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Automated Report

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Building 5 Area, PR

SM04.00.06

SGS Accutest Job Number: JC33175

Sampling Date: 12/06/16

Report to:

Anderson, Mulholland & Associates

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ATTN: Haley Royer

Total number of pages in report: **1109**

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

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Sample Summary

Anderson, Mulholland & Associates

Job No: JC33175

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

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC33175-1	12/06/16	12:12	NR	12/08/16	AQ	Ground Water	UP-1
JC33175-1D	12/06/16	12:48	NR	12/08/16	AQ	Ground Water	UP-1 MSD
JC33175-1S	12/06/16	12:30	NR	12/08/16	AQ	Ground Water	UP-1 MS

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Anderson, Mulholland & Associates	**Job No**	JC33175
Site:	BMSMC, Building 5 Area, PR	**Report Date**	12/23/2016 4:42:30 P

On 12/08/2016, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 5.9 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC33175 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.

Please refer to certification exceptions summary for additional certification information.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V4B2772

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC33175-1MS, JC33175-1MSD 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:** OP99167

- All samples were extracted within the recommended method holding time.
- Sample(s) JC33175-1MS, JC33175-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 4,6-Dinitro-o-cresol are outside control limits. Outside of in house control limits.
- JC33175-1: There is compound in BS was outside in house QC limits. The results confirmed by reextraction outside the holding time.
- JC33175-1 for 4,6-Dinitro-o-cresol: This compound outside control limits biased low in the associated BS. The result confirmed by reextraction outside the holding time.

Matrix: AQ **Batch ID:** OP99254

- The data for SW846 8270D meets quality control requirements.
- JC33175-1: Confirmation run.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP99167A

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC33175-1MS, JC33175-1MSD were used as the QC samples indicated.

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

Matrix: AQ **Batch ID:** GGH5589

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC33175-1MS, JC33175-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for n-Propyl Alcohol are outside control limits for sample JC33175-1MSD. Outside in house control limits.

Extractables by GC By Method SW846 8081B

Matrix: AQ	**Batch ID:** OP99172

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC33175-1MS, JC33175-1MSD, OP99172-MSMSD were used as the QC samples indicated.

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

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

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

Summary of Hits

Job Number: JC33175
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Collected: 12/06/16

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC33175-1	**UP-1**					
Anthracene [a]		1.9	1.1	0.22	ug/l	SW846 8270D
1,4-Dioxane		0.910	0.11	0.051	ug/l	SW846 8270D BY SIM

(a) There is compound in BS was outside in house QC limits. The results confirmed by reextraction outside the holding time.

Sample Results

Report of Analysis

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Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
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	4B67403.D	1	12/16/16	HT	n/a	n/a	V4B2772
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
106-99-0	1,3-Butadiene	ND	5.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	109%		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 LabLink@939893 10:01 27-Dec-2016

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
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 [a]	6P33028.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
Run #2 [b]	M130072.D	1	12/17/16	JJ	12/15/16	OP99254	EM5555

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

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	0.86	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	0.94	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.1	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	11	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol [c]	ND	5.3	1.4	ug/l	
95-48-7	2-Methylphenol	ND	2.1	0.93	ug/l	
	3&4-Methylphenol	ND	2.1	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.0	ug/l	
100-02-7	4-Nitrophenol	ND	11	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.2	1.5	ug/l	
108-95-2	Phenol	ND	2.1	0.41	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	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	0.97	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.20	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.14	ug/l	
98-86-2	Acetophenone	ND	2.1	0.22	ug/l	
120-12-7	Anthracene	1.9	1.1	0.22	ug/l	
1912-24-9	Atrazine	ND	2.1	0.47	ug/l	
100-52-7	Benzaldehyde	ND	5.3	0.30	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.22	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.43	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.48	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.22	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.25	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.36	ug/l	
86-74-8	Carbazole	ND	1.1	0.24	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:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.1	0.68	ug/l	
218-01-9	Chrysene	ND	1.1	0.19	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.29	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.39	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.1	0.58	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.1	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	0.53	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.35	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.23	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.52	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.25	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.28	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.23	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.18	ug/l	
86-73-7	Fluorene	ND	1.1	0.18	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.34	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.9	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.41	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.35	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	0.41	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	0.46	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.68	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.51	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.23	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.18	ug/l	
129-00-0	Pyrene	ND	1.1	0.23	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.1	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%	63%	14-88%
4165-62-2	Phenol-d5	34%	45%	10-110%
118-79-6	2,4,6-Tribromophenol	89%	119%	39-149%

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:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, PR		

ABN TCL Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	89%	99%	32-128%
321-60-8	2-Fluorobiphenyl	75%	98%	35-119%
1718-51-0	Terphenyl-d14	54%	96%	10-126%

(a) There is compound in BS was outside in house QC limits. The results confirmed by reextraction outside the holding time.
(b) Confirmation run.
(c) This compound outside control limits biased low in the associated BS. The result confirmed by reextraction outside the holding time.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
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	3P57227.D	1	12/14/16	SG	12/13/16	OP99167A	E3P2653
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
56-55-3	Benzo(a)anthracene	ND	0.053	0.024	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.053	0.035	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.11	0.046	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.035	ug/l	
218-01-9	Chrysene	ND	0.11	0.027	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.038	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.040	ug/l	
91-20-3	Naphthalene	ND	0.11	0.031	ug/l	
123-91-1	1,4-Dioxane	0.910	0.11	0.051	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		24-125%
321-60-8	2-Fluorobiphenyl	70%		19-127%
1718-51-0	Terphenyl-d14	57%		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 LabLink@939893 10:01 27-Dec-2016

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
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	GH107771.D	1	12/15/16	XPL	n/a	n/a	GGH5589
Run #2							

Low Molecular Alcohol List

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	200	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	85%		56-145%
111-27-3	Hexanol	84%		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 LabLink@939893 10:01 27-Dec-2016

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	JC33175-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/08/16
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	1G130502.D	1	12/14/16	KD	12/13/16	OP99172	G1G4171
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.011	0.0064	ug/l	
319-84-6	alpha-BHC	ND	0.011	0.0063	ug/l	
319-85-7	beta-BHC	ND	0.011	0.0060	ug/l	
319-86-8	delta-BHC	ND	0.011	0.0048	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.011	0.0029	ug/l	
5103-71-9	alpha-Chlordane	ND	0.011	0.0049	ug/l	
5103-74-2	gamma-Chlordane	ND	0.011	0.0048	ug/l	
60-57-1	Dieldrin	ND	0.011	0.0038	ug/l	
72-54-8	4,4'-DDD	ND	0.011	0.0040	ug/l	
72-55-9	4,4'-DDE	ND	0.011	0.0065	ug/l	
50-29-3	4,4'-DDT	ND	0.011	0.0052	ug/l	
72-20-8	Endrin	ND	0.011	0.0053	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.011	0.0055	ug/l	
7421-93-4	Endrin aldehyde	ND	0.011	0.0054	ug/l	
53494-70-5	Endrin ketone	ND	0.011	0.0053	ug/l	
959-98-8	Endosulfan-I	ND	0.011	0.0052	ug/l	
33213-65-9	Endosulfan-II	ND	0.011	0.0045	ug/l	
76-44-8	Heptachlor	ND	0.011	0.0040	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.011	0.0069	ug/l	
72-43-5	Methoxychlor	ND	0.021	0.0060	ug/l	
8001-35-2	Toxaphene	ND	0.26	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		26-132%
877-09-8	Tetrachloro-m-xylene	94%		26-132%
2051-24-3	Decachlorobiphenyl	66%		10-118%
2051-24-3	Decachlorobiphenyl	65%		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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

Parameter Certification Exceptions

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
1,3-Butadiene	106-99-0	SW846 8260C	AQ	Accutest is not certified for this parameter.[a]

(a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

NJ GW

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 1

MASTER #
FED-EX Tracking # 277879354966
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC33175

Client / Reporting Information

Company Name: Anderson Mulholland & Associates
Street Address: 2700 Westchester Avenue, Suite 417
City: Purchase State: NY Zip: 10577
Project Contact: Terry Taylor E-mail:
Phone #: 914-251-0400 Fax #:
Sampler(s) Name(s): Phone #:

Project Information

Project Name: 4th Q 2016 Groundwater Sampling - Onsite Wells
Street:
City: Humacao State: PR
Project #:
Client Purchase Order #:
Project Manager: Terry Taylor

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

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

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	D8015LMA	P8081PESTTCL	AB8270SL	B8270SIM14DIOX	BMS+MNAP	BMS+2MNAP	BSIM+BANTH, BAP, BBF, BKF, CHRY, DBANTH, INDPYR, NAP (SEE NOTE BELOW)	WET CHEMISTRY (SEE NOTE BELOW)				LAB USE ONLY
	UP-1		12-6-16	1212	NR	GW	6	3				3				X	X	X	X	X	X	X					
	UP-1 MS		12-6-16	1230	NR	GW	6	3				3				X	X	X	X	X	X	X					E4
	UP-1 MSD		12-6-16	1248	NR	GW	6	3				3				X	X	X	X	X	X	X					V734

Turnaround Time (Business days)

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

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:

INITIAL ASESSMENT 13

LABEL VERIFICATION JK

Data Deliverable Information

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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary

NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

WET CHEMISTRY INCLUDES ALK, XFE3, MN, VRSK175CH4, XNO30, SO4, AND S

BANTH=BENZO(A)ANTHRACENE, BAP=BENZO(A)PYRENE, BBF=BENZO(B)FLUORANTHENE, BKF=BENZO(K)FLURORANTHENE, CHRY=CHRYSENE, DBANTH=DIBENZO(A,H)ANTHRACENE, INDPYR=INDENO(1,2,3-CD)PYRENE, NAP=NAPHTHALENE

Sample inventory is verified upon receipt in the Laboratory

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	12-6-16 1500	1 Fed EX	2 [signature]	12/8/16 1000	2 [signature]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 636, 637, 638, 639, 640 [ ] Intact [ ] Not intact	Preserved where applicable [ ]	On Ice [✓] Cooler Temp. °C

JC33175: Chain of Custody
Page 1 of 2

SGS Accutest Sample Receipt Summary

Job Number: JC33175 **Client:** _____ **Project:** _____

Date / Time Received: 12/8/2016 10:00:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.0); Cooler 2: (2.5); Cooler 3: (2.3); Cooler 4: (4.3); Cooler 5: (4.5);

Cooler Temps (Corrected) °C: Cooler 1: (3.4); Cooler 2: (3.9); Cooler 3: (3.7); Cooler 4: (5.7); Cooler 5: (5.9);

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:	5

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

SM089-02
Rev. Date 12/1/16

5.2

5

JC33175: Chain of Custody
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Internal Sample Tracking Chronicle

Anderson, Mulholland & Associates

Job No: JC33175

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

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC33175-1 UP-1	Collected: 06-DEC-16 12:12 By: NR		Received: 08-DEC-16 By: DDH			
JC33175-1	SW846 8081B	14-DEC-16 10:45	KD	13-DEC-16	RF	P8081PESTTCL
JC33175-1	SW846 8270D BY SIM	14-DEC-16 15:07	SG	13-DEC-16	AC	B8270SIM14DIOX,BSIM + BANTH, BSIM + BAPYRN,BSIM + BBFLUAN, BSIM + BKFLUAN,BSIM + CHRYS, BSIM + DBANTH,BSIM + I123PYR, BSIM + NAP
JC33175-1	SW846 8270D	15-DEC-16 06:58	CS	13-DEC-16	NF	AB8270SL
JC33175-1	SW846-8015C (DAI)	15-DEC-16 10:33	XPL			D8015LMA
JC33175-1	SW846 8260C	16-DEC-16 16:43	HT			V826013BUTADN
JC33175-1	SW846 8270D	17-DEC-16 01:38	JJ	15-DEC-16	NS	AB8270SL

SGS Accutest Internal Chain of Custody

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 12/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC33175-1.1	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.1	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.1	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.1	Allan Chung-yew	Secured Storage	12/13/16 22:35	Return to Storage
JC33175-1.1	Secured Storage	Ryan Fantasia	12/15/16 16:57	Retrieve from Storage
JC33175-1.1	Ryan Fantasia		12/16/16 03:04	Depleted
JC33175-1.1.1	Allan Chung-yew	Organics Prep	12/13/16 15:45	Extract from JC33175-1.1
JC33175-1.1.1	Organics Prep	Nicholas Ficarra	12/14/16 00:10	Extract from JC33175-1.1
JC33175-1.1.1	Nicholas Ficarra	Extract Storage	12/14/16 00:10	Return to Storage
JC33175-1.1.1	Extract Storage	Christopher Sowa	12/15/16 00:58	Retrieve from Storage
JC33175-1.1.1	Christopher Sowa	GCMS6P	12/15/16 00:58	Load on Instrument
JC33175-1.2	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.2	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.2	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.2	Allan Chung-yew	Secured Storage	12/13/16 22:35	Return to Storage
JC33175-1.2	Secured Storage	Ryan Fantasia	12/15/16 16:57	Retrieve from Storage
JC33175-1.2	Ryan Fantasia		12/16/16 03:04	Depleted
JC33175-1.2.1	Allan Chung-yew	Organics Prep	12/13/16 15:41	Extract from JC33175-1.2
JC33175-1.2.1	Organics Prep	Nicholas Ficarra	12/14/16 00:07	Extract from JC33175-1.2
JC33175-1.2.1	Nicholas Ficarra	Extract Storage	12/14/16 00:07	Return to Storage
JC33175-1.2.1	Extract Storage	Kristen Drake	12/14/16 10:07	Retrieve from Storage
JC33175-1.2.1	Kristen Drake	GC1G	12/14/16 10:07	Load on Instrument
JC33175-1.3	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.3	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.3	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.3	Allan Chung-yew		12/13/16 22:37	Depleted
JC33175-1.4	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.4	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.4	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.4	Allan Chung-yew		12/13/16 22:37	Depleted
JC33175-1.5	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.5	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.5	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.5	Allan Chung-yew		12/13/16 22:37	Depleted
JC33175-1.6	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.6	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.6	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer

SGS Accutest Internal Chain of Custody

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Received: 12/08/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC33175-1.6	Allan Chung-yew		12/13/16 22:37	Depleted
JC33175-1.7	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.7	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.7	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.7	Allan Chung-yew	Secured Storage	12/13/16 22:35	Return to Storage
JC33175-1.7	Secured Storage	Ryan Fantasia	12/15/16 16:57	Retrieve from Storage
JC33175-1.7	Ryan Fantasia		12/16/16 03:04	Depleted
JC33175-1.7.1	Ryan Fantasia	Organics Prep	12/15/16 16:57	Extract from JC33175-1.7
JC33175-1.7.1	Organics Prep	Natalie Scanlan	12/16/16 00:40	Extract from JC33175-1.7
JC33175-1.7.1	Natalie Scanlan	Extract Storage	12/16/16 00:40	Return to Storage
JC33175-1.7.1	Extract Storage	Christopher Sowa	12/17/16 00:21	Retrieve from Storage
JC33175-1.7.1	Christopher Sowa	GCMSM	12/17/16 00:21	Load on Instrument
JC33175-1.7.1	GCMSM	Kevin Moyle	12/20/16 08:55	Unload from Instrument
JC33175-1.7.1	Kevin Moyle	Extract Freezer	12/20/16 08:55	Return to Storage
JC33175-1.8	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.8	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.8	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.8	Allan Chung-yew		12/13/16 22:37	Depleted
JC33175-1.9	Secured Storage	Vikas Parikh	12/13/16 05:41	Retrieve from Storage
JC33175-1.9	Vikas Parikh	Anthony DiSanto	12/13/16 11:51	Custody Transfer
JC33175-1.9	Anthony DiSanto	Allan Chung-yew	12/13/16 15:18	Custody Transfer
JC33175-1.9	Allan Chung-yew		12/13/16 22:37	Depleted
JC33175-1.10	Secured Storage	Hueanh Tran	12/16/16 12:31	Retrieve from Storage
JC33175-1.10	Hueanh Tran	GCMS4B	12/16/16 12:31	Load on Instrument
JC33175-1.10	GCMS4B	Hueanh Tran	12/18/16 11:54	Unload from Instrument
JC33175-1.10	Hueanh Tran	Secured Storage	12/18/16 11:54	Return to Storage
JC33175-1.13	Secured Storage	Hueanh Tran	12/16/16 12:31	Retrieve from Storage
JC33175-1.13	Hueanh Tran	GCMS4B	12/16/16 12:31	Load on Instrument
JC33175-1.13	GCMS4B	Hueanh Tran	12/18/16 11:54	Unload from Instrument
JC33175-1.13	Hueanh Tran	Secured Storage	12/18/16 11:54	Return to Storage
JC33175-1.14	Secured Storage	Xu Liu	12/15/16 07:48	Retrieve from Storage
JC33175-1.14	Xu Liu	Secured Storage	12/15/16 14:29	Return to Storage
JC33175-1.16	Secured Storage	Hueanh Tran	12/16/16 12:31	Retrieve from Storage
JC33175-1.16	Hueanh Tran	GCMS4B	12/16/16 12:31	Load on Instrument
JC33175-1.16	GCMS4B	Hueanh Tran	12/18/16 11:54	Unload from Instrument
JC33175-1.16	Hueanh Tran	Secured Storage	12/18/16 11:54	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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B2772-MB	4B67392.D	1	12/16/16	HT	n/a	n/a	V4B2772

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

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-99-0	1,3-Butadiene	ND	5.0	0.17	ug/l	

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

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

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B2772-BS	4B67393.D	1	12/16/16	HT	n/a	n/a	V4B2772

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

JC33175-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-99-0	1,3-Butadiene	50	51.2	102	18-162

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	106%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC33175-1MS	4B67404.D	1	12/16/16	HT	n/a	n/a	V4B2772
JC33175-1MSD	4B67405.D	1	12/16/16	HT	n/a	n/a	V4B2772
JC33175-1	4B67403.D	1	12/16/16	HT	n/a	n/a	V4B2772

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

JC33175-1

CAS No.	Compound	JC33175-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-99-0	1,3-Butadiene	ND		50	55.4	111	50	52.6	105	5	10-167/20

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
1868-53-7	Dibromofluoromethane	105%	107%	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	105%	105%	109%	73-122%
2037-26-5	Toluene-D8	101%	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	101%	103%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: V4B2759-BFB
Lab File ID: 4B67075.D
Instrument ID: GCMS4B
Injection Date: 12/08/16
Injection Time: 07:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	18399	19.3		Pass
75	30.0 - 60.0% of mass 95	44810	47.1		Pass
95	Base peak, 100% relative abundance	95146	100.0		Pass
96	5.0 - 9.0% of mass 95	6096	6.41		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	94328	99.1		Pass
175	5.0 - 9.0% of mass 174	7656	8.05	(8.12) [a]	Pass
176	95.0 - 101.0% of mass 174	92634	97.4	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5996	6.30	(6.47) [b]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B2759-IC2759	4B67076.D	12/08/16	07:40	00:36	Initial cal 0.2
V4B2759-IC2759	4B67077.D	12/08/16	08:08	01:04	Initial cal 0.5
V4B2759-IC2759	4B67078.D	12/08/16	08:35	01:31	Initial cal 1
V4B2759-IC2759	4B67079.D	12/08/16	09:03	01:59	Initial cal 2
V4B2759-IC2759	4B67080.D	12/08/16	09:31	02:27	Initial cal 5
V4B2759-IC2759	4B67081.D	12/08/16	09:59	02:55	Initial cal 10
V4B2759-IC2759	4B67082.D	12/08/16	10:27	03:23	Initial cal 20
V4B2759-ICC2759	4B67083.D	12/08/16	10:55	03:51	Initial cal 50
V4B2759-IC2759	4B67084.D	12/08/16	11:22	04:18	Initial cal 100
V4B2759-IC2759	4B67085.D	12/08/16	11:50	04:46	Initial cal 200
V4B2759-ICV2759	4B67088.D	12/08/16	13:13	06:09	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: V4B2772-BFB
Lab File ID: 4B67388.D
Instrument ID: GCMS4B
Injection Date: 12/16/16
Injection Time: 09:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	20642	20.6		Pass
75	30.0 - 60.0% of mass 95	49072	48.9		Pass
95	Base peak, 100% relative abundance	100277	100.0		Pass
96	5.0 - 9.0% of mass 95	6545	6.53		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	95880	95.6		Pass
175	5.0 - 9.0% of mass 174	7814	7.79	(8.15) [a]	Pass
176	95.0 - 101.0% of mass 174	93661	93.4	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	6353	6.34	(6.78) [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
V4B2772-CC2759	4B67390.D	12/16/16	10:34	01:33	Continuing cal 20
V4B2772-MB	4B67392.D	12/16/16	11:37	02:36	Method Blank
V4B2772-BS	4B67393.D	12/16/16	12:05	03:04	Blank Spike
ZZZZZZ	4B67395.D	12/16/16	13:00	03:59	(unrelated sample)
ZZZZZZ	4B67396.D	12/16/16	13:28	04:27	(unrelated sample)
ZZZZZZ	4B67397.D	12/16/16	13:56	04:55	(unrelated sample)
ZZZZZZ	4B67398.D	12/16/16	14:24	05:23	(unrelated sample)
ZZZZZZ	4B67399.D	12/16/16	14:52	05:51	(unrelated sample)
ZZZZZZ	4B67401.D	12/16/16	15:47	06:46	(unrelated sample)
JC33175-1	4B67403.D	12/16/16	16:43	07:42	UP-1
JC33175-1MS	4B67404.D	12/16/16	17:10	08:09	Matrix Spike
JC33175-1MSD	4B67405.D	12/16/16	17:38	08:37	Matrix Spike Duplicate
ZZZZZZ	4B67407.D	12/16/16	18:34	09:33	(unrelated sample)
ZZZZZZ	4B67408.D	12/16/16	19:01	10:00	(unrelated sample)
ZZZZZZ	4B67409.D	12/16/16	19:29	10:28	(unrelated sample)
ZZZZZZ	4B67410.D	12/16/16	19:57	10:56	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	V4B2772-CC2759	**Injection Date:**	12/16/16
Lab File ID:	4B67390.D	**Injection Time:**	10:34
Instrument ID:	GCMS4B	**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	118057	6.81	269576	8.84	365751	9.72	345460	12.91	198017	15.49
Upper Limit [a]	236114	7.31	539152	9.34	731502	10.22	690920	13.41	396034	15.99
Lower Limit [b]	59029	6.31	134788	8.34	182876	9.22	172730	12.41	99009	14.99

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B2772-MB	135795	6.81	283697	8.84	383510	9.72	362673	12.91	195934	15.49
V4B2772-BS	113624	6.81	261882	8.84	359051	9.72	333398	12.91	201478	15.49
ZZZZZZ	146200	6.81	281162	8.85	377576	9.72	356896	12.91	201035	15.49
ZZZZZZ	134319	6.81	282328	8.85	376955	9.72	356777	12.91	194202	15.49
ZZZZZZ	133970	6.82	271597	8.85	370402	9.72	352453	12.91	192391	15.49
ZZZZZZ	134184	6.81	268950	8.85	370051	9.72	352433	12.91	190284	15.49
ZZZZZZ	141476	6.81	272908	8.84	367095	9.72	355059	12.91	208562	15.49
ZZZZZZ	135001	6.81	283407	8.84	385874	9.72	366848	12.91	210727	15.49
JC33175-1	133073	6.82	286565	8.84	386028	9.72	365619	12.91	204675	15.49
JC33175-1MS	116899	6.80	264827	8.84	364296	9.72	341034	12.91	204253	15.49
JC33175-1MSD	114298	6.81	256546	8.84	355936	9.72	335423	12.91	203639	15.49
ZZZZZZ	127698	6.81	283880	8.84	381018	9.72	361606	12.91	194632	15.49
ZZZZZZ	132285	6.82	280434	8.85	376730	9.72	359376	12.91	194916	15.49
ZZZZZZ	127218	6.81	278259	8.84	372709	9.72	358157	12.91	192960	15.49
ZZZZZZ	138329	6.81	262085	8.84	352508	9.72	347760	12.91	205431	15.49

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: JC33175
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
JC33175-1	4B67403.D	102	109	100	103
JC33175-1MS	4B67404.D	105	105	101	102
JC33175-1MSD	4B67405.D	107	105	100	101
V4B2772-BS	4B67393.D	104	106	100	102
V4B2772-MB	4B67392.D	103	109	100	109

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: V4B2759-ICC2759
Lab FileID: 4B67083.D

Response Factor Report MS4B

```
Method       : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title        : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
Last Update  : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Calibration Files
1   =4B67078.D   0.5 =4B67077.D   100 =4B67084.D   50  =4B67083.D
20  =4B67082.D   200 =4B67085.D   5   =4B67080.D   2   =4B67079.D
10  =4B67081.D   0.2 =4B67076.D       =                 =

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

1)     tert butyl alcohol-d9 ----------------ISTD---------------------
2)  tertiary butyl alcohol
     1.207       1.264 1.302 1.291 1.280 1.358 1.214 1.241        1.270    3.94
3)  1,4-dioxane
                 0.127 0.134 0.128 0.135 0.130 0.109 0.132        0.128    6.98
4)  Ethanol
                                                                  0.000#  -1.00

5) I   pentafluorobenzene    ----------------ISTD---------------------
6)  CHLOROTRIFLUOROETHENE
                                                                  0.000#  -1.00
7)  chlorodifluoromethane
      0.501       0.580 0.607 0.588 0.579 0.587 0.531 0.600        0.572    6.42
8)  dichlorodifluoromethane
                 0.496 0.534 0.530 0.512 0.516 0.444 0.524        0.508    6.10
9)  Freon 114
                                                                  0.000#  -1.00
10)  chloromethane
      0.212       0.254 0.263 0.265 0.239 0.264 0.263 0.258        0.252    7.32
11)  vinyl chloride
      0.567 0.790 0.718 0.766 0.754 0.712 0.730 0.721 0.730        0.721    8.76
12)  bromomethane
      0.328       0.350 0.391 0.372 0.292 0.403 0.392 0.384        0.364   10.47
13)  chloroethane
      0.346       0.347 0.381 0.380 0.302 0.384 0.398 0.388        0.366    8.69
14)  vinyl bromide
      0.375 0.518 0.423 0.452 0.447 0.406 0.466 0.441 0.451        0.442    9.02
15)  trichlorofluoromethane
                 0.619 0.658 0.642 0.614 0.611 0.558 0.634        0.619    5.14
16)  1,3-butadiene
      0.589 0.657 0.608 0.648 0.660 0.553 0.648 0.567 0.642        0.619    6.61
17)  Pentane
                                                                  0.000#  -1.00
18)  freon 123a
                                                                  0.000#  -1.00
19)  ethyl ether
      0.224 0.230 0.254 0.258 0.250 0.238 0.264 0.209 0.258        0.243    7.69
20)  2-chloropropane
      0.190       0.164 0.180 0.184 0.151 0.199 0.199 0.207        0.184   10.22
21)  acrolein
      0.097 0.097 0.101 0.103 0.106 0.095 0.106 0.096 0.102 0.099  0.100    4.03
22)  1,1-dichloroethene
      0.401       0.440 0.441 0.447 0.392 0.444 0.395 0.455        0.427    6.13
23)  acetone
```

```
                    0.045 0.045 0.063 0.040             0.066        0.052   22.96
            ----- Linear regression -----  Coefficient =  0.9948
              Response Ratio = 0.00669 + 0.03954 *A

24)  allyl chloride
                    0.295 0.296 0.322 0.276 0.308 0.266 0.318        0.297    6.95
25)  acetonitrile
                    0.025 0.029 0.031 0.025 0.031 0.031 0.035        0.030   12.34
26)  iodomethane
      0.749         0.879 0.887 0.854 0.819 0.844 0.722 0.885        0.830    7.59
27)  carbon disulfide
      1.147         1.418 1.419 1.386 1.274 1.343 1.162 1.422        1.321    8.67
28)  methylene chloride
      0.447         0.488 0.497 0.479 0.451 0.480 0.424 0.499        0.470    5.68
29)  methyl acetate
                    0.068 0.071 0.071 0.069 0.064       0.065        0.068    4.47
30)  1-chloropropane
                                                                     0.000#  -1.00
31)  methyl tert butyl ether
      1.288 1.452 1.241 1.265 1.303 1.105 1.337 1.229 1.322         1.282    7.31
32)  trans-1,2-dichloroethene
      0.403         0.428 0.441 0.440 0.393 0.449 0.385 0.461        0.425    6.54
33)  di-isopropyl ether
      1.774 2.099 1.563 1.713 1.733 1.560 1.821 1.776 1.770         1.757    9.03
34)  2-butanone
                    0.059 0.056 0.070 0.055 0.057 0.052 0.061        0.058    9.90
35)  1,1-dichloroethane
      0.827 1.053 0.861 0.897 0.895 0.794 0.930 0.800 0.944         0.889    9.18
36)  chloroprene
      0.649 0.819 0.667 0.717 0.720 0.658 0.710 0.682 0.724         0.705    7.29
37)  acrylonitrile
      0.190 0.200 0.182 0.182 0.186 0.170 0.189 0.176 0.186         0.185    4.70
38)  vinyl acetate
                    0.084 0.087 0.086 0.085 0.082       0.079        0.084    3.58
39)  ethyl tert-butyl ether
      1.497 1.568 1.376 1.458 1.461 1.363 1.561 1.461 1.480         1.469    4.76
40)  ethyl acetate
                    0.070 0.071 0.075 0.069 0.080 0.074 0.074        0.073    5.23
41)  2,2-dichloropropane
      0.402         0.375 0.428 0.442 0.341 0.451 0.452 0.465        0.420   10.31
42)  cis-1,2-dichloroethene
      0.475 0.604 0.499 0.515 0.499 0.467 0.513 0.439 0.520         0.503    9.12
43)  methylacrylate
                    0.074 0.074 0.075 0.070 0.072       0.071        0.073    2.82
44)  propionitrile
      0.076 0.074 0.069 0.069 0.074 0.065 0.077 0.074 0.074         0.073    5.45
45)  bromochloromethane
      0.225 0.235 0.262 0.266 0.257 0.250 0.256 0.242 0.266         0.251    5.72
46)  tetrahydrofuran
                    0.156 0.154 0.166 0.144 0.182 0.173 0.170        0.164    7.89
47)  chloroform
      0.521         0.527 0.546 0.542 0.494 0.570 0.519 0.564        0.535    4.70
48)  T-BUTYL FORMATE
      0.348 0.283 0.322 0.366 0.340 0.359 0.383 0.351 0.384         0.349    9.03
49)  dibromofluoromethane (s)
      0.401 0.412 0.409 0.411 0.410 0.414 0.410 0.407 0.410 0.403   0.409    1.00
50)  1,2-dichloroethane-d4 (s)
      0.461 0.466 0.436 0.440 0.453 0.434 0.462 0.461 0.452 0.458   0.452    2.55
51)  freon 113
                    0.331 0.352 0.357 0.326 0.347 0.291 0.357        0.337    7.06
```

