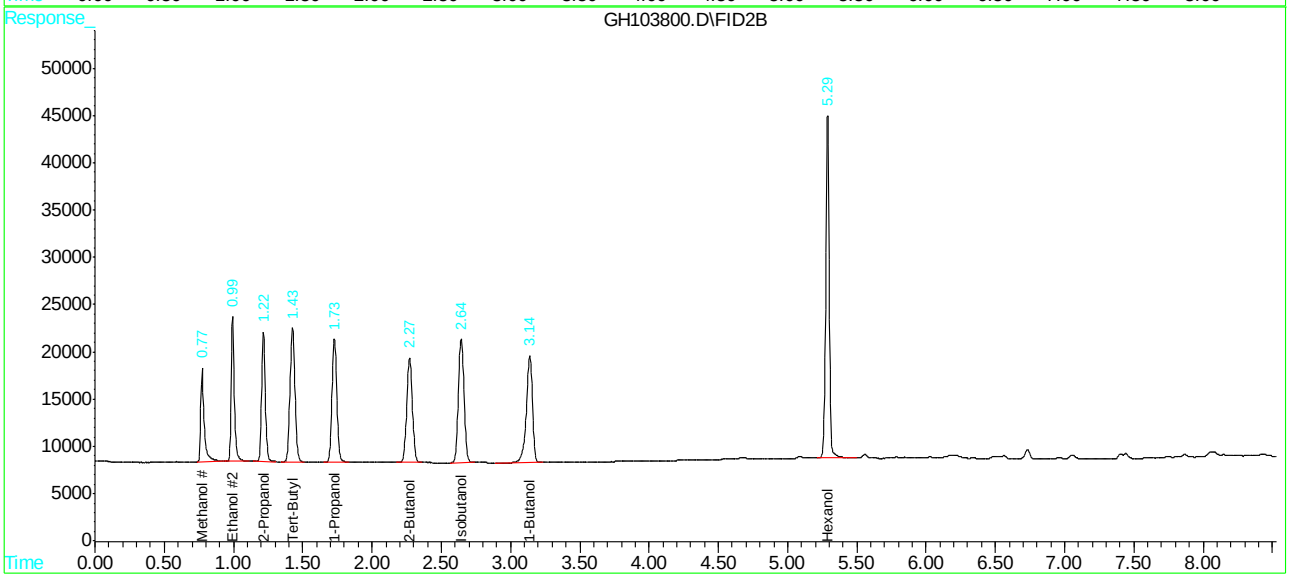
Data File : C:\HPCHEM\1\DATA\GH103800.D\FID1A.CH Vial: 8
Acq On : 17 Mar 2016 6:26 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103800.D\FID2B.CH Vial: 8
Acq On : 17 Mar 2016 6:40 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47946,GGH5211,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 18 8:44 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Fri Mar 18 07:56:55 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103816.D\FID1A.CH Vial: 94
Acq On : 18 Mar 2016 2:58 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103816.D\FID2B.CH Vial: 94
Acq On : 18 Mar 2016 3:19 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 7:33 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 06:58:33 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.32	574380	575722	4503.473	4514.786
Spiked Amount	5000.000			Recovery	=	90.07%	90.30%
	Target Compounds						
1)	Methanol	1.40	0.79	80545	80824	4615.077	4654.686
2)	Ethanol	1.83	1.01	112245	120466	5001.999	5460.418
3)	Tert-Butyl Alcoh	2.49	1.45	163369	167306	4791.986	5230.807
4)	1-Propanol	2.97	1.76	142218	151345	4892.982	5264.641
5)	2-Propanol	2.21	1.24	119124	126228	4846.396	5410.615
7)	Isobutanol	3.78	2.69	146529	169508	4330.130	5255.182
8)	1-Butanol	4.20	3.18	147495	142105	4412.639	4005.572
9)	2-Butanol	3.40	2.31	141658	145958	4613.373	5096.768

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103816.D MGH5193.M Sun Mar 20 07:34:00 2016 GCGH

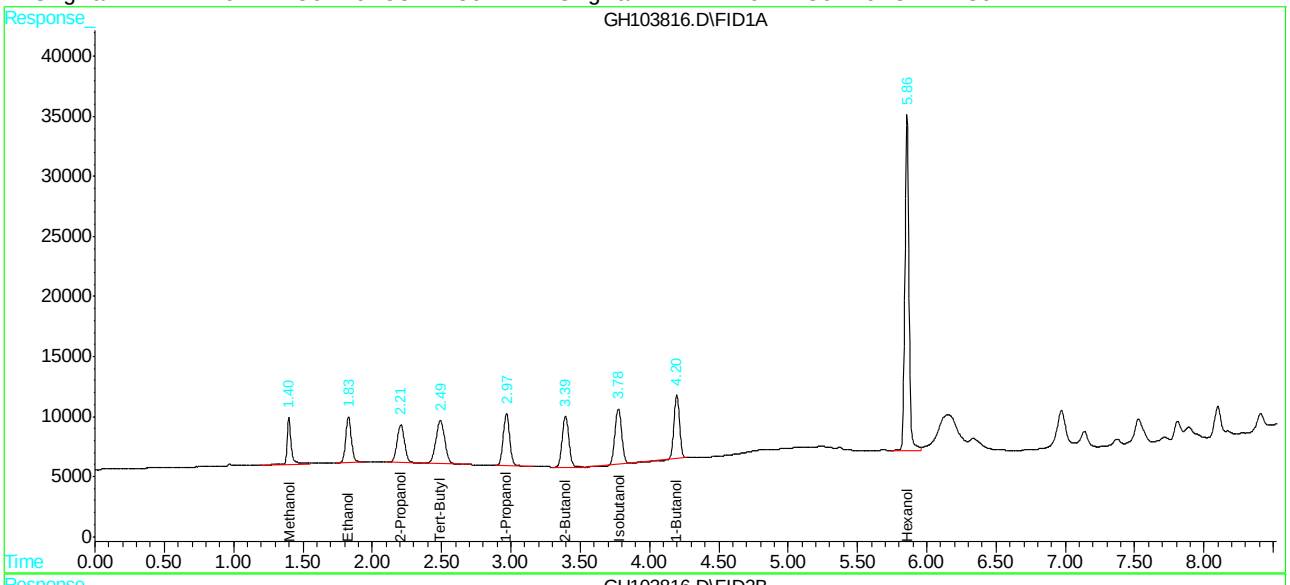
Quantitation Report (QT Reviewed)

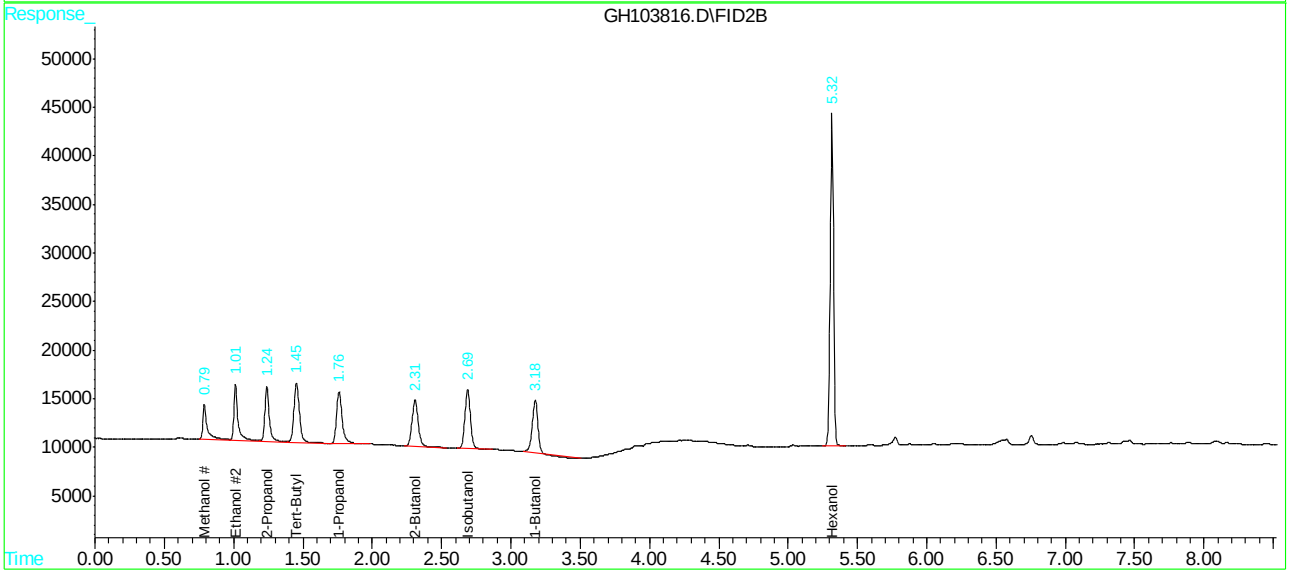
Data File : C:\HPCHEM\1\DATA\GH103816.D\FID1A.CH Vial: 94
Acq On : 18 Mar 2016 2:58 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103816.D\FID2B.CH Vial: 94
Acq On : 18 Mar 2016 3:19 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 7:33 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 06:58:33 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/21/16 12:29

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH103827.D\FID1A.CH          Vial: 95
Acq On    : 18 Mar 2016   6:38 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103827.D\FID2B.CH          Vial: 95
Acq On    : 18 Mar 2016   6:52 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:37 2016  Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:06:50 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj.     : 2ul
Signal #1 Phase : ZB-624            Signal #2 Phase: RTX-1
Signal #1 Info  : 30mx0.53mmx3um    Signal #2 Info : 30mx0.32mmx3um
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.30	652795	660931	5118.288	5182.987
	Spiked Amount 5000.000			Recovery	=	102.37%	103.66%
	Target Compounds						
1)	Methanol	1.40	0.79	154650	165649	8861.081	9539.761m
2)	Ethanol	1.84	1.01	225727	238997	10059.123	10833.087
3)	Tert-Butyl Alcoh	2.50	1.45	312434	355179	9164.385	11104.638
4)	1-Propanol	2.98	1.76	310789	309761	10692.614	10775.230
5)	2-Propanol	2.21	1.24	223361	258903	9087.112	11097.579
7)	Isobutanol	3.78	2.69	344396	354822	10177.397	11000.414
8)	1-Butanol	4.20	3.18	314597	339399	9411.884	9566.751
9)	2-Butanol	3.40	2.31	304403	308888	9913.474	10786.215

11.5.14 11

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103827.D MGH5193.M Sun Mar 20 07:37:39 2016 GCGH

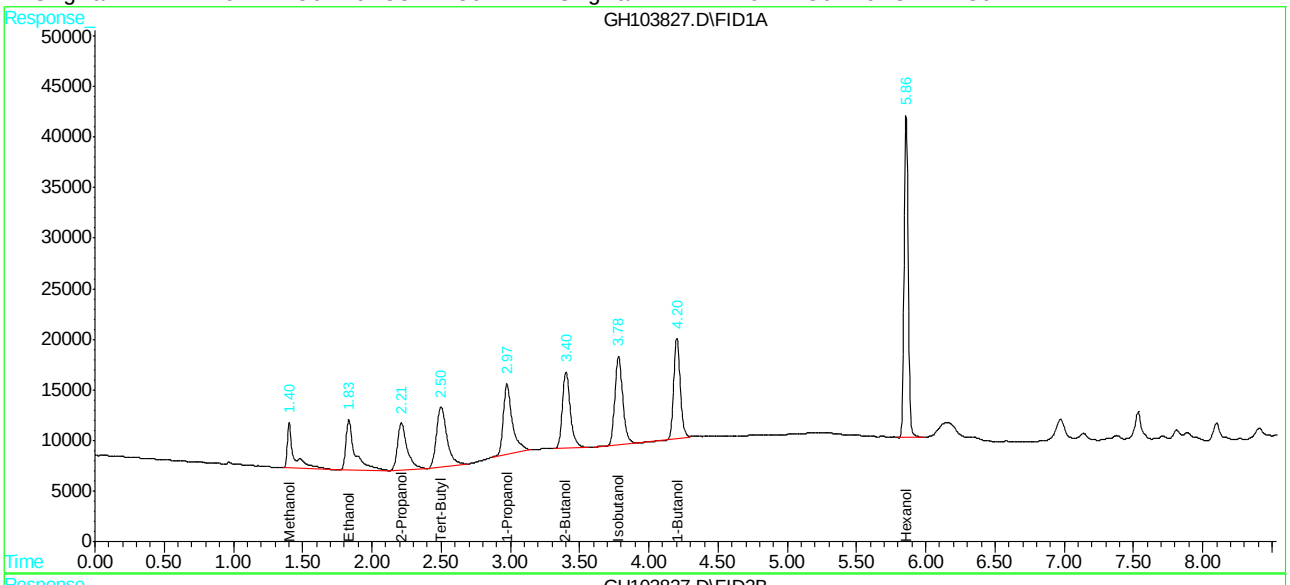
Quantitation Report (QT Reviewed)

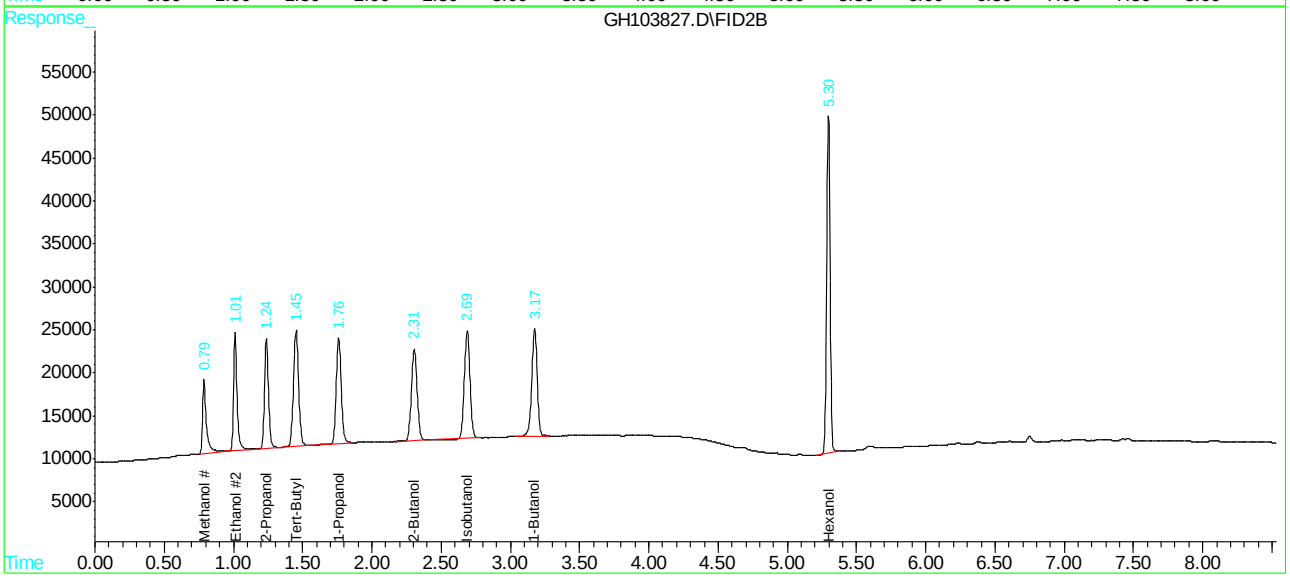
Data File : C:\HPCHEM\1\DATA\GH103827.D\FID1A.CH Vial: 95
Acq On : 18 Mar 2016 6:38 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103827.D\FID2B.CH Vial: 95
Acq On : 18 Mar 2016 6:52 pm Operator: XULIU
Sample : CC5193-10000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 7:37 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 07:06:50 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





SGS ACCUTEST JC16038

Manual Integration Approval Summary

Sample Number:	GGH5213-CC5193	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH103827.D	**Analyst approved:**	03/20/16 08:26 Xu Liu
Injection Time:	03/18/16 18:38	**Supervisor approved:**	03/21/16 12:29 Dana Tryon

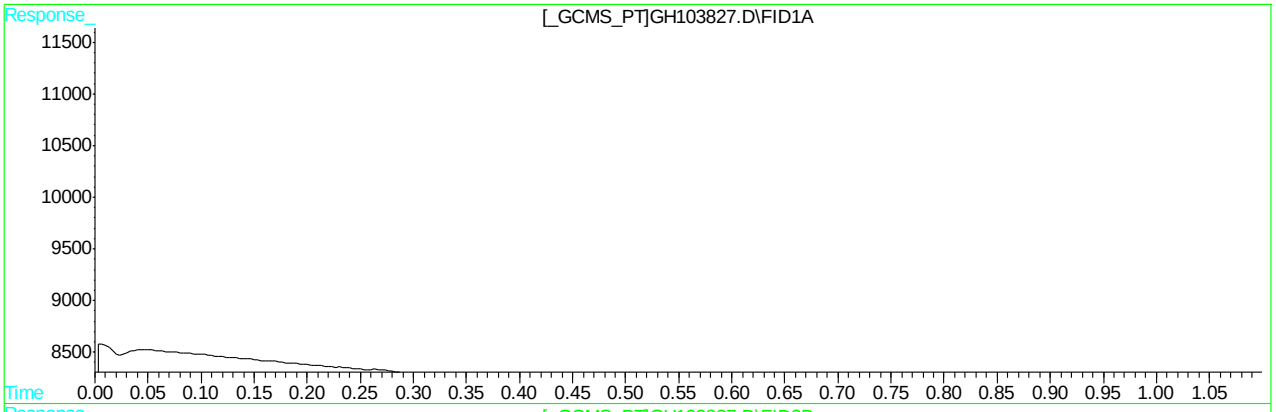
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	0.79	Poor instrument integration

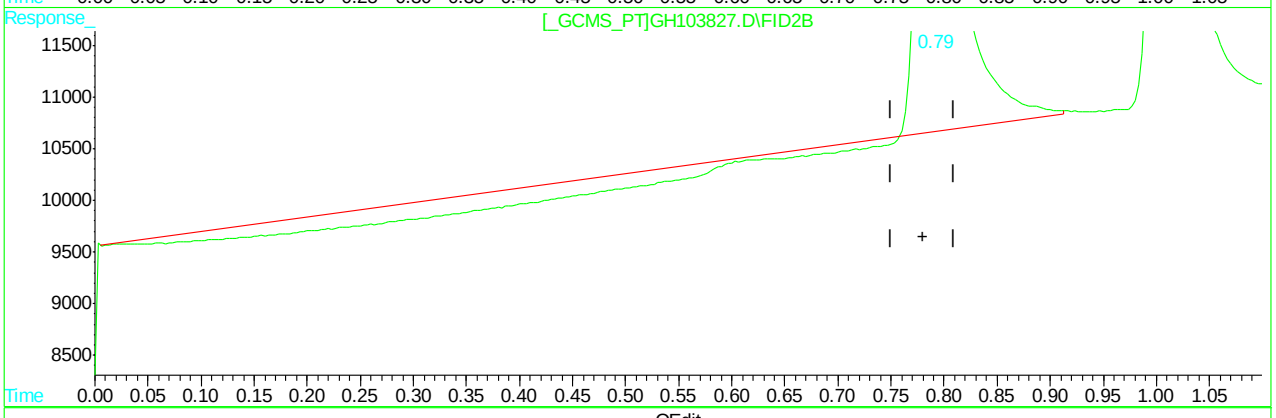
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103827.D\FID1A.CH          Vial: 95
Acq On    : 18 Mar 2016   6:38 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103827.D\FID2B.CH          Vial: 95
Acq On    : 18 Mar 2016   6:52 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:09 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.40min 8861.081PPB

response 154650

(1) Methanol #2

0.79min 6214.360PPB

response 107907

(+) = Expected Retention Time

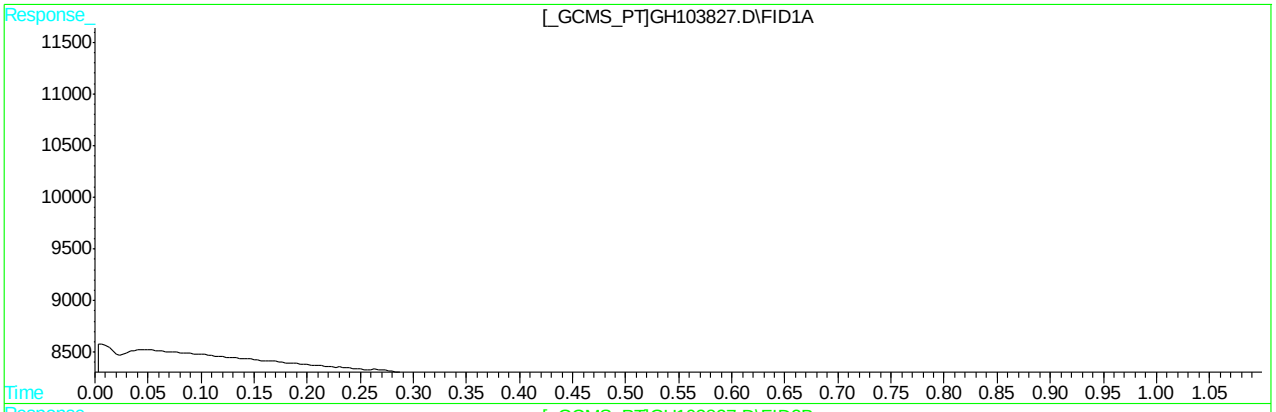
GH103827.D MGH5193.M Sun Mar 20 07:36:28 2016 GCGH

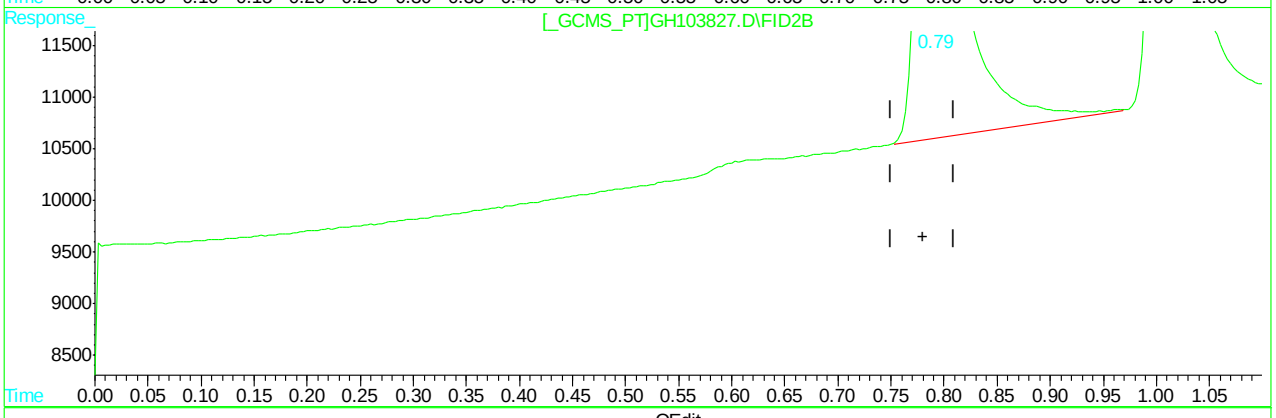
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH103827.D\FID1A.CH          Vial: 95
Acq On    : 18 Mar 2016   6:38 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103827.D\FID2B.CH          Vial: 95
Acq On    : 18 Mar 2016   6:52 pm                     Operator: XULIU
Sample    : CC5193-10000                              Inst    : GCGH
Misc      : GC47921,GGH5213,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Mar 20  7:09 2016  Quant Results File: MGH5193.RES


Method       : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Sun Mar 20 07:24:02 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

1.40min 8861.081PPB

response 154650

(1) Methanol #2

0.79min 9539.761PPB m

response 165649

(+) = Expected Retention Time

GH103827.D MGH5193.M Sun Mar 20 07:37:31 2016 GCGH

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH103835.D\FID1A.CH Vial: 93
Acq On : 18 Mar 2016 8:33 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103835.D\FID2B.CH Vial: 93
Acq On : 18 Mar 2016 8:55 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 8:08 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 07:16:41 2016
Response via : Initial Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
10) S	Hexanol	5.86	5.30	549806	628124	4310.794	4925.717
Spiked Amount	5000.000			Recovery	=	86.22%	98.51%
	Target Compounds						
1)	Methanol	1.45	0.79	74801	84648	4285.948	4874.866
2)	Ethanol	1.88	1.01	101157	122011	4507.869	5530.425
3)	Tert-Butyl Alcoh	2.53	1.45	163107	175439	4784.295	5485.096
4)	1-Propanol	3.00	1.76	144035	155583	4955.494	5412.049
5)	2-Propanol	2.25	1.24	104453	129174	4249.525	5536.898
7)	Isobutanol	3.80	2.69	173666	171252	5132.067	5309.258
8)	1-Butanol	4.21	3.18	142088	172579	4250.889	4864.539
9)	2-Butanol	3.42	2.31	152553	152325	4968.196	5319.113

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH103835.D MGH5193.M Sun Mar 20 08:08:51 2016 GCGH

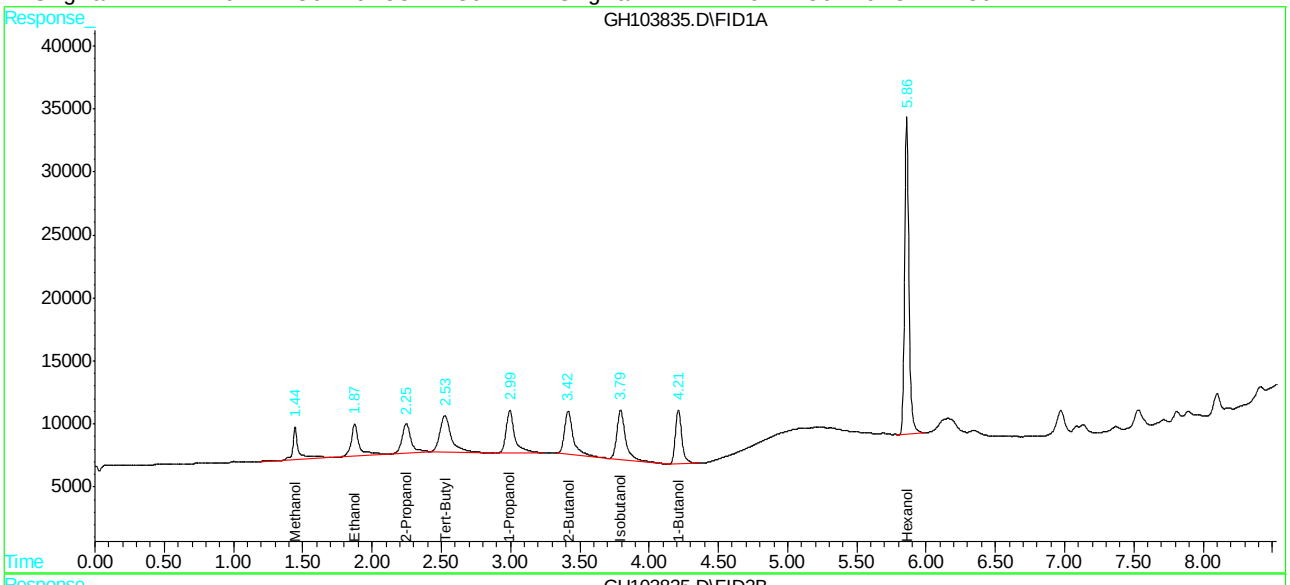
Quantitation Report (QT Reviewed)

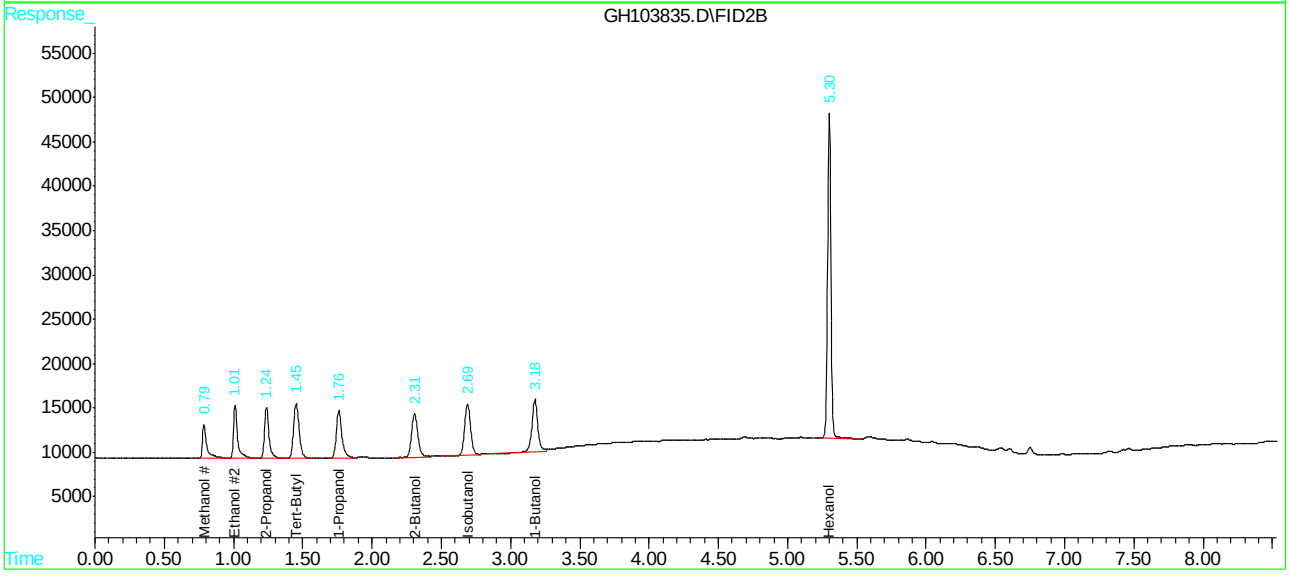
Data File : C:\HPCHEM\1\DATA\GH103835.D\FID1A.CH Vial: 93
Acq On : 18 Mar 2016 8:33 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\HPCHEM\1\DATA\GH103835.D\FID2B.CH Vial: 93
Acq On : 18 Mar 2016 8:55 pm Operator: XULIU
Sample : CC5193-5000 Inst : GCGH
Misc : GC47921,GGH5213,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Mar 20 8:08 2016 Quant Results File: MGH5193.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5193.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Sun Mar 20 07:16:41 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5193.M

Volume Inj. : 2ul
Signal #1 Phase : ZB-624 Signal #2 Phase: RTX-1
Signal #1 Info : 30mx0.53mmx3um Signal #2 Info : 30mx0.32mmx3um





SGS ACCUTEST JC16038

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5193

Print Analyst Name: Xulin

Analyst Signature:

Date: 2/28/16

Columns: 2B6 VO / RTX-1 (30m x0.53 mm x3μm) (30m x0.32mm x3μm)

Method 8015CACC

Initial Cal. Method MGH5193

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015-2WX415	AEC Sur (3/15)	20000 ppm
215-2WX414	AEC (2U) (3/15)	100 ppm
215-2WX415	AEC MD(2) (3/15)	100 ppm

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:** 3/2/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	GH103533	2B					1						OK		
	103534	2C5193-100					1						RR	2nd signal NG	
	103535	2C5193-500					1						RR	1st signal NG	
	103536	2C5193-1000					1						OK	10μl STD, 2μl sur/1ml dw	
	103537	2C5193-5000					1						RR	1st signal NG	
	103538	2C5193-10,000					1						OK	100μl STD, 2.5μl sur/1ml dw	
	103539	2C5193-50,000					1						OK	500μl STD, 3μl sur/1ml dw	
	103540	2C5193-100,000					1						OK	1000μl STD, 4μl sur/1ml dw	
	103541	2C5193-5000					1						OK	50μl STD, 2.5μl sur/1ml dw	
	103542	2C5193-100					1						RR	1st signal NG	
	103543	2C5193-500					1						OK	5μl STD, 1μl sur/1ml dw	
	103544	2C5193-100					1						OK	10μl STD, 4μl sur/10ml dw	
	103545	2CW5193-5000					1						OK	50μl STD (2)/1ml dw	

2/28

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

11.6.1 11

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH 5211

Print Analyst Name: Xu Gu

Analyst Signature:

Date: 3/17/16

Columns: ZB624 / RTX-1 (30mx0.53mmx3μm) (30mx0.32mmx2μm)

Method AO15CACC

Initial Cal. Method MGH 5193

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015W4113	ALL Sur (3/15)	2000ppm
015W4118	ALL STD (3/15)	600ppm
015W4115	ALL Surr (3/15)	100ppm

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:** 3/18/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (m or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GH103774	CC5193-5000					1					✓	OK	50μl STD/mL H2O	
	103775	MB1					1					✓	OK		
	103776	BS					1					✓	OK	50μl STD(2)/mL H2O	
	103777	JC15796-1	47904C CMA	G W	22		1					✓	OK		✓
	103778	JC15796-1MS	✓	G W	22		1					✓	OK	50μl STD(2)/mL sample	✓
	103779	JC15796-1MSD	✓	G W	22		1					✓	OK	50μl STD(2)/mL sample	✓
	103780	JC15796-2	✓	G W	17		1					✓	OK		✓
	103781	JC16231-1A	47946 CMA	G W	17		1					✓	OK		✓
	103782	JC16231-2A	TBA ✓	G W	17		1					✓	OK		✓
	103783	JC16231-3A	✓	G W	17		1					✓	OK		✓
	103784	CC5193-10,000					1					✓	OK	100μl STD/mL H2O	
	103785	MB2					1					✓	OK		
	103786	JC15796-3	47904C CMA	G W	8		1					✓	OK		✓
	103787	JC15796-4	✓	G W	3		1					✓	OK		✓
	103788	JC16038-10	47921 CMA	G W	6		1					✓	OK		✓
	103789	JC16038-8	✓	G W	6		1					✓	OK		✓
	103790	~~JC16038-7~~ (cx) 3/18	✓	~~G W~~	~~7~~	(cx) 3/18	1					~~✓~~	~~OK~~	(cx) 3/18	✓
		JC16204-7	47941	G W	1		1					✓	OK		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

SGS ACCUTEST JC16038

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: GGH5211

Print Analyst Name: Xu Liu

Date: 3/17/16

Analyst Signature:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Pg 217	

Columns: 2B6UC / RTX-1 (30m X0.53mm X3um) (30m X0.32mm X3um)

Method: 8/15C ACC

Initial Cal. Method: MGH5193

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: 3/18/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GH103791	CC5193-5000					1					✓	OK	coupled/method	
	103792	MB3 3/18	3/18				1					✓	OK		
	103793	JC16038-6 204	47921	G W			1					✓	OK		✓
	103794	JC16038-5 204 3/18	✓	G W			1					✓	OK		✓
	103795	JC16038-4 204 3/18	✓	G W			1					✓	OK		✓
	103796	JC16038-3 204 3/18	✓	G W			1					✓	OK		✓
	103797	JC16038-2 204 3/18	✓	G W			1					✓	OK		✓
	103798	JC16038-1 204 3/18	✓	G W			1					✓	OK		✓
	103799	JC16038-9	47921	W F			1					✓	OK		✓
	103800	CC5193-10,000					1					✓	OK	coupled/method	
													3/17		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5213

Print Analyst Name: Xu Gu

Date: 3/18/16

Analyst Signature:

Columns: ZB624 / RTX-1 (30m x 0.53mm x 3μm) (30m x 0.32mm x 3μm)

Method 8015C ACC

Initial Cal. Method MGH5193

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
015WX-113	ACC SUR (3/15)	2000 ppm
015WX-114	ACC STD (3/15)	100 ppm
015WX-115	ACC STD(2) (3/15)	100 ppm

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:** 3/21/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GH103816	CCS193-5000					1					✓	OK	50μl STD/1ml H2O	
	103817	MB1					1					✓	OK		
	103818	BS					1					✓	OK	50μl STD(2)/1ml H2O	
	103819	JC16038-1	47921 CMA	W	3		1					✓	OK		✓
	103820	JC16038-1MS	✓	W	3		1					✓	OK	50μl STD(2)/1ml sample	✓
	103821	JC16038-1MSD	✓	W	3		1					✓	OK	50μl STD(2)/1ml sample	✓
	103822	JC16038-2	✓	W	3		1					✓	OK		✓
	103823	JC16038-3	✓	W	3		1					✓	OK		✓
	103824	JC16038-4	✓	W	3		1					✓	OK		✓
	103825	JC16038-5	✓	W	3		1					✓	OK		✓
	103826	JC16038-6	✓	W	3		1					✓	OK		✓
	103827	CCS193-10,000					1					✓	OK	100μl STD/1ml H2O	
	103828	MB2			3/18		1					✓	OK		
	103829	JC16038-7	47921 CMA	W	3		1					✓	OK		✓
	103830	JC16309-1	47953 MeOH	W	9		1					✓	OK		✓
	103831	JC15083-1	47967 MeOH	W	3		50μl/1ml H2O / 50μl/1ml H2O		X2000			✓	OK	turbidity + resin	6
	103832	JC16338-1	47959 TOHL	W	8		1					✓	RR		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9
Rev. Date: 2/14/2007

11.6.3 11

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5213

Print Analyst Name: Xulu

Analyst Signature:

Date: 3/18/16

Columns: 2B624 / RTX-1 (30m x 0.53mm x 3um) (30m x 0.32mm x 3um)

Method 8015C Acc

Initial Cal. Method M GGH5193

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	Pg 223	

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:** 3/21/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	GGH038 33	JC16338-2	4795 BMK	GW	3		1					✓	RR		✓
	103834	JC16338-3	✓	GW	3		1					✓	RR		✓
	103835	CCV193-5000										✓	OK	[illegible]	

3/18

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

GC 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: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92108-MB1	4G66277.D	1	03/20/16	BP	03/15/16	OP92108	G4G1744

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	Result	RL	MDL	Units	Q
319-85-7	beta-BHC	ND	0.010	0.0042	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0049	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0047	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	84%	26-132%
877-09-8	Tetrachloro-m-xylene	85%	26-132%
2051-24-3	Decachlorobiphenyl	99%	10-118%
2051-24-3	Decachlorobiphenyl	94%	10-118%

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP92108-BS1	4G66278.D	1	03/20/16	BP	03/15/16	OP92108	G4G1744
OP92108-BSD	4G66279.D	1	03/20/16	BP	03/15/16	OP92108	G4G1744

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC16038-8, JC16038-9, JC16038-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
319-85-7	beta-BHC	0.25	0.20	80	0.22	88	10	55-137/30
72-54-8	4,4'-DDD	0.25	0.18	72	0.21	84	15	46-151/30
50-29-3	4,4'-DDT	0.25	0.23	92	0.27	108	16	53-158/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	75%	86%	26-132%
877-09-8	Tetrachloro-m-xylene	83%	97%	26-132%
2051-24-3	Decachlorobiphenyl	78%	94%	10-118%
2051-24-3	Decachlorobiphenyl	89%	103%	10-118%

12.2.1

12

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	**Injection Date:**	03/20/16
Lab File ID:	4G66275.D	**Injection Time:**	09:52
Instrument ID:	GC4G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	236457038	2.22	246493581	2.05
Upper Limit [a]	472914076	2.72	492987162	2.55
Lower Limit [b]	118228519	1.72	123246791	1.55

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP92108-MB1	225107588	2.21	210791933	2.06
OP92108-BS1	235048145	2.22	255334871	2.06
OP92108-BSD	230603644	2.22	255311381	2.06
OP92024-MB1	197415125	2.22	196725687	2.06
OP92024-BS1	206579691	2.22	215915422	2.06
OP92024-MS	202461671	2.22	191927475	2.05
OP92024-MSD	199002413	2.22	188863490	2.06
JC15796-1	202569405	2.22	190190227	2.06
ZZZZZZ	229108692	2.22	246744196	2.05
ZZZZZZ	208427053	2.22	216933288	2.06
JC16038-9	230070332	2.22	255468391	2.06
JC16038-8	231595093	2.22	234685663	2.06
JC16038-10	246243768	2.22	272022625	2.06

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: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-DDT
Lab File ID: 4G66169.D
Instrument ID: GC4G
Injection Date: 03/18/16
Injection Time: 17:45

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	8385130	7051784
4,4'-DDE	2634401	2876000
4,4'-DDT	388085703	362278732
DDT Breakdown [a]	2.8 %	2.7 %
Endrin aldehyde	4194694	3242234
Endrin ketone	9829510	10057782
Endrin	241790714	214367380
Endrin Breakdown [b]	5.5 %	5.8 %

(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
G4G1741-IC1741	4G66171.D	03/18/16	18:14	00:29	Initial cal 1
G4G1741-IC1741	4G66172.D	03/18/16	18:29	00:44	Initial cal 2
G4G1741-IC1741	4G66173.D	03/18/16	18:44	00:59	Initial cal 5
G4G1741-IC1741	4G66174.D	03/18/16	18:58	01:13	Initial cal 10
G4G1741-ICC1741	4G66175.D	03/18/16	19:13	01:28	Initial cal 25
G4G1741-IC1741	4G66176.D	03/18/16	19:28	01:43	Initial cal 50
G4G1741-IC1741	4G66178.D	03/18/16	19:57	02:12	Initial cal 100
G4G1741-IC1741	4G66179.D	03/18/16	20:12	02:27	Initial cal 500
G4G1741-IC1741	4G66180.D	03/18/16	20:26	02:41	Initial cal 500
G4G1741-ICV1741	4G66181.D	03/18/16	20:41	02:56	Initial cal verification 25
G4G1741-ICV1741	4G66182.D	03/18/16	20:56	03:11	Initial cal verification 25
G4G1741-ICV1741	4G66183.D	03/18/16	21:10	03:25	Initial cal verification 500
G4G1741-ICV1741	4G66184.D	03/18/16	21:25	03:40	Initial cal verification 500
G4G1742-CC1741	4G66186.D	03/18/16	21:40	03:55	Continuing cal 25
OP92019-LB36	4G66193.D	03/18/16	22:09	04:24	Leachate Blank
ZZZZZZ	4G66188.D	03/18/16	22:24	04:39	(unrelated sample)
ZZZZZZ	4G66189.D	03/18/16	22:39	04:54	(unrelated sample)
ZZZZZZ	4G66191.D	03/18/16	23:08	05:23	(unrelated sample)
ZZZZZZ	4G66192.D	03/18/16	23:23	05:38	(unrelated sample)
OP92028-MS	4G66194.D	03/18/16	23:37	05:52	Matrix Spike
OP92028-LS20	4G66194.D	03/18/16	23:37	05:52	Leachate Spike
OP92028-MSD	4G66195.D	03/18/16	23:52	06:07	Matrix Spike Duplicate
ZZZZZZ	4G66196.D	03/19/16	00:07	06:22	(unrelated sample)
ZZZZZZ	4G66197.D	03/19/16	00:22	06:37	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G4G1741-DDT
Lab File ID: 4G66169.D
Instrument ID: GC4G
Injection Date: 03/18/16
Injection Time: 17:45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	4G66198.D	03/19/16	00:36	06:51	(unrelated sample)
JC15881-9A	4G66199.D	03/19/16	00:51	07:06	(used for QC only; not part of job JC16038)
ZZZZZZ	4G66200.D	03/19/16	01:06	07:21	(unrelated sample)
ZZZZZZ	4G66201.D	03/19/16	01:20	07:35	(unrelated sample)
ZZZZZZ	4G66203.D	03/19/16	01:50	08:05	(unrelated sample)
ZZZZZZ	4G66204.D	03/19/16	02:04	08:19	(unrelated sample)
ZZZZZZ	4G66205.D	03/19/16	02:19	08:34	(unrelated sample)
ZZZZZZ	4G66206.D	03/19/16	02:34	08:49	(unrelated sample)
G4G1742-CC1741	4G66207.D	03/19/16	02:48	09:03	Continuing cal 50
ZZZZZZ	4G66209.D	03/19/16	03:18	09:33	(unrelated sample)
ZZZZZZ	4G66210.D	03/19/16	03:32	09:47	(unrelated sample)
ZZZZZZ	4G66211.D	03/19/16	03:47	10:02	(unrelated sample)
ZZZZZZ	4G66212.D	03/19/16	04:02	10:17	(unrelated sample)
ZZZZZZ	4G66213.D	03/19/16	04:17	10:32	(unrelated sample)
JC15640-1A	4G66214.D	03/19/16	04:31	10:46	(used for QC only; not part of job JC16038)
ZZZZZZ	4G66215.D	03/19/16	04:46	11:01	(unrelated sample)
ZZZZZZ	4G66216.D	03/19/16	05:01	11:16	(unrelated sample)
ZZZZZZ	4G66217.D	03/19/16	05:15	11:30	(unrelated sample)
ZZZZZZ	4G66218.D	03/19/16	05:30	11:45	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	G4G1744-DDT	**Injection Date:**	03/20/16
Lab File ID:	4G66274.D	**Injection Time:**	09:37
Instrument ID:	GC4G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	6344809	6714785
4,4'-DDE	903254	2083500
4,4'-DDT	457320174	435069507
DDT Breakdown [a]	1.6 %	2 %
Endrin aldehyde	2402385	24769543
Endrin ketone	10232675	11871944
Endrin	258818337	241585590
Endrin Breakdown [b]	4.7 %	13.2 %

(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
G4G1744-CC1741	4G66275.D	03/20/16	09:52	00:15	Continuing cal 50
OP92108-MB1	4G66277.D	03/20/16	10:54	01:17	Method Blank
OP92108-BS1	4G66278.D	03/20/16	11:09	01:32	Blank Spike
OP92108-BSD	4G66279.D	03/20/16	11:23	01:46	Blank Spike Duplicate
OP92024-MB1	4G66280.D	03/20/16	11:38	02:01	Method Blank
OP92024-BS1	4G66281.D	03/20/16	11:53	02:16	Blank Spike
OP92024-MS	4G66282.D	03/20/16	12:07	02:30	Matrix Spike
OP92024-MSD	4G66283.D	03/20/16	12:22	02:45	Matrix Spike Duplicate
JC15796-1	4G66284.D	03/20/16	12:37	03:00	(used for QC only; not part of job JC16038)
ZZZZZZ	4G66285.D	03/20/16	12:52	03:15	(unrelated sample)
ZZZZZZ	4G66286.D	03/20/16	13:06	03:29	(unrelated sample)
JC16038-9	4G66287.D	03/20/16	13:21	03:44	FB030816
JC16038-8	4G66288.D	03/20/16	13:36	03:59	S-30
JC16038-10	4G66289.D	03/20/16	13:50	04:13	MW-11

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	**Injection Date:**	03/20/16
Lab File ID:	4G66275.D	**Injection Time:**	09:52
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	OP92108-BS1	**Injection Date:**	03/20/16
Lab File ID:	4G66278.D	**Injection Time:**	11:09
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
beta-BHC	1 [a]	3.42	3.41	0.20		ug/l	18.2
beta-BHC	2	4.14	4.14	0.24		ug/l	
4,4'-DDD	1 [a]	6.16	6.14	0.18		ug/l	10.5
4,4'-DDD	2	7.63	7.63	0.20		ug/l	
4,4'-DDT	1 [a]	6.56	6.55	0.23		ug/l	4.3
4,4'-DDT	2	8.16	8.16	0.24		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	**Injection Date:**	03/20/16
Lab File ID:	4G66275.D	**Injection Time:**	09:52
Instrument ID:	GC4G	**Method:**	SW846 8081B

Sample ID:	OP92108-BSD	**Injection Date:**	03/20/16
Lab File ID:	4G66279.D	**Injection Time:**	11:23
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
beta-BHC	1 [a]	3.42	3.41	0.22		ug/l	20.4
beta-BHC	2	4.14	4.14	0.27		ug/l	
4,4'-DDD	1 [a]	6.16	6.14	0.21		ug/l	13.3
4,4'-DDD	2	7.63	7.63	0.24		ug/l	
4,4'-DDT	1 [a]	6.56	6.55	0.27		ug/l	7.1
4,4'-DDT	2	8.16	8.16	0.29		ug/l	

(a) QC results reported from this column.

Semivolatile Surrogate Recovery Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Method: SW846 8081B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC16038-8	4G66288.D	97	99	101	103
JC16038-9	4G66287.D	78	86	67	73
JC16038-10	4G66289.D	69	76	72	81
OP92108-BS1	4G66278.D	75	83	78	89
OP92108-BSD	4G66279.D	86	97	94	103
OP92108-MB1	4G66277.D	84	85	99	94

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	26-132%
S2 = Decachlorobiphenyl	10-118%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G4G1744-CC1741	**Injection Date:**	03/20/16
Lab File ID:	4G66275.D	**Injection Time:**	09:52
Instrument ID:	GC4G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.59	3.00	9.81	11.22

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP92108-MB1	4G66277.D	03/20/16	10:54	2.61	2.99	9.83	11.23
OP92108-BS1	4G66278.D	03/20/16	11:09	2.60	3.00	9.81	11.23
OP92108-BSD	4G66279.D	03/20/16	11:23	2.60	3.00	9.81	11.22
OP92024-MB1	4G66280.D	03/20/16	11:38	2.60	3.00	9.81	11.22
OP92024-BS1	4G66281.D	03/20/16	11:53	2.60	3.00	9.81	11.22
OP92024-MS	4G66282.D	03/20/16	12:07	2.60	3.00	9.81	11.22
OP92024-MSD	4G66283.D	03/20/16	12:22	2.60	3.00	9.81	11.22
JC15796-1	4G66284.D	03/20/16	12:37	2.60	3.00	9.81	11.22
ZZZZZZ	4G66285.D	03/20/16	12:52	2.60	3.00	9.81	11.22
ZZZZZZ	4G66286.D	03/20/16	13:06	2.60	3.00	9.81	11.22
JC16038-9	4G66287.D	03/20/16	13:21	2.60	3.00	9.81	11.22
JC16038-8	4G66288.D	03/20/16	13:36	2.60	3.00	9.81	11.22
JC16038-10	4G66289.D	03/20/16	13:50	2.60	3.00	9.81	11.22

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: JC16038 **Sample:** G4G1741-ICC1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66175.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report GC4G

Method : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration

Calibration Files
2 =4g66172.D 5 =4g66173.D 10 =4g66174.D 25 =4g66175.D
50 =4g66176.D 100 =4g66178.D 1 =4g66171.D

Compound	2	5	10	25	50	100	1	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	----------ISTD----------								
2)SABTetrachloro-m-xyl	0.906	0.953	0.975	0.949	1.018	1.019	1.022	0.977	4.56
3)A alpha-BHC	1.226	1.254	1.275	1.321	1.426	1.469	1.203	1.310	7.74
4)MAgamma-BHC	1.145	1.124	1.129	1.162	1.252	1.290	1.139	1.177	5.62
5)MAHeptachlor	1.064	1.055	1.080	1.137	1.223	1.271	1.156	1.141	7.24
6)B beta-BHC	0.585	0.630	0.604	0.595	0.612	0.603	0.546	0.596	4.38
7)B delta-BHC	1.115	1.068	1.077	1.109	1.190	1.232	1.103	1.128	5.38
8)MBAldrin	1.097	1.085	1.149	1.148	1.237	1.265	1.150	1.162	5.75
9)B Heptachlor Epoxid	1.060	1.028	1.036	1.064	1.129	1.142	1.109	1.081	4.19
10)B gamma-Chlordane	1.009	0.984	1.018	1.048	1.124	1.158	1.105	1.064	6.17
11)B alpha-Chlordane	1.011	0.952	1.003	1.030	1.096	1.122	1.135	1.050	6.51
12)A Endosulfan I	1.033	1.021	1.071	1.104	1.175	1.197	1.037	1.091	6.49
13)B 4,4'-DDE	0.869	0.779	0.817	0.851	0.935	0.986	0.927	0.881	8.21
14)MADieldrin	1.010	0.967	1.001	1.050	1.141	1.192	1.133	1.071	7.92
15)MAEndrin	0.873	0.874	0.892	0.931	1.014	1.047	0.943	0.939	7.29
16)A 4,4'-DDD	0.660	0.701	0.759	0.781	0.848	0.887	0.711	0.764	10.69
17)B Endosulfan II	0.864	0.852	0.894	0.916	0.994	1.034	0.900	0.922	7.32
18)MA4,4'-DDT	0.329	0.418	0.482	0.563	0.672	0.762	0.385	0.516	30.61
----- Quadratic regression ----- Coefficient = 0.9997									
Response Ratio = -0.01401 + 0.57302 *A + 0.09838 *A^2									
19)B Endrin Aldehyde	0.692	0.707	0.757	0.779	0.857	0.875	0.725	0.770	9.34
20)B Endosulfan Sulfat	0.696	0.706	0.735	0.777	0.846	0.912	0.681	0.765	11.27
21)A Methoxychlor	0.237	0.246	0.276	0.303	0.346	0.372	0.306	0.298	16.67
22) Mirex	0.763	0.736	0.758	0.749	0.790	0.836	0.818	0.778	4.78
23)B Endrin Ketone	0.788	0.799	0.855	0.921	1.007	1.044	0.840	0.894	11.23
24)SADecachlorobipheny	0.958	0.966	0.970	0.971	1.005	0.999	1.137	1.001	6.24
25) I 1-bromo-2-nitrobenzen	----------ISTD----------								
26)L8Toxaphene{A}					0.041			0.041	0.00
27)L8Toxaphene{B}					0.040			0.040	0.00
28)L8Toxaphene{C}					0.035			0.035	0.00
29)L8Toxaphene{D}					0.032			0.032	0.00
30)L8Toxaphene{E}					0.025			0.025	0.00
31) I 1-bromo-2-nitrobenzen	----------ISTD----------								
32) Chlordane {A}					0.037			0.037	0.00
33) Chlordane {B}					0.048			0.048	0.00
34) Chlordane {C}					0.157			0.157	0.00
35) Chlordane {D}					0.249			0.249	0.00
36) Chlordane {E}					0.035			0.035	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen ----------ISTD----------

12.8.1 12

Initial Calibration Summary

Job Number: JC16038 **Sample:** G4G1741-ICC1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66175.D
Project: BMSMC, Building 5 Area, PR

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 2)SABTetrachloro-m-xyl 0.938 0.918 0.898 0.917 0.967 0.989 1.025 0.950   4.78
 3)A alpha-BHC          1.179 1.155 1.182 1.250 1.384 1.462 1.209 1.260   9.32
 4)MAgamma-BHC          1.073 1.050 1.067 1.121 1.237 1.298 1.062 1.130   8.70
 5)MAHeptachlor         1.074 1.058 1.078 1.127 1.221 1.267 1.154 1.140   6.99
 6)B beta-BHC           0.468 0.484 0.504 0.508 0.551 0.561 0.457 0.505   7.80
 7)B delta-BHC          0.981 0.962 0.984 1.041 1.145 1.216 1.038 1.052   8.99
 8)MBAldrin             1.064 1.034 1.065 1.103 1.193 1.244 1.234 1.134   7.72
 9)B Heptachlor Epoxid 0.987 0.958 0.995 1.015 1.087 1.112 0.984 1.020   5.64
10)B gamma-Chlordane   0.978 0.980 0.992 1.017 1.088 1.124 1.104 1.040   6.03
11)B alpha-Chlordane   1.000 0.984 0.981 1.003 1.053 1.088 1.012 1.017   3.84
12)A Endosulfan I      0.905 0.940 0.943 0.968 1.019 1.042 1.169 0.998   8.91
13)B 4,4'-DDE          0.906 0.901 0.922 0.975 1.043 1.081 0.986 0.973   7.16
14)MADieldrin          0.953 0.959 0.974 1.013 1.095 1.138 0.919 1.007   7.98
15)MAEndrin            0.901 0.884 0.869 0.897 0.964 0.987 0.878 0.911   5.00
16)A 4,4'-DDD          0.903 0.804 0.794 0.821 0.896 0.915 0.961 0.871   7.36
17)B Endosulfan II     0.880 0.859 0.867 0.890 0.985 0.996 0.916 0.913   6.12
18)MA4,4'-DDT          0.402 0.504 0.522 0.610 0.704 0.759 0.398 0.557  25.23
         ----- Quadratic regression -----  Coefficient =  0.9996
              Response Ratio = -0.01457 + 0.63980 *A + 0.06368 *A^2

19)B Endrin Aldehyde   0.802 0.695 0.708 0.742 0.769 0.775 0.941 0.776  10.55
20)B Endosulfan Sulfat 0.751 0.742 0.793 0.777 0.810 0.817 0.789 0.783   3.59
21)A Methoxychlor      0.306 0.311 0.318 0.368 0.389 0.406 0.301 0.343  12.73
22)  Mirex             0.720 0.716 0.721 0.693 0.705 0.711 0.716 0.712   1.42
23)B Endrin Ketone     0.811 0.841 0.886 0.936 1.030 1.078 0.757 0.906  12.87
24)SADecachlorobipheny 0.666 0.720 0.690 0.695 0.716 0.702 0.730 0.703   3.09

25) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
26)L8Toxaphene{A}                              0.020             0.020   0.00
27)L8Toxaphene{B}                              0.025             0.025   0.00
28)L8Toxaphene{C}                              0.042             0.042   0.00
29)L8Toxaphene{D}                              0.025             0.025   0.00
30)L8Toxaphene{E}                              0.020             0.020   0.00

31) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
32)  Chlordane {A}                             0.039             0.039   0.00
33)  Chlordane {B}                             0.043             0.043   0.00
34)  Chlordane {C}                             0.156             0.156   0.00
35)  Chlordane {D}                             0.255             0.255   0.00
36)  Chlordane {E}                             0.038             0.038   0.00
-------------------------------------------------------------------------------
(#) = Out of Range

          4PST1741.M        Sat Mar 19 13:35:43 2016   RPT1
```

12.8.1

12

Initial Calibration Verification

Job Number: JC16038 **Sample:** G4G1741-ICV1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66181.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\4G1741\4g66181.D\ECD1A.ch  Vial: 13
Signal #2 : C:\msdchem\1\DATA\4G1741\4g66181.D\ECD2B.ch
Acq On    : 18 Mar 2016   8:41 pm                    Operator: brittanp
Sample    : icv1741-25                               Inst    : GC4G
Misc      : op92130,g4g1741,15.0,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Sat Mar 19 13:02:16 2016
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 : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	0.00	2.03- 2.09
2	SAB	Tetrachloro-m-xylene	0.977	1.020	-4.4	101	0.00	2.57- 2.63
3	A	alpha-BHC	1.310	1.370	-4.6	97	0.00	3.01- 3.07
4	MA	gamma-BHC	1.177	1.214	-3.1	98	0.00	3.30- 3.36
5	MA	Heptachlor	1.141	1.243	-8.9	103	0.00	3.58- 3.64
6	B	beta-BHC	0.596	0.622	-4.4	98	0.00	3.39- 3.45
7	B	delta-BHC	1.128	1.179	-4.5	100	0.00	3.78- 3.84
8	MB	Aldrin	1.162	1.223	-5.2	100	0.00	4.12- 4.18
9	B	Heptachlor Epoxide	1.081	1.121	-3.7	99	0.00	4.82- 4.88
10	B	gamma-Chlordane	1.064	1.133	-6.5	101	0.00	4.99- 5.05
11	B	alpha-Chlordane	1.050	1.086	-3.4	99	0.00	5.16- 5.22
12	A	Endosulfan I	1.091	1.194	-9.4	101	0.00	5.33- 5.39
13	B	4,4'-DDE	0.881	0.832	5.6	92	0.00	5.28- 5.34
14	MA	Dieldrin	1.071	1.115	-4.1	100	0.00	5.65- 5.71
15	MA	Endrin	0.939	1.007	-7.2	101	0.00	5.98- 6.04
16	A	4,4'-DDD	0.764	0.843	-10.3	101	0.01	6.12- 6.18
17	B	Endosulfan II	0.922	1.016	-10.2	104	0.00	6.31- 6.37
		----------	True	Calc.	% Drift	----------		
18	MA	4,4'-DDT	25.000	25.515	-2.1	101	0.00	6.53- 6.59
		----------	AvgRF	CCRF	% Dev	----------		
19	B	Endrin Aldehyde	0.770	0.829	-7.7	100	0.00	6.92- 6.98
20	B	Endosulfan Sulfate	0.765	0.841	-9.9	101	0.00	7.60- 7.66
21	A	Methoxychlor	0.298	0.299	-0.3	93	0.00	7.32- 7.38
23	B	Endrin Ketone	0.894	0.979	-9.5	100	0.00	8.05- 8.11
24	SA	Decachlorobiphenyl	1.001	1.090	-8.9	105	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	0.00	2.19- 2.25
2	SAB	Tetrachloro-m-xylene	0.950	0.960	-1.1	98	0.00	2.97- 3.03
3	A	alpha-BHC	1.260	1.308	-3.8	98	0.00	3.61- 3.67
4	MA	gamma-BHC	1.130	1.184	-4.8	99	0.00	4.04- 4.10
5	MA	Heptachlor	1.140	1.196	-4.9	100	0.00	4.61- 4.67
6	B	beta-BHC	0.505	0.540	-6.9	100	0.00	4.12- 4.18
7	B	delta-BHC	1.052	1.135	-7.9	103	0.00	4.51- 4.57
8	MB	Aldrin	1.134	1.157	-2.0	99	0.00	5.07- 5.13
9	B	Heptachlor Epoxide	1.020	1.089	-6.8	101	0.00	5.88- 5.94
10	B	gamma-Chlordane	1.040	1.098	-5.6	101	0.00	6.17- 6.23

Initial Calibration Verification

Job Number: JC16038 **Sample:** G4G1741-ICV1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66181.D
Project: BMSMC, Building 5 Area, PR

11	B	alpha-Chlordane	1.017	1.060	-4.2	99	0.00	6.39- 6.45
12	A	Endosulfan I	0.998	0.989	0.9	96	0.00	6.50- 6.56
13	B	4,4'-DDE	0.973	1.026	-5.4	99	0.00	6.64- 6.70
14	MA	Dieldrin	1.007	1.081	-7.3	100	0.00	6.93- 6.99
15	MA	Endrin	0.911	0.974	-6.9	102	0.00	7.44- 7.50
16	A	4,4'-DDD	0.871	0.898	-3.1	103	0.00	7.60- 7.66
17	B	Endosulfan II	0.913	1.003	-9.9	106	0.00	7.79- 7.85
			---------- True	Calc.	% Drift	----------		
18	MA	4,4'-DDT	25.000	24.682	1.3	98	0.00	8.13- 8.19
			---------- AvgRF	CCRF	% Dev	----------		
19	B	Endrin Aldehyde	0.776	0.805	-3.7	102	0.00	8.36- 8.42
20	B	Endosulfan Sulfate	0.783	0.818	-4.5	99	0.00	8.83- 8.89
21	A	Methoxychlor	0.343	0.361	-5.2	92	0.00	9.36- 9.42
23	B	Endrin Ketone	0.906	0.999	-10.3	100	0.00	9.73- 9.79
24	SA	Decachlorobiphenyl	0.703	0.772	-9.8	104	0.00	11.19-11.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g66175.D 4PST1741.M Sat Mar 19 13:13:51 2016 RPT1

12.8.2

12

Initial Calibration Verification

Job Number: JC16038
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G4G1741-ICV1741
Lab FileID: 4G66182.D

```
                    Evaluate Continuing Calibration Report

 Signal #1 : C:\msdchem\1\DATA\4G1741\4g66182.D\ECD1A.ch  Vial: 14
 Signal #2 : C:\msdchem\1\DATA\4G1741\4g66182.D\ECD2B.ch
 Acq On    : 18 Mar 2016   8:56 pm                    Operator: brittanp
 Sample    : icv1741-25                               Inst    : GC4G
 Misc      : op92130,g4g1741,15.0,,,10,1              Multiplr: 1.00
 IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

 Method       : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
 Title        : PEST/PCB
 Last Update  : Sat Mar 19 13:02:16 2016
 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 : 200%

        Compound                AvgRF   CCRF      %Dev Area% Dev(min)RT Window
 ---------------------------------------------------------------------------

 1 I   1-bromo-2-nitrobenzene   1.000   1.000      0.0   91   0.00    2.04- 2.10
22     Mirex                    0.778   0.877    -12.7  107   0.00    7.49- 7.55

*****  Signal #2   *****

 1 I   1-bromo-2-nitrobenzene   1.000   1.000      0.0   90   0.00    2.20- 2.26
22     Mirex                    0.712   0.852    -19.7  110   0.00    9.68- 9.74