Initial Calibration Summary

Job Number: JC33175 **Sample:** V4B2759-ICC2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67083.D
Project: BMSMC, Building 5 Area, PR

```
52)  methacrylonitrile
      0.383       0.324 0.319 0.334 0.307 0.364 0.354 0.338        0.340    7.49
53)  1,1,1-trichloroethane
      0.507       0.630 0.648 0.621 0.593 0.624 0.546 0.660        0.604    8.75
54)  cyclohexane
      0.623 0.663 0.641 0.673 0.689 0.617 0.688 0.634 0.677        0.656    4.24
55)  iso-butyl alcohol
                                                                   0.000#  -1.00

56) I   1,4-difluorobenzene   ----------------ISTD---------------------
57)  epichlorohydrin
      0.041       0.037 0.038 0.040 0.038 0.044 0.043 0.041        0.040    6.24
58)  n-butyl alcohol
                  0.011 0.011 0.013 0.011 0.017 0.011 0.015        0.013   18.42
59)  carbon tetrachloride
      0.258 0.357 0.405 0.405 0.386 0.380 0.365 0.298 0.400        0.362   14.23
60)  1,1-dichloropropene
      0.390       0.473 0.487 0.487 0.433 0.498 0.429 0.510        0.464    8.94
61)  hexane
      0.382 0.404 0.436 0.472 0.494 0.433 0.482 0.417 0.485        0.445    8.95
62)  Tert Amyl alcohol
                                                                   0.000#  -1.00
63)  benzene
      1.333 1.870 1.346 1.387 1.373 1.249 1.405 1.258 1.439 1.591  1.425   12.90
64)  iso-octane
      1.127 1.389 1.170 1.278 1.287 1.178 1.278 1.145 1.298        1.239    7.06
65)  tert-amyl methyl ether
      0.238 0.210 0.212 0.226 0.226 0.213 0.239 0.216 0.227        0.223    4.95
66)  heptane
      0.256 0.269 0.267 0.288 0.291 0.265 0.287 0.254 0.294        0.275    5.69
67)  isopropyl acetate
                  0.139 0.143 0.138 0.136 0.142 0.135 0.139        0.139    2.00
68)  1,2-dichloroethane
      0.471 0.476 0.450 0.468 0.463 0.417 0.494 0.460 0.488        0.465    4.88
69)  trichloroethene
      0.360 0.461 0.367 0.379 0.378 0.334 0.397 0.372 0.398        0.383    9.18
70)  Tert-amyl Ethyl Ether
                                                                   0.000#  -1.00
71)  ethyl acrylate
      0.472       0.471 0.461 0.467 0.436 0.480 0.454 0.465        0.463    2.88
72)  2-nitropropane
      0.149       0.144 0.146 0.146 0.137 0.140 0.152 0.142        0.145    3.39
73)  2-chloroethyl vinyl ether
      0.252 0.246 0.234 0.250 0.256 0.230 0.267 0.248 0.257 0.265  0.251    4.72
74)  methyl methacrylate
                  0.103 0.100 0.101 0.098 0.096 0.088 0.095        0.097    4.88
75)  1,2-dichloropropane
      0.359 0.444 0.377 0.394 0.395 0.348 0.404 0.372 0.417 0.429  0.394    7.79
76)  dibromomethane
      0.223 0.232 0.228 0.229 0.226 0.215 0.233 0.205 0.230        0.224    4.02
77)  methylcyclohexane
      0.437       0.500 0.538 0.539 0.497 0.534 0.452 0.549        0.506    8.40
78)  bromodichloromethane
      0.397 0.501 0.486 0.485 0.462 0.462 0.443 0.394 0.467        0.455    8.29
79)  cis-1,3-dichloropropene
      0.574 0.688 0.650 0.661 0.635 0.614 0.620 0.571 0.661 0.679  0.635    6.38
80)  toluene-d8 (s)
      1.172 1.172 1.182 1.180 1.173 1.179 1.179 1.167 1.173 1.193  1.177    0.63
81)  4-methyl-2-pentanone
      0.160       0.152 0.150 0.159 0.140 0.158 0.147 0.157        0.153    4.54
```

Initial Calibration Summary

Job Number: JC33175 **Sample:** V4B2759-ICC2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67083.D
Project: BMSMC, Building 5 Area, PR

```
 82)  toluene
       0.814       0.895 0.910 0.885 0.838 0.936 0.808 0.927        0.877    5.72
 83)  3-methyl-1-butanol
       0.019 0.019 0.016 0.017 0.019 0.016 0.020 0.018 0.019        0.018    8.48
 84)  trans-1,3-dichloropropene
       0.500 0.566 0.565 0.567 0.553 0.532 0.564 0.496 0.560        0.545    5.22
 85)  ethyl methacrylate
       0.487 0.545 0.508 0.499 0.497 0.473 0.504 0.464 0.506        0.498    4.67
 86)  1,1,2-trichloroethane
       0.292 0.320 0.291 0.291 0.288 0.276 0.293 0.270 0.287        0.290    4.77
 87)  2-hexanone
       0.154       0.148 0.143 0.165 0.137 0.171 0.141 0.163        0.153    8.21

 88) I   chlorobenzene-d5      ----------------ISTD---------------------
 89)  tetrachloroethene
       0.423 0.534 0.412 0.428 0.438 0.378 0.455 0.417 0.466 0.405  0.436    9.82
 90)  1,3-dichloropropane
       0.598 0.656 0.586 0.596 0.587 0.554 0.611 0.583 0.608        0.598    4.58
 91)  butyl acetate
       0.262 0.275 0.270 0.272 0.277 0.273 0.298 0.278 0.278        0.276    3.57
 92)  3,3-DIMETHYL-1-BUTANOL
       0.040 0.041 0.037 0.039 0.045 0.039 0.047 0.040 0.044        0.041    7.62
 93)  dibromochloromethane
       0.287 0.327 0.448 0.432 0.387 0.442 0.347 0.301 0.385        0.373   16.37
 94)  1,2-dibromoethane
       0.378 0.395 0.403 0.394 0.387 0.392 0.391 0.363 0.389        0.388    2.96
 95)  n-butyl ether
       1.774       2.022 2.026 1.954 1.881 1.982 1.790 2.017        1.930    5.36
 96)  chlorobenzene
       1.041       1.113 1.121 1.080 1.055 1.135 1.014 1.130        1.086    4.22
 97)  1,1,1,2-tetrachloroethane
       0.300       0.405 0.401 0.376 0.388 0.363 0.326 0.381        0.368   10.05
 98)  ethylbenzene
       1.701       1.839 1.857 1.831 1.705 1.893 1.675 1.924        1.803    5.31
 99)  m,p-xylene
       0.645 0.905 0.745 0.742 0.724 0.704 0.761 0.672 0.755 0.796  0.745    9.61
100)  o-xylene
       0.659       0.773 0.766 0.740 0.729 0.766 0.661 0.771        0.733    6.51
101)  styrene
       1.163 1.472 1.290 1.298 1.267 1.215 1.274 1.171 1.324 1.442  1.292    7.91
102)  bromoform
       0.185       0.354 0.320 0.273       0.222 0.187 0.261        0.257   25.02
          ----- Quadratic regression -----                Coefficient =  0.9993
               Response Ratio = -0.00259 + 0.26835 *A + 0.04438 *A^2


103) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
104)  isopropylbenzene
       2.935       3.199 3.249 3.267 2.958 3.376 2.995 3.408        3.173    5.91
105)  4-bromofluorobenzene (s)
       0.831 0.839 0.825 0.815 0.821 0.817 0.836 0.827 0.828 0.847  0.829    1.20
106)  cyclohexanone
       0.139       0.089 0.090 0.134       0.138 0.120 0.131        0.120   18.11
107)  bromobenzene
       0.908 1.141 0.918 0.926 0.926 0.863 0.935 0.882 0.961 1.067  0.953    9.02
108)  1,1,2,2-tetrachloroethane
       0.912 1.007 0.871 0.856 0.864 0.816 0.885 0.866 0.885        0.885    5.96
109)  trans-1,4-dichloro-2-butene
       0.184       0.220 0.209 0.204 0.206 0.195 0.167 0.194        0.197    8.38
110)  1,2,3-trichloropropane
```

```
       0.228 0.249 0.219 0.211 0.216 0.206 0.229 0.200 0.221        0.220    6.66
111)  n-propylbenzene
       3.575       3.744 3.823 3.856 3.429 4.034 3.683 4.034        3.772    5.59
112)  4-ETHYLTOLUENE
                                                                    0.000#  -1.00
113)  2-chlorotoluene
       0.730 0.986 0.824 0.828 0.814 0.768 0.846 0.763 0.852 0.971  0.838    9.97
114)  4-chlorotoluene
       2.304       2.332 2.350 2.360 2.182 2.441 2.270 2.497        2.342    4.17
115)  1,3,5-trimethylbenzene
       2.547       2.674 2.740 2.764 2.442 2.921 2.649 2.919        2.707    6.17
116)  tert-butylbenzene
       2.231       2.469 2.521 2.475 2.265 2.492 2.292 2.586        2.416    5.52
117)  pentachloroethane
                   0.578 0.559 0.521 0.557 0.495 0.419 0.530        0.523   10.19
118)  1,2,4-trimethylbenzene
       2.678       2.748 2.859 2.851 2.501 3.274 2.701 3.009        2.828    8.30
119)  sec-butylbenzene
       3.448       3.686 3.793 3.742 3.331 3.748 3.489 3.888        3.641    5.34
120)  1,3-dichlorobenzene
       1.746       1.726 1.779 1.771 1.601 1.822 1.723 1.885        1.757    4.70
121)  p-isopropyltoluene
       2.894       3.217 3.381 3.286 2.902 3.276 3.044 3.465        3.183    6.72
122)  1,4-dichlorobenzene
       1.679       1.733 1.766 1.742 1.631 1.793 1.696 1.814        1.732    3.52
123)  benzyl chloride
       1.753 1.692 1.791 1.837 1.832 1.772 1.852 1.683 1.783 2.032  1.803    5.46
124)  1,2-dichlorobenzene
       1.658 2.136 1.679 1.732 1.713 1.545 1.766 1.660 1.794 1.840  1.752    9.02
125)  1,4-DIETHYLBENZENE
                                                                    0.000#  -1.00
126)  n-butylbenzene
       1.419       1.668 1.760 1.704 1.488 1.663 1.490 1.760        1.619    8.26
127)  1,2,4,5-TETRAMETHYLBENZENE
                                                                    0.000#  -1.00
128)  1,2-dibromo-3-chloropropane
       0.127 0.123 0.162 0.159 0.158 0.151 0.151 0.122 0.152        0.145   11.22
129)  1,3,5-TRICHLOROBENZENE
       1.320 1.827 1.509 1.583 1.528 1.377 1.473 1.372 1.567 1.456  1.501    9.58
130)  1,2,4-trichlorobenzene
       1.080 1.381 1.345 1.395 1.307 1.248 1.239 1.114 1.326 1.201  1.264    8.52
131)  hexachlorobutadiene
       0.671       0.688 0.737 0.727 0.614 0.720 0.642 0.765        0.695    7.35
132)  naphthalene
       2.196 2.370 2.581 2.591 2.549 2.402 2.479 2.159 2.502 2.239  2.407    6.71
133)  1,2,3-trichlorobenzene
       1.050 1.202 1.193 1.220 1.169 1.118 1.136 0.978 1.179 1.044  1.129    7.12
134)  hexachloroethane
                   0.597 0.567 0.465 0.570 0.364 0.327 0.444        0.476   22.26
              ----- Linear regression -----  Coefficient =  0.9976
                Response Ratio = -0.01616 + 0.57847 *A

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

           M4B2759.M         Fri Dec 09 09:40:08 2016   GCMS4B
```

Initial Calibration Verification

Job Number: JC33175 **Sample:** V4B2759-ICV2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67088.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\4B67088.D Vial: 14
Acq On : 8 Dec 2016 1:13 pm Operator: Hueanht
Sample : icv2759-50 Inst : MS4B
Misc : MS9923,V4B2759,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
Last Update : Fri Dec 09 09:11:35 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	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	500.00	1.000	1.000	0.0	98	0.00	6.82
2	M	tertiary butyl alcohol	250.00	1.270	1.370	-7.9	103	0.00	6.91
3	M	1,4-dioxane	1250.00	0.128	0.126	1.6	93	0.01	10.36
4		Ethanol		----------NA----------					
5	I	pentafluorobenzene	50.00	1.000	1.000	0.0	102	0.00	8.85
6		CHLOROTRIFLUOROETHENE		----------NA----------					
7	M	chlorodifluoromethane	50.00	0.572	0.712	-24.5	120	0.00	3.87
8	M	dichlorodifluoromethane	50.00	0.508	0.503	1.0	96	0.00	3.83
9		Freon 114		----------NA----------					
10	M	chloromethane	50.00	0.252	0.241	4.4	94	0.00	4.17
11	M	vinyl chloride	50.00	0.721	0.703	2.5	94	0.00	4.40
12	M	bromomethane	50.00	0.364	0.364	0.0	95	0.00	4.97
13	M	chloroethane	50.00	0.366	0.355	3.0	96	0.00	5.15
14		vinyl bromide	50.00	0.442	0.413	6.6	93	0.00	5.44
15	M	trichlorofluoromethane	50.00	0.619	0.628	-1.5	98	0.00	5.52
16		1,3-butadiene	50.00	0.619	0.623	-0.6	98	0.00	4.46
17		Pentane		----------NA----------					
18		freon 123a		----------NA----------					
19	M	ethyl ether	50.00	0.243	0.258	-6.2	102	0.00	5.88
20		2-chloropropane	50.00	0.184	0.198	-7.6	113	0.00	6.08
21	M	acrolein	500.00	0.100	0.097	3.0	96	0.00	6.09
22	M	1,1-dichloroethene	50.00	0.427	0.418	2.1	97	-0.01	6.26

		----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
23	M	acetone	50.00	0.048	51.925	-3.8	108	0.00	6.27

		----------TrueValue	AvgRF	CCRF	% Dev	----------	R.T.
24	M	allyl chloride	50.00	0.297	0.286	3.7	99	0.00	6.72
25	M	acetonitrile	500.00	0.030	0.028	6.7	98	0.00	6.63
26	M	iodomethane	50.00	0.830	0.837	-0.8	97	-0.03	6.49
27	M	carbon disulfide	50.00	1.321	1.357	-2.7	98	-0.01	6.62
28	M	methylene chloride	50.00	0.470	0.460	2.1	95	0.00	6.88
29	M	methyl acetate	50.00	0.068	0.074	-8.8	107	0.00	6.66
30		1-chloropropane		----------NA----------					
31	M	methyl tert butyl ether	100.00	1.282	1.222	4.7	99	0.00	7.18
32	M	trans-1,2-dichloroethene	50.00	0.425	0.420	1.2	98	0.00	7.22
33	M	di-isopropyl ether	50.00	1.757	1.774	-1.0	106	0.00	7.70
34	M	2-butanone	50.00	0.058	0.057	1.7	104	0.00	8.31
35	M	1,1-dichloroethane	50.00	0.889	0.842	5.3	96	0.00	7.74
36	M	chloroprene	50.00	0.705	0.762	-8.1	109	0.00	7.82
37	M	acrylonitrile	250.00	0.185	0.180	2.7	101	0.00	7.14

Initial Calibration Verification

Job Number: JC33175 **Sample:** V4B2759-ICV2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67088.D
Project: BMSMC, Building 5 Area, PR

38	M	vinyl acetate	50.00	0.084	0.092	-9.5	108	0.00	7.67
39	M	ethyl tert-butyl ether	50.00	1.469	1.576	-7.3	111	0.00	8.11
40	M	ethyl acetate	50.00	0.073	0.074	-1.4	106	0.00	8.32
41	M	2,2-dichloropropane	50.00	0.420	0.424	-1.0	101	0.00	8.40
42	M	cis-1,2-dichloroethene	50.00	0.503	0.489	2.8	97	0.00	8.37
43		methylacrylate	50.00	0.073	0.071	2.7	99	0.00	8.40
44	M	propionitrile	500.00	0.073	0.067	8.2	100	0.00	8.39
45	M	bromochloromethane	50.00	0.251	0.256	-2.0	98	0.00	8.65
46	M	tetrahydrofuran	50.00	0.164	0.153	6.7	102	0.00	8.67
47	M	chloroform	50.00	0.535	0.531	0.7	99	0.00	8.72
48	M	T-BUTYL FORMATE	50.00	0.349	0.264	24.4	74	0.00	8.75
49	S	dibromofluoromethane (s)	50.00	0.409	0.406	0.7	101	0.00	8.90
50	S	1,2-dichloroethane-d4 (s)	50.00	0.452	0.436	3.5	101	0.00	9.29
51	M	freon 113	50.00	0.337	0.432	-28.2	126	0.00	6.25
52	M	methacrylonitrile	50.00	0.340	0.307	9.7	99	0.00	8.57
53	M	1,1,1-trichloroethane	50.00	0.604	0.637	-5.5	101	0.00	8.96
54	M	cyclohexane	50.00	0.656	0.626	4.6	95	0.00	9.06
55		iso-butyl alcohol		----------NA----------					
56	I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	101	0.00	9.72
57	M	epichlorohydrin	250.00	0.040	0.038	5.0	100	0.00	10.87
58	M	n-butyl alcohol	2500.00	0.013	0.011	15.4	97	0.00	9.75
59	M	carbon tetrachloride	50.00	0.362	0.388	-7.2	97	0.00	9.14
60	M	1,1-dichloropropene	50.00	0.464	0.467	-0.6	97	0.00	9.12
61	M	hexane	50.00	0.445	0.410	7.9	88	0.00	7.52
62		Tert Amyl alcohol		----------NA----------					
63	M	benzene	50.00	1.425	1.333	6.5	97	0.00	9.35
64	m	iso-octane	50.00	1.239	1.476	-19.1	117	0.00	9.44
65	M	tert-amyl methyl ether	50.00	0.223	0.238	-6.7	106	0.00	9.40
66	M	heptane	50.00	0.275	0.317	-15.3	111	0.00	9.56
67	M	isopropyl acetate	50.00	0.139	0.152	-9.4	108	0.00	9.24
68	M	1,2-dichloroethane	50.00	0.465	0.459	1.3	99	0.00	9.38
69	M	trichloroethene	50.00	0.383	0.368	3.9	98	0.00	10.02
70		Tert-amyl Ethyl Ether		----------NA----------					
71		ethyl acrylate	50.00	0.463	0.458	1.1	100	0.00	10.00
72	M	2-nitropropane	50.00	0.145	0.145	0.0	100	0.00	10.76
73	M	2-chloroethyl vinyl ether	250.00	0.251	0.271	-8.0	110	0.00	10.78
74	M	methyl methacrylate	50.00	0.097	0.096	1.0	97	0.00	10.25
75	M	1,2-dichloropropane	50.00	0.394	0.372	5.6	95	0.00	10.31
76	M	dibromomethane	50.00	0.224	0.222	0.9	98	0.00	10.41
77	M	methylcyclohexane	50.00	0.506	0.606	-19.8	114	0.00	10.30
78	M	bromodichloromethane	50.00	0.455	0.452	0.7	94	0.00	10.55
79	M	cis-1,3-dichloropropene	50.00	0.635	0.627	1.3	96	0.00	11.00
80	S	toluene-d8 (s)	50.00	1.177	1.177	0.0	101	0.00	11.32
81	M	4-methyl-2-pentanone	50.00	0.153	0.148	3.3	100	0.00	11.10
82	M	toluene	50.00	0.877	0.863	1.6	96	0.00	11.39
83	M	3-methyl-1-butanol	1000.00	0.018	0.017	5.6	101	0.00	11.09
84	M	trans-1,3-dichloropropene	50.00	0.545	0.553	-1.5	99	0.00	11.59
85	M	ethyl methacrylate	50.00	0.498	0.466	6.4	94	0.00	11.56
86	M	1,1,2-trichloroethane	50.00	0.290	0.281	3.1	97	0.00	11.82
87	M	2-hexanone	50.00	0.153	0.141	7.8	99	0.00	11.98
88	I	chlorobenzene-d5	50.00	1.000	1.000	0.0	101	0.00	12.91
89	M	tetrachloroethene	50.00	0.436	0.415	4.8	98	0.00	11.96
90	M	1,3-dichloropropane	50.00	0.598	0.575	3.8	97	0.00	12.01
91	M	butyl acetate	50.00	0.276	0.292	-5.8	108	0.00	12.06
92	M	3,3-DIMETHYL-1-BUTANOL	500.00	0.041	0.041	0.0	106	0.00	12.16
93	M	dibromochloromethane	50.00	0.373	0.408	-9.4	95	0.00	12.27
94	M	1,2-dibromoethane	50.00	0.388	0.381	1.8	98	0.00	12.44
95		n-butyl ether	50.00	1.930	1.873	3.0	93	0.00	12.89

Initial Calibration Verification

Job Number: JC33175 **Sample:** V4B2759-ICV2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67088.D
Project: BMSMC, Building 5 Area, PR

96 M	chlorobenzene	50.00	1.086	1.085	0.1	98	0.00	12.94
97 M	1,1,1,2-tetrachloroethane	50.00	0.368	0.375	-1.9	94	0.00	13.01
98 M	ethylbenzene	50.00	1.803	1.771	1.8	96	0.00	13.01
99 M	m,p-xylene	100.00	0.745	0.715	4.0	97	0.00	13.14
100 M	o-xylene	50.00	0.733	0.730	0.4	96	0.00	13.58
101 M	styrene	50.00	1.292	1.243	3.8	97	0.00	13.59

		----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
102 M	bromoform	50.00	0.302	48.908	2.2	95	0.00	13.85

		----------TrueValue	AvgRF	CCRF	% Dev	----------	R.T.
103 I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	101	0.00	15.49
104 M	isopropylbenzene	50.00	3.173	3.107	2.1	96	0.00	13.96
105 S	4-bromofluorobenzene (s)	50.00	0.829	0.810	2.3	100	0.00	14.18
106	cyclohexanone	500.00	0.120	0.099	17.5	111	0.00	14.12
107 M	bromobenzene	50.00	0.953	0.895	6.1	97	0.00	14.39
108 M	1,1,2,2-tetrachloroethane	50.00	0.885	0.816	7.8	96	0.00	14.27
109 M	trans-1,4-dichloro-2-bute	50.00	0.197	0.201	-2.0	97	0.00	14.31
110 M	1,2,3-trichloropropane	50.00	0.220	0.211	4.1	101	0.00	14.37
111 M	n-propylbenzene	50.00	3.772	3.672	2.7	97	0.00	14.42
112	4-ETHYLTOLUENE		----------NA----------					
113 M	2-chlorotoluene	50.00	0.838	0.793	5.4	96	0.00	14.57
114 M	4-chlorotoluene	50.00	2.342	2.278	2.7	98	0.00	14.70
115 M	1,3,5-trimethylbenzene	50.00	2.707	2.644	2.3	97	0.00	14.60
116 M	tert-butylbenzene	50.00	2.416	2.406	0.4	96	0.00	14.97
117 M	pentachloroethane	50.00	0.523	0.545	-4.2	98	0.00	15.05
118 M	1,2,4-trimethylbenzene	50.00	2.828	2.751	2.7	97	0.00	15.03
119 M	sec-butylbenzene	50.00	3.641	3.604	1.0	96	0.00	15.21
120 M	1,3-dichlorobenzene	50.00	1.757	1.702	3.1	96	0.00	15.41
121 M	p-isopropyltoluene	50.00	3.183	3.172	0.3	94	0.00	15.37
122 M	1,4-dichlorobenzene	50.00	1.732	1.710	1.3	97	0.00	15.52
123	benzyl chloride	50.00	1.803	1.711	5.1	94	0.00	15.62
124 M	1,2-dichlorobenzene	50.00	1.752	1.677	4.3	98	0.00	15.93
125	1,4-DIETHYLBENZENE		----------NA----------					
126 M	n-butylbenzene	50.00	1.619	1.642	-1.4	94	0.00	15.82
127	1,2,4,5-TETRAMETHYLBENZEN		----------NA----------					
128 M	1,2-dibromo-3-chloropropa	50.00	0.145	0.152	-4.8	96	0.00	16.78
129	1,3,5-TRICHLOROBENZENE	50.00	1.501	1.548	-3.1	98	0.00	16.98
130 M	1,2,4-trichlorobenzene	50.00	1.264	1.332	-5.4	96	0.00	17.66
131 M	hexachlorobutadiene	50.00	0.695	0.670	3.6	92	0.00	17.78
132 M	naphthalene	50.00	2.407	2.455	-2.0	95	0.00	17.98
133 M	1,2,3-trichlorobenzene	50.00	1.129	1.164	-3.1	96	0.00	18.22

		----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
134 m	hexachloroethane	50.00	0.531	47.313	5.4	94	0.00	16.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B67083.D M4B2759.M Fri Dec 09 09:40:39 2016 GCMS4B

6.7.2
6

Continuing Calibration Summary

Job Number: JC33175 **Sample:** V4B2772-CC2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67390.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\4B67390.D Vial: 4
Acq On : 16 Dec 2016 10:34 am Operator: Hueanht
Sample : cc2759-20 Inst : MS4B
Misc : MS10318,V4B2772,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
Last Update : Fri Dec 09 09:11:35 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	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	500.00	1.000	1.000	0.0	92	0.00	6.81
2	M	tertiary butyl alcohol	100.00	1.270	1.311	-3.2	94	0.00	6.91
3	M	1,4-dioxane	500.00	0.128	0.130	-1.6	94	0.00	10.34
4		Ethanol		----------NA----------					
5	I	pentafluorobenzene	50.00	1.000	1.000	0.0	102	0.00	8.84
6		CHLOROTRIFLUOROETHENE		----------NA----------					
7	M	chlorodifluoromethane	20.00	0.572	0.172	69.9#	30#	0.00	3.87
8	M	dichlorodifluoromethane	20.00	0.508	0.555	-9.3	106	0.00	3.83
9		Freon 114		----------NA----------					
10	M	chloromethane	20.00	0.252	0.274	-8.7	105	0.01	4.18
11	M	vinyl chloride	20.00	0.721	0.763	-5.8	103	-0.01	4.39
12	M	bromomethane	20.00	0.364	0.401	-10.2	109	0.01	4.98
13	M	chloroethane	20.00	0.366	0.384	-4.9	103	0.01	5.16
14		vinyl bromide	20.00	0.442	0.464	-5.0	106	0.00	5.44
15	M	trichlorofluoromethane	20.00	0.619	0.758	-22.5#	120	0.00	5.53
16		1,3-butadiene	20.00	0.619	0.650	-5.0	100	0.01	4.47
17		Pentane		----------NA----------					
18		freon 123a		----------NA----------					
19	M	ethyl ether	20.00	0.243	0.255	-4.9	103	0.00	5.88
20		2-chloropropane	20.00	0.184	0.194	-5.4	107	0.00	6.08
21	M	acrolein	200.00	0.100	0.093	7.0	90	0.00	6.09
22	M	1,1-dichloroethene	20.00	0.427	0.423	0.9	96	0.00	6.26

		----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
23	M	acetone	20.00	0.053	18.263	8.7	85	0.00	6.26

		----------TrueValue	AvgRF	CCRF	% Dev	----------	R.T.
24	M	allyl chloride	20.00	0.297	0.266	10.4	84	0.00	6.72
25	M	acetonitrile	200.00	0.030	0.030	0.0	99	0.00	6.63
26	M	iodomethane	20.00	0.830	0.825	0.6	98	-0.03	6.49
27	M	carbon disulfide	20.00	1.321	1.136	14.0	83	-0.01	6.62
28	M	methylene chloride	20.00	0.470	0.473	-0.6	101	0.00	6.87
29	M	methyl acetate	20.00	0.068	0.067	1.5	95	-0.01	6.65
30		1-chloropropane		----------NA----------					
31	M	methyl tert butyl ether	20.00	1.282	1.386	-8.1	108	0.00	7.18
32	M	trans-1,2-dichloroethene	20.00	0.425	0.433	-1.9	100	0.00	7.22
33	M	di-isopropyl ether	20.00	1.757	1.784	-1.5	105	0.00	7.70
34	M	2-butanone	20.00	0.058	0.064	-10.3	94	0.00	8.31
35	M	1,1-dichloroethane	20.00	0.889	0.928	-4.4	105	0.00	7.74
36	M	chloroprene	20.00	0.705	0.695	1.4	98	0.00	7.82
37	M	acrylonitrile	100.00	0.185	0.177	4.3	96	0.00	7.13

Continuing Calibration Summary

Job Number: JC33175 **Sample:** V4B2772-CC2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67390.D
Project: BMSMC, Building 5 Area, PR

38	M	vinyl acetate	20.00	0.084	0.078	7.1	93	0.00	7.66
39	M	ethyl tert-butyl ether	20.00	1.469	1.561	-6.3	109	0.00	8.11
40	M	ethyl acetate	20.00	0.073	0.082	-12.3	111	0.00	8.32
41	M	2,2-dichloropropane	20.00	0.420	0.471	-12.1	108	0.00	8.40
42	M	cis-1,2-dichloroethene	20.00	0.503	0.513	-2.0	104	0.00	8.37
43		methylacrylate	20.00	0.073	0.073	0.0	100	0.00	8.40
44	M	propionitrile	200.00	0.073	0.071	2.7	97	0.00	8.39
45	M	bromochloromethane	20.00	0.251	0.265	-5.6	105	0.00	8.65
46	M	tetrahydrofuran	20.00	0.164	0.165	-0.6	101	0.00	8.66
47	M	chloroform	20.00	0.535	0.567	-6.0	106	0.00	8.72
48	M	T-BUTYL FORMATE	20.00	0.349	0.421	-20.6#	126	0.00	8.75
49	S	dibromofluoromethane (s)	50.00	0.409	0.425	-3.9	105	0.00	8.90
50	S	1,2-dichloroethane-d4 (s)	50.00	0.452	0.477	-5.5	107	0.00	9.29
51	M	freon 113	20.00	0.337	0.318	5.6	91	0.01	6.26
52	M	methacrylonitrile	20.00	0.340	0.337	0.9	103	0.00	8.57
53	M	1,1,1-trichloroethane	20.00	0.604	0.655	-8.4	107	0.00	8.96
54	M	cyclohexane	20.00	0.656	0.668	-1.8	99	0.00	9.06
55		iso-butyl alcohol		----------NA----------					
56	I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	102	0.00	9.72
57	M	epichlorohydrin	100.00	0.040	0.036	10.0	90	0.00	10.87
58	M	n-butyl alcohol	1000.00	0.013	0.012	7.7	94	0.00	9.75
59	M	carbon tetrachloride	20.00	0.362	0.474	-30.9#	125	0.00	9.14
60	M	1,1-dichloropropene	20.00	0.464	0.500	-7.8	104	0.00	9.11
61	M	hexane	20.00	0.445	0.420	5.6	86	0.00	7.52
62		Tert Amyl alcohol		----------NA----------					
63	M	benzene	20.00	1.425	1.389	2.5	103	0.00	9.35
64	m	iso-octane	20.00	1.239	1.252	-1.0	99	0.00	9.44
65	M	tert-amyl methyl ether	20.00	0.223	0.237	-6.3	106	0.00	9.40
66	M	heptane	20.00	0.275	0.298	-8.4	104	0.00	9.56
67	M	isopropyl acetate	20.00	0.139	0.132	5.0	98	0.00	9.24
68	M	1,2-dichloroethane	20.00	0.465	0.501	-7.7	110	0.00	9.37
69	M	trichloroethene	20.00	0.383	0.385	-0.5	104	0.00	10.02
70		Tert-amyl Ethyl Ether		----------NA----------					
71		ethyl acrylate	20.00	0.463	0.447	3.5	97	0.00	9.99
72	M	2-nitropropane	20.00	0.145	0.157	-8.3	110	-0.01	10.75
73	M	2-chloroethyl vinyl ether	100.00	0.251	0.249	0.8	99	0.00	10.78
74	M	methyl methacrylate	20.00	0.097	0.100	-3.1	101	0.00	10.25
75	M	1,2-dichloropropane	20.00	0.394	0.419	-6.3	108	0.00	10.30
76	M	dibromomethane	20.00	0.224	0.236	-5.4	106	0.00	10.41
77	M	methylcyclohexane	20.00	0.506	0.528	-4.3	100	0.00	10.30
78	M	bromodichloromethane	20.00	0.455	0.507	-11.4	112	0.00	10.55
79	M	cis-1,3-dichloropropene	20.00	0.635	0.648	-2.0	104	0.00	11.00
80	S	toluene-d8 (s)	50.00	1.177	1.183	-0.5	103	0.00	11.31
81	M	4-methyl-2-pentanone	20.00	0.153	0.184	-20.3#	118	0.00	11.10
82	M	toluene	20.00	0.877	0.917	-4.6	105	0.00	11.39
83	M	3-methyl-1-butanol	400.00	0.018	0.018	0.0	93	0.00	11.09
84	M	trans-1,3-dichloropropene	20.00	0.545	0.564	-3.5	104	0.00	11.58
85	M	ethyl methacrylate	20.00	0.498	0.485	2.6	99	0.00	11.56
86	M	1,1,2-trichloroethane	20.00	0.290	0.296	-2.1	105	0.00	11.82
87	M	2-hexanone	20.00	0.153	0.168	-9.8	103	0.00	11.98
88	I	chlorobenzene-d5	50.00	1.000	1.000	0.0	102	0.00	12.91
89	M	tetrachloroethene	20.00	0.436	0.416	4.6	96	0.00	11.96
90	M	1,3-dichloropropane	20.00	0.598	0.615	-2.8	106	0.00	12.00
91	M	butyl acetate	20.00	0.276	0.277	-0.4	102	0.00	12.05
92	M	3,3-DIMETHYL-1-BUTANOL	200.00	0.041	0.039	4.9	88	0.00	12.16
93	M	dibromochloromethane	20.00	0.373	0.410	-9.9	108	0.00	12.27
94	M	1,2-dibromoethane	20.00	0.388	0.398	-2.6	105	0.00	12.44
95		n-butyl ether	20.00	1.930	1.852	4.0	96	0.00	12.88

Continuing Calibration Summary

Job Number: JC33175 **Sample:** V4B2772-CC2759
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 4B67390.D
Project: BMSMC, Building 5 Area, PR

96	M	chlorobenzene	20.00	1.086	1.106	-1.8	104	0.00	12.94
97	M	1,1,1,2-tetrachloroethane	20.00	0.368	0.411	-11.7	111	0.00	13.01
98	M	ethylbenzene	20.00	1.803	1.889	-4.8	105	0.00	13.00
99	M	m,p-xylene	40.00	0.745	0.728	2.3	102	0.00	13.14
100	M	o-xylene	20.00	0.733	0.744	-1.5	102	0.00	13.57
101	M	styrene	20.00	1.292	1.254	2.9	100	0.00	13.59
		----------TrueValue	CC-RF	Calc.	% Drift	---------- R.T.			
102	M	bromoform	20.00	0.260	18.714	6.4	97	0.00	13.85
		----------TrueValue	AvgRF	CCRF	% Dev	---------- R.T.			
103	I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	97	0.00	15.49
104	M	isopropylbenzene	20.00	3.173	3.455	-8.9	102	0.00	13.96
105	S	4-bromofluorobenzene (s)	50.00	0.829	0.861	-3.9	102	0.00	14.18
106		cyclohexanone	200.00	0.120	0.058	51.7#	42#	0.00	14.11
107	M	bromobenzene	20.00	0.953	0.976	-2.4	102	0.00	14.39
108	M	1,1,2,2-tetrachloroethane	20.00	0.885	0.909	-2.7	102	0.00	14.27
109	M	trans-1,4-dichloro-2-bute	20.00	0.197	0.132	33.0#	62	0.00	14.31
110	M	1,2,3-trichloropropane	20.00	0.220	0.230	-4.5	103	0.00	14.37
111	M	n-propylbenzene	20.00	3.772	4.068	-7.8	102	0.00	14.42
112		4-ETHYLTOLUENE	----------NA----------						
113	M	2-chlorotoluene	20.00	0.838	0.854	-1.9	102	0.00	14.57
114	M	4-chlorotoluene	20.00	2.342	2.485	-6.1	102	0.00	14.69
115	M	1,3,5-trimethylbenzene	20.00	2.707	2.874	-6.2	101	0.00	14.59
116	M	tert-butylbenzene	20.00	2.416	2.611	-8.1	102	0.00	14.97
117	M	pentachloroethane	20.00	0.523	0.570	-9.0	106	0.00	15.05
118	M	1,2,4-trimethylbenzene	20.00	2.828	2.980	-5.4	101	0.00	15.03
119	M	sec-butylbenzene	20.00	3.641	3.880	-6.6	100	0.00	15.21
120	M	1,3-dichlorobenzene	20.00	1.757	1.829	-4.1	100	0.00	15.41
121	M	p-isopropyltoluene	20.00	3.183	3.428	-7.7	101	0.00	15.36
122	M	1,4-dichlorobenzene	20.00	1.732	1.778	-2.7	99	0.00	15.51
123		benzyl chloride	20.00	1.803	1.889	-4.8	100	0.00	15.62
124	M	1,2-dichlorobenzene	20.00	1.752	1.778	-1.5	101	0.00	15.93
125		1,4-DIETHYLBENZENE	----------NA----------						
126	M	n-butylbenzene	20.00	1.619	1.757	-8.5	100	0.00	15.82
127		1,2,4,5-TETRAMETHYLBENZEN	----------NA----------						
128	M	1,2-dibromo-3-chloropropa	20.00	0.145	0.162	-11.7	99	0.00	16.77
129		1,3,5-TRICHLOROBENZENE	20.00	1.501	1.550	-3.3	98	0.00	16.98
130	M	1,2,4-trichlorobenzene	20.00	1.264	1.322	-4.6	98	0.00	17.66
131	M	hexachlorobutadiene	20.00	0.695	0.770	-10.8	103	0.00	17.78
132	M	naphthalene	20.00	2.407	2.414	-0.3	92	0.00	17.98
133	M	1,2,3-trichlorobenzene	20.00	1.129	1.157	-2.5	96	0.00	18.21
		----------TrueValue	CC-RF	Calc.	% Drift	---------- R.T.			
134	m	hexachloroethane	20.00	0.604	22.269	-11.3	126	0.00	16.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B67082.D M4B2759.M Fri Dec 16 16:31:28 2016 GCMS4B

6.7.3

6

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67403.D
Acq On : 16 Dec 2016 4:43 pm
Operator : Hueanht
Sample : jc33175-1
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 19 15:23:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	133073	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	286565	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	386028	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	365619	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204675	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	119657	51.08	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.16%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	140790	54.31	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.62%			
80) toluene-d8 (s)	11.31	98	455554	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
105) 4-bromofluorobenzene (s)	14.18	95	174470	51.43	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.86%			

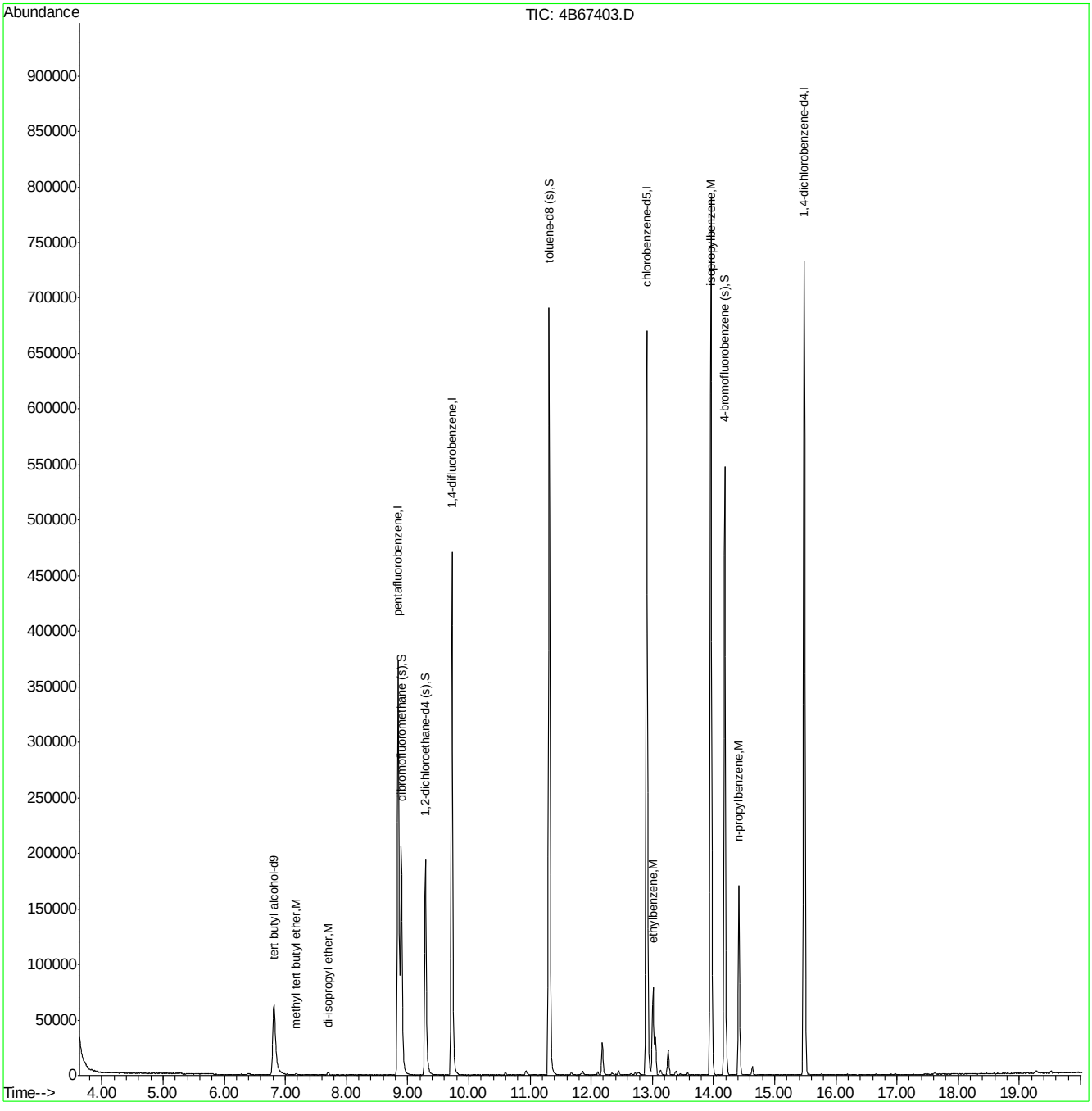
Target Compounds						Qvalue
31) methyl tert butyl ether	7.17	73	1741	0.24	ug/L	53
33) di-isopropyl ether	7.70	45	2404	0.24	ug/L	92
98) ethylbenzene	13.01	91	4312	0.33	ug/L	94
104) isopropylbenzene	13.96	105	540063	41.58	ug/L	99
111) n-propylbenzene	14.42	91	138311	8.96	ug/L	99

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

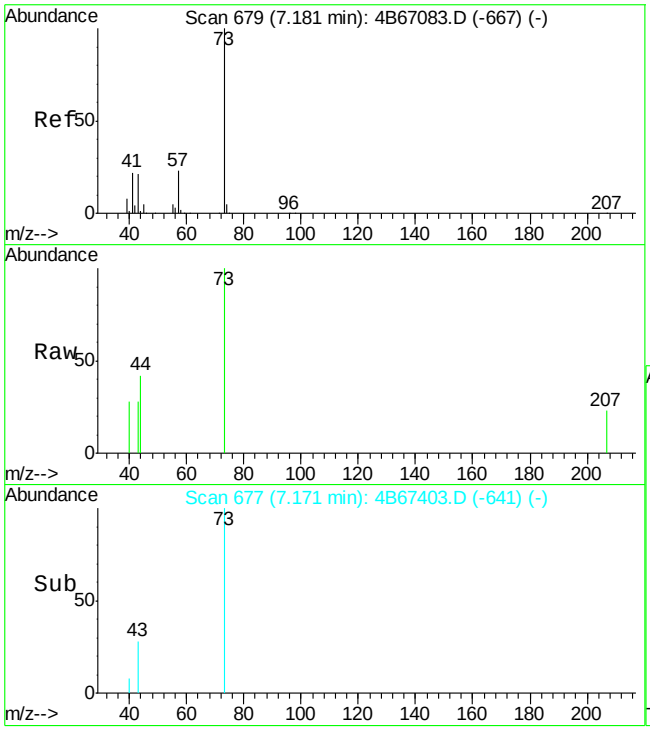
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67403.D
Acq On : 16 Dec 2016 4:43 pm
Operator : Hueanht
Sample : jc33175-1
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 19 15:23:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



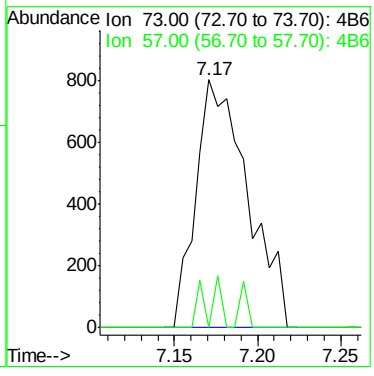
M4B2759.M Mon Dec 19 15:31:42 2016 GCMS4B Page: 2

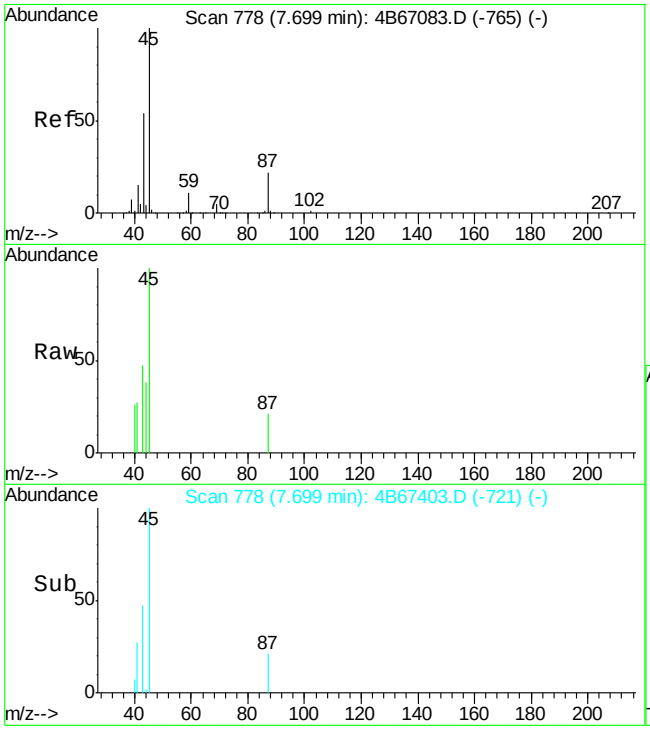


#31
methyl tert butyl ether
Concen: 0.24 ug/L
RT: 7.17 min Scan# 677
Delta R.T. -0.01 min
Lab File: 4B67403.D
Acq: 16 Dec 2016 4:43 pm

Tgt Ion: 73 Resp: 1741

Ion	Ratio	Lower	Upper
73	100		
57	0.0	0.0	68.7

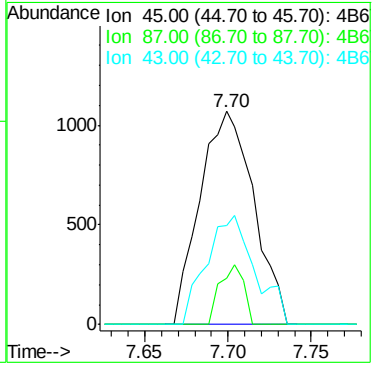


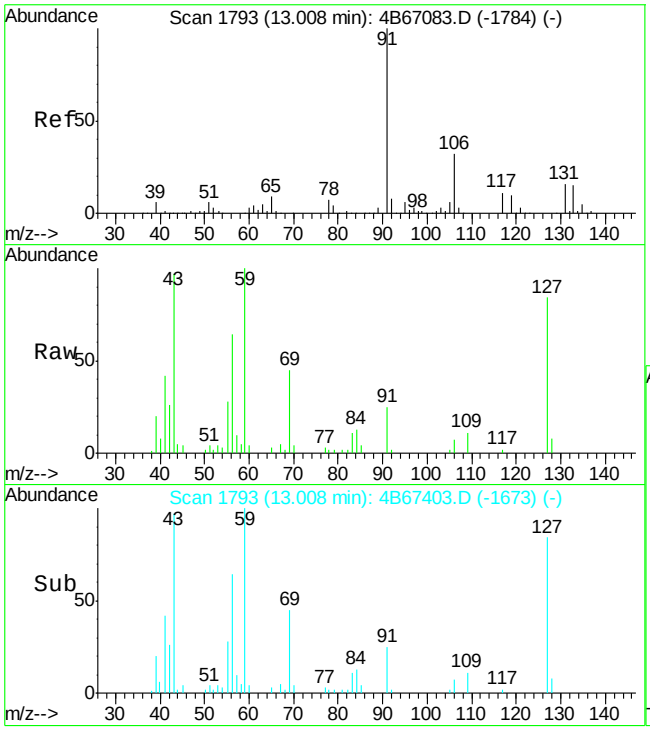


#33
di-isopropyl ether
Concen: 0.24 ug/L
RT: 7.70 min Scan# 778
Delta R.T. -0.00 min
Lab File: 4B67403.D
Acq: 16 Dec 2016 4:43 pm

Tgt Ion: 45 Resp: 2404

Ion	Ratio	Lower	Upper
45	100		
87	21.5	0.0	51.8
43	46.6	24.4	84.4

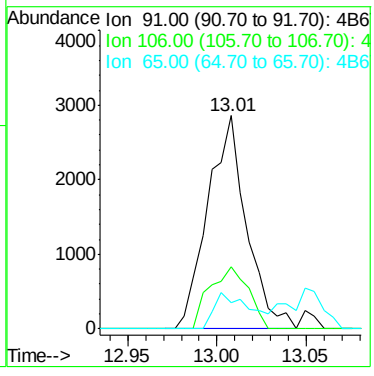


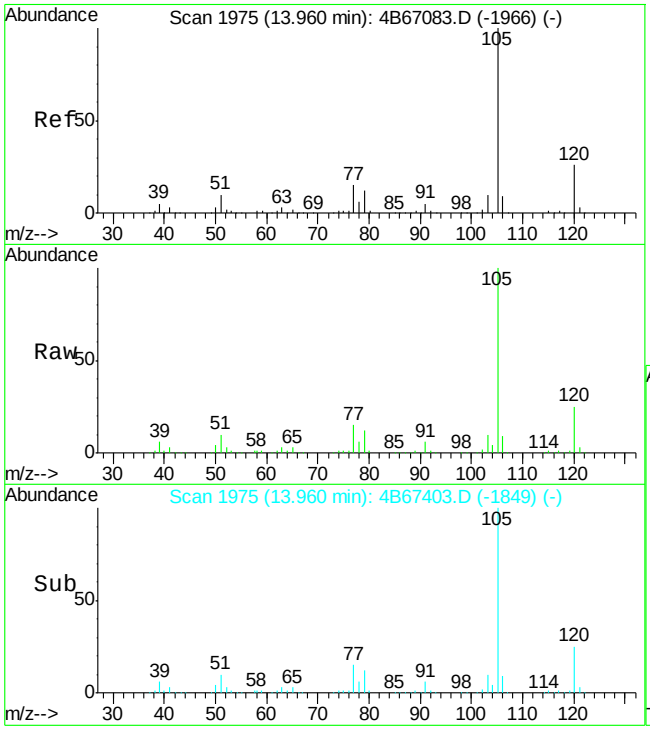


#98
ethylbenzene
Concen: 0.33 ug/L
RT: 13.01 min Scan# 1793
Delta R.T. -0.00 min
Lab File: 4B67403.D
Acq: 16 Dec 2016 4:43 pm

Tgt Ion: 91 Resp: 4312

Ion	Ratio	Lower	Upper
91	100		
106	29.1	2.0	62.0
65	12.5	0.0	38.9

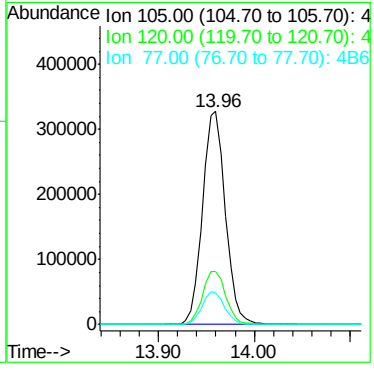


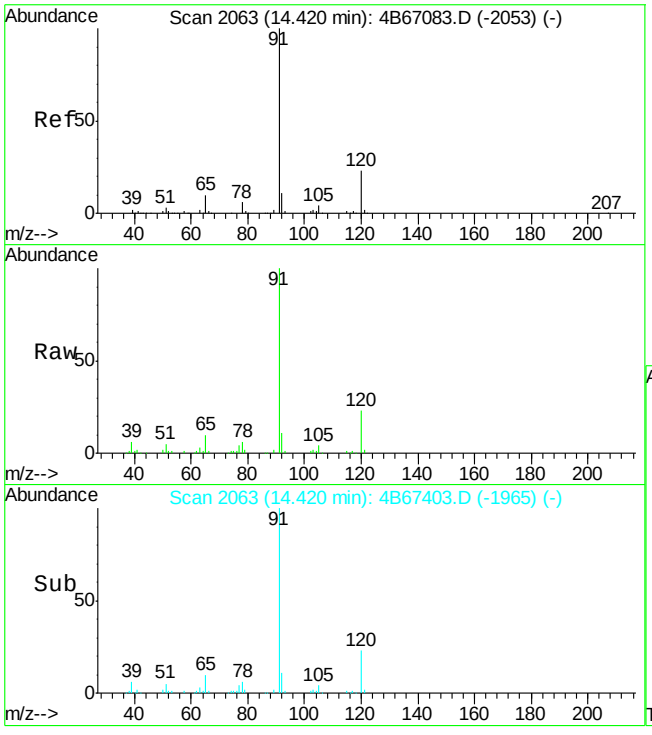


#104
isopropylbenzene
Concen: 41.58 ug/L
RT: 13.96 min Scan# 1975
Delta R.T. -0.00 min
Lab File: 4B67403.D
Acq: 16 Dec 2016 4:43 pm

Tgt Ion:105 Resp: 540063

Ion	Ratio	Lower	Upper
105	100		
120	25.1	0.0	55.9
77	14.9	0.0	44.9

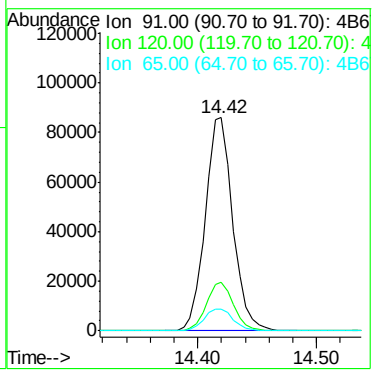




#111
n-propylbenzene
Concen: 8.96 ug/L
RT: 14.42 min Scan# 2063
Delta R.T. -0.00 min
Lab File: 4B67403.D
Acq: 16 Dec 2016 4:43 pm

Tgt Ion: 91 Resp: 138311

Ion	Ratio	Lower	Upper
91	100		
120	22.6	0.0	53.4
65	10.1	0.0	40.4



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67392.D
Acq On : 16 Dec 2016 11:37 am
Operator : Hueanht
Sample : mb
Misc : MS10170,V4B2772,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 16 16:32:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	135795	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	283697	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	383510	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	362673	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	195934	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	8.90	113	119159	51.38	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.76%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	140143	54.61	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.22%			
80) toluene-d8 (s)	11.31	98	450559	49.91	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.82%			
105) 4-bromofluorobenzene (s)	14.18	95	176397	54.32	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.64%			