---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    4g66175.D  4PST1741.M       Sat Mar 19 13:13:53 2016   RPT1
```

12.8.3

12

Initial Calibration Verification

Job Number: JC16038 **Sample:** G4G1741-ICV1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66183.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\4G1741\4g66183.D\ECD1A.ch  Vial: 15
Signal #2 : C:\msdchem\1\DATA\4G1741\4g66183.D\ECD2B.ch
Acq On    : 18 Mar 2016   9:10 pm                    Operator: brittanp
Sample    : icv1741-500                              Inst    : GC4G
Misc      : op92130,g4g1741,15.0,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Sat Mar 19 13:31:47 2016
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 : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
31 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	96	0.00	1.96- 2.16
32	Chlordane {A}	0.037	0.041	-10.8	105	0.00	3.62- 3.82
33	Chlordane {B}	0.048	0.048	0.0	95	0.00	4.18- 4.38
34	Chlordane {C}	0.157	0.143	8.9	87	0.00	4.92- 5.12
35	Chlordane {D}	0.249	0.229	8.0	89	0.00	5.08- 5.28
36	Chlordane {E}	0.035	0.032	8.6	88	0.00	6.15- 6.35

***** Signal #2 *****

31 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	2.12- 2.32
32	Chlordane {A}	0.039	0.038	2.6	104	0.00	4.34- 4.54
33	Chlordane {B}	0.043	0.039	9.3	96	0.00	5.18- 5.38
34	Chlordane {C}	0.156	0.126	19.2	85	0.00	6.10- 6.30
35	Chlordane {D}	0.255	0.210	17.6	87	0.00	6.32- 6.52
36	Chlordane {E}	0.038	0.032	15.8	90	0.00	7.80- 8.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g66176.D 4PST1741.M Sat Mar 19 13:34:52 2016 RPT1

Initial Calibration Verification

Job Number: JC16038 **Sample:** G4G1741-ICV1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66184.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\4G1741\4g66184.D\ECD1A.ch  Vial: 16
Signal #2 : C:\msdchem\1\DATA\4G1741\4g66184.D\ECD2B.ch
Acq On    : 18 Mar 2016   9:25 pm                    Operator: brittanp
Sample    : icv1741-500                              Inst    : GC4G
Misc      : op92130,g4g1741,15.0,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Sat Mar 19 13:02:16 2016
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 : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	1.96- 2.16
26	L8	Toxaphene{A}	0.041	0.038	7.3	101	0.00	5.95- 6.15
27	L8	Toxaphene{B}	0.040	0.038	5.0	103	0.00	6.22- 6.42
28	L8	Toxaphene{C}	0.035	0.032	8.6	102	0.00	6.39- 6.59
29	L8	Toxaphene{D}	0.032	0.032	0.0	106	0.00	6.74- 6.94
30	L8	Toxaphene{E}	0.025	0.023	8.0	100	0.00	7.40- 7.60

***** Signal #2 *****

25	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	2.13- 2.33
26	L8	Toxaphene{A}	0.020	0.022	-10.0	117	0.00	6.82- 7.02
27	L8	Toxaphene{B}	0.025	0.026	-4.0	113	0.00	7.69- 7.89
28	L8	Toxaphene{C}	0.042	0.041	2.4	103	0.00	7.85- 8.05
29	L8	Toxaphene{D}	0.025	0.025	0.0	106	0.00	8.29- 8.49
30	L8	Toxaphene{E}	0.020	0.019	5.0	102	0.00	9.20- 9.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g66176.D 4PST1741.M Sat Mar 19 13:14:11 2016 RPT1

12.8.5 12

Continuing Calibration Summary

Job Number: JC16038 **Sample:** G4G1744-CC1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66275.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\4G1744\4g66275.D\ECD1A.ch  Vial: 2
Signal #2 : C:\msdchem\1\DATA\4G1744\4g66275.D\ECD2B.ch
Acq On    : 20 Mar 2016   9:52 am                    Operator: brittanp
Sample    : cc1741-50                                Inst    : GC4G
Misc      : op92028,g4g1744,100,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Mon Mar 21 15:01:38 2016
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 : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	2.02- 2.08
2	SAB	Tetrachloro-m-xylene	0.977	0.963	1.4	103	-0.01	2.56- 2.62
3	A	alpha-BHC	1.310	1.378	-5.2	105	0.00	3.01- 3.07
4	MA	gamma-BHC	1.177	1.215	-3.2	105	0.00	3.29- 3.35
5	MA	Heptachlor	1.141	1.204	-5.5	107	0.00	3.57- 3.63
6	B	beta-BHC	0.596	0.595	0.2	106	0.00	3.38- 3.44
7	B	delta-BHC	1.128	1.222	-8.3	111	0.00	3.78- 3.84
8	MB	Aldrin	1.162	1.186	-2.1	104	0.00	4.11- 4.17
9	B	Heptachlor Epoxide	1.081	1.085	-0.4	104	0.00	4.81- 4.87
10	B	gamma-Chlordane	1.064	1.042	2.1	101	0.00	4.98- 5.04
11	B	alpha-Chlordane	1.050	1.037	1.2	103	0.00	5.15- 5.21
12	A	Endosulfan I	1.091	1.130	-3.6	104	0.00	5.33- 5.39
13	B	4,4'-DDE	0.881	0.865	1.8	100	0.00	5.27- 5.33
14	MA	Dieldrin	1.071	1.091	-1.9	104	0.00	5.65- 5.71
15	MA	Endrin	0.939	1.030	-9.7	110	0.00	5.97- 6.03
16	A	4,4'-DDD	0.764	0.813	-6.4	104	0.00	6.11- 6.17
17	B	Endosulfan II	0.922	1.015	-10.1	111	0.00	6.30- 6.36
		----------	True	Calc.	% Drift	----------		
18	MA	4,4'-DDT	50.000	58.929	-17.9	129	0.00	6.52- 6.58
		----------	AvgRF	CCRF	% Dev	----------		
19	B	Endrin Aldehyde	0.770	0.816	-6.0	103	0.00	6.92- 6.98
20	B	Endosulfan Sulfate	0.765	0.909	-18.8	117	0.00	7.59- 7.65
21	A	Methoxychlor	0.298	0.489	-64.1#	153	0.00	7.31- 7.37
22		Mirex	0.778	0.816	-4.9	112	0.00	7.49- 7.55
23	B	Endrin Ketone	0.894	0.977	-9.3	105	0.00	8.05- 8.11
24	SA	Decachlorobiphenyl	1.001	1.039	-3.8	112	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	2.19- 2.25
2	SAB	Tetrachloro-m-xylene	0.950	0.955	-0.5	109	0.00	2.97- 3.03
3	A	alpha-BHC	1.260	1.367	-8.5	109	0.00	3.61- 3.67
4	MA	gamma-BHC	1.130	1.225	-8.4	109	0.00	4.03- 4.09
5	MA	Heptachlor	1.140	1.247	-9.4	112	0.00	4.61- 4.67
6	B	beta-BHC	0.505	0.553	-9.5	111	0.00	4.11- 4.17
7	B	delta-BHC	1.052	1.152	-9.5	111	0.00	4.51- 4.57
8	MB	Aldrin	1.134	1.173	-3.4	108	0.00	5.06- 5.12

Continuing Calibration Summary

Job Number: JC16038 **Sample:** G4G1744-CC1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66275.D
Project: BMSMC, Building 5 Area, PR

9	B	Heptachlor Epoxide	1.020	1.114	-9.2	113	0.00	5.88- 5.94
10	B	gamma-Chlordane	1.040	1.068	-2.7	108	0.00	6.17- 6.23
11	B	alpha-Chlordane	1.017	1.034	-1.7	108	0.00	6.39- 6.45
12	A	Endosulfan I	0.998	0.992	0.6	107	0.00	6.49- 6.55
13	B	4,4'-DDE	0.973	1.024	-5.2	108	0.00	6.64- 6.70
14	MA	Dieldrin	1.007	1.072	-6.5	108	0.00	6.93- 6.99
15	MA	Endrin	0.911	0.991	-8.8	113	0.00	7.44- 7.50
16	A	4,4'-DDD	0.871	0.852	2.2	105	0.00	7.60- 7.66
17	B	Endosulfan II	0.913	0.942	-3.2	105	0.00	7.79- 7.85
		----------	True	Calc.	% Drift		----------	
18	MA	4,4'-DDT	50.000	57.182	-14.4	125	0.00	8.13- 8.19
		----------	AvgRF	CCRF	% Dev		----------	
19	B	Endrin Aldehyde	0.776	0.847	-9.1	121	0.00	8.36- 8.42
20	B	Endosulfan Sulfate	0.783	0.831	-6.1	113	0.00	8.83- 8.89
21	A	Methoxychlor	0.343	0.452	-31.8#	128	0.00	9.36- 9.42
22		Mirex	0.712	0.698	2.0	109	0.00	9.68- 9.74
23	B	Endrin Ketone	0.906	1.042	-15.0	111	0.00	9.73- 9.79
24	SA	Decachlorobiphenyl	0.703	0.757	-7.7	116	0.00	11.19-11.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g66176.D 4PST1741.M Mon Mar 21 16:19:31 2016 RPT1

12.8.6

12

Continuing Calibration Summary

Job Number: JC16038 **Sample:** G4G1745-CC1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66295.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\4G1745\4g66295.D\ECD1A.ch  Vial: 2
Signal #2 : C:\msdchem\1\DATA\4G1745\4g66295.D\ECD2B.ch
Acq On    : 21 Mar 2016   7:53 am                    Operator: rebeccak
Sample    : cc1741-25                                Inst    : GC4G
Misc      : op92189,g4g1745,100,,,10,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\4PST1741.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Sat Mar 19 13:31:47 2016
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 : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	2.04- 2.10
2	SAB	Tetrachloro-m-xylene	0.977	1.001	-2.5	108	0.00	2.58- 2.64
3	A	alpha-BHC	1.310	1.379	-5.3	107	0.00	3.02- 3.08
4	MA	gamma-BHC	1.177	1.235	-4.9	109	0.00	3.30- 3.36
5	MA	Heptachlor	1.141	1.026	10.1	93	0.00	3.57- 3.63
6	B	beta-BHC	0.596	0.564	5.4	97	0.00	3.38- 3.44
7	B	delta-BHC	1.128	1.120	0.7	104	0.00	3.79- 3.85
8	MB	Aldrin	1.162	1.165	-0.3	104	0.00	4.12- 4.18
9	B	Heptachlor Epoxide	1.081	0.952	11.9	92	0.00	4.82- 4.88
10	B	gamma-Chlordane	1.064	0.904	15.0	89	0.00	4.99- 5.05
11	B	alpha-Chlordane	1.050	1.021	2.8	102	0.00	5.15- 5.21
12	A	Endosulfan I	1.091	1.046	4.1	97	0.00	5.33- 5.39
13	B	4,4'-DDE	0.881	0.931	-5.7	112	0.00	5.27- 5.33
14	MA	Dieldrin	1.071	1.039	3.0	102	0.00	5.65- 5.71
15	MA	Endrin	0.939	0.982	-4.6	108	0.00	5.98- 6.04
16	A	4,4'-DDD	0.764	0.815	-6.7	107	0.00	6.11- 6.17
17	B	Endosulfan II	0.922	0.930	-0.9	104	0.00	6.30- 6.36
		----------	True	Calc.	% Drift	----------		
18	MA	4,4'-DDT	25.000	24.791	0.8	107	0.00	6.52- 6.58
		----------	AvgRF	CCRF	% Dev	----------		
19	B	Endrin Aldehyde	0.770	0.749	2.7	99	0.00	6.92- 6.98
20	B	Endosulfan Sulfate	0.765	0.782	-2.2	103	0.00	7.59- 7.65
21	A	Methoxychlor	0.298	0.361	-21.1#	122	0.00	7.31- 7.37
22		Mirex	0.778	0.734	5.7	101	0.00	7.49- 7.55
23	B	Endrin Ketone	0.894	0.909	-1.7	101	0.00	8.05- 8.11
24	SA	Decachlorobiphenyl	1.001	0.955	4.6	101	0.00	9.78- 9.84

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	111	0.00	2.20- 2.26
2	SAB	Tetrachloro-m-xylene	0.950	0.925	2.6	112	0.00	2.98- 3.04
3	A	alpha-BHC	1.260	1.253	0.6	111	0.00	3.61- 3.67
4	MA	gamma-BHC	1.130	1.053	6.8	104	0.00	4.04- 4.10
5	MA	Heptachlor	1.140	1.126	1.2	111	0.00	4.61- 4.67
6	B	beta-BHC	0.505	0.469	7.1	103	0.00	4.12- 4.18
7	B	delta-BHC	1.052	0.987	6.2	105	0.00	4.51- 4.57
8	MB	Aldrin	1.134	1.074	5.3	108	0.00	5.07- 5.13

Continuing Calibration Summary

Job Number: JC16038 **Sample:** G4G1745-CC1741
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4G66295.D
Project: BMSMC, Building 5 Area, PR

9	B	Heptachlor Epoxide	1.020	0.942	7.6	103	0.00	5.88- 5.94
10	B	gamma-Chlordane	1.040	0.968	6.9	106	0.00	6.17- 6.23
11	B	alpha-Chlordane	1.017	0.962	5.4	106	0.00	6.39- 6.45
12	A	Endosulfan I	0.998	1.016	-1.8	117	0.00	6.49- 6.55
13	B	4,4'-DDE	0.973	0.962	1.1	110	0.00	6.64- 6.70
14	MA	Dieldrin	1.007	0.978	2.9	107	0.00	6.93- 6.99
15	MA	Endrin	0.911	0.900	1.2	111	0.00	7.44- 7.50
16	A	4,4'-DDD	0.871	0.802	7.9	108	0.00	7.59- 7.65
17	B	Endosulfan II	0.913	0.872	4.5	109	0.00	7.79- 7.85
		----------	True	Calc.	% Drift	----------		
18	MA	4,4'-DDT	25.000	24.549	1.8	115	0.00	8.13- 8.19
		----------	AvgRF	CCRF	% Dev	----------		
19	B	Endrin Aldehyde	0.776	0.688	11.3	103	0.00	8.36- 8.42
20	B	Endosulfan Sulfate	0.783	0.761	2.8	109	0.00	8.83- 8.89
21	A	Methoxychlor	0.343	0.361	-5.2	109	0.00	9.36- 9.42
22		Mirex	0.712	0.692	2.8	111	0.00	9.68- 9.74
23	B	Endrin Ketone	0.906	0.851	6.1	101	0.00	9.73- 9.79
24	SA	Decachlorobiphenyl	0.703	0.748	-6.4	120	0.00	11.19-11.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4g66175.D 4PST1741.M Mon Mar 21 09:49:57 2016 RPT1

12.8.7

12

GC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/22/16 12:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66288.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:36 pm
Operator : brittanp
Sample : jc16038-8
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:21:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.061	2.222	234.7E6	231.6E6	50.000	50.000
25) I 1-bromo-2...	2.061	2.222	234.7E6	231.6E6	50.000	50.000
31) I 1-bromo-2...	2.061	2.222	234.7E6	231.6E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.599	2.999	177.7E6	173.6E6	38.729m	39.429
Spiked Amount	40.000	Range	30 - 150	Recovery	= 96.82%	98.57%
24) SA Decachlor...	9.811	11.221	190.3E6	133.5E6	40.511	41.022
Spiked Amount	40.000			Recovery	= 101.28%	102.55%
Target Compounds						
SemiQuant Compounds - Not Calibrated on this Instrument						

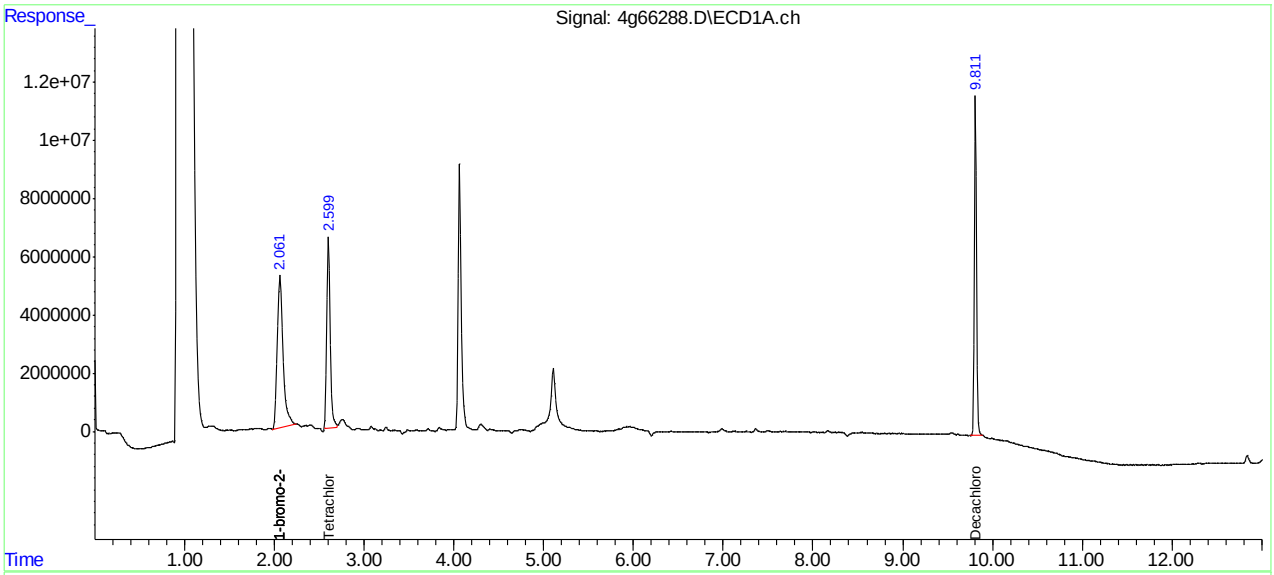
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

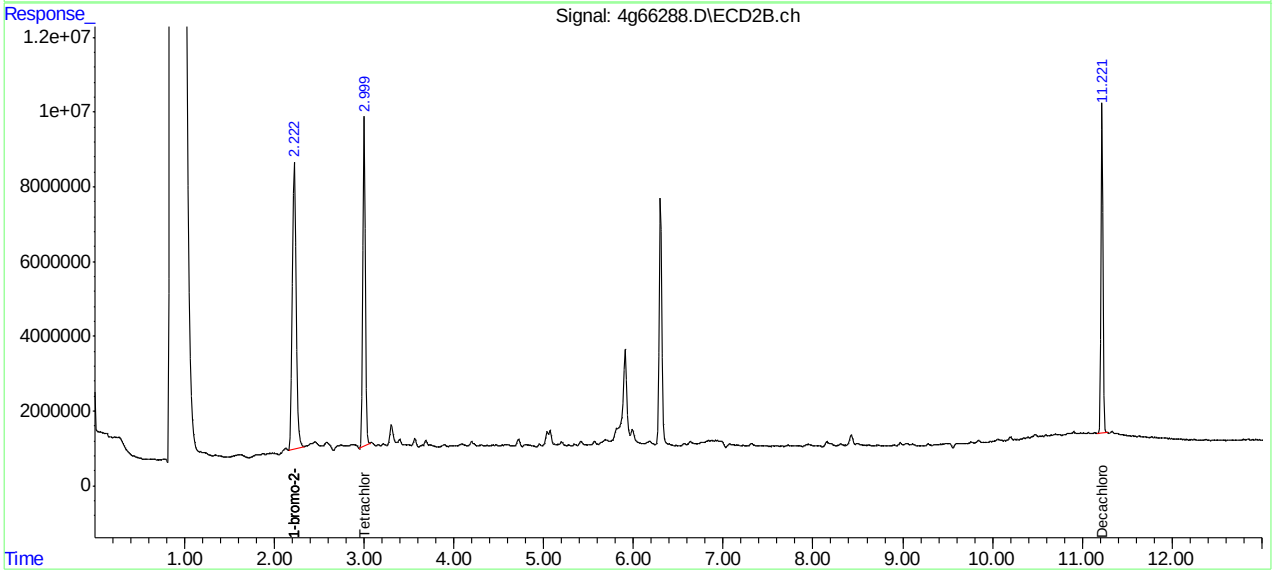
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66288.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:36 pm
Operator : brittanp
Sample : jc16038-8
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:21:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	JC16038-8	**Method:**	SW846 8081B
Lab FileID:	4G66288.D	**Analyst approved:**	03/21/16 17:24 Brittany Piercy
Injection Time:	03/20/16 13:36	**Supervisor approved:**	03/22/16 12:26 Gwendolyn Burns

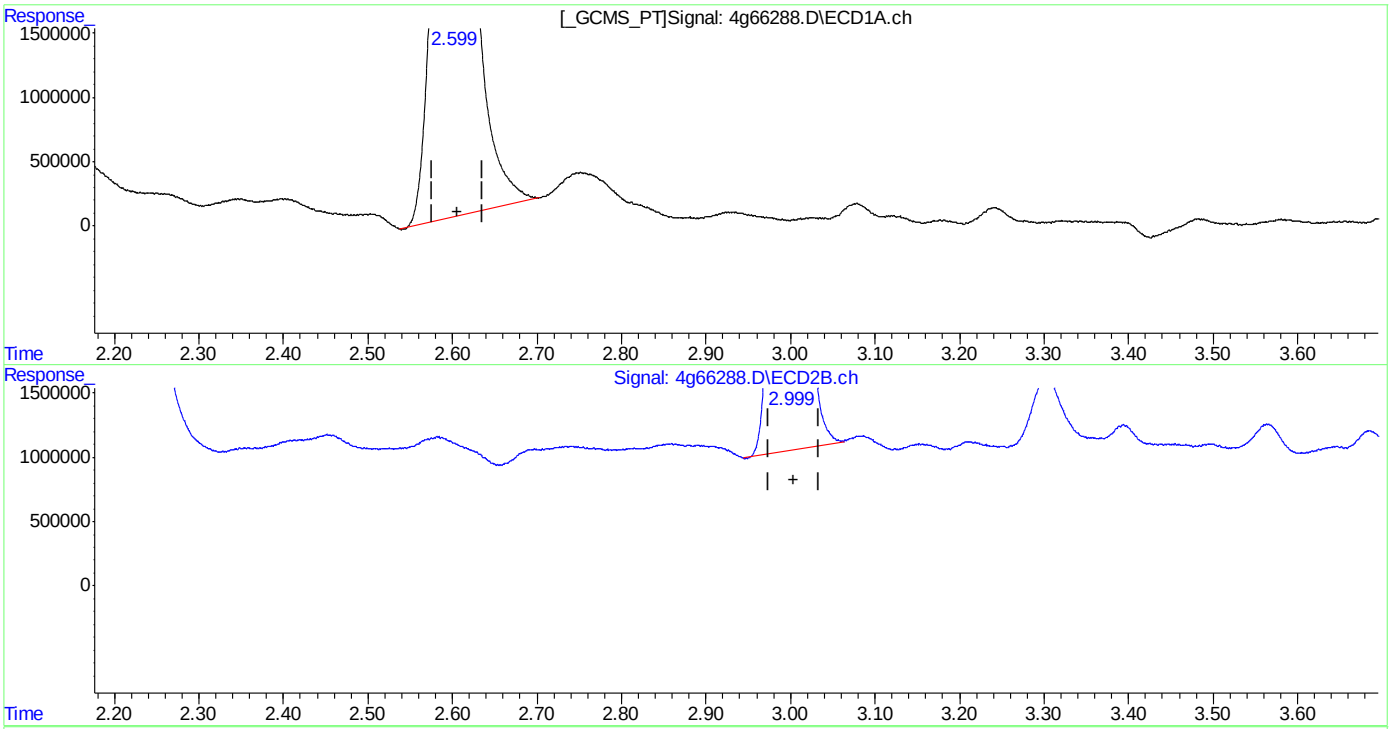
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.60	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66288.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:36 pm
Operator : brittanp
Sample : jc16038-8
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:20:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(2) Tetrachloro-m-xylene (SAB)
2.601min 38.839 PPB
response 178195727

(2) Tetrachloro-m-xylene #2 (SAB)
2.999min 39.429 PPB
response 173574463

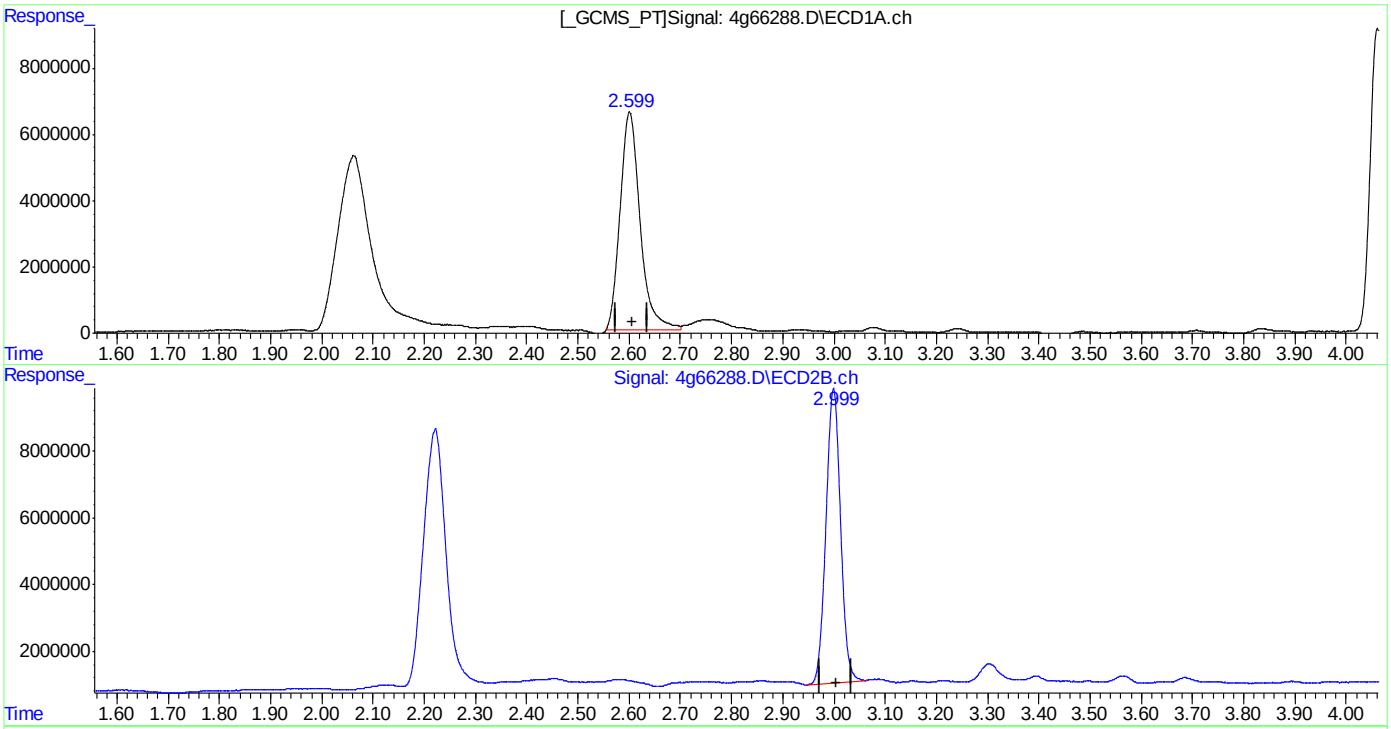
(+) = Expected Retention Time
4PST1741.M Mon Mar 21 17:20:15 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66288.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:36 pm
Operator : brittanp
Sample : jc16038-8
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:20:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(2) Tetrachloro-m-xylene (SAB)
2.599min 38.729 PPB m
response 177688940

(2) Tetrachloro-m-xylene #2 (SAB)
2.999min 39.429 PPB
response 173574463

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66287.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:21 pm
Operator : brittanp
Sample : jc16038-9
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:19:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.059	2.217	255.5E6	230.1E6	50.000	50.000
25) I	1-bromo-2...	2.059	2.217	255.5E6	230.1E6	50.000	50.000
31) I	1-bromo-2...	2.059	2.217	255.5E6	230.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.601	2.998	156.4E6	151.3E6	31.321	34.593
Spiked Amount		40.000	Range	30 - 150	Recovery	= 78.30%	86.48%
24) SA	Decachlor...	9.814	11.221	136.6E6	96626554	26.704	29.878
Spiked Amount		40.000			Recovery	= 66.76%	74.69%

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

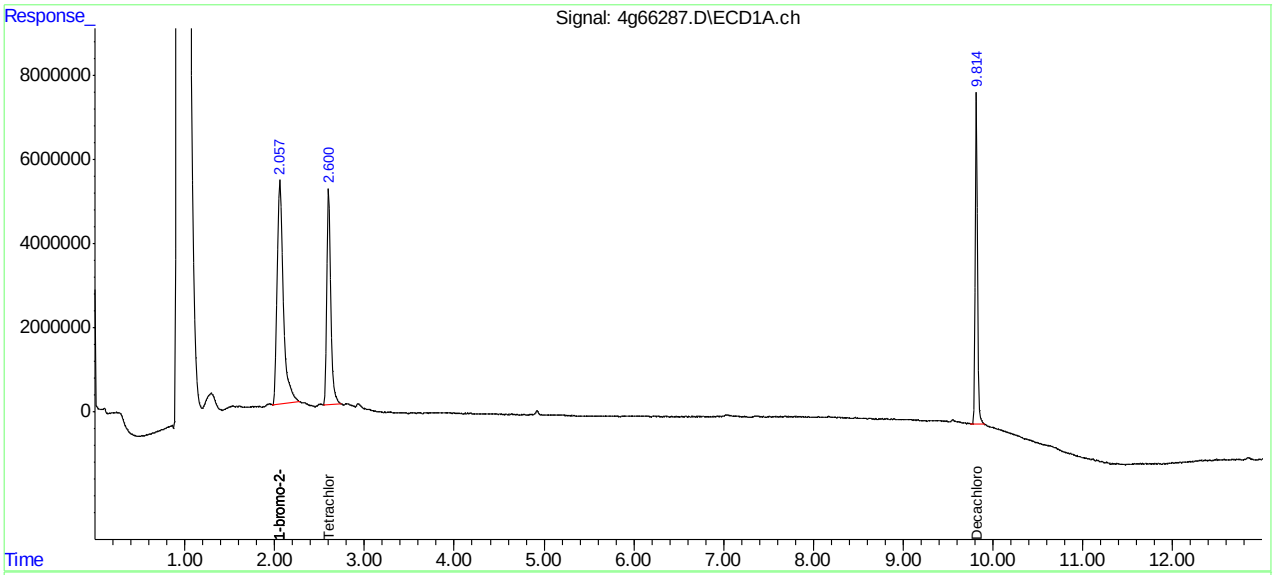
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

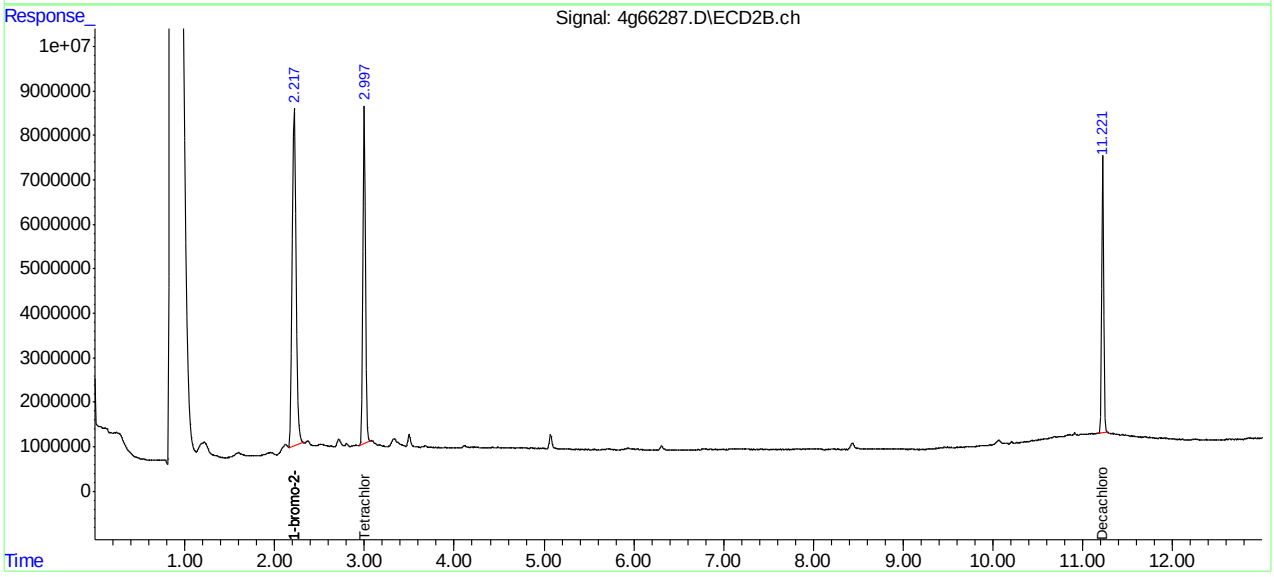
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66287.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:21 pm
Operator : brittanp
Sample : jc16038-9
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:19:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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\4G1744\
Data File : 4g66289.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:50 pm
Operator : brittanp
Sample : jc16038-10
Misc : op92108,g4g1744,940,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:22:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.063	2.220	272.0E6	246.2E6	50.000	50.000
25) I 1-bromo-2...	2.063	2.220	272.0E6	246.2E6	50.000	50.000
31) I 1-bromo-2...	2.063	2.220	272.0E6	246.2E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.603	2.999	146.0E6	142.1E6	27.449	30.357
Spiked Amount	40.000	Range	30 - 150	Recovery	= 68.62%	75.89%
24) SA Decachlor...	9.810	11.220	157.6E6	111.6E6	28.936	32.249
Spiked Amount	40.000			Recovery	= 72.34%	80.62%
Target Compounds						
SemiQuant Compounds - Not Calibrated on this Instrument						

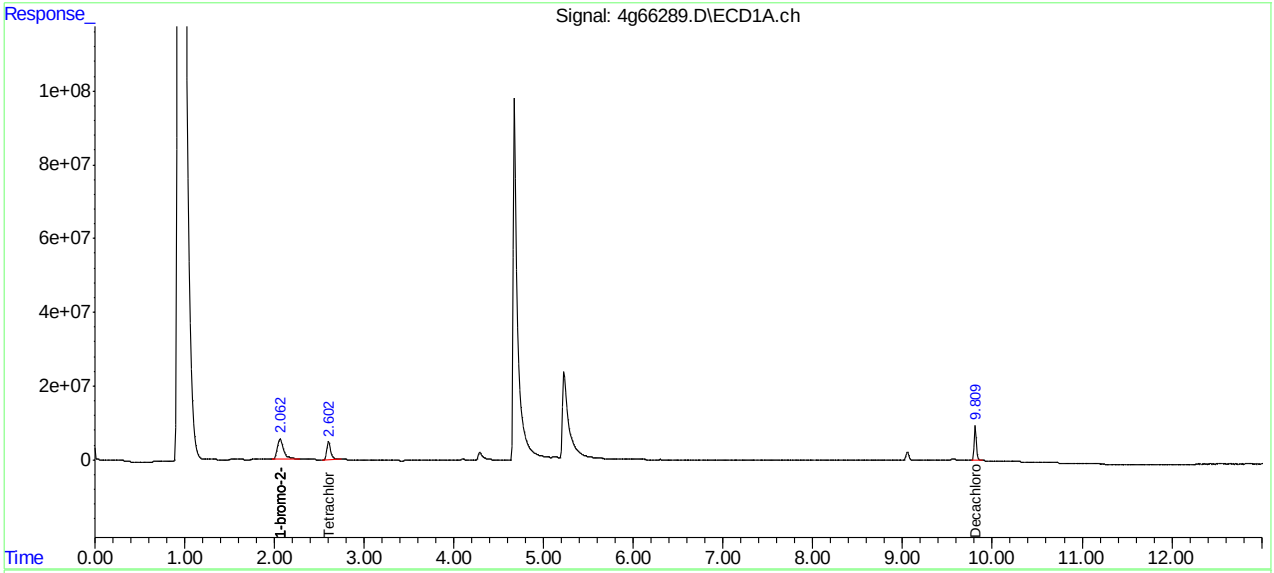
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

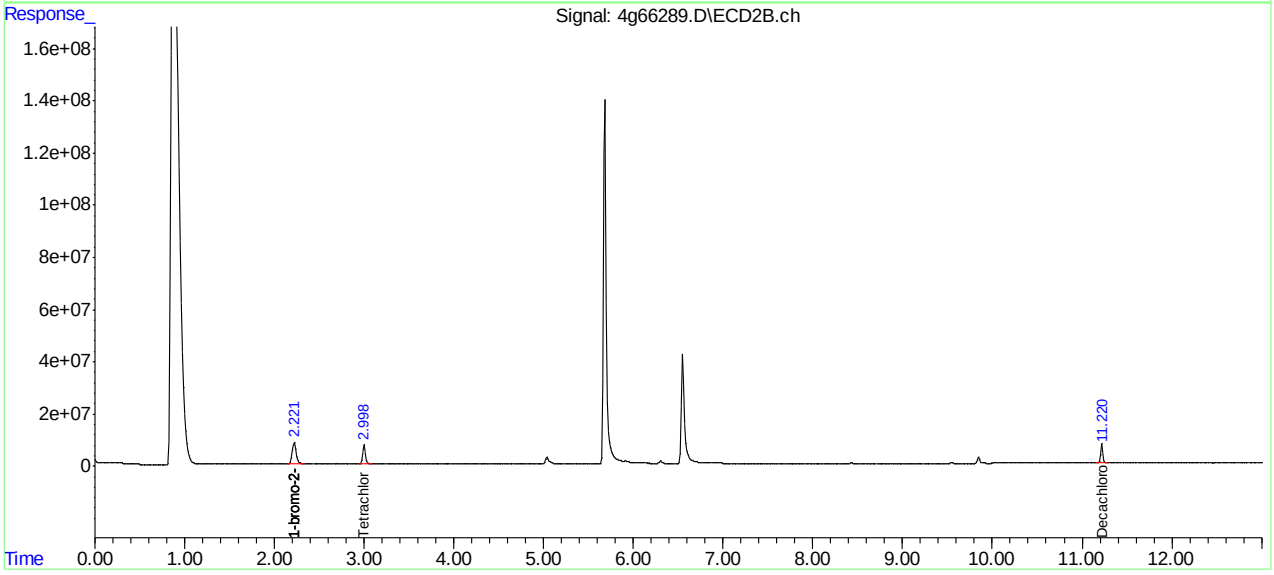
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66289.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 1:50 pm
Operator : brittanp
Sample : jc16038-10
Misc : op92108,g4g1744,940,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 17:22:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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\4G1744\
Data File : 4g66277.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 10:54 am
Operator : brittanp
Sample : op92108-mb1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:15:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.055	2.211	210.8E6	225.1E6	50.000	50.000
25) I 1-bromo-2...	2.055	2.211	210.8E6	225.1E6	50.000	50.000
31) I 1-bromo-2...	2.055	2.211	210.8E6	225.1E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.607	2.992	137.8E6	145.1E6	33.437	33.914
Spiked Amount	40.000	Range	30 - 150	Recovery	= 83.59%	84.78%
24) SA Decachlor...	9.825	11.233	167.4E6	119.1E6	39.674	37.637
Spiked Amount	40.000			Recovery	= 99.19%	94.09%
Target Compounds						
SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

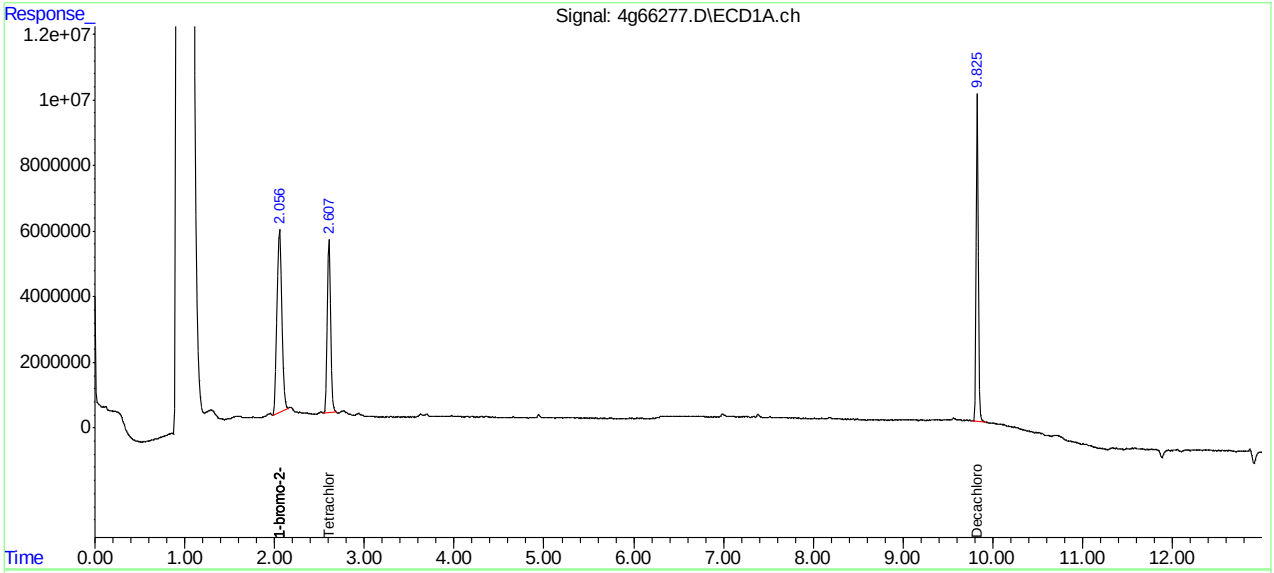
SGS ACCUTEST JC16038

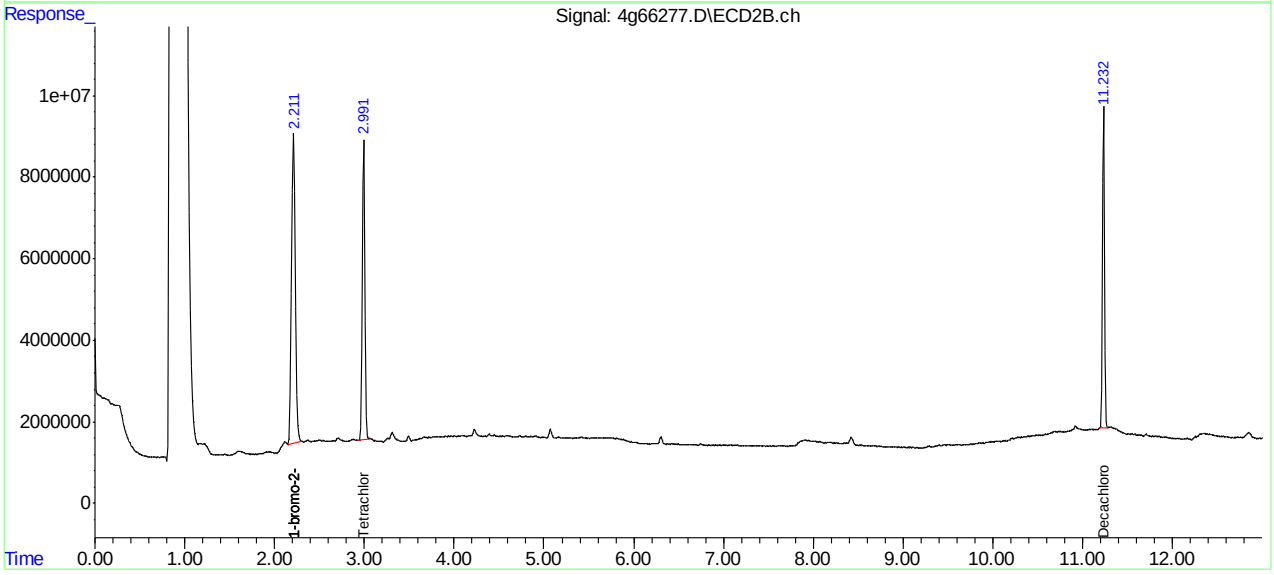
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66277.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 10:54 am
Operator : brittanp
Sample : op92108-mb1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:15:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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 03/22/16 12:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:09 am
Operator : brittanp
Sample : op92108-bs1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:23:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.056	2.218	255.3E6	235.0E6	50.000	50.000
25) I	1-bromo-2...	2.056	2.218	255.3E6	235.0E6	50.000	50.000
31) I	1-bromo-2...	2.056	2.218	255.3E6	235.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.597	2.996	149.0E6	149.2E6	29.858	33.390
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 74.65%	83.47%
24) SA	Decachlor...	9.814	11.225	160.0E6	117.0E6	31.304	35.405
	Spiked Amount	40.000			Recovery	= 78.26%	88.51%
	Target Compounds						
3) A	alpha-BHC	3.041	3.638	133.9E6	131.7E6	20.014	22.229
4) MA	gamma-BHC	3.327	4.061	122.8E6	118.9E6	20.429	22.392
5) MA	Heptachlor	3.605	4.637	104.2E6	121.7E6	17.894	22.711 #
6) B	beta-BHC	3.416	4.141	62255880	57514706	20.442m	24.241m
7) B	delta-BHC	3.810	4.540	122.3E6	106.2E6	21.234	21.472
8) MB	Aldrin	4.145	5.092	119.7E6	114.8E6	20.183	21.548
9) B	Heptachlo...	4.845	5.910	118.0E6	112.8E6	21.379m	23.527m
10) B	gamma-Chl...	5.015	6.196	114.8E6	103.8E6	21.140m	21.221
11) B	alpha-Chl...	5.184	6.421	108.0E6	105.1E6	20.138	21.984
12) A	Endosulfan I	5.362	6.523	121.1E6	99882575	21.733	21.292
13) B	4,4'-DDE	5.309	6.671	75377760	96769037	16.761	21.147 #
14) MA	Dieldrin	5.683	6.958	110.4E6	106.9E6	20.185	22.566
15) MA	Endrin	6.009	7.467	106.7E6	101.3E6	22.246	23.636
16) A	4,4'-DDD	6.158f	7.627	72050664	82337275	18.472	20.120
17) B	Endosulfa...	6.337	7.819	96061071	93149994	20.403	21.697
18) MA	4,4'-DDT	6.558	8.162	69490490	73382196	23.132	24.356
19) B	Endrin Al...	6.953	8.389	83194066	80349917	21.150	22.022
20) B	Endosulfa...	7.632	8.861	88437825	84224093	22.648	22.891
21) A	Methoxychlor	7.356	9.392	37199738	42290556	24.433	26.255
23) B	Endrin Ke...	8.085	9.762	96750099	100.4E6	21.201	23.593

SemiQuant Compounds - Not Calibrated on this Instrument

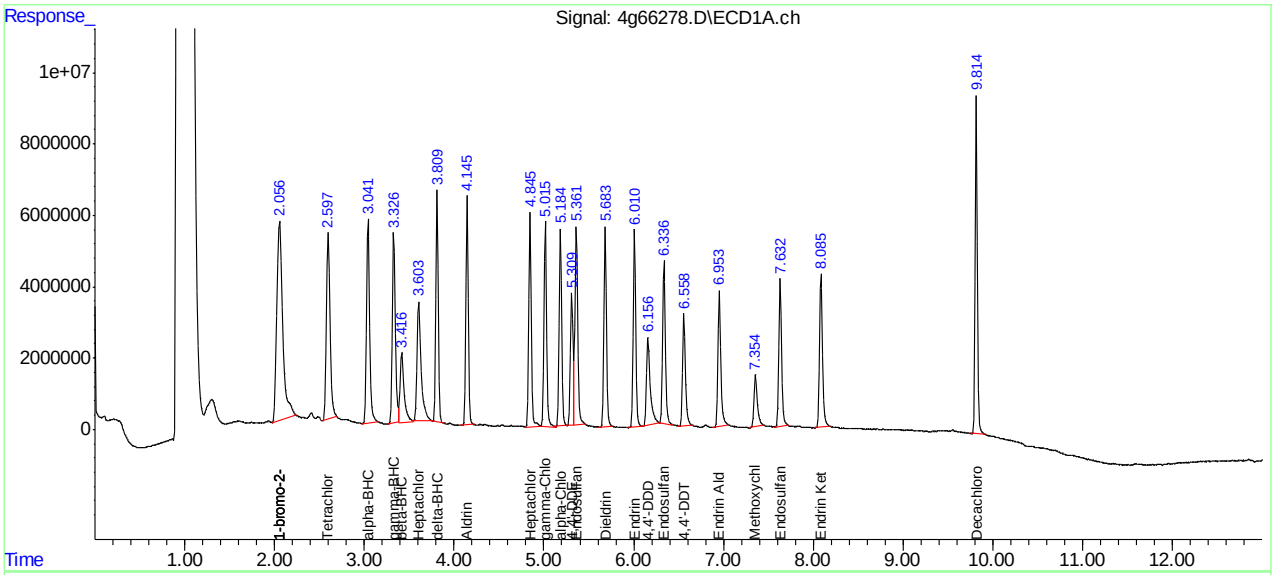
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

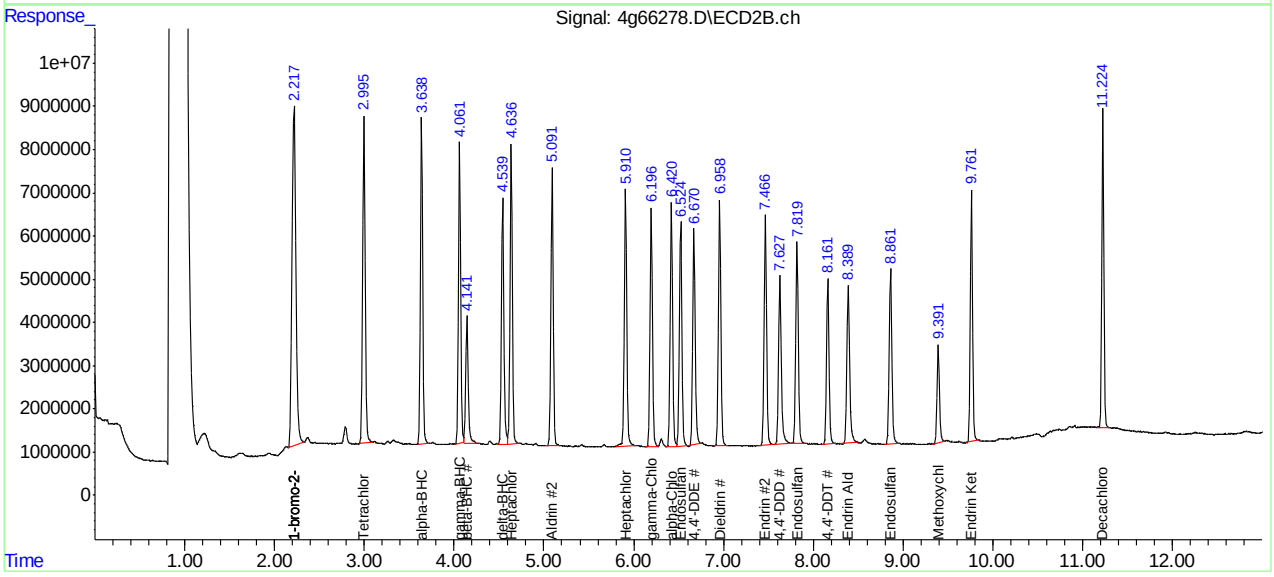
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:09 am
Operator : brittanp
Sample : op92108-bs1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:23:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	OP92108-BS1	**Method:**	SW846 8081B
Lab FileID:	4G66278.D	**Analyst approved:**	03/21/16 16:24 Brittany Piercy
Injection Time:	03/20/16 11:09	**Supervisor approved:**	03/22/16 12:26 Gwendolyn Burns

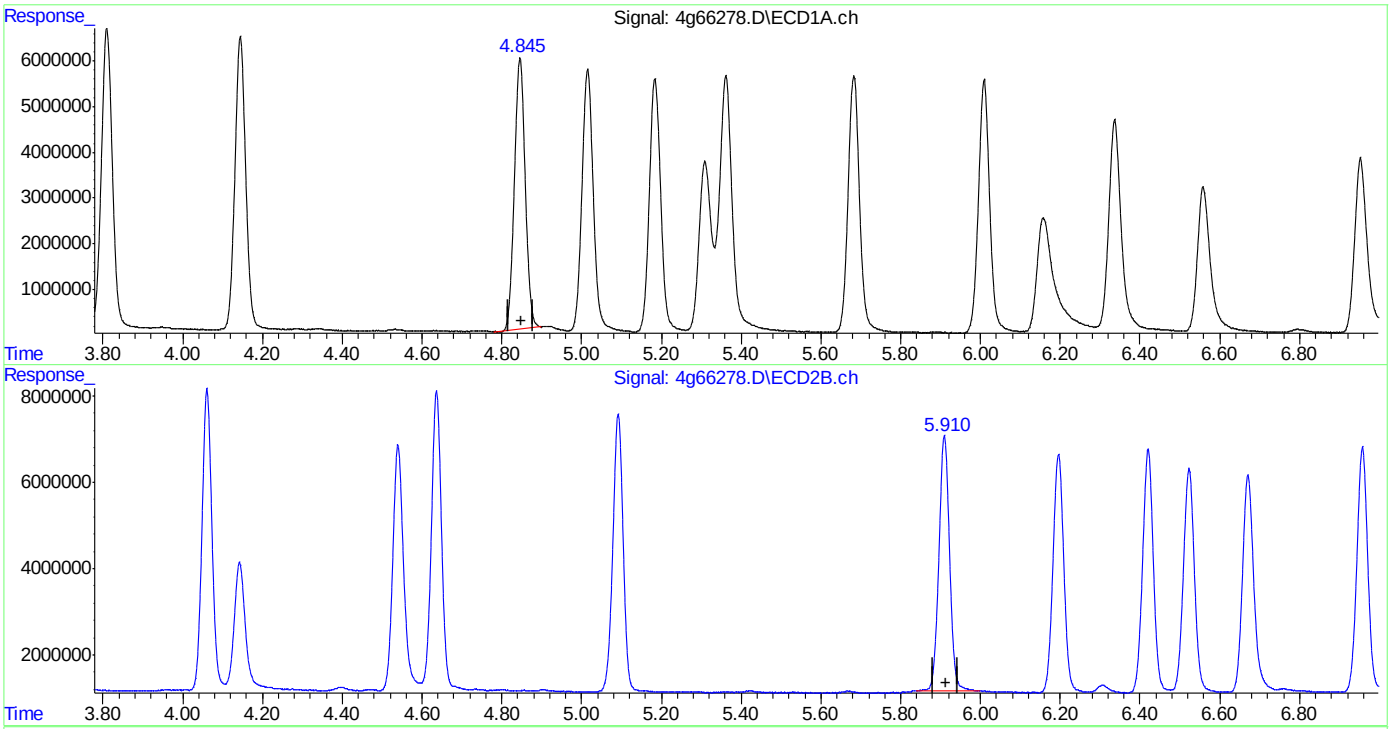
Parameter	CAS	Sig#	R.T. (min.)	Reason
beta-BHC	319-85-7	1	3.42	Poor instrument integration
beta-BHC	319-85-7	2	4.14	Poor instrument integration
Heptachlor epoxide	1024-57-3	1	4.85	Poor instrument integration
gamma-Chlordane	5103-74-2	1	5.02	Poor instrument integration
Heptachlor epoxide	1024-57-3	2	5.91	Poor instrument integration

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016  11:09 am
Operator  : brittanp
Sample    : op92108-bs1
Misc      : op92108,g4g1744,1000,,,10,1
ALS Vial  : 5   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:17:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(9) Heptachlor Epoxide (B)

4.846min 20.206 PPB

response 111564091

(9) Heptachlor Epoxide #2 (B)

5.910min 22.904 PPB

response 109782698

(+) = Expected Retention Time

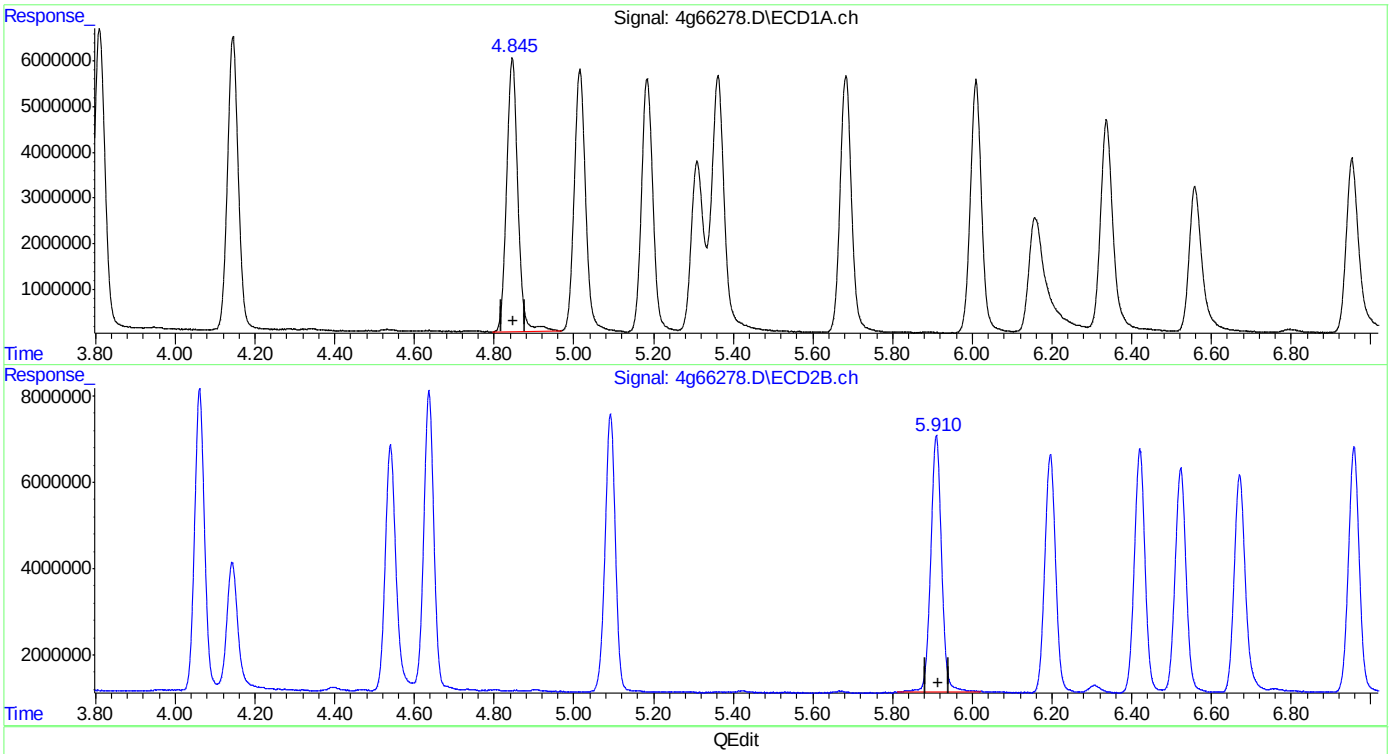
4PST1741.M Mon Mar 21 16:17:53 2016 RPT1

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016  11:09 am
Operator  : brittanp
Sample    : op92108-bs1
Misc      : op92108,g4g1744,1000,,,10,1
ALS Vial  : 5   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:17:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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
```



(9) Heptachlor Epoxide (B)

4.845min 21.379 PPB m

response 118042327

(9) Heptachlor Epoxide #2 (B)

5.910min 23.527 PPB m

response 112770745

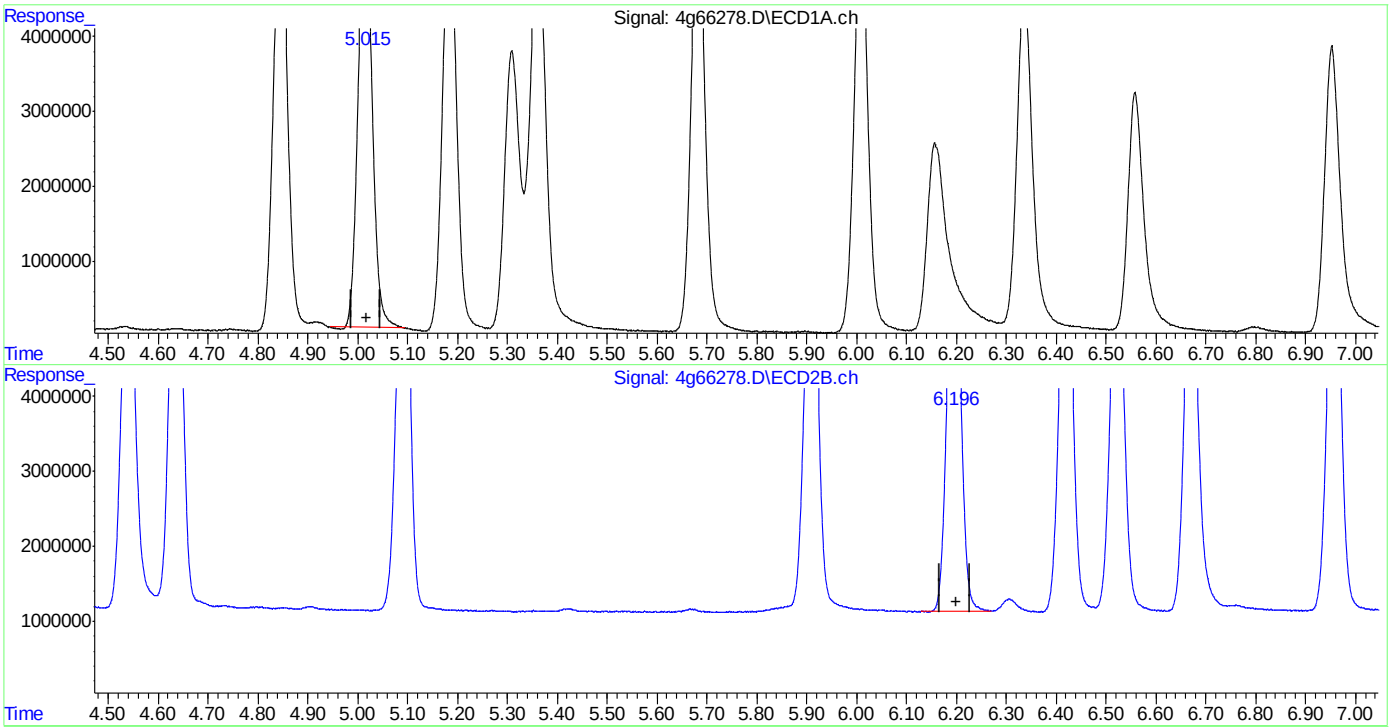
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:09 am
Operator : brittanp
Sample : op92108-bs1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:17:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) gamma-Chlordane (B)
5.015min 20.416 PPB
response 110898946

(10) gamma-Chlordane #2 (B)
6.196min 21.221 PPB
response 103782430

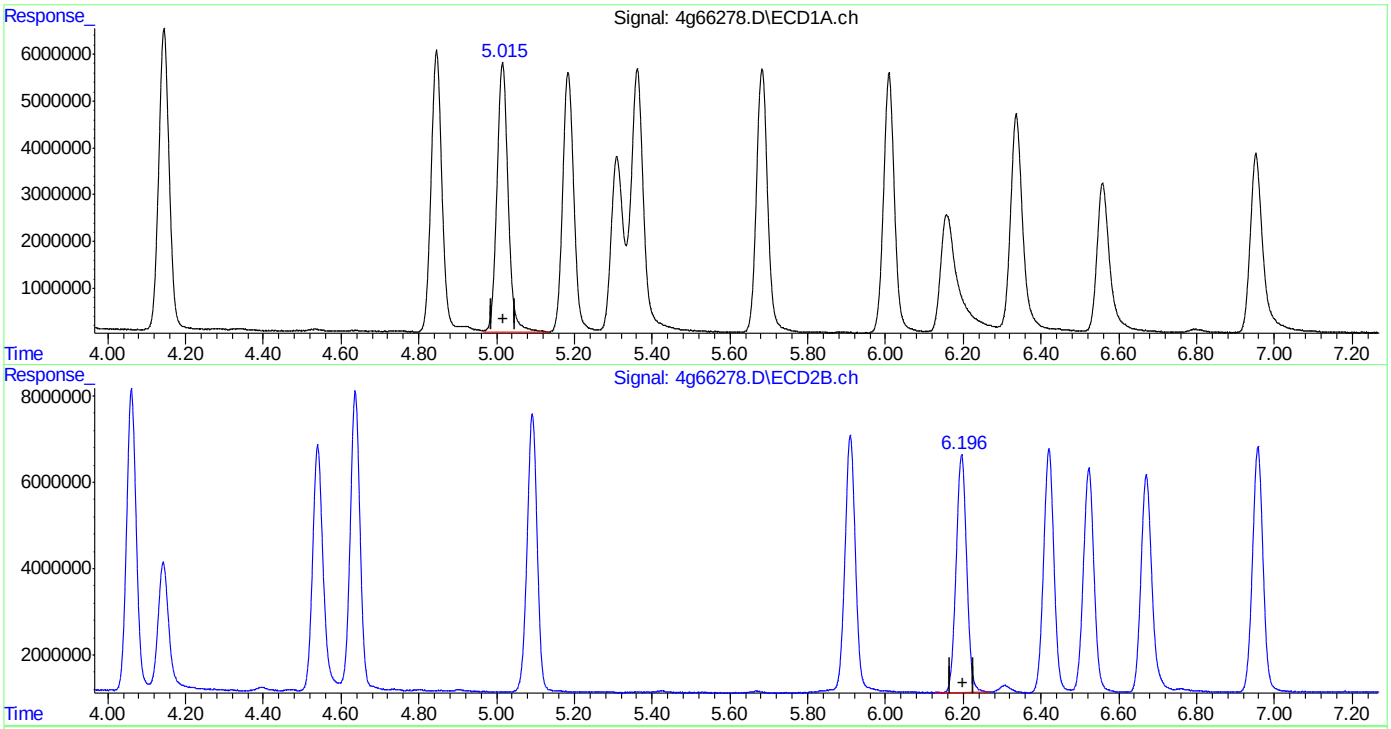
(+) = Expected Retention Time
4PST1741.M Mon Mar 21 16:18:20 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:09 am
Operator : brittanp
Sample : op92108-bs1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:17:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) gamma-Chlordane (B)
5.015min 21.140 PPB m
response 114829409