Target Compounds Qvalue

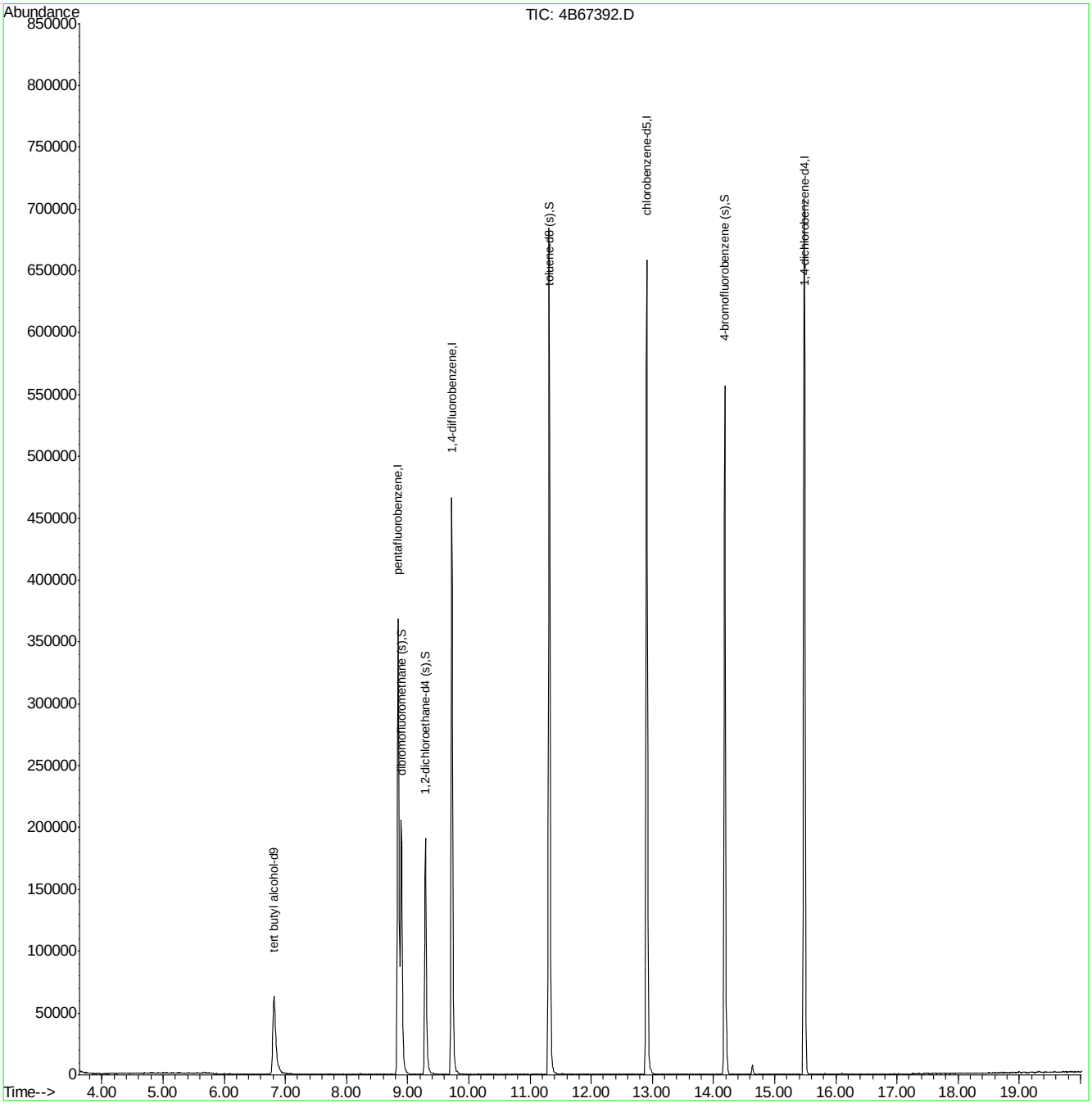
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67392.D
Acq On : 16 Dec 2016 11:37 am
Operator : Hueanht
Sample : mb
Misc : MS10170,V4B2772,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 16 16:32:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	113624	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	261882	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	359051	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	333398	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	201478	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	111319	52.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.00%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	125504	52.98	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.96%			
80) toluene-d8 (s)	11.31	98	421555	49.88	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.76%			
105) 4-bromofluorobenzene (s)	14.18	95	169961	50.90	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.80%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	78532	272.18	ug/L	97
3) 1,4-dioxane	10.35	88	31644	1089.95	ug/L	95
7) chlorodifluoromethane	3.87	51	175040	58.47	ug/L	99
8) dichlorodifluoromethane	3.83	85	157431	59.16	ug/L	99
10) chloromethane	4.17	52	71263	53.95	ug/L	99
11) vinyl chloride	4.40	62	202548	53.65	ug/L	99
12) bromomethane	4.97	94	101567	53.28	ug/L	96
13) chloroethane	5.15	64	100847	52.64	ug/L	99
14) vinyl bromide	5.44	106	172660	74.58	ug/L	99
15) trichlorofluoromethane	5.53	101	183370	56.52	ug/L	97
16) 1,3-butadiene	4.47	54	166009	51.18	ug/L	99
19) ethyl ether	5.88	74	74063	58.20	ug/L	97
20) 2-chloropropane	6.08	39	56750	58.86	ug/L	97
21) acrolein	6.09	56	241736	460.38	ug/L	96
22) 1,1-dichloroethene	6.26	96	119154	53.28	ug/L	96
23) acetone	6.27	58	11805	48.54	ug/L #	80
24) allyl chloride	6.72	76	82009	52.68	ug/L	91
25) acetonitrile	6.64	40	82403	533.23	ug/L	92
26) iodomethane	6.51	142	247612	56.98	ug/L	95
27) carbon disulfide	6.62	76	391267	56.53	ug/L	97
28) methylene chloride	6.87	84	133258	54.08	ug/L	96
29) methyl acetate	6.66	74	21221	59.64	ug/L	93
31) methyl tert butyl ether	7.18	73	736803	109.69	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	118543	53.26	ug/L	99
33) di-isopropyl ether	7.70	45	485929	52.82	ug/L	98
34) 2-butanone	8.32	72	15952	52.08	ug/L #	56
35) 1,1-dichloroethane	7.74	63	243216	52.24	ug/L	99
36) chloroprene	7.82	53	209570	56.75	ug/L	97
37) acrylonitrile	7.13	53	252894	261.37	ug/L	98
38) vinyl acetate	7.67	86	25283	57.65	ug/L	83
39) ethyl tert-butyl ether	8.11	59	449630	58.43	ug/L	100
40) ethyl acetate	8.32	45	21972	57.18	ug/L	90
41) 2,2-dichloropropane	8.40	77	126361	57.49	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	138162	52.40 ug/L	96
43) methylacrylate	8.39	85	20664	54.39 ug/L	100
44) propionitrile	8.39	54	191794	504.63 ug/L	96
45) bromochloromethane	8.65	128	71528	54.40 ug/L	96
46) tetrahydrofuran	8.66	42	45237	52.77 ug/L	94
47) chloroform	8.72	85	154042	54.92 ug/L	96
48) T-BUTYL FORMATE	8.75	59	93868	51.42 ug/L	100
51) freon 113	6.26	151	132866	75.24 ug/L	97
52) methacrylonitrile	8.57	41	91183	51.14 ug/L	99
53) 1,1,1-trichloroethane	8.96	97	189496	59.93 ug/L	99
54) cyclohexane	9.06	84	157540	45.84 ug/L	96
57) epichlorohydrin	10.87	57	73177	252.42 ug/L	99
58) n-butyl alcohol	9.75	56	204946	2206.39 ug/L	98
59) carbon tetrachloride	9.14	117	172380	66.39 ug/L	100
60) 1,1-dichloropropene	9.12	75	178661	53.67 ug/L	98
61) hexane	7.52	57	142043	44.45 ug/L	97
63) benzene	9.35	78	504913	49.34 ug/L	99
64) iso-octane	9.44	57	518337	58.27 ug/L	99
65) tert-amyl methyl ether	9.40	87	89681	55.97 ug/L	99
66) heptane	9.56	57	112331	56.95 ug/L	99
67) isopropyl acetate	9.24	61	59119	59.25 ug/L	99
68) 1,2-dichloroethane	9.37	62	182251	54.55 ug/L	98
69) trichloroethene	10.02	95	140775	51.20 ug/L	99
71) ethyl acrylate	9.99	55	181683	54.60 ug/L	99
72) 2-nitropropane	10.76	41	58109	55.96 ug/L #	42
73) 2-chloroethyl vinyl ether	10.78	63	424758	236.11 ug/L	99
74) methyl methacrylate	10.25	100	37744	54.06 ug/L #	85
75) 1,2-dichloropropane	10.30	63	144659	51.15 ug/L	98
76) dibromomethane	10.41	93	87797	54.47 ug/L	97
77) methylcyclohexane	10.30	83	201044	55.36 ug/L	98
78) bromodichloromethane	10.55	83	183671	56.20 ug/L	99
79) cis-1,3-dichloropropene	11.00	75	241519	52.93 ug/L	99
81) 4-methyl-2-pentanone	11.10	58	57787	52.66 ug/L	92
82) toluene	11.39	92	323160	51.33 ug/L	99
83) 3-methyl-1-butanol	11.09	55	126832	968.15 ug/L	97
84) trans-1,3-dichloropropene	11.58	75	214791	54.91 ug/L	97
85) ethyl methacrylate	11.56	69	182137	50.92 ug/L	99
86) 1,1,2-trichloroethane	11.81	83	110271	53.02 ug/L	98
87) 2-hexanone	11.98	58	53794	49.00 ug/L	99
89) tetrachloroethene	11.96	164	139474	48.03 ug/L	98
90) 1,3-dichloropropane	12.00	76	210131	52.72 ug/L	99
91) butyl acetate	12.05	56	107192	58.22 ug/L	99
92) 3,3-DIMETHYL-1-BUTANOL	12.15	57	139375	505.37 ug/L	98
93) dibromochloromethane	12.26	129	149348	60.07 ug/L	100
94) 1,2-dibromoethane	12.44	107	142146	54.94 ug/L	97
95) n-butyl ether	12.88	57	660544	51.32 ug/L	99
96) chlorobenzene	12.94	112	382872	52.87 ug/L	100
97) 1,1,1,2-tetrachloroethane	13.01	131	138757	56.62 ug/L	98
98) ethylbenzene	13.01	91	631287	52.51 ug/L	99
99) m,p-xylene	13.14	106	492218	99.08 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.57	106	254055	51.98 ug/L	96
101) styrene	13.59	104	423541	49.18 ug/L	94
102) bromoform	13.85	173	103756	50.15 ug/L	98
104) isopropylbenzene	13.96	105	668705	52.30 ug/L	99
106) cyclohexanone	14.11	55	47839	98.67 ug/L	98
107) bromobenzene	14.39	156	191936	50.00 ug/L	95
108) 1,1,2,2-tetrachloroethane	14.27	83	185215	51.95 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	30088	37.82 ug/L	95
110) 1,2,3-trichloropropane	14.37	110	47103	53.16 ug/L	98
111) n-propylbenzene	14.42	91	784939	51.64 ug/L	100
113) 2-chlorotoluene	14.57	126	170619	50.51 ug/L	96
114) 4-chlorotoluene	14.69	91	489862	51.91 ug/L	97
115) 1,3,5-trimethylbenzene	14.59	105	550486	50.47 ug/L	98
116) tert-butylbenzene	14.97	119	512887	52.67 ug/L	99
117) pentachloroethane	15.05	167	120232	57.08 ug/L	99
118) 1,2,4-trimethylbenzene	15.03	105	583677	51.22 ug/L	99
119) sec-butylbenzene	15.21	105	764183	52.09 ug/L	98
120) 1,3-dichlorobenzene	15.41	146	360459	50.93 ug/L	98
121) p-isopropyltoluene	15.36	119	677069	52.79 ug/L	99
122) 1,4-dichlorobenzene	15.51	146	358062	51.31 ug/L	98
123) benzyl chloride	15.62	91	332943	45.84 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	357590	50.64 ug/L	99
126) n-butylbenzene	15.82	92	348538	53.42 ug/L	99
128) 1,2-dibromo-3-chloropropan	16.78	75	35225	60.26 ug/L	96
129) 1,3,5-TRICHLOROBENZENE	16.97	180	332723	55.01 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	281641	55.31 ug/L	98
131) hexachlorobutadiene	17.77	225	144258	51.48 ug/L	98
132) naphthalene	17.98	128	508440	52.43 ug/L	99
133) 1,2,3-trichlorobenzene	18.21	180	239696	52.69 ug/L	99
134) hexachloroethane	16.26	201	128323	56.45 ug/L	98

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

7.3.1

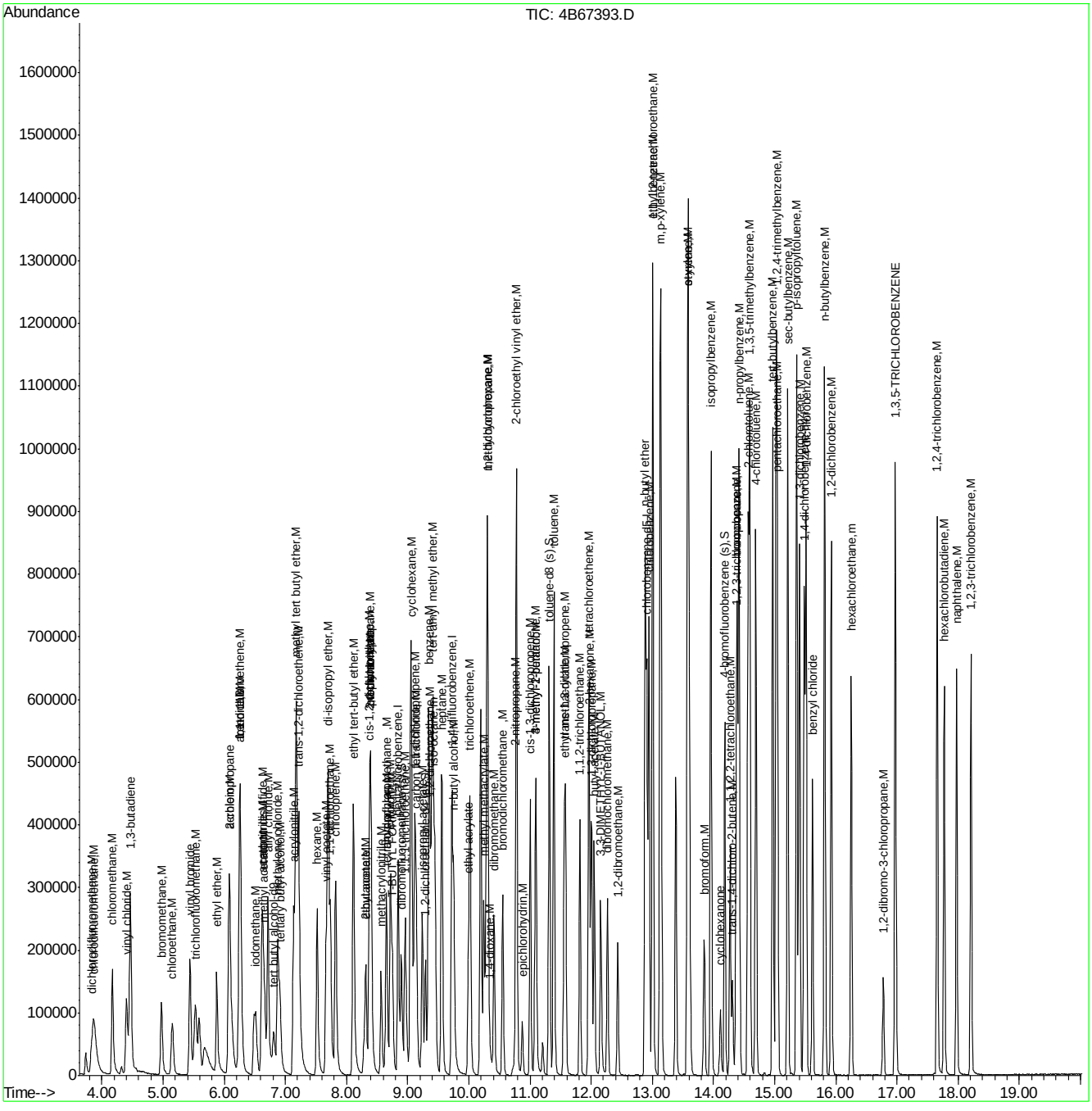
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.80	65	116899	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	264827	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	364296	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	341034	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204253	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	113988	52.65	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.30%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	125338	52.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.64%			
80) toluene-d8 (s)	11.31	98	431315	50.30	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.60%			
105) 4-bromofluorobenzene (s)	14.18	95	172559	50.98	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.96%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	80654	271.70	ug/L	98
3) 1,4-dioxane	10.35	88	32836	1099.32	ug/L	96
7) chlorodifluoromethane	3.87	51	155561	51.39	ug/L	98
8) dichlorodifluoromethane	3.83	85	165666	61.56	ug/L	99
10) chloromethane	4.17	52	74038	55.43	ug/L	94
11) vinyl chloride	4.40	62	208768	54.69	ug/L	100
12) bromomethane	4.97	94	103848	53.87	ug/L	98
13) chloroethane	5.15	64	103379	53.36	ug/L	97
14) vinyl bromide	5.44	106	175123	74.80	ug/L	99
15) trichlorofluoromethane	5.53	101	179098	54.58	ug/L	100
16) 1,3-butadiene	4.47	54	181565	55.36	ug/L	99
19) ethyl ether	5.88	74	72792	56.56	ug/L	97
20) 2-chloropropane	6.08	39	59787	61.33	ug/L	92
21) acrolein	6.09	56	285533	537.74	ug/L	99
22) 1,1-dichloroethene	6.27	96	123393	54.57	ug/L	94
23) acetone	6.26	58	11394	45.94	ug/L #	80
24) allyl chloride	6.72	76	83171	52.83	ug/L	96
25) acetonitrile	6.63	40	78333	501.26	ug/L	96
26) iodomethane	6.51	142	253237	57.63	ug/L	97
27) carbon disulfide	6.62	76	406452	58.07	ug/L	99
28) methylene chloride	6.88	84	135989	54.57	ug/L	99
29) methyl acetate	6.66	74	19945	55.43	ug/L	97
31) methyl tert butyl ether	7.18	73	715811	105.38	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	123506	54.87	ug/L	98
33) di-isopropyl ether	7.70	45	460596	49.51	ug/L	99
34) 2-butanone	8.32	72	15440	49.84	ug/L #	62
35) 1,1-dichloroethane	7.74	63	250362	53.18	ug/L	100
36) chloroprene	7.82	53	194191	52.00	ug/L	97
37) acrylonitrile	7.13	53	248041	253.51	ug/L	97
38) vinyl acetate	7.67	86	24469	55.17	ug/L	86
39) ethyl tert-butyl ether	8.11	59	423660	54.44	ug/L	100
40) ethyl acetate	8.32	45	21235	54.65	ug/L	96
41) 2,2-dichloropropane	8.40	77	129489	58.26	ug/L	98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	140408	52.66	ug/L		94
43) methylacrylate	8.39	85	20115	52.36	ug/L		96
44) propionitrile	8.39	54	190925	496.76	ug/L		94
45) bromochloromethane	8.65	128	71694	53.92	ug/L		99
46) tetrahydrofuran	8.67	42	45546	52.54	ug/L		98
47) chloroform	8.72	85	154783	54.58	ug/L		99
48) T-BUTYL FORMATE	8.75	59	48909	26.49	ug/L		97
51) freon 113	6.26	151	119654	67.00	ug/L		98
52) methacrylonitrile	8.57	41	88142	48.88	ug/L		98
53) 1,1,1-trichloroethane	8.96	97	193692	60.57	ug/L		98
54) cyclohexane	9.06	84	174680	50.27	ug/L	#	75
57) epichlorohydrin	10.87	57	67518	229.55	ug/L		100
58) n-butyl alcohol	9.75	56	206351	2189.53	ug/L		98
59) carbon tetrachloride	9.14	117	177456	67.36	ug/L		97
60) 1,1-dichloropropene	9.11	75	183425	54.31	ug/L		98
61) hexane	7.52	57	101062	31.17	ug/L		98
63) benzene	9.35	78	515559	49.66	ug/L		100
64) iso-octane	9.44	57	507436	56.22	ug/L		99
65) tert-amyl methyl ether	9.40	87	83231	51.20	ug/L		98
66) heptane	9.56	57	107410	53.68	ug/L		97
67) isopropyl acetate	9.24	61	56966	56.27	ug/L		99
68) 1,2-dichloroethane	9.38	62	183925	54.26	ug/L		98
69) trichloroethene	10.02	95	144552	51.82	ug/L		95
71) ethyl acrylate	9.99	55	179537	53.17	ug/L		100
72) 2-nitropropane	10.75	41	39539	37.53	ug/L	#	1
74) methyl methacrylate	10.25	100	36075	50.93	ug/L	#	90
75) 1,2-dichloropropane	10.30	63	145075	50.56	ug/L		98
76) dibromomethane	10.41	93	87491	53.50	ug/L		98
77) methylcyclohexane	10.30	83	187718	50.95	ug/L		100
78) bromodichloromethane	10.55	83	184464	55.63	ug/L		99
79) cis-1,3-dichloropropene	11.00	75	243910	52.69	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	58875	52.87	ug/L		92
82) toluene	11.39	92	332595	52.06	ug/L		98
83) 3-methyl-1-butanol	11.09	55	131499	989.32	ug/L		98
84) trans-1,3-dichloropropene	11.58	75	210072	52.93	ug/L		96
85) ethyl methacrylate	11.56	69	182867	50.39	ug/L		99
86) 1,1,2-trichloroethane	11.82	83	109481	51.88	ug/L		98
87) 2-hexanone	11.98	58	53982	48.46	ug/L		97
89) tetrachloroethene	11.96	164	143158	48.19	ug/L		97
90) 1,3-dichloropropane	12.00	76	207756	50.95	ug/L		98
91) butyl acetate	12.05	56	104033	55.24	ug/L		99
92) 3,3-DIMETHYL-1-BUTANOL	12.15	57	144999	513.99	ug/L		96
93) dibromochloromethane	12.26	129	147256	57.90	ug/L		99
94) 1,2-dibromoethane	12.44	107	138836	52.46	ug/L		99
95) n-butyl ether	12.88	57	666602	50.63	ug/L		99
96) chlorobenzene	12.94	112	386691	52.20	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	138475	55.24	ug/L		99
98) ethylbenzene	13.00	91	645258	52.47	ug/L		98
99) m,p-xylene	13.14	106	505511	99.48	ug/L		99
100) o-xylene	13.57	106	256491	51.30	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) styrene	13.59	104	424617	48.20 ug/L	94
102) bromoform	13.85	173	100521	47.84 ug/L	98
104) isopropylbenzene	13.96	105	1150532	88.75 ug/L	99
106) cyclohexanone	14.11	55	47577	96.79 ug/L	98
107) bromobenzene	14.39	156	192265	49.41 ug/L	96
108) 1,1,2,2-tetrachloroethane	14.27	83	182240	50.42 ug/L	96
109) trans-1,4-dichloro-2-buten	14.31	53	26719	33.13 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	45834	51.02 ug/L	99
111) n-propylbenzene	14.42	91	924014	59.96 ug/L	99
113) 2-chlorotoluene	14.57	126	172635	50.42 ug/L	98
114) 4-chlorotoluene	14.69	91	497590	52.01 ug/L	99
115) 1,3,5-trimethylbenzene	14.59	105	561178	50.75 ug/L	98
116) tert-butylbenzene	14.97	119	531530	53.84 ug/L	99
117) pentachloroethane	15.05	167	121757	57.02 ug/L	97
118) 1,2,4-trimethylbenzene	15.03	105	596777	51.66 ug/L	99
119) sec-butylbenzene	15.21	105	787449	52.95 ug/L	98
120) 1,3-dichlorobenzene	15.41	146	358103	49.91 ug/L	98
121) p-isopropyltoluene	15.36	119	690244	53.08 ug/L	99
122) 1,4-dichlorobenzene	15.51	146	361345	51.07 ug/L	98
123) benzyl chloride	15.62	91	316891	43.03 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	356460	49.80 ug/L	99
126) n-butylbenzene	15.82	92	356153	53.85 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.77	75	34416	58.08 ug/L	93
129) 1,3,5-TRICHLOROBENZENE	16.97	180	331004	53.98 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	279484	54.15 ug/L	99
131) hexachlorobutadiene	17.77	225	150343	52.92 ug/L	99
132) naphthalene	17.98	128	509496	51.82 ug/L	100
133) 1,2,3-trichlorobenzene	18.21	180	240088	52.06 ug/L	100
134) hexachloroethane	16.26	201	127988	55.56 ug/L	99

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

7.4.1

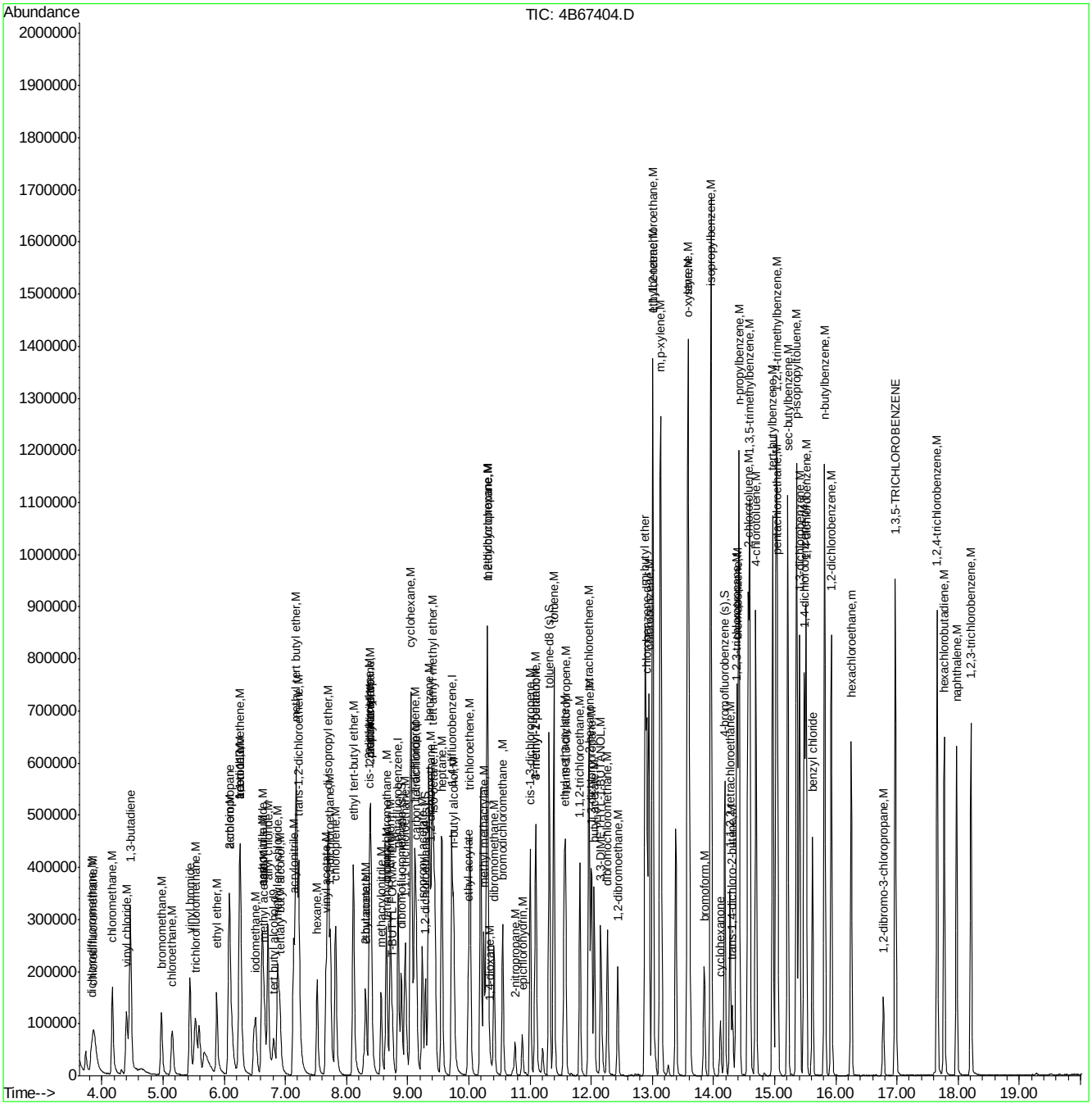
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	114298	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	256546	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	355936	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	335423	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	203639	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	112025	53.42	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.84%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	122336	52.72	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.44%			
80) toluene-d8 (s)	11.31	98	420571	50.20	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.40%			
105) 4-bromofluorobenzene (s)	14.18	95	169772	50.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.60%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	79268	273.11	ug/L	100
3) 1,4-dioxane	10.35	88	38659	1323.72	ug/L	95
7) chlorodifluoromethane	3.87	51	161371	55.03	ug/L	97
8) dichlorodifluoromethane	3.83	85	171747	65.88	ug/L	98
10) chloromethane	4.17	52	74581	57.64	ug/L	98
11) vinyl chloride	4.40	62	216726	58.60	ug/L	98
12) bromomethane	4.97	94	107625	57.64	ug/L	99
13) chloroethane	5.15	64	106907	56.97	ug/L	98
14) vinyl bromide	5.44	106	182197	80.34	ug/L	99
15) trichlorofluoromethane	5.53	101	187036	58.84	ug/L	97
16) 1,3-butadiene	4.47	54	167274	52.65	ug/L	99
19) ethyl ether	5.88	74	70032	56.18	ug/L	98
20) 2-chloropropane	6.08	39	55492	58.76	ug/L	95
21) acrolein	6.09	56	266673	518.43	ug/L	98
22) 1,1-dichloroethene	6.27	96	118160	53.94	ug/L	99
23) acetone	6.27	58	11150	46.50	ug/L #	84
24) allyl chloride	6.72	76	79686	52.25	ug/L	95
25) acetonitrile	6.63	40	78323	517.37	ug/L	98
26) iodomethane	6.51	142	244289	57.39	ug/L	97
27) carbon disulfide	6.62	76	388524	57.31	ug/L	98
28) methylene chloride	6.88	84	129638	53.70	ug/L	98
29) methyl acetate	6.66	74	18951	54.37	ug/L	97
31) methyl tert butyl ether	7.18	73	699949	106.37	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	116081	53.24	ug/L	99
33) di-isopropyl ether	7.70	45	458928	50.92	ug/L	99
34) 2-butanone	8.32	72	14526	48.41	ug/L #	45
35) 1,1-dichloroethane	7.74	63	237025	51.97	ug/L	100
36) chloroprene	7.82	53	199426	55.13	ug/L	97
37) acrylonitrile	7.13	53	237060	250.10	ug/L	97
38) vinyl acetate	7.66	86	23634	55.01	ug/L	87
39) ethyl tert-butyl ether	8.11	59	423140	56.13	ug/L	99
40) ethyl acetate	8.32	45	21949	58.31	ug/L	88
41) 2,2-dichloropropane	8.40	77	123981	57.58	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	135331	52.39	ug/L		98
43) methylacrylate	8.39	85	18874	50.71	ug/L		95
44) propionitrile	8.39	54	181747	488.14	ug/L		92
45) bromochloromethane	8.65	128	69794	54.18	ug/L		98
46) tetrahydrofuran	8.66	42	42004	50.02	ug/L		96
47) chloroform	8.72	85	146856	53.45	ug/L		100
48) T-BUTYL FORMATE	8.75	59	43017	24.05	ug/L		97
51) freon 113	6.26	151	127063	73.45	ug/L		98
52) methacrylonitrile	8.57	41	84414	48.33	ug/L		97
53) 1,1,1-trichloroethane	8.96	97	185189	59.78	ug/L		98
54) cyclohexane	9.06	84	167519	49.76	ug/L		99
57) epichlorohydrin	10.87	57	64663	225.00	ug/L		96
58) n-butyl alcohol	9.75	56	217300	2359.86	ug/L		97
59) carbon tetrachloride	9.14	117	170330	66.18	ug/L		99
60) 1,1-dichloropropene	9.12	75	175052	53.05	ug/L		100
61) hexane	7.52	57	108066	34.12	ug/L		98
63) benzene	9.35	78	490234	48.33	ug/L		99
64) iso-octane	9.44	57	523788	59.40	ug/L		100
65) tert-amyl methyl ether	9.40	87	82908	52.20	ug/L		95
66) heptane	9.56	57	112468	57.52	ug/L		99
67) isopropyl acetate	9.24	61	54852	55.46	ug/L		95
68) 1,2-dichloroethane	9.37	62	173166	52.28	ug/L		100
69) trichloroethene	10.02	95	137547	50.47	ug/L		99
71) ethyl acrylate	9.99	55	170209	51.60	ug/L		100
72) 2-nitropropane	10.75	41	38484	37.39	ug/L	#	1
74) methyl methacrylate	10.25	100	35054	50.65	ug/L	#	85
75) 1,2-dichloropropane	10.30	63	137707	49.12	ug/L		99
76) dibromomethane	10.41	93	82446	51.59	ug/L		99
77) methylcyclohexane	10.30	83	197092	54.75	ug/L		99
78) bromodichloromethane	10.55	83	173302	53.49	ug/L		98
79) cis-1,3-dichloropropene	11.00	75	234056	51.75	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	54792	50.36	ug/L	#	87
82) toluene	11.39	92	317661	50.89	ug/L		99
83) 3-methyl-1-butanol	11.09	55	133054	1024.53	ug/L		98
84) trans-1,3-dichloropropene	11.58	75	202642	52.26	ug/L		96
85) ethyl methacrylate	11.56	69	175730	49.56	ug/L		100
86) 1,1,2-trichloroethane	11.82	83	103618	50.25	ug/L		99
87) 2-hexanone	11.98	58	51345	47.18	ug/L		99
89) tetrachloroethene	11.96	164	137500	47.06	ug/L		98
90) 1,3-dichloropropane	12.01	76	198965	49.61	ug/L		99
91) butyl acetate	12.05	56	101516	54.80	ug/L		97
92) 3,3-DIMETHYL-1-BUTANOL	12.15	57	145424	524.12	ug/L		96
93) dibromochloromethane	12.26	129	140537	56.19	ug/L		99
94) 1,2-dibromoethane	12.44	107	133045	51.11	ug/L		100
95) n-butyl ether	12.88	57	641513	49.54	ug/L		99
96) chlorobenzene	12.94	112	370781	50.89	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	133492	54.14	ug/L		99
98) ethylbenzene	13.01	91	614347	50.79	ug/L		99
99) m,p-xylene	13.14	106	481566	96.35	ug/L		97
100) o-xylene	13.57	106	245928	50.01	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) styrene	13.59	104	405927	46.85 ug/L	93
102) bromoform	13.85	173	97985	47.46 ug/L	99
104) isopropylbenzene	13.96	105	1114048	86.20 ug/L	100
106) cyclohexanone	14.11	55	51437	104.96 ug/L	97
107) bromobenzene	14.39	156	186667	48.12 ug/L	95
108) 1,1,2,2-tetrachloroethane	14.27	83	174523	48.43 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	26850	33.39 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	44581	49.78 ug/L	99
111) n-propylbenzene	14.42	91	890081	57.93 ug/L	100
113) 2-chlorotoluene	14.57	126	165883	48.59 ug/L	96
114) 4-chlorotoluene	14.69	91	477989	50.11 ug/L	98
115) 1,3,5-trimethylbenzene	14.59	105	541673	49.13 ug/L	99
116) tert-butylbenzene	14.97	119	508444	51.66 ug/L	100
117) pentachloroethane	15.05	167	117682	55.27 ug/L	99
118) 1,2,4-trimethylbenzene	15.03	105	569448	49.45 ug/L	99
119) sec-butylbenzene	15.21	105	760266	51.27 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	346090	48.38 ug/L	98
121) p-isopropyltoluene	15.36	119	670452	51.71 ug/L	100
122) 1,4-dichlorobenzene	15.51	146	345240	48.94 ug/L	97
123) benzyl chloride	15.62	91	310285	42.26 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	347705	48.72 ug/L	99
126) n-butylbenzene	15.82	92	343100	52.03 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.78	75	32698	55.34 ug/L	98
129) 1,3,5-TRICHLOROBENZENE	16.97	180	323955	52.99 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	275262	53.49 ug/L	99
131) hexachlorobutadiene	17.77	225	149682	52.85 ug/L	98
132) naphthalene	17.98	128	496615	50.66 ug/L	100
133) 1,2,3-trichlorobenzene	18.21	180	235353	51.19 ug/L	100
134) hexachloroethane	16.26	201	125091	54.49 ug/L	99