(10) gamma-Chlordane #2 (B)
6.196min 21.221 PPB
response 103782430

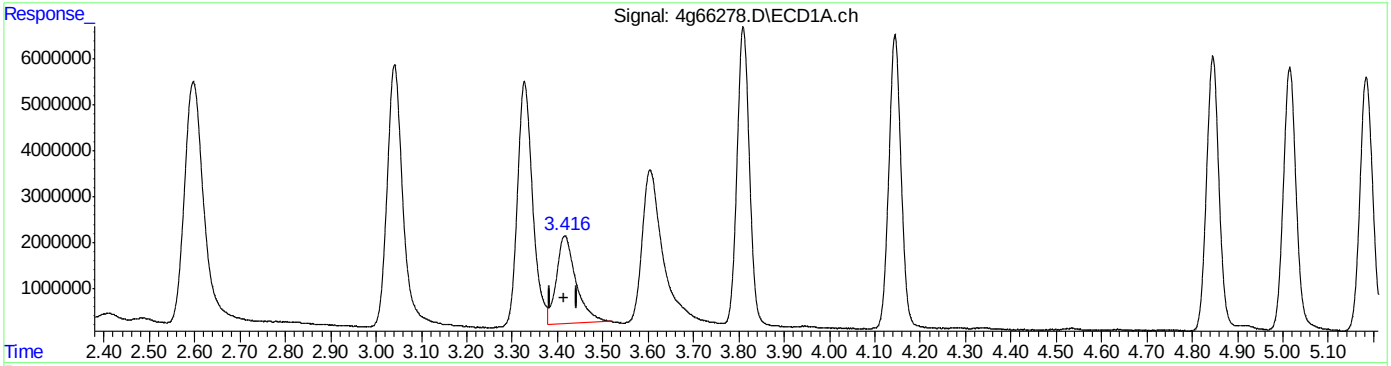
(+) = Expected Retention Time
4PST1741.M Mon Mar 21 16:18:26 2016 RPT1

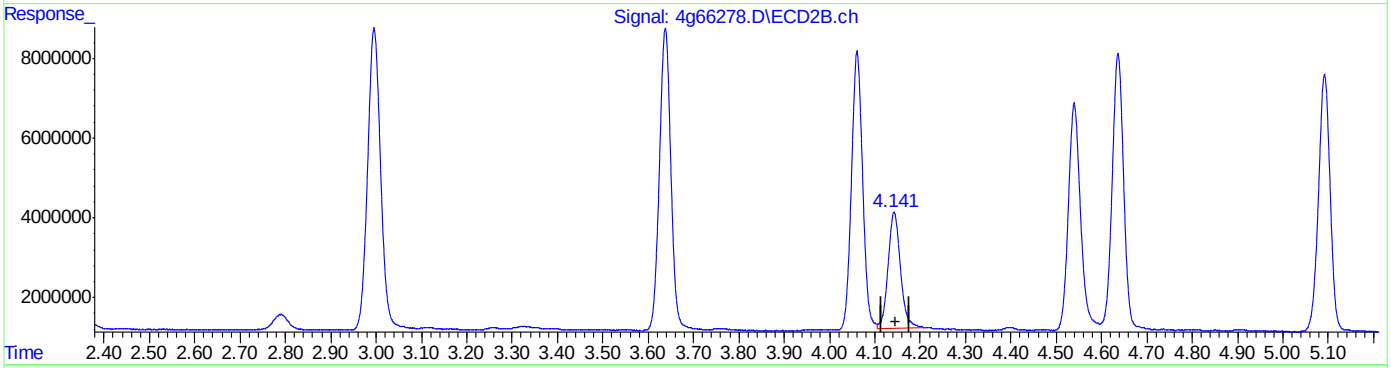
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66278.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:09 am
Operator : brittanp
Sample : op92108-bs1
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:18:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(6) beta-BHC (B)
3.416min 18.765 PPB
response 57148561

(6) beta-BHC #2 (B)
4.143min 23.238 PPB
response 55134901

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/28/16 15:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:22:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.056	2.218	255.3E6	230.6E6	50.000	50.000	
25) I	1-bromo-2...	2.056	2.218	255.3E6	230.6E6	50.000	50.000	
31) I	1-bromo-2...	2.056	2.218	255.3E6	230.6E6	50.000	50.000	
	System Monitoring Compounds							
2) SAB	Tetrachlo...	2.597	2.997	171.3E6	169.5E6	34.323	38.664	
	Spiked Amount	40.000	Range	30 - 150	Recovery	=	85.81%	96.66%
24) SA	Decachlor...	9.812	11.223	191.4E6	133.2E6	37.452m	41.098	
	Spiked Amount	40.000			Recovery	=	93.63%	102.75%
	Target Compounds							
3) A	alpha-BHC	3.041	3.639	152.6E6	153.1E6	22.798	26.343	
4) MA	gamma-BHC	3.328	4.063	142.4E6	138.9E6	23.688	26.649	
5) MA	Heptachlor	3.607	4.638	123.8E6	143.6E6	21.251	27.308	#
6) B	beta-BHC	3.417	4.144	66510009	63712291	21.841	27.371	#
7) B	delta-BHC	3.810	4.541	144.3E6	124.0E6	25.058	25.554	
8) MB	Aldrin	4.144	5.093	141.0E6	136.7E6	23.769	26.137	
9) B	Heptachlo...	4.844	5.909	136.7E6	131.8E6	24.765m	28.025m	
10) B	gamma-Chl...	5.014	6.196	133.1E6	125.1E6	24.505m	26.063	
11) B	alpha-Chl...	5.184	6.420	125.9E6	123.4E6	23.487	26.296	
12) A	Endosulfan I	5.361	6.524	143.4E6	116.6E6	25.740	25.340	
13) B	4,4'-DDE	5.308	6.672	86567847	116.0E6	19.251	25.845	#
14) MA	Dieldrin	5.682	6.958	129.5E6	124.7E6	23.694	26.832	
15) MA	Endrin	6.008	7.467	124.4E6	118.2E6	25.942	28.124	
16) A	4,4'-DDD	6.157f	7.628	82538814	96413692	21.163	24.014	
17) B	Endosulfa...	6.335	7.819	111.3E6	108.7E6	23.633	25.798	
18) MA	4,4'-DDT	6.558	8.161	81418998	86667403	26.616	28.852	
19) B	Endrin Al...	6.952	8.388	98000353	94482138	24.916	26.394	
20) B	Endosulfa...	7.630	8.861	102.9E6	97356699	26.365	26.970	
21) A	Methoxychlor	7.354	9.391	43263164	49610469	28.418	31.393	
23) B	Endrin Ke...	8.083	9.760	112.5E6	116.7E6	24.656	27.936	

SemiQuant Compounds - Not Calibrated on this Instrument

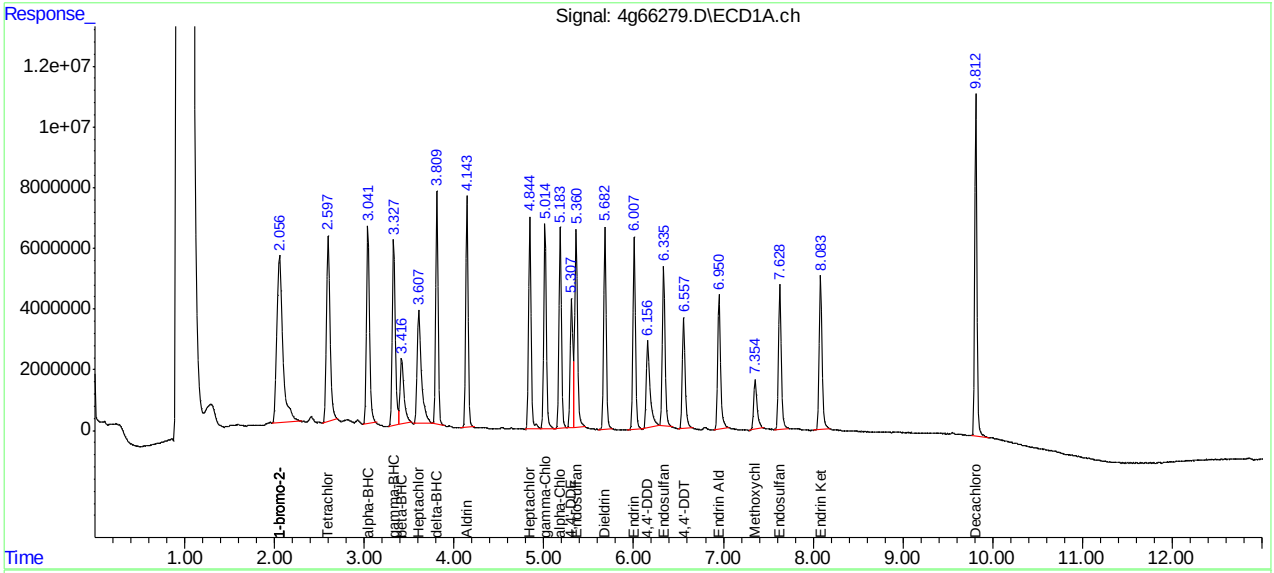
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

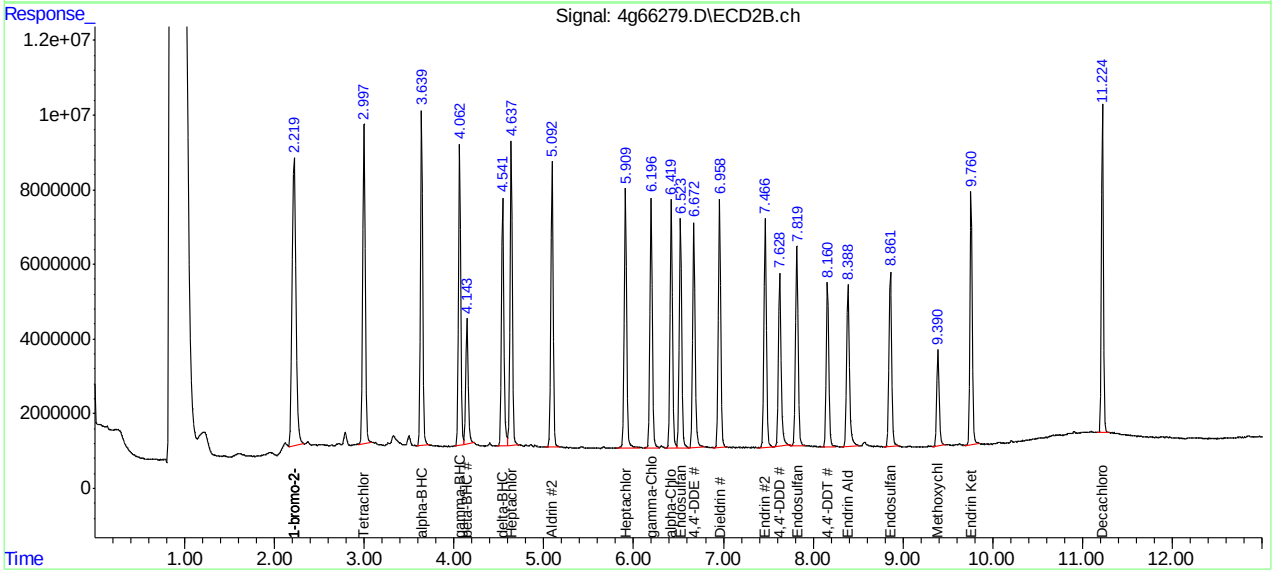
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:22:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	OP92108-BSD	**Method:**	SW846 8081B
Lab FileID:	4G66279.D	**Analyst approved:**	03/21/16 17:24 Brittany Piercy
Injection Time:	03/20/16 11:23	**Supervisor approved:**	03/28/16 15:17 Gwendolyn Burns

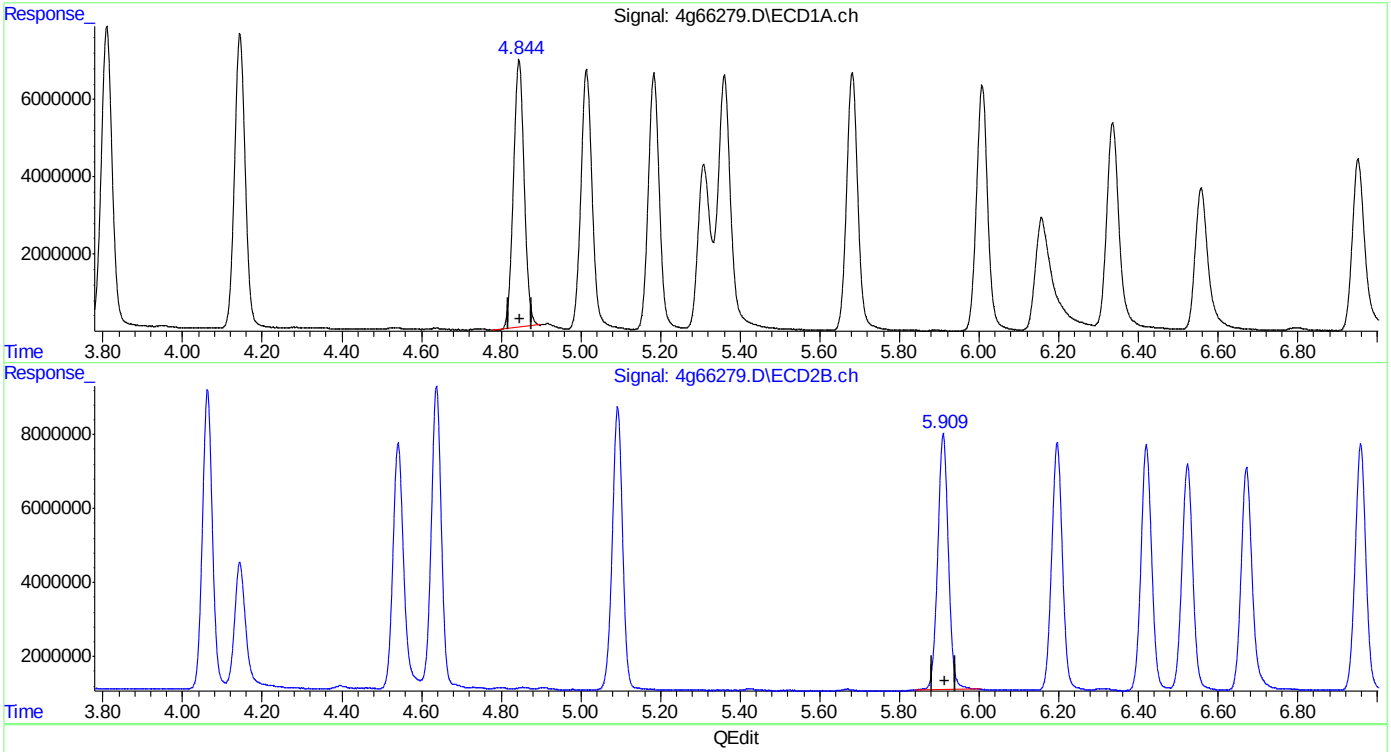
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.84	Poor instrument integration
gamma-Chlordane	5103-74-2	1	5.01	Poor instrument integration
Heptachlor epoxide	1024-57-3	2	5.91	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:21:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(9) Heptachlor Epoxide (B)
4.845min 23.487 PPB
response 129671956

(9) Heptachlor Epoxide #2 (B)
5.910min 27.376 PPB
response 128736055

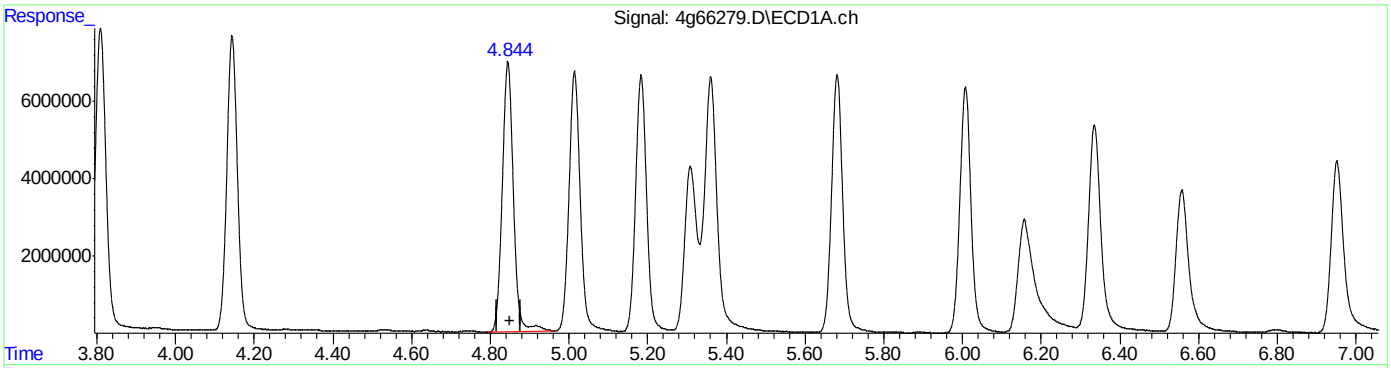
(+) = Expected Retention Time

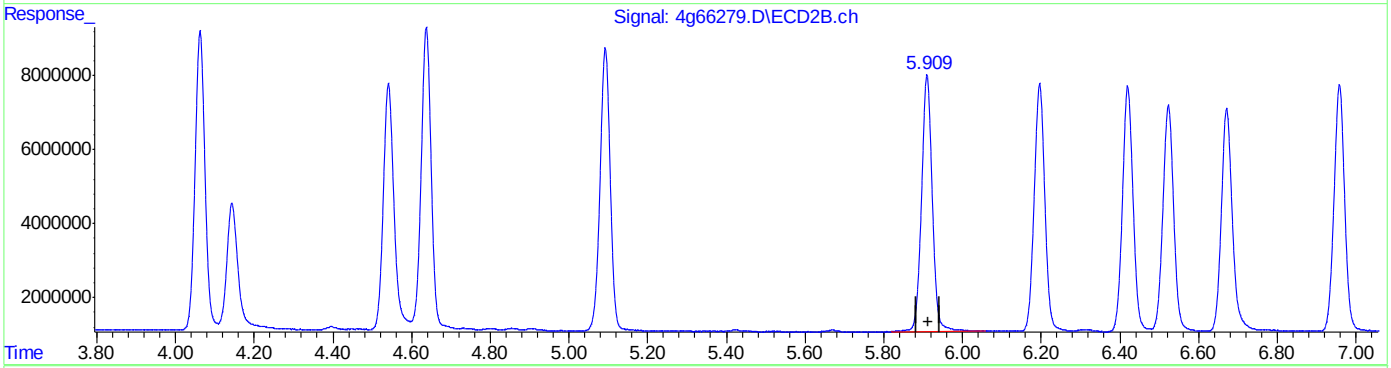
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:21:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(9) Heptachlor Epoxide (B)
4.844min 24.765 PPB m
response 136725978

(9) Heptachlor Epoxide #2 (B)
5.909min 28.025 PPB m
response 131787705

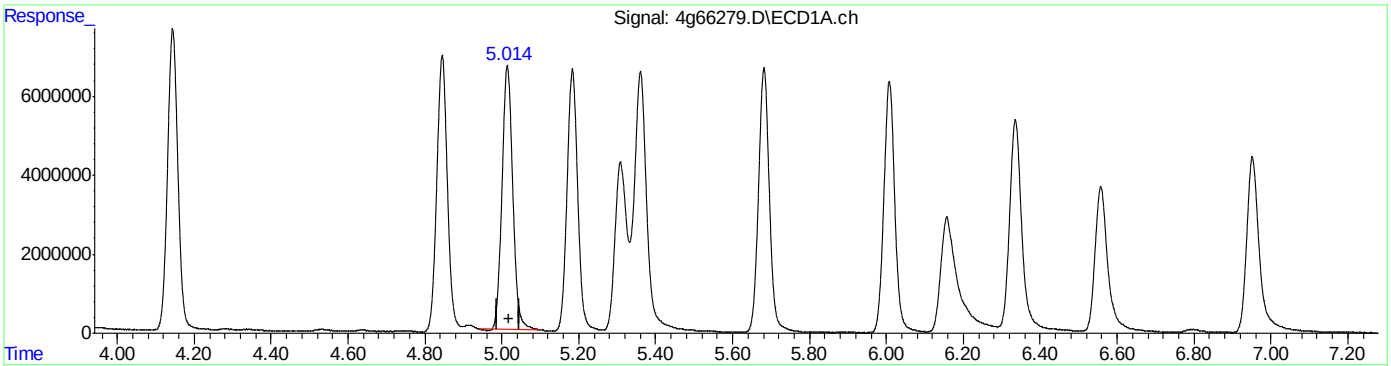
(+) = Expected Retention Time

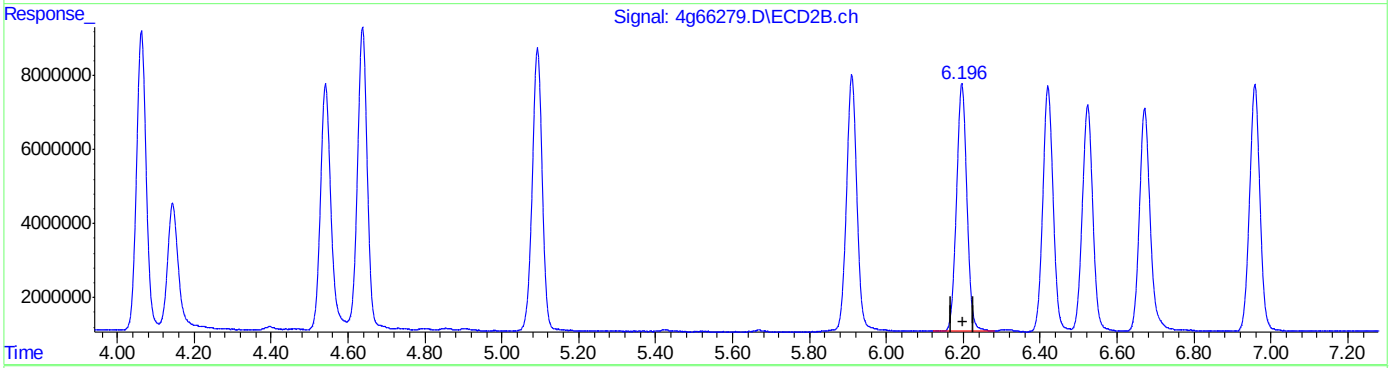
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:21:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) gamma-Chlordane (B)
5.014min 23.785 PPB
response 129187772

(10) gamma-Chlordane #2 (B)
6.196min 26.063 PPB
response 125056548

(+) = Expected Retention Time
4PST1741.M Mon Mar 21 16:21:37 2016 RPT1

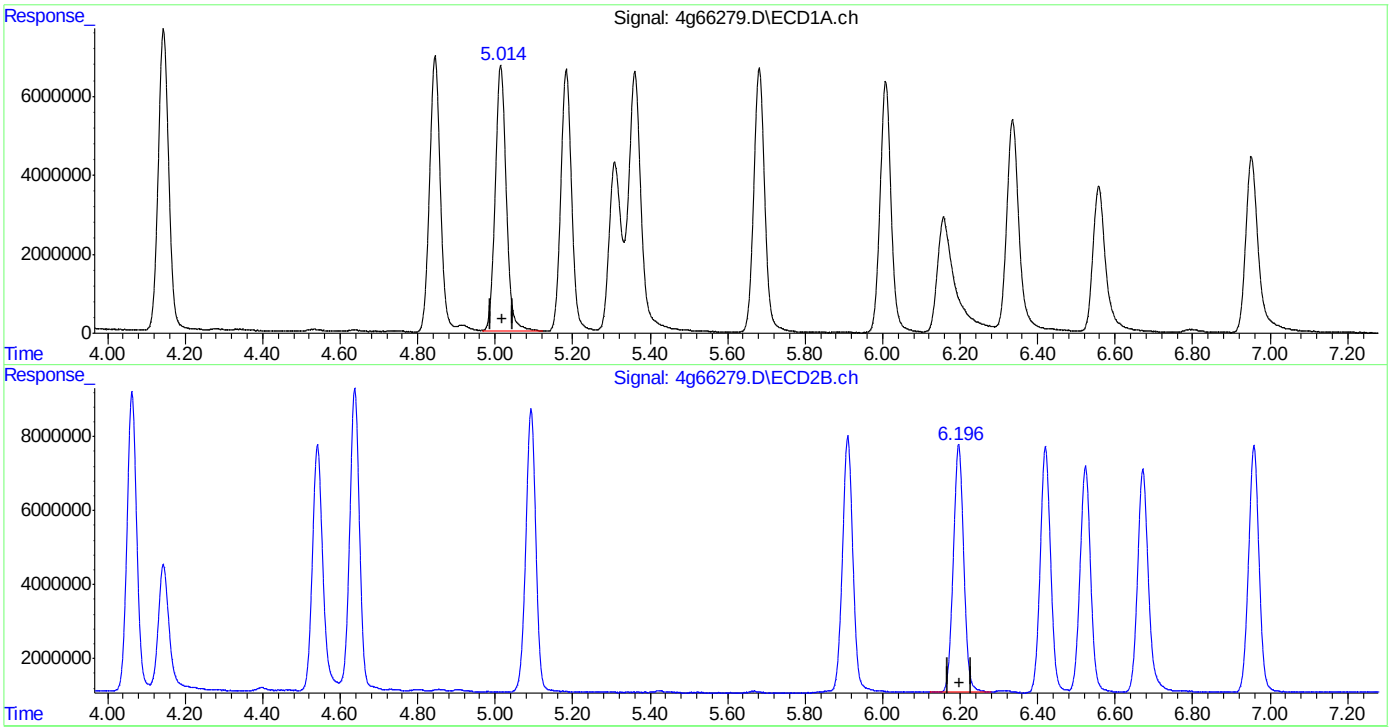
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:21:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) gamma-Chlordane (B)
5.014min 24.505 PPB m
response 133094991

(10) gamma-Chlordane #2 (B)
6.196min 26.063 PPB
response 125056548

(+) = Expected Retention Time
4PST1741.M Mon Mar 21 16:21:44 2016 RPT1

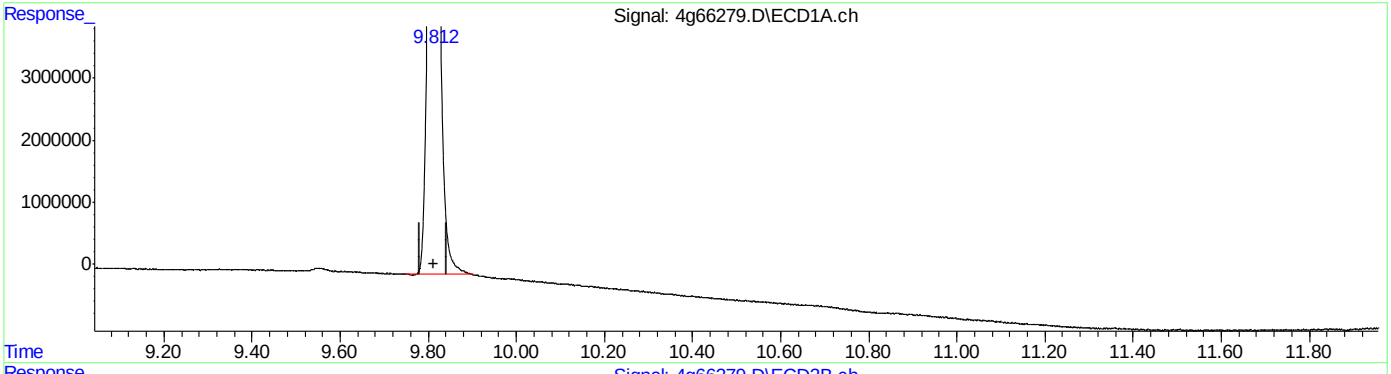
SGS ACCUTEST JC16038

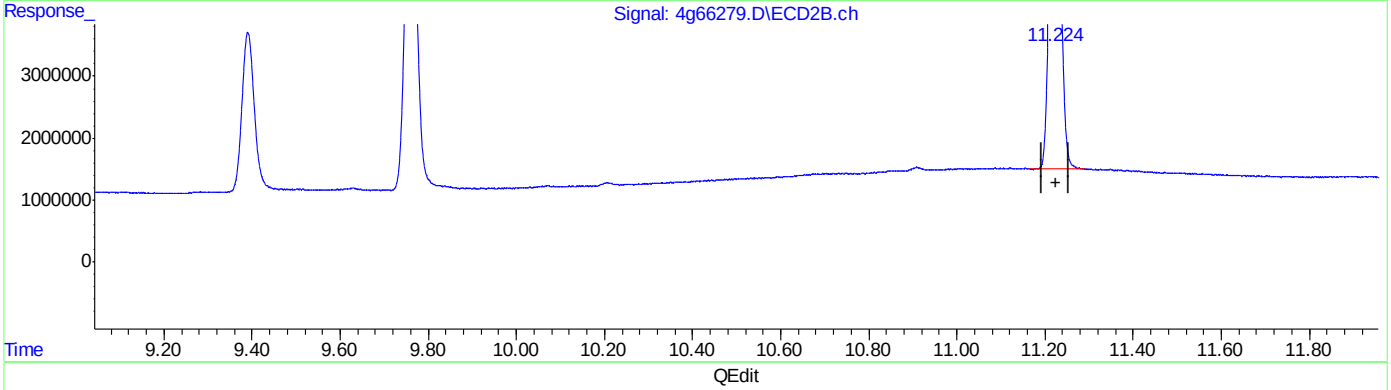
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:21:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(24) Decachlorobiphenyl (SA)
9.813min 36.841 PPB
response 188292874

(24) Decachlorobiphenyl #2 (SA)
11.223min 41.098 PPB
response 133220223

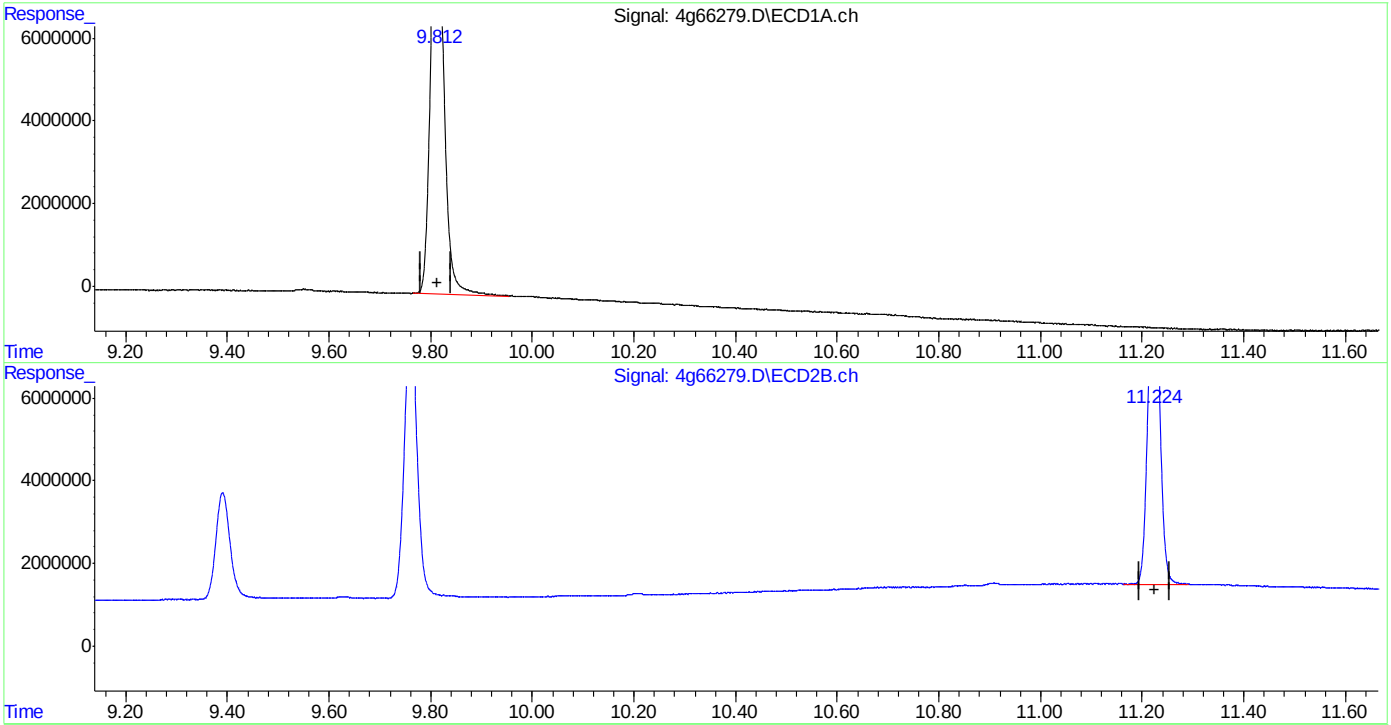
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66279.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 11:23 am
Operator : brittanp
Sample : op92108-bsd
Misc : op92108,g4g1744,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:21:07 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(24) Decachlorobiphenyl (SA)
9.812min 37.452 PPB m
response 191417283

(24) Decachlorobiphenyl #2 (SA)
11.223min 41.098 PPB
response 133220223

(+) = Expected Retention Time
4PST1741.M Mon Mar 21 16:22:14 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:54:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.060	2.223	219.6E6	222.4E6	50.000	50.000
25) I	1-bromo-2...	2.060	2.223	219.6E6	222.4E6	50.000	50.000
31) I	1-bromo-2...	2.060	2.223	219.6E6	222.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.605	3.000	86111238	80872020	20.058	19.134
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	50.14%	47.84%
24) SA	Decachlor...	9.811	11.222	93522762	65854461	21.274	21.069
	Spiked Amount 40.000			Recovery	=	53.19%	52.67%
	Target Compounds						
13) B	4,4'-DDE	5.303	6.674	2634401	2876000	0.681m	0.664
15) MA	Endrin	6.013	7.469	241.8E6	214.4E6	58.622	52.890
16) A	4,4'-DDD	6.155	7.631	8385130	7051784	2.500m	1.822m#
18) MA	4,4'-DDT	6.551	8.161	388.1E6	362.3E6	112.201m	106.069
19) B	Endrin Al...	6.953	8.387	4194694	3242234	1.240m	0.939
23) B	Endrin Ke...	8.081	9.761	9829510	10057782	2.504m	2.497

SemiQuant Compounds - Not Calibrated on this Instrument

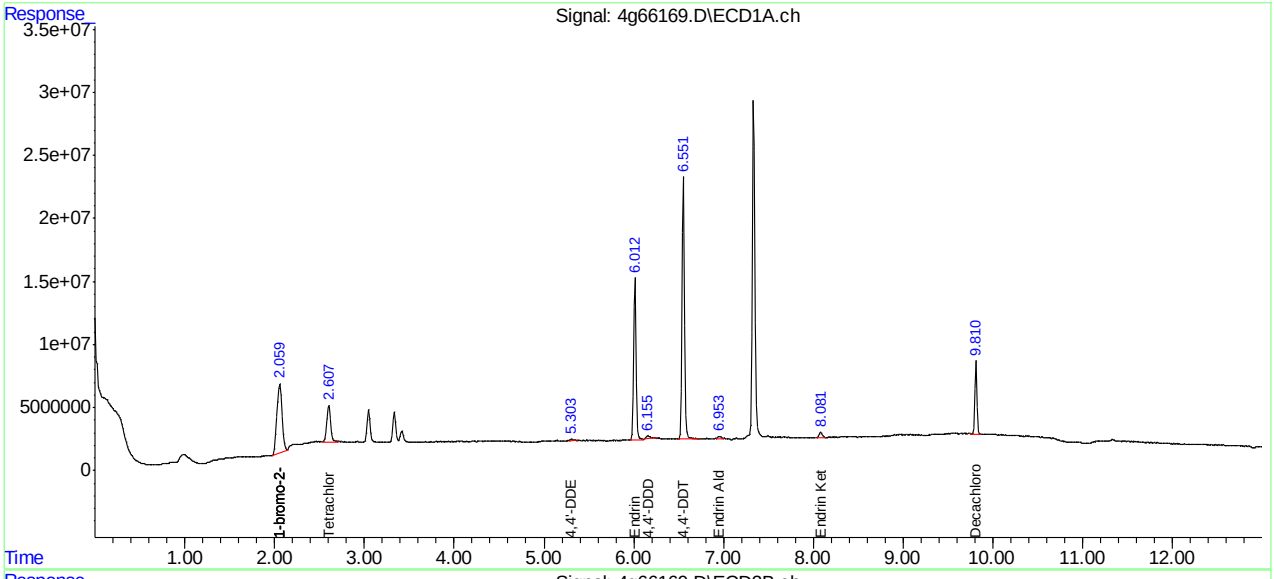
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

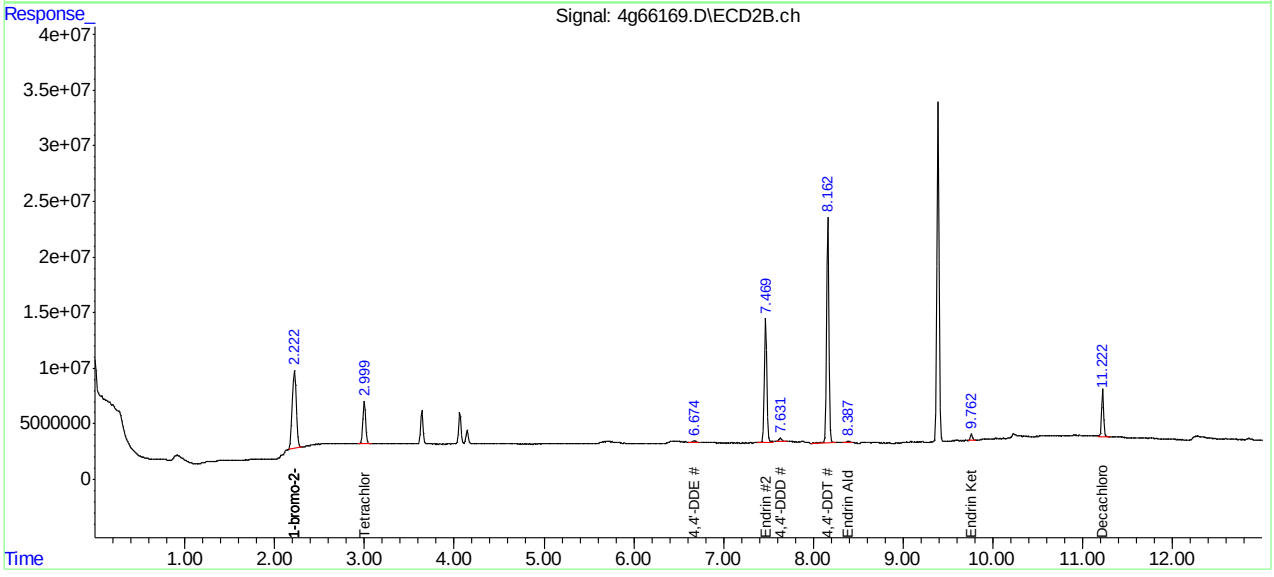
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:54:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1741-DDT	**Method:**	SW846 8081B
Lab FileID:	4G66169.D	**Analyst approved:**	03/19/16 12:57 Joseph Ravino
Injection Time:	03/18/16 17:45	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

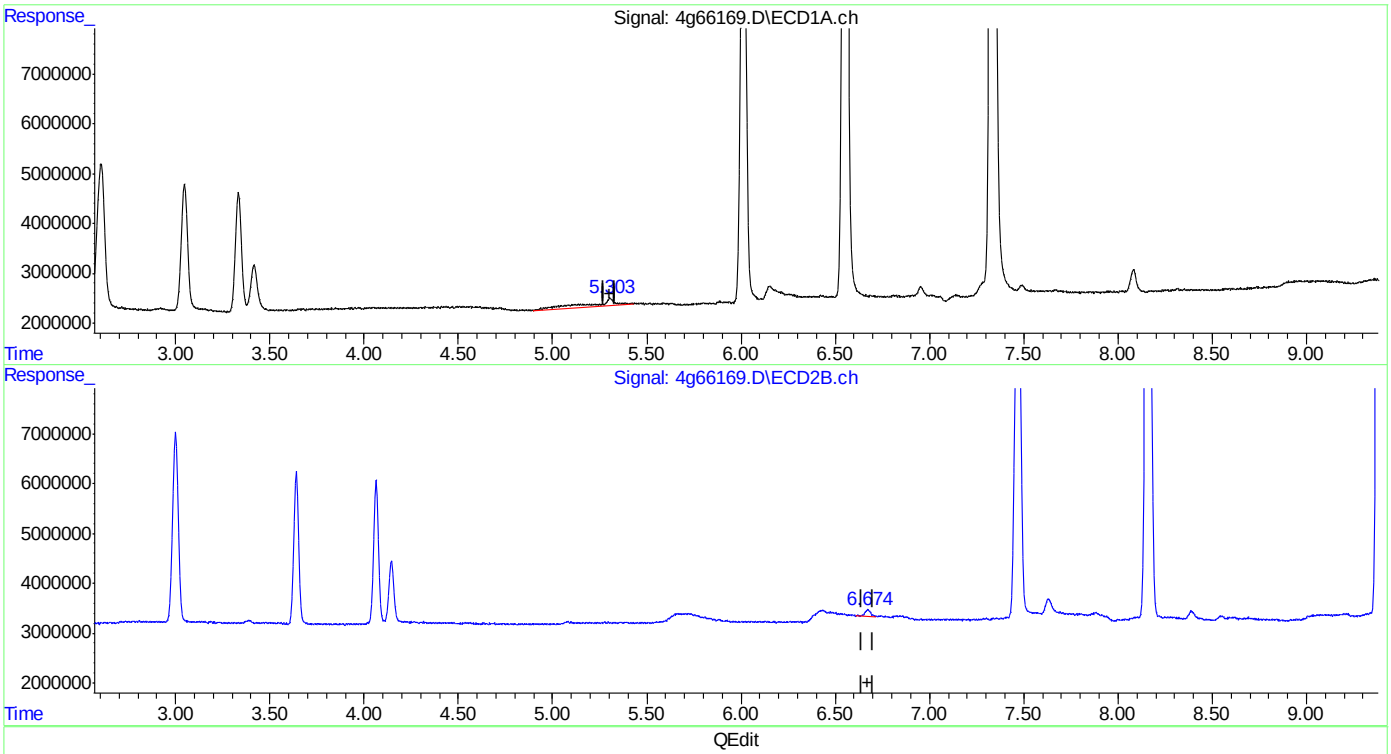
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	5.30	Poor instrument integration
4,4'-DDD	72-54-8	1	6.15	Poor instrument integration
4,4'-DDT	50-29-3	1	6.55	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.95	Poor instrument integration
4,4'-DDD	72-54-8	2	7.63	Poor instrument integration
Endrin ketone	53494-70-5	1	8.08	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) 4,4'-DDE (B)
5.305min 3.961 PPB
response 15321496

(13) 4,4'-DDE #2 (B)
6.674min 0.664 PPB
response 2876000

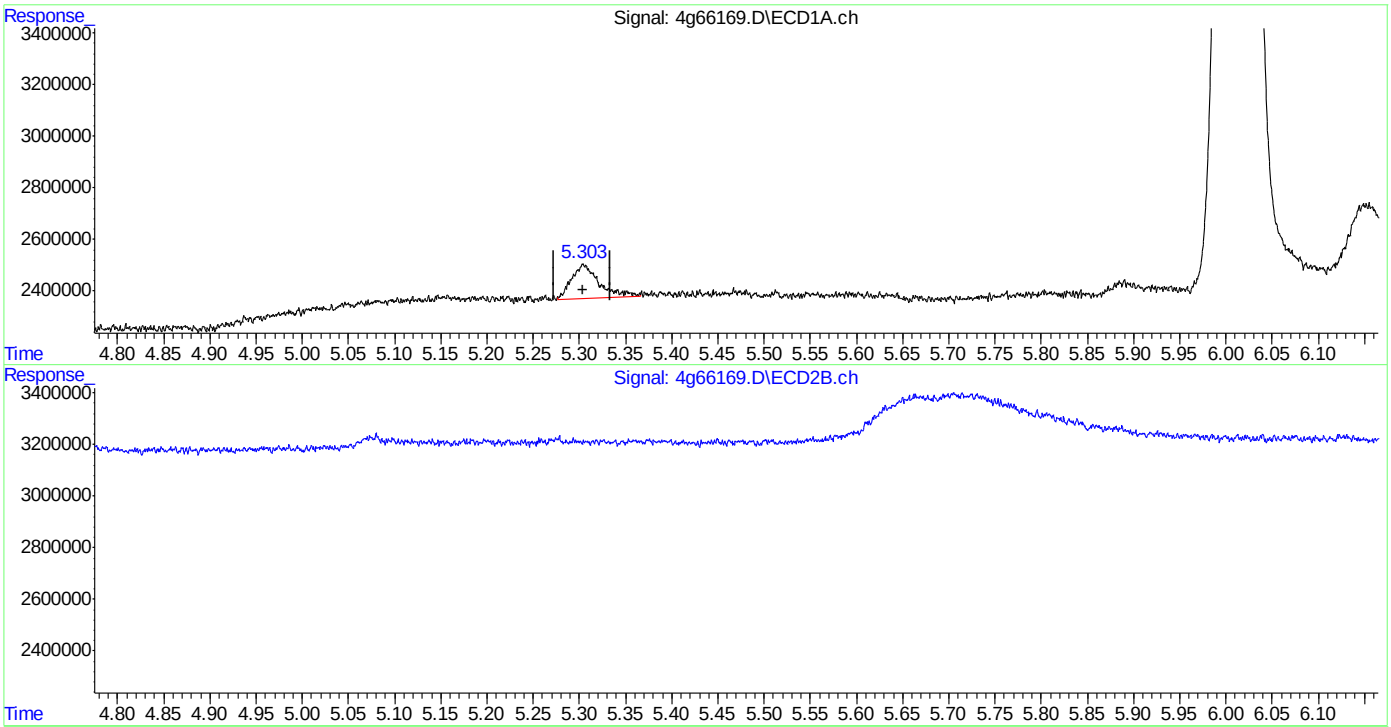
(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:52:51 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) 4,4'-DDE (B)
5.303min 0.681 PPB m
response 2634401

(13) 4,4'-DDE #2 (B)
6.674min 0.664 PPB
response 2876000

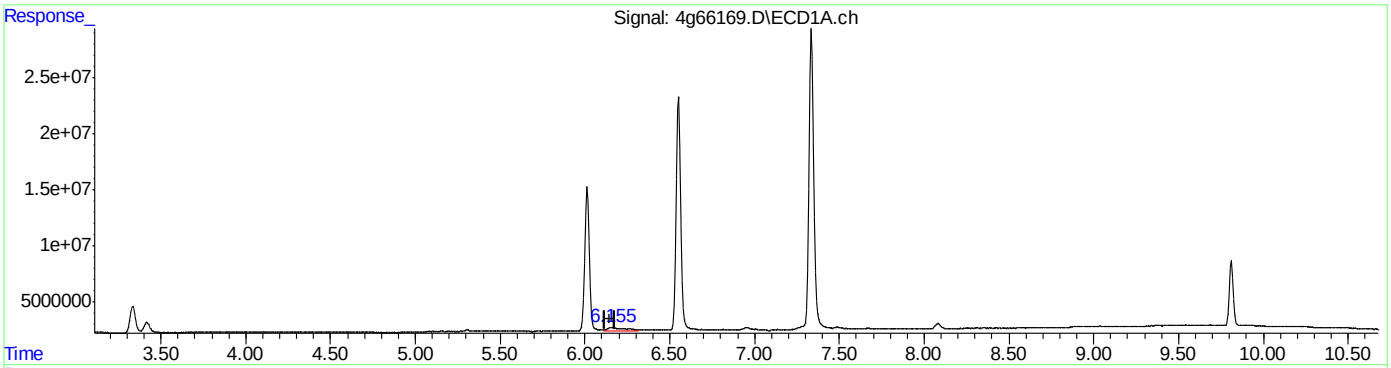
(+) = Expected Retention Time

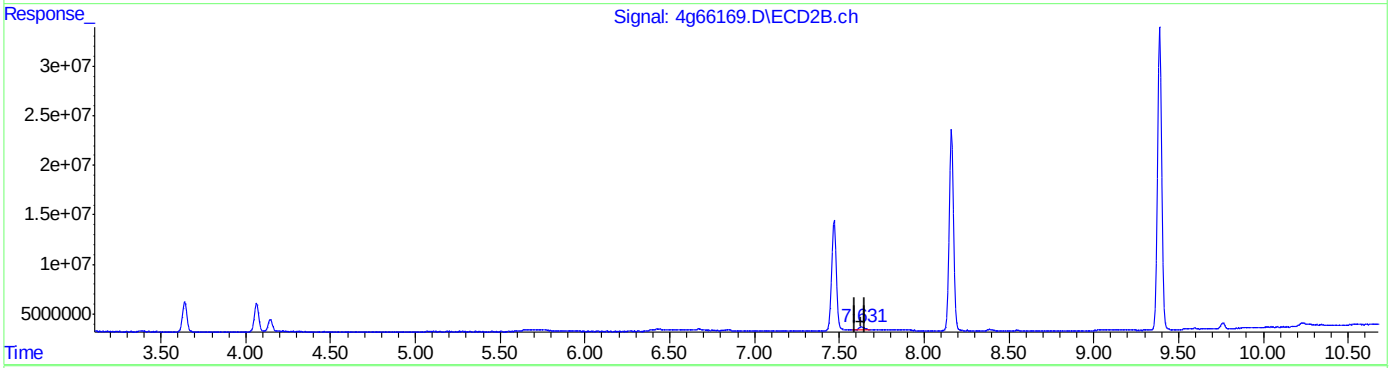
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) 4,4'-DDD (A)
6.152min 6.025 PPB
response 20211392

(16) 4,4'-DDD #2 (A)
7.629min 2.248 PPB
response 8704442

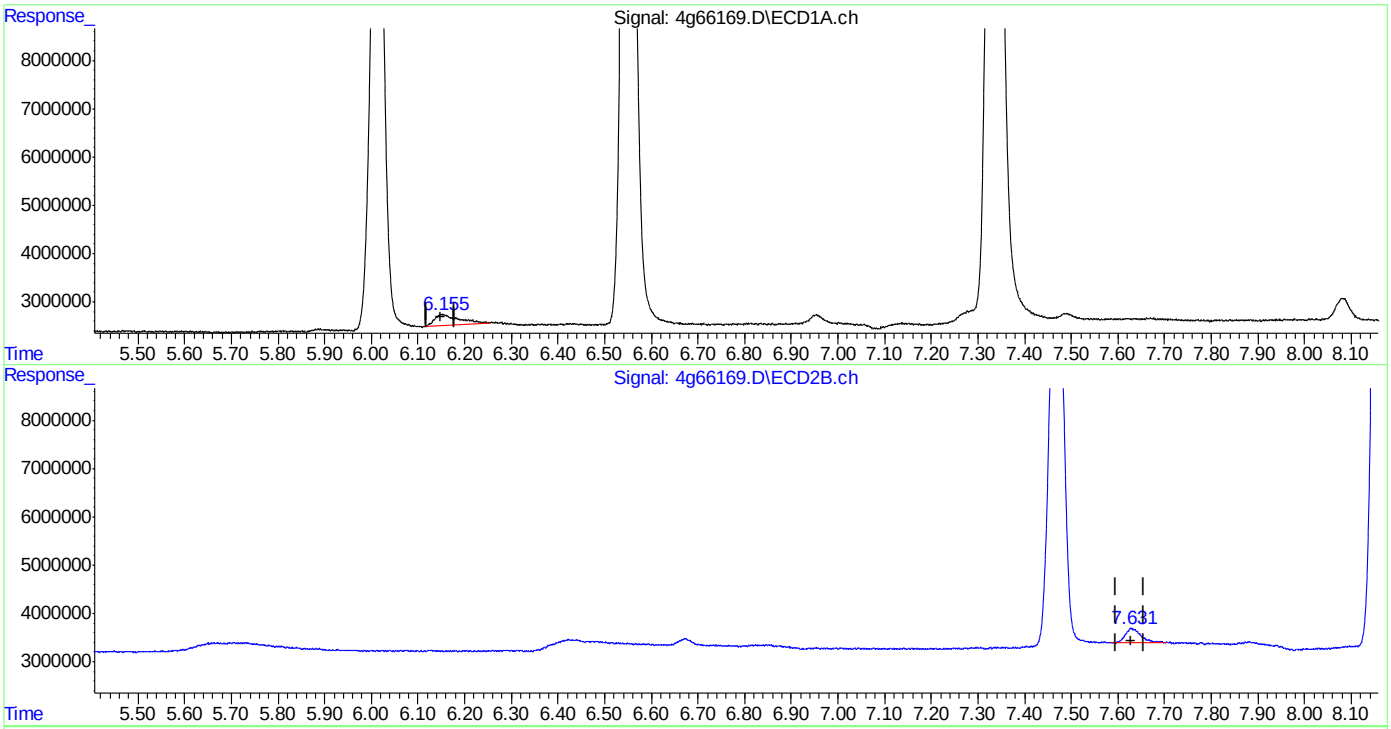
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) 4,4'-DDD (A)
6.155min 2.500 PPB m
response 8385130

(16) 4,4'-DDD #2 (A)
7.631min 1.822 PPB m
response 7051784

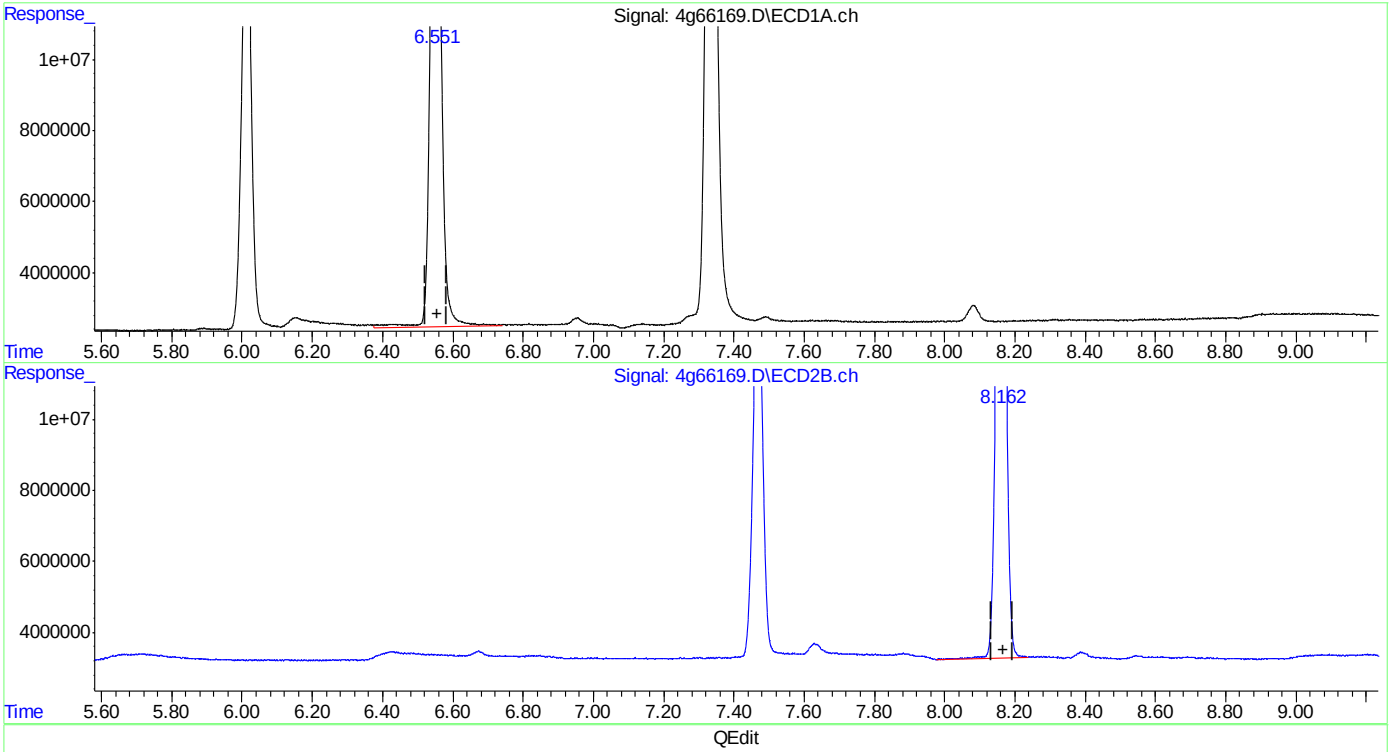
(+) = Expected Retention Time

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   5:45 pm
Operator  : brittanp
Sample    : ddt
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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'-DDT (MA)
6.551min 114.023 PPB
response 396236601

(18) 4,4'-DDT #2 (MA)
8.161min 106.069 PPB
response 362278732

(+) = Expected Retention Time

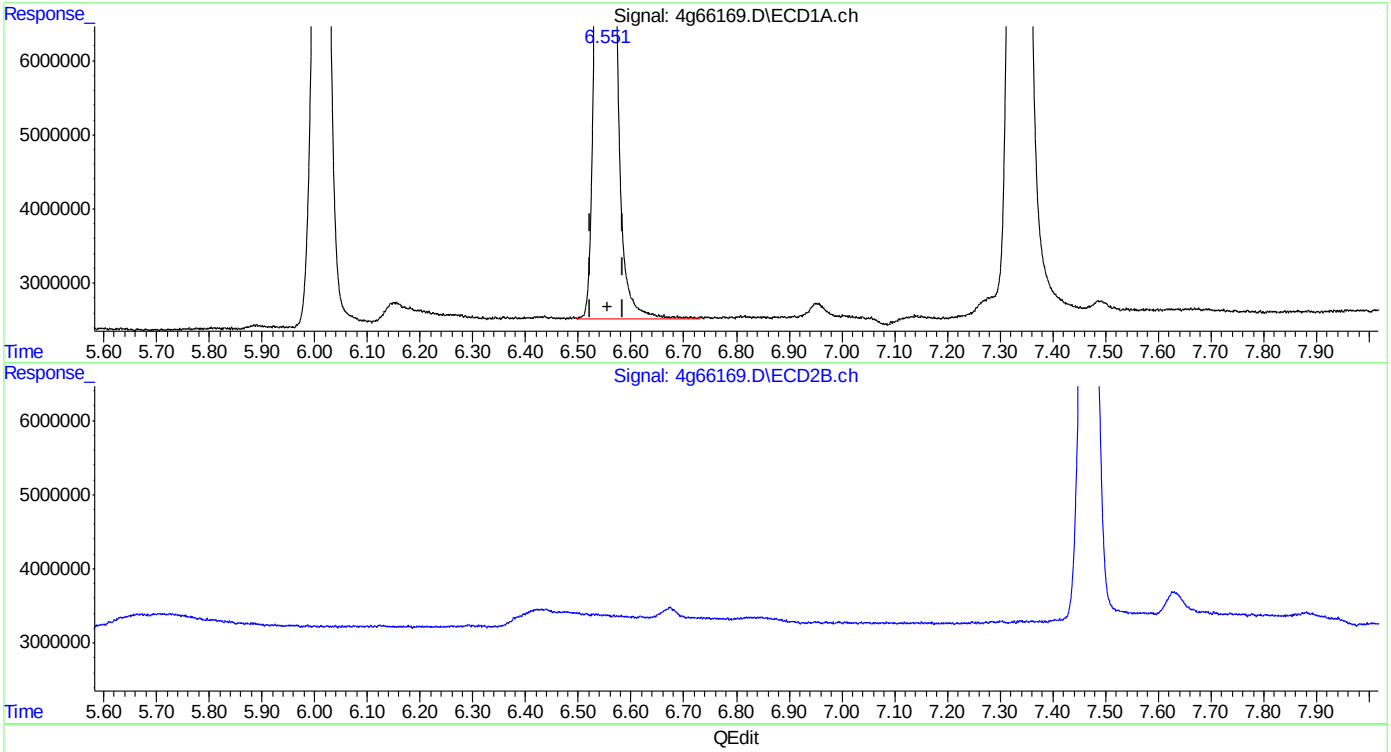
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   5:45 pm
Operator  : brittanp
Sample    : ddt
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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'-DDT (MA)

6.551min 112.201 PPB m

response 388085703

(18) 4,4'-DDT #2 (MA)

8.161min 106.069 PPB

response 362278732

(+) = Expected Retention Time

4PST1741.M Sat Mar 19 12:53:43 2016 RPT1

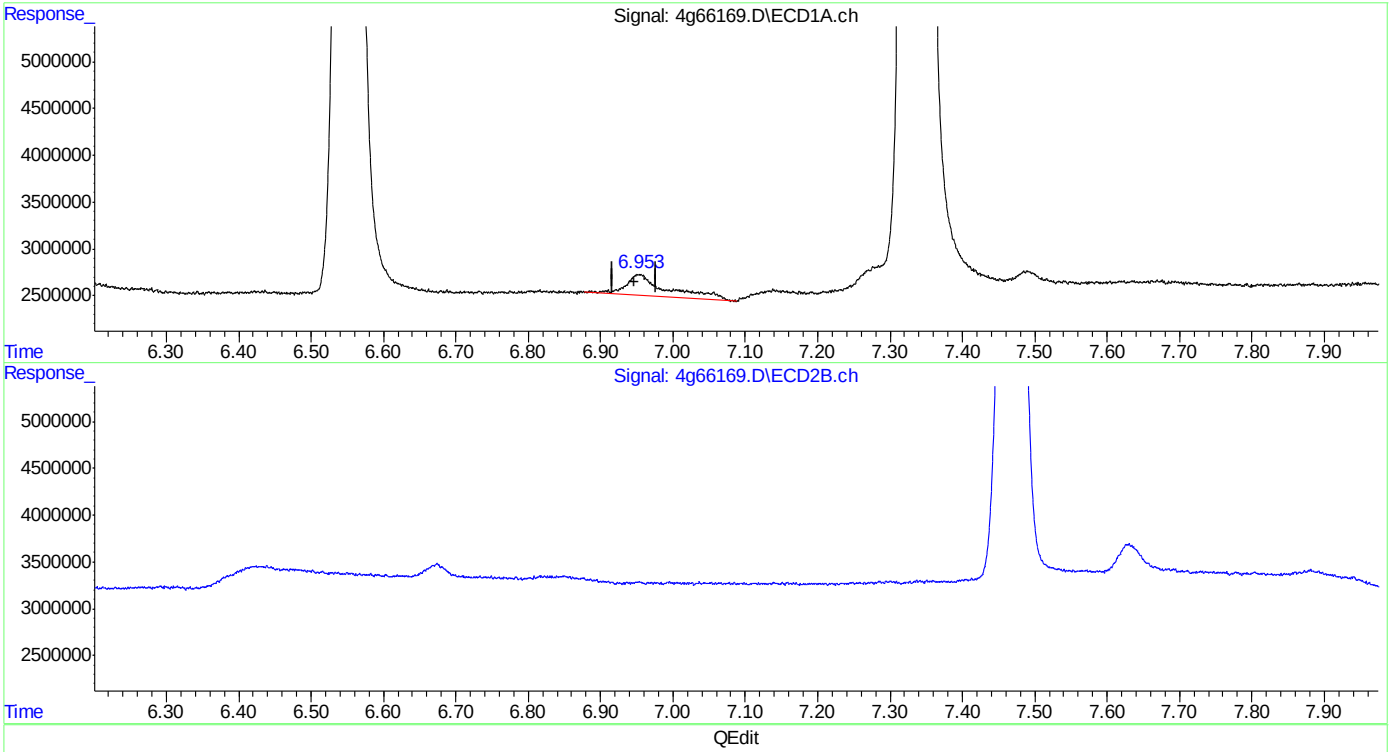
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   5:45 pm
Operator  : brittanp
Sample    : ddt
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(19) Endrin Aldehyde (B)

6.953min 2.685 PPB

response 9084248

(19) Endrin Aldehyde #2 (B)

8.387min 0.939 PPB

response 3242234

(+) = Expected Retention Time

4PST1741.M Sat Mar 19 12:53:53 2016 RPT1

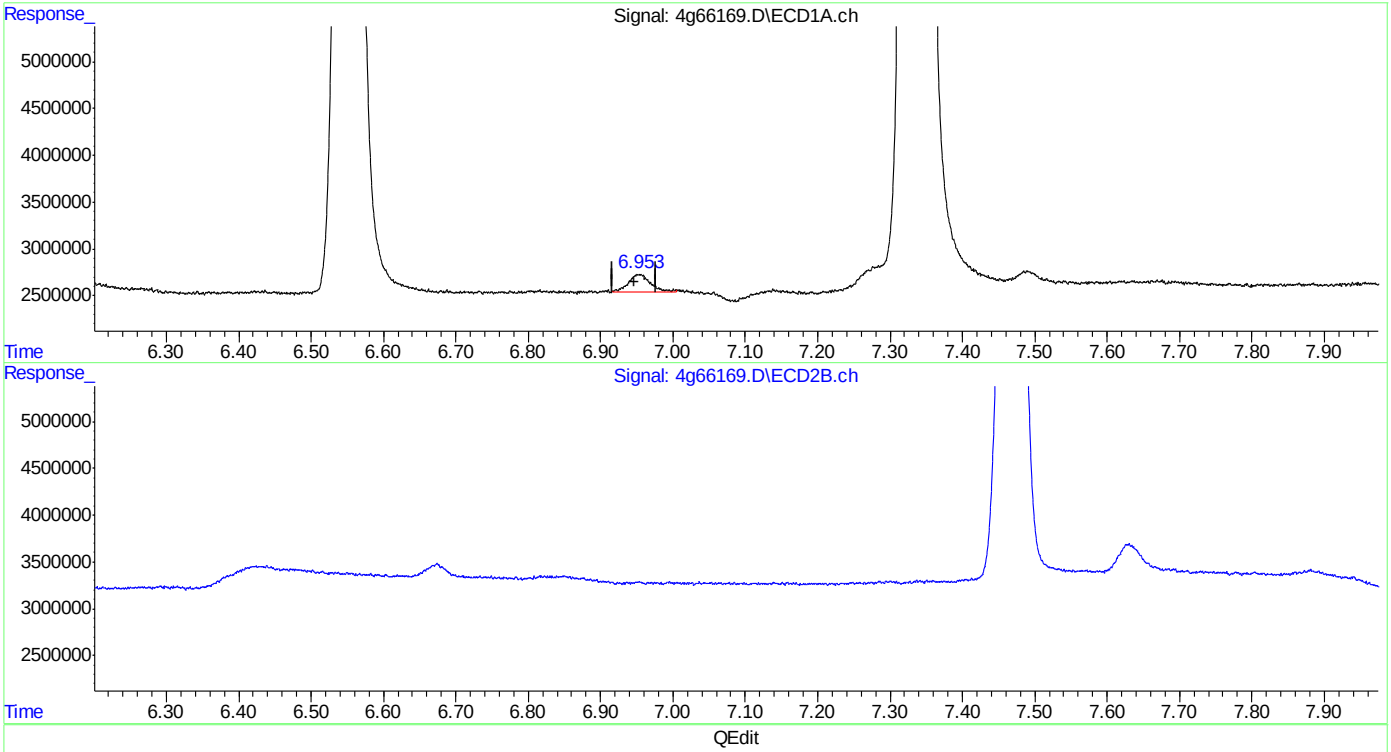
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   5:45 pm
Operator  : brittanp
Sample    : ddt
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(19) Endrin Aldehyde (B)

6.953min 1.240 PPB m

response 4194694

(19) Endrin Aldehyde #2 (B)

8.387min 0.939 PPB

response 3242234

(+) = Expected Retention Time

4PST1741.M Sat Mar 19 12:53:57 2016 RPT1

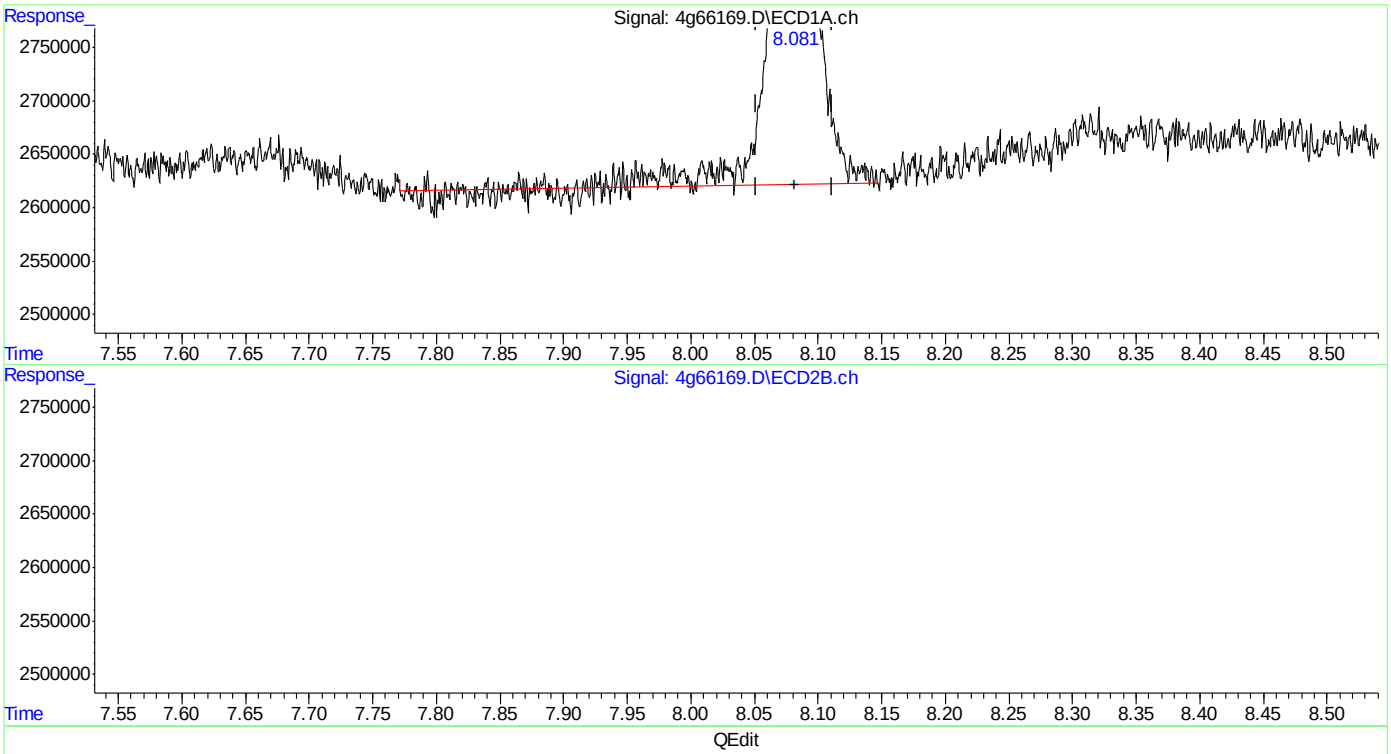
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Endrin Ketone (B)
8.082min 2.617 PPB
response 10272870

(23) Endrin Ketone #2 (B)
9.761min 2.497 PPB
response 10057782

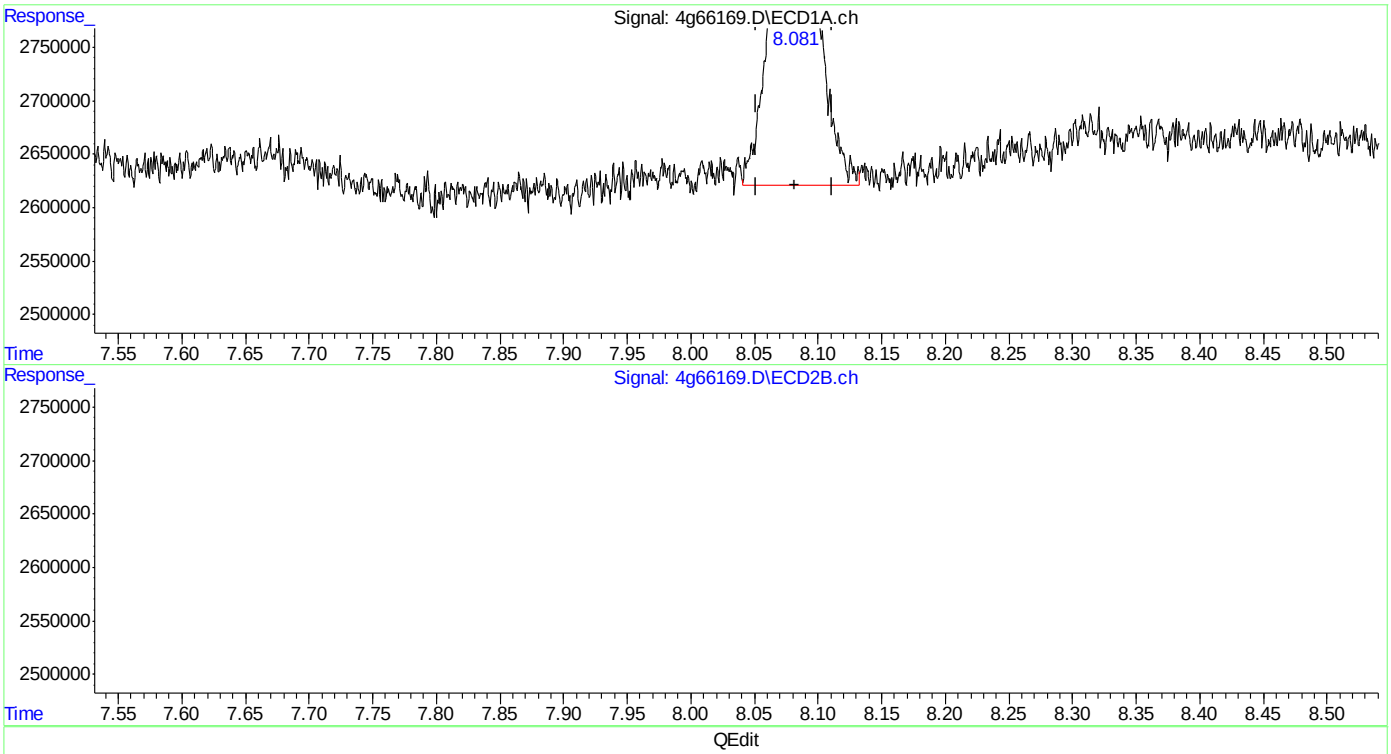
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66169.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 5:45 pm
Operator : brittanp
Sample : ddt
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:52:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 12:50:04 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Endrin Ketone (B)
8.081min 2.504 PPB m
response 9829510

(23) Endrin Ketone #2 (B)
9.761min 2.497 PPB
response 10057782

(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:54:15 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/22/16 08:37

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 9:37 am
Operator : brittanp
Sample : ddt
Misc : op92028,g4g1744,100,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:12:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.049	2.213	225.0E6	237.2E6	50.000	50.000
25) I	1-bromo-2...	2.049	2.213	225.0E6	237.2E6	50.000	50.000
31) I	1-bromo-2...	2.049	2.213	225.0E6	237.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.592	2.993	93929136	91938248	21.351m	20.388
Spiked Amount		40.000	Range	30 - 150	Recovery	= 53.38%	50.97%
24) SA	Decachlor...	9.809	11.217	108.7E6	77582913	24.122	23.264
Spiked Amount		40.000			Recovery	= 60.31%	58.16%
	Target Compounds						
13) B	4,4'-DDE	5.303	6.670	903254	2083500	0.228m	0.451m#
15) MA	Endrin	6.003	7.466	258.8E6	241.6E6	61.233	55.866
16) A	4,4'-DDD	6.163f	7.633	6344809	6714785	1.846m	1.626m
18) MA	4,4'-DDT	6.546	8.160	457.3E6	435.1E6	124.943	117.140
19) B	Endrin Al...	6.949	8.404	2402385	24769543	0.693m	6.726 #
23) B	Endrin Ke...	8.078	9.760	10232675	11871944	2.544	2.763

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

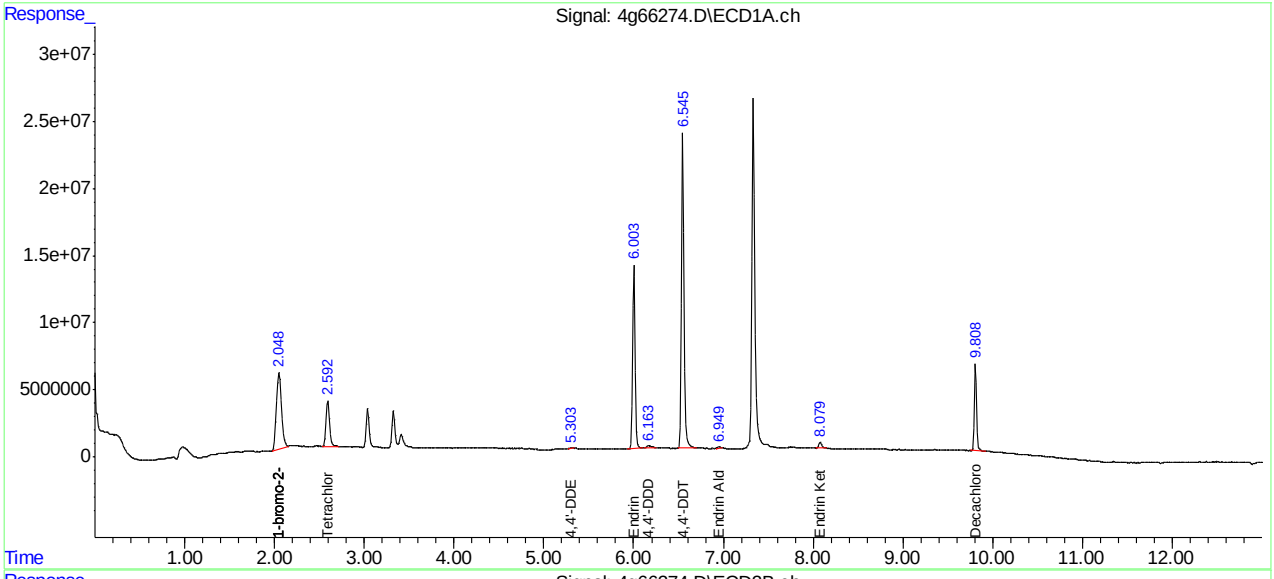
13.4.2
13

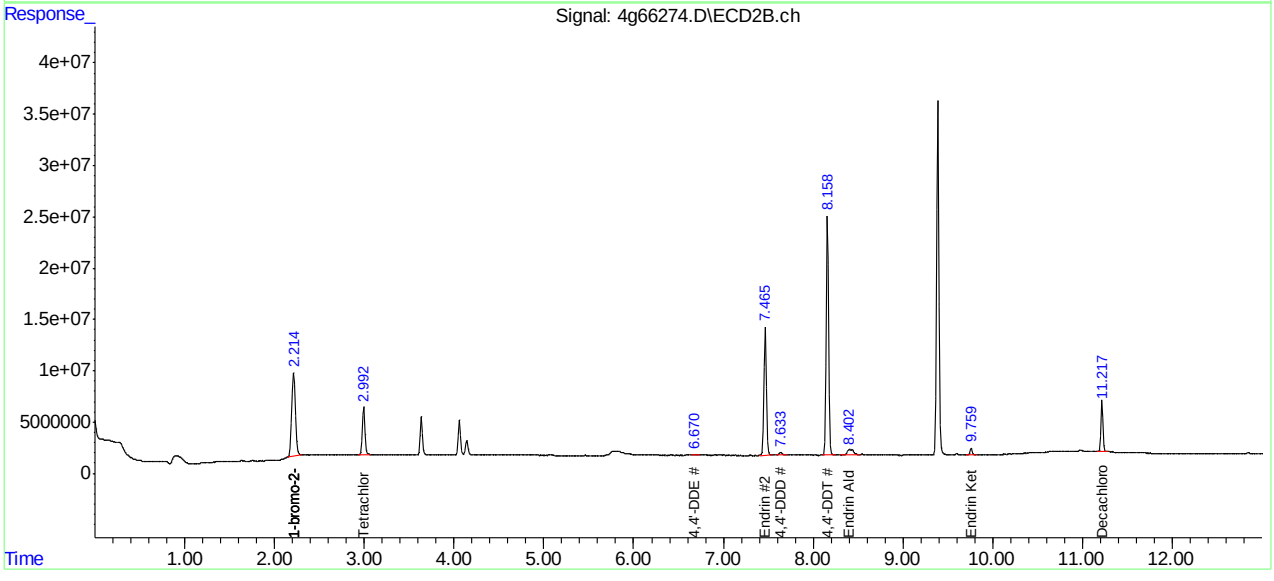
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 9:37 am
Operator : brittanp
Sample : ddt
Misc : op92028,g4g1744,100,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:12:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1744-DDT	**Method:**	SW846 8081B
Lab FileID:	4G66274.D	**Analyst approved:**	03/21/16 16:22 Brittany Piercy
Injection Time:	03/20/16 09:37	**Supervisor approved:**	03/22/16 08:37 Gwendolyn Burns

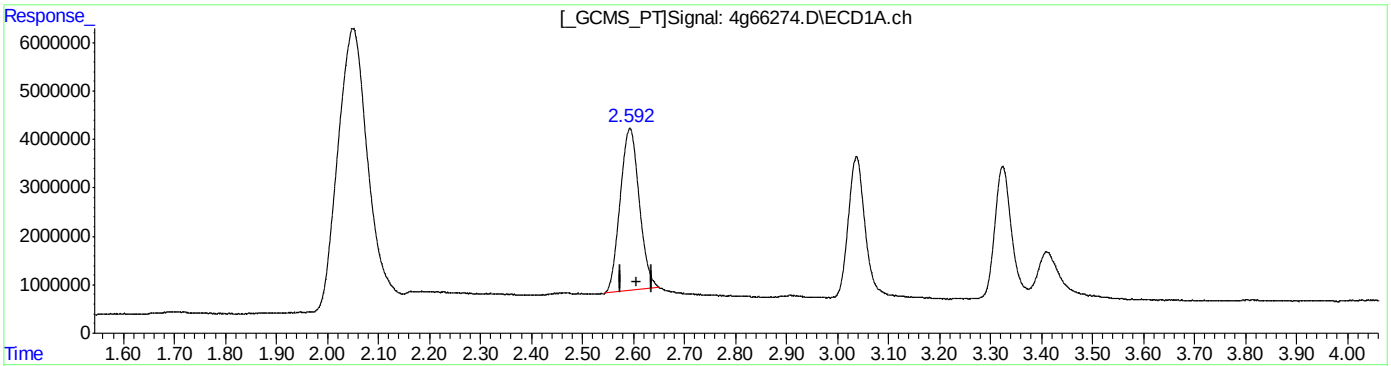
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	2.59	Poor instrument integration
4,4'-DDE	72-55-9	1	5.30	Poor instrument integration
4,4'-DDD	72-54-8	1	6.16	Poor instrument integration
4,4'-DDE	72-55-9	2	6.67	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.95	Poor instrument integration
4,4'-DDD	72-54-8	2	7.63	Poor instrument integration

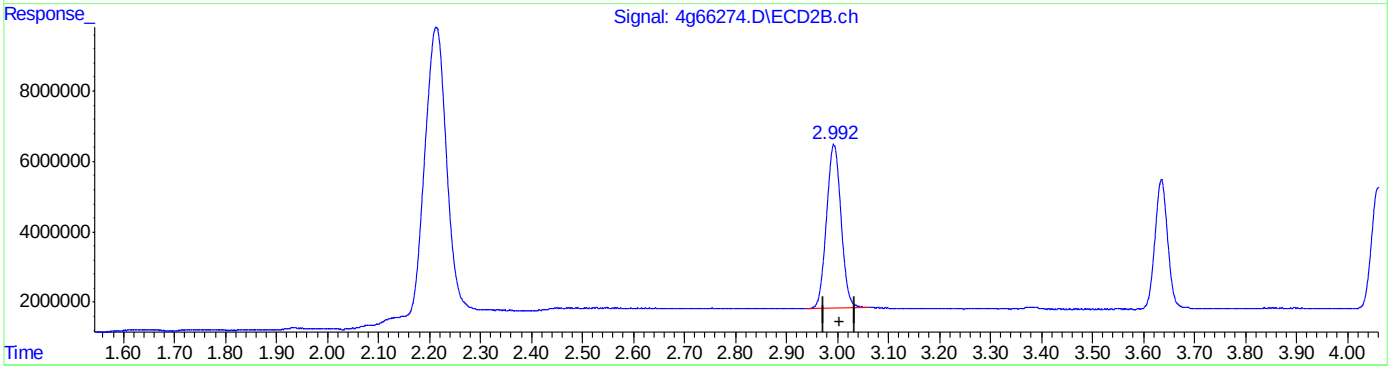
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016   9:37 am
Operator  : brittanp
Sample    : ddt
Misc      : op92028,g4g1744,100,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(2) Tetrachloro-m-xylene (SAB)

2.593min 19.567 PPB

response 86083491

(2) Tetrachloro-m-xylene #2 (SAB)