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

7.4.2

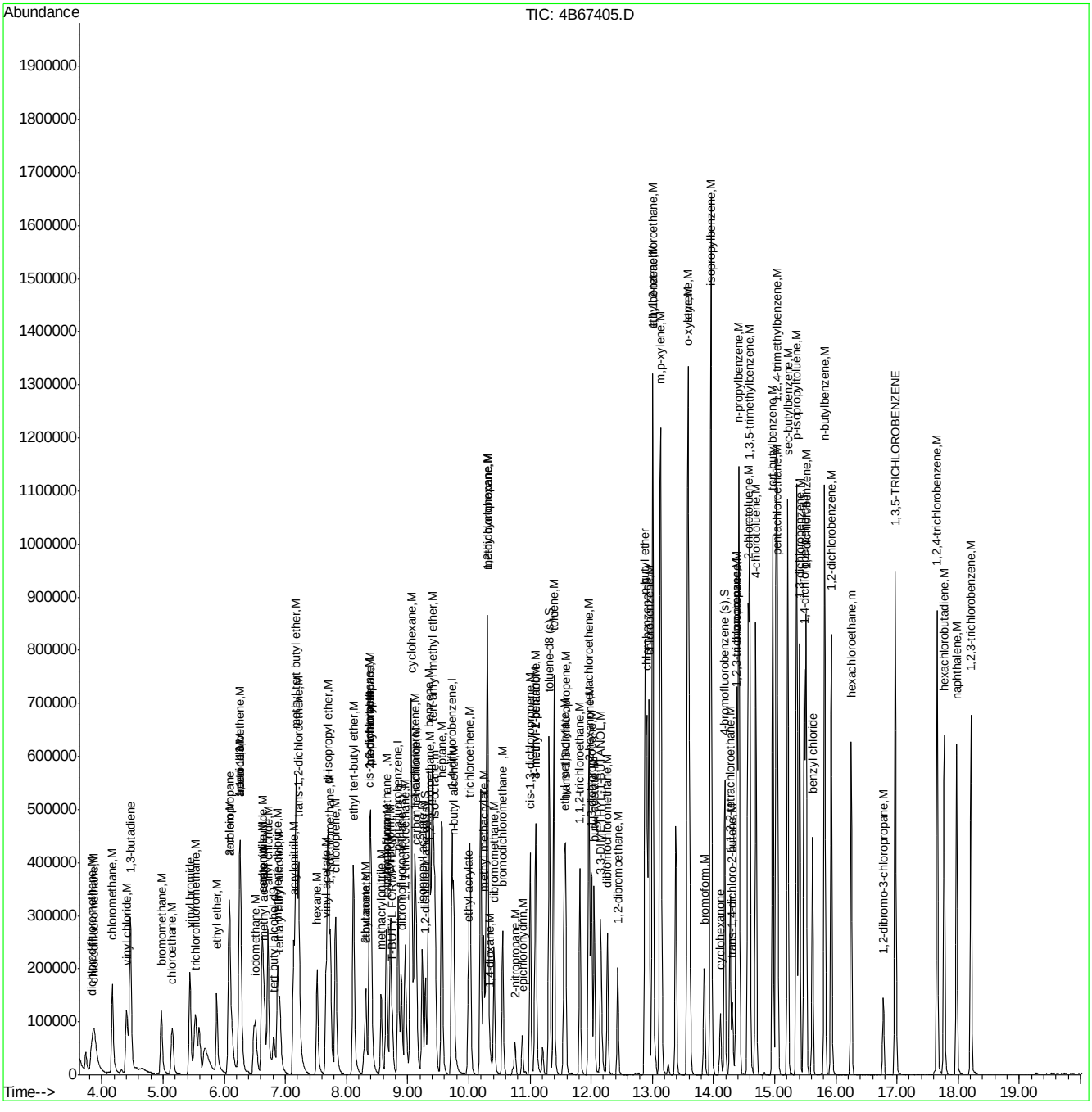
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

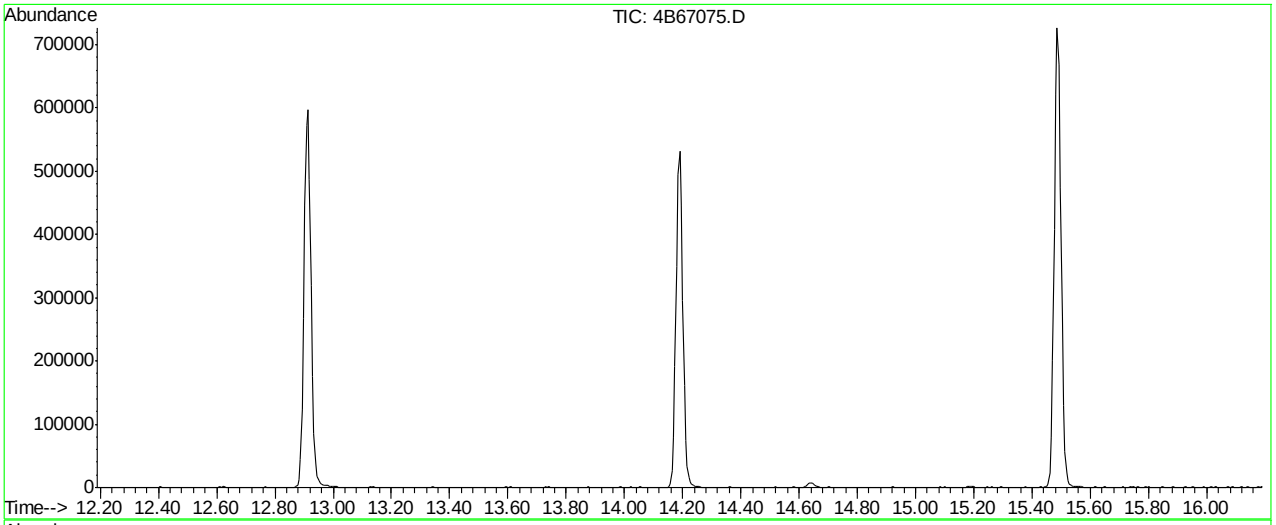


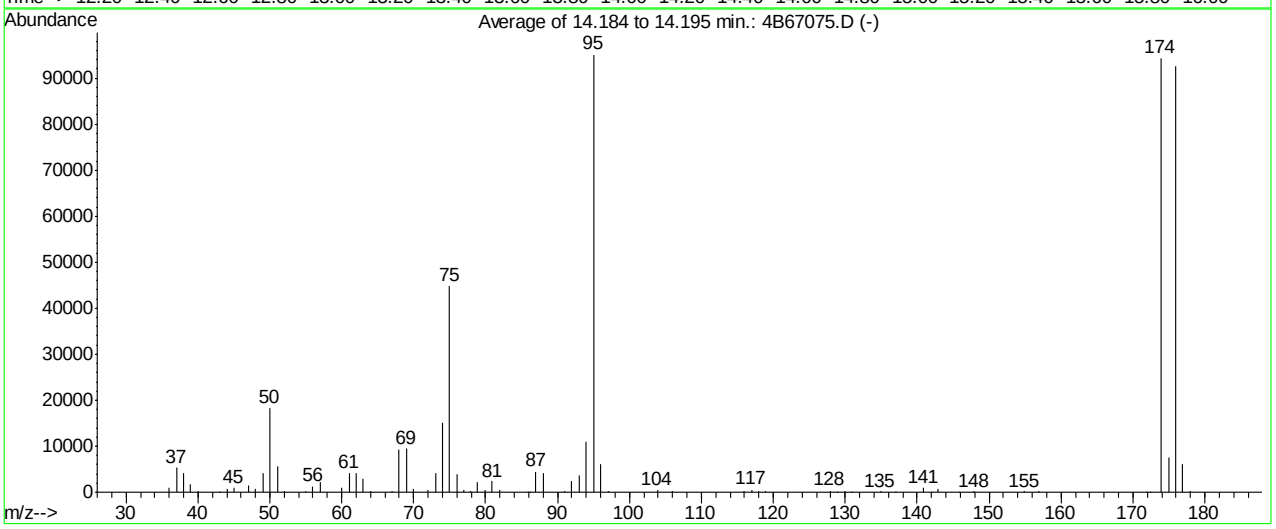
SGS ACCUTEST JC33175

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\4B67075.D Vial: 1
Acq On : 8 Dec 2016 7:04 am Operator: Hueanht
Sample : bfb Inst : MS4B
Misc : MS9923,V4B2759,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2018, 2019, 2020; Background Corrected with Scan 2009

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	18399	PASS
75	95	30	60	47.1	44810	PASS
95	95	100	100	100.0	95146	PASS
96	95	5	9	6.4	6096	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.1	94328	PASS
175	174	5	9	8.1	7656	PASS
176	174	95	101	98.2	92634	PASS
177	176	5	9	6.5	5996	PASS

4B67075.D M4B2759.M Thu Dec 08 15:42:48 2016 GCMS4B

Average of 14.184 to 14.195 min.: 4B67075.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1041	50.00	18399	67.05	216	78.90	2160
37.00	5272	51.05	5634	68.00	9221	79.95	615
38.00	4238	52.00	177	69.00	9451	80.90	2335
39.00	1755	55.00	299	70.00	732	81.95	474
40.00	225	56.00	1345	72.00	532	85.90	50
43.00	52	57.00	2289	73.00	4059	86.10	76
44.00	666	60.00	889	74.00	15147	87.00	4480
45.00	887	61.00	4225	75.00	44810	88.00	4115
47.00	1457	62.00	4180	76.00	3869	90.95	366
48.00	661	63.00	3002	77.00	553	92.00	2489
49.00	4126	64.00	321	77.95	328	93.00	3716

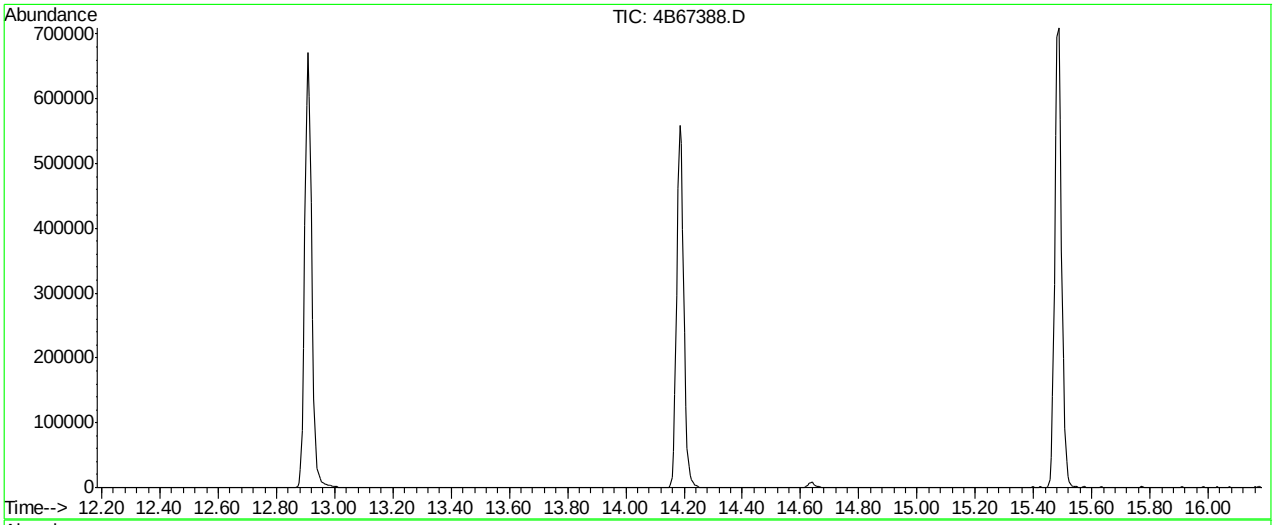
Average of 14.184 to 14.195 min.: 4B67075.D
bfb
Modified:subtracted

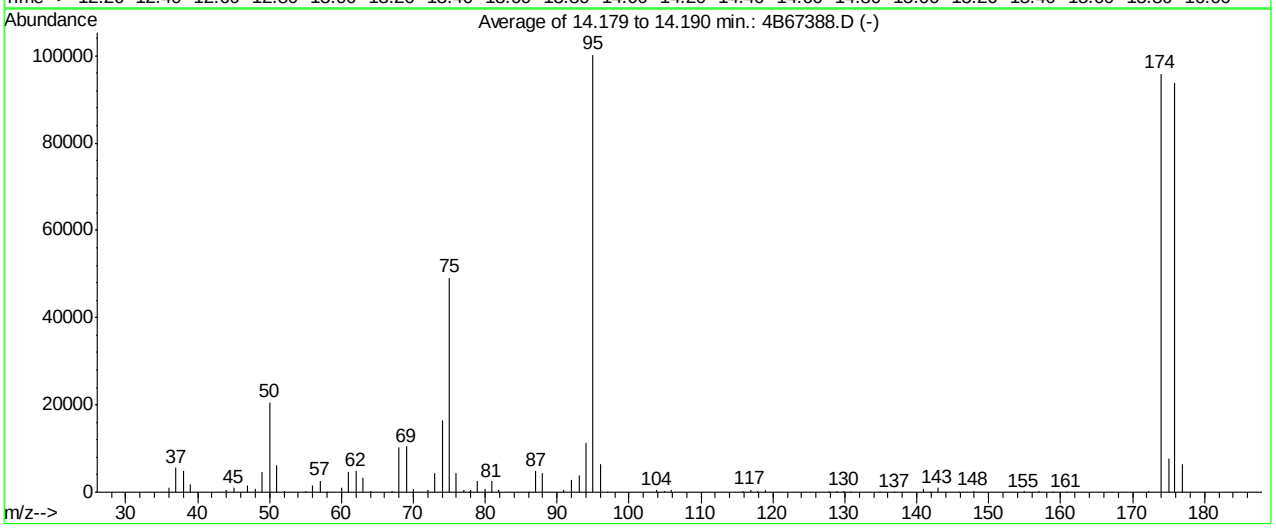
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	10863	128.90	127	156.95	176		
95.00	95146	129.90	310	171.90	60		
96.00	6096	130.90	113	172.30	85		
97.00	189	134.95	186	173.90	94328		
103.90	402	136.90	55	175.00	7656		
105.90	353	140.90	864	175.90	92634		
115.90	268	141.90	63	176.90	5996		
116.95	552	142.90	861	177.95	222		
117.90	342	145.90	52				
118.90	368	147.95	223				
127.90	355	154.95	223				

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\4B67388.D Vial: 2
Acq On : 16 Dec 2016 9:01 am Operator: Hueanht
Sample : bfb Inst : MS4B
Misc : MS10318,V4B2772,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2017, 2018, 2019; Background Corrected with Scan 2009

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	20642	PASS
75	95	30	60	48.9	49072	PASS
95	95	100	100	100.0	100277	PASS
96	95	5	9	6.5	6545	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	95.6	95880	PASS
175	174	5	9	8.1	7814	PASS
176	174	95	101	97.7	93661	PASS
177	176	5	9	6.8	6353	PASS

4B67388.D M4B2759.M Fri Dec 16 16:30:48 2016 GCMS4B

Average of 14.179 to 14.190 min.: 4B67388.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1128	51.00	6259	67.00	356	77.95	466
37.00	5600	52.05	269	68.00	10187	78.90	2582
38.00	4791	55.05	274	69.00	10461	79.90	750
39.05	1822	56.00	1474	70.00	825	80.90	2477
39.95	104	57.00	2587	72.00	530	81.85	546
44.00	640	58.00	52	73.00	4401	86.00	58
45.00	930	60.05	956	74.00	16454	87.00	4814
47.00	1504	61.00	4576	75.00	49072	88.00	4462
47.95	668	62.00	4775	76.00	4248	90.95	404
49.00	4540	63.00	3401	76.95	616	92.00	2763
50.00	20642	64.05	331	77.80	125	93.00	3892

Average of 14.179 to 14.190 min.: 4B67388.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	11329	127.90	285	154.90	229		
95.00	100277	128.85	157	156.90	228		
96.00	6545	129.90	389	158.90	68		
97.00	139	130.85	126	160.80	61		
103.90	442	134.90	90	172.20	166		
104.95	170	136.90	112	173.90	95880		
105.85	402	140.90	873	175.00	7814		
115.85	343	141.90	75	175.90	93661		
116.90	578	142.90	963	176.90	6353		
117.85	370	145.90	107	178.00	73		
118.90	458	147.90	284				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67076.D
Acq On : 8 Dec 2016 7:40 am
Operator : Hueanht
Sample : ic2759-0.2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 13:18:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:10:44 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	115381	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	267146	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	354823	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	340787	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	199227	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	107724	43.14	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 86.28%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	122400	40.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 80.18%			
80) toluene-d8 (s)	11.32	98	423315	49.06	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.12%			
105) 4-bromofluorobenzene (s)	14.19	95	168748	43.65	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.30%			

Target Compounds						Qvalue
21) acrolein	6.09	56	1060	1.76	ug/L	82
63) benzene	9.35	78	2258	0.22	ug/L	97
73) 2-chloroethyl vinyl ether	10.77	63	1882	1.14	ug/L	86
75) 1,2-dichloropropane	10.30	63	609	0.20	ug/L	72
79) cis-1,3-dichloropropene	11.00	75	963	0.21	ug/L #	64
89) tetrachloroethene	11.96	164	552	0.22	ug/L #	78
99) m,p-xylene	13.14	106	2170	0.45	ug/L	96
101) styrene	13.59	104	1965	0.24	ug/L	93
107) bromobenzene	14.39	156	850	0.22	ug/L	85
113) 2-chlorotoluene	14.57	126	774	0.22	ug/L	86
123) benzyl chloride	15.62	91	1619	0.26	ug/L #	73
124) 1,2-dichlorobenzene	15.93	146	1466	0.21	ug/L	90
129) 1,3,5-TRICHLOROBENZENE	16.98	180	1160	0.23	ug/L	97
130) 1,2,4-trichlorobenzene	17.67	180	957	0.82	ug/L	82
132) naphthalene	17.98	128	1784	0.23	ug/L	69
133) 1,2,3-trichlorobenzene	18.22	180	832	0.81	ug/L	89

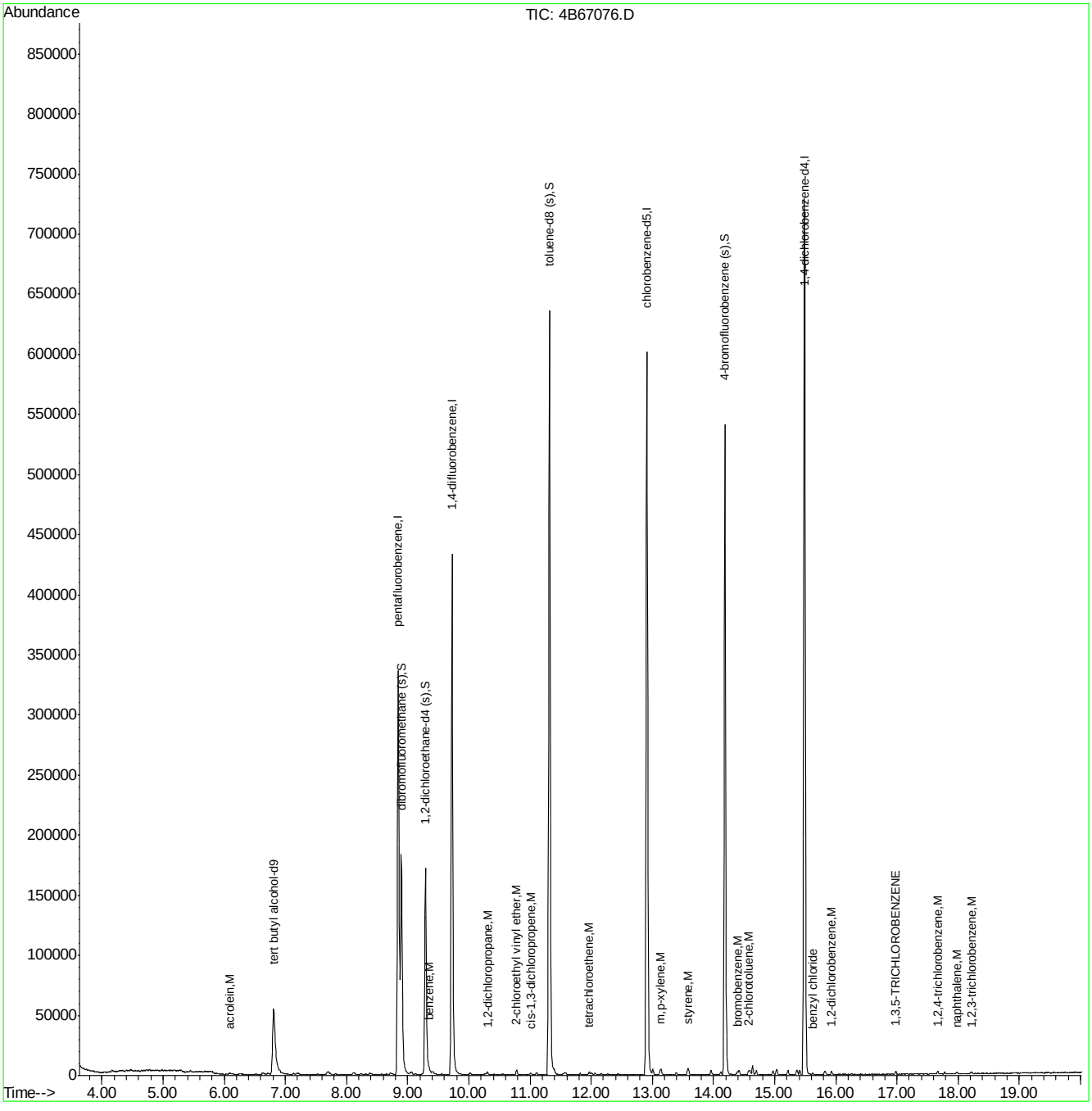
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67076.D
Acq On : 8 Dec 2016 7:40 am
Operator : Hueanht
Sample : ic2759-0.2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 13:18:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:10:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67077.D
Acq On : 8 Dec 2016 8:08 am
Operator : Hueanht
Sample : ic2759-0.5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 09 09:42:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	124562	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	267685	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	363235	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	343794	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204101	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	110326	44.09	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 88.18%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	124630	40.74	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 81.48%			
80) toluene-d8 (s)	11.32	98	425655	48.19	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.38%			
105) 4-bromofluorobenzene (s)	14.18	95	171206	43.22	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 86.44%			

Target Compounds						Qvalue
11) vinyl chloride	4.40	62	2115	0.42	ug/L	93
14) vinyl bromide	5.45	106	1387	0.54	ug/L #	86
16) 1,3-butadiene	4.47	54	1758	0.58	ug/L	95
19) ethyl ether	5.88	74	615	0.41	ug/L #	56
21) acrolein	6.09	56	2603	4.31	ug/L	96
31) methyl tert butyl ether	7.18	73	3887	0.48	ug/L	93
33) di-isopropyl ether	7.70	45	5620	0.46	ug/L	88
35) 1,1-dichloroethane	7.74	63	2818	0.51	ug/L	91
36) chloroprene	7.81	53	2193	0.46	ug/L	85
37) acrylonitrile	7.14	53	2681	2.32	ug/L	97
39) ethyl tert-butyl ether	8.12	59	4196	0.41	ug/L	87
42) cis-1,2-dichloroethene	8.37	96	1616	0.55	ug/L	84
44) propionitrile	8.40	54	1982	4.58	ug/L	88
45) bromochloromethane	8.65	128	629	0.44	ug/L	76
48) T-BUTYL FORMATE	8.74	59	757	0.29	ug/L #	64
54) cyclohexane	9.06	84	1775	0.44	ug/L #	79
59) carbon tetrachloride	9.15	117	1295	0.42	ug/L	84
61) hexane	7.52	57	1468	0.37	ug/L	79
63) benzene	9.35	78	6792	0.65	ug/L	99
64) iso-octane	9.44	57	5045	0.45	ug/L	92
65) tert-amyl methyl ether	9.41	87	762	0.42	ug/L #	60
66) heptane	9.56	57	977	0.41	ug/L	86
68) 1,2-dichloroethane	9.38	62	1728	0.45	ug/L	82
69) trichloroethene	10.02	95	1676	0.61	ug/L	93
73) 2-chloroethyl vinyl ether	10.78	63	4473	2.65	ug/L	95
75) 1,2-dichloropropane	10.31	63	1612	0.51	ug/L	88
76) dibromomethane	10.41	93	841	0.48	ug/L	80
78) bromodichloromethane	10.55	83	1818	0.49	ug/L	88
79) cis-1,3-dichloropropene	11.00	75	2499	0.54	ug/L	86
83) 3-methyl-1-butanol	11.09	55	1348	13.02	ug/L	77
84) trans-1,3-dichloropropene	11.59	75	2057	0.48	ug/L	91
85) ethyl methacrylate	11.56	69	1980	0.52	ug/L	96
86) 1,1,2-trichloroethane	11.82	83	1161	0.53	ug/L	88

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67077.D
Acq On : 8 Dec 2016 8:08 am
Operator : Hueanht
Sample : ic2759-0.5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 09 09:42:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
89) tetrachloroethene	11.96	164	1836	0.74	ug/L	96
90) 1,3-dichloropropane	12.01	76	2255	0.52	ug/L	94
91) butyl acetate	12.06	56	947	0.45	ug/L #	77
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	1399	6.50	ug/L	80
93) dibromochloromethane	12.27	129	1123	0.38	ug/L	88
94) 1,2-dibromoethane	12.44	107	1359	0.50	ug/L	95
99) m,p-xylene	13.14	106	6224	1.28	ug/L	95
101) styrene	13.59	104	5060	0.62	ug/L	96
107) bromobenzene	14.39	156	2328	0.59	ug/L	94
108) 1,1,2,2-tetrachloroethane	14.27	83	2056	0.49	ug/L	95
110) 1,2,3-trichloropropane	14.38	110	509	0.52	ug/L	76
113) 2-chlorotoluene	14.57	126	2012	0.56	ug/L	91
123) benzyl chloride	15.62	91	3454	0.53	ug/L #	91
124) 1,2-dichlorobenzene	15.93	146	4360	0.61	ug/L	91
128) 1,2-dibromo-3-chloropropan	16.77	75	251	0.40	ug/L #	1
129) 1,3,5-TRICHLOROBENZENE	16.98	180	3729	0.71	ug/L	96
130) 1,2,4-trichlorobenzene	17.66	180	2819	1.20	ug/L	93
132) naphthalene	17.98	128	4837	0.61	ug/L	97
133) 1,2,3-trichlorobenzene	18.22	180	2454	1.20	ug/L	89