2.993min 20.388 PPB

response 91938248

(+) = Expected Retention Time

4PST1741.M Mon Mar 21 16:10:45 2016 RPT1

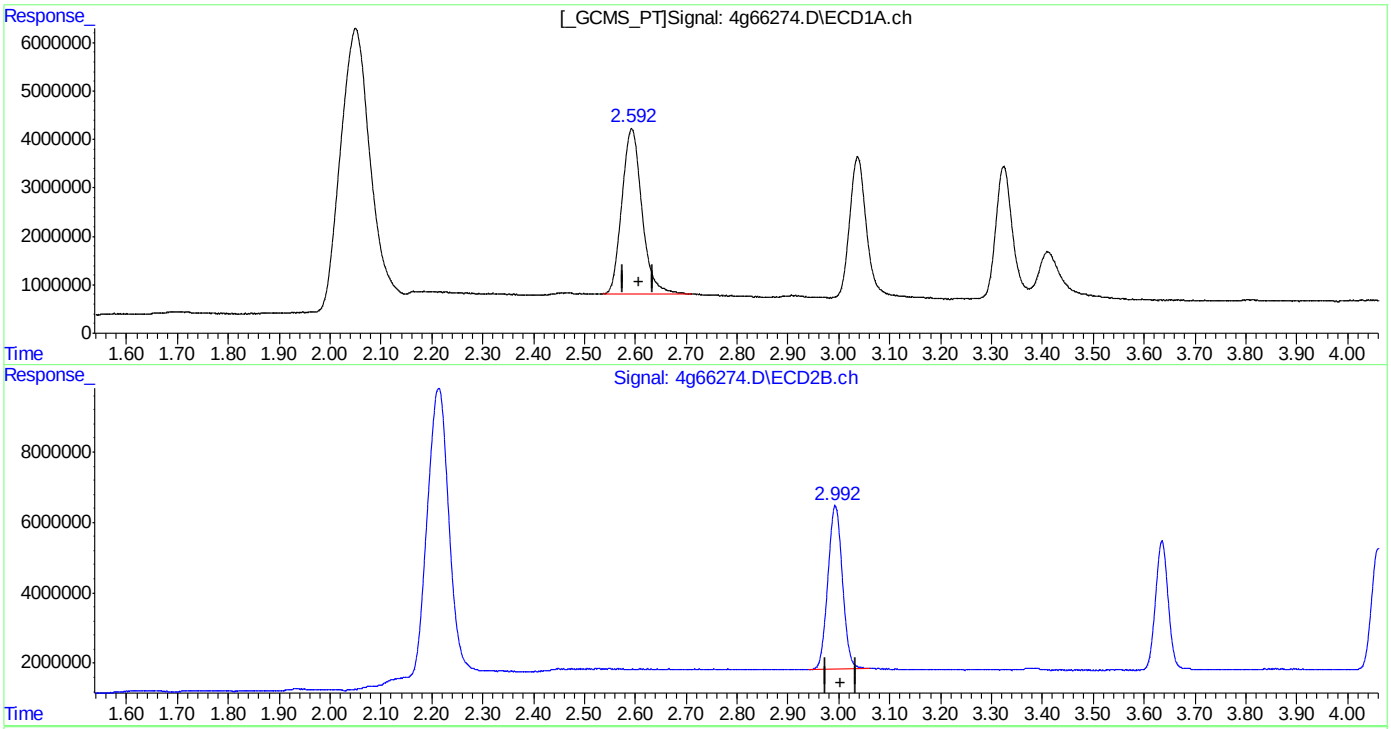
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016   9:37 am
Operator  : brittanp
Sample    : ddt
Misc      : op92028,g4g1744,100,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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
```



(2) Tetrachloro-m-xylene (SAB)

2.592min 21.351 PPB m

response 93929136

(2) Tetrachloro-m-xylene #2 (SAB)

2.993min 20.388 PPB

response 91938248

(+) = Expected Retention Time

4PST1741.M Mon Mar 21 16:10:52 2016 RPT1

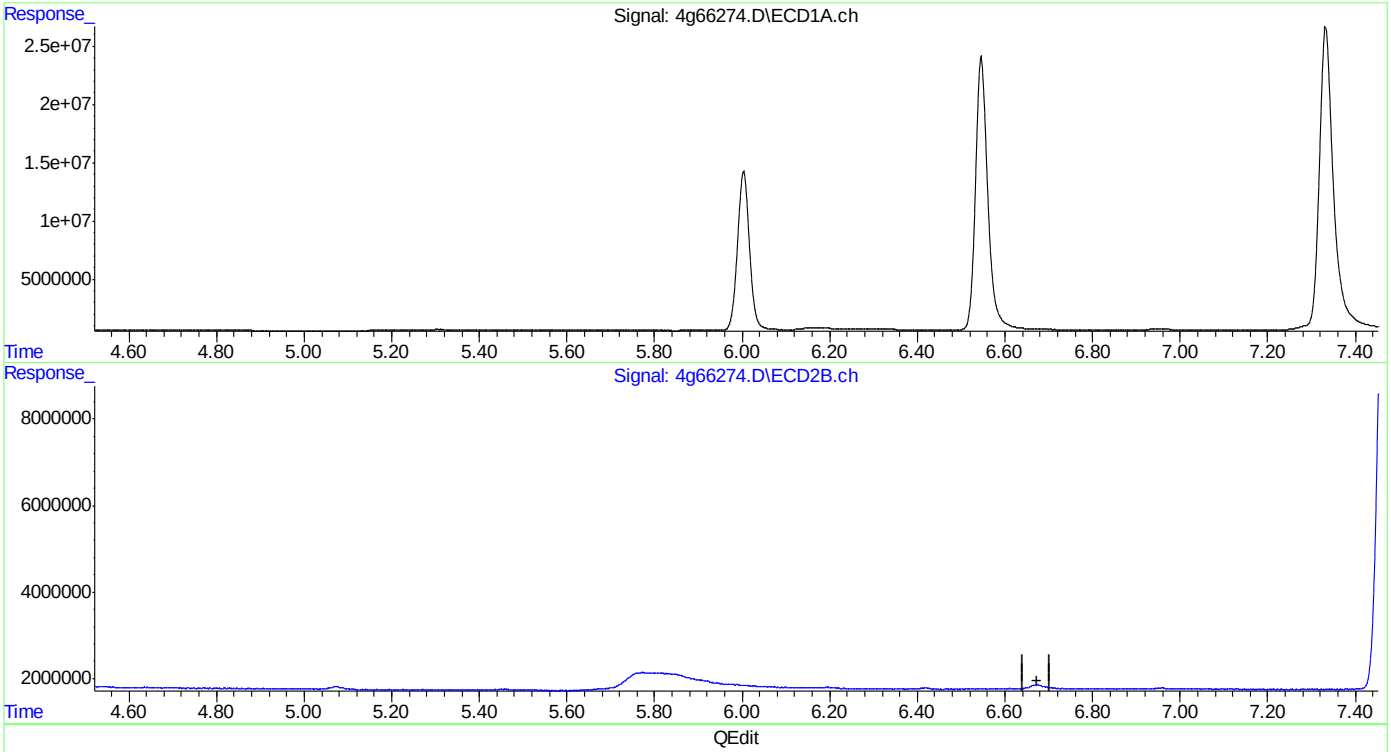
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016   9:37 am
Operator  : brittanp
Sample    : ddt
Misc      : op92028,g4g1744,100,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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) 4,4'-DDE (B)
0.000min 0.000 PPB
response 0

(13) 4,4'-DDE #2 (B)
0.000min 0.000 PPB
response 0

(+) = Expected Retention Time

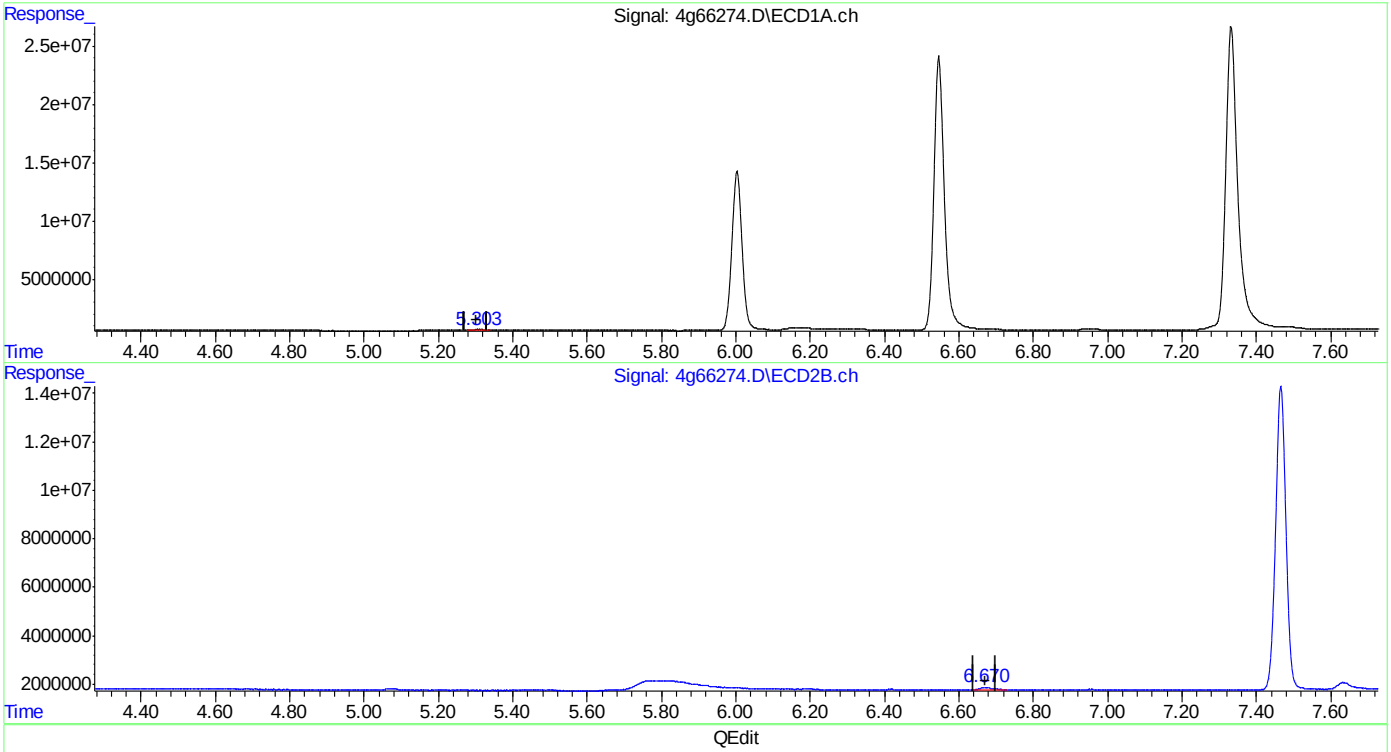
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016   9:37 am
Operator  : brittanp
Sample    : ddt
Misc      : op92028,g4g1744,100,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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) 4,4'-DDE (B)
5.303min 0.228 PPB m
response 903254

(13) 4,4'-DDE #2 (B)
6.670min 0.451 PPB m
response 2083500

(+) = Expected Retention Time

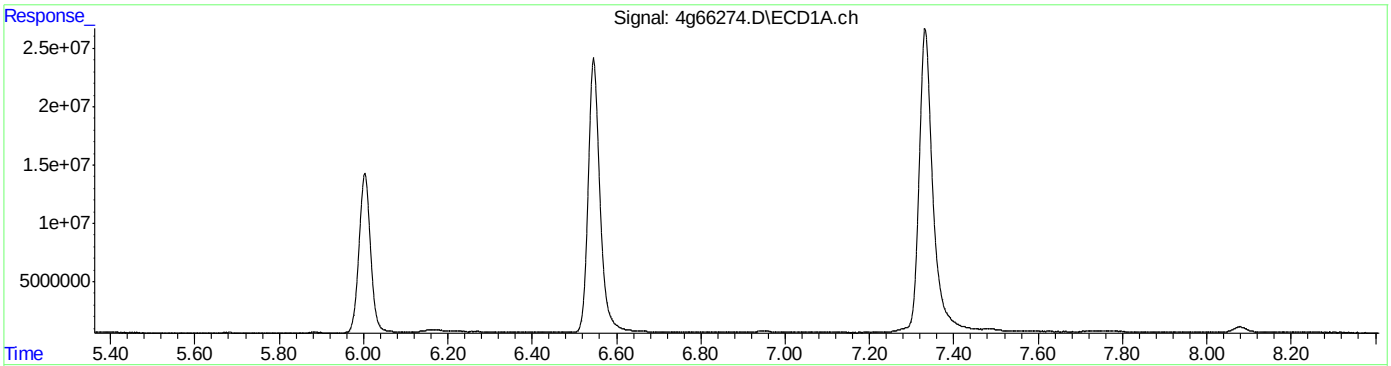
SGS ACCUTEST JC16038

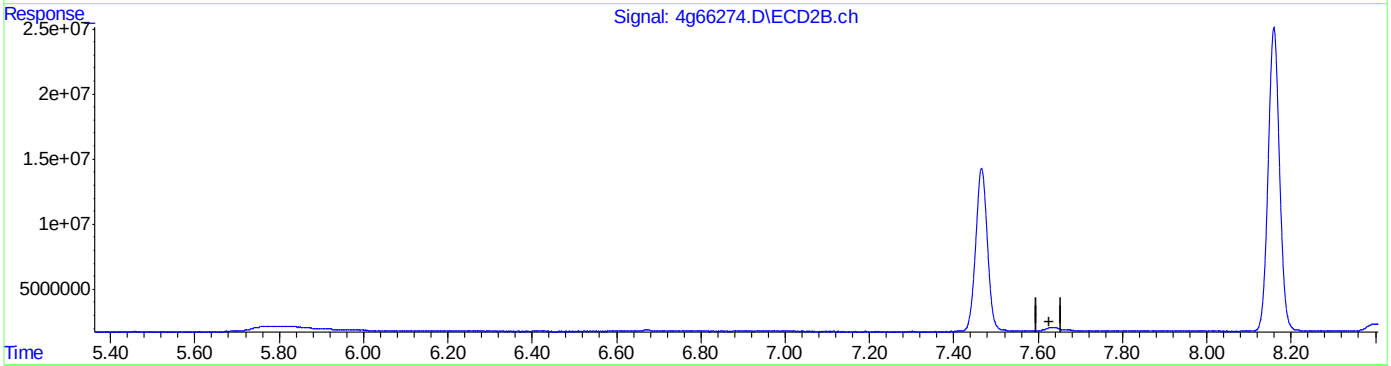
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016   9:37 am
Operator  : brittanp
Sample    : ddt
Misc      : op92028,g4g1744,100,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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) 4,4'-DDD (A)
0.000min 0.000 PPB
response 0

(16) 4,4'-DDD #2 (A)
0.000min 0.000 PPB
response 0

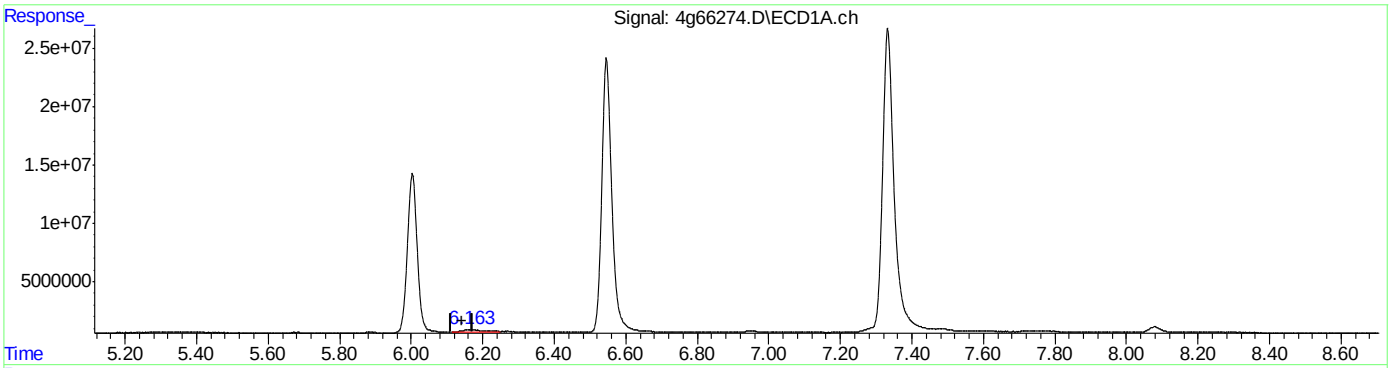
(+) = Expected Retention Time

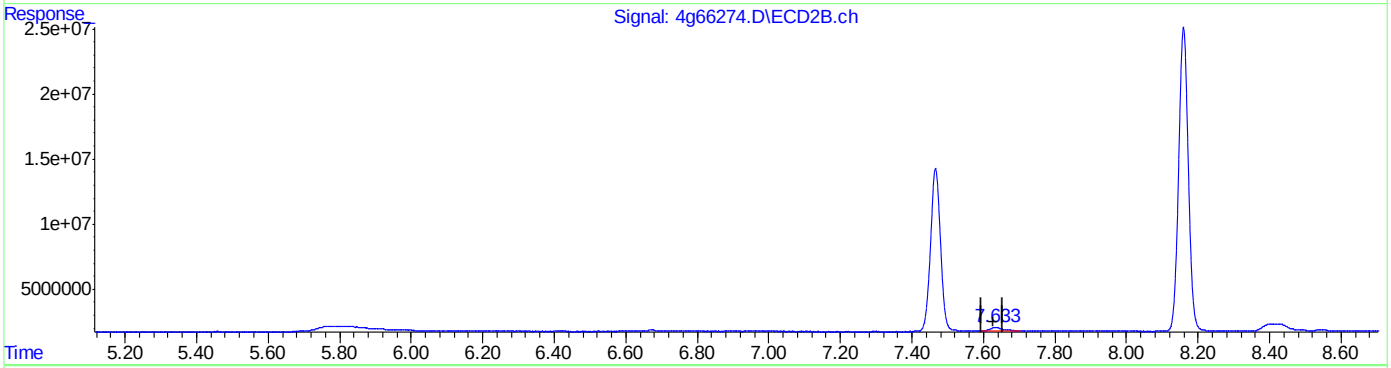
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 9:37 am
Operator : brittanp
Sample : ddt
Misc : op92028,g4g1744,100,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) 4,4'-DDD (A)
6.163min 1.846 PPB m
response 6344809

(16) 4,4'-DDD #2 (A)
7.633min 1.626 PPB m
response 6714785

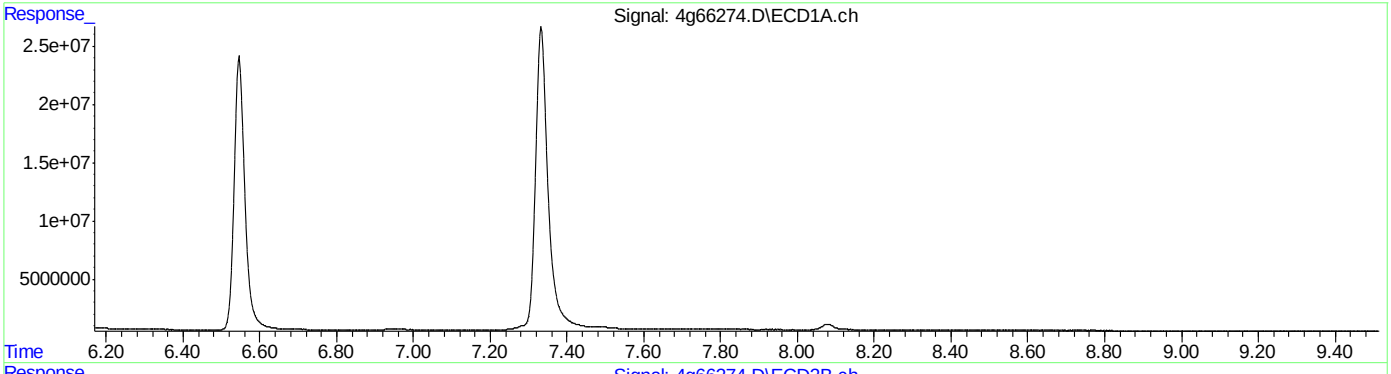
(+) = Expected Retention Time

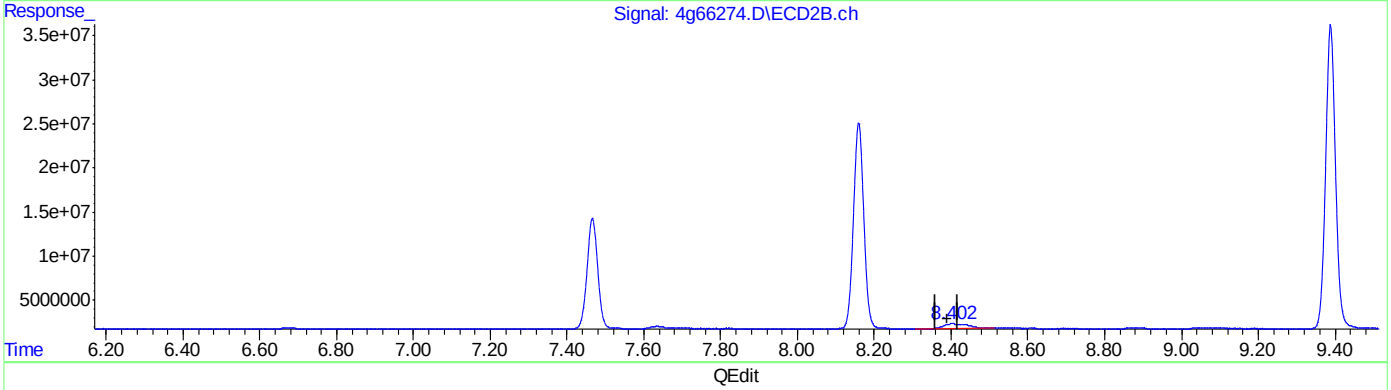
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 9:37 am
Operator : brittanp
Sample : ddt
Misc : op92028,g4g1744,100,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(19) Endrin Aldehyde (B)
0.000min 0.000 PPB
response 0

(19) Endrin Aldehyde #2 (B)
8.404min 6.726 PPB
response 24769543

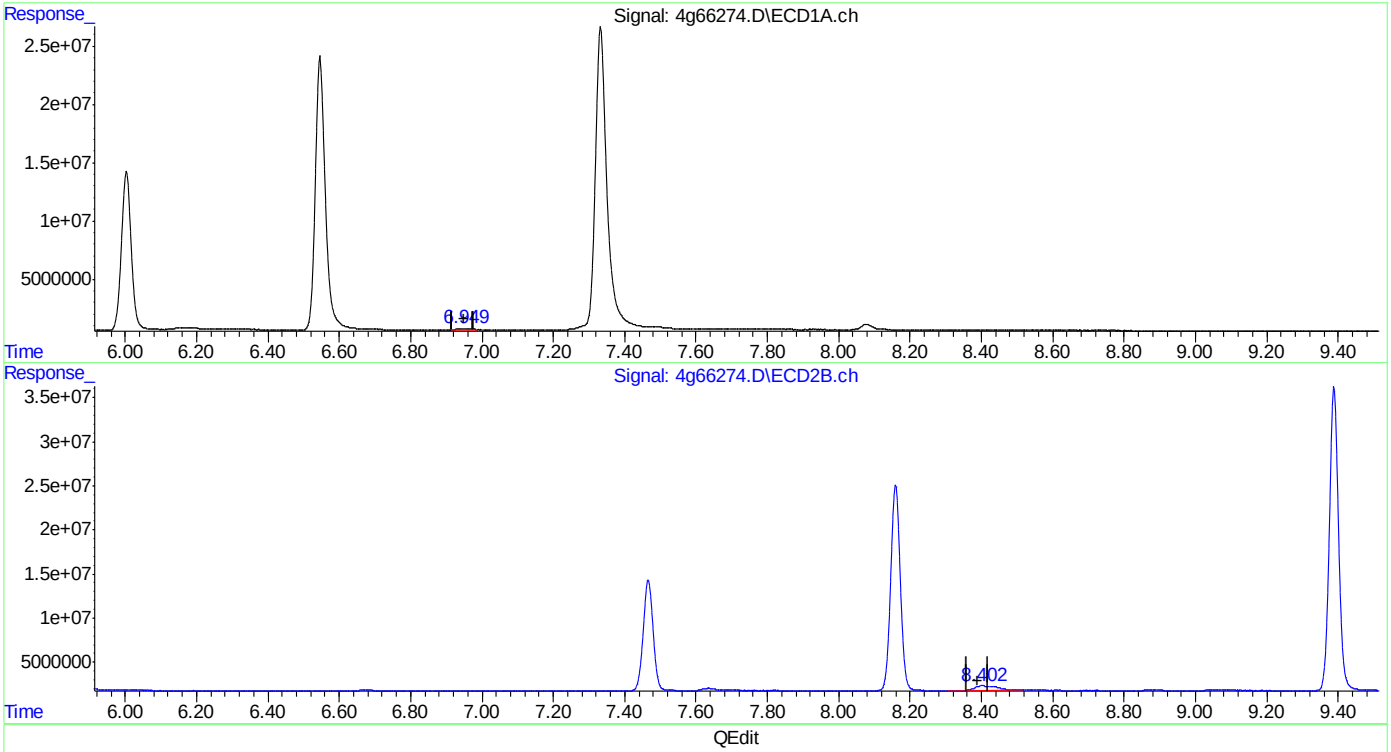
(+) = Expected Retention Time
4PST1741.M Mon Mar 21 16:12:28 2016 RPT1

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66274.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 20 Mar 2016   9:37 am
Operator  : brittanp
Sample    : ddt
Misc      : op92028,g4g1744,100,,,10,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 16:10:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(19) Endrin Aldehyde (B)

6.949min 0.693 PPB m

response 2402385

(19) Endrin Aldehyde #2 (B)

8.404min 6.726 PPB

response 24769543

(+) = Expected Retention Time

4PST1741.M Mon Mar 21 16:12:38 2016 RPT1

SGS ACCUTEST JC16038

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:57:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.061	2.229	232.2E6	223.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.608	3.007	4748359	4577207	1.115	1.048
	Spiked Amount 40.000 Range 30 - 150 Recovery =					2.79%#	2.62%#
24) SA	Decachlor...	9.812	11.220	5280260	3259561	1.193	1.034m
	Spiked Amount 40.000			Recovery =		2.98%	2.59%
	Target Compounds						
3) A	alpha-BHC	3.046	3.644	5588085	5396001	0.904m	0.919
4) MA	gamma-BHC	3.333	4.067	5289537	4743223	0.976m	0.901
5) MA	Heptachlor	3.603	4.642	5369256	5151033	1.024	0.979
6) B	beta-BHC	3.420	4.145	2537662	2042101	0.940m	0.861m
7) B	delta-BHC	3.817	4.545	5121059	4634488	0.983	0.977
8) MB	Aldrin	4.151	5.097	5339804	5507505	0.974	1.067
9) B	Heptachlo...	4.850	5.913	5150241	4393914	1.049	0.931
10) B	gamma-Chl...	5.018	6.199	5129896	4928230	1.065	1.029
11) B	alpha-Chl...	5.188	6.422	5268897	4518844	1.103	0.966
12) A	Endosulfan I	5.365	6.527	4816245	5217522	0.909	1.113
13) B	4,4'-DDE	5.304	6.672	4303223	4404148	1.074	0.977
14) MA	Dieldrin	5.684	6.962	5263248	4104278	1.064	0.869
15) MA	Endrin	6.011	7.470	4381290	3922291	0.957	0.926
16) A	4,4'-DDD	6.149	7.627	3302283	4289539	0.883m	1.127 #
17) B	Endosulfa...	6.335	7.820	4178832	4088503	0.946	0.990
18) MA	4,4'-DDT	6.555	8.165	1789273	1777297	1.902m	1.395 #
19) B	Endrin Al...	6.947	8.393	3365737	4202759	0.963m	1.315 #
20) B	Endosulfa...	7.628	8.864	3160728	3524180	0.877	0.968
21) A	Methoxychlor	7.355	9.390	1421777	1344536	0.978m	0.858m
22)	Mirex	7.523	9.710	3797006	3197641	1.060	0.975
23) B	Endrin Ke...	8.082	9.762	3903291	3382121	0.942m	0.831

SemiQuant Compounds - Not Calibrated on this Instrument

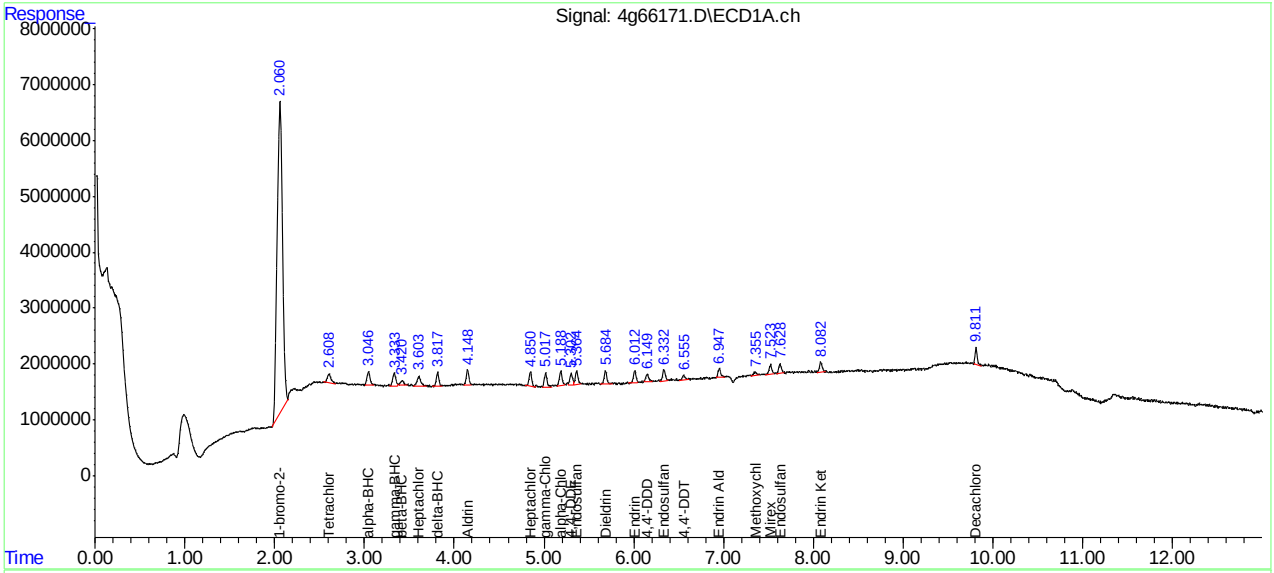
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

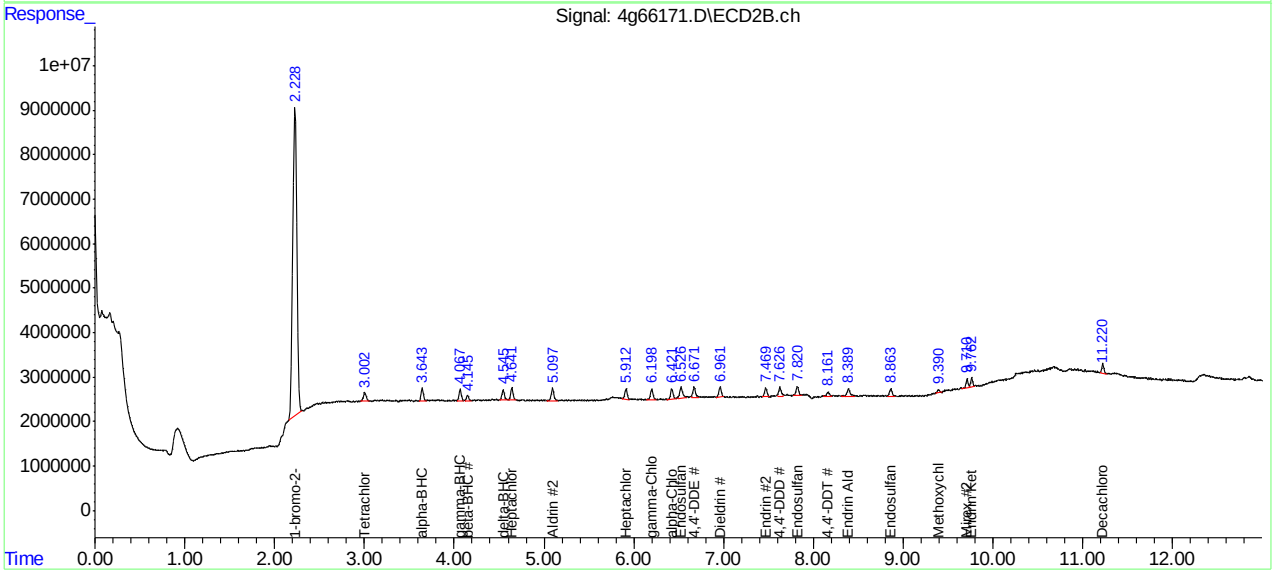
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:57:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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 ACCUTEST JC16038

Manual Integration Approval Summary

Sample Number:	G4G1741-IC1741	**Method:**	SW846 8081B
Lab FileID:	4G66171.D	**Analyst approved:**	03/19/16 12:57 Joseph Ravino
Injection Time:	03/18/16 18:14	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

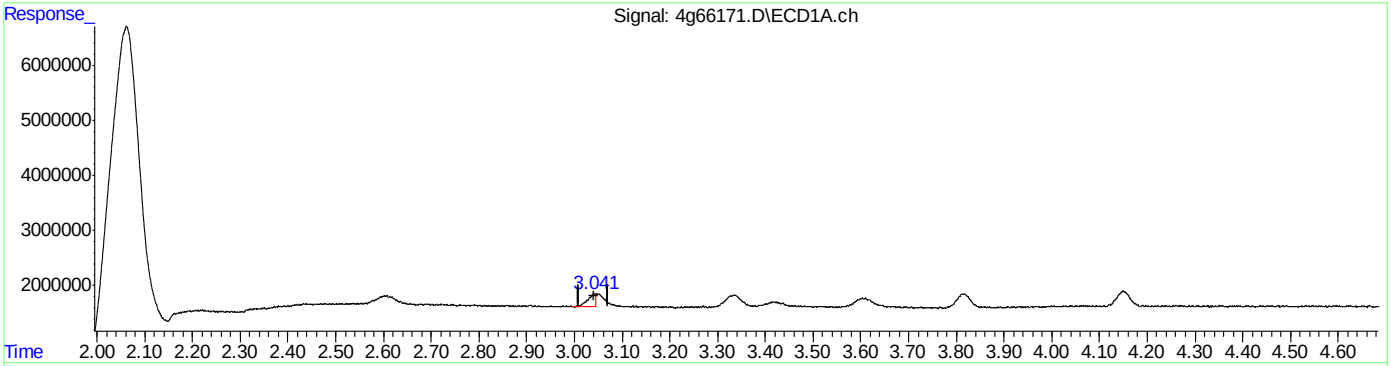
Parameter	CAS	Sig#	R.T. (min.)	Reason
alpha-BHC	319-84-6	1	3.05	Poor instrument integration
gamma-BHC (Lindane)	58-89-9	1	3.33	Poor instrument integration
beta-BHC	319-85-7	1	3.42	Poor instrument integration
beta-BHC	319-85-7	2	4.15	Poor instrument integration
4,4'-DDD	72-54-8	1	6.15	Poor instrument integration
4,4'-DDT	50-29-3	1	6.55	Poor instrument integration
Endrin aldehyde	7421-93-4	1	6.95	Poor instrument integration
Methoxychlor	72-43-5	1	7.36	Poor instrument integration
Endrin ketone	53494-70-5	1	8.08	Poor instrument integration
Methoxychlor	72-43-5	2	9.39	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	11.22	Poor instrument integration

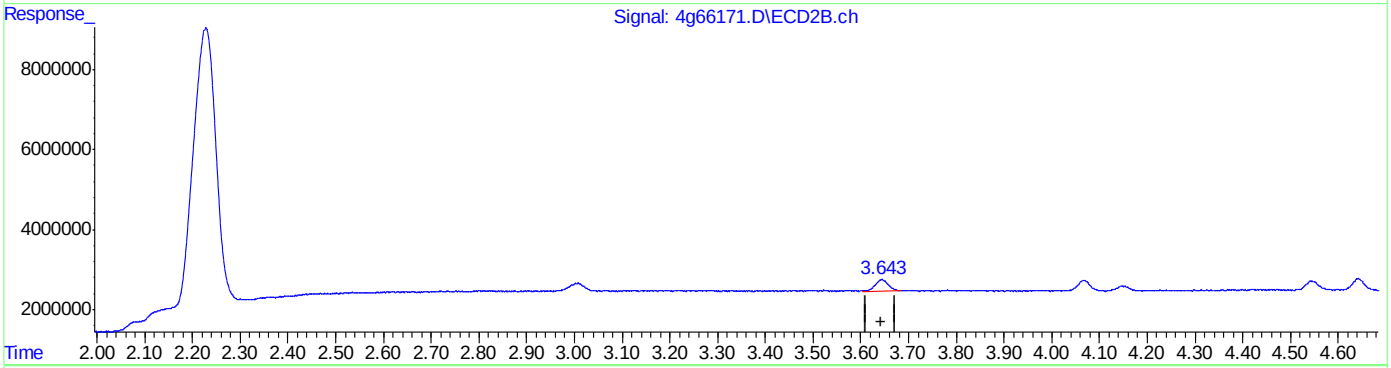
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   6:14 pm
Operator  : brittanp
Sample    : ic1741-1
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 3   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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) alpha-BHC (A)
3.042min 0.394 PPB
response 2433872

(3) alpha-BHC #2 (A)
3.644min 0.919 PPB
response 5396001

(+) = Expected Retention Time

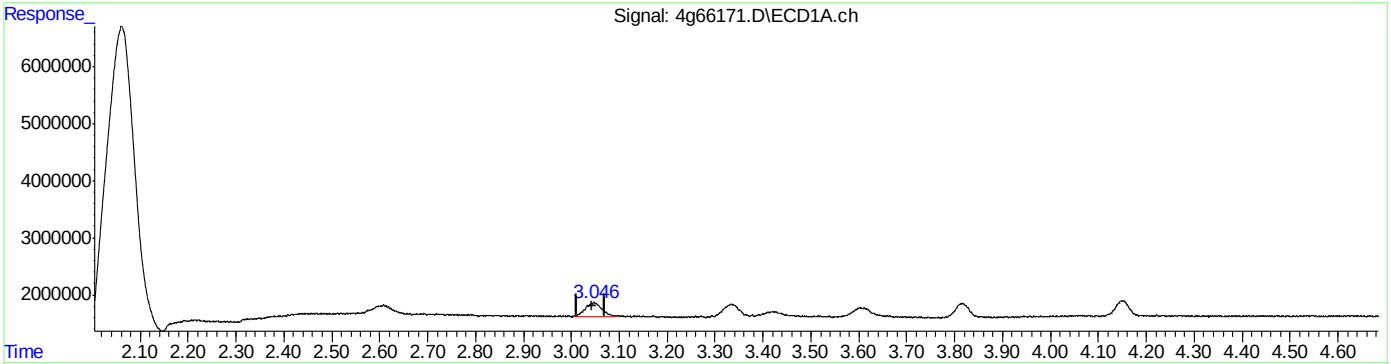
SGS ACCUTEST JC16038

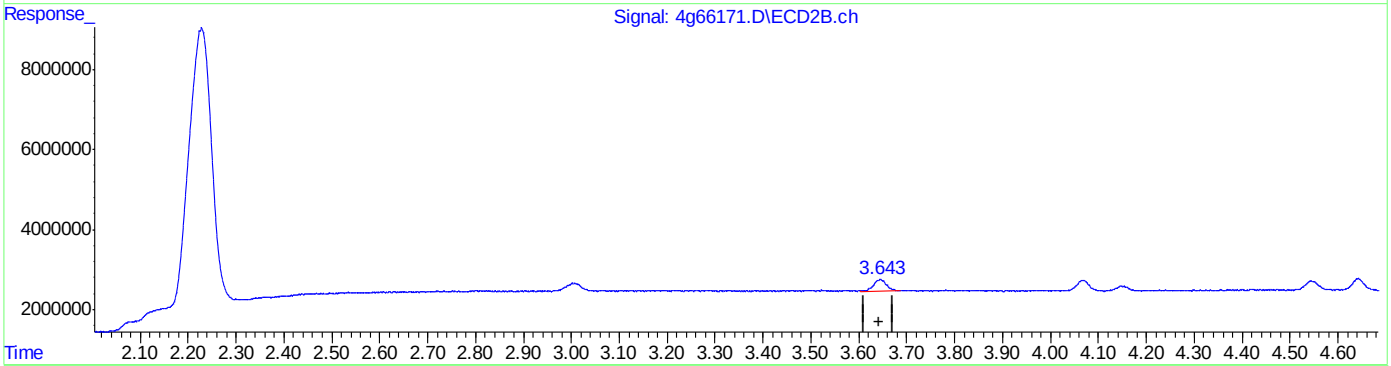
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   6:14 pm
Operator  : brittanp
Sample    : ic1741-1
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 3   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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) alpha-BHC (A)
3.046min 0.904 PPB m
response 5588085

(3) alpha-BHC #2 (A)
3.644min 0.919 PPB
response 5396001

(+) = Expected Retention Time

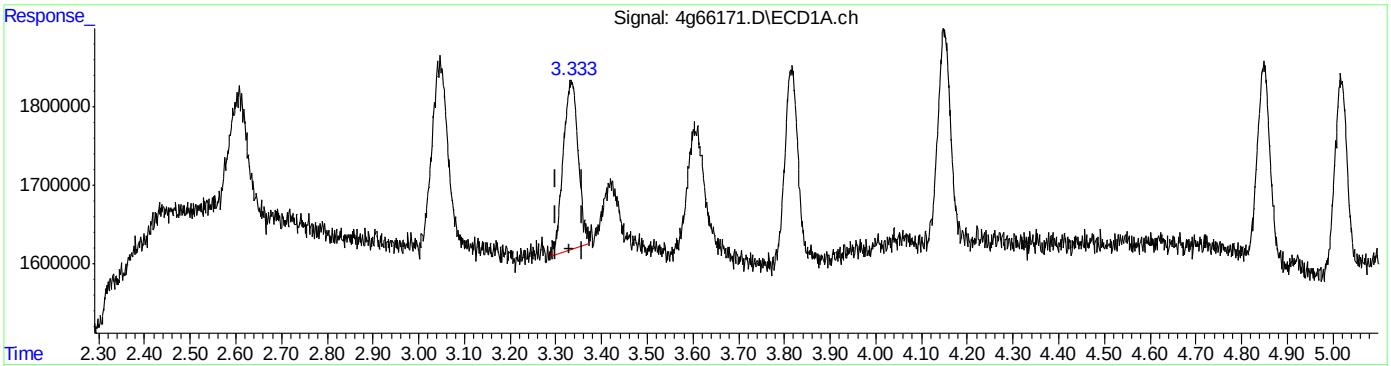
SGS ACCUTEST JC16038

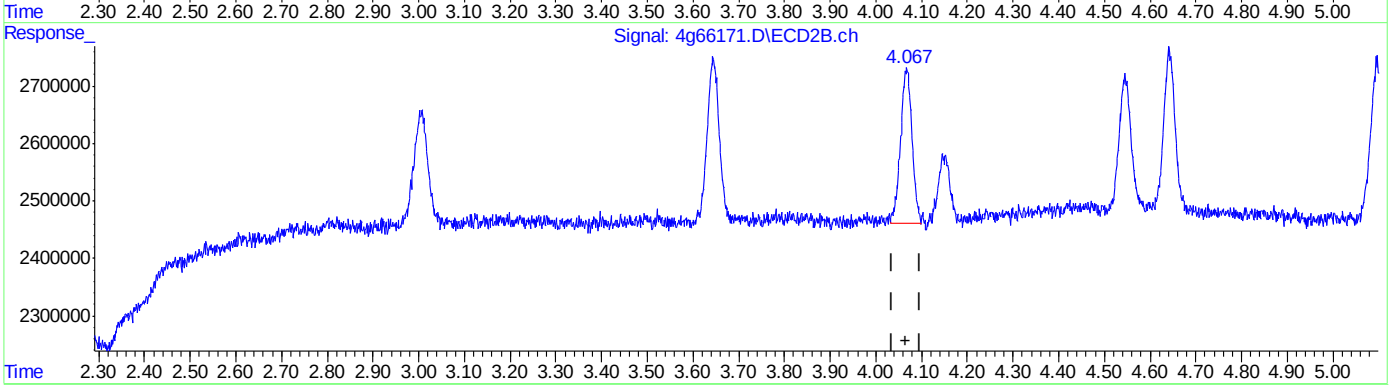
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   6:14 pm
Operator  : brittanp
Sample    : ic1741-1
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 3   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(4) gamma-BHC (MA)
3.335min 0.899 PPB
response 4872980

(4) gamma-BHC #2 (MA)
4.067min 0.901 PPB
response 4743223

(+) = Expected Retention Time

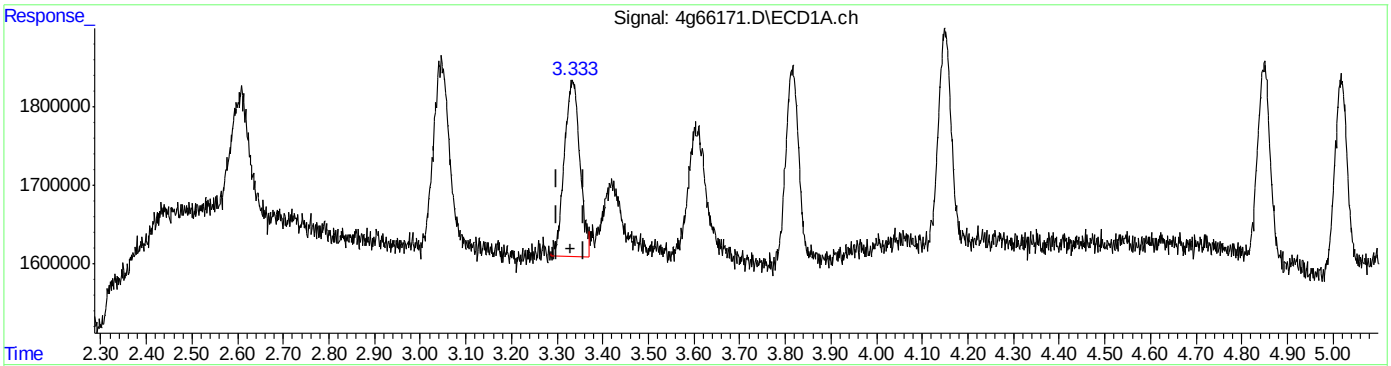
SGS ACCUTEST JC16038

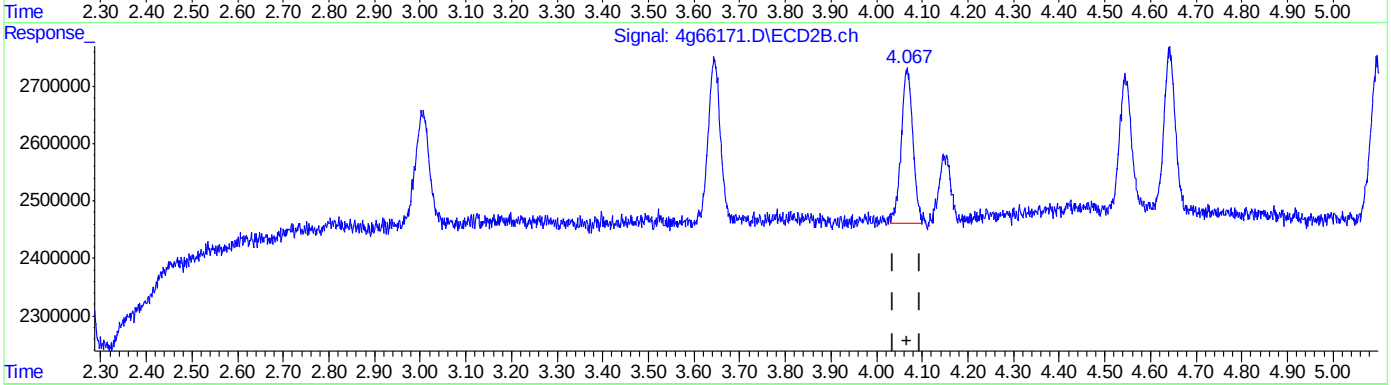
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   6:14 pm
Operator  : brittanp
Sample    : ic1741-1
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 3   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(4) gamma-BHC (MA)

3.333min 0.976 PPB m

response 5289537

(4) gamma-BHC #2 (MA)

4.067min 0.901 PPB

response 4743223

(+) = Expected Retention Time

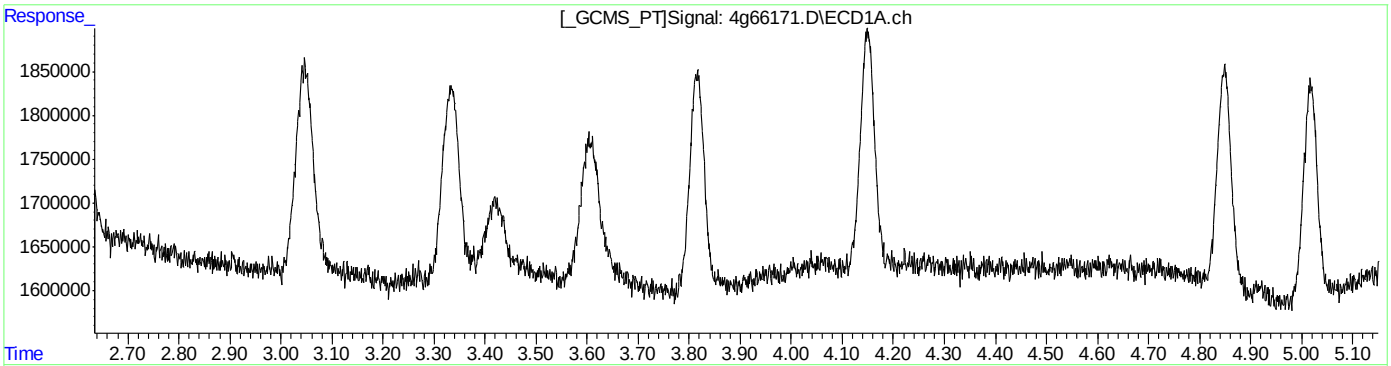
4PST1741.M Sat Mar 19 12:22:35 2016 RPT1

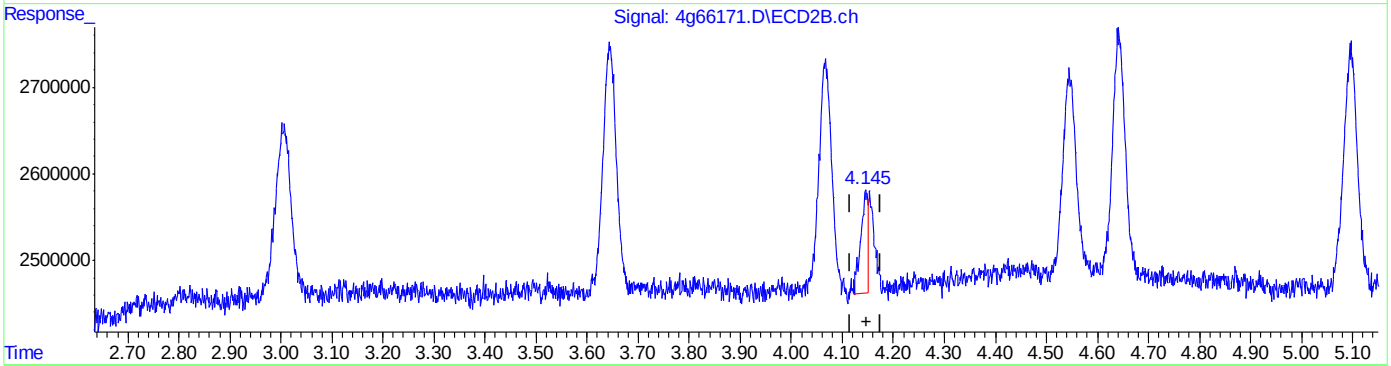
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(6) beta-BHC (B)
0.000min 0.000 PPB
response 0

(6) beta-BHC #2 (B)
4.145min 0.462 PPB
response 1096323

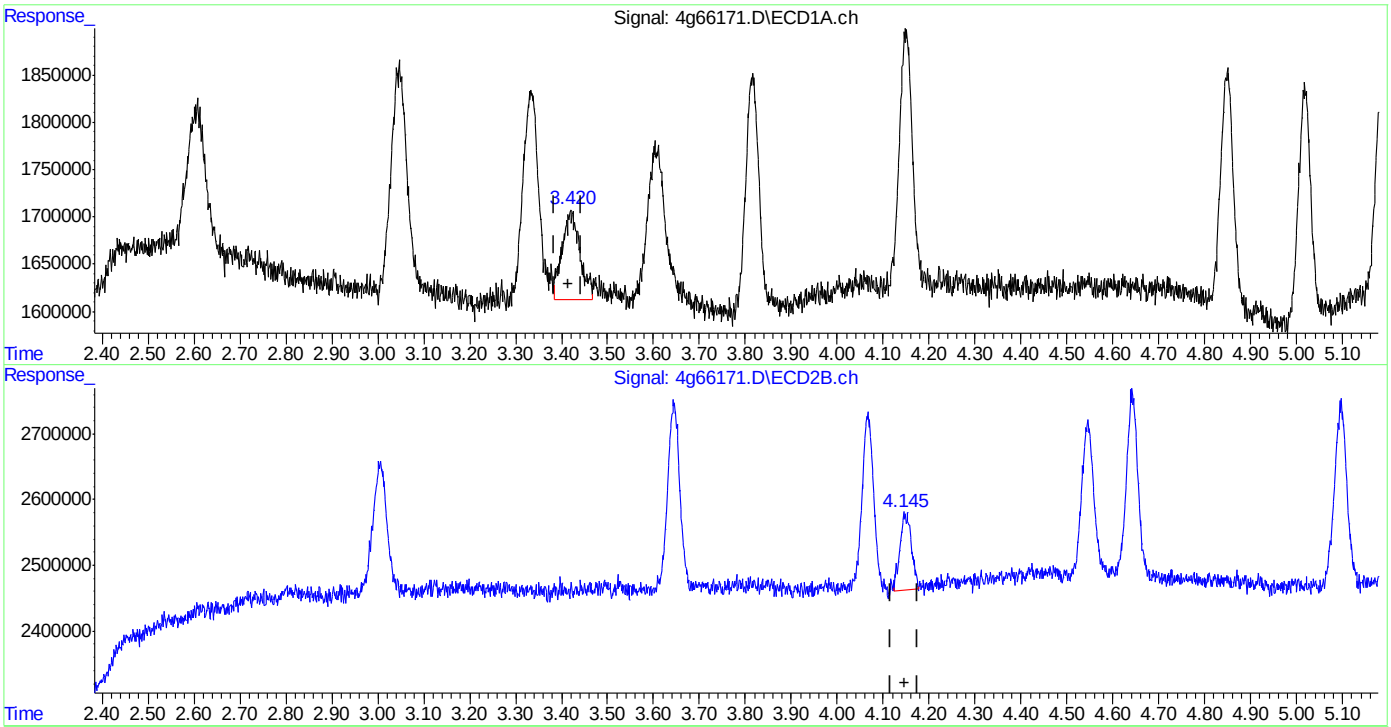
(+) = Expected Retention Time

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   6:14 pm
Operator  : brittanp
Sample    : ic1741-1
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 3   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(6) beta-BHC (B)
3.420min 0.940 PPB m
response 2537662

(6) beta-BHC #2 (B)
4.145min 0.861 PPB m
response 2042101

(+) = Expected Retention Time

SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
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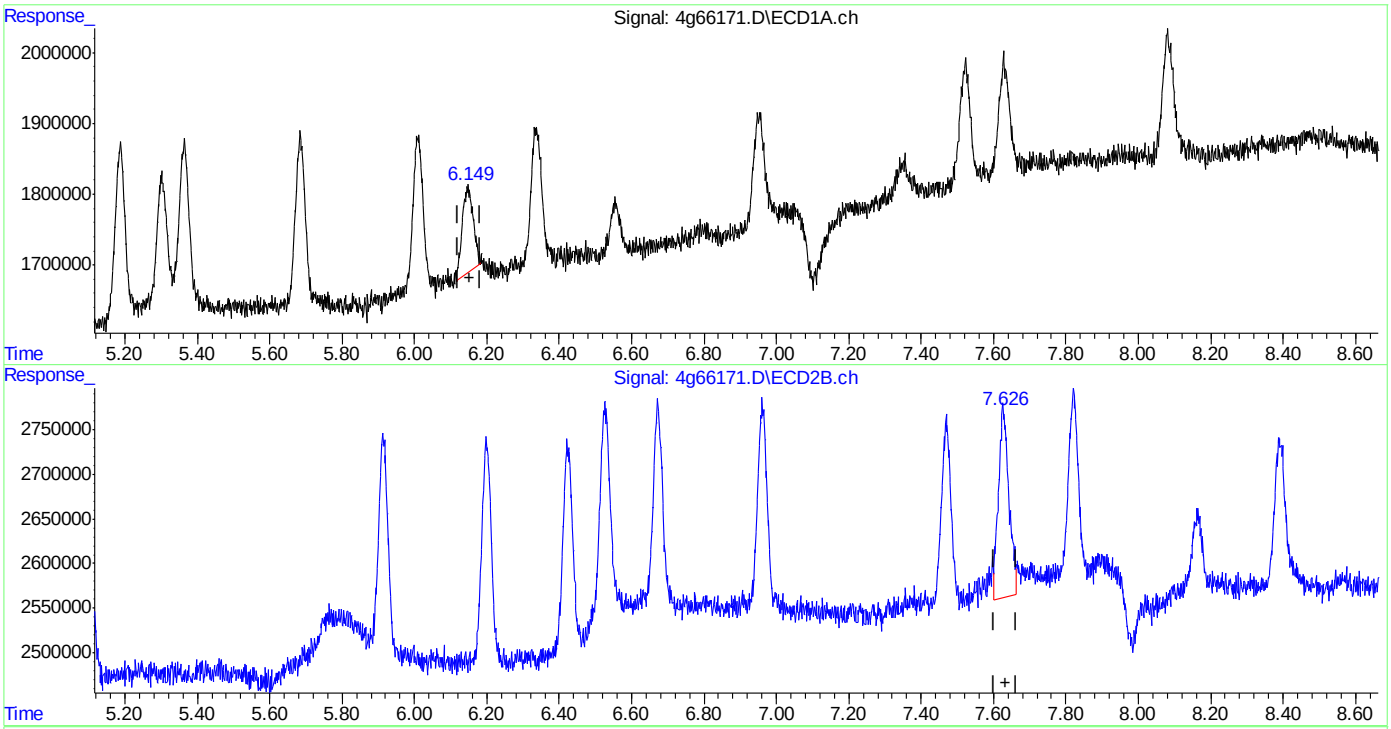
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(16) 4,4'-DDD (A)
6.149min 0.679 PPB
response 2538502

(16) 4,4'-DDD #2 (A)
7.627min 1.127 PPB
response 4289539

(+) = Expected Retention Time

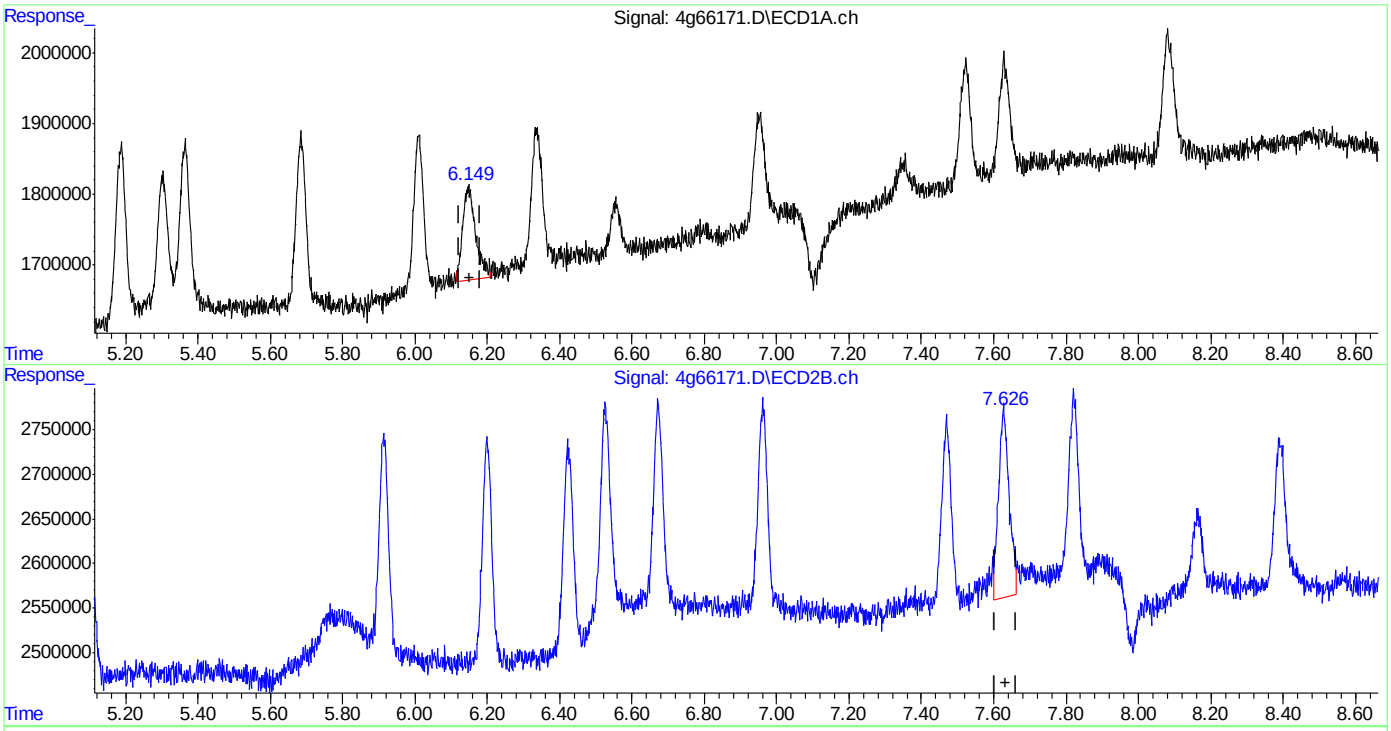
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(16) 4,4'-DDD (A)
6.149min 0.883 PPB m
response 3302283

(16) 4,4'-DDD #2 (A)
7.627min 1.127 PPB
response 4289539

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
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Misc : op92130,g4g1741,15.0,,,10,1
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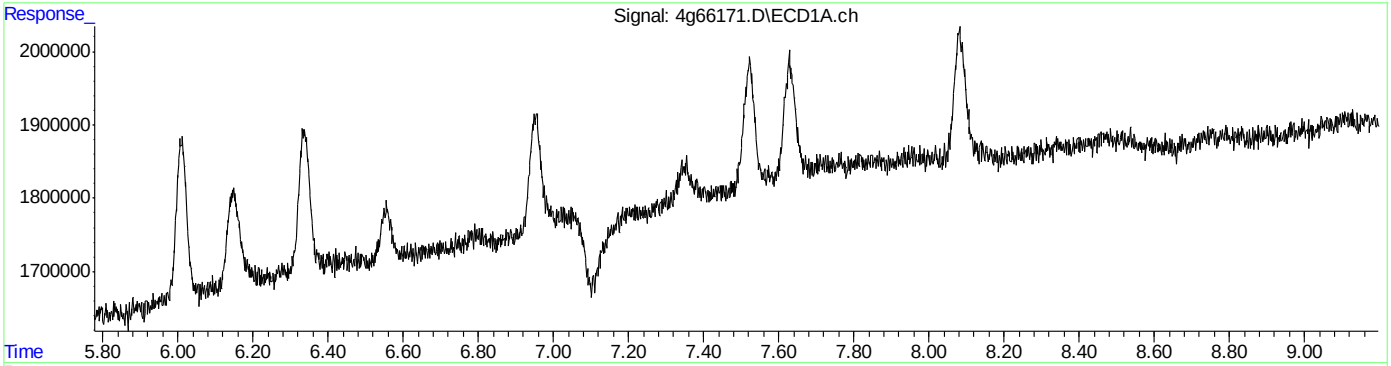
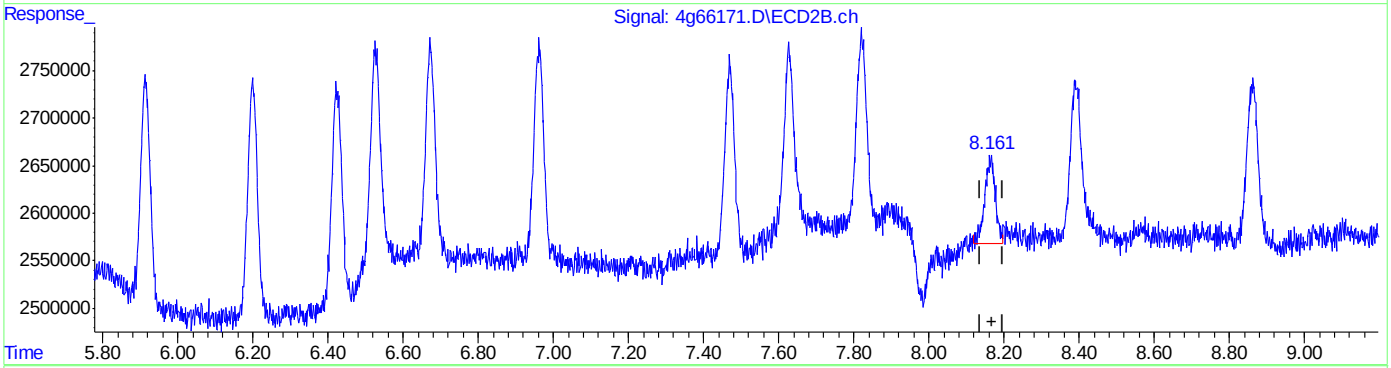
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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'-DDT (MA)
0.000min 0.000 PPB
response 0

(18) 4,4'-DDT #2 (MA)
8.165min 1.395 PPB
response 1777297

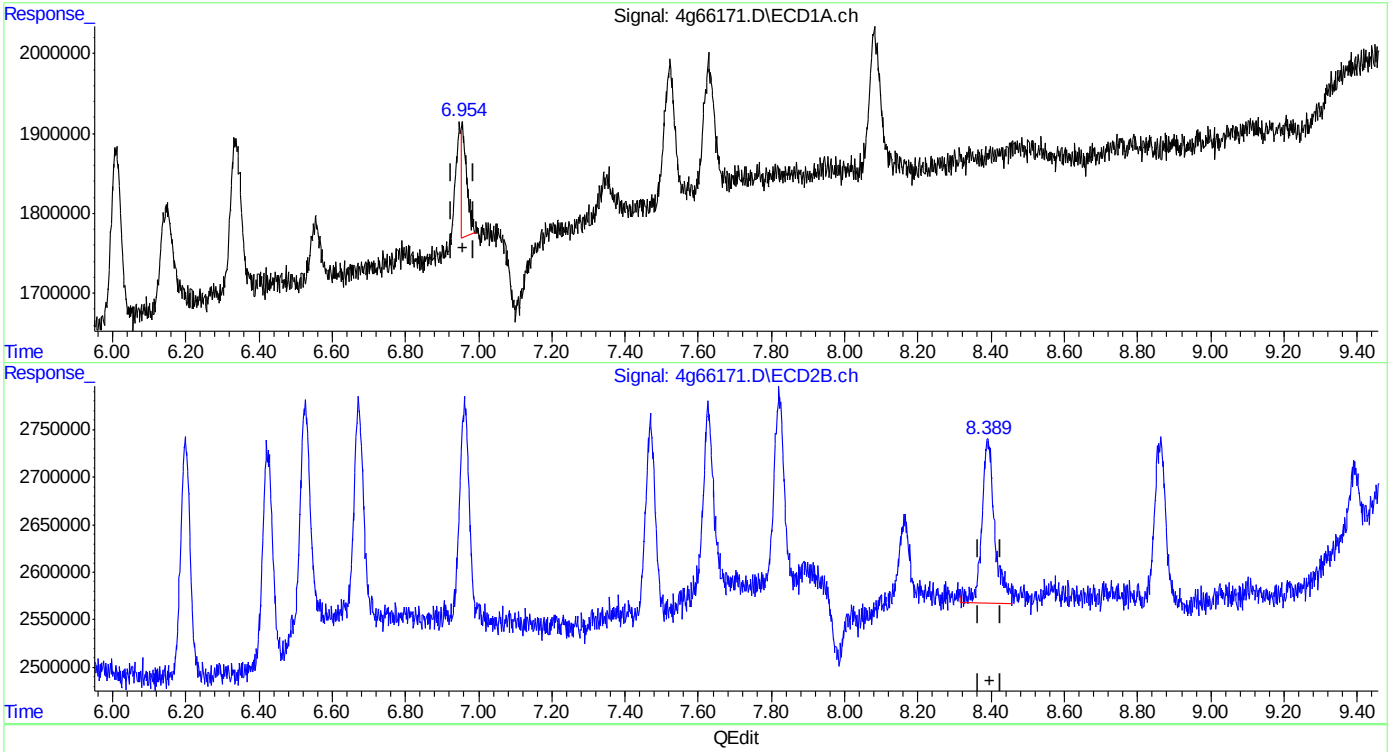
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(19) Endrin Aldehyde (B)
6.954min 0.435 PPB
response 1519479

(19) Endrin Aldehyde #2 (B)
8.393min 1.315 PPB
response 4202759

(+) = Expected Retention Time

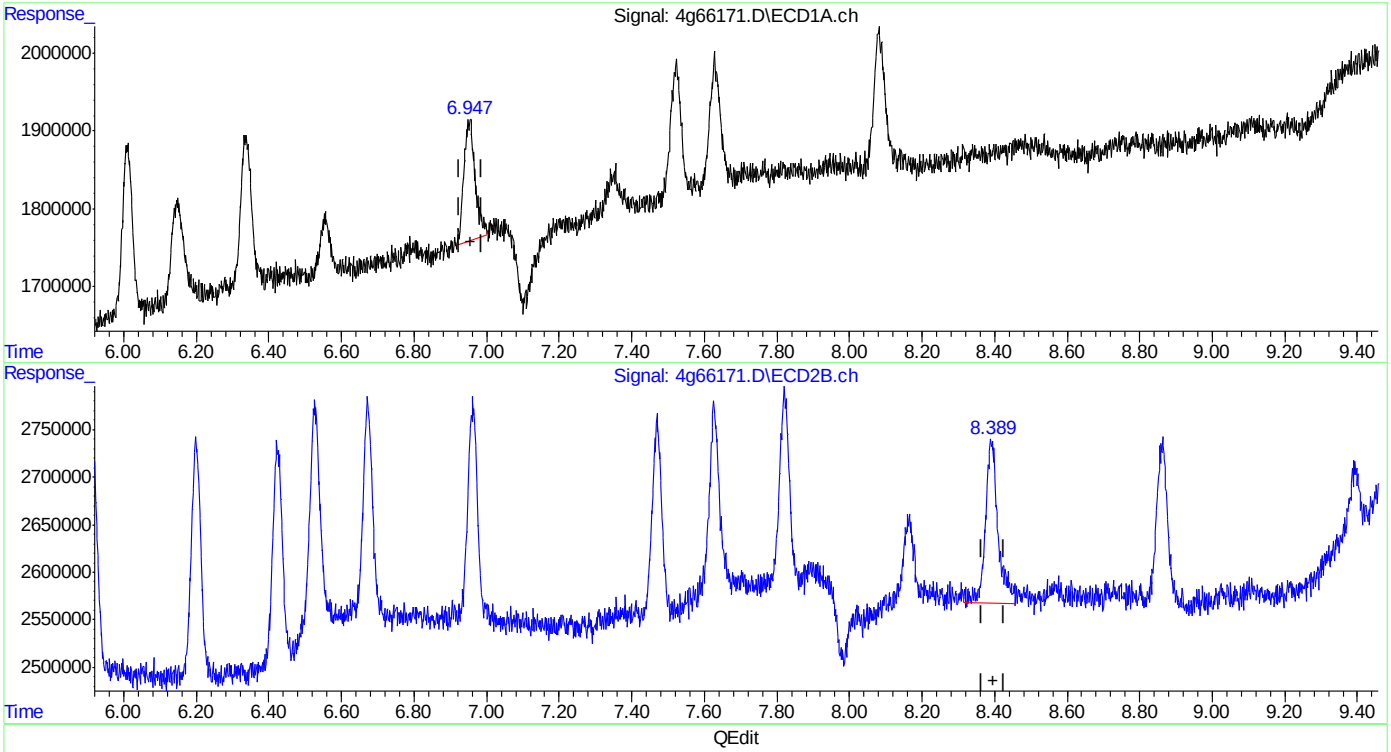
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(19) Endrin Aldehyde (B)
6.947min 0.963 PPB m
response 3365737

(19) Endrin Aldehyde #2 (B)
8.393min 1.315 PPB
response 4202759

(+) = Expected Retention Time

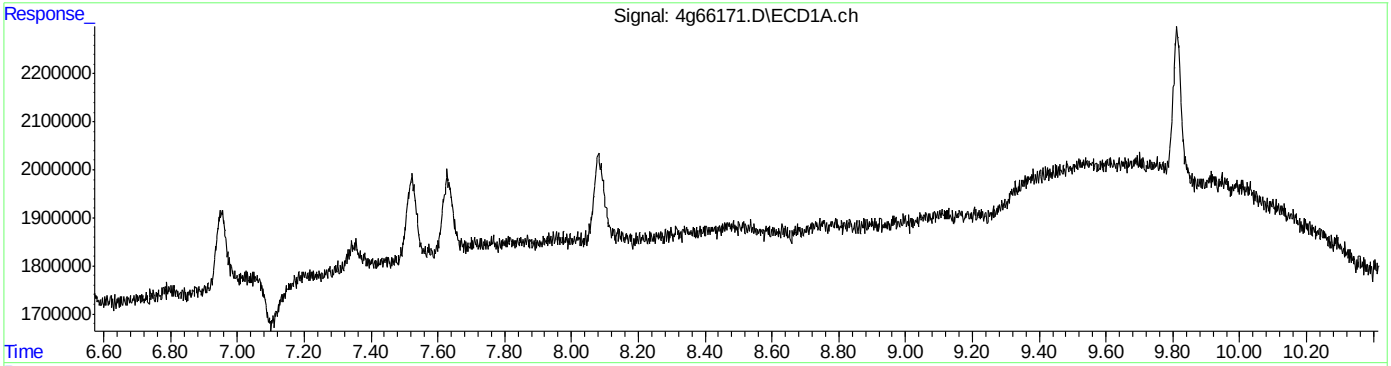
SGS ACCUTEST JC16038

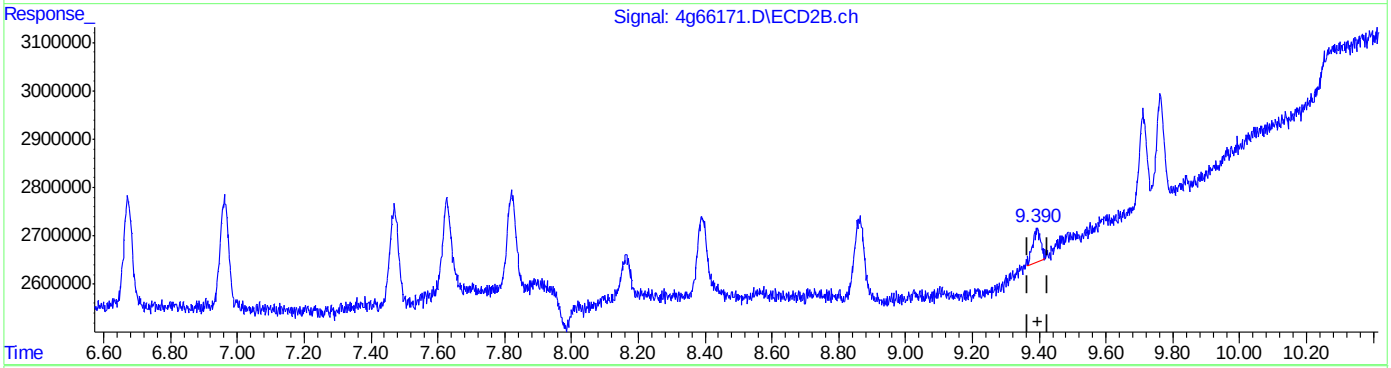
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
0.000min 0.000 PPB
response 0

(21) Methoxychlor #2 (A)
9.391min 0.699 PPB
response 1096381

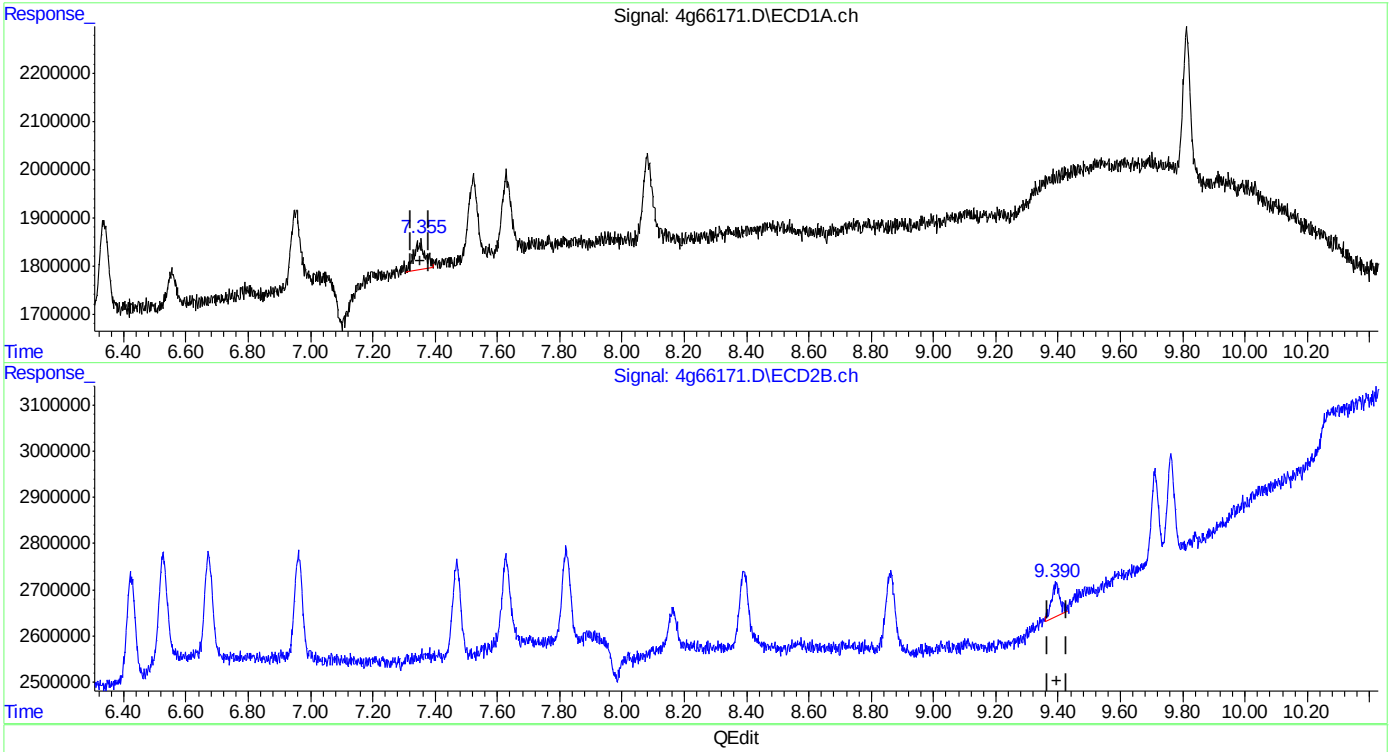
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(21) Methoxychlor (A)
7.355min 0.978 PPB m
response 1421777

(21) Methoxychlor #2 (A)
9.390min 0.858 PPB m
response 1344536

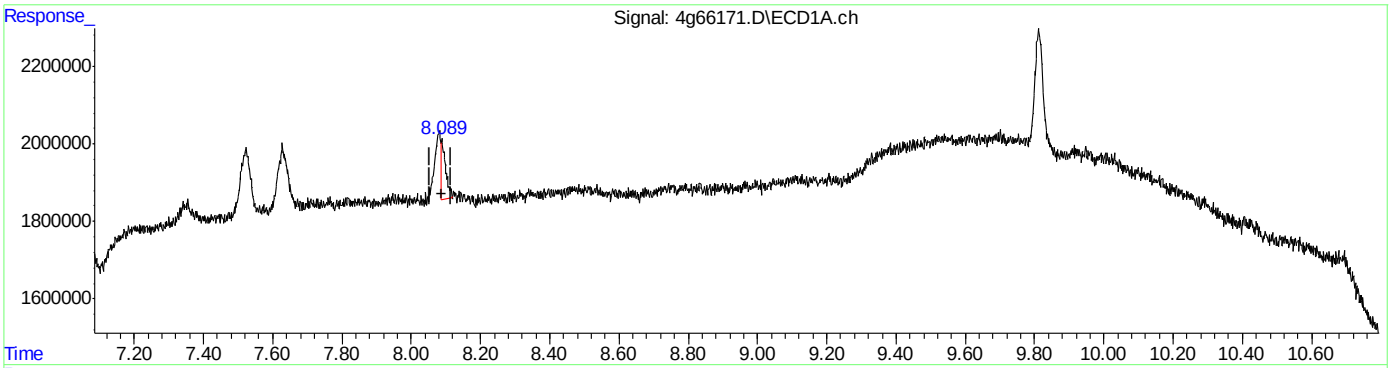
(+) = Expected Retention Time

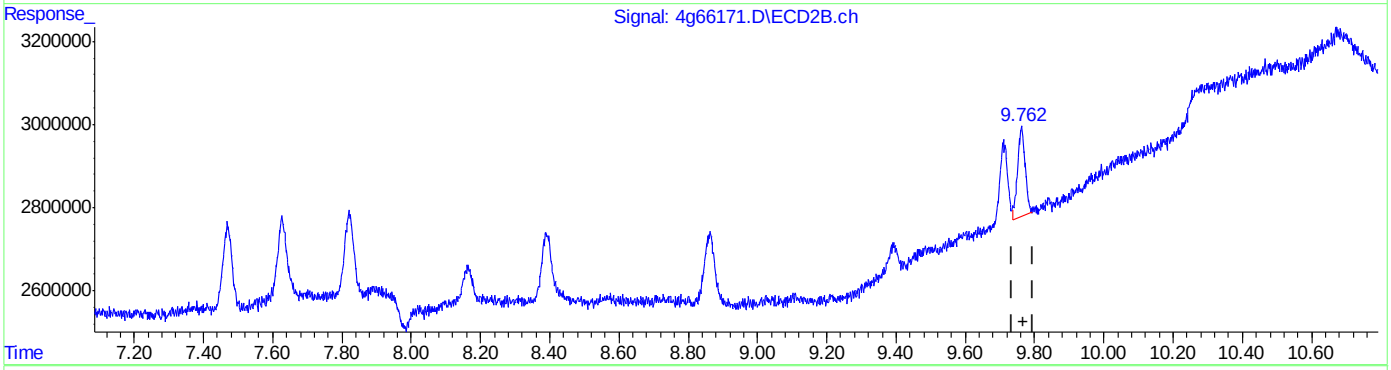
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Endrin Ketone (B)
8.088min 0.351 PPB
response 1455433

(23) Endrin Ketone #2 (B)
9.762min 0.831 PPB
response 3382121

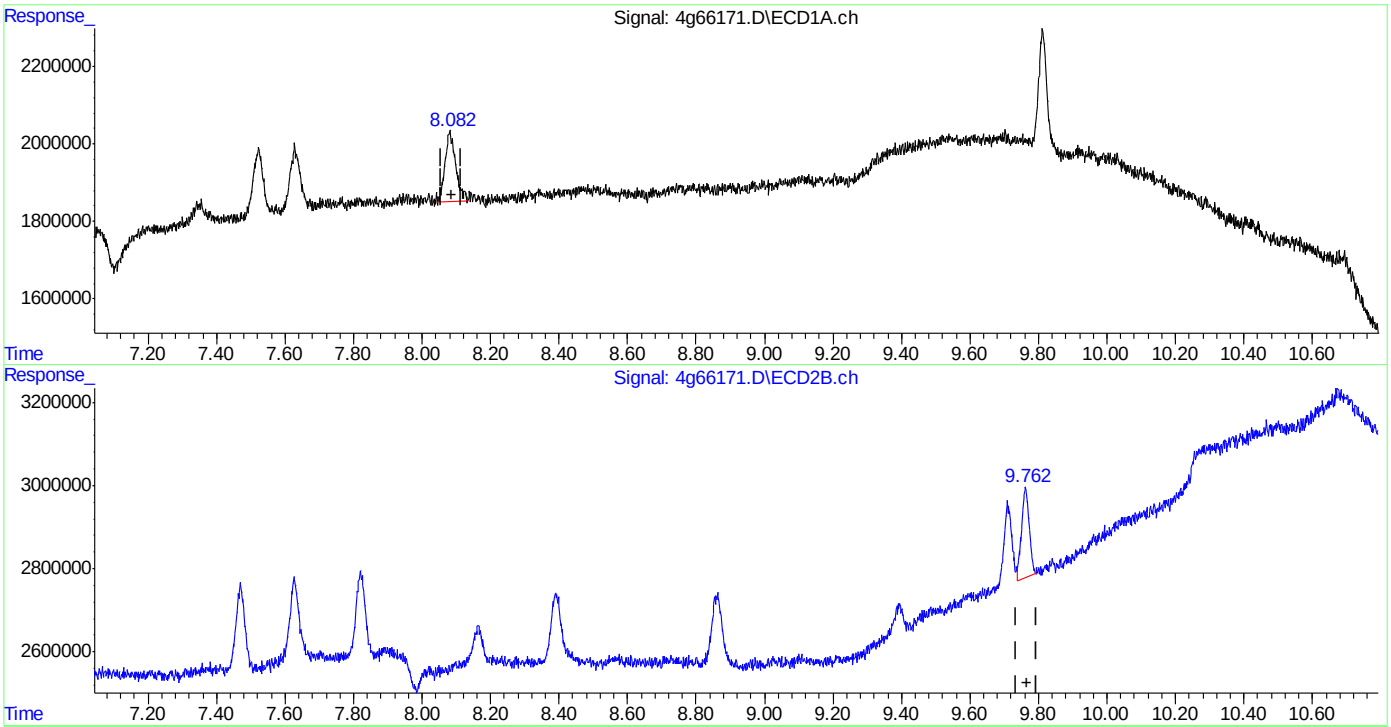
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Endrin Ketone (B)
8.082min 0.942 PPB m
response 3903291

(23) Endrin Ketone #2 (B)
9.762min 0.831 PPB
response 3382121

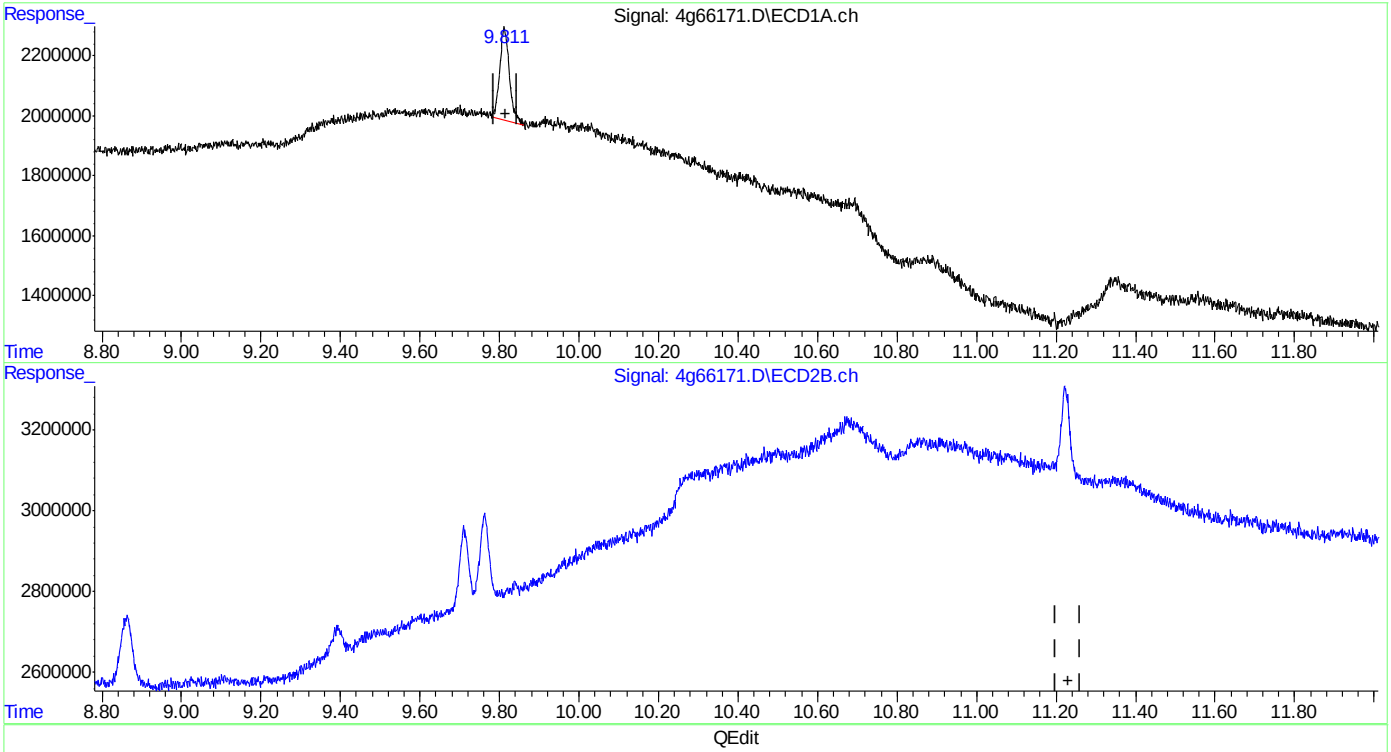
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(24) Decachlorobiphenyl (SA)
9.812min 1.193 PPB
response 5280260

(24) Decachlorobiphenyl #2 (SA)
0.000min 0.000 PPB
response 0

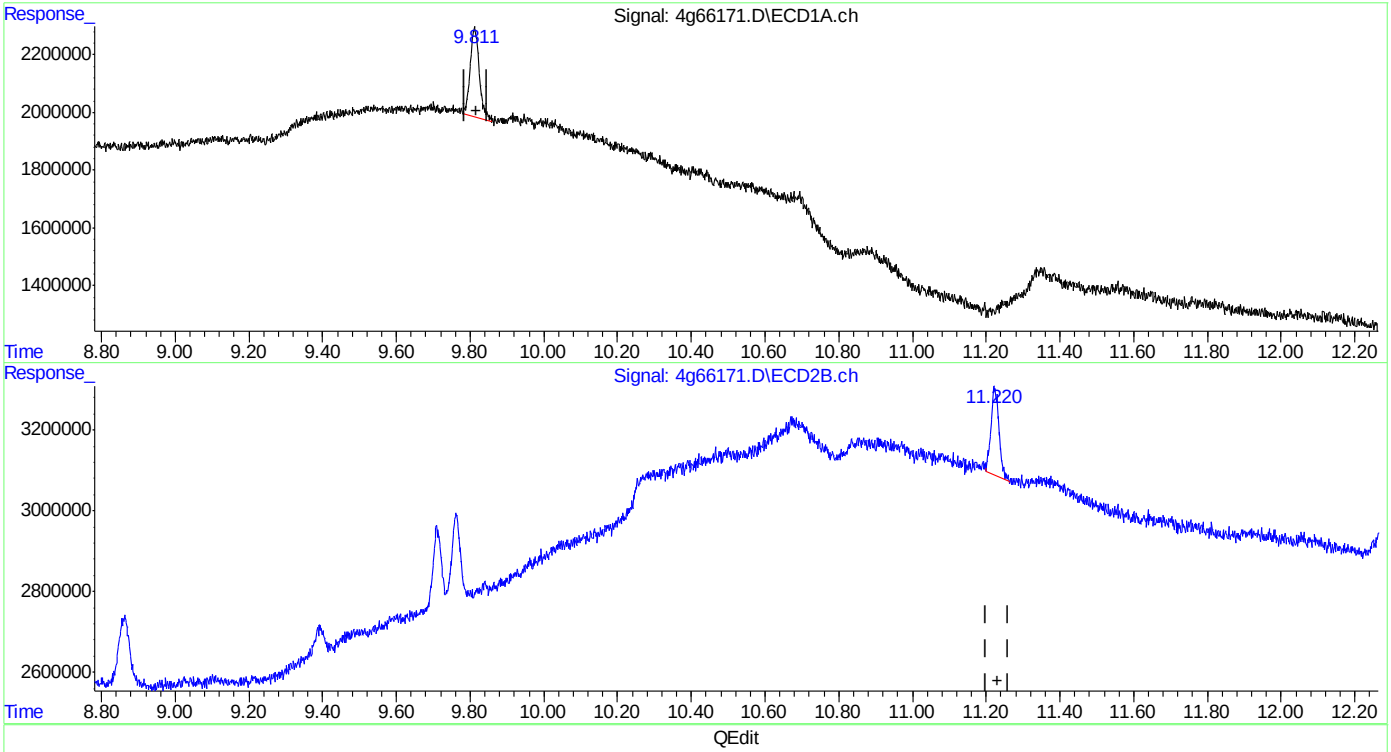
(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:24:57 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:21:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(24) Decachlorobiphenyl (SA)
9.812min 1.193 PPB
response 5280260

(24) Decachlorobiphenyl #2 (SA)
11.220min 1.034 PPB m
response 3259561

(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:25:09 2016 RPT1

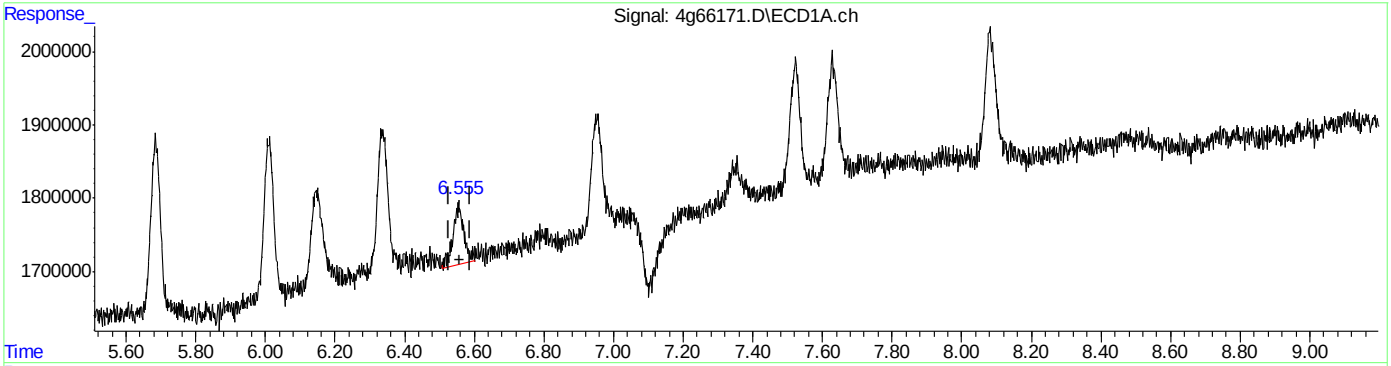
SGS ACCUTEST JC16038

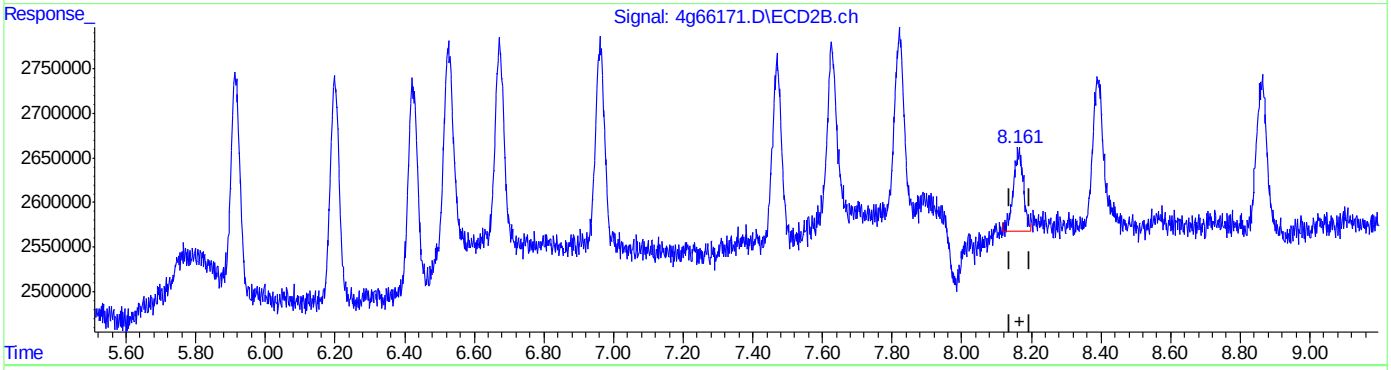
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66171.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:14 pm
Operator : brittanp
Sample : ic1741-1
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:25:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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'-DDT (MA)
6.555min 1.902 PPB m
response 1789273

(18) 4,4'-DDT #2 (MA)
8.165min 1.395 PPB
response 1777297

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:57:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.062	2.227	232.4E6	223.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.605	3.003	8425480	8378716	1.977	1.918
Spiked Amount		40.000	Range	30 - 150	Recovery	= 4.94%#	4.79%#
24) SA	Decachlor...	9.812	11.222	8904381	5943962	2.011	1.885
Spiked Amount		40.000			Recovery	= 5.03%	4.71%
	Target Compounds						
3) A	alpha-BHC	3.045	3.643	11392043	10526620	1.842	1.794
4) MA	gamma-BHC	3.333	4.066	10646374	9584879	1.962	1.821
5) MA	Heptachlor	3.606	4.642	9888944	9591422	1.885	1.824
6) B	beta-BHC	3.418	4.146	5439204	4180558	2.013	1.763
7) B	delta-BHC	3.813	4.546	10360923	8760652	1.987	1.847
8) MB	Aldrin	4.148	5.098	10194437	9501053	1.857	1.841
9) B	Heptachlo...	4.848	5.913	9855066	8816715	2.005	1.867
10) B	gamma-Chl...	5.017	6.197	9378217	8738574	1.946	1.824
11) B	alpha-Chl...	5.185	6.423	9394608	8931919	1.965	1.910
12) A	Endosulfan I	5.362	6.526	9600563	8084504	1.810	1.725
13) B	4,4'-DDE	5.301	6.671	8079197	8089776	2.015	1.794
14) MA	Dieldrin	5.685	6.962	9390718	8514750	1.896	1.803
15) MA	Endrin	6.010	7.469	8111488	8047348	1.770	1.900
16) A	4,4'-DDD	6.152	7.627	6136462	8062905	1.640m	2.119 #
17) B	Endosulfa...	6.336	7.820	8029802	7860175	1.816	1.903
18) MA	4,4'-DDT	6.552	8.160	3057971	3590730	2.356m	2.021
19) B	Endrin Al...	6.952	8.389	6431189	7159922	1.838	2.240
20) B	Endosulfa...	7.628	8.862	6472263	6704757	1.794	1.841
21) A	Methoxychlor	7.345	9.390	2204791	2736111	1.515m	1.745
22)	Mirex	7.519	9.712	7097047	6431750	1.979	1.961
23) B	Endrin Ke...	8.084	9.763	7328225	7245174	1.768	1.780

SemiQuant Compounds - Not Calibrated on this Instrument

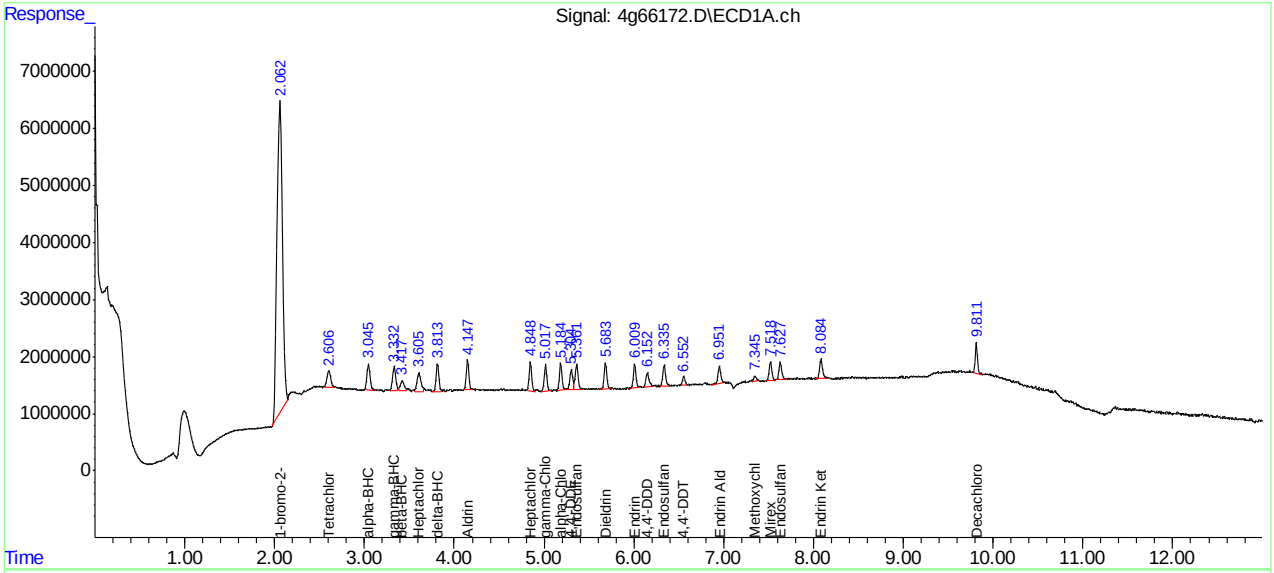
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

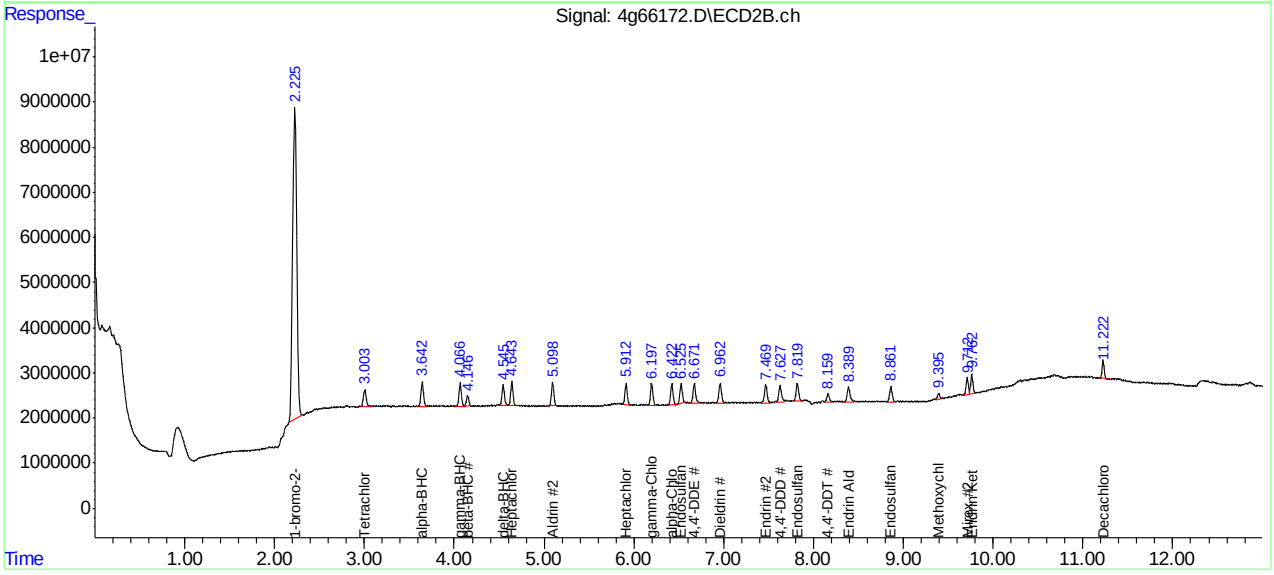
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:57:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1741-IC1741	**Method:**	SW846 8081B
Lab FileID:	4G66172.D	**Analyst approved:**	03/19/16 12:57 Joseph Ravino
Injection Time:	03/18/16 18:29	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

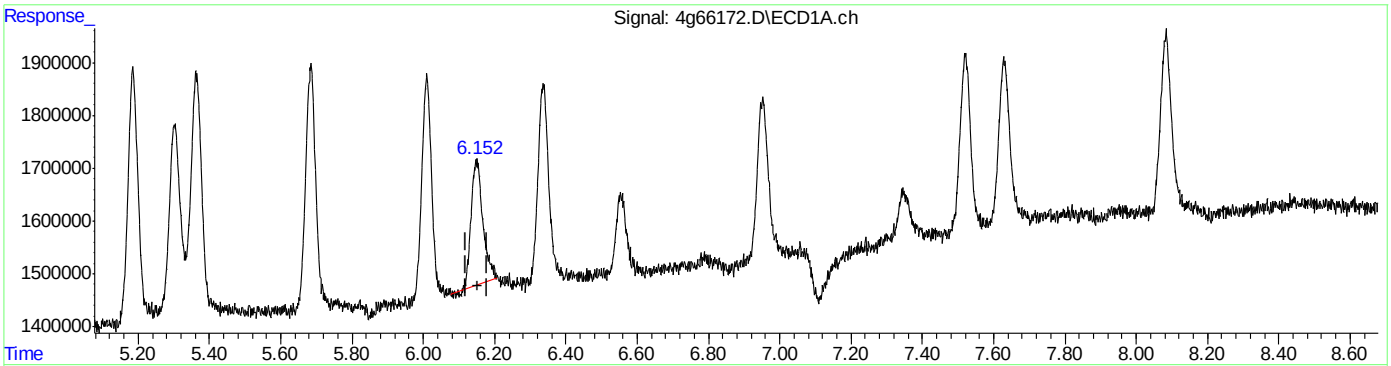
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDD	72-54-8	1	6.15	Poor instrument integration
4,4'-DDT	50-29-3	1	6.55	Poor instrument integration
Methoxychlor	72-43-5	1	7.34	Poor instrument integration

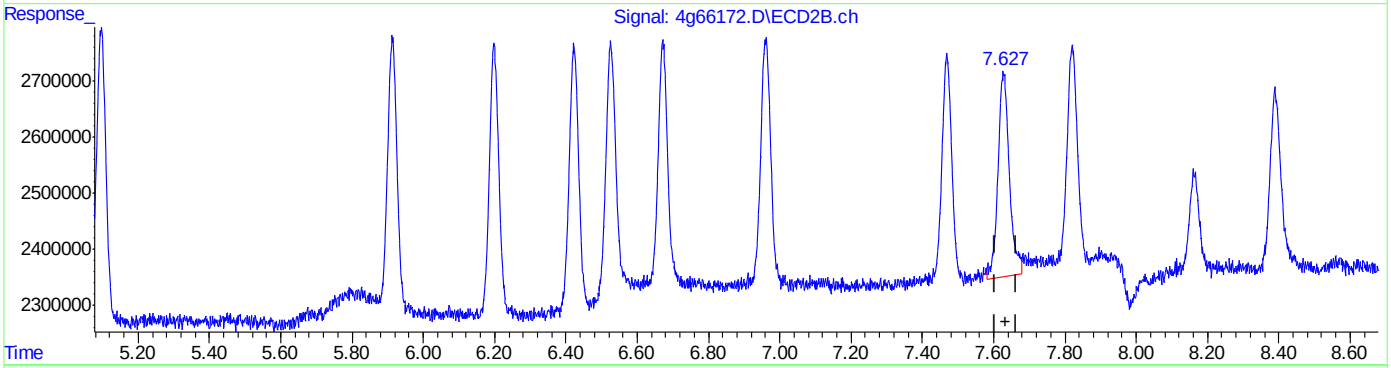
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:27:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) 4,4'-DDD (A)
6.152min 1.457 PPB
response 5449046

(16) 4,4'-DDD #2 (A)
7.627min 2.119 PPB
response 8062905

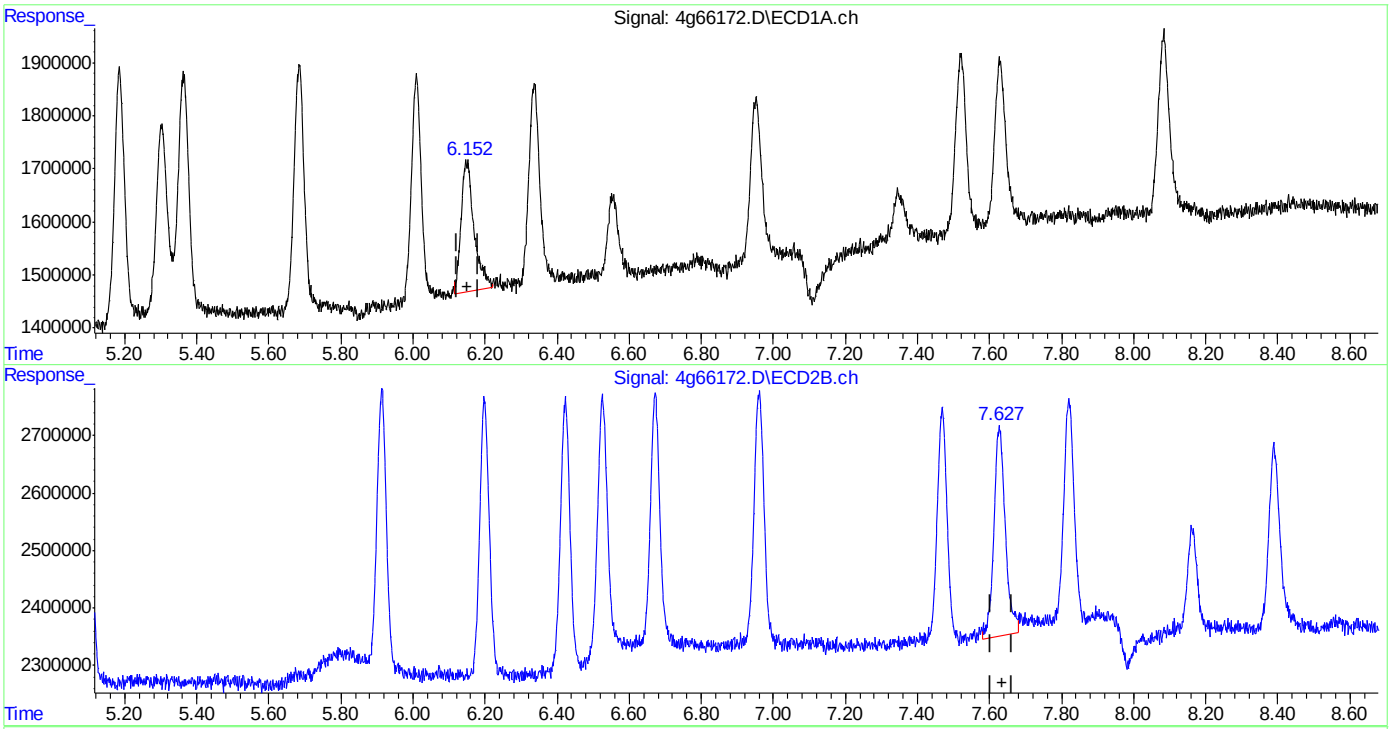
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:27:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(16) 4,4'-DDD (A)
6.152min 1.640 PPB m
response 6136462

(16) 4,4'-DDD #2 (A)
7.627min 2.119 PPB
response 8062905

(+) = Expected Retention Time

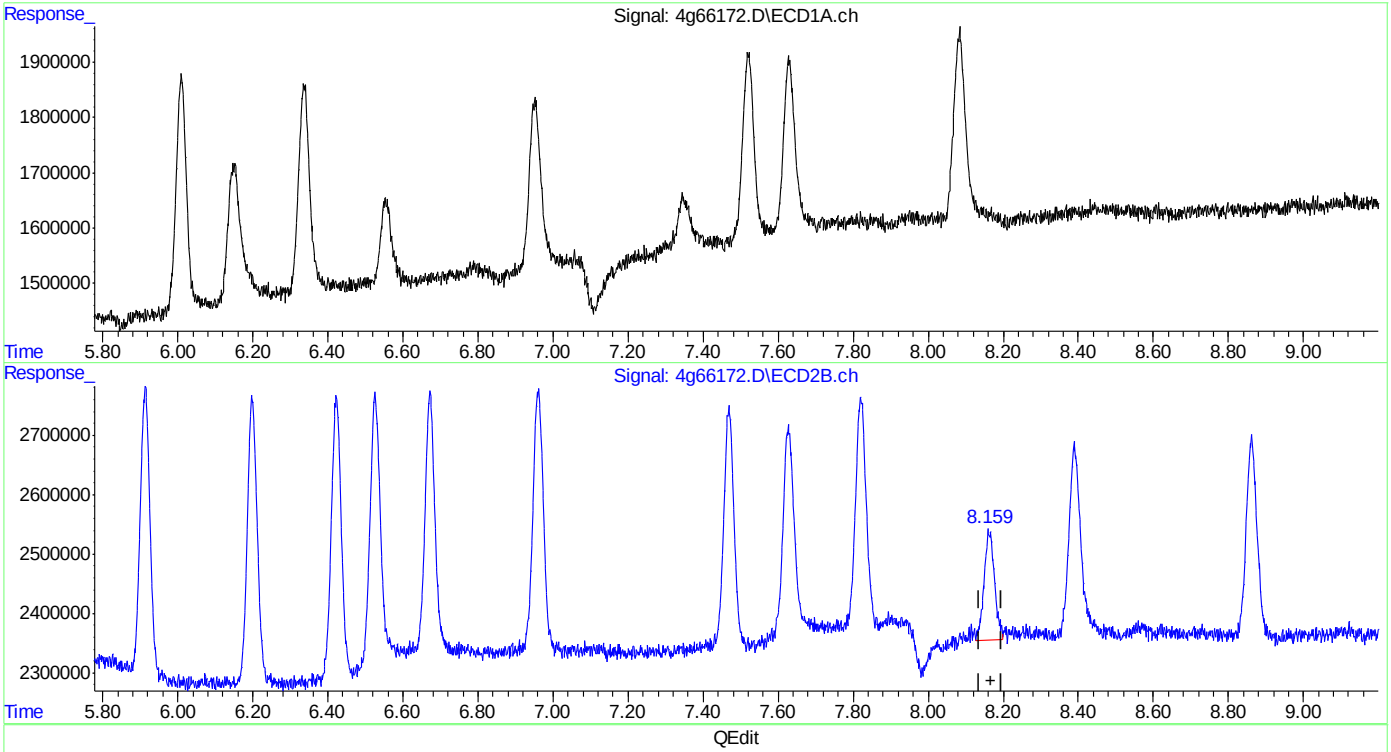
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:27:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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'-DDT (MA)
0.000min 0.000 PPB
response 0

(18) 4,4'-DDT #2 (MA)
8.160min 2.021 PPB
response 3590730

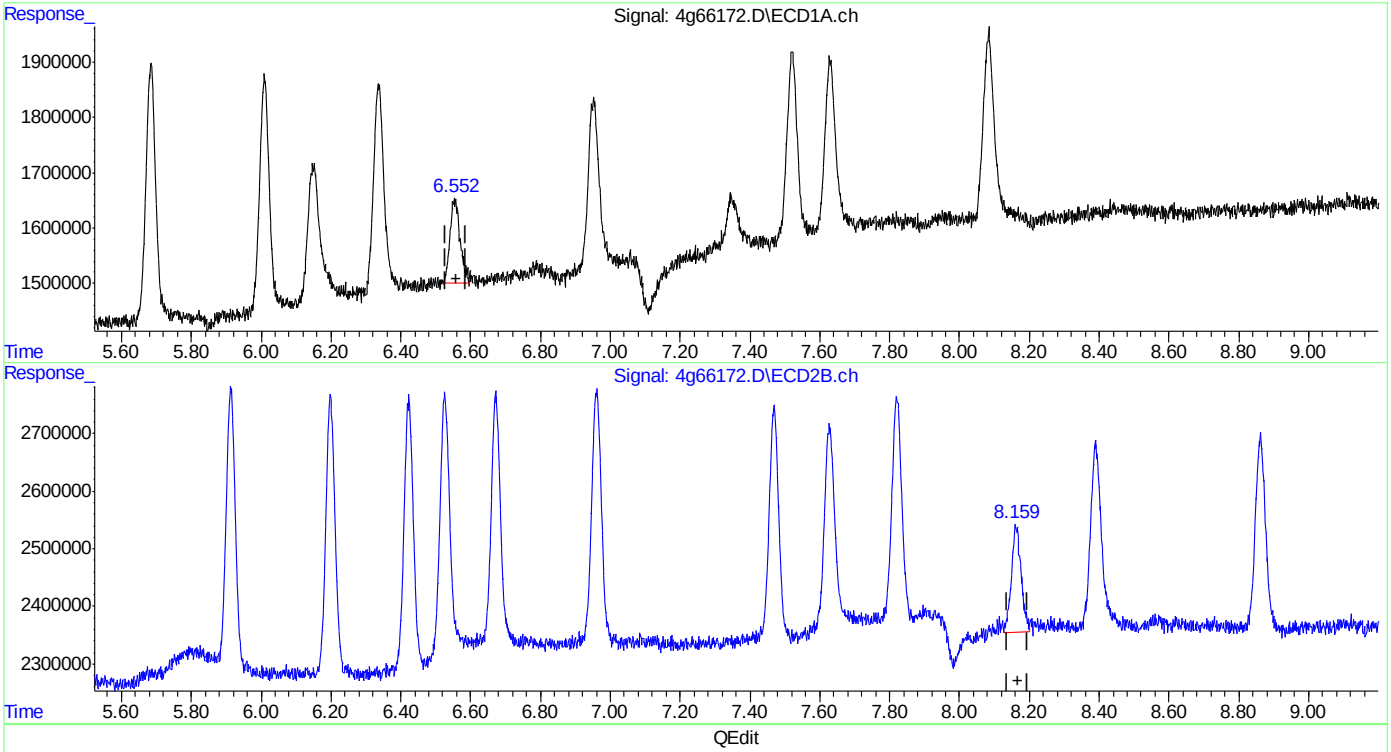
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:27:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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'-DDT (MA)
6.552min 2.356 PPB m
response 3057971

(18) 4,4'-DDT #2 (MA)
8.160min 2.021 PPB
response 3590730

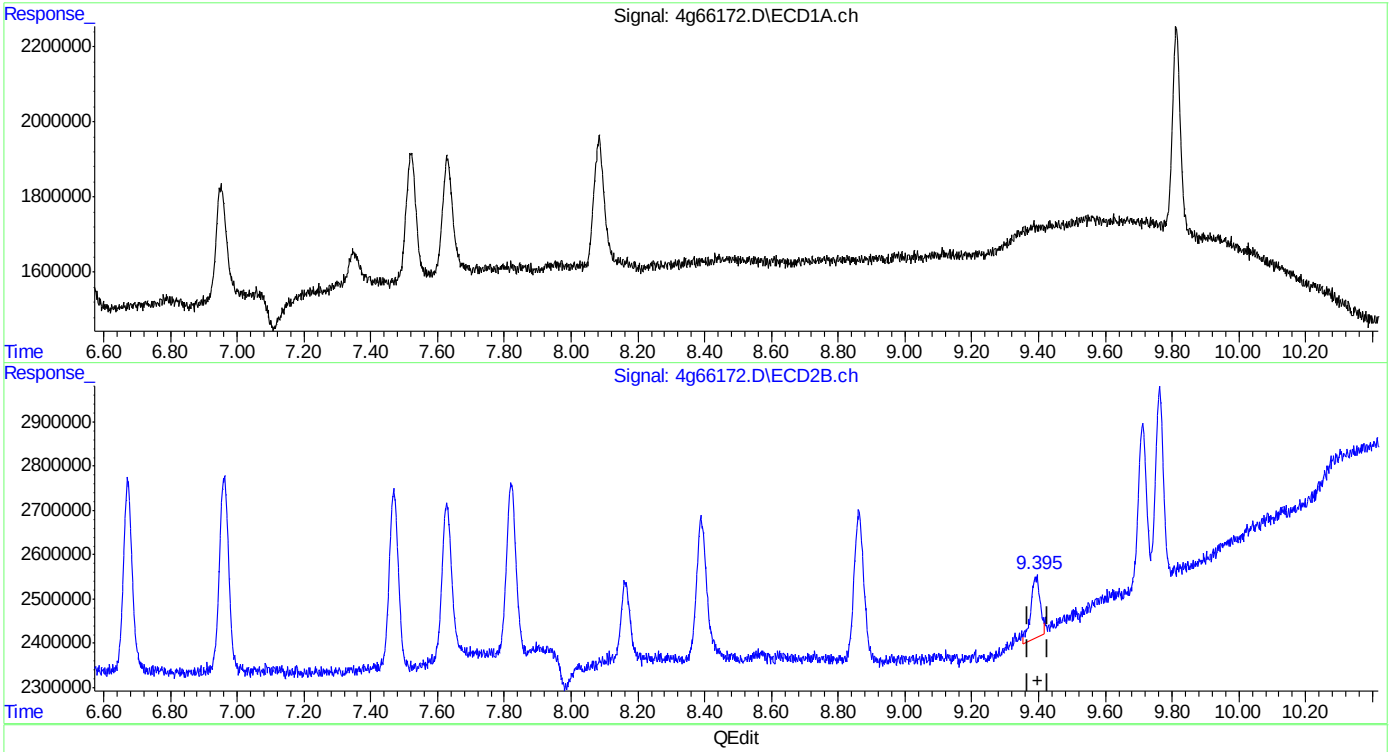
(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:29:08 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:27:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
0.000min 0.000 PPB
response 0

(21) Methoxychlor #2 (A)
9.390min 1.745 PPB
response 2736111

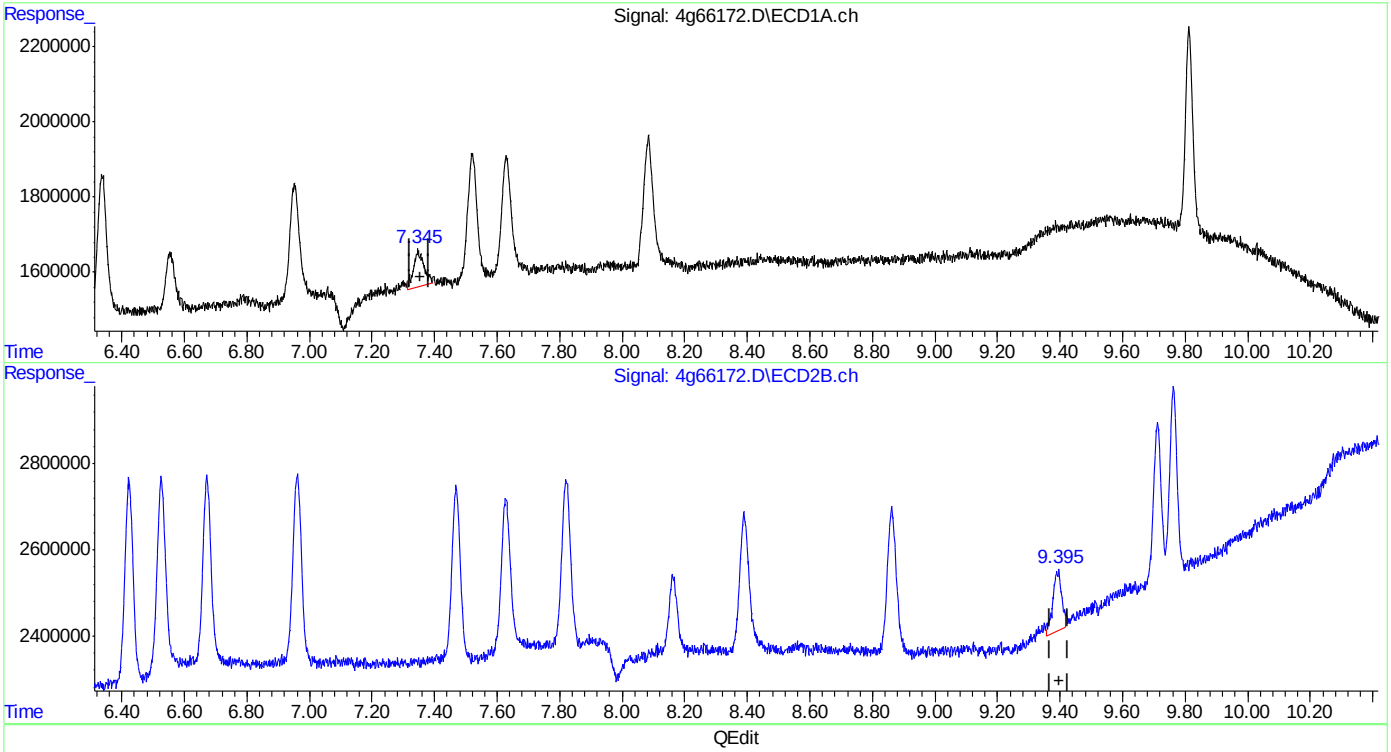
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66172.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:29 pm
Operator : brittanp
Sample : ic1741-2
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:27:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
7.345min 1.515 PPB m
response 2204791

(21) Methoxychlor #2 (A)
9.390min 1.745 PPB
response 2736111

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66173.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:44 pm
Operator : brittanp
Sample : ic1741-5
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.054	2.219	240.0E6	226.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.602	3.001	22870581	20754397	5.197	4.691
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	12.99%#	11.73%#
24) SA	Decachlor...	9.813	11.224	23175600	16287586	5.067	5.100
	Spiked Amount 40.000			Recovery	=	12.67%	12.75%
	Target Compounds						
3) A	alpha-BHC	3.043	3.642	30089762	26111549	4.710	4.393
4) MA	gamma-BHC	3.329	4.066	26986219	23734463	4.815	4.453
5) MA	Heptachlor	3.605	4.641	25322182	23929088	4.672	4.492
6) B	beta-BHC	3.418	4.147	15127844	10939195	5.420	4.555
7) B	delta-BHC	3.813	4.545	25641495	21757846	4.761	4.529
8) MB	Aldrin	4.147	5.096	26051794	23382807	4.595	4.474
9) B	Heptachlo...	4.847	5.913	24683763	21653337	4.862	4.528
10) B	gamma-Chl...	5.017	6.200	23607988	22159208	4.742	4.567
11) B	alpha-Chl...	5.186	6.423	22862053	22257535	4.631	4.699
12) A	Endosulfan I	5.363	6.526	24510010	21248966	4.474	4.477
13) B	4,4'-DDE	5.303	6.672	18707804	20362600	4.518	4.459
14) MA	Dieldrin	5.683	6.961	23221515	21683262	4.541	4.533
15) MA	Endrin	6.009	7.469	20973259	19982994	4.432	4.659
16) A	4,4'-DDD	6.149	7.628	16823710	18173035	4.354	4.716
17) B	Endosulfa...	6.336	7.821	20450551	19430447	4.477	4.644
18) MA	4,4'-DDT	6.555	8.163	10031570	11393639	4.719	4.647
19) B	Endrin Al...	6.951	8.391	16967572	15721325	4.694	4.856
20) B	Endosulfa...	7.629	8.863	16944908	16785782	4.546	4.552
21) A	Methoxychlor	7.346	9.392	5899221	7028585	3.924m	4.427
22)	Mirex	7.520	9.711	17657185	16180897	4.767	4.871
23) B	Endrin Ke...	8.083	9.762	19187568	19013756	4.482	4.613

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

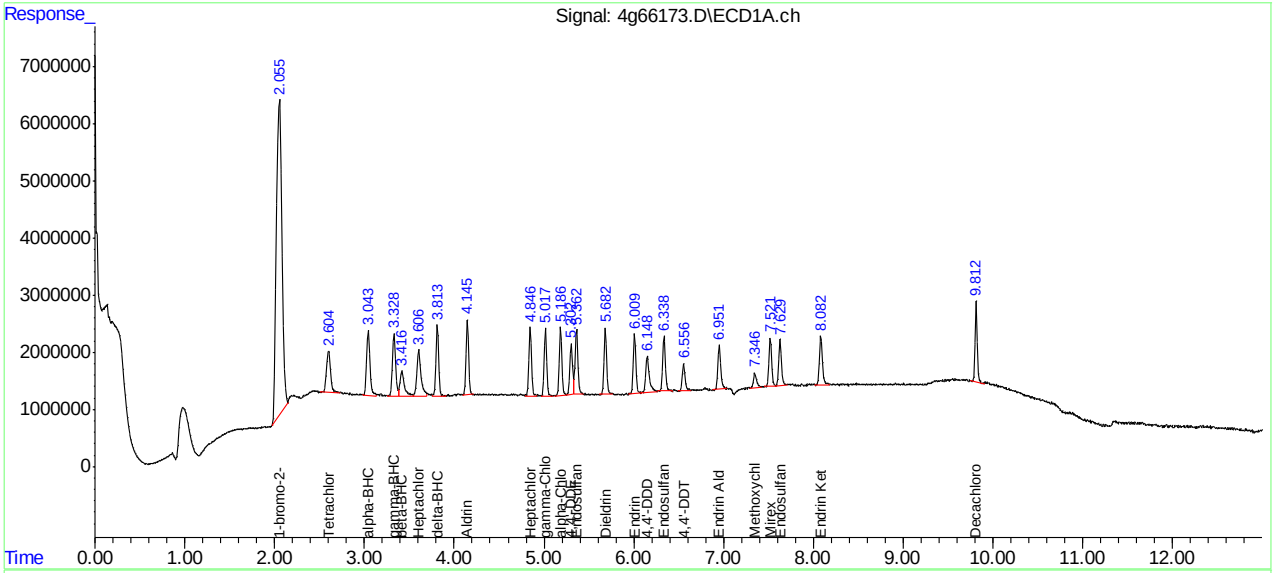
13.5.3 13

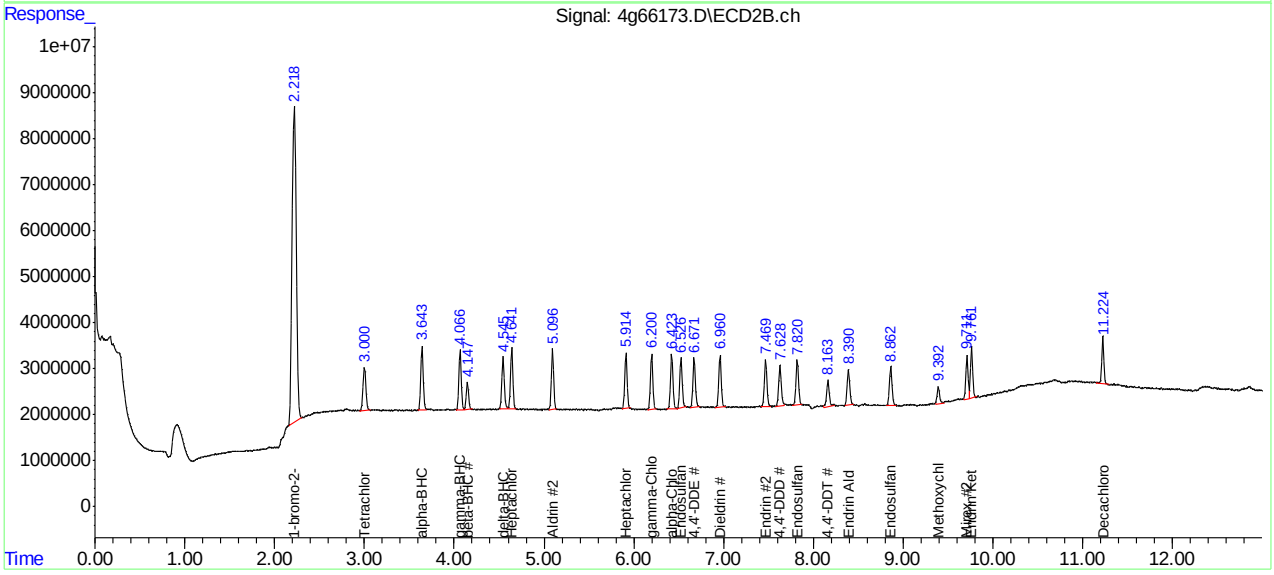
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66173.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:44 pm
Operator : brittanp
Sample : ic1741-5
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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 ACCUTEST JC16038

Manual Integration Approval Summary

Sample Number:	G4G1741-IC1741	**Method:**	SW846 8081B
Lab FileID:	4G66173.D	**Analyst approved:**	03/19/16 12:57 Joseph Ravino
Injection Time:	03/18/16 18:44	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

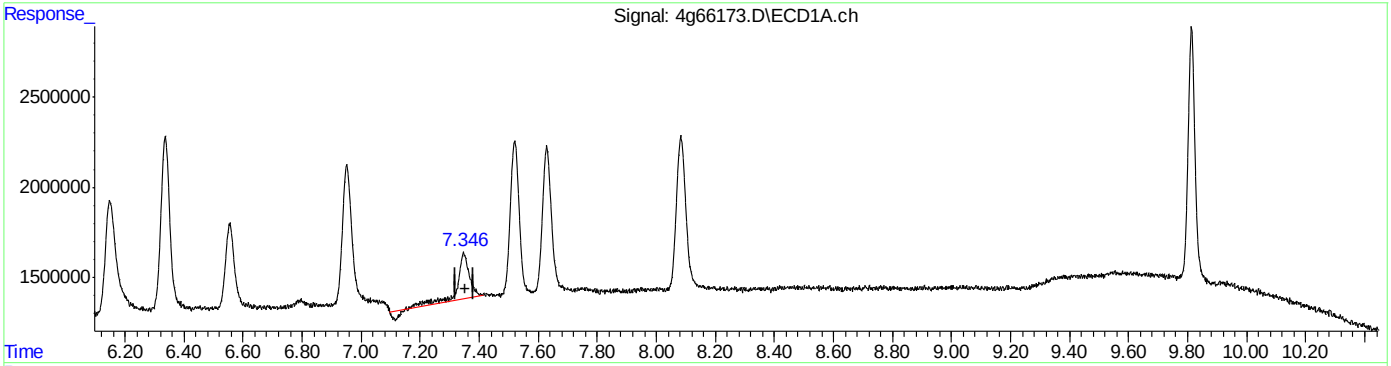
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	1	7.35	Poor instrument integration

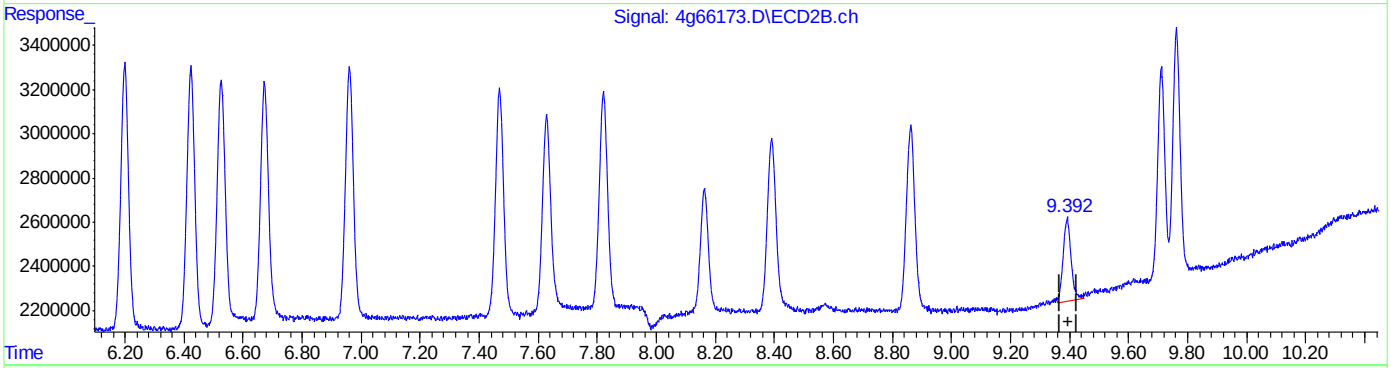
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66173.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:44 pm
Operator : brittanp
Sample : ic1741-5
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:30:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
7.348min 4.574 PPB
response 6875787

(21) Methoxychlor #2 (A)
9.392min 4.427 PPB
response 7028585

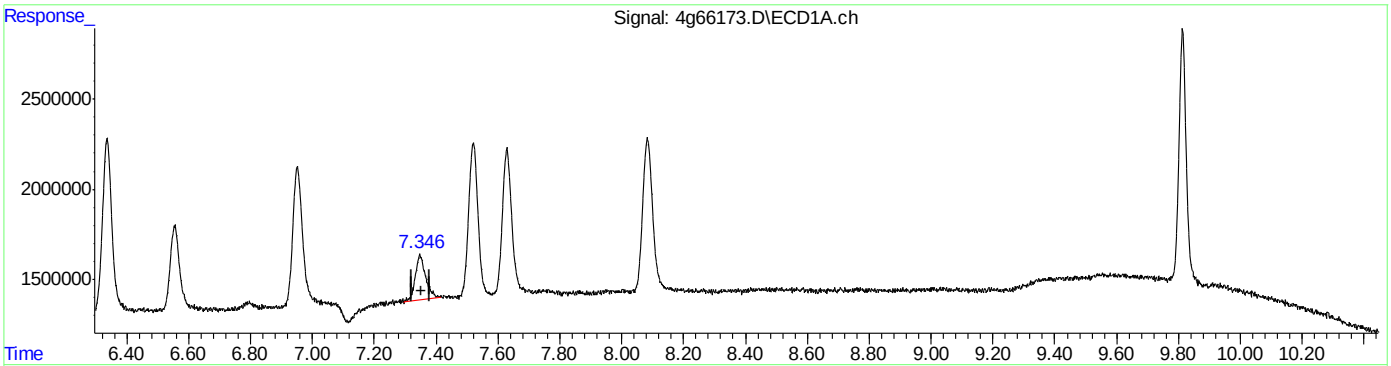
(+) = Expected Retention Time

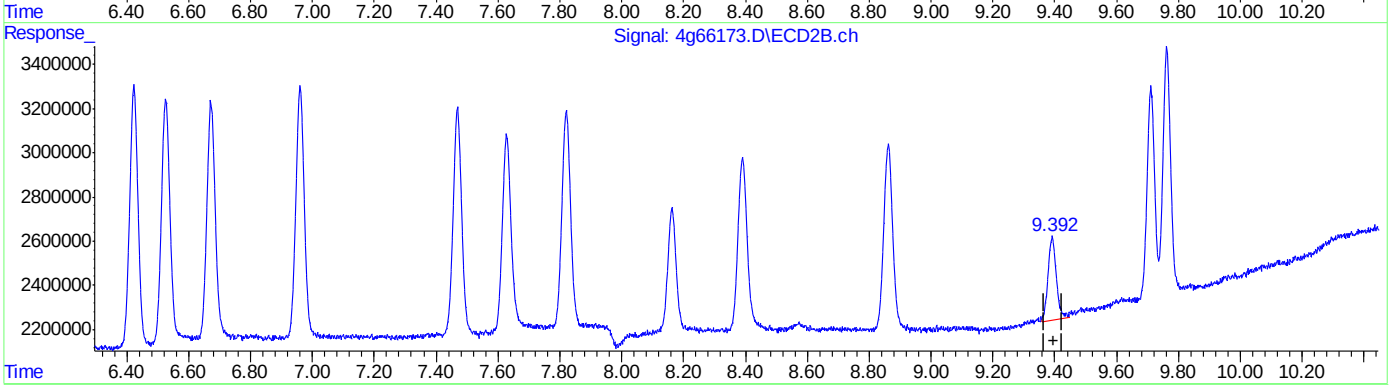
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66173.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:44 pm
Operator : brittanp
Sample : ic1741-5
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:30:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
7.346min 3.924 PPB m
response 5899221

(21) Methoxychlor #2 (A)
9.392min 4.427 PPB
response 7028585

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66174.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:58 pm
Operator : brittanp
Sample : ic1741-10
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.060	2.226	233.5E6	223.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.607	3.005	45504417	40137454	10.630	9.182
Spiked Amount		40.000	Range	30 - 150	Recovery	= 26.58%#	22.96%#
24) SA	Decachlor...	9.813	11.225	45307084	30850098	10.183	9.777
Spiked Amount		40.000			Recovery	= 25.46%	24.44%
	Target Compounds						
3) A	alpha-BHC	3.046	3.644	59527744	52838102	9.578	8.996
4) MA	gamma-BHC	3.333	4.067	52695955	47682943	9.666	9.054
5) MA	Heptachlor	3.607	4.642	50408518	48179406	9.562	9.154
6) B	beta-BHC	3.420	4.149	28185646	22530971	10.382	9.495
7) B	delta-BHC	3.815	4.545	50278763	43962631	9.597	9.260
8) MB	Aldrin	4.149	5.097	53675795	47595677	9.734	9.217
9) B	Heptachlo...	4.848	5.914	48374463	44452754	9.795	9.407
10) B	gamma-Chl...	5.018	6.199	47558825	44312537	9.821	9.242
11) B	alpha-Chl...	5.186	6.423	46852373	43816367	9.756	9.361
12) A	Endosulfan I	5.364	6.526	50006476	42138358	9.384	8.984
13) B	4,4'-DDE	5.304	6.672	38172934	41199388	9.476	9.131
14) MA	Dieldrin	5.685	6.960	46751697	43533154	9.398	9.210
15) MA	Endrin	6.009	7.469	41658895	38814076	9.050	9.158
16) A	4,4'-DDD	6.148	7.628	35453433	35462268	9.433	9.313
17) B	Endosulfa...	6.336	7.821	41736558	38737604	9.393	9.371
18) MA	4,4'-DDT	6.555	8.163	22516309	23312920	9.147	8.707
19) B	Endrin Al...	6.952	8.391	35352048	31657555	10.055	9.896
20) B	Endosulfa...	7.629	8.862	34302192	35425628	9.461	9.722
21) A	Methoxychlor	7.349	9.389	12892108	14198930	8.817	9.050m
22)	Mirex	7.520	9.711	35380115	32231093	9.820	9.819m
23) B	Endrin Ke...	8.083	9.762	39929186	39608280	9.588	9.724

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

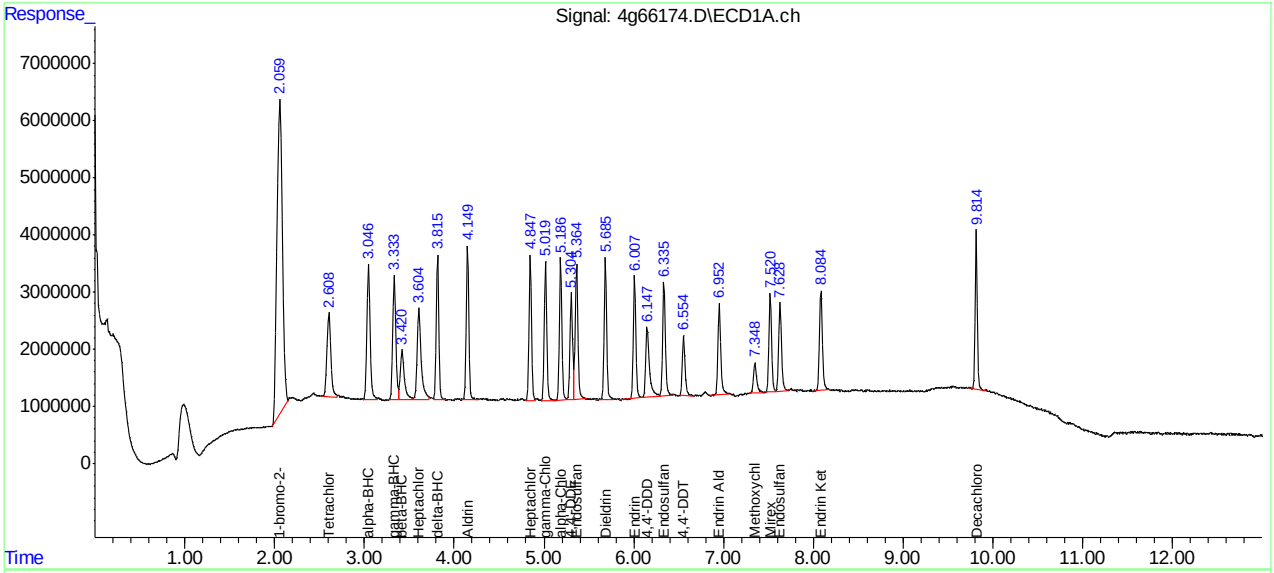
13.5.4 13

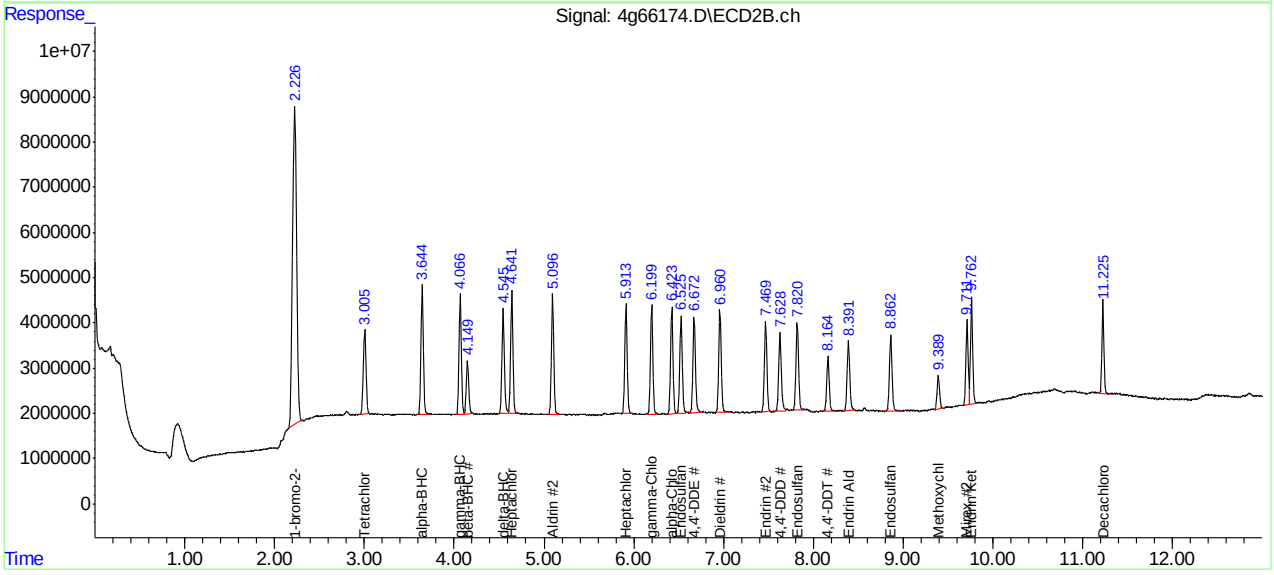
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66174.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:58 pm
Operator : brittanp
Sample : ic1741-10
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1741-IC1741	**Method:**	SW846 8081B
Lab FileID:	4G66174.D	**Analyst approved:**	03/19/16 12:57 Joseph Ravino
Injection Time:	03/18/16 18:58	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

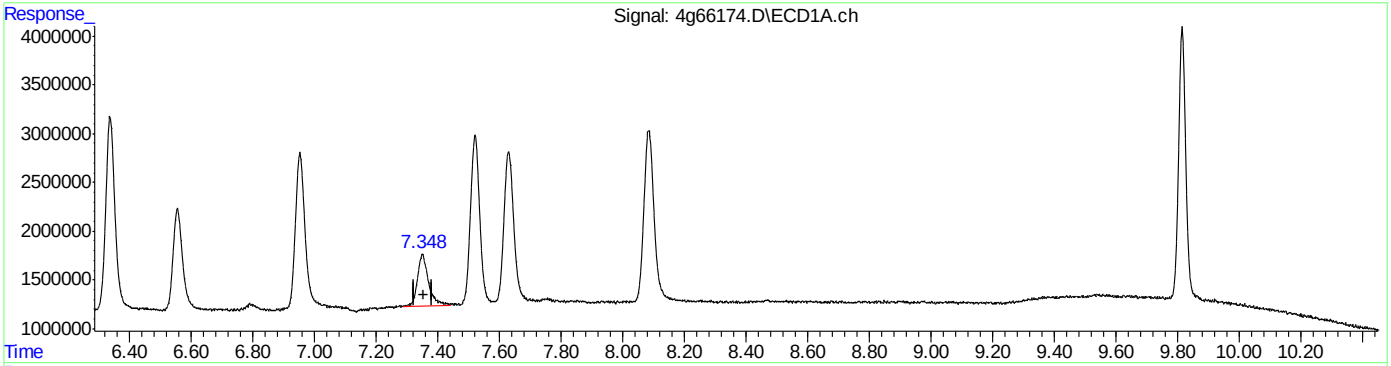
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methoxychlor	72-43-5	2	9.39	Poor instrument integration
Mirex	2385-85-5	2	9.71	Poor instrument integration

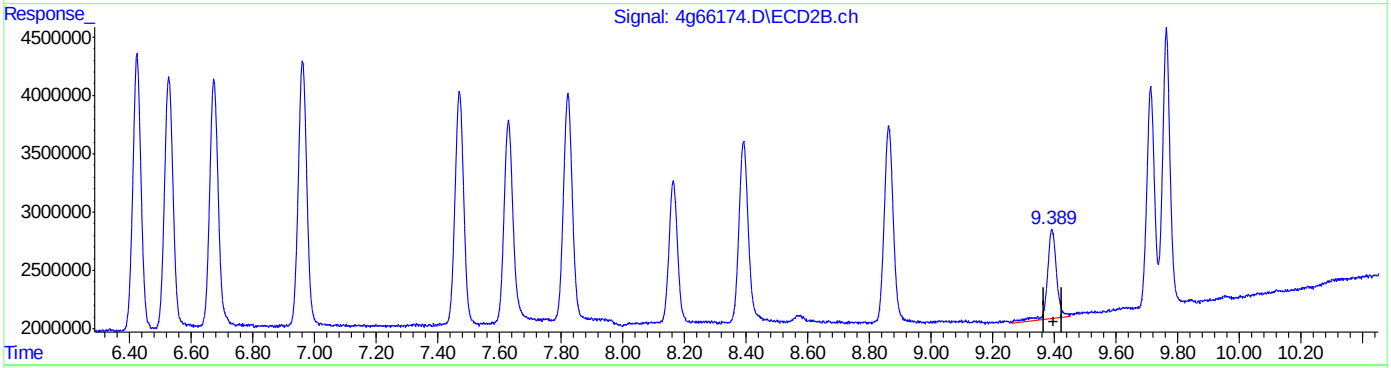
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66174.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:58 pm
Operator : brittanp
Sample : ic1741-10
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:31:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
7.349min 8.817 PPB
response 12892108

(21) Methoxychlor #2 (A)
9.391min 10.141 PPB
response 15909681

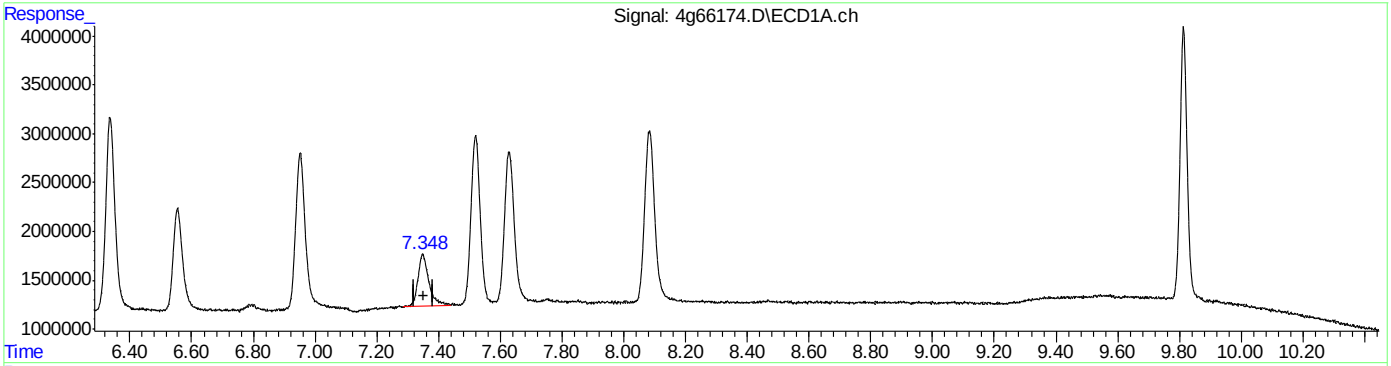
(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:32:15 2016 RPT1

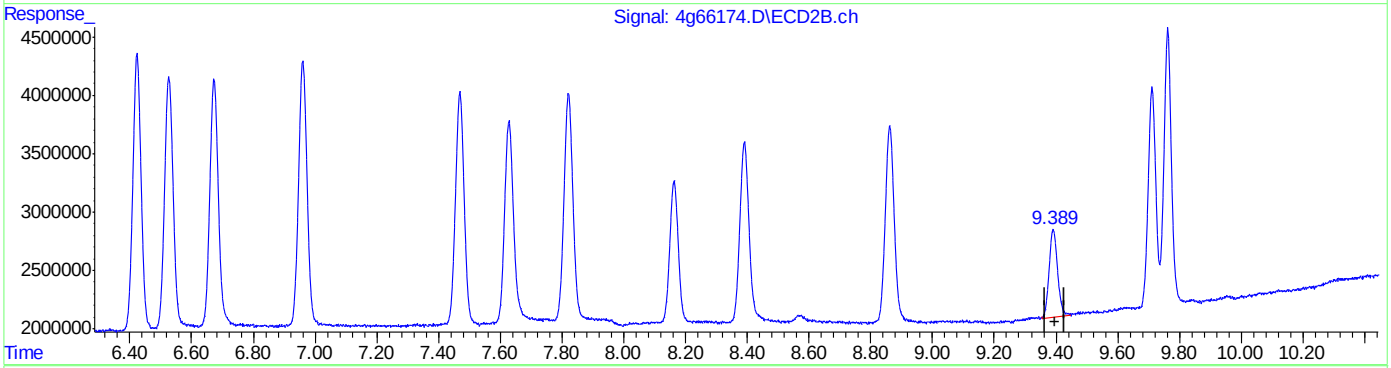
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66174.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:58 pm
Operator : brittanp
Sample : ic1741-10
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:31:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Methoxychlor (A)
7.349min 8.817 PPB
response 12892108

(21) Methoxychlor #2 (A)
9.389min 9.050 PPB m
response 14198930

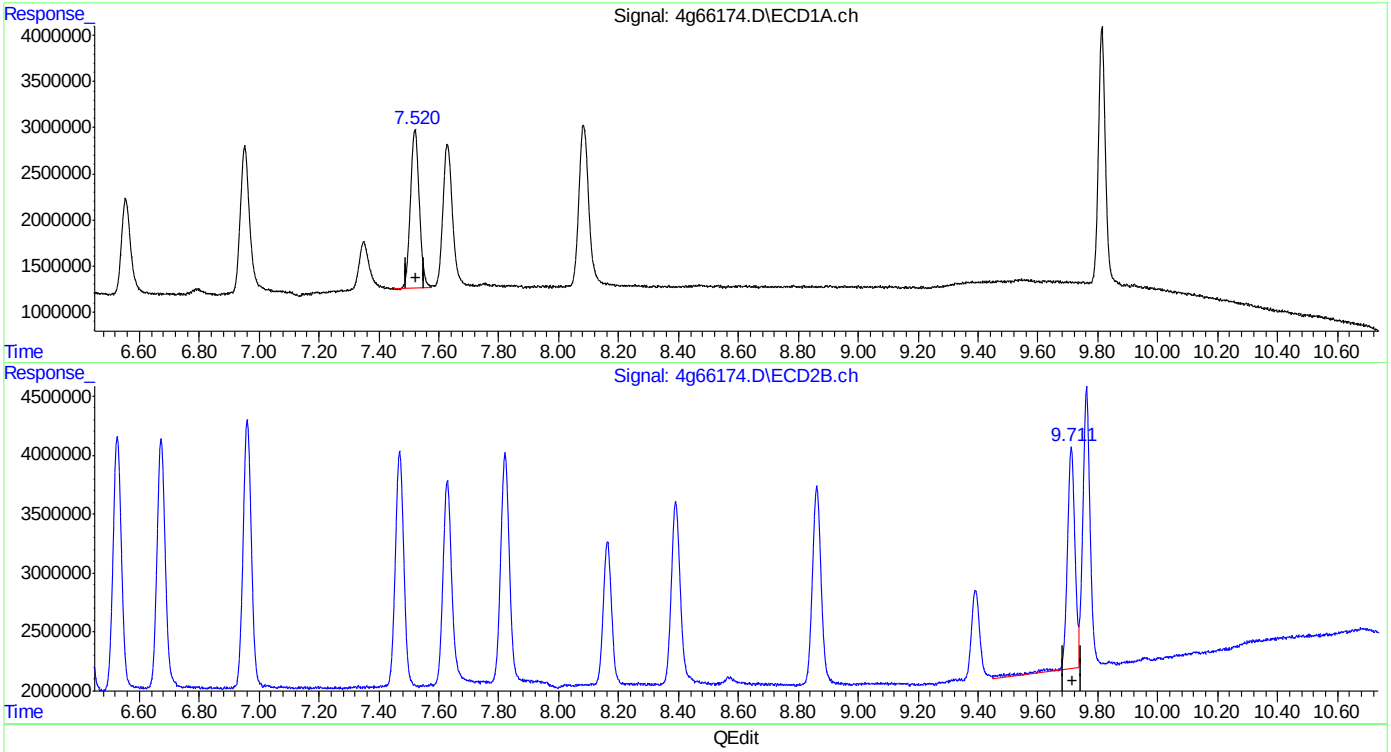
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66174.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:58 pm
Operator : brittanp
Sample : ic1741-10
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:31:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(22) Mirex
7.520min 9.820 PPB
response 35380115

(22) Mirex #2
9.711min 10.212 PPB
response 33522887

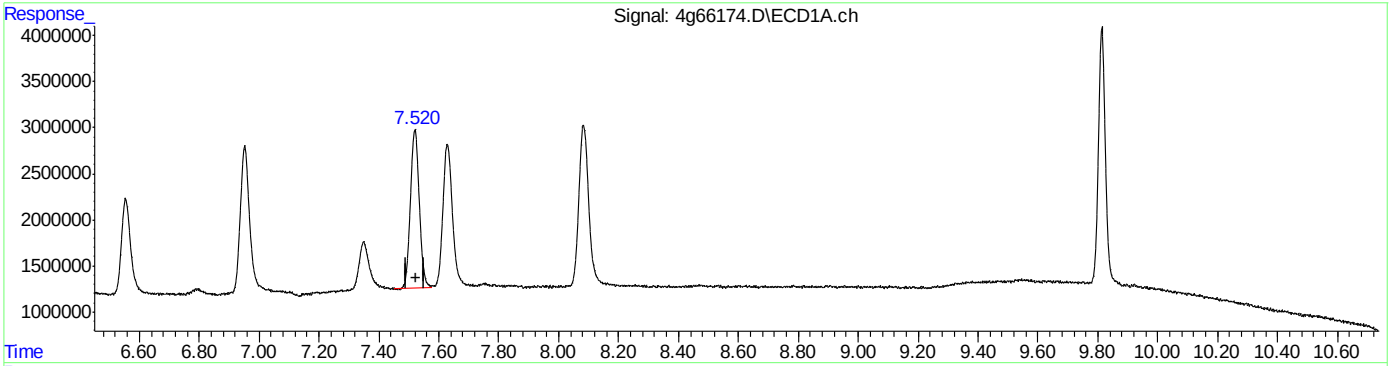
(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:32:27 2016 RPT1

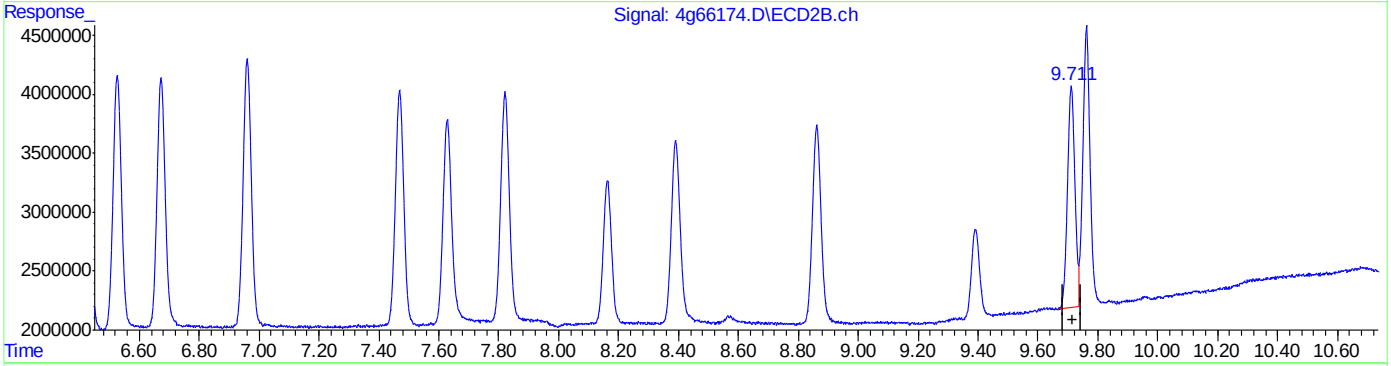
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66174.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 6:58 pm
Operator : brittanp
Sample : ic1741-10
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:31:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(22) Mirex
7.520min 9.820 PPB
response 35380115

(22) Mirex #2
9.711min 9.819 PPB m
response 32231093

(+) = Expected Retention Time
4PST1741.M Sat Mar 19 12:32:42 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66175.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 7:13 pm
Operator : brittanp
Sample : icc1741-25
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.058	2.225	233.7E6	222.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.604	3.003	110.9E6	101.9E6	25.876	23.448
	Spiked Amount 40.000 Range 30 - 150 Recovery =					64.69%	58.62%
24) SA	Decachlor...	9.813	11.225	113.5E6	77173938	25.487	24.600
	Spiked Amount 40.000 Recovery =					63.72%	61.50%
	Target Compounds						
3) A	alpha-BHC	3.045	3.644	154.4E6	138.8E6	24.816	23.769
4) MA	gamma-BHC	3.333	4.067	135.8E6	124.5E6	24.885	23.786
5) MA	Heptachlor	3.604	4.642	132.9E6	125.1E6	25.176	23.911
6) B	beta-BHC	3.417	4.148	69503317	56424181	25.573	23.917
7) B	delta-BHC	3.814	4.545	129.6E6	115.6E6	24.704	24.491
8) MB	Aldrin	4.149	5.097	134.1E6	122.5E6	24.299	23.853
9) B	Heptachlo...	4.848	5.913	124.3E6	112.7E6	25.149	23.991
10) B	gamma-Chl...	5.017	6.199	122.5E6	113.0E6	25.273	23.698
11) B	alpha-Chl...	5.185	6.423	120.4E6	111.4E6	25.036	23.946
12) A	Endosulfan I	5.363	6.527	129.0E6	107.5E6	24.190	23.056
13) B	4,4'-DDE	5.303	6.673	99452342	108.3E6	24.663	24.143
14) MA	Dieldrin	5.684	6.961	122.7E6	112.6E6	24.636	23.954
15) MA	Endrin	6.010	7.469	108.8E6	99639368	23.621	23.647
16) A	4,4'-DDD	6.147	7.628	91212183	91236170	24.244	24.100
17) B	Endosulfa...	6.336	7.820	107.1E6	98803159	24.078	24.040
18) MA	4,4'-DDT	6.554	8.162	65819433	67789895	23.426	23.160
19) B	Endrin Al...	6.951	8.391	91028841	82465888	25.864	25.928
20) B	Endosulfa...	7.628	8.861	90817715	86297421	25.023	23.822
21) A	Methoxychlor	7.347	9.391	35461879	40832550	24.226	26.178
22)	Mirex	7.520	9.711	87550705	76916059	24.276	23.569
23) B	Endrin Ke...	8.082	9.762	107.7E6	103.9E6	25.828	25.659

SemiQuant Compounds - Not Calibrated on this Instrument

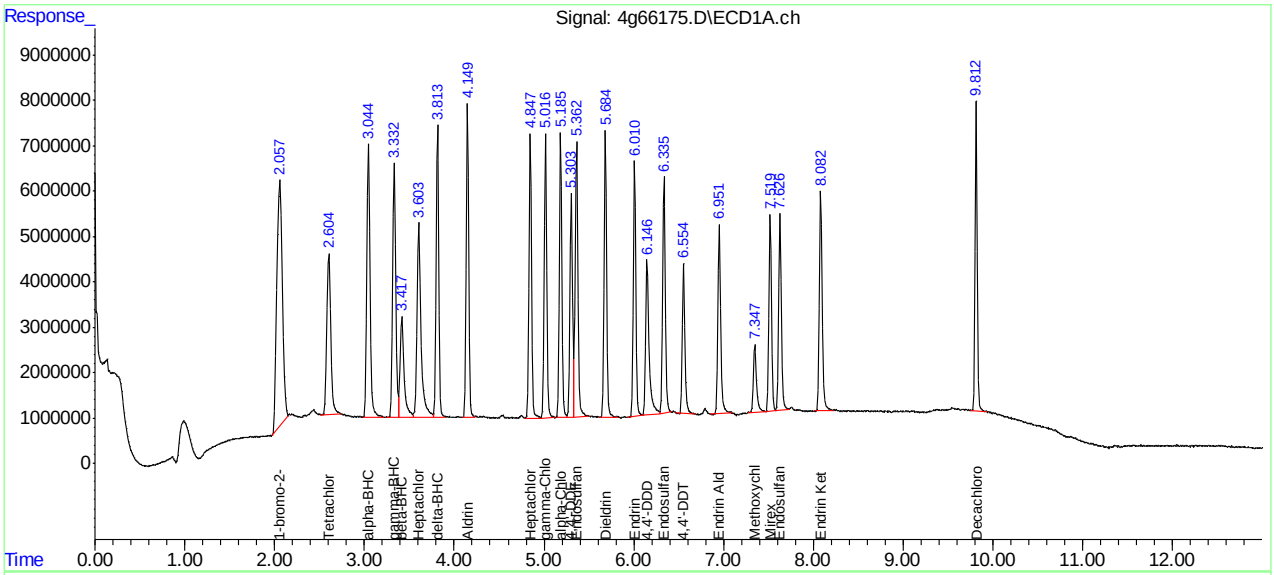
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

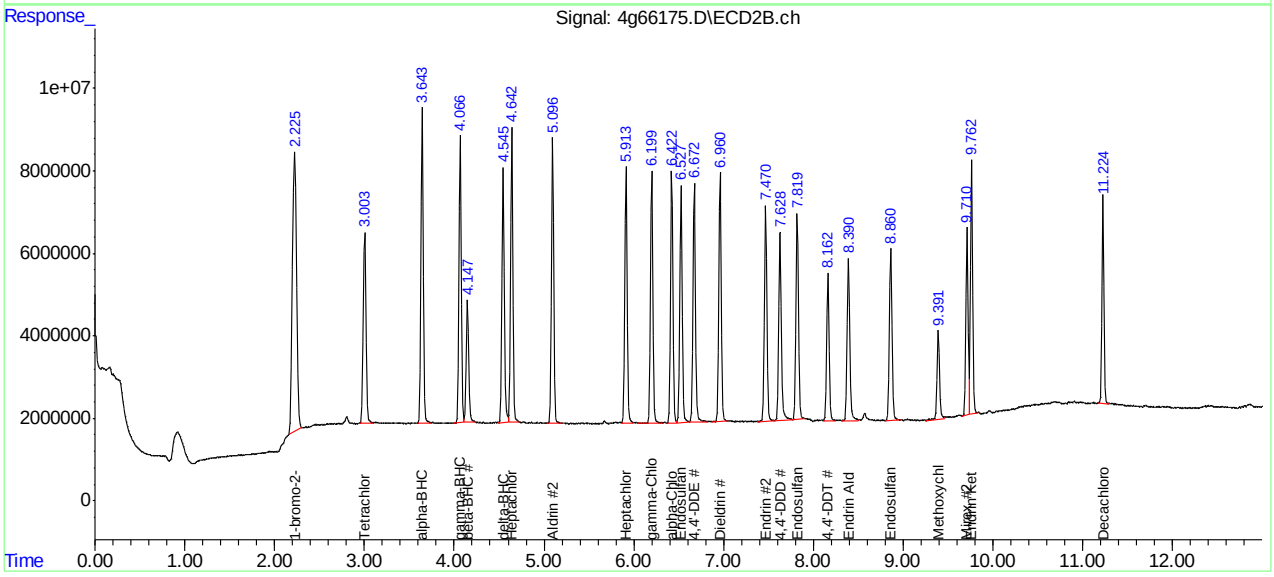
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66175.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 7:13 pm
Operator : brittanp
Sample : icc1741-25
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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\4G1741\
Data File : 4g66176.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 7:28 pm
Operator : brittanp
Sample : ic1741-50
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.063	2.227	227.1E6	214.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.607	3.005	231.2E6	207.7E6	55.539	49.427
	Spiked Amount 40.000 Range 30 - 150 Recovery = 138.85% 123.57%						
24) SA	Decachlor...	9.813	11.225	228.3E6	153.9E6	52.755	50.719
	Spiked Amount 40.000 Recovery = 131.89% 126.80%						
	Target Compounds						
3) A	alpha-BHC	3.047	3.645	323.8E6	297.4E6	53.581	52.661
4) MA	gamma-BHC	3.333	4.067	284.4E6	265.7E6	53.640	52.464
5) MA	Heptachlor	3.605	4.642	277.6E6	262.4E6	54.146	51.850
6) B	beta-BHC	3.416	4.148	138.9E6	118.3E6	52.591	51.837
7) B	delta-BHC	3.816	4.545	270.3E6	245.9E6	53.053	53.872
8) MB	Aldrin	4.151	5.097	280.9E6	256.2E6	52.374	51.600
9) B	Heptachlo...	4.849	5.914	256.3E6	233.4E6	53.353	51.382
10) B	gamma-Chl...	5.018	6.200	255.2E6	233.7E6	54.190	50.684
11) B	alpha-Chl...	5.187	6.423	248.8E6	226.2E6	53.282	50.255
12) A	Endosulfan I	5.364	6.526	266.8E6	218.8E6	51.487	48.521
13) B	4,4'-DDE	5.303	6.673	212.3E6	224.0E6	54.190	51.645
14) MA	Dieldrin	5.685	6.961	259.1E6	235.2E6	53.547	51.757
15) MA	Endrin	6.010	7.469	230.2E6	207.0E6	51.419	50.798
16) A	4,4'-DDD	6.145	7.628	192.4E6	192.5E6	52.649	52.571
17) B	Endosulfa...	6.335	7.821	225.7E6	211.6E6	52.226	53.240
18) MA	4,4'-DDT	6.553	8.162	152.5E6	151.3E6	50.598	49.360
19) B	Endrin Al...	6.950	8.391	194.7E6	165.1E6	56.942	53.683
20) B	Endosulfa...	7.627	8.861	192.1E6	174.0E6	54.472	49.656
21) A	Methoxychlor	7.344	9.391	78589411	83602916	55.265	55.425
22)	Mirex	7.519	9.711	179.3E6	151.5E6	51.176	47.994
23) B	Endrin Ke...	8.081	9.761	228.7E6	221.3E6	56.467	56.517

SemiQuant Compounds - Not Calibrated on this Instrument

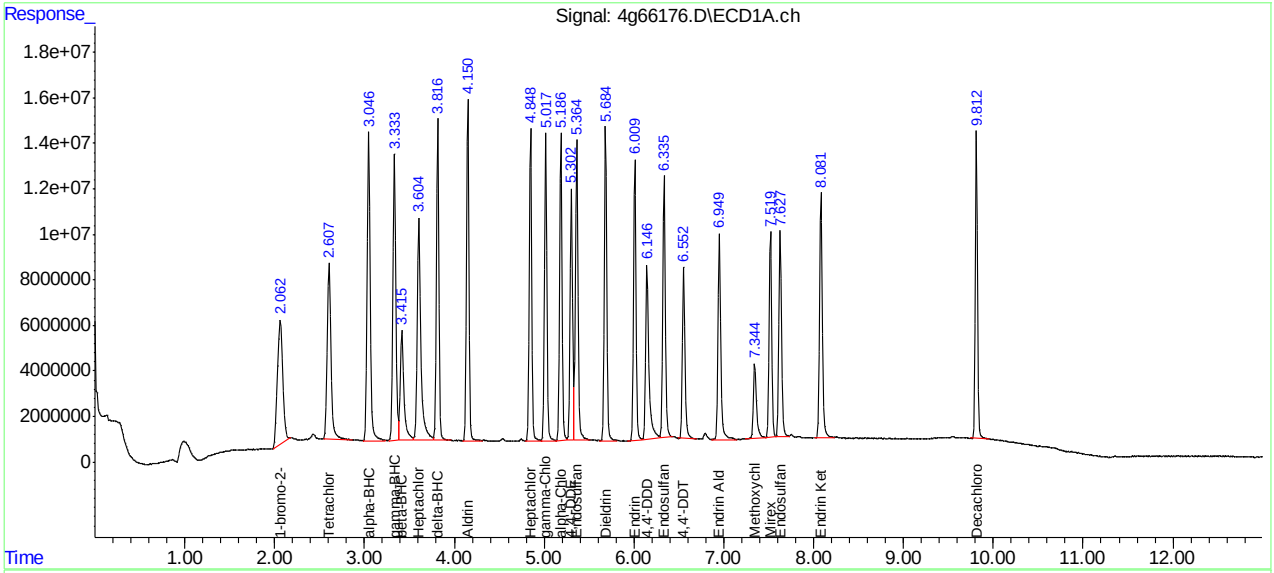
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

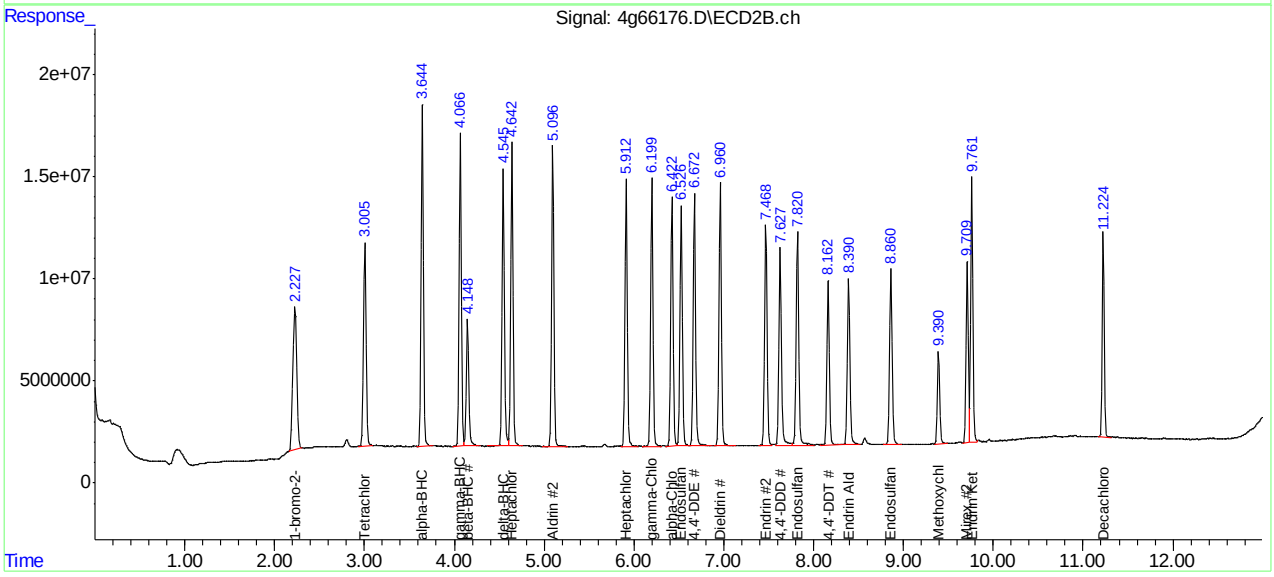
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66176.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 7:28 pm
Operator : brittanp
Sample : ic1741-50
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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\4G1741\
Data File : 4g66178.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 7:57 pm
Operator : brittanp
Sample : ic1741-100
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.062	2.225	231.8E6	218.2E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.606	3.004	472.4E6	431.5E6	111.160	101.091
	Spiked Amount 40.000 Range 30 - 150 Recovery = 277.90%# 252.73%#						
24) SA	Decachlor...	9.812	11.225	463.1E6	306.5E6	104.833	99.475
	Spiked Amount 40.000 Recovery = 262.08% 248.69%						
	Target Compounds						
3) A	alpha-BHC	3.047	3.644	680.9E6	638.0E6	110.345	111.235
4) MA	gamma-BHC	3.333	4.067	598.0E6	566.6E6	110.488	110.158
5) MA	Heptachlor	3.602	4.642	589.3E6	553.0E6	112.584	107.596
6) B	beta-BHC	3.414	4.147	279.5E6	244.8E6	103.686	105.633
7) B	delta-BHC	3.816	4.544	571.0E6	530.8E6	109.786	114.494
8) MB	Aldrin	4.150	5.096	586.3E6	542.7E6	107.078	107.610
9) B	Heptachlo...	4.849	5.914	529.6E6	485.2E6	108.013	105.155
10) B	gamma-Chl...	5.018	6.199	536.8E6	490.4E6	111.640	104.728
11) B	alpha-Chl...	5.187	6.423	520.1E6	474.6E6	109.095	103.830
12) A	Endosulfan I	5.364	6.526	554.9E6	454.8E6	104.887	99.289
13) B	4,4'-DDE	5.302	6.672	457.1E6	471.8E6	114.286	107.070
14) MA	Dieldrin	5.684	6.960	552.7E6	496.5E6	111.905	107.558
15) MA	Endrin	6.009	7.469	485.3E6	430.7E6	106.181	104.075
16) A	4,4'-DDD	6.142	7.627	411.3E6	399.5E6	110.220	107.436
17) B	Endosulfa...	6.335	7.820	479.3E6	434.7E6	108.654	107.678
18) MA	4,4'-DDT	6.552	8.162	353.0E6	331.0E6	100.844	95.501
19) B	Endrin Al...	6.949	8.389	405.6E6	338.3E6	116.205	108.287
20) B	Endosulfa...	7.627	8.861	422.8E6	356.4E6	117.467	100.178
21) A	Methoxychlor	7.344	9.391	172.5E6	177.0E6	118.854	115.515
22)	Mirex	7.519	9.711	387.5E6	310.1E6	108.329	96.737
23) B	Endrin Ke...	8.080	9.761	483.8E6	470.4E6	117.024	118.273

SemiQuant Compounds - Not Calibrated on this Instrument

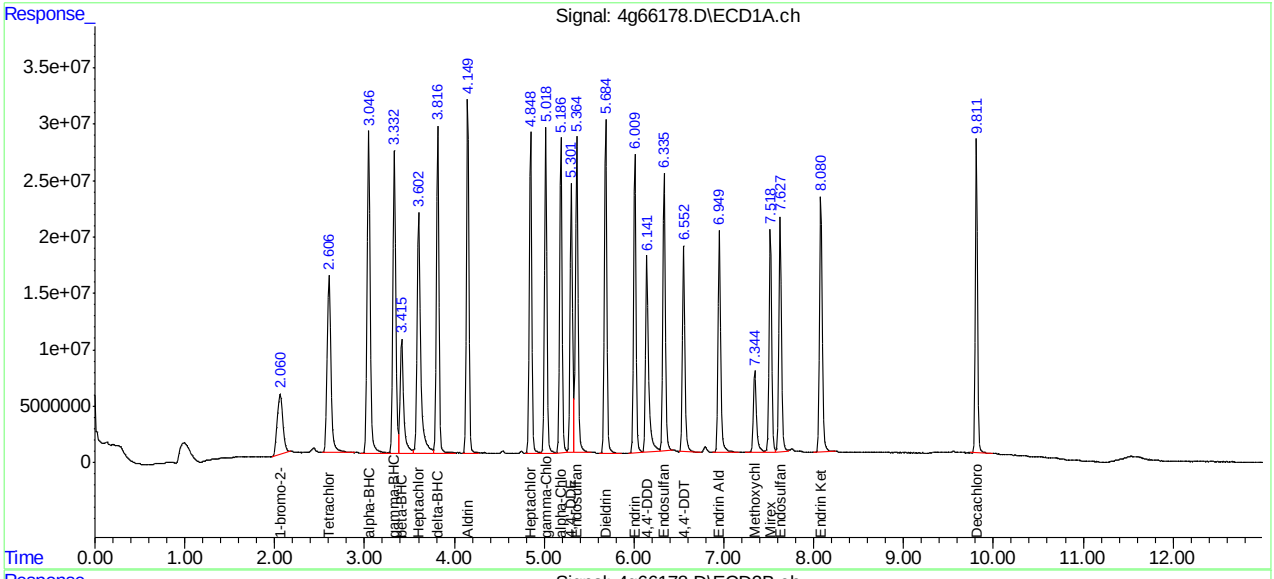
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

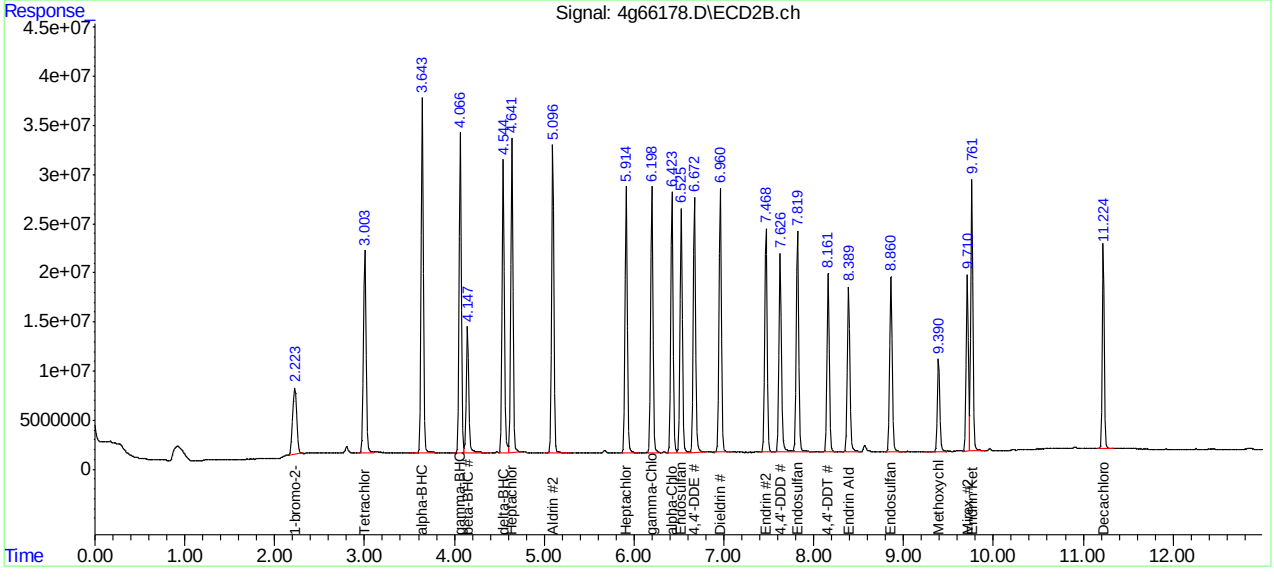
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66178.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 7:57 pm
Operator : brittanp
Sample : ic1741-100
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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 03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66179.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:12 pm
Operator : brittanp
Sample : ic1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:30:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:26:36 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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						
31) I	1-bromo-2...	2.062	2.226	245.0E6	219.9E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
32)	Chlordane...	3.725	4.445	91808233	85139410	482.173	501.277
33)	Chlordane...	4.286	5.281	118.2E6	94010602	480.637	524.421
34)	Chlordane...	5.019	6.199	385.3E6	342.6E6	479.112	499.410
35)	Chlordane...	5.179	6.424	609.0E6	560.0E6	478.896	500.243m
36)	Chlordane...	6.250	7.900	85563726	83327919	480.461	524.869
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

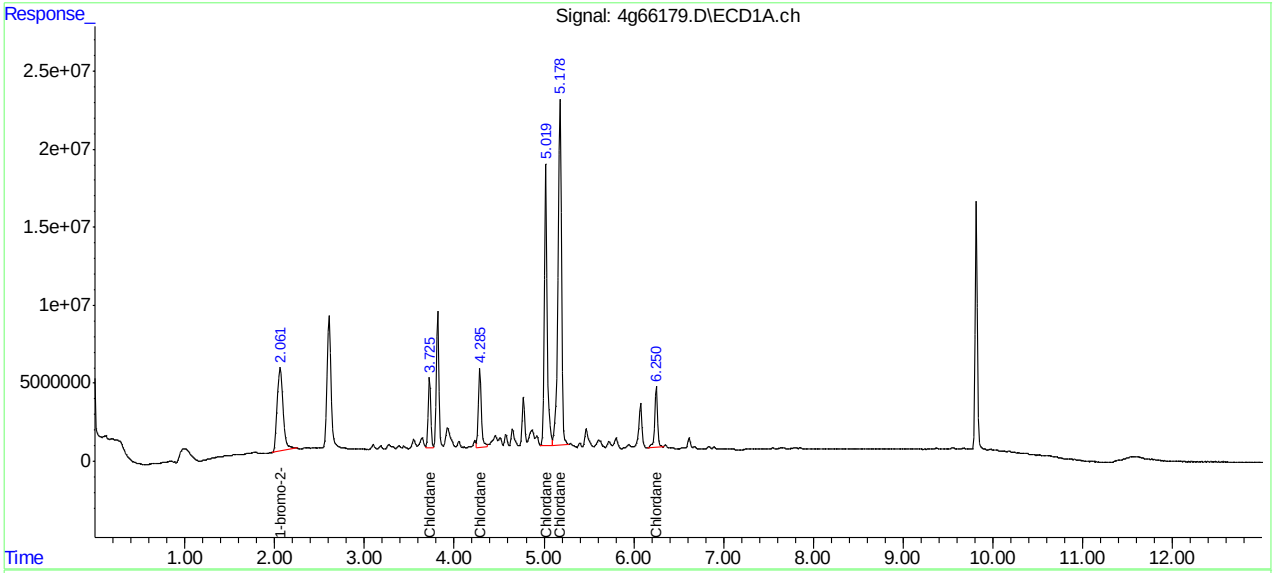
13.5.8 13

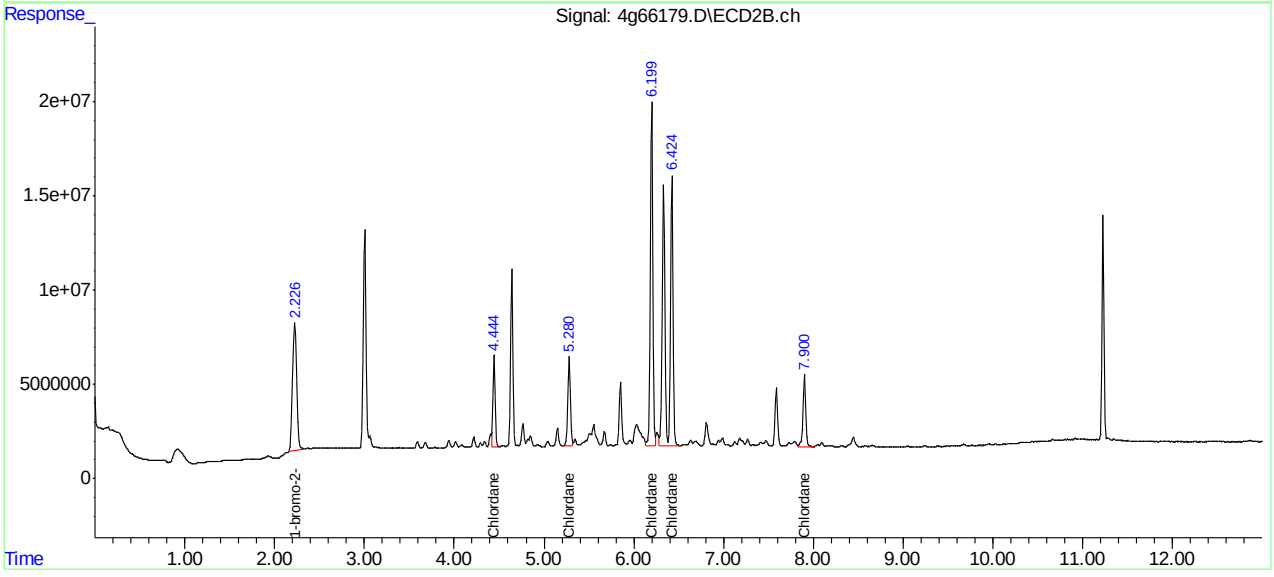
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66179.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:12 pm
Operator : brittanp
Sample : ic1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:30:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:26:36 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1741-IC1741	**Method:**	SW846 8081B
Lab FileID:	4G66179.D	**Analyst approved:**	03/19/16 13:30 Joseph Ravino
Injection Time:	03/18/16 20:12	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

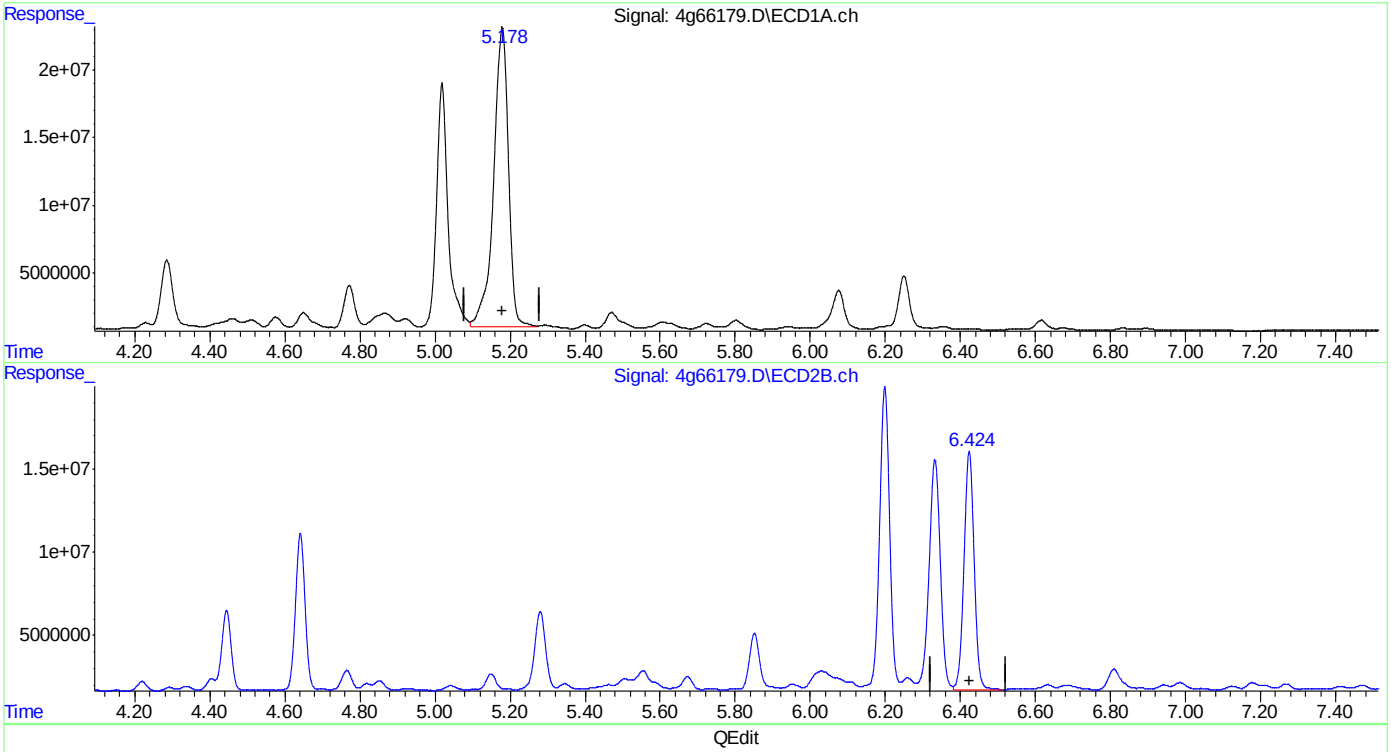
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.42	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66179.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:12 pm
Operator : brittanp
Sample : ic1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:27:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:26:36 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(35) Chlordane {D}