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

7.6.2

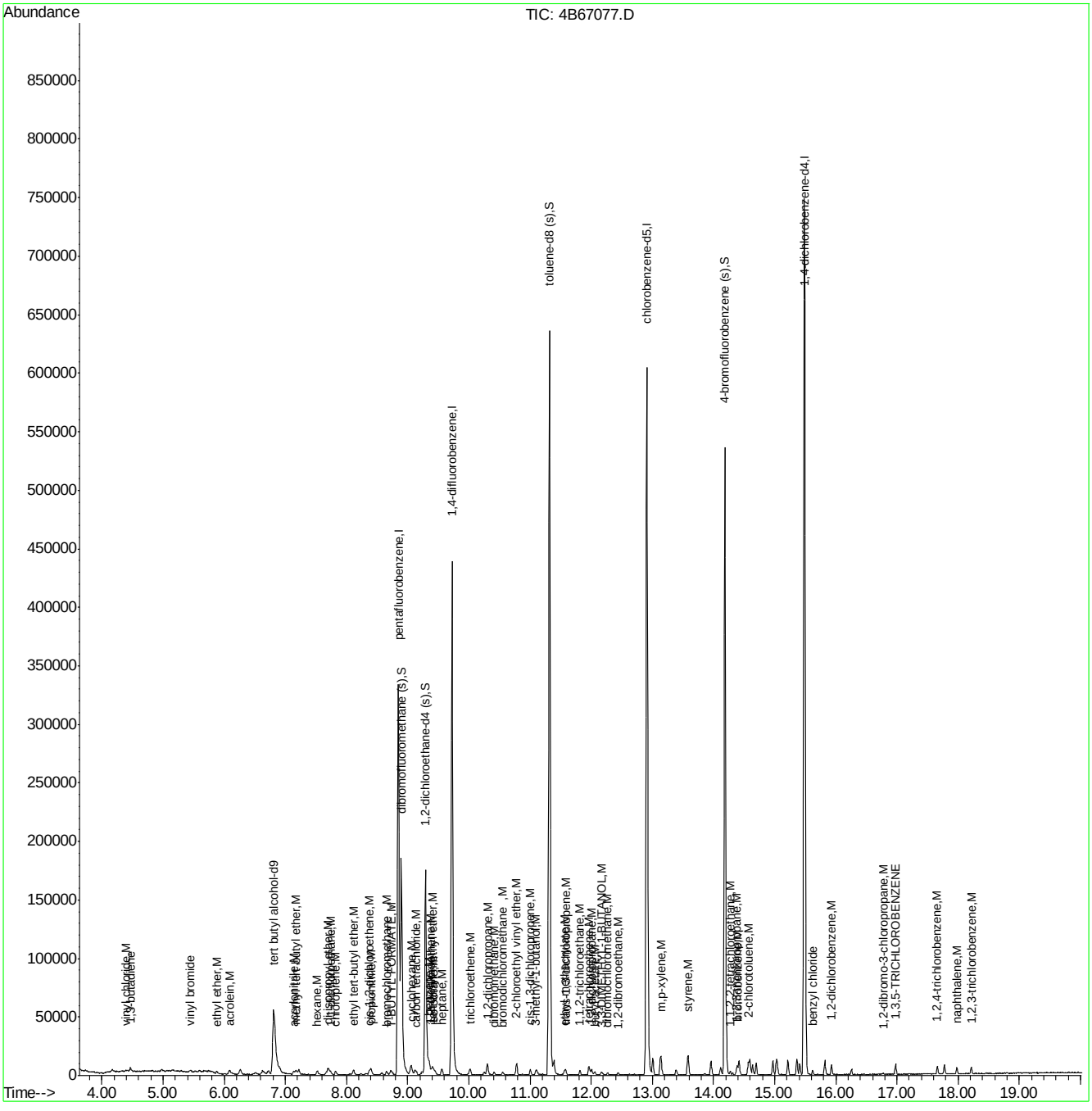
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67077.D
Acq On : 8 Dec 2016 8:08 am
Operator : Hueanht
Sample : ic2759-0.5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 09 09:42:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	134272	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	273908	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	367083	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	347427	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205824	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	109743	42.86	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 85.72%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	126240	40.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 80.64%			
80) toluene-d8 (s)	11.32	98	430055	48.18	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.36%			
105) 4-bromofluorobenzene (s)	14.19	95	171080	42.83	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 85.66%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	1620	4.71	ug/L	55
7) chlorodifluoromethane	3.86	51	2742	0.70	ug/L	67
10) chloromethane	4.16	52	1160	0.63	ug/L #	51
11) vinyl chloride	4.39	62	3105	0.60	ug/L	91
12) bromomethane	4.97	94	1799	0.77	ug/L	83
13) chloroethane	5.15	64	1893	0.83	ug/L	90
14) vinyl bromide	5.44	106	2054	0.78	ug/L #	90
16) 1,3-butadiene	4.47	54	3228	1.04	ug/L	98
19) ethyl ether	5.88	74	1228	0.81	ug/L	88
20) 2-chloropropane	6.08	39	1041	0.85	ug/L	96
21) acrolein	6.09	56	5317	8.61	ug/L	98
22) 1,1-dichloroethene	6.26	96	2196	0.95	ug/L	90
26) iodomethane	6.49	142	4103	0.81	ug/L	95
27) carbon disulfide	6.62	76	6281	0.77	ug/L	85
28) methylene chloride	6.88	84	2448	0.81	ug/L	88
31) methyl tert butyl ether	7.18	73	7054	0.85	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	2210	0.87	ug/L	87
33) di-isopropyl ether	7.70	45	9717	0.78	ug/L	98
35) 1,1-dichloroethane	7.74	63	4528	0.80	ug/L	94
36) chloroprene	7.82	53	3558	0.73	ug/L	93
37) acrylonitrile	7.14	53	5211	4.41	ug/L	93
39) ethyl tert-butyl ether	8.12	59	8200	0.79	ug/L	96
41) 2,2-dichloropropane	8.40	77	2202	0.80	ug/L	80
42) cis-1,2-dichloroethene	8.38	96	2604	0.87	ug/L	94
44) propionitrile	8.40	54	4183	9.45	ug/L	95
45) bromochloromethane	8.65	128	1233	0.83	ug/L	89
47) chloroform	8.72	85	2856	0.86	ug/L	97
48) T-BUTYL FORMATE	8.75	59	1908	0.71	ug/L #	78
52) methacrylonitrile	8.57	41	2100	0.90	ug/L	89
53) 1,1,1-trichloroethane	8.96	97	2775	0.71	ug/L	92
54) cyclohexane	9.06	84	3412	0.83	ug/L	91
57) epichlorohydrin	10.88	57	1522	5.36	ug/L	80
59) carbon tetrachloride	9.14	117	1891	0.61	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
60) 1,1-dichloropropene	9.12	75	2865	0.80 ug/L	96
61) hexane	7.53	57	2805	0.71 ug/L	92
63) benzene	9.35	78	9784	0.93 ug/L	96
64) iso-octane	9.43	57	8271	0.73 ug/L	93
65) tert-amyl methyl ether	9.40	87	1748	0.95 ug/L	97
66) heptane	9.57	57	1879	0.77 ug/L	91
68) 1,2-dichloroethane	9.37	62	3459	0.90 ug/L	94
69) trichloroethene	10.02	95	2642	0.95 ug/L	89
71) ethyl acrylate	10.00	55	3468	0.93 ug/L	89
72) 2-nitropropane	10.77	41	1093	0.94 ug/L #	1
73) 2-chloroethyl vinyl ether	10.78	63	9255	5.43 ug/L	99
75) 1,2-dichloropropane	10.31	63	2633	0.83 ug/L	96
76) dibromomethane	10.41	93	1639	0.93 ug/L	98
77) methylcyclohexane	10.31	83	3206	0.70 ug/L	96
78) bromodichloromethane	10.55	83	2917	0.77 ug/L	97
79) cis-1,3-dichloropropene	11.00	75	4216	0.90 ug/L	90
81) 4-methyl-2-pentanone	11.11	58	1172	0.98 ug/L #	80
82) toluene	11.40	92	5979	0.92 ug/L	98
83) 3-methyl-1-butanol	11.10	55	2844	27.18 ug/L	81
84) trans-1,3-dichloropropene	11.59	75	3673	0.86 ug/L	95
85) ethyl methacrylate	11.56	69	3572	0.93 ug/L	96
86) 1,1,2-trichloroethane	11.82	83	2144	0.97 ug/L	97
87) 2-hexanone	11.98	58	1133	1.04 ug/L	91
89) tetrachloroethene	11.96	164	2936	1.17 ug/L	99
90) 1,3-dichloropropane	12.01	76	4154	0.95 ug/L	94
91) butyl acetate	12.06	56	1819	0.85 ug/L #	83
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	2802	12.88 ug/L	95
93) dibromochloromethane	12.27	129	1991	0.67 ug/L	93
94) 1,2-dibromoethane	12.44	107	2629	0.96 ug/L	86
95) n-butyl ether	12.89	57	12324	0.88 ug/L #	48
96) chlorobenzene	12.94	112	7231	0.94 ug/L	95
97) 1,1,1,2-tetrachloroethane	13.01	131	2084	0.77 ug/L	97
98) ethylbenzene	13.01	91	11819	0.90 ug/L	92
99) m,p-xylene	13.14	106	8967	1.82 ug/L	90
100) o-xylene	13.58	106	4577	0.91 ug/L	96
101) styrene	13.59	104	8084	0.98 ug/L	94
102) bromoform	13.85	173	1284	0.63 ug/L	86
104) isopropylbenzene	13.96	105	12080	0.82 ug/L	98
106) cyclohexanone	14.12	55	5721	22.26 ug/L	95
107) bromobenzene	14.39	156	3739	0.94 ug/L	92
108) 1,1,2,2-tetrachloroethane	14.27	83	3755	0.89 ug/L	96
109) trans-1,4-dichloro-2-buten	14.32	53	759	5.22 ug/L	82
110) 1,2,3-trichloropropane	14.37	110	939	0.96 ug/L	85
111) n-propylbenzene	14.42	91	14717	0.84 ug/L	99
113) 2-chlorotoluene	14.57	126	3006	0.82 ug/L	97
114) 4-chlorotoluene	14.70	91	9483	0.85 ug/L	95
115) 1,3,5-trimethylbenzene	14.60	105	10486	0.85 ug/L	94
116) tert-butylbenzene	14.97	119	9185	0.86 ug/L	96
118) 1,2,4-trimethylbenzene	15.03	105	11024	0.88 ug/L	96
119) sec-butylbenzene	15.22	105	14193	0.88 ug/L	97

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
120) 1,3-dichlorobenzene	15.41	146	7187	0.95	ug/L	98
121) p-isopropyltoluene	15.36	119	11915	0.89	ug/L	95
122) 1,4-dichlorobenzene	15.51	146	6911	0.92	ug/L	95
123) benzyl chloride	15.62	91	7216	1.11	ug/L	95
124) 1,2-dichlorobenzene	15.93	146	6827	0.95	ug/L	97
126) n-butylbenzene	15.82	92	5841	0.87	ug/L	94
128) 1,2-dibromo-3-chloropropan	16.78	75	522	0.82	ug/L	88
129) 1,3,5-TRICHLOROBENZENE	16.98	180	5432	1.02	ug/L	98
130) 1,2,4-trichlorobenzene	17.66	180	4445	1.52	ug/L	98
131) hexachlorobutadiene	17.78	225	2761	0.97	ug/L	91
132) naphthalene	17.98	128	9041	1.14	ug/L	96
133) 1,2,3-trichlorobenzene	18.21	180	4323	1.65	ug/L	90

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

7.6.3

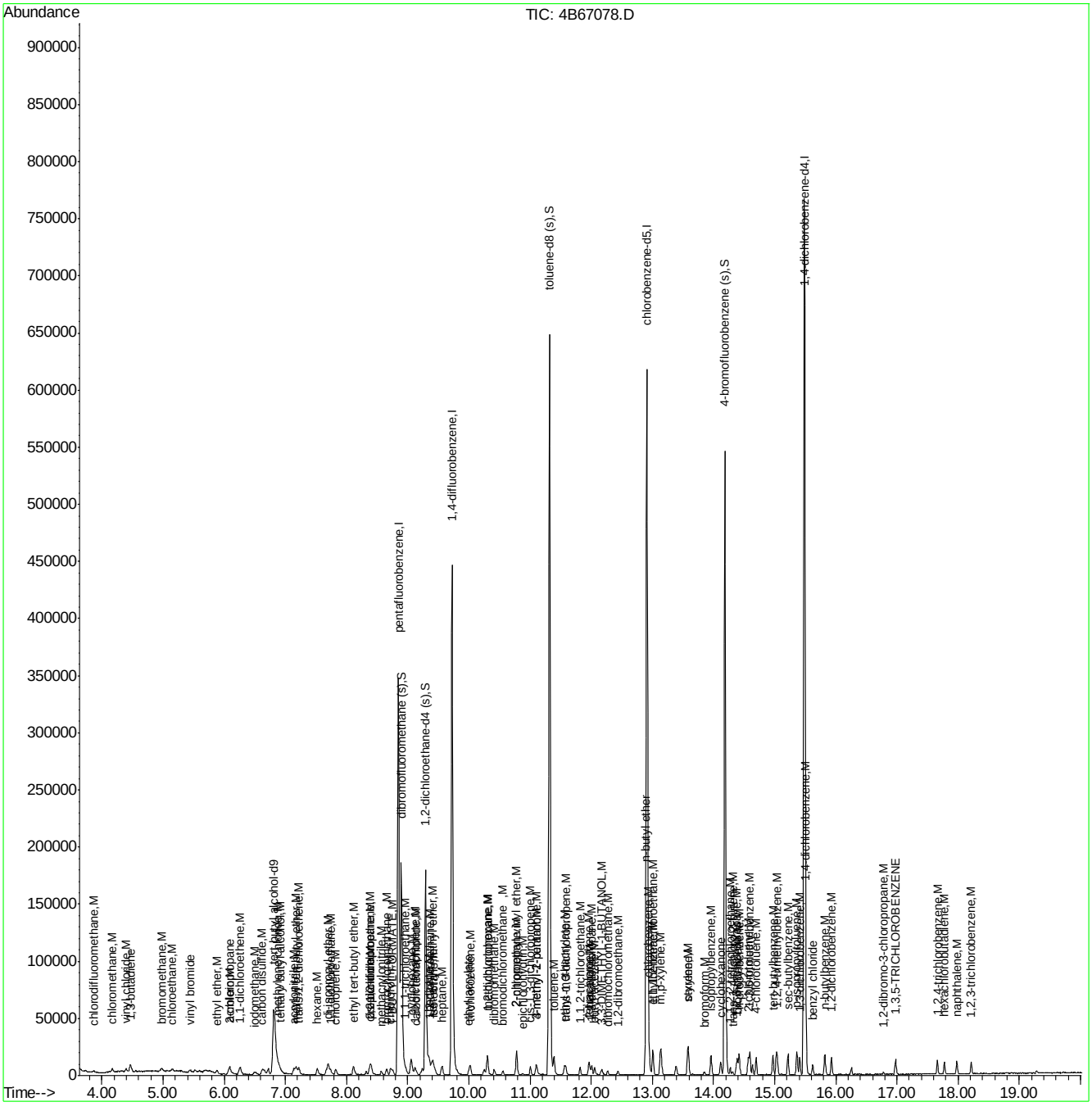
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	130276	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	272976	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	369974	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	347218	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	206168	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	111096	43.54	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 87.08%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	125794	40.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 80.64%			
80) toluene-d8 (s)	11.32	98	431614	47.98	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 95.96%			
105) 4-bromofluorobenzene (s)	14.19	95	170518	42.62	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 85.24%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.92	59	3162	9.48	ug/L	83
3) 1,4-dioxane	10.36	88	1417	120.06	ug/L #	71
7) chlorodifluoromethane	3.87	51	5795	1.47	ug/L	97
8) dichlorodifluoromethane	3.84	85	4846	1.15	ug/L	91
10) chloromethane	4.17	52	2875	1.57	ug/L #	78
11) vinyl chloride	4.39	62	7869	1.53	ug/L	92
12) bromomethane	4.98	94	4285	1.85	ug/L	92
13) chloroethane	5.15	64	4345	1.91	ug/L	92
14) vinyl bromide	5.44	106	4812	1.84	ug/L	96
15) trichlorofluoromethane	5.53	101	6093	1.48	ug/L	95
16) 1,3-butadiene	4.47	54	6189	2.00	ug/L	93
19) ethyl ether	5.88	74	2287	1.51	ug/L #	84
20) 2-chloropropane	6.09	39	2168	1.79	ug/L	90
21) acrolein	6.09	56	10489	17.04	ug/L	86
22) 1,1-dichloroethene	6.26	96	4317	1.87	ug/L #	77
24) allyl chloride	6.72	76	2907	1.49	ug/L	91
25) acetonitrile	6.64	40	3435	18.50	ug/L	94
26) iodomethane	6.50	142	7880	1.57	ug/L	96
27) carbon disulfide	6.62	76	12688	1.55	ug/L	98
28) methylene chloride	6.88	84	4634	1.54	ug/L	97
31) methyl tert butyl ether	7.18	73	13419	1.62	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	4202	1.67	ug/L	97
33) di-isopropyl ether	7.70	45	19395	1.56	ug/L	99
34) 2-butanone	8.33	72	565	1.65	ug/L #	1
35) 1,1-dichloroethane	7.74	63	8731	1.54	ug/L	99
36) chloroprene	7.82	53	7444	1.54	ug/L	96
37) acrylonitrile	7.14	53	9597	8.15	ug/L	98
39) ethyl tert-butyl ether	8.12	59	15951	1.54	ug/L	99
40) ethyl acetate	8.32	45	808	1.62	ug/L #	56
41) 2,2-dichloropropane	8.40	77	4933	1.81	ug/L	96
42) cis-1,2-dichloroethene	8.38	96	4793	1.60	ug/L	93
44) propionitrile	8.40	54	8087	18.33	ug/L	94
45) bromochloromethane	8.65	128	2639	1.79	ug/L	97

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) tetrahydrofuran	8.66	42	1888	1.70	ug/L		96
47) chloroform	8.72	85	5672	1.72	ug/L		92
48) T-BUTYL FORMATE	8.75	59	3836	1.44	ug/L		87
51) freon 113	6.25	151	3174	1.52	ug/L		84
52) methacrylonitrile	8.57	41	3869	1.65	ug/L		94
53) 1,1,1-trichloroethane	8.96	97	5960	1.53	ug/L		94
54) cyclohexane	9.06	84	6926	1.69	ug/L		93
57) epichlorohydrin	10.88	57	3171	11.08	ug/L		89
58) n-butyl alcohol	9.76	56	8293	114.45	ug/L		89
59) carbon tetrachloride	9.14	117	4407	1.41	ug/L		98
60) 1,1-dichloropropene	9.12	75	6356	1.77	ug/L		96
61) hexane	7.52	57	6177	1.54	ug/L		97
63) benzene	9.35	78	18613	1.76	ug/L		94
64) iso-octane	9.42	57	16946	1.48	ug/L		96
65) tert-amyl methyl ether	9.40	87	3200	1.73	ug/L		96
66) heptane	9.56	57	3759	1.53	ug/L		96
67) isopropyl acetate	9.24	61	2005	1.66	ug/L	#	87
68) 1,2-dichloroethane	9.38	62	6805	1.75	ug/L		97
69) trichloroethene	10.02	95	5505	1.97	ug/L		94
71) ethyl acrylate	9.99	55	6724	1.79	ug/L		96
72) 2-nitropropane	10.77	41	2253	1.92	ug/L	#	18
73) 2-chloroethyl vinyl ether	10.78	63	18338	10.67	ug/L		97
74) methyl methacrylate	10.25	100	1305	1.80	ug/L	#	79
75) 1,2-dichloropropane	10.31	63	5505	1.72	ug/L		97
76) dibromomethane	10.42	93	3038	1.71	ug/L		86
77) methylcyclohexane	10.30	83	6690	1.44	ug/L		97
78) bromodichloromethane	10.55	83	5824	1.53	ug/L		90
79) cis-1,3-dichloropropene	11.00	75	8445	1.79	ug/L		96
81) 4-methyl-2-pentanone	11.10	58	2180	1.80	ug/L		95
82) toluene	11.40	92	11959	1.83	ug/L		99
83) 3-methyl-1-butanol	11.10	55	5432	51.51	ug/L		98
84) trans-1,3-dichloropropene	11.58	75	7346	1.70	ug/L		97
85) ethyl methacrylate	11.56	69	6862	1.78	ug/L		94
86) 1,1,2-trichloroethane	11.82	83	3990	1.80	ug/L		95
87) 2-hexanone	11.98	58	2089	1.91	ug/L		96
89) tetrachloroethene	11.96	164	5790	2.31	ug/L		93
90) 1,3-dichloropropane	12.01	76	8098	1.84	ug/L		95
91) butyl acetate	12.06	56	3865	1.80	ug/L		92
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	5516	25.36	ug/L		96
93) dibromochloromethane	12.27	129	4174	1.41	ug/L		94
94) 1,2-dibromoethane	12.44	107	5044	1.85	ug/L		97
95) n-butyl ether	12.89	57	24860	1.78	ug/L	#	77
96) chlorobenzene	12.94	112	14077	1.83	ug/L		94
97) 1,1,1,2-tetrachloroethane	13.02	131	4522	1.67	ug/L		94
98) ethylbenzene	13.01	91	23260	1.77	ug/L		99
99) m,p-xylene	13.14	106	18654	3.80	ug/L		100
100) o-xylene	13.58	106	9182	1.82	ug/L		93
101) styrene	13.59	104	16257	1.97	ug/L		98
102) bromoform	13.85	173	2604	1.27	ug/L		96
104) isopropylbenzene	13.96	105	24702	1.67	ug/L		98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
106) cyclohexanone	14.12	55	9906	38.49 ug/L	95
107) bromobenzene	14.39	156	7272	1.83 ug/L	96
108) 1,1,2,2-tetrachloroethane	14.27	83	7144	1.68 ug/L	96
109) trans-1,4-dichloro-2-buten	14.31	53	1374	5.80 ug/L	82
110) 1,2,3-trichloropropane	14.37	110	1646	1.68 ug/L	82
111) n-propylbenzene	14.42	91	30376	1.74 ug/L	98
113) 2-chlorotoluene	14.57	126	6292	1.72 ug/L	96
114) 4-chlorotoluene	14.70	91	18721	1.67 ug/L	99
115) 1,3,5-trimethylbenzene	14.60	105	21842	1.77 ug/L	98
116) tert-butylbenzene	14.97	119	18903	1.76 ug/L	99
117) pentachloroethane	15.05	167	3458	1.45 ug/L	87
118) 1,2,4-trimethylbenzene	15.03	105	22275	1.77 ug/L	99
119) sec-butylbenzene	15.21	105	28775	1.77 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	14210	1.88 ug/L	99
121) p-isopropyltoluene	15.37	119	25103	1.87 ug/L	98
122) 1,4-dichlorobenzene	15.52	146	13988	1.86 ug/L	97
123) benzyl chloride	15.62	91	13882	2.13 ug/L	97
124) 1,2-dichlorobenzene	15.93	146	13689	1.90 ug/L	99
126) n-butylbenzene	15.82	92	12290	1.82 ug/L	93
128) 1,2-dibromo-3-chloropropan	16.78	75	1009	1.58 ug/L #	76
129) 1,3,5-TRICHLOROBENZENE	16.98	180	11311	2.13 ug/L	98
130) 1,2,4-trichlorobenzene	17.66	180	9187	2.47 ug/L	97
131) hexachlorobutadiene	17.78	225	5292	1.85 ug/L	95
132) naphthalene	17.98	128	17802	2.24 ug/L	97
133) 1,2,3-trichlorobenzene	18.21	180	8066	2.55 ug/L	95
134) hexachloroethane	16.26	201	2700	1.28 ug/L	91

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

7.6.4

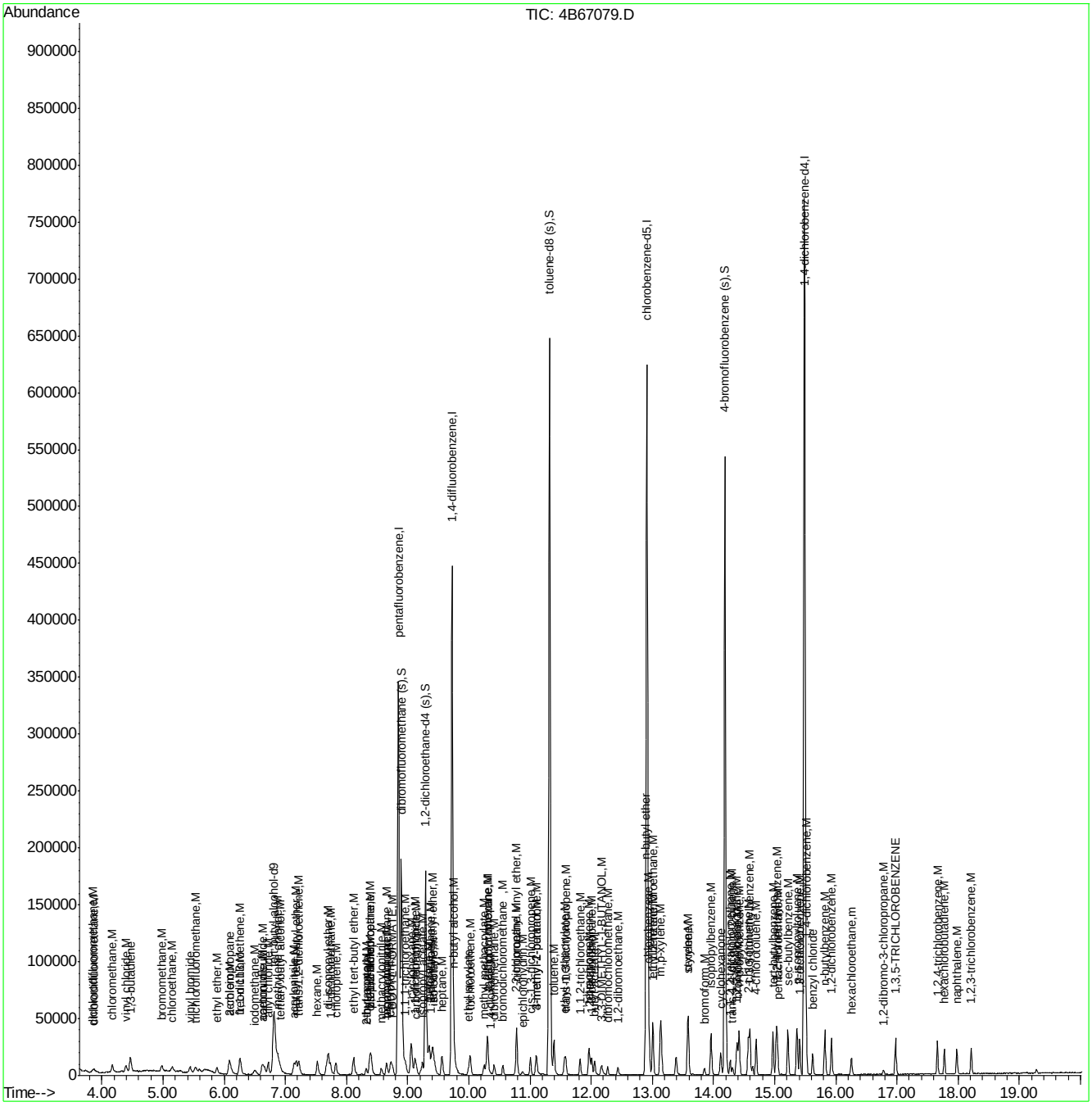
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	129263	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	269012	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	364036	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	343974	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205836	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	110240	50.13	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.26%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	124315	51.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 102.18%			
80) toluene-d8 (s)	11.32	98	429089	50.07	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.14%			
105) 4-bromofluorobenzene (s)	14.19	95	172068	50.44	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.88%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.92	59	8779	26.75	ug/L	92
3) 1,4-dioxane	10.35	88	4186	126.74	ug/L	84
7) chlorodifluoromethane	3.87	51	15786	5.13	ug/L	98
8) dichlorodifluoromethane	3.83	85	13874	5.07	ug/L	95
10) chloromethane	4.17	52	7106	5.24	ug/L #	84
11) vinyl chloride	4.39	62	19630	5.06	ug/L	93
12) bromomethane	4.98	94	10834	5.53	ug/L	99
13) chloroethane	5.15	64	10337	5.25	ug/L	96
14) vinyl bromide	5.44	106	12539	5.27	ug/L	97
15) trichlorofluoromethane	5.53	101	16448	4.93	ug/L	99
16) 1,3-butadiene	4.47	54	17441	5.23	ug/L	99
19) ethyl ether	5.88	74	7114	5.44	ug/L	91
20) 2-chloropropane	6.08	39	5342	5.39	ug/L	97
21) acrolein	6.09	56	28579	52.99	ug/L	99
22) 1,1-dichloroethene	6.26	96	11955	4.99	ug/L	99
24) allyl chloride	6.72	76	8281	5.20	ug/L	97
25) acetonitrile	6.64	40	8389	52.85	ug/L	93
26) iodomethane	6.52	142	22693	4.93	ug/L	96
27) carbon disulfide	6.62	76	36132	4.87	ug/L	97
28) methylene chloride	6.88	84	12912	4.90	ug/L	99
29) methyl acetate	6.66	74	1721	5.09	ug/L #	66
31) methyl tert butyl ether	7.18	73	35979	5.21	ug/L	98
32) trans-1,2-dichloroethene	7.22	96	12073	5.06	ug/L	99
33) di-isopropyl ether	7.70	45	48990	5.03	ug/L	93
34) 2-butanone	8.31	72	1545	4.91	ug/L #	59
35) 1,1-dichloroethane	7.74	63	25023	5.23	ug/L	97
36) chloroprene	7.82	53	19099	5.04	ug/L	94
37) acrylonitrile	7.14	53	25476	25.63	ug/L	98
38) vinyl acetate	7.67	86	2212	5.10	ug/L	97
39) ethyl tert-butyl ether	8.11	59	41983	5.31	ug/L	99
40) ethyl acetate	8.32	45	2158	5.47	ug/L #	64
41) 2,2-dichloropropane	8.40	77	12142	5.21	ug/L	95
42) cis-1,2-dichloroethene	8.38	96	13789	5.09	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
43) methylacrylate	8.40	85	1948	5.39 ug/L #	82
44) propionitrile	8.39	54	20616	52.81 ug/L	94
45) bromochloromethane	8.65	128	6881	5.09 ug/L	94
46) tetrahydrofuran	8.67	42	4893	5.36 ug/L	99
47) chloroform	8.72	85	15334	4.94 ug/L	98
48) T-BUTYL FORMATE	8.75	59	10306	5.50 ug/L	90
51) freon 113	6.26	151	9324	5.43 ug/L	92
52) methacrylonitrile	8.57	41	9801	5.35 ug/L	99
53) 1,1,1-trichloroethane	8.96	97	16794	5.06 ug/L	98
54) cyclohexane	9.06	84	18502	5.24 ug/L	87
57) epichlorohydrin	10.87	57	8044	27.37 ug/L	99
58) n-butyl alcohol	9.76	56	31678	336.37 ug/L	93
59) carbon tetrachloride	9.14	117	13289	5.05 ug/L	98
60) 1,1-dichloropropene	9.12	75	18126	5.18 ug/L	97
61) hexane	7.53	57	17559	5.42 ug/L	97
63) benzene	9.35	78	51154	4.93 ug/L	100
64) iso-octane	9.43	57	46517	5.16 ug/L	96
65) tert-amyl methyl ether	9.40	87	8716	5.37 ug/L	98
66) heptane	9.56	57	10463	5.23 ug/L	95
67) isopropyl acetate	9.24	61	5165	5.11 ug/L #	84
68) 1,2-dichloroethane	9.38	62	18001	5.31 ug/L	97
69) trichloroethene	10.02	95	14435	5.18 ug/L	98
71) ethyl acrylate	10.00	55	17474	5.18 ug/L	98
72) 2-nitropropane	10.76	41	5091	4.84 ug/L #	82
73) 2-chloroethyl vinyl ether	10.78	63	48531	26.61 ug/L	99
74) methyl methacrylate	10.25	100	3503	5.11 ug/L	94
75) 1,2-dichloropropane	10.31	63	14691	5.12 ug/L	99
76) dibromomethane	10.41	93	8499	5.20 ug/L	94
77) methylcyclohexane	10.30	83	19428	5.28 ug/L	96
78) bromodichloromethane	10.55	83	16129	4.87 ug/L	96
79) cis-1,3-dichloropropene	11.00	75	22577	4.88 ug/L	99
81) 4-methyl-2-pentanone	11.10	58	5750	5.17 ug/L #	86
82) toluene	11.39	92	34068	5.08 ug/L	99
83) 3-methyl-1-butanol	11.10	55	14731	110.91 ug/L	94
84) trans-1,3-dichloropropene	11.59	75	20518	5.17 ug/L	95
85) ethyl methacrylate	11.56	69	18364	5.06 ug/L	98
86) 1,1,2-trichloroethane	11.82	83	10666	5.06 ug/L	96
87) 2-hexanone	11.98	58	6214	5.58 ug/L	96
89) tetrachloroethene	11.97	164	15665	5.23 ug/L	99
90) 1,3-dichloropropane	12.01	76	21022	5.11 ug/L	97
91) butyl acetate	12.06	56	10267	5.40 ug/L	93
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	16031	56.34 ug/L	96
93) dibromochloromethane	12.27	129	11947	4.66 ug/L	98
94) 1,2-dibromoethane	12.44	107	13454	5.04 ug/L	99
95) n-butyl ether	12.89	57	68164	4.97 ug/L	91
96) chlorobenzene	12.94	112	39052	4.99 ug/L	92
97) 1,1,1,2-tetrachloroethane	13.02	131	12499	4.86 ug/L	97
98) ethylbenzene	13.01	91	65102	5.02 ug/L	99
99) m,p-xylene	13.14	106	52376	10.22 ug/L	95
100) o-xylene	13.58	106	26362	5.04 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) styrene	13.59	104	43839	4.93 ug/L	98
102) bromoform	13.85	173	7632	4.19 ug/L	95
104) isopropylbenzene	13.96	105	69492	5.07 ug/L	99
106) cyclohexanone	14.12	55	28386	58.24 ug/L	97
107) bromobenzene	14.39	156	19246	4.91 ug/L	99
108) 1,1,2,2-tetrachloroethane	14.27	83	18219	5.00 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	4008	4.85 ug/L	90
110) 1,2,3-trichloropropane	14.37	110	4710	5.20 ug/L	99
111) n-propylbenzene	14.42	91	83029	5.06 ug/L	99
113) 2-chlorotoluene	14.57	126	17415	5.05 ug/L	95
114) 4-chlorotoluene	14.70	91	50254	4.96 ug/L	97
115) 1,3,5-trimethylbenzene	14.59	105	60118	5.15 ug/L	95
116) tert-butylbenzene	14.97	119	51300	4.94 ug/L	99
117) pentachloroethane	15.05	167	10198	4.85 ug/L	93
118) 1,2,4-trimethylbenzene	15.03	105	67397	5.54 ug/L	99
119) sec-butylbenzene	15.22	105	77153	4.99 ug/L	97
120) 1,3-dichlorobenzene	15.41	146	37494	4.95 ug/L	95
121) p-isopropyltoluene	15.37	119	67441	4.98 ug/L	100
122) 1,4-dichlorobenzene	15.52	146	36912	4.94 ug/L	99
123) benzyl chloride	15.62	91	38131	5.14 ug/L	98
124) 1,2-dichlorobenzene	15.93	146	36350	5.04 ug/L	99
126) n-butylbenzene	15.82	92	34237	4.99 ug/L	97
128) 1,2-dibromo-3-chloropropan	16.78	75	3118	5.22 ug/L	97
129) 1,3,5-TRICHLOROBENZENE	16.98	180	30328	4.91 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	25512	4.81 ug/L	97
131) hexachlorobutadiene	17.78	225	14814	4.92 ug/L	99
132) naphthalene	17.98	128	51032	5.15 ug/L	99
133) 1,2,3-trichlorobenzene	18.22	180	23390	4.95 ug/L	95
134) hexachloroethane	16.26	201	7496	4.05 ug/L	92