5.179min 478.896 PPB
response 608972749

(35) Chlordane {D} #2
6.424min 241.519 PPB
response 270367269

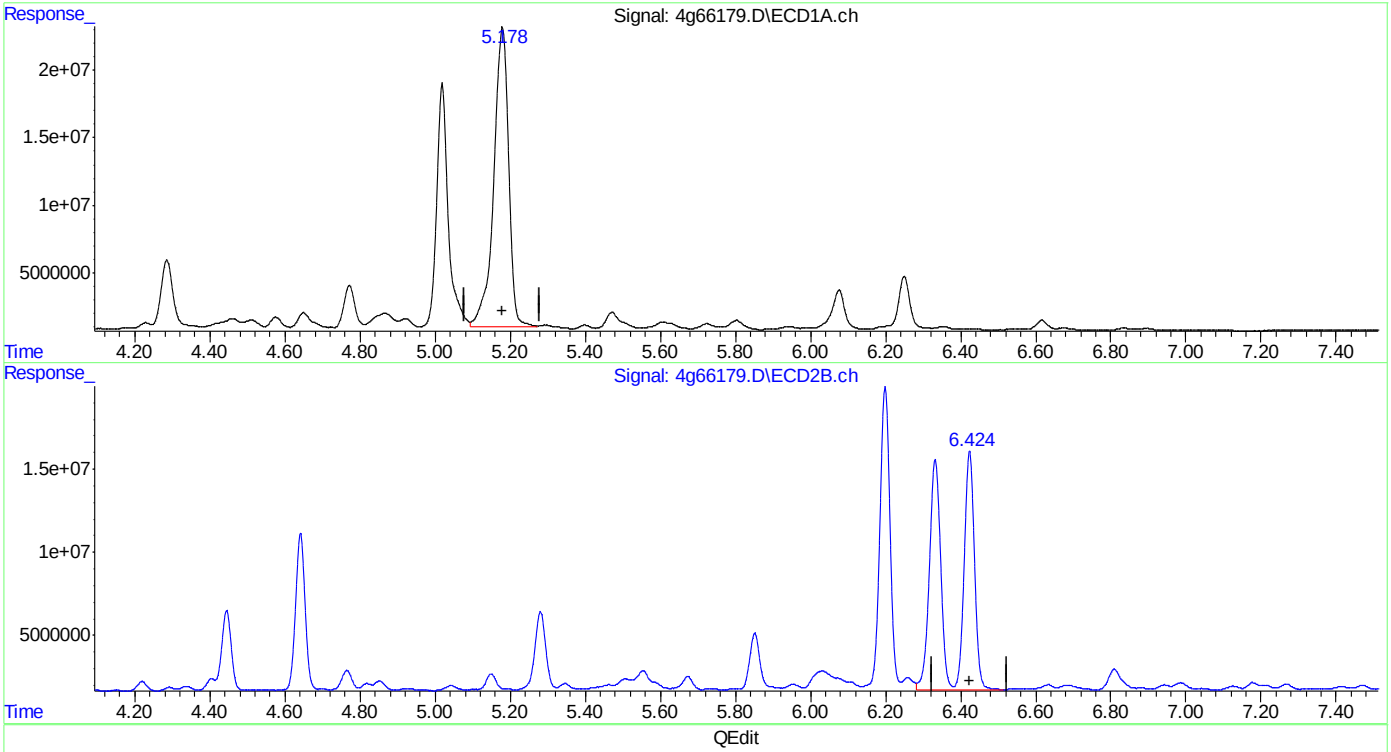
(+) = Expected Retention Time
4PST1741.M Sat Mar 19 13:28:45 2016 RPT1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66179.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:12 pm
Operator : brittanp
Sample : ic1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:27:51 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:26:36 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(35) Chlordane {D}
5.179min 478.896 PPB
response 608972749

(35) Chlordane {D} #2
6.424min 500.243 PPB m
response 559993024

(+) = Expected Retention Time
4PST1741.M Sat Mar 19 13:28:58 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66180.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:26 pm
Operator : brittanp
Sample : ic1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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						
25) I	1-bromo-2...	2.067	2.226	226.8E6	213.9E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
26) L8	Toxaphene{A}	6.060	6.923	93301966	43383357	725.511	837.548
27) L8	Toxaphene{B}	6.322	7.789	91657902	52971809	624.055	590.614
28) L8	Toxaphene{C}	6.491	7.953	78597418	90888659	623.342	609.474
29) L8	Toxaphene{D}	6.839	8.387	73237911	53530428	632.910	581.742
30) L8	Toxaphene{E}	7.497	9.301	57198385	41874410	689.913	543.060
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

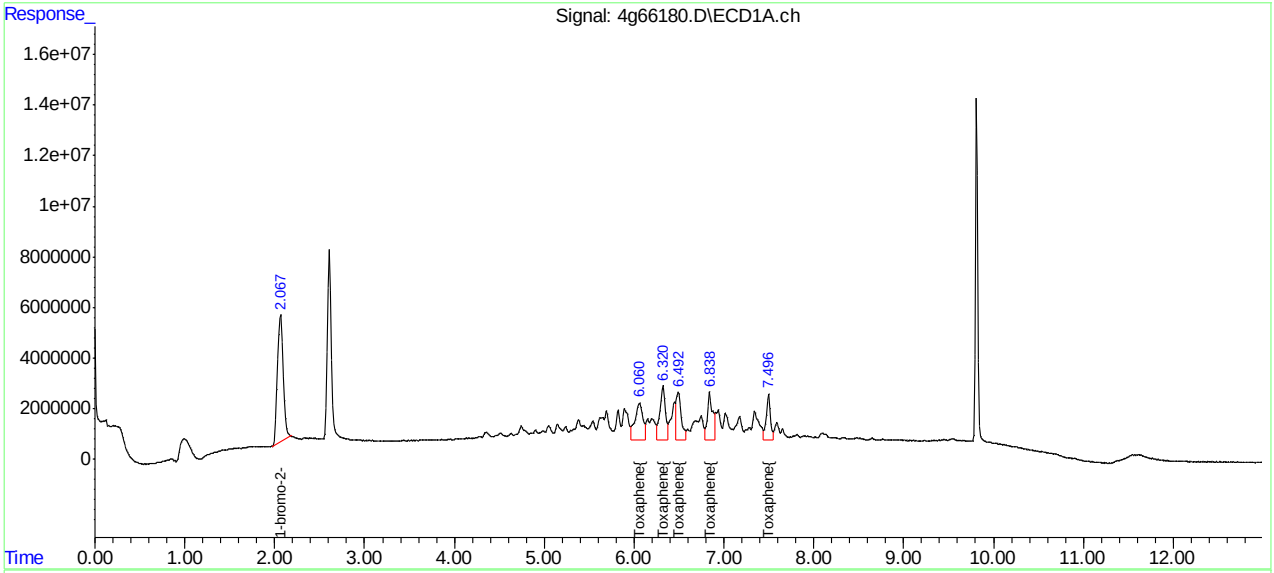
13.5.9 13

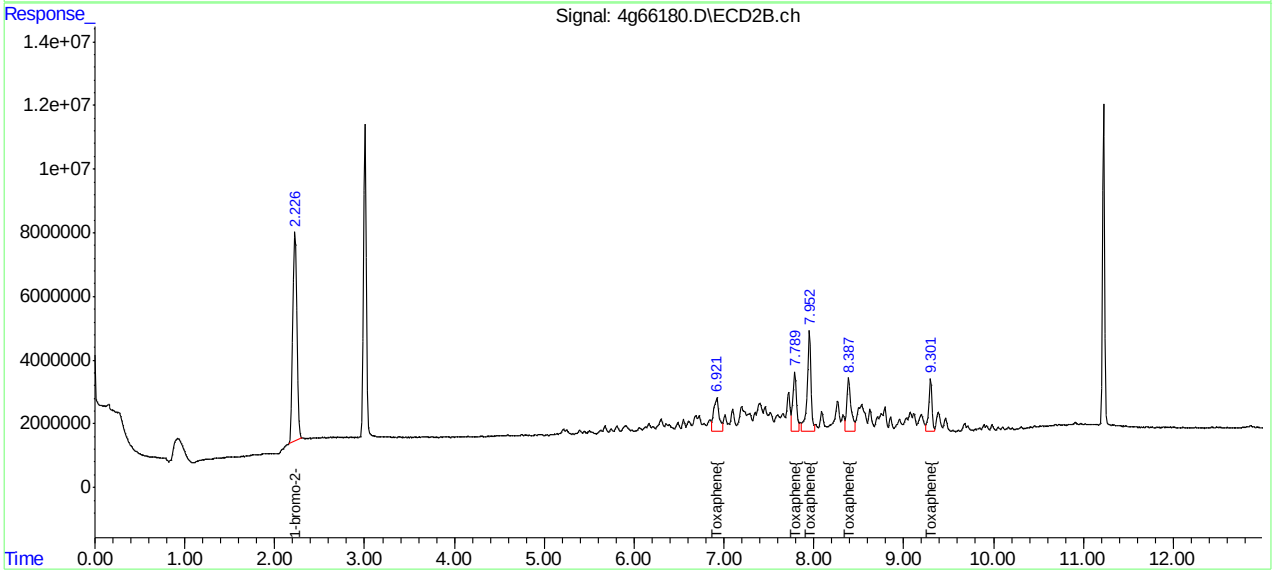
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66180.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:26 pm
Operator : brittanp
Sample : ic1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 12:58:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Fri Mar 18 06:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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\4G1741\
Data File : 4g66181.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:41 pm
Operator : brittanp
Sample : icv1741-25
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:03:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.056	2.220	219.2E6	208.8E6	50.000	50.000
25) I	1-bromo-2...	2.056	2.220	219.2E6	208.8E6	50.000	50.000
31) I	1-bromo-2...	2.056	2.220	219.2E6	208.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.602	3.001	111.8E6	100.2E6	26.088	25.246
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	65.22%	63.12%
24) SA	Decachlor...	9.814	11.225	119.5E6	80563242	27.224	27.443
	Spiked Amount 40.000			Recovery	=	68.06%	68.61%
	Target Compounds						
3) A	alpha-BHC	3.044	3.642	150.2E6	136.6E6	26.138	25.954
4) MA	gamma-BHC	3.331	4.065	133.0E6	123.6E6	25.773	26.191
5) MA	Heptachlor	3.608	4.641	136.2E6	124.9E6	27.237	26.224
6) B	beta-BHC	3.419	4.147	68230709	56390581	26.095	26.750
7) B	delta-BHC	3.813	4.544	129.3E6	118.5E6	26.148	26.954
8) MB	Aldrin	4.148	5.096	134.0E6	120.8E6	26.315	25.521
9) B	Heptachlo...	4.847	5.913	122.8E6	113.7E6	25.909	26.692
10) B	gamma-Chl...	5.017	6.199	124.2E6	114.6E6	26.631	26.374
11) B	alpha-Chl...	5.186	6.423	119.0E6	110.7E6	25.863	26.056
12) A	Endosulfan I	5.364	6.526	130.9E6	103.3E6	27.359	24.780
13) B	4,4'-DDE	5.308	6.674	91200919	107.1E6	23.621	26.346
14) MA	Dieldrin	5.684	6.960	122.2E6	112.9E6	26.035	26.827
15) MA	Endrin	6.010	7.469	110.4E6	101.7E6	26.801	26.709
16) A	4,4'-DDD	6.154	7.629	92355028	93768525	27.579	25.789
17) B	Endosulfa...	6.337	7.821	111.3E6	104.8E6	27.543	27.465
18) MA	4,4'-DDT	6.557	8.162	66647122	66155056	25.515	24.682
19) B	Endrin Al...	6.953	8.390	90867126	84010987	26.906	25.914
20) B	Endosulfa...	7.630	8.861	92148566	85395780	27.487	26.122
21) A	Methoxychlor	7.353	9.393	32807488	37691234	25.099	26.336
23) B	Endrin Ke...	8.084	9.762	107.3E6	104.3E6	27.379	27.577

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

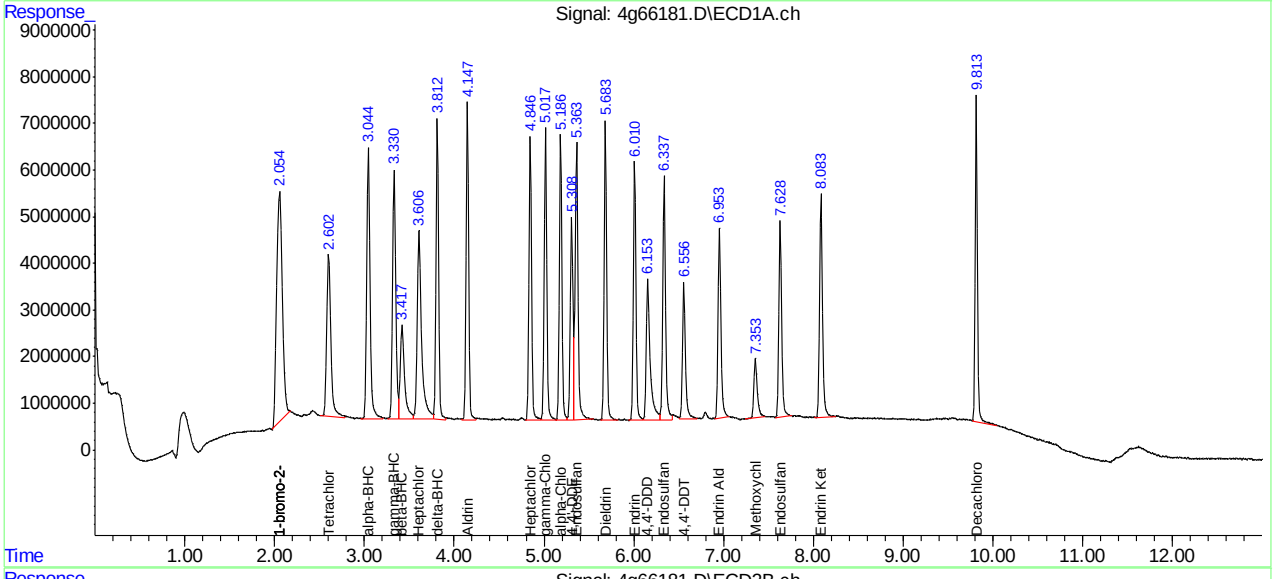
SGS ACCUTEST JC16038

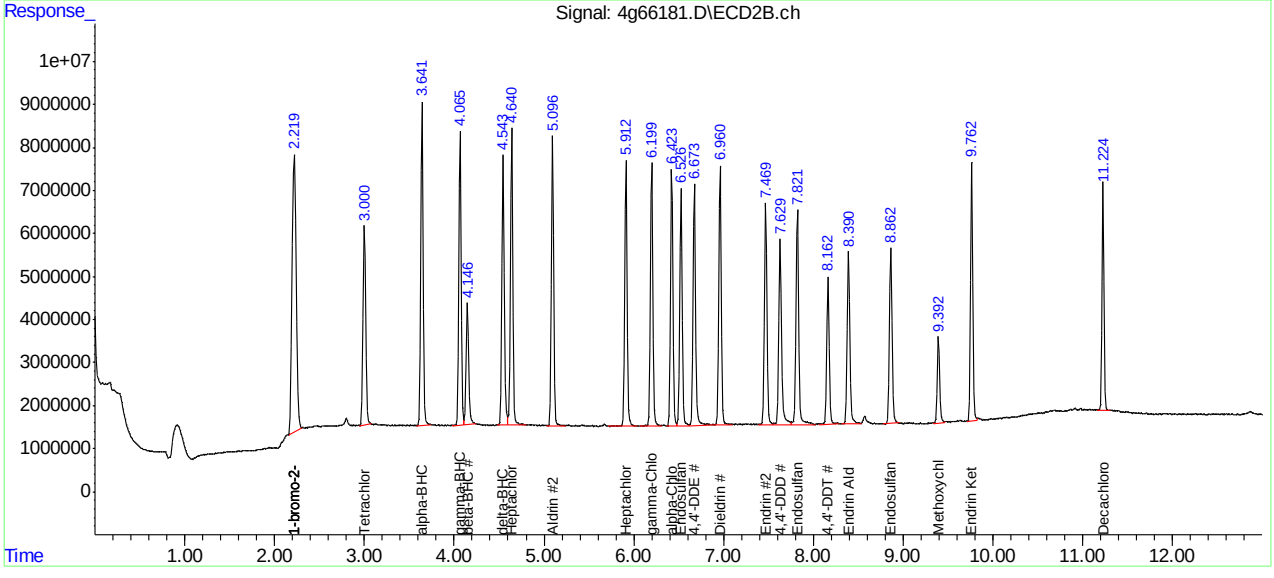
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66181.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:41 pm
Operator : brittanp
Sample : icv1741-25
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:03:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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\4G1741\
Data File : 4g66182.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:56 pm
Operator : brittanp
Sample : icv1741-25
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:04:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.065	2.229	213.6E6	199.2E6	50.000	50.000
25) I	1-bromo-2...	2.065	2.229	213.6E6	199.2E6	50.000	50.000
31) I	1-bromo-2...	2.065	2.229	213.6E6	199.2E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
22)	Mirex	7.520	9.711	93620427	84884832	28.158	29.944
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

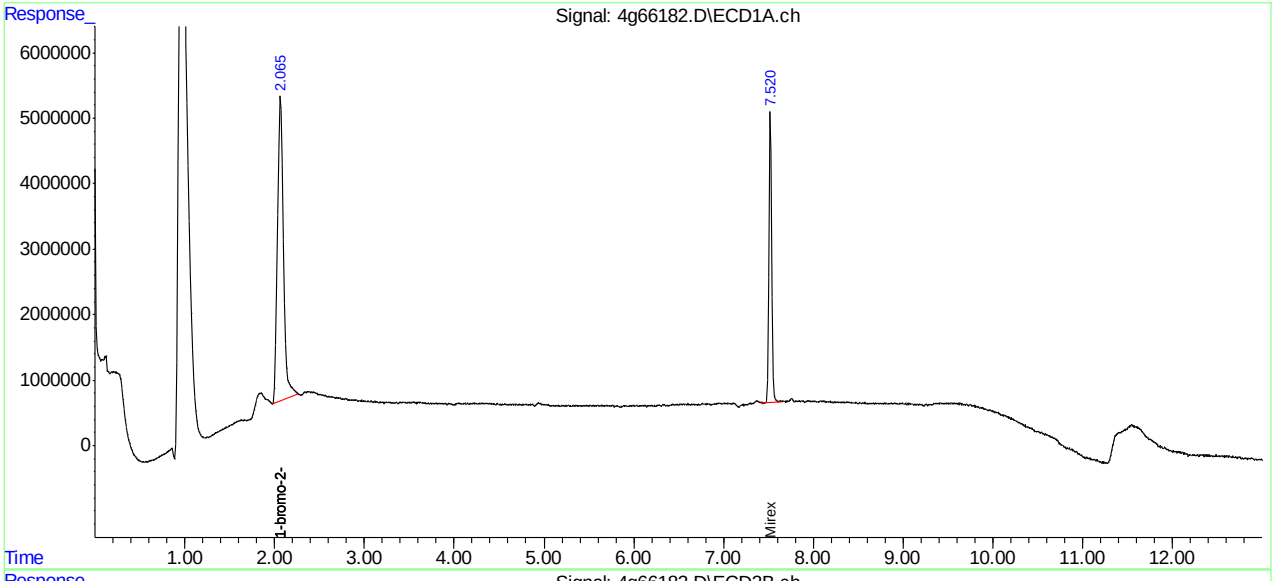
13.5.11 13

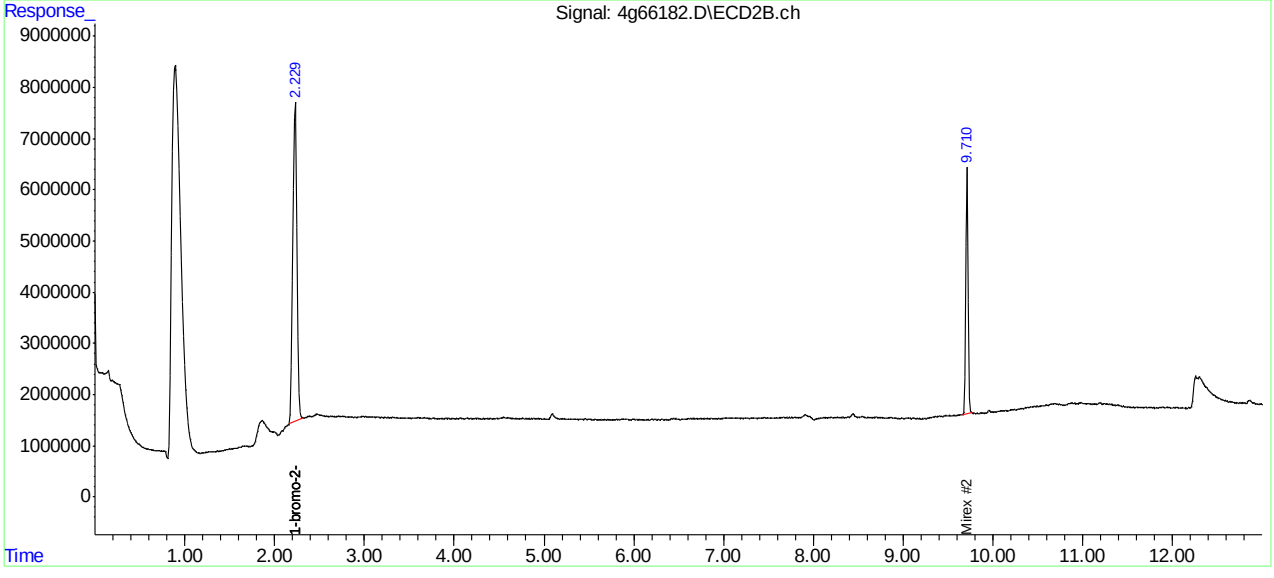
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66182.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 8:56 pm
Operator : brittanp
Sample : icv1741-25
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:04:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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 ACCUTEST JC16038

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66183.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:10 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:34:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.055	2.219	235.7E6	231.3E6	50.000	50.000
25) I	1-bromo-2...	2.055	2.219	235.7E6	231.3E6	50.000	50.000
31) I	1-bromo-2...	2.055	2.219	235.7E6	231.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.602	3.001	204.0E6	198.4E6	44.278	45.137
Spiked Amount		40.000 Range	30 - 150	Recovery	=	110.69%	112.84%
24) SA	Decachlor...	9.812	11.225	224.7E6	152.3E6	47.627m	46.850m
Spiked Amount		40.000		Recovery	=	119.07%	117.13%
	Target Compounds						
32)	Chlordane...	3.722	4.444	96390358	88740031	545.650	495.616
33)	Chlordane...	4.284	5.280	112.4E6	90261407	494.069	456.543
34)	Chlordane...	5.017	6.198	336.7E6	291.5E6	454.132	404.645
35)	Chlordane...	5.177	6.422	539.9E6	484.6E6	460.723	411.518m
36)	Chlordane...	6.249	7.900	74972061	74838977	455.378	427.065

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

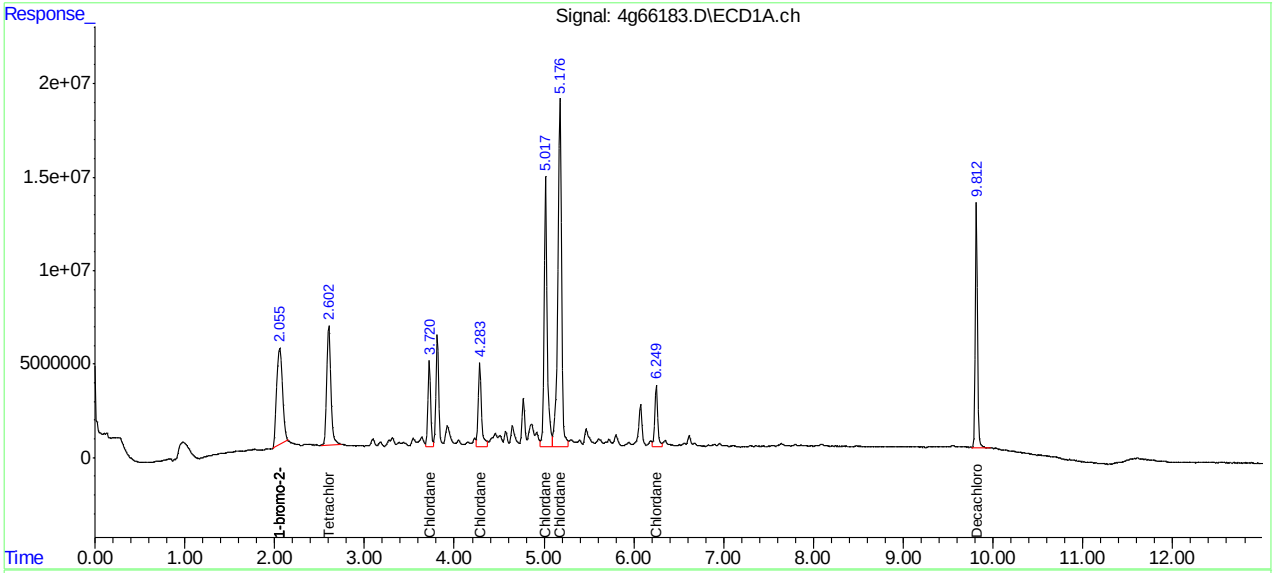
13.5.12
13

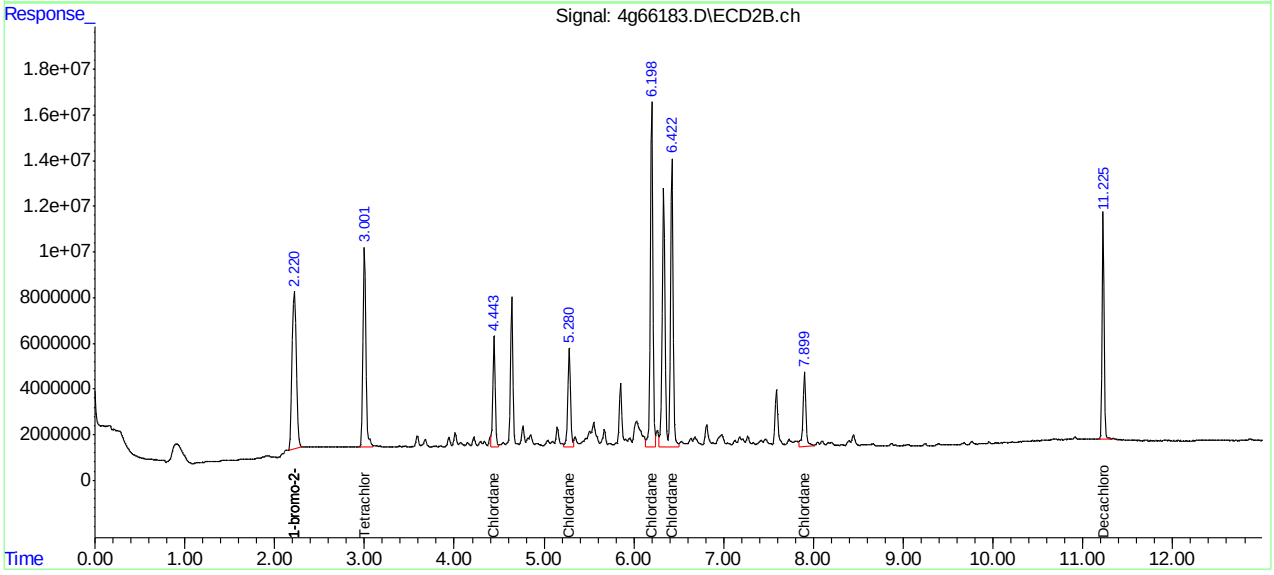
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66183.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:10 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:34:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1741-ICV1741	**Method:**	SW846 8081B
Lab FileID:	4G66183.D	**Analyst approved:**	03/19/16 13:36 Joseph Ravino
Injection Time:	03/18/16 21:10	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

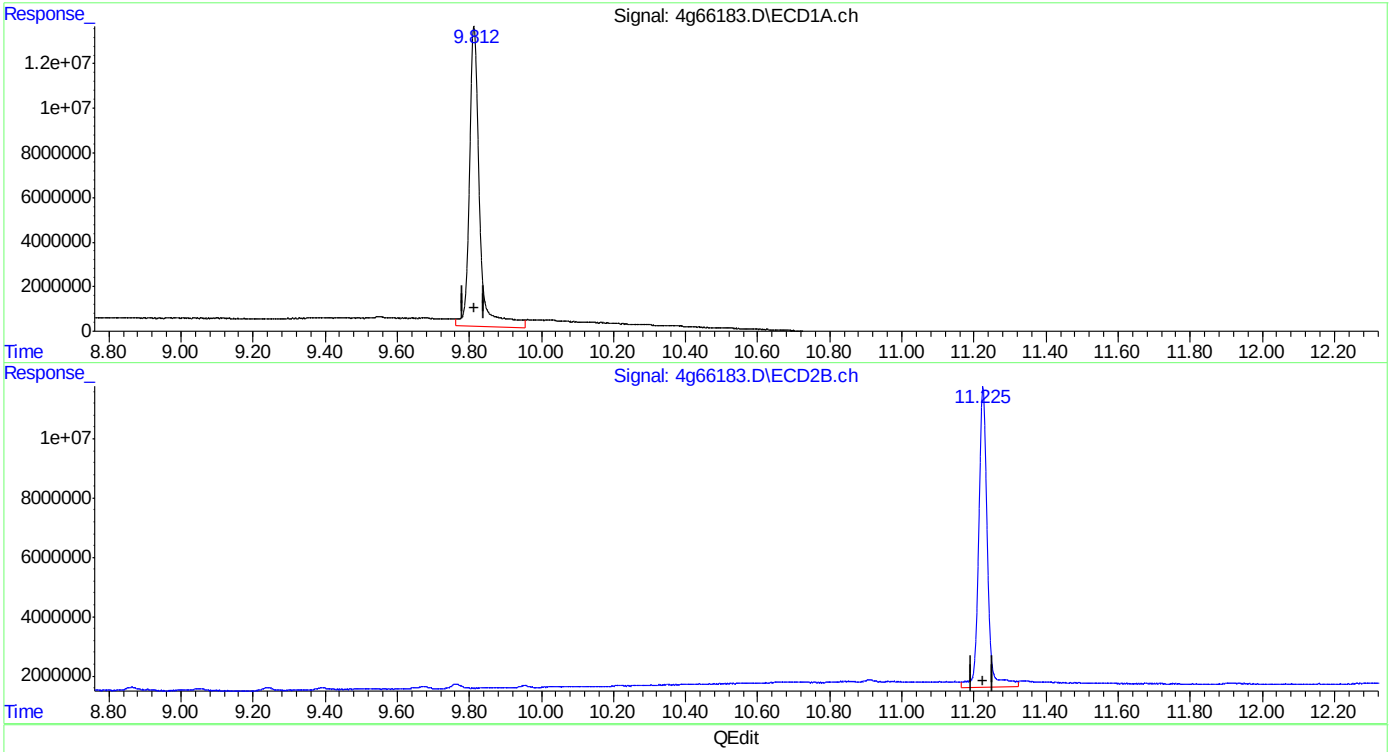
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	6.42	Split peak
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	11.22	Poor instrument integration

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66183.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   9:10 pm
Operator  : brittanp
Sample    : icv1741-500
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 15   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:33:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(24) Decachlorobiphenyl (SA)

9.813min 55.906 PPB

response 263806195

(24) Decachlorobiphenyl #2 (SA)

11.225min 52.118 PPB

response 169426903

(+) = Expected Retention Time

4PST1741.M Sat Mar 19 13:33:59 2016 RPT1

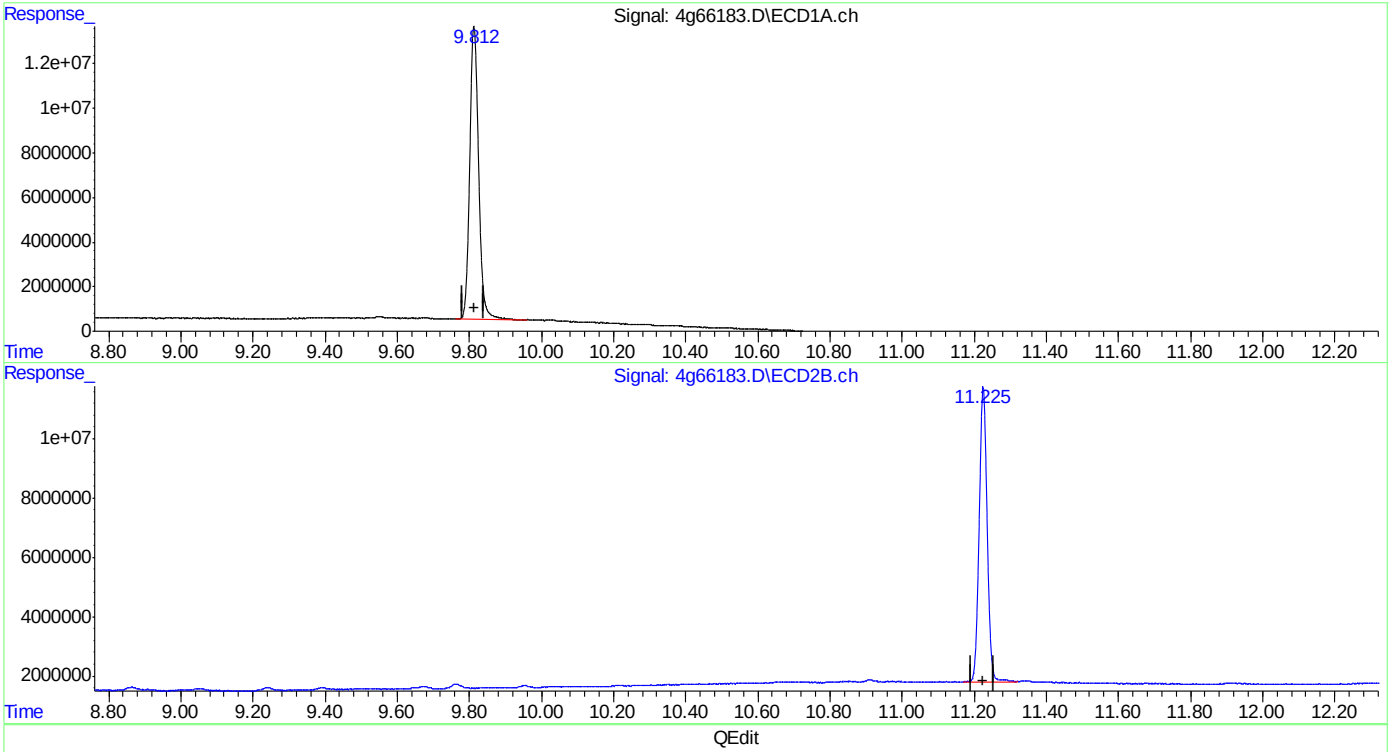
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66183.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 18 Mar 2016   9:10 pm
Operator  : brittanp
Sample    : icv1741-500
Misc      : op92130,g4g1741,15.0,,,10,1
ALS Vial  : 15   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:33:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(24) Decachlorobiphenyl (SA)

9.812min 47.627 PPB m

response 224737502

(24) Decachlorobiphenyl #2 (SA)

11.225min 46.850 PPB m

response 152302493

(+) = Expected Retention Time

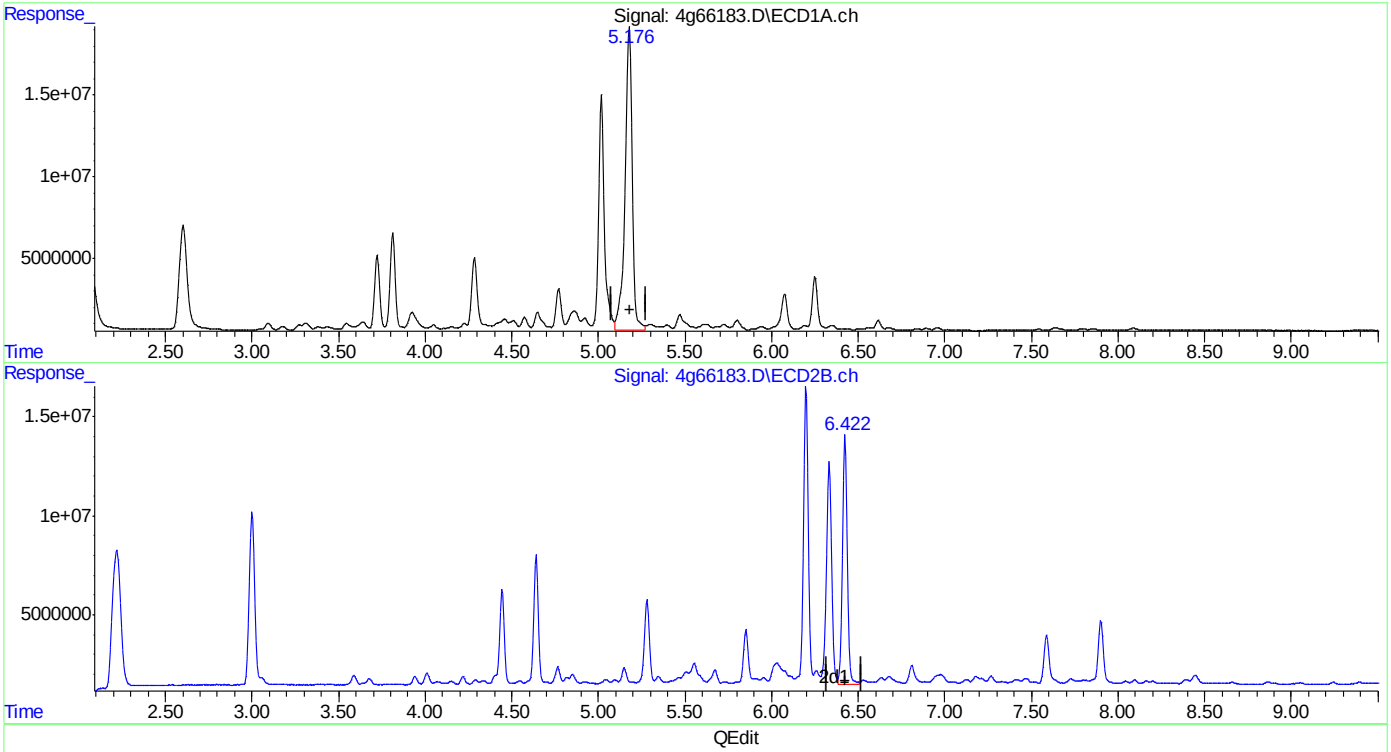
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66183.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:10 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:33:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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



(35) Chlordane {D}
5.177min 460.723 PPB
response 539853128

(35) Chlordane {D} #2
6.423min 207.156 PPB
response 243962358

(+) = Expected Retention Time
4PST1741.M Sat Mar 19 13:34:17 2016 RPT1

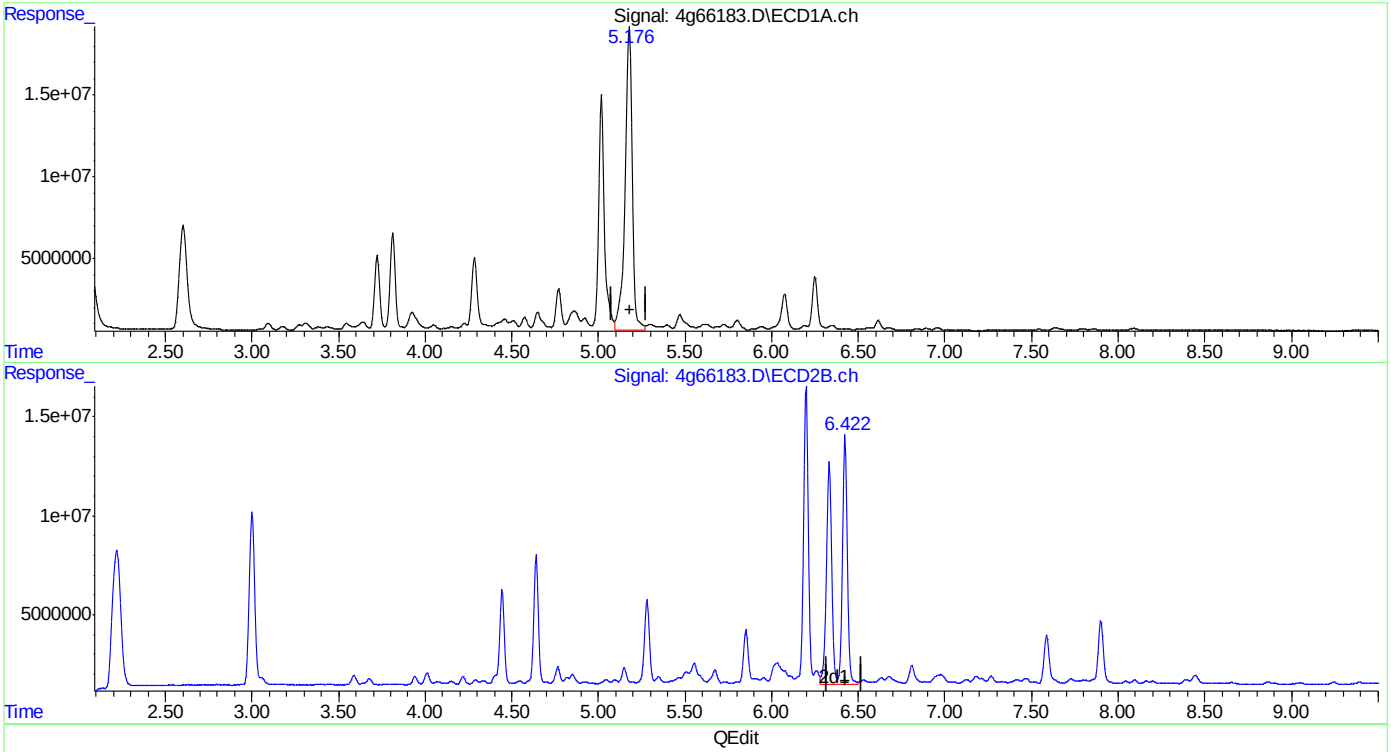
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66183.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:10 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:33:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(35) Chlordane {D}
5.177min 460.723 PPB
response 539853128

(35) Chlordane {D} #2
6.422min 411.518 PPB m
response 484634618

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
03/21/16 13:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66184.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:25 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:12:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.063	2.226	246.6E6	229.3E6	50.000	50.000
25) I 1-bromo-2...	2.063	2.226	246.6E6	229.3E6	50.000	50.000
31) I 1-bromo-2...	2.063	2.226	246.6E6	229.3E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	2.608	3.004	201.8E6	184.0E6	41.866	42.231
Spiked Amount 40.000	Range 30 - 150		Recovery = 104.67%		105.58%	
24) SA Decachlor...	9.814	11.226	218.9E6	144.4E6	44.341	44.803
Spiked Amount 40.000			Recovery = 110.85%		112.01%	
Target Compounds						
26) L8 Toxaphene{A}	6.054	6.923	94396674	50661286	465.240	544.714m
27) L8 Toxaphene{B}	6.324	7.789	94442996	60107149	473.817	529.294
28) L8 Toxaphene{C}	6.488	7.953	79861097	93299693	467.238	478.835
29) L8 Toxaphene{D}	6.839	8.387	77978693	56869598	489.610	495.559
30) L8 Toxaphene{E}	7.497	9.299	57067933	42733928	458.795	476.036
SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

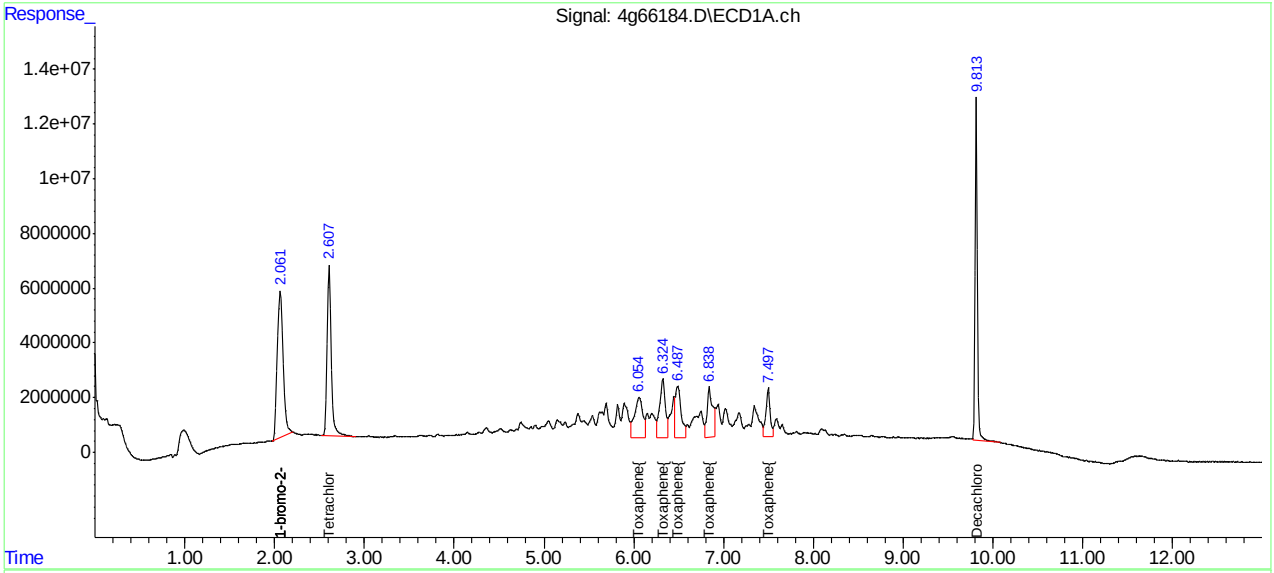
13.5.13 13

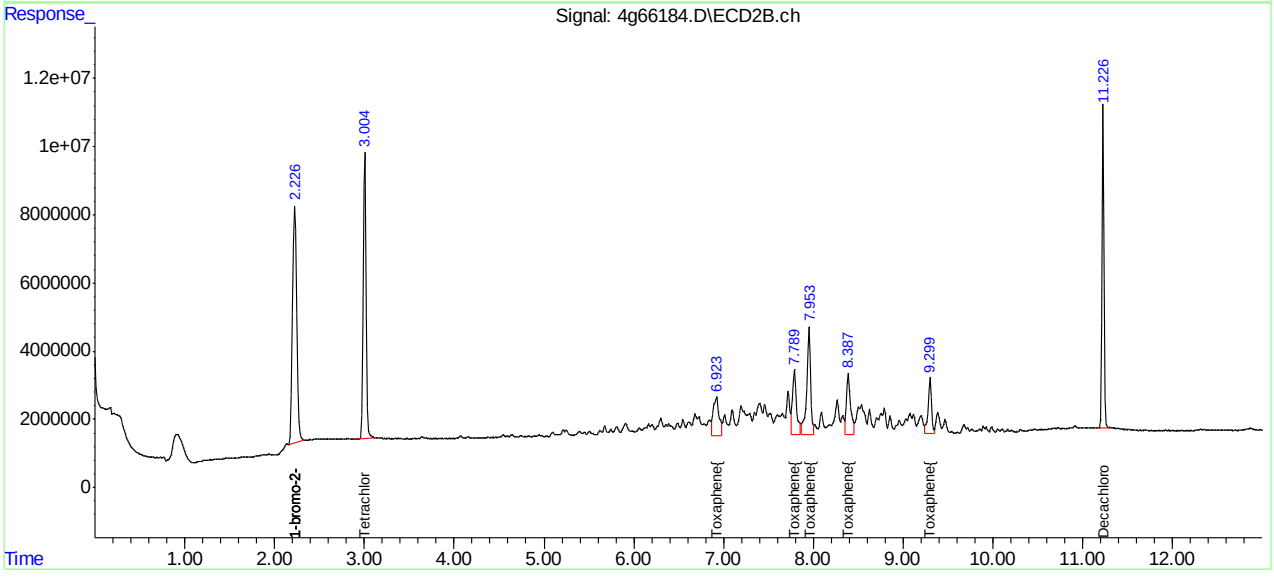
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66184.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:25 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:12:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1741-ICV1741	**Method:**	SW846 8081B
Lab FileID:	4G66184.D	**Analyst approved:**	03/19/16 13:17 Joseph Ravino
Injection Time:	03/18/16 21:25	**Supervisor approved:**	03/21/16 13:03 Gwendolyn Burns

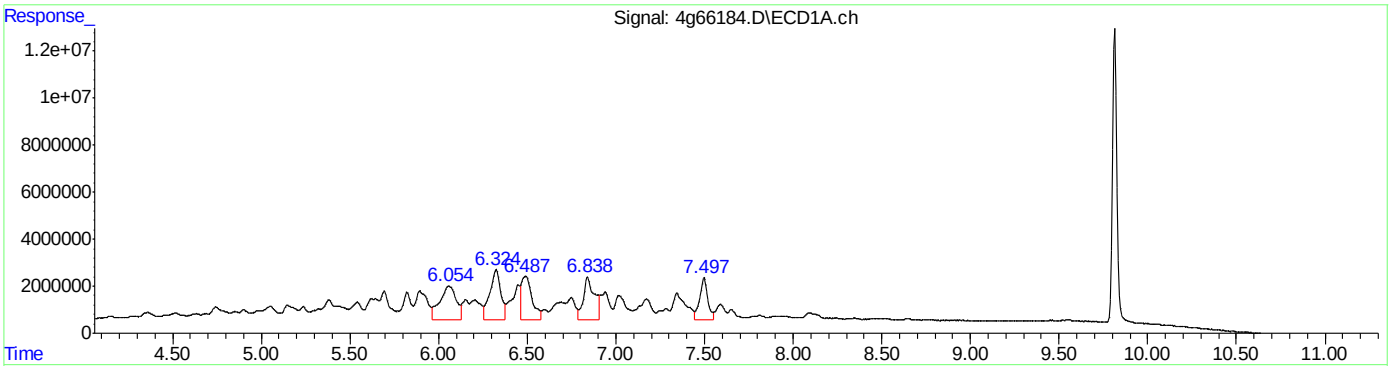
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		2	6.92	Split peak

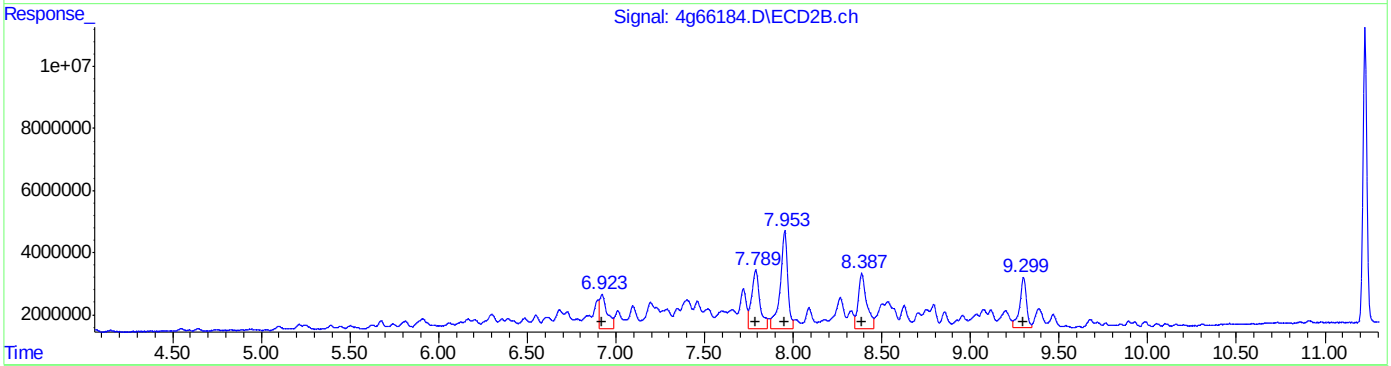
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66184.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:25 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:11:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Toxaphene{A} (L8)

R.T.	Response	Conc
6.05	94396674	465.24
6.32	94442996	473.82
6.49	79861097	467.24
6.84	77978693	489.61
7.50	57067933	458.80

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.92	34141092	367.09
7.79	60107149	529.29
7.95	93299693	478.84
8.39	56869598	495.56
9.30	42733928	476.04

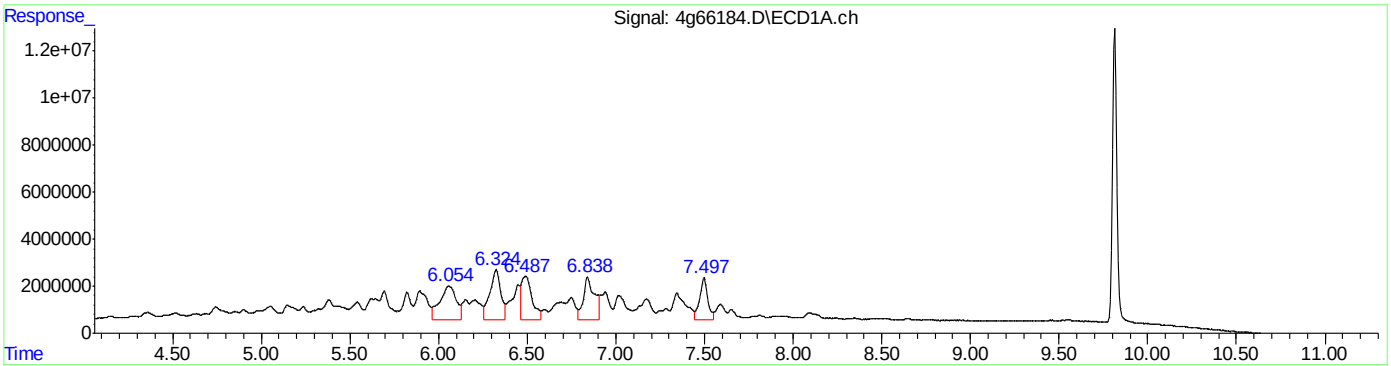
(+) = Expected Retention Time

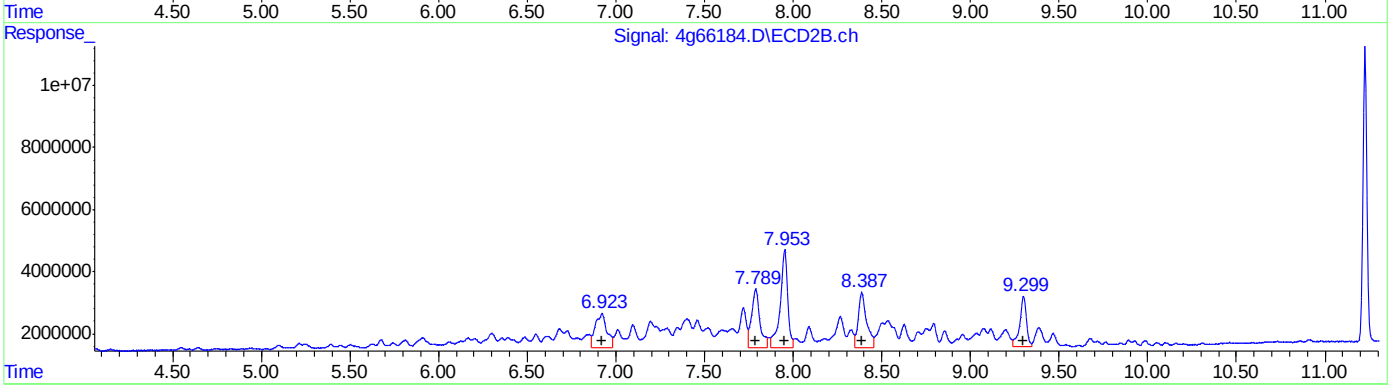
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1741\
Data File : 4g66184.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 18 Mar 2016 9:25 pm
Operator : brittanp
Sample : icv1741-500
Misc : op92130,g4g1741,15.0,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 19 13:11:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:02:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) Toxaphene{A} (L8)

R.T.	Response	Conc
6.05	94396674	465.24
6.32	94442996	473.82
6.49	79861097	467.24
6.84	77978693	489.61
7.50	57067933	458.80

(26) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
6.92	50661286	544.71
7.79	60107149	529.29
7.95	93299693	478.84
8.39	56869598	495.56
9.30	42733928	476.04

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66275.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 9:52 am
Operator : brittanp
Sample : cc1741-50
Misc : op92028,g4g1744,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 20 10:08:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.053	2.218	246.5E6	236.5E6	50.000	50.000
25) I	1-bromo-2...	2.053	2.218	246.5E6	236.5E6	50.000	50.000
31) I	1-bromo-2...	2.053	2.218	246.5E6	236.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.594	2.997	237.3E6	225.8E6	49.248	50.248
	Spiked Amount 40.000 Range 30 - 150 Recovery = 123.12% 125.62%						
24) SA	Decachlor...	9.811	11.220	256.2E6	179.1E6	51.919	53.888
	Spiked Amount 40.000 Recovery = 129.80% 134.72%						
	Target Compounds						
3) A	alpha-BHC	3.038	3.639	339.6E6	323.3E6	52.563	54.250
4) MA	gamma-BHC	3.325	4.062	299.5E6	289.8E6	51.605	54.231
5) MA	Heptachlor	3.596	4.638	296.9E6	294.8E6	52.788	54.680
6) B	beta-BHC	3.408	4.143	146.7E6	130.7E6	49.900	54.767
7) B	delta-BHC	3.808	4.541	301.1E6	272.3E6	54.164	54.721
8) MB	Aldrin	4.143	5.093	292.3E6	277.3E6	51.050	51.722
9) B	Heptachlo...	4.842	5.910	267.4E6	263.4E6	50.171	54.629
10) B	gamma-Chl...	5.012	6.196	256.9E6	252.4E6	48.986	51.309
11) B	alpha-Chl...	5.181	6.421	255.7E6	244.6E6	49.400	50.845
12) A	Endosulfan I	5.358	6.524	278.7E6	234.5E6	51.799	49.695
13) B	4,4'-DDE	5.300	6.671	213.1E6	242.2E6	49.087	52.624
14) MA	Dieldrin	5.679	6.958	268.9E6	253.5E6	50.943	53.218
15) MA	Endrin	6.005	7.467	254.0E6	234.3E6	54.854	54.363
16) A	4,4'-DDD	6.143	7.626	200.3E6	201.4E6	53.204	48.925
17) B	Endosulfa...	6.331	7.819	250.2E6	222.8E6	55.055	51.578
18) MA	4,4'-DDT	6.550	8.161	196.7E6	189.3E6	58.929	57.182
19) B	Endrin Al...	6.947	8.388	201.0E6	200.4E6	52.937	54.589
20) B	Endosulfa...	7.624	8.859	224.0E6	196.5E6	59.425	53.101
21) A	Methoxychlor	7.344	9.390	120.6E6	106.8E6	82.059	65.933
22)	Mirex	7.516	9.709	201.2E6	165.0E6	52.433	49.030
23) B	Endrin Ke...	8.078	9.761	240.8E6	246.5E6	54.661	57.545

SemiQuant Compounds - Not Calibrated on this Instrument

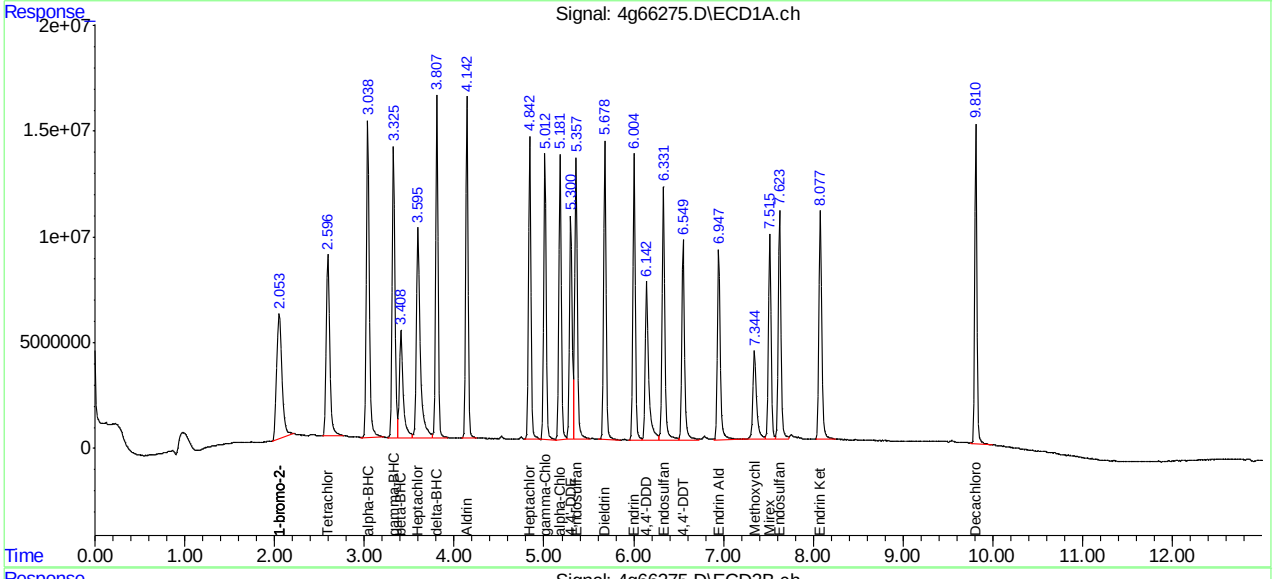
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

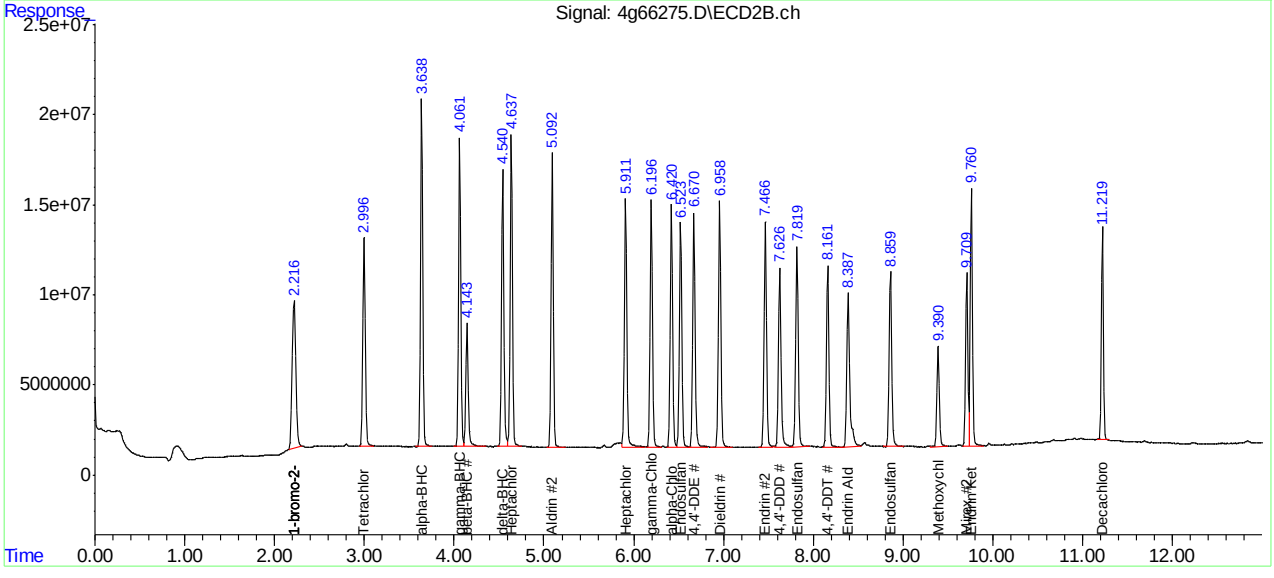
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1744\
Data File : 4g66275.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 20 Mar 2016 9:52 am
Operator : brittanp
Sample : cc1741-50
Misc : op92028,g4g1744,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 20 10:08:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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 03/21/16 14:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:23:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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...	2.069	2.234	240.1E6	246.6E6	50.000	50.000
25) I	1-bromo-2...	2.069	2.234	240.1E6	246.6E6	50.000	50.000
31) I	1-bromo-2...	2.069	2.234	240.1E6	246.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	2.610	3.006	120.2E6	114.1E6	25.611	24.342
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 64.03%	60.85%
24) SA	Decachlor...	9.808	11.221	114.6E6	92233845	23.842m	26.605
	Spiked Amount	40.000			Recovery	= 59.60%	66.51%
	Target Compounds						
3) A	alpha-BHC	3.047	3.644	165.5E6	154.6E6	26.305	24.868
4) MA	gamma-BHC	3.332	4.066	148.3E6	129.8E6	26.227	23.298
5) MA	Heptachlor	3.603	4.640	123.2E6	138.9E6	22.495	24.702
6) B	beta-BHC	3.415	4.146	67759727	57887214	23.661	23.252
7) B	delta-BHC	3.815	4.542	134.4E6	121.7E6	24.829	23.447
8) MB	Aldrin	4.149	5.095	139.8E6	132.4E6	25.067	23.681
9) B	Heptachlo...	4.846	5.909	114.3E6	116.2E6	22.016	23.108m
10) B	gamma-Chl...	5.016	6.196	108.5E6	119.4E6	21.246m	23.273
11) B	alpha-Chl...	5.184	6.420	122.6E6	118.6E6	24.323	23.644
12) A	Endosulfan I	5.361	6.523	125.6E6	125.3E6	23.971	25.465
13) B	4,4'-DDE	5.297	6.668	111.7E6	118.6E6	26.423	24.710
14) MA	Dieldrin	5.681	6.957	124.8E6	120.6E6	24.268	24.262
15) MA	Endrin	6.006	7.465	117.9E6	111.0E6	26.146	24.692
16) A	4,4'-DDD	6.140	7.623	97891441	98852236	26.690	23.021
17) B	Endosulfa...	6.333	7.816	111.6E6	107.5E6	25.215	23.862
18) MA	4,4'-DDT	6.549	8.158	70659763	77666834	24.791	24.549
19) B	Endrin Al...	6.947	8.386	89894176	84797269	24.303	22.149
20) B	Endosulfa...	7.624	8.856	93828579	93791707	25.554	24.294
21) A	Methoxychlor	7.341	9.387	43377503	44466294	30.299	26.310
22)	Mirex	7.516	9.707	88057632	85293215	23.557	24.299
23) B	Endrin Ke...	8.077	9.758	109.1E6	104.9E6	25.430	23.480