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

7.6.5

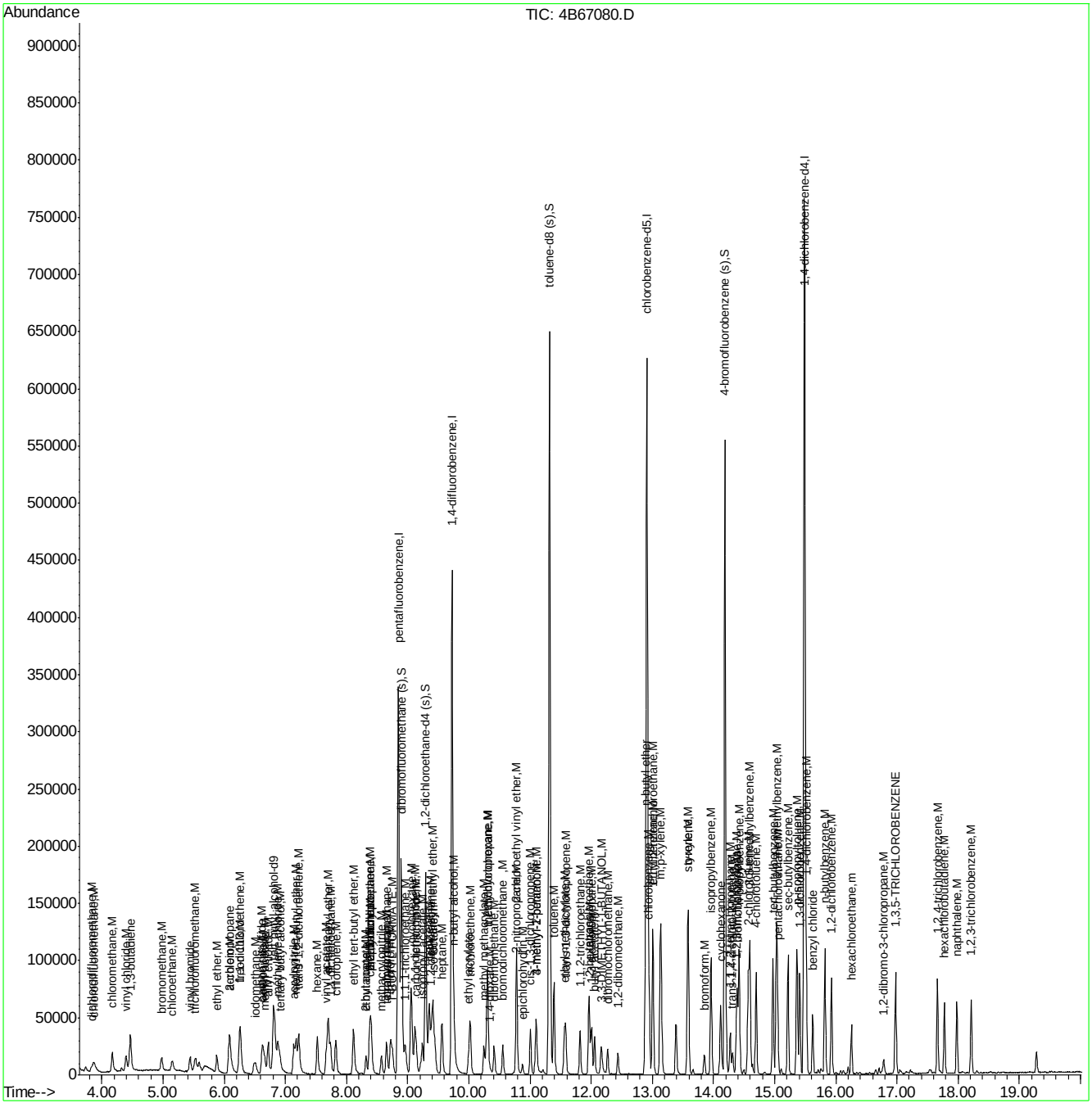
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	125330	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	267110	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	360286	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	340155	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205445	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	109626	50.21	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.42%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	120618	49.92	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.84%			
80) toluene-d8 (s)	11.32	98	422684	49.84	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.68%			
105) 4-bromofluorobenzene (s)	14.19	95	170185	49.98	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.96%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	15554	48.87	ug/L	91
3) 1,4-dioxane	10.35	88	8265	258.09	ug/L	85
7) chlorodifluoromethane	3.87	51	32041	10.49	ug/L	96
8) dichlorodifluoromethane	3.84	85	27975	10.30	ug/L	98
10) chloromethane	4.17	52	13762	10.21	ug/L	98
11) vinyl chloride	4.39	62	38983	10.12	ug/L	98
12) bromomethane	4.97	94	20502	10.55	ug/L	95
13) chloroethane	5.15	64	20723	10.61	ug/L	94
14) vinyl bromide	5.44	106	24070	10.19	ug/L	98
15) trichlorofluoromethane	5.53	101	33885	10.24	ug/L	98
16) 1,3-butadiene	4.47	54	34321	10.37	ug/L	99
19) ethyl ether	5.88	74	13796	10.63	ug/L	96
20) 2-chloropropane	6.08	39	11032	11.22	ug/L	96
21) acrolein	6.09	56	54695	102.13	ug/L	98
22) 1,1-dichloroethene	6.26	96	24307	10.23	ug/L	100
23) acetone	6.27	58	3540	12.10	ug/L #	77
24) allyl chloride	6.72	76	16967	10.73	ug/L	96
25) acetonitrile	6.64	40	18446	117.03	ug/L	87
26) iodomethane	6.50	142	47254	10.33	ug/L	99
27) carbon disulfide	6.62	76	75987	10.31	ug/L	99
28) methylene chloride	6.88	84	26634	10.17	ug/L	95
29) methyl acetate	6.66	74	3451	10.28	ug/L #	84
31) methyl tert butyl ether	7.18	73	70650	10.31	ug/L	98
32) trans-1,2-dichloroethene	7.22	96	24603	10.39	ug/L	97
33) di-isopropyl ether	7.70	45	94561	9.78	ug/L	96
34) 2-butanone	8.32	72	3251	10.41	ug/L #	79
35) 1,1-dichloroethane	7.74	63	50435	10.62	ug/L	99
36) chloroprene	7.82	53	38669	10.27	ug/L	96
37) acrylonitrile	7.14	53	49795	50.46	ug/L	96
38) vinyl acetate	7.67	86	4204	9.77	ug/L	96
39) ethyl tert-butyl ether	8.11	59	79075	10.07	ug/L	98
40) ethyl acetate	8.32	45	3958	10.10	ug/L	70
41) 2,2-dichloropropane	8.40	77	24839	10.73	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	27769	10.33 ug/L	97
43) methylacrylate	8.40	85	3782	10.54 ug/L #	86
44) propionitrile	8.39	54	39718	102.46 ug/L	95
45) bromochloromethane	8.65	128	14184	10.58 ug/L	96
46) tetrahydrofuran	8.67	42	9099	10.04 ug/L	100
47) chloroform	8.72	85	30112	9.77 ug/L	98
48) T-BUTYL FORMATE	8.75	59	20495	11.01 ug/L	93
51) freon 113	6.26	151	19066	11.18 ug/L	98
52) methacrylonitrile	8.57	41	18070	9.94 ug/L	96
53) 1,1,1-trichloroethane	8.96	97	35258	10.71 ug/L	97
54) cyclohexane	9.06	84	36193	10.33 ug/L	97
57) epichlorohydrin	10.87	57	14755	50.72 ug/L	93
58) n-butyl alcohol	9.75	56	52543	563.72 ug/L	97
59) carbon tetrachloride	9.14	117	28837	11.07 ug/L	99
60) 1,1-dichloropropene	9.12	75	36763	10.62 ug/L	99
61) hexane	7.52	57	34945	10.90 ug/L	95
63) benzene	9.35	78	103656	10.10 ug/L	99
64) iso-octane	9.43	57	93519	10.48 ug/L	98
65) tert-amyl methyl ether	9.40	87	16381	10.19 ug/L	92
66) heptane	9.56	57	21203	10.71 ug/L	95
67) isopropyl acetate	9.24	61	10036	10.02 ug/L #	88
68) 1,2-dichloroethane	9.38	62	35158	10.49 ug/L	99
69) trichloroethene	10.02	95	28643	10.38 ug/L	99
71) ethyl acrylate	10.00	55	33502	10.03 ug/L	99
72) 2-nitropropane	10.76	41	10267	9.85 ug/L #	46
73) 2-chloroethyl vinyl ether	10.78	63	92437	51.21 ug/L	99
74) methyl methacrylate	10.25	100	6864	10.11 ug/L	94
75) 1,2-dichloropropane	10.31	63	30041	10.59 ug/L	98
76) dibromomethane	10.41	93	16569	10.24 ug/L	95
77) methylcyclohexane	10.30	83	39555	10.86 ug/L	99
78) bromodichloromethane	10.55	83	33645	10.26 ug/L	98
79) cis-1,3-dichloropropene	11.00	75	47622	10.40 ug/L	99
81) 4-methyl-2-pentanone	11.10	58	11320	10.28 ug/L #	82
82) toluene	11.39	92	66807	10.07 ug/L	99
83) 3-methyl-1-butanol	11.09	55	27997	212.98 ug/L	98
84) trans-1,3-dichloropropene	11.59	75	40342	10.28 ug/L	99
85) ethyl methacrylate	11.56	69	36444	10.15 ug/L	100
86) 1,1,2-trichloroethane	11.82	83	20653	9.90 ug/L	98
87) 2-hexanone	11.98	58	11780	10.69 ug/L	91
89) tetrachloroethene	11.97	164	31707	10.70 ug/L	97
90) 1,3-dichloropropane	12.01	76	41355	10.17 ug/L	98
91) butyl acetate	12.06	56	18903	10.06 ug/L	96
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	29991	106.59 ug/L	99
93) dibromochloromethane	12.27	129	26191	10.33 ug/L	94
94) 1,2-dibromoethane	12.44	107	26463	10.02 ug/L	97
95) n-butyl ether	12.89	57	137193	10.12 ug/L	96
96) chlorobenzene	12.94	112	76896	9.94 ug/L	98
97) 1,1,1,2-tetrachloroethane	13.02	131	25938	10.20 ug/L	96
98) ethylbenzene	13.01	91	130865	10.20 ug/L	99
99) m,p-xylene	13.14	106	102774	20.28 ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	52435	10.14 ug/L	93
101) styrene	13.59	104	90106	10.25 ug/L	97
102) bromoform	13.85	173	17741	9.85 ug/L	95
104) isopropylbenzene	13.96	105	140033	10.24 ug/L	99
106) cyclohexanone	14.12	55	53993	110.99 ug/L	99
107) bromobenzene	14.39	156	39472	10.09 ug/L	94
108) 1,1,2,2-tetrachloroethane	14.27	83	36356	10.00 ug/L	97
109) trans-1,4-dichloro-2-buten	14.31	53	7984	9.46 ug/L	93
110) 1,2,3-trichloropropane	14.37	110	9073	10.04 ug/L	98
111) n-propylbenzene	14.42	91	165770	10.13 ug/L	99
113) 2-chlorotoluene	14.57	126	34996	10.16 ug/L	98
114) 4-chlorotoluene	14.70	91	102617	10.15 ug/L	98
115) 1,3,5-trimethylbenzene	14.60	105	119940	10.29 ug/L	97
116) tert-butylbenzene	14.97	119	106239	10.26 ug/L	99
117) pentachloroethane	15.05	167	21790	10.39 ug/L	92
118) 1,2,4-trimethylbenzene	15.03	105	123643	10.18 ug/L	99
119) sec-butylbenzene	15.22	105	159762	10.36 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	77439	10.24 ug/L	99
121) p-isopropyltoluene	15.36	119	142360	10.52 ug/L	98
122) 1,4-dichlorobenzene	15.52	146	74542	10.00 ug/L	98
123) benzyl chloride	15.62	91	73255	9.89 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	73725	10.24 ug/L	99
126) n-butylbenzene	15.82	92	72323	10.56 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.78	75	6225	10.44 ug/L	87
129) 1,3,5-TRICHLOROBENZENE	16.98	180	64406	10.44 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	54485	10.26 ug/L	97
131) hexachlorobutadiene	17.78	225	31426	10.47 ug/L	96
132) naphthalene	17.98	128	102794	10.39 ug/L	99
133) 1,2,3-trichlorobenzene	18.21	180	48442	10.24 ug/L	96
134) hexachloroethane	16.26	201	18248	9.89 ug/L	95

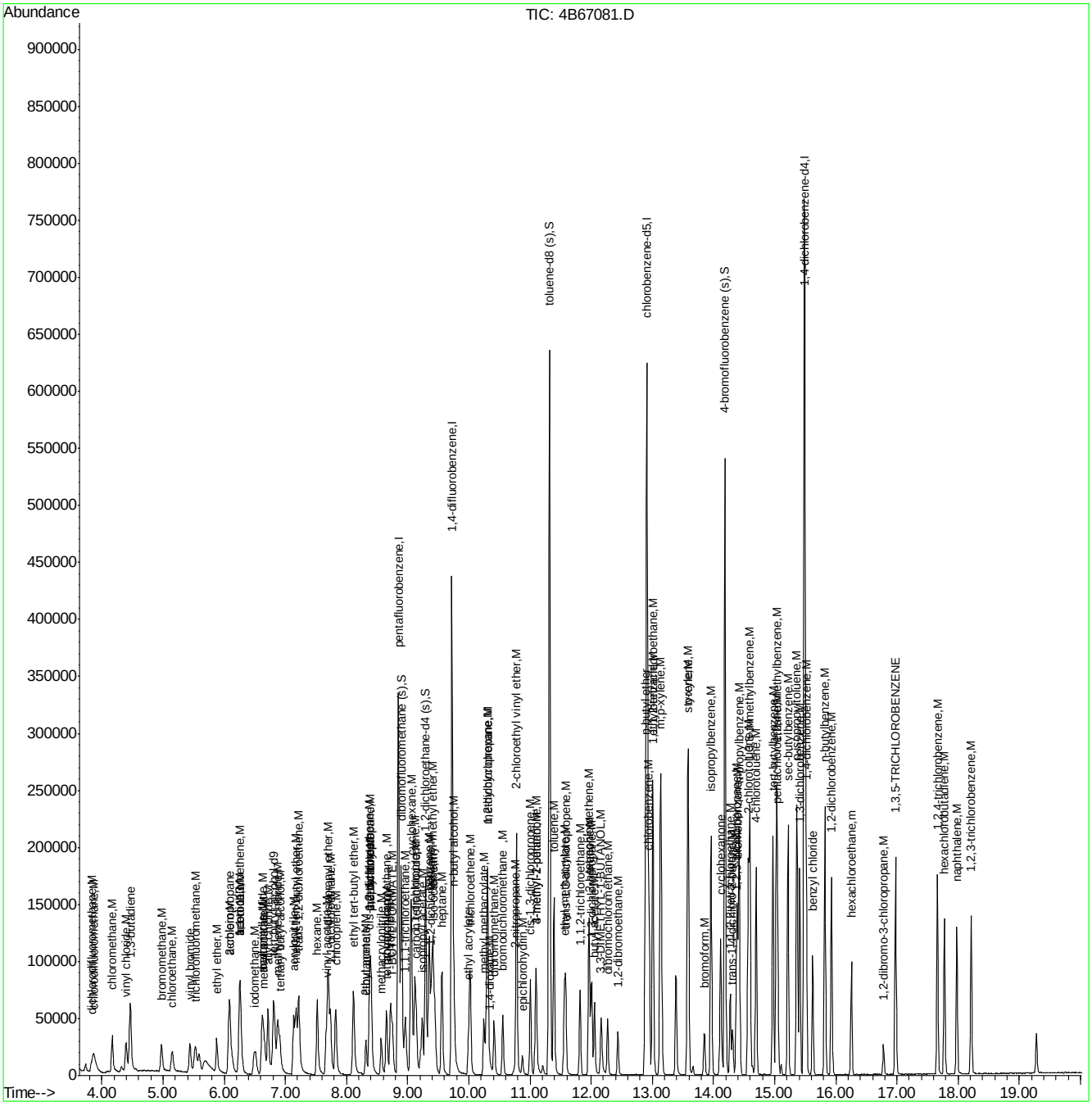
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	127911	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	265250	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	359530	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	340053	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204346	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	108795	50.17	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.34%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	120221	50.11	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.22%			
80) toluene-d8 (s)	11.32	98	421786	49.84	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.68%			
105) 4-bromofluorobenzene (s)	14.19	95	167731	49.53	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.06%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	33034	101.70	ug/L	94
3) 1,4-dioxane	10.35	88	16368	500.81	ug/L	97
7) chlorodifluoromethane	3.87	51	62435	20.59	ug/L	97
8) dichlorodifluoromethane	3.83	85	56236	20.86	ug/L	97
10) chloromethane	4.17	52	28120	21.02	ug/L	89
11) vinyl chloride	4.40	62	80029	20.93	ug/L	97
12) bromomethane	4.97	94	39505	20.46	ug/L	99
13) chloroethane	5.16	64	40313	20.78	ug/L	96
14) vinyl bromide	5.44	106	47405	20.22	ug/L	100
15) trichlorofluoromethane	5.53	101	68082	20.72	ug/L	99
16) 1,3-butadiene	4.47	54	70072	21.33	ug/L	99
19) ethyl ether	5.88	74	26572	20.61	ug/L	98
20) 2-chloropropane	6.08	39	19557	20.03	ug/L	90
21) acrolein	6.09	56	112442	211.42	ug/L	98
22) 1,1-dichloroethene	6.27	96	47475	20.12	ug/L	95
23) acetone	6.27	58	6710	23.09	ug/L	88
24) allyl chloride	6.72	76	34157	21.75	ug/L	97
25) acetonitrile	6.64	40	32877	210.05	ug/L	96
26) iodomethane	6.52	142	90606	19.95	ug/L	99
27) carbon disulfide	6.63	76	147102	20.11	ug/L	99
28) methylene chloride	6.88	84	50773	19.53	ug/L	95
29) methyl acetate	6.66	74	7532	22.59	ug/L	90
31) methyl tert butyl ether	7.18	73	138231	20.32	ug/L	97
32) trans-1,2-dichloroethene	7.22	96	46716	19.87	ug/L	98
33) di-isopropyl ether	7.70	45	183842	19.14	ug/L	98
34) 2-butanone	8.32	72	7412	23.89	ug/L #	88
35) 1,1-dichloroethane	7.74	63	94917	20.13	ug/L	98
36) chloroprene	7.82	53	76343	20.41	ug/L	98
37) acrylonitrile	7.14	53	98735	100.75	ug/L	95
38) vinyl acetate	7.67	86	9098	21.29	ug/L	96
39) ethyl tert-butyl ether	8.11	59	154974	19.88	ug/L	99
40) ethyl acetate	8.32	45	7974	20.49	ug/L	90
41) 2,2-dichloropropane	8.40	77	46926	20.42	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	8.38	96	52992	19.84 ug/L	99
43) methylacrylate	8.40	85	7931	22.26 ug/L	94
44) propionitrile	8.39	54	78944	205.07 ug/L	91
45) bromochloromethane	8.65	128	27293	20.49 ug/L	94
46) tetrahydrofuran	8.67	42	17642	19.60 ug/L	94
47) chloroform	8.72	85	57550	18.81 ug/L	97
48) T-BUTYL FORMATE	8.74	59	36122	19.53 ug/L	98
51) freon 113	6.26	151	37862	22.36 ug/L	96
52) methacrylonitrile	8.57	41	35469	19.64 ug/L	98
53) 1,1,1-trichloroethane	8.96	97	65938	20.16 ug/L	96
54) cyclohexane	9.06	84	73056	20.99 ug/L	98
57) epichlorohydrin	10.87	57	29096	100.23 ug/L	99
58) n-butyl alcohol	9.75	56	96751	1040.21 ug/L	97
59) carbon tetrachloride	9.14	117	55483	21.34 ug/L	99
60) 1,1-dichloropropene	9.12	75	70097	20.30 ug/L	99
61) hexane	7.52	57	70993	22.19 ug/L	97
63) benzene	9.35	78	197480	19.27 ug/L	99
64) iso-octane	9.44	57	185090	20.78 ug/L	99
65) tert-amyl methyl ether	9.40	87	32532	20.28 ug/L	96
66) heptane	9.56	57	41844	21.19 ug/L	98
67) isopropyl acetate	9.24	61	19823	19.84 ug/L	99
68) 1,2-dichloroethane	9.38	62	66592	19.91 ug/L	95
69) trichloroethene	10.02	95	54308	19.73 ug/L	97
71) ethyl acrylate	9.99	55	67229	20.18 ug/L	100
72) 2-nitropropane	10.76	41	20970	20.17 ug/L #	33
73) 2-chloroethyl vinyl ether	10.78	63	184429	102.38 ug/L	99
74) methyl methacrylate	10.25	100	14499	21.41 ug/L	94
75) 1,2-dichloropropane	10.31	63	56853	20.08 ug/L	100
76) dibromomethane	10.41	93	32462	20.11 ug/L	96
77) methylcyclohexane	10.30	83	77580	21.34 ug/L	99
78) bromodichloromethane	10.55	83	66434	20.30 ug/L	99
79) cis-1,3-dichloropropene	11.01	75	91379	20.00 ug/L	99
81) 4-methyl-2-pentanone	11.10	58	22833	20.78 ug/L	96
82) toluene	11.40	92	127274	19.23 ug/L	99
83) 3-methyl-1-butanol	11.09	55	55511	423.17 ug/L	97
84) trans-1,3-dichloropropene	11.58	75	79470	20.29 ug/L	98
85) ethyl methacrylate	11.56	69	71543	19.97 ug/L	99
86) 1,1,2-trichloroethane	11.82	83	41413	19.88 ug/L	96
87) 2-hexanone	11.98	58	23778	21.63 ug/L	98
89) tetrachloroethene	11.97	164	59580	20.11 ug/L	97
90) 1,3-dichloropropane	12.01	76	79901	19.65 ug/L	98
91) butyl acetate	12.06	56	37738	20.10 ug/L	99
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	61432	218.39 ug/L	99
93) dibromochloromethane	12.27	129	52660	20.77 ug/L	98
94) 1,2-dibromoethane	12.44	107	52589	19.93 ug/L	97
95) n-butyl ether	12.89	57	265748	19.60 ug/L	98
96) chlorobenzene	12.94	112	146868	18.99 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.02	131	51124	20.11 ug/L	100
98) ethylbenzene	13.01	91	249060	19.43 ug/L	98
99) m,p-xylene	13.14	106	197061	38.89 ug/L	98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	100601	19.46 ug/L	99
101) styrene	13.59	104	172401	19.63 ug/L	99
102) bromoform	13.85	173	37118	20.61 ug/L	98
104) isopropylbenzene	13.96	105	267035	19.62 ug/L	99
106) cyclohexanone	14.11	55	109849	227.02 ug/L	99
107) bromobenzene	14.39	156	75659	19.43 ug/L	98
108) 1,1,2,2-tetrachloroethane	14.27	83	70636	19.53 ug/L	97
109) trans-1,4-dichloro-2-buten	14.31	53	16690	19.64 ug/L	99
110) 1,2,3-trichloropropane	14.37	110	17695	19.69 ug/L	98
111) n-propylbenzene	14.42	91	315147	19.36 ug/L	99
113) 2-chlorotoluene	14.57	126	66564	19.43 ug/L	98
114) 4-chlorotoluene	14.70	91	192904	19.18 ug/L	98
115) 1,3,5-trimethylbenzene	14.59	105	225958	19.49 ug/L	98
116) tert-butylbenzene	14.97	119	202305	19.64 ug/L	99
117) pentachloroethane	15.05	167	42545	20.39 ug/L	95
118) 1,2,4-trimethylbenzene	15.03	105	233023	19.29 ug/L	99
119) sec-butylbenzene	15.22	105	305891	19.95 ug/L	100
120) 1,3-dichlorobenzene	15.41	146	144778	19.24 ug/L	99
121) p-isopropyltoluene	15.37	119	268599	19.96 ug/L	98
122) 1,4-dichlorobenzene	15.52	146	142407	19.20 ug/L	99
123) benzyl chloride	15.62	91	149717	20.32 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	139993	19.55 ug/L	99
126) n-butylbenzene	15.82	92	139277	20.45 ug/L	100
128) 1,2-dibromo-3-chloropropan	16.78	75	12947	21.84 ug/L	92
129) 1,3,5-TRICHLOROBENZENE	16.98	180	124897	20.36 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	106841	20.19 ug/L	98
131) hexachlorobutadiene	17.78	225	59437	19.90 ug/L	98
132) naphthalene	17.98	128	208341	21.18 ug/L	99
133) 1,2,3-trichlorobenzene	18.21	180	95556	20.28 ug/L	99
134) hexachloroethane	16.26	201	37984	20.69 ug/L	96