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

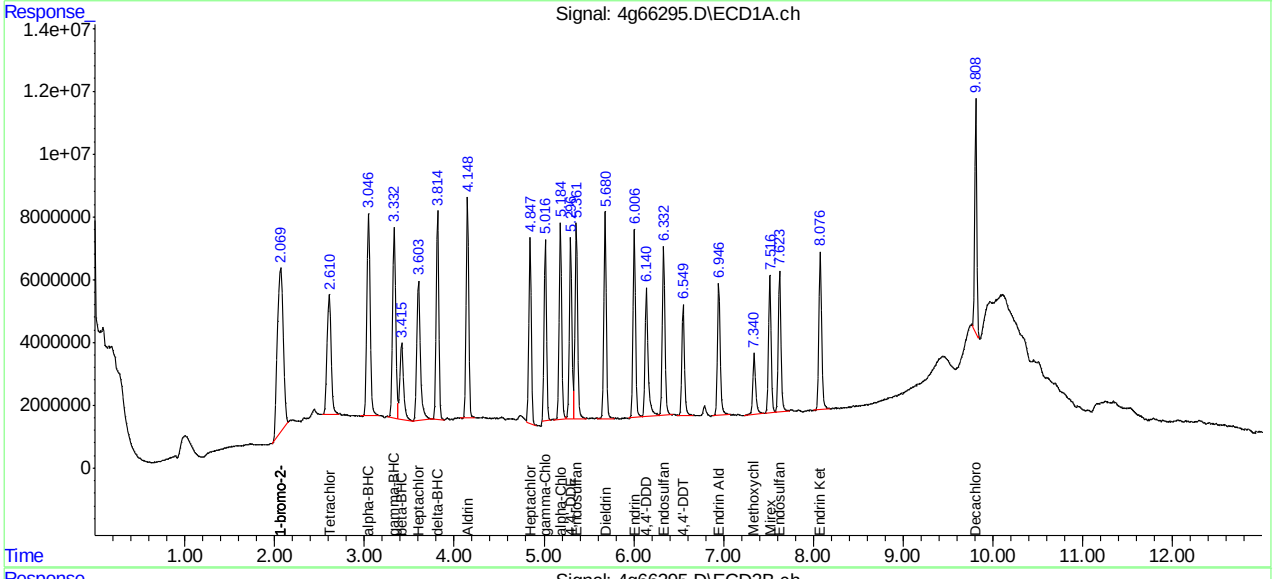
13.5.15 13

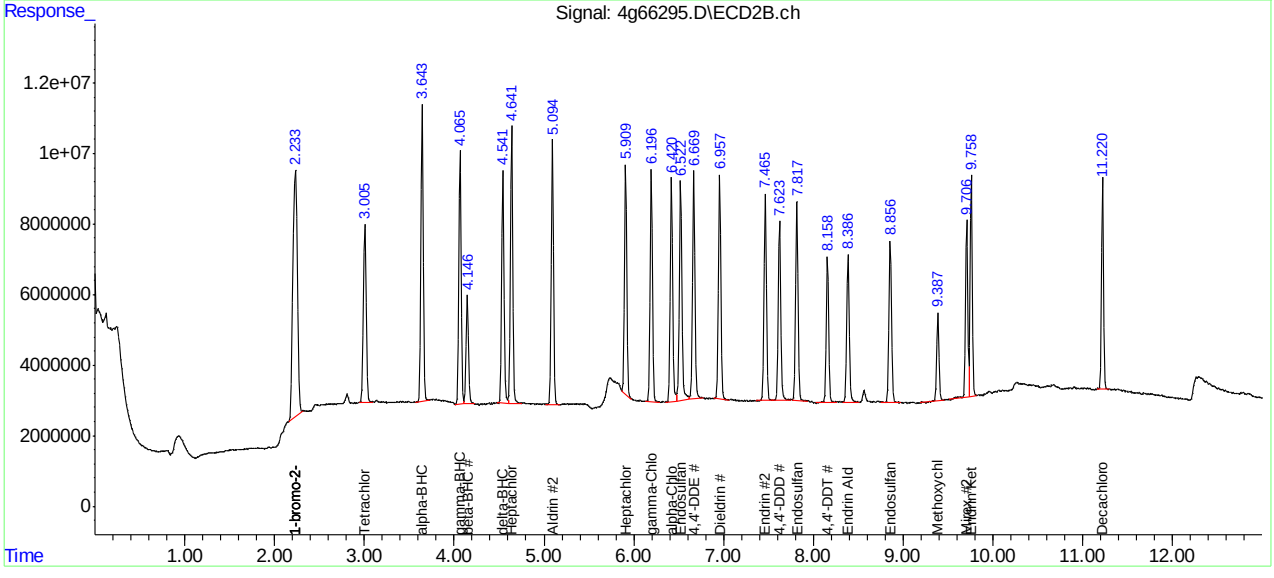
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:23:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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:	G4G1745-CC1741	**Method:**	SW846 8081B
Lab FileID:	4G66295.D	**Analyst approved:**	03/21/16 10:07 Brittany Piercy
Injection Time:	03/21/16 07:53	**Supervisor approved:**	03/21/16 14:04 Gwendolyn Burns

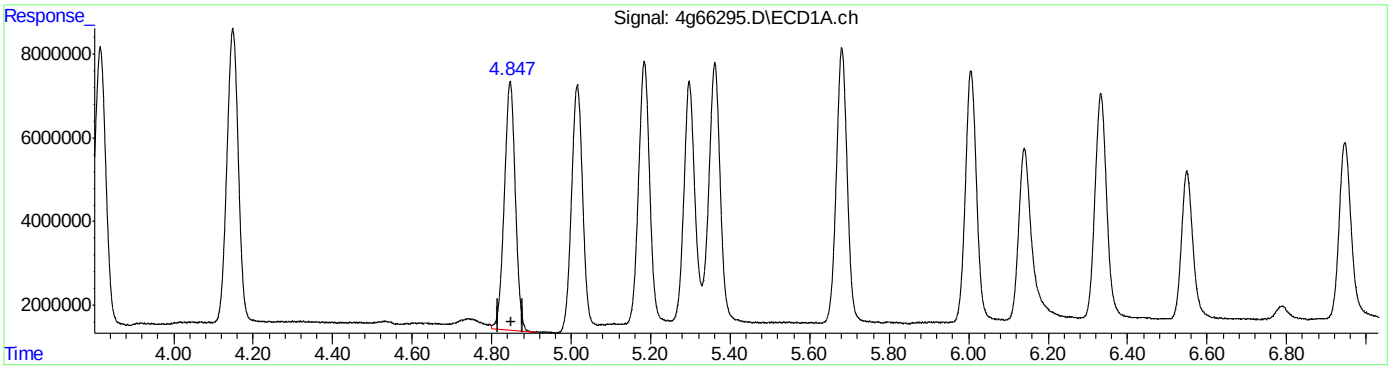
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-Chlordane	5103-74-2	1	5.02	Poor instrument integration
Heptachlor epoxide	1024-57-3	2	5.91	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	9.81	Poor instrument integration

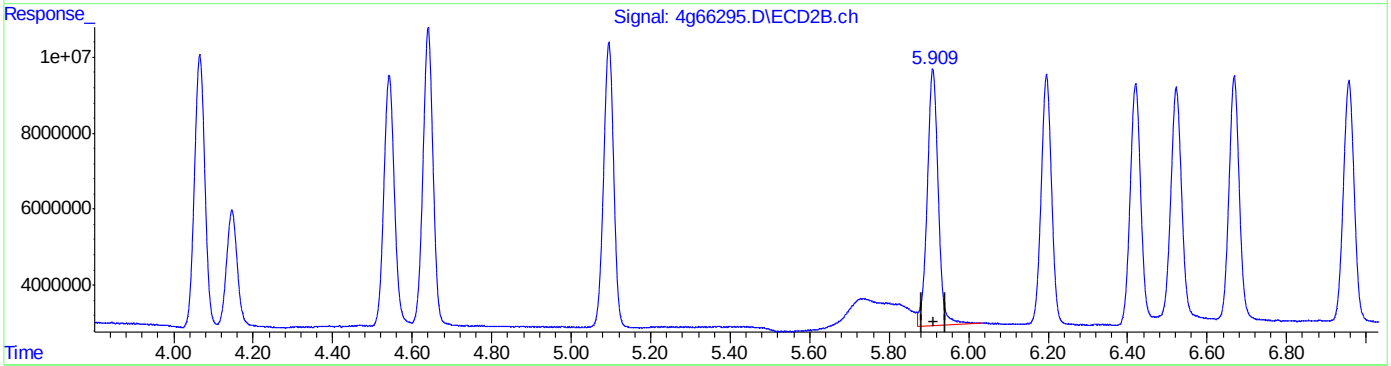
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:22:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(9) Heptachlor Epoxide (B)
4.846min 22.016 PPB
response 114303857

(9) Heptachlor Epoxide #2 (B)
5.910min 25.870 PPB
response 130110054

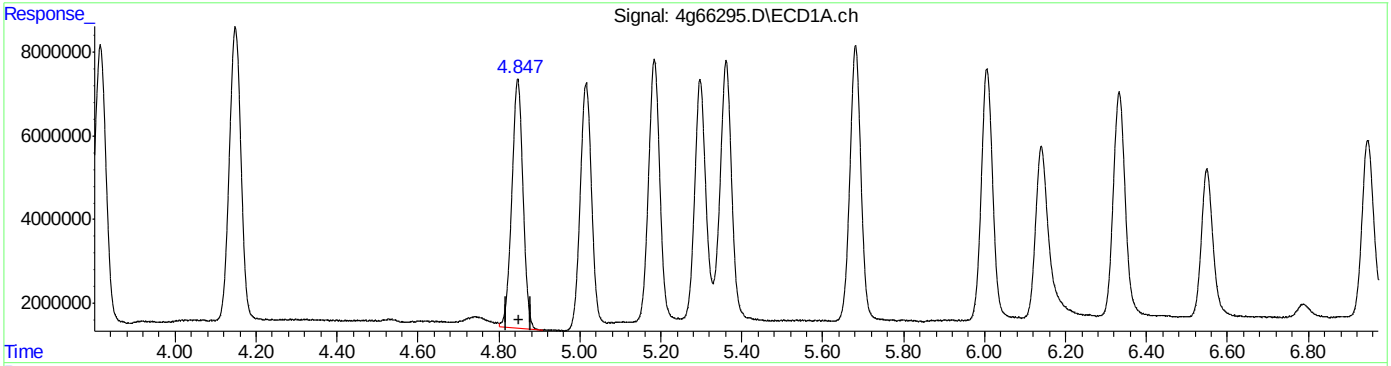
(+) = Expected Retention Time

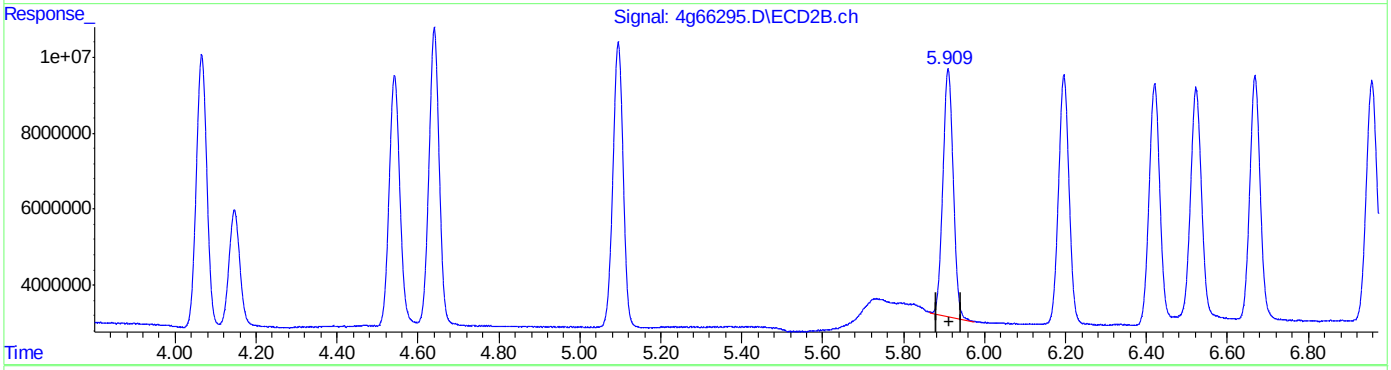
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:22:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(9) Heptachlor Epoxide (B)
4.846min 22.016 PPB
response 114303857

(9) Heptachlor Epoxide #2 (B)
5.909min 23.108 PPB m
response 116219060

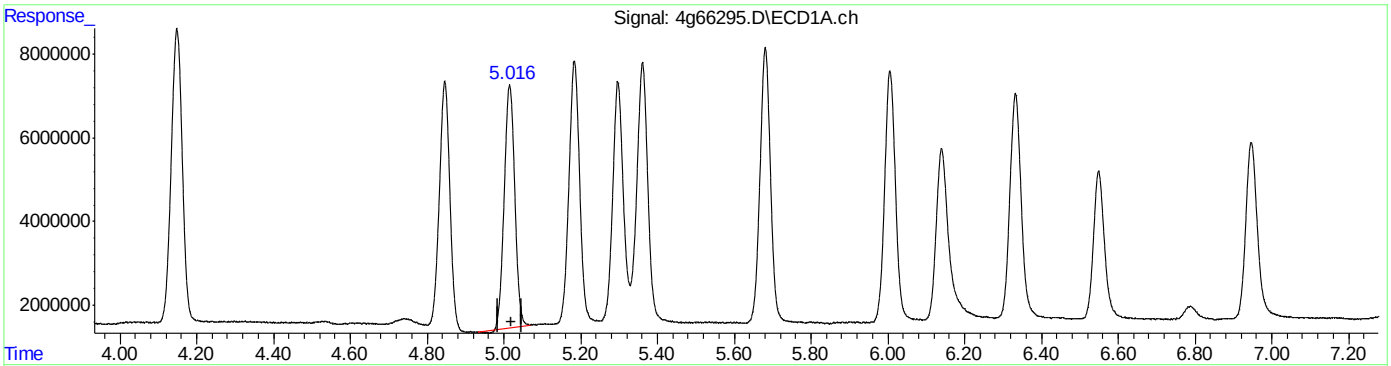
(+) = Expected Retention Time

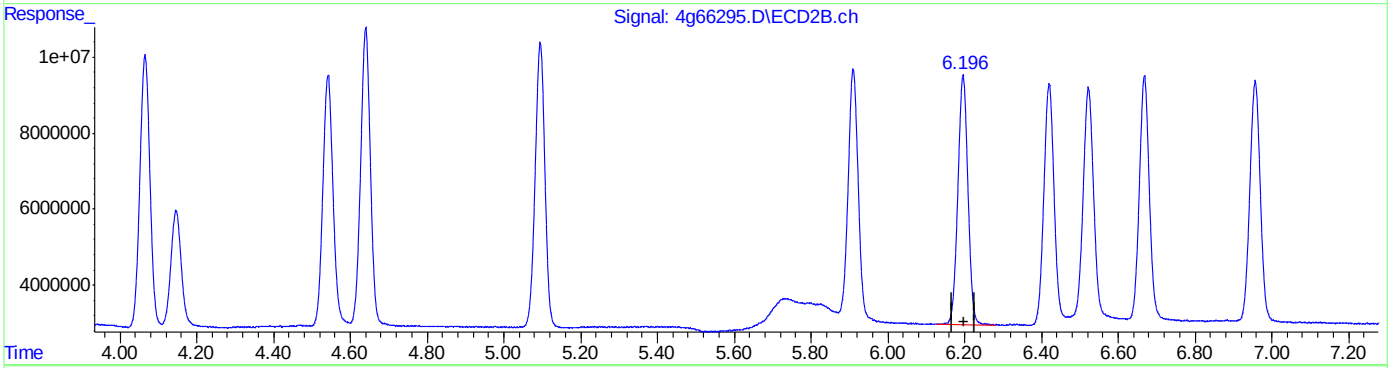
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:22:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) gamma-Chlordane (B)
5.015min 21.614 PPB
response 110396844

(10) gamma-Chlordane #2 (B)
6.196min 23.273 PPB
response 119429777

(+) = Expected Retention Time
4PST1741.M Mon Mar 21 08:22:59 2016 RPT1

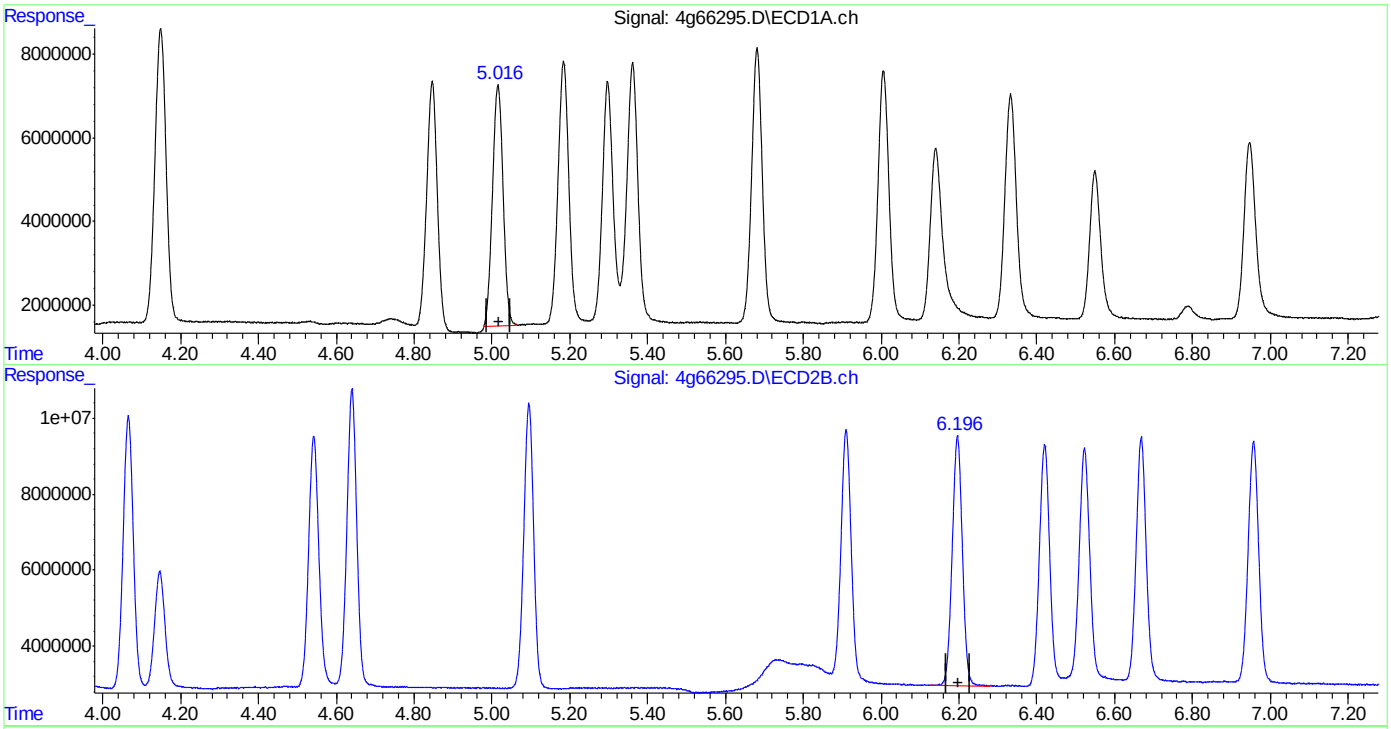
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:22:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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) gamma-Chlordane (B)
5.016min 21.246 PPB m
response 108520209

(10) gamma-Chlordane #2 (B)
6.196min 23.273 PPB
response 119429777

(+) = Expected Retention Time
4PST1741.M Mon Mar 21 08:23:05 2016 RPT1

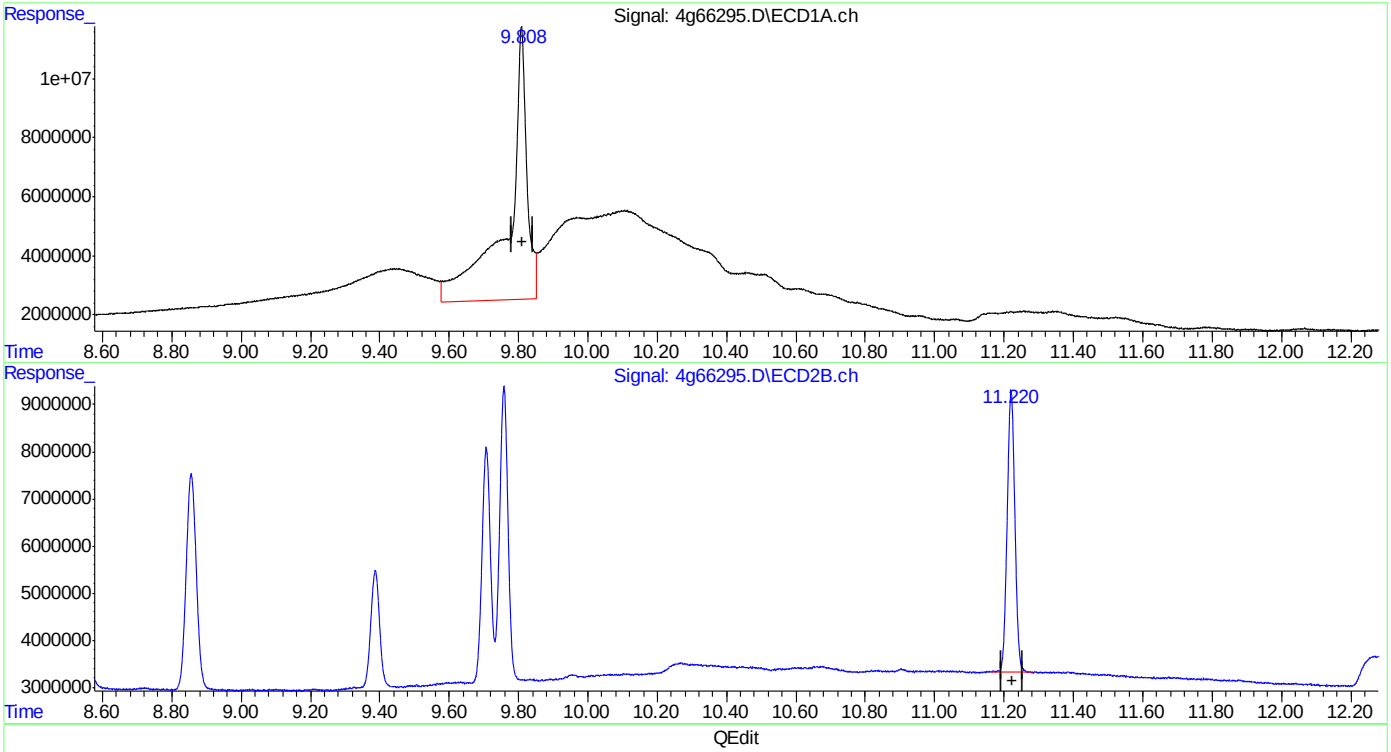
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch  Signal #2: ECD2B.ch
Acq On    : 21 Mar 2016   7:53 am
Operator  : rebeccak
Sample    : cc1741-25
Misc      : op92189,g4g1745,100,,,10,1
ALS Vial  : 2   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:22:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title  : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1ul/column
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

(24) Decachlorobiphenyl (SA)

9.808min 74.579 PPB

response 358453484

(24) Decachlorobiphenyl #2 (SA)

11.221min 26.605 PPB

response 92233845

(+) = Expected Retention Time

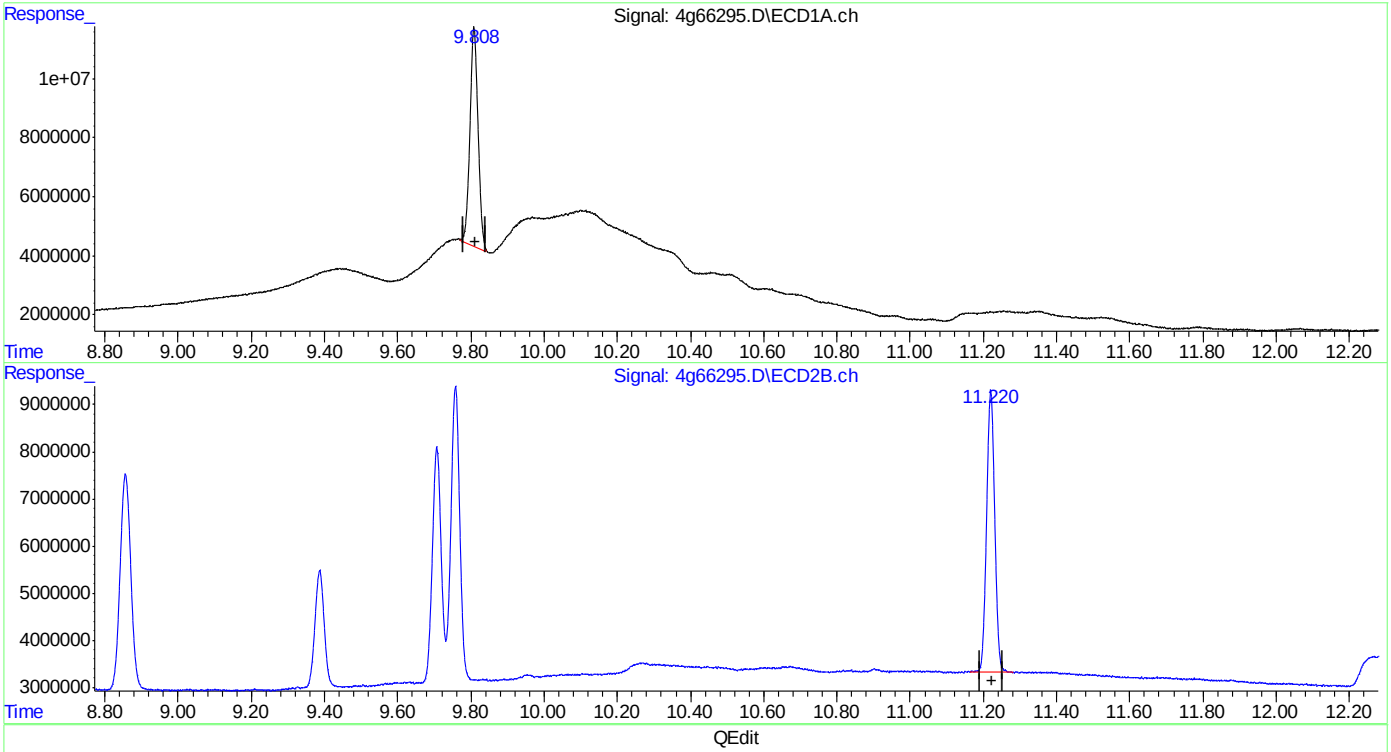
SGS ACCUTEST JC16038

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\4G1745\
Data File : 4g66295.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Mar 2016 7:53 am
Operator : rebeccak
Sample : cc1741-25
Misc : op92189,g4g1745,100,,,10,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 21 08:22:18 2016
Quant Method : C:\MSDCHEM\1\METHODS\4PST1741.M
Quant Title : PEST/PCB
QLast Update : Sat Mar 19 13:31:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1ul/column
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

(24) Decachlorobiphenyl (SA)
9.808min 23.842 PPB m
response 114591293

(24) Decachlorobiphenyl #2 (SA)
11.221min 26.605 PPB
response 92233845

(+) = Expected Retention Time

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1741

Print Analyst Name: Brittany Piercy

Date: 03/18/2016

Analyst Signature: B.P.

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV151808-149	Pem	10-250ppb
SV151879-75	Pest ISTD	5ppm
SV151808147	I.B.	20 ppb
155982	Hexane (Fisher)	—

Columns: ZB CLP I / ZB CLP II

Method 8081/608

Initial Cal. Method 4PST 1741

Injection Volume: 1 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: JR **Date:** 3/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	MALS #	Dilution	IS	SU	Status (Data)	Comments
	4G661169	DDT			W	1			/	ok	@ 5:45 PM
	170	I.B.				2			/	ok	
	171	IC1741-1	1st source	Pest Mix		3			/	ok	SV151808-70A
	172	-2				4			/	ok	-70B
	173	-5				5			/	ok	-70C
	174	-10				6			/	ok	-70D
	175	ICC1741-25				7			/	ok	SV151874-108B
	176	IC1741-50				8			/	ok	-108A
	177	-75				9				Not Using	Wrong standard run SV151808-70E
	178	-100				10			/	ok	-70F
	179	-500		CHL		11			/	ok	SV151879-20
	180	-500		~~TOX~~		~~12~~			/	ok	-21
	181	ICV1741-25	2nd source	Pest Mix.		13			/	ok	BP 3/18/16 SV151879-95
	182	-25		Mirex		14				ok	SV151564-137
	183	-500		CHL		15			/	ok	SV151874-96
	184	-500		TOX		16			/	ok	-97

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: OR016-08
Rev. Date: 1/19/16

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC4G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	4G66175.D	03/18/16 19:13	G4G1741-ICC1741	BRITTANP
Std#2	4G66186.D	03/18/16 21:40	G4G1742-CC1741	BRITTANP
Std#3	4G66207.D	03/19/16 02:48	G4G1742-CC1741	BRITTANP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
1-Bromo-2-nitrobenzene	1	ISTD	2.06	2.06	2.06	2.06	0.000	+/- 0.030 [a]
1-Bromo-2-nitrobenzene	2	ISTD	2.22	2.22	2.22	2.22	0.000	+/- 0.030 [a]
Tetrachloro-m-xylene	1	SURR	2.60	2.60	2.61	2.60	0.006	+/- 0.030 [a]
Decachlorobiphenyl	1	SURR	9.81	9.81	9.81	9.81	0.000	+/- 0.030 [a]
Tetrachloro-m-xylene	2	SURR	3.00	3.00	3.00	3.00	0.000	+/- 0.030 [a]
Decachlorobiphenyl	2	SURR	11.22	11.23	11.22	11.22	0.006	+/- 0.030 [a]
alpha-BHC	1	REG	3.05	3.04	3.05	3.05	0.006	+/- 0.030 [a]
gamma-BHC (Lindane)	1	REG	3.33	3.33	3.33	3.33	0.000	+/- 0.030 [a]
beta-BHC	1	REG	3.42	3.42	3.42	3.42	0.000	+/- 0.030 [a]
Heptachlor	1	REG	3.60	3.61	3.61	3.61	0.006	+/- 0.030 [a]
delta-BHC	1	REG	3.81	3.81	3.81	3.81	0.000	+/- 0.030 [a]
Aldrin	1	REG	4.15	4.15	4.15	4.15	0.000	+/- 0.030 [a]
Heptachlor epoxide	1	REG	4.85	4.85	4.85	4.85	0.000	+/- 0.030 [a]
gamma-Chlordane	1	REG	5.02	5.02	5.02	5.02	0.000	+/- 0.030 [a]
alpha-Chlordane	1	REG	5.19	5.19	5.19	5.19	0.000	+/- 0.030 [a]
4,4'-DDE	1	REG	5.30	5.31	5.31	5.31	0.006	+/- 0.030 [a]
Endosulfan-I	1	REG	5.36	5.36	5.36	5.36	0.000	+/- 0.030 [a]
Dieldrin	1	REG	5.68	5.68	5.69	5.68	0.006	+/- 0.030 [a]
Endrin	1	REG	6.01	6.01	6.01	6.01	0.000	+/- 0.030 [a]
4,4'-DDD	1	REG	6.15	6.16	6.16	6.16	0.006	+/- 0.030 [a]
Endosulfan-II	1	REG	6.34	6.34	6.34	6.34	0.000	+/- 0.030 [a]
4,4'-DDT	1	REG	6.55	6.56	6.56	6.56	0.006	+/- 0.030 [a]
Endrin aldehyde	1	REG	6.95	6.95	6.95	6.95	0.000	+/- 0.030 [a]
Methoxychlor	1	REG	7.35	7.36	7.36	7.36	0.006	+/- 0.030 [a]
Mirex	1	REG	7.52	7.52	7.52	7.52	0.000	+/- 0.030 [a]
Endosulfan sulfate	1	REG	7.63	7.63	7.63	7.63	0.000	+/- 0.030 [a]
Endrin ketone	1	REG	8.08	8.09	8.09	8.09	0.006	+/- 0.030 [a]
alpha-BHC	2	REG	3.64	3.64	3.64	3.64	0.000	+/- 0.030 [a]
gamma-BHC (Lindane)	2	REG	4.07	4.06	4.07	4.07	0.006	+/- 0.030 [a]
beta-BHC	2	REG	4.15	4.15	4.15	4.15	0.000	+/- 0.030 [a]
delta-BHC	2	REG	4.55	4.54	4.54	4.54	0.006	+/- 0.030 [a]
Heptachlor	2	REG	4.64	4.64	4.64	4.64	0.000	+/- 0.030 [a]
Aldrin	2	REG	5.10	5.10	5.10	5.10	0.000	+/- 0.030 [a]
Heptachlor epoxide	2	REG	5.91	5.91	5.91	5.91	0.000	+/- 0.030 [a]
gamma-Chlordane	2	REG	6.20	6.20	6.20	6.20	0.000	+/- 0.030 [a]
alpha-Chlordane	2	REG	6.42	6.42	6.42	6.42	0.000	+/- 0.030 [a]
Endosulfan-I	2	REG	6.53	6.53	6.53	6.53	0.000	+/- 0.030 [a]
4,4'-DDE	2	REG	6.67	6.67	6.67	6.67	0.000	+/- 0.030 [a]
Dieldrin	2	REG	6.96	6.96	6.96	6.96	0.000	+/- 0.030 [a]
Endrin	2	REG	7.47	7.47	7.47	7.47	0.000	+/- 0.030 [a]

RETENTION TIME WINDOW DETERMINATION

Instrument ID: GC4G
Method: SW846 8081B

	Lab FileID	Date/Time	Sample Number	Analyst
Std#1	4G66175.D	03/18/16 19:13	G4G1741-ICC1741	BRITTANP
Std#2	4G66186.D	03/18/16 21:40	G4G1742-CC1741	BRITTANP
Std#3	4G66207.D	03/19/16 02:48	G4G1742-CC1741	BRITTANP

Compound	Sig#	Type	RT#1	RT#2	RT#3	Mean	Actual StdDev	Window (+ /- 3*StdDev)
4,4'-DDD	2	REG	7.63	7.63	7.63	7.63	0.000	+/- 0.030 [a]
Endosulfan-II	2	REG	7.82	7.82	7.82	7.82	0.000	+/- 0.030 [a]
4,4'-DDT	2	REG	8.16	8.16	8.16	8.16	0.000	+/- 0.030 [a]
Endrin aldehyde	2	REG	8.39	8.39	8.39	8.39	0.000	+/- 0.030 [a]
Endosulfan sulfate	2	REG	8.86	8.86	8.86	8.86	0.000	+/- 0.030 [a]
Methoxychlor	2	REG	9.39	9.39	9.39	9.39	0.000	+/- 0.030 [a]
Mirex	2	REG	9.71	9.71	9.71	9.71	0.000	+/- 0.030 [a]
Endrin ketone	2	REG	9.76	9.76	9.76	9.76	0.000	+/- 0.030 [a]

(a) Default minimum StdDev of .01 minutes employed.

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1744

Print Analyst Name: Brittany Piercy

Analyst Signature: B.P.

Date: 03/20/2016

Columns: ZBCLP I / ZBCLP II

Method 8081 / 608

Initial Cal. Method 4PST1741

Injection Volume: 1 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV161874-101	Pest ISTD	5ppm
-79	Pem	10-250ppb
-108B	Pest Mix	25ppb
-108A	1	50
-87	I.B.	20
155982	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:** 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G6274	DDT			W	1				OK	
	275	CC1741-50 (BP 3/20/16)				2				OK	Methoxychlor ↑ BOTH
	276	I.B.				3				OK	
	277	OP92108-MB1	92108-1	8081 BBHC	W	4				OK	
	278	-BS1		+ DDD +DDT		5				OK	
	279	-BSD				6				OK	
	280	OP92024-MB1	92024-1	8081 BBHC	W	7			↑	OK	
	281	-BS1		+DDD +DDT		8			↑	OK	
	282	-MS				9				OK	
	283	-MSD				10				OK	
	284	JC15796-1		BetaBHC +DDD+ DDT		11				OK	
	285	-2				12				OK	
	286	-3				13				OK	
	287	JC~~92108~~-9 16038 (BP 3/20/16)	92108-1	BetaBHC +DDD+ DDT		14				OK	
	288	-8				15				OK	
	289	-10				16				OK	
	290	CC1741-25				17			↑	ng	various ↑ both
	291	I.B.				3				not using	
	292	OP92189-LB12	92189-1	TCLP 8081	W	18				not using	bcc↑ - need RR

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: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1744

Print Analyst Name: Brittany Piercy

Date: 03/20/2016

Analyst Signature: B.P.

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV15874101	Pest ISTD	5ppm

Columns: ZBCLPI / ZBCLPII

Method 8081 / 608

Initial Cal. Method 4PST1741

Injection Volume: 1µL

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: Date:

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G66293	OP92189-LB14	92189	TCLP 8081	W	19				not using	bcc↑ - need RR

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: OR016-08
Rev. Date: 1/19/16

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SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1745

Print Analyst Name: Rebecca Kruy

Analyst Signature: RK

Date: 3/21/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV16874-101	Pest ISTD	5ppm
-79	Pem	10-25ppb
-108B	Pest Mix	25 ppb
-108A	1	50 1
-87	I.B.	20 1
165982	Hexane (Fisher)	—

Columns: ZBCLPI/ZBCLPII

Method 8081

Initial Cal. Method 4PST1741

Injection Volume: 1.0 L

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: [illegible] Date: 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4g66294	ddt				1				OK	
	295	CC1741-25				2				OK	Methoxychlor ↑ 1st.
	296	IB				3				OK	
	297	OP92189-LB12	92189	tclp 8081	W	51				OK	
	298	OP92189-LB14				52				OK	
	299	OP92255-MB1	92255-1	8081	S	4				OK	
	300	-BS1				5				OK	
	301	JC16169-3		SC08 8081	S	6				OK	
	302	-1				7				OK	
	303	-5				8				OK	
	304	-7				9				OK	
	305	JC16431-1		PPL 8081		10				OK	~~RR 1:2~~ BP 3/21/16
	306	JC16456-1		PPL 8081		11	BP 3/21/16		1 ↑	NOT using	Needs TBA.
	307	-2				12				OK	
	308	-3				13				OK	
	309	JC16196-1		TCL 8081	S	14			1 ↑	OK	
	310	-2				15				OK	RR 1:5
	311	-3				16				OK	
	312	OP92255-MS				17				OK	~~RR 1:5~~ 3/21/16

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: OR016-08
Rev. Date: 1/19/16

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SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1745

Print Analyst Name: Brittany Piercy

Date: 03/21/2016

Analyst Signature: B.P

Columns: ZBCLP I / ZBCLP II

Method 8081/608

Initial Cal. Method 4PST1741

Injection Volume: 1µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV16187 4-10	Pest ISTD	5ppm
-79	Pem	10-250ppb
-108B	Pest Mix	25 ppb
-108A		50
-87	I.B.	20
155982	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: 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G 66313	OP92255-MSD	92255	8081	S	18				OK	~~RP 1:40~~ BP 3/21/16
	314	OP92278-MB1	92278-1	AGCHL +Dieldrin	S	19				OK	
	315	JC15602-2				20				OK	
	316	ddt				1				NOT using	
	317	CC1741-50				4				NG	various ↑
	318	IB				3				NOT using	
	319	DDT			W	1				OK	
	320	CC1741-50				2				OK	BP 3/22/16 ~~Methoxychlor ↑ Both~~
	321	I.B.				3				OK	
	322	OP92221-MB1	92224-1 92221-1	TCLP 8081	W	4				OK	
	323	-BS1	↓			5				OK	
	324	JC16310-1	92221-1			6				OK	
	325	OP92224-LS120H ~~LS~~	92224-1			7				OK	
	326	-MSDOH				8				OK	
	327	OP92221-LB15	92221-1			9				OK	
	328	JC16277-7A				10				OK	
	329	OP92221-LS12				11				OK	
	330	-MSD				12				OK	
	331	JC16278-3A				13				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: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1745

Print Analyst Name: Brittany Percy

Analyst Signature: B.P.

Date: 03/21/2016

Columns: ZBCLPI / ZBCLPII

Method 8081/608

Initial Cal. Method 4PST1741

Injection Volume: 1µl

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV161874-101	Pest ISTD	5ppm
-79	Pem	10-250ppb
-108B	Pest Mix	25ppb
-108A	1	50
-87	I.B	20
155982	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:** 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G66332	JC16279-7A	92221-1	TCLP 8081	W	14				OK	
	333	-14A				15				OK	
	334	JC16284-8A				16				OK	
	335	-17A				17				OK	
	336	-26A				18				OK	
	337	-35A				19				OK	
	338	-44A				20				OK	
	339	-53A				21				OK	
	340	-62A				22				OK	
	341	CC1741-25				23				OK	Endosulfan ↑ Lot. Various ↓ 1st
	342	I.B				3				OK	
	343	JC16284-71A	92221-1	TCLP 8081		24				OK	
	344	JC16284-80A				25				OK	
	345	-89A				26				OK	
	346	-106A				27				OK	
	347	JC16554-2	92278-1	TCL 8081	S	28				OK	
	348	-3				29				OK	
	349	-4				30				OK	
	350	-5				31				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: OR016-08
Rev. Date: 1/19/16

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G4G1745

Print Analyst Name: Brittany Pierce

Analyst Signature: B.P.

Date: 03/21/2016

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
M61874-101	Pest ISTD	5ppm
-79	PEM	10-250ppb
-108B	Pest Mix	25ppb
-108A	1	50 1
-87	I.B.	20
155982	Hexane (Fisher)	—

Columns: ZBCLPI / ZBCLPII

Method 8081/608

Initial Cal. Method 4PST1741

Injection Volume: 1µL

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:** 3/22/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	4G 66351	JC 16554-6	92278-1	TCL 8081		32				OK	
	352	-7				33				OK	
	353	-8				34				OK	
	354	-9				35				OK	
	355	-10				36				OK	
	356	-11				37				OK	
	357	-12				38				OK	
	358	-13				39				OK	
	359	-14				40				OK	
	360	-15				41				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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6-1690

LOGBOOK ID:

Pest/PCB Extraction Log - Aqueous

Date Started: 3/15/16 Time Started: 8:00pm
Date Finished: 3/15/16 Time Finished: 11:00pm

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other ✓
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # GC 92108	RACK# CWE57
Extracted by:	KS/BF
Concentrated by:	RF, CM
Vialed by:	RF, KS
Relinquished by:	
Accepted by:	
Supervisor Review:	3/15/16

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:

	Sample #	Analysis Type	Sample Bottle #	pH	Sample Description	Sample Volume (mL)	Final Extract Color	Final Extract Vol(mL)	GPC	Copper	H2SO4	Florisil	Comments
	MB1	Pest			DI H2O	1000	clear	10		✓			
	BS1				DI H2O	1000	clear	10		✓			
	~~JC16038-8 MS~~												
	~~MSD~~												
	~~BSD-BS~~				DI H2O	1000	clear	10		✓			
	MS												
	MSD												
1	JC16038-8	Pest	1		Yellow	1000	clear	10		✓			
2	-9		2		Clear	1000	clear	10		✓			
3	-10		2		Clear	940	l. yellow	10		✓			
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Comments: Pes 3/15/16 okay to split ms/msd not enough bottles.

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2/3	68/65	—	—	ok
Buchi Chiller	B2/B3	11/11	—	—	ok
Waterbath (70-80°C)	6/7	75/75.4	1.6/1.2	77/77	ok
Waterbath Chiller (GPM)					
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB op	1516241B3	400	1

WITNESS SIGN: ADX SPIKE SIGN: KS

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST op	1541621372	250	1
PCB			

WITNESS SIGN: ADX SPIKE SIGN: KS

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	161592	Fisher	3X60
HEXANE	157498	Fisher	50

REAGENT	LOT #	BRAND
Sodium Sulfate	151169	Fisher
Glass Wool	09929-2	lab
Filter Paper		
Copper	1516248D	Aldrich
Florisil		
1:1 Sulfuric Acid		
Chlorine Strips		

SGS ACCUTEST INC.
Form: OP021A-06
Rev Date: 1/13/16

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