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

7.6.7

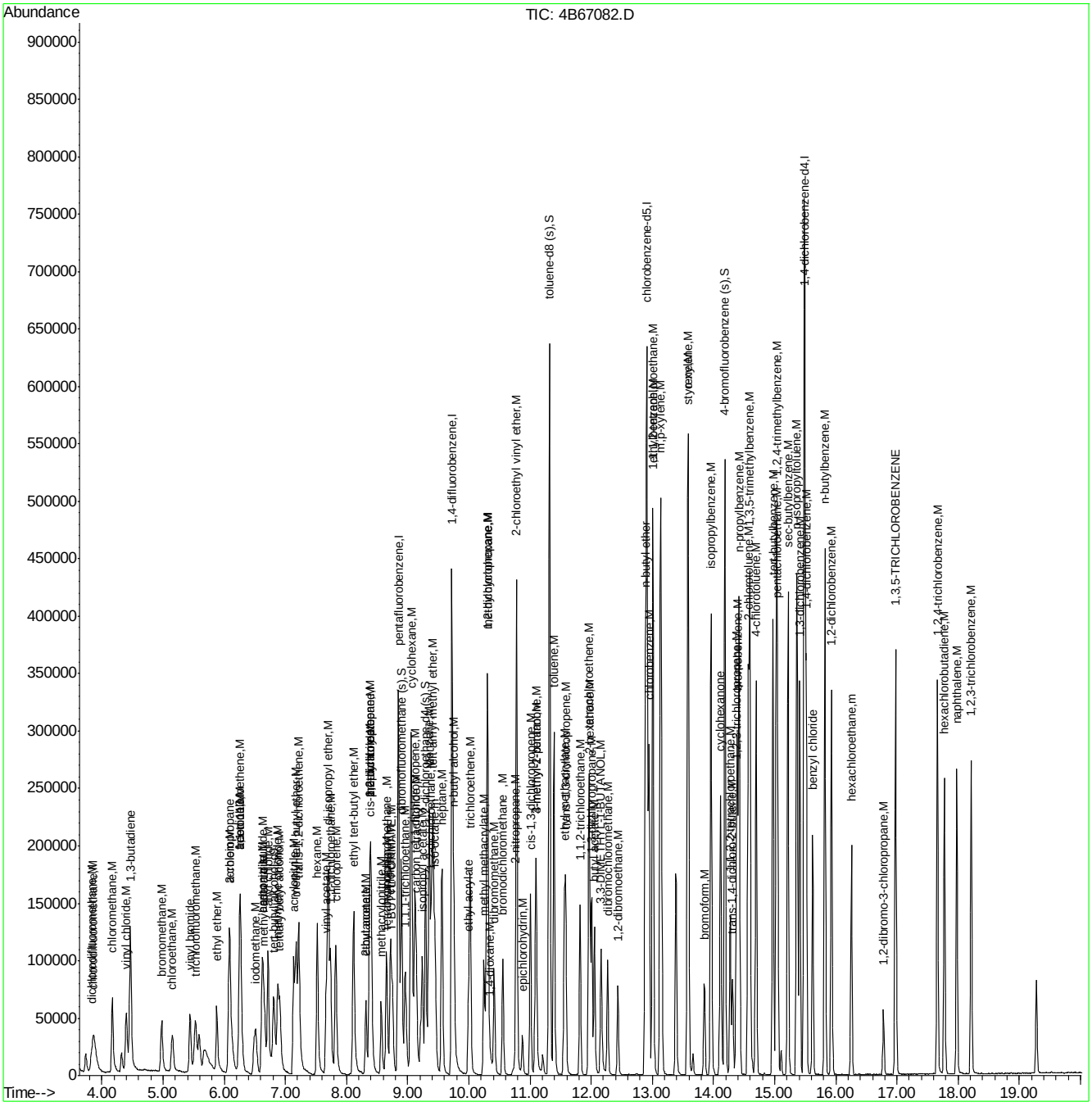
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	106678	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	259420	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	353580	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	331323	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205829	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	106511	50.23	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.46%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	114253	48.69	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 97.38%			
80) toluene-d8 (s)	11.32	98	417215	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
105) 4-bromofluorobenzene (s)	14.19	95	167745	49.17	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.34%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	69472	256.46	ug/L	100
3) 1,4-dioxane	10.35	88	35774	1312.43	ug/L	100
7) chlorodifluoromethane	3.87	51	157566	53.14	ug/L	100
8) dichlorodifluoromethane	3.83	85	138642	52.58	ug/L	100
10) chloromethane	4.17	52	68141	52.08	ug/L	100
11) vinyl chloride	4.40	62	198676	53.13	ug/L	100
12) bromomethane	4.97	94	101304	53.65	ug/L	100
13) chloroethane	5.15	64	98769	52.05	ug/L	100
14) vinyl bromide	5.44	106	117192	51.10	ug/L	100
15) trichlorofluoromethane	5.53	101	170722	53.12	ug/L	100
16) 1,3-butadiene	4.46	54	168006	52.29	ug/L	100
19) ethyl ether	5.88	74	67029	53.17	ug/L	100
20) 2-chloropropane	6.08	39	46632	48.83	ug/L	100
21) acrolein	6.09	56	266878	513.08	ug/L	100
22) 1,1-dichloroethene	6.27	96	114364	49.55	ug/L	100
23) acetone	6.26	58	11729	41.27	ug/L	96
24) allyl chloride	6.72	76	76872	50.05	ug/L	100
25) acetonitrile	6.64	40	74847	488.93	ug/L	100
26) iodomethane	6.51	142	229983	51.77	ug/L	100
27) carbon disulfide	6.63	76	367996	51.43	ug/L	100
28) methylene chloride	6.88	84	128846	50.68	ug/L	100
29) methyl acetate	6.66	74	18412	56.45	ug/L	100
31) methyl tert butyl ether	7.18	73	328123	49.31	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	114280	49.71	ug/L	100
33) di-isopropyl ether	7.70	45	444304	47.31	ug/L	100
34) 2-butanone	8.31	72	14610	48.15	ug/L	100
35) 1,1-dichloroethane	7.74	63	232636	50.44	ug/L	100
36) chloroprene	7.82	53	186061	50.87	ug/L	100
37) acrylonitrile	7.14	53	236074	246.31	ug/L	100
38) vinyl acetate	7.67	86	22623	54.12	ug/L	100
39) ethyl tert-butyl ether	8.11	59	378251	49.62	ug/L	100
40) ethyl acetate	8.32	45	18533	48.69	ug/L	100
41) 2,2-dichloropropane	8.40	77	111070	49.41	ug/L	100

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	133506	51.11	ug/L	100
43) methylacrylate	8.40	85	19079	54.75	ug/L	100
44) propionitrile	8.39	54	179741	477.41	ug/L	100
45) bromochloromethane	8.65	128	69080	53.03	ug/L	100
46) tetrahydrofuran	8.67	42	39942	45.38	ug/L	100
47) chloroform	8.72	85	141673	47.35	ug/L	100
48) T-BUTYL FORMATE	8.75	59	94960	52.51	ug/L	100
51) freon 113	6.25	151	91295	55.12	ug/L	100
52) methacrylonitrile	8.57	41	82652	46.79	ug/L	100
53) 1,1,1-trichloroethane	8.96	97	168232	52.59	ug/L	100
54) cyclohexane	9.06	84	174606	51.29	ug/L	100
57) epichlorohydrin	10.87	57	66840	234.13	ug/L	100
58) n-butyl alcohol	9.75	56	202714	2216.13	ug/L	100
59) carbon tetrachloride	9.14	117	143287	56.04	ug/L	100
60) 1,1-dichloropropene	9.12	75	172167	50.69	ug/L	100
61) hexane	7.52	57	166773	53.00	ug/L	100
63) benzene	9.35	78	490438	48.67	ug/L	100
64) iso-octane	9.44	57	451742	51.57	ug/L	100
65) tert-amyl methyl ether	9.40	87	79882	50.63	ug/L	100
66) heptane	9.56	57	101917	52.47	ug/L	100
67) isopropyl acetate	9.24	61	50580	51.48	ug/L	100
68) 1,2-dichloroethane	9.38	62	165442	50.28	ug/L	100
69) trichloroethene	10.02	95	134111	49.53	ug/L	100
71) ethyl acrylate	10.00	55	163102	49.77	ug/L	100
72) 2-nitropropane	10.76	41	51761	50.62	ug/L	100
73) 2-chloroethyl vinyl ether	10.78	63	441506	249.21	ug/L	100
74) methyl methacrylate	10.25	100	35252	52.92	ug/L	100
75) 1,2-dichloropropane	10.31	63	139289	50.01	ug/L	100
76) dibromomethane	10.41	93	80848	50.93	ug/L	100
77) methylcyclohexane	10.30	83	190371	53.23	ug/L	100
78) bromodichloromethane	10.55	83	171330	53.23	ug/L	100
79) cis-1,3-dichloropropene	11.00	75	233853	52.05	ug/L	100
81) 4-methyl-2-pentanone	11.10	58	52876	48.93	ug/L	100
82) toluene	11.39	92	321892	49.45	ug/L	100
83) 3-methyl-1-butanol	11.09	55	117365	909.75	ug/L	100
84) trans-1,3-dichloropropene	11.59	75	200469	52.04	ug/L	100
85) ethyl methacrylate	11.56	69	176346	50.06	ug/L	100
86) 1,1,2-trichloroethane	11.82	83	103015	50.29	ug/L	100
87) 2-hexanone	11.98	58	50675	46.87	ug/L	100
89) tetrachloroethene	11.96	164	141862	49.16	ug/L	100
90) 1,3-dichloropropane	12.01	76	197528	49.87	ug/L	100
91) butyl acetate	12.06	56	90256	49.33	ug/L	100
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	129684	473.17	ug/L	100
93) dibromochloromethane	12.27	129	143078	57.91	ug/L	100
94) 1,2-dibromoethane	12.44	107	130515	50.76	ug/L	100
95) n-butyl ether	12.89	57	671169	50.82	ug/L	100
96) chlorobenzene	12.94	112	371551	49.31	ug/L	100
97) 1,1,1,2-tetrachloroethane	13.02	131	132868	53.64	ug/L	100
98) ethylbenzene	13.01	91	615283	49.25	ug/L	100
99) m,p-xylene	13.14	106	491974	99.65	ug/L	100

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	253825	50.40 ug/L	100
101) styrene	13.59	104	429926	50.23 ug/L	100
102) bromoform	13.85	173	106039	60.44 ug/L	100
104) isopropylbenzene	13.96	105	668791	48.80 ug/L	100
106) cyclohexanone	14.12	55	185618	380.84 ug/L	100
107) bromobenzene	14.39	156	190528	48.59 ug/L	100
108) 1,1,2,2-tetrachloroethane	14.27	83	176198	48.37 ug/L	100
109) trans-1,4-dichloro-2-buten	14.31	53	42999	49.88 ug/L	100
110) 1,2,3-trichloropropane	14.37	110	43436	47.98 ug/L	100
111) n-propylbenzene	14.42	91	786863	48.00 ug/L	100
113) 2-chlorotoluene	14.57	126	170391	49.38 ug/L	100
114) 4-chlorotoluene	14.70	91	483614	47.74 ug/L	100
115) 1,3,5-trimethylbenzene	14.60	105	563944	48.28 ug/L	100
116) tert-butylbenzene	14.97	119	518992	50.02 ug/L	100
117) pentachloroethane	15.05	167	115020	54.74 ug/L	100
118) 1,2,4-trimethylbenzene	15.03	105	588457	48.35 ug/L	100
119) sec-butylbenzene	15.22	105	780634	50.54 ug/L	100
120) 1,3-dichlorobenzene	15.41	146	366104	48.30 ug/L	100
121) p-isopropyltoluene	15.37	119	695888	51.34 ug/L	100
122) 1,4-dichlorobenzene	15.52	146	363560	48.68 ug/L	100
123) benzyl chloride	15.62	91	378082	50.95 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	356524	49.42 ug/L	100
126) n-butylbenzene	15.82	92	362335	52.83 ug/L	100
128) 1,2-dibromo-3-chloropropan	16.78	75	32738	54.82 ug/L	100
129) 1,3,5-TRICHLOROBENZENE	16.98	180	325753	52.71 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	287050	53.81 ug/L	100
131) hexachlorobutadiene	17.78	225	151705	50.43 ug/L	100
132) naphthalene	17.98	128	533396	53.84 ug/L	100
133) 1,2,3-trichlorobenzene	18.22	180	251104	52.86 ug/L	100
134) hexachloroethane	16.26	201	116780	63.16 ug/L	100

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

7.6.8

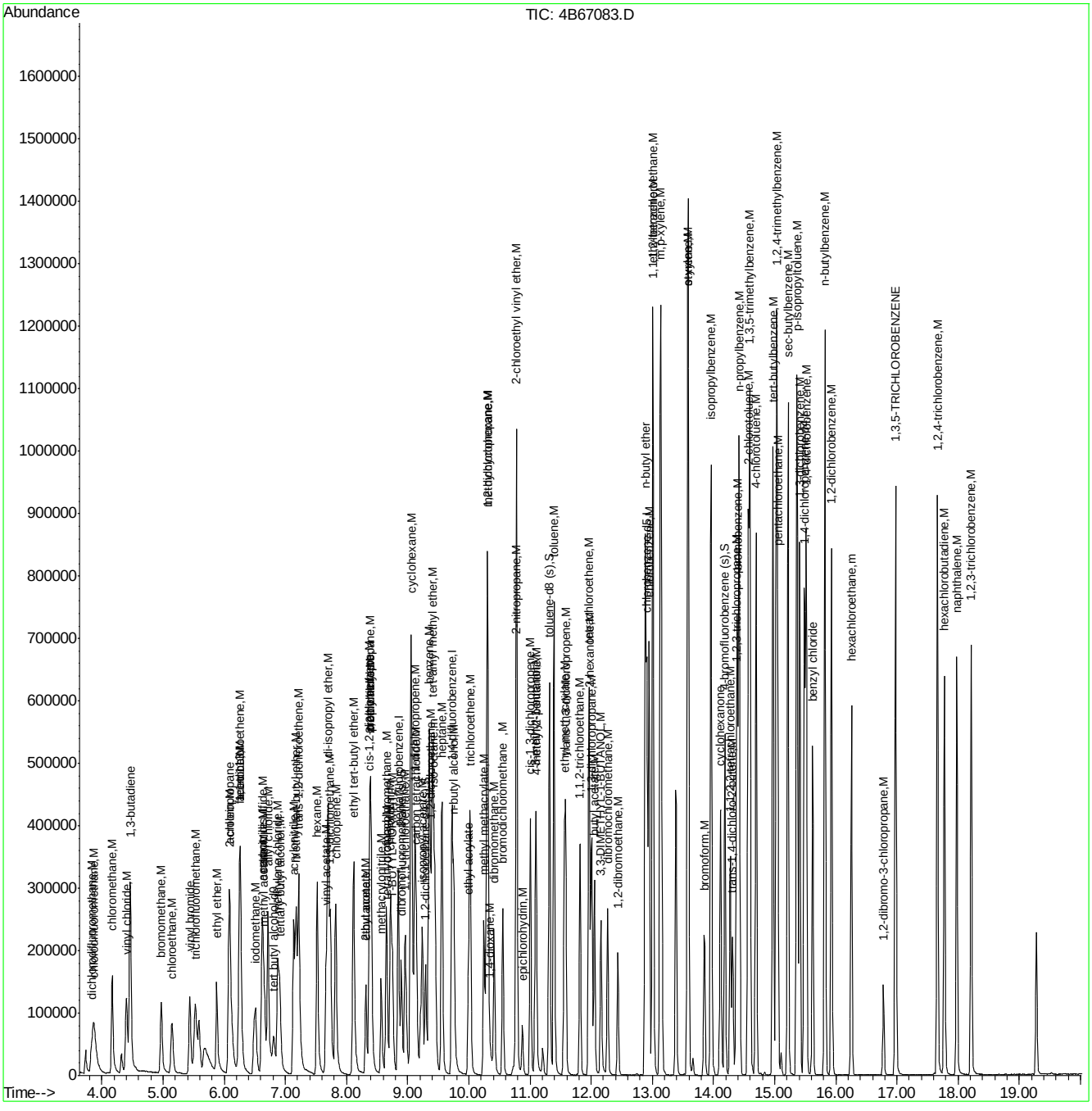
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration


Abundance
TIC: 4B67083.D
Time-->
1,2-dibromo-3-chloropropane,M
1,3,5-TRICHLOROBENZENE
1,2,4-trichlorobenzene,M
hexachlorobutadiene,M
naphthalene,M
1,2,3-trichlorobenzene,M
hexachloroethane,m
1,2-dichlorobenzene,M
n-butylbenzene,M
benzyl chloride
bromoform,M
isopropylbenzene,M
n-butyl ether
2-chloroethyl vinyl ether,M
toluene-d8 (s),S
cyclohexane,M
1,3-butadiene
chloromethane,M
vinyl chloride,M
bromomethane,M
chloroethane,M
ethyl ether,M
iodomethane,M
epichlorohydrin,M
dibromomethane,M
bromodichloromethane,M
trichloroethene,M
ethyl acrylate
methyl methacrylate,M
1,2-dibromoethane,M
1,1,2-trichloroethane,M
cis-1,3-dichloropropene,M
2-nitropropane,M
ethyl tert-butyl ether,M
n-butyl alcohol,M
heptane,M
hexane,M
di-isopropyl ether,M
cis-1,2-dichloroethene,M
chlorobenzene,I
1,2-dichloroethane,M
methacrylonitrile,M
tert-butyl alcohol,M
iodomethane,M
methyl acrylate,M
1,4-dioxane,M
m,p-xylene,M
o-xylene,M
1,3,5-trimethylbenzene,M
1,2,4-trimethylbenzene,M
n-propylbenzene,M
sec-butylbenzene,M
p-isopropyltoluene,M
tert-butylbenzene,M
pentachloroethane,M
4-chlorotoluene,M
2-chlorotoluene,M
1,4-dichlorobenzene,M
1,3-dichlorobenzene,M
cyclohexanone
4-bromofluorobenzene (s),S
trans-1,4-dichloro-2-butene,M
1,2,3-trichloropropane,M
1,1,2,2-tetrachloroethane,M
1,2-dichloroethane,M
1,1-dichloroethane,M
1,1-dichloroethene,M
1,2-dichloroethane,M
1,2-dichloroethane,M
1,1,1-trichloroethane,M
1,1-dichloroethane,M
1,2-dichloroethane,M
1,2-dichloroethane,M
1,1-dichloroethane,M
1,1-dichloroethane,M
1,1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	108683	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	256573	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	350154	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	328202	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	206326	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	104986	50.06	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.12%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	111804	48.17	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.34%			
80) toluene-d8 (s)	11.32	98	414055	50.23	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.46%			
105) 4-bromofluorobenzene (s)	14.19	95	170296	49.80	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.60%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.92	59	137379	497.78	ug/L	97
3) 1,4-dioxane	10.35	88	68933	2482.27	ug/L	99
7) chlorodifluoromethane	3.87	51	297538	101.45	ug/L	98
8) dichlorodifluoromethane	3.84	85	254715	97.67	ug/L	100
10) chloromethane	4.17	52	130350	100.73	ug/L	91
11) vinyl chloride	4.40	62	368507	99.63	ug/L	99
12) bromomethane	4.97	94	179377	96.05	ug/L	98
13) chloroethane	5.15	64	178317	95.01	ug/L	97
14) vinyl bromide	5.44	106	217152	95.74	ug/L	99
15) trichlorofluoromethane	5.53	101	317498	99.88	ug/L	98
16) 1,3-butadiene	4.47	54	312176	98.24	ug/L	100
19) ethyl ether	5.88	74	130401	104.59	ug/L	99
20) 2-chloropropane	6.08	39	83965	88.90	ug/L	98
21) acrolein	6.09	56	516276	1003.57	ug/L	99
22) 1,1-dichloroethene	6.27	96	225762	98.89	ug/L	99
23) acetone	6.27	58	22937	81.61	ug/L	95
24) allyl chloride	6.72	76	151258	99.57	ug/L	100
25) acetonitrile	6.64	40	126858	837.88	ug/L	98
26) iodomethane	6.51	142	451182	102.69	ug/L	99
27) carbon disulfide	6.63	76	727506	102.79	ug/L	99
28) methylene chloride	6.88	84	250343	99.56	ug/L	97
29) methyl acetate	6.66	74	35110	108.84	ug/L	92
31) methyl tert butyl ether	7.18	73	636937	96.78	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	219559	96.56	ug/L	98
33) di-isopropyl ether	7.70	45	802065	86.35	ug/L	99
34) 2-butanone	8.32	72	30062	100.17	ug/L #	94
35) 1,1-dichloroethane	7.74	63	442010	96.90	ug/L	100
36) chloroprene	7.82	53	342074	94.55	ug/L	99
37) acrylonitrile	7.14	53	466893	492.53	ug/L	97
38) vinyl acetate	7.67	86	42982	103.97	ug/L	92
39) ethyl tert-butyl ether	8.12	59	706173	93.66	ug/L	99
40) ethyl acetate	8.32	45	35808	95.12	ug/L	87
41) 2,2-dichloropropane	8.40	77	192411	86.55	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	256299	99.22	ug/L		98
43) methylacrylate	8.40	85	38083	110.49	ug/L		95
44) propionitrile	8.39	54	355064	953.54	ug/L		97
45) bromochloromethane	8.65	128	134663	104.53	ug/L		99
46) tetrahydrofuran	8.67	42	80155	92.07	ug/L		99
47) chloroform	8.72	85	270490	91.41	ug/L		99
48) T-BUTYL FORMATE	8.75	59	165468	92.51	ug/L		99
51) freon 113	6.26	151	169842	103.68	ug/L		99
52) methacrylonitrile	8.57	41	166074	95.07	ug/L		99
53) 1,1,1-trichloroethane	8.96	97	323453	102.24	ug/L		99
54) cyclohexane	9.06	84	328911	97.69	ug/L		99
57) epichlorohydrin	10.88	57	130358	461.09	ug/L		98
58) n-butyl alcohol	9.75	56	387496	4277.67	ug/L		99
59) carbon tetrachloride	9.14	117	283912	112.13	ug/L		97
60) 1,1-dichloropropene	9.12	75	331244	98.48	ug/L		99
61) hexane	7.52	57	304996	97.87	ug/L		99
63) benzene	9.35	78	942524	94.45	ug/L		99
64) iso-octane	9.44	57	819257	94.44	ug/L		100
65) tert-amyl methyl ether	9.40	87	148582	95.09	ug/L		96
66) heptane	9.56	57	186892	97.17	ug/L		98
67) isopropyl acetate	9.24	61	97231	99.93	ug/L		94
68) 1,2-dichloroethane	9.38	62	315386	96.80	ug/L		98
69) trichloroethene	10.02	95	257334	95.98	ug/L		99
71) ethyl acrylate	9.99	55	329515	101.53	ug/L		100
72) 2-nitropropane	10.76	41	101064	99.80	ug/L	#	25
73) 2-chloroethyl vinyl ether	10.78	63	820013	467.40	ug/L		99
74) methyl methacrylate	10.25	100	71851	108.92	ug/L		93
75) 1,2-dichloropropane	10.31	63	264107	95.76	ug/L		100
76) dibromomethane	10.41	93	159347	101.37	ug/L		96
77) methylcyclohexane	10.30	83	349815	98.78	ug/L		98
78) bromodichloromethane	10.55	83	340394	106.80	ug/L		99
79) cis-1,3-dichloropropene	11.00	75	455344	102.33	ug/L		100
81) 4-methyl-2-pentanone	11.10	58	106788	99.78	ug/L		98
82) toluene	11.39	92	626817	97.24	ug/L		97
83) 3-methyl-1-butanol	11.09	55	224347	1756.03	ug/L		97
84) trans-1,3-dichloropropene	11.58	75	395336	103.63	ug/L		100
85) ethyl methacrylate	11.56	69	355522	101.92	ug/L		98
86) 1,1,2-trichloroethane	11.82	83	203725	100.44	ug/L		99
87) 2-hexanone	11.98	58	103825	96.97	ug/L		95
89) tetrachloroethene	11.97	164	270147	94.50	ug/L		98
90) 1,3-dichloropropane	12.01	76	384729	98.05	ug/L		99
91) butyl acetate	12.06	56	177139	97.73	ug/L		98
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	245122	902.87	ug/L		98
93) dibromochloromethane	12.27	129	294212	120.22	ug/L		99
94) 1,2-dibromoethane	12.44	107	264627	103.89	ug/L		97
95) n-butyl ether	12.89	57	1327087	101.43	ug/L		100
96) chlorobenzene	12.94	112	730538	97.88	ug/L		100
97) 1,1,1,2-tetrachloroethane	13.02	131	265721	108.29	ug/L		99
98) ethylbenzene	13.01	91	1206848	97.53	ug/L		100
99) m,p-xylene	13.14	106	978215	200.03	ug/L		100

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	507122	101.66 ug/L	99
101) styrene	13.59	104	846627	99.86 ug/L	99
102) bromoform	13.85	173	232168	133.58 ug/L	99
104) isopropylbenzene	13.96	105	1319952	96.07 ug/L	99
106) cyclohexanone	14.12	55	368468	754.18 ug/L	100
107) bromobenzene	14.39	156	378945	96.41 ug/L	99
108) 1,1,2,2-tetrachloroethane	14.27	83	359471	98.45 ug/L	99
109) trans-1,4-dichloro-2-buten	14.31	53	90907	104.95 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	90349	99.56 ug/L	98
111) n-propylbenzene	14.42	91	1545011	94.02 ug/L	100
113) 2-chlorotoluene	14.57	126	340117	98.33 ug/L	99
114) 4-chlorotoluene	14.70	91	962316	94.77 ug/L	100
115) 1,3,5-trimethylbenzene	14.60	105	1103405	94.24 ug/L	99
116) tert-butylbenzene	14.97	119	1019016	97.97 ug/L	99
117) pentachloroethane	15.05	167	238318	113.14 ug/L	98
118) 1,2,4-trimethylbenzene	15.03	105	1134172	92.97 ug/L	99
119) sec-butylbenzene	15.22	105	1521216	98.25 ug/L	100
120) 1,3-dichlorobenzene	15.41	146	712316	93.74 ug/L	99
121) p-isopropyltoluene	15.37	119	1327566	97.71 ug/L	99
122) 1,4-dichlorobenzene	15.52	146	715061	95.51 ug/L	99
123) benzyl chloride	15.62	91	739018	99.35 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	692805	95.81 ug/L	100
126) n-butylbenzene	15.82	92	688387	100.12 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.78	75	66935	111.82 ug/L	98
129) 1,3,5-TRICHLOROBENZENE	16.98	180	622804	100.54 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	554959	103.75 ug/L	100
131) hexachlorobutadiene	17.78	225	283855	94.14 ug/L	99
132) naphthalene	17.98	128	1065016	107.23 ug/L	100
133) 1,2,3-trichlorobenzene	18.22	180	492095	103.32 ug/L	98
134) hexachloroethane	16.26	201	246222	132.84 ug/L	99

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

7.6.9

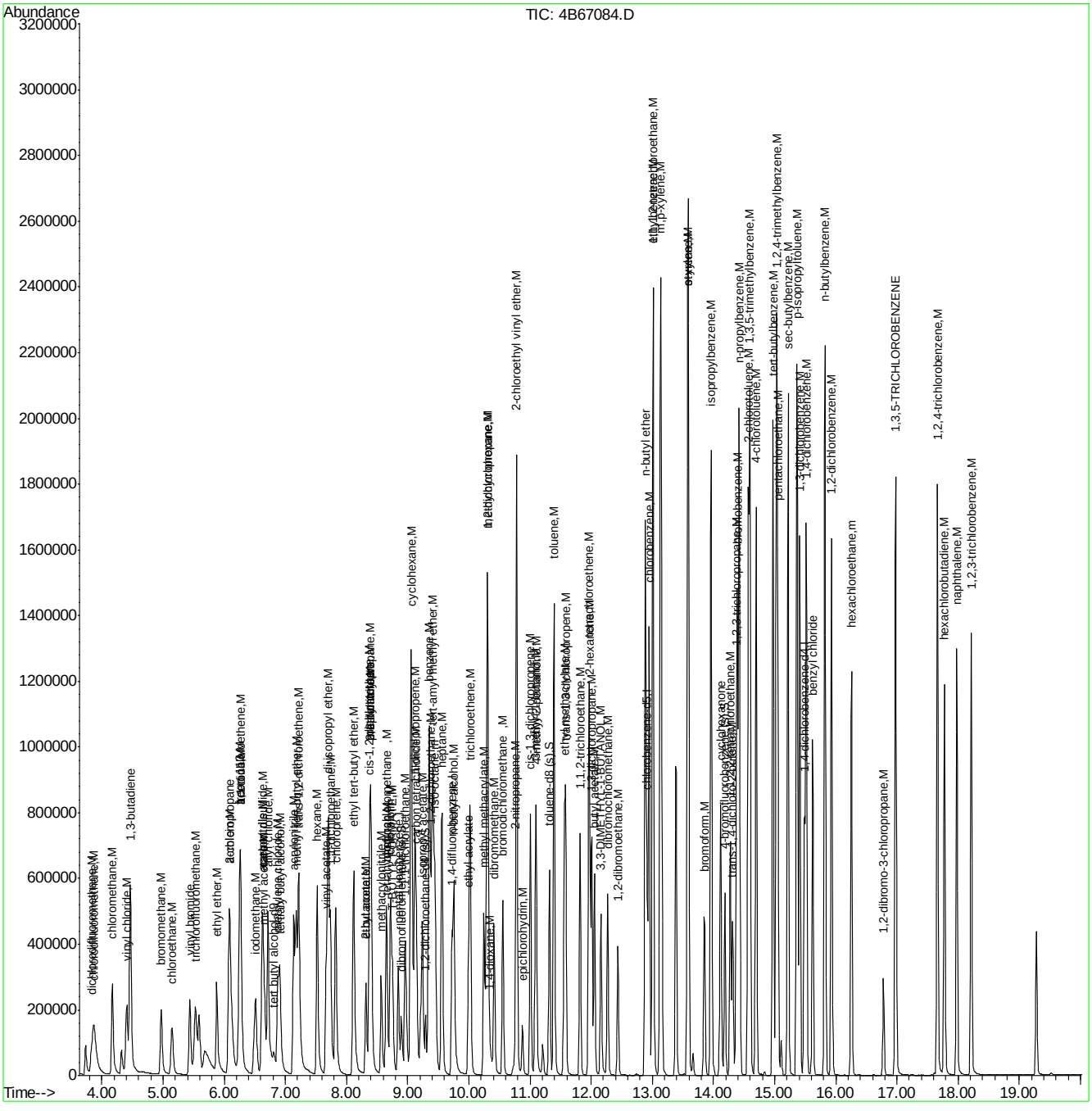
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	103657	500.00	ug/L	0.01
5) pentafluorobenzene	8.85	168	249109	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	342295	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	318772	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	203896	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	103174	50.67	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.34%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	108187	48.01	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.02%			
80) toluene-d8 (s)	11.32	98	403675	50.10	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.20%			
105) 4-bromofluorobenzene (s)	14.19	95	166597	49.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.60%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.93	59	265393	1008.25	ug/L	96
3) 1,4-dioxane	10.36	88	140096	5289.45	ug/L	96
7) chlorodifluoromethane	3.87	51	576763	202.55	ug/L	99
8) dichlorodifluoromethane	3.83	85	510655	201.68	ug/L	98
10) chloromethane	4.17	52	238114	189.51	ug/L	92
11) vinyl chloride	4.40	62	709212	197.49	ug/L	98
12) bromomethane	4.96	94	290684	160.32	ug/L	100
13) chloroethane	5.14	64	301163	165.27	ug/L	96
14) vinyl bromide	5.43	106	404407	183.64	ug/L	99
15) trichlorofluoromethane	5.52	101	611941	198.27	ug/L	99
16) 1,3-butadiene	4.46	54	551343	178.70	ug/L	100
19) ethyl ether	5.88	74	236898	195.70	ug/L	99
20) 2-chloropropane	6.08	39	150618	164.24	ug/L	97
21) acrolein	6.09	56	945383	1892.77	ug/L	97
22) 1,1-dichloroethene	6.27	96	390331	176.10	ug/L	98
23) acetone	6.27	58	40059	146.80	ug/L	97
24) allyl chloride	6.72	76	274907	186.39	ug/L	94
25) acetonitrile	6.64	40	247132	1681.19	ug/L	99
26) iodomethane	6.51	142	815634	191.20	ug/L	99
27) carbon disulfide	6.62	76	1269721	184.78	ug/L	99
28) methylene chloride	6.88	84	449313	184.05	ug/L	97
29) methyl acetate	6.66	74	68406	218.42	ug/L	95
31) methyl tert butyl ether	7.18	73	1100811	172.28	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	391826	177.49	ug/L	98
33) di-isopropyl ether	7.70	45	1554770	172.40	ug/L	98
34) 2-butanone	8.32	72	54409	186.73	ug/L #	77
35) 1,1-dichloroethane	7.74	63	791506	178.72	ug/L	100
36) chloroprene	7.82	53	655178	186.53	ug/L	99
37) acrylonitrile	7.14	53	848596	922.02	ug/L	100
38) vinyl acetate	7.67	86	84483	210.47	ug/L	96
39) ethyl tert-butyl ether	8.12	59	1357939	185.50	ug/L	99
40) ethyl acetate	8.32	45	68583	187.65	ug/L	97
41) 2,2-dichloropropane	8.40	77	340258	157.65	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	465119	185.45	ug/L		99
43) methylacrylate	8.40	85	69258	206.96	ug/L	#	91
44) propionitrile	8.40	54	645220	1784.69	ug/L		99
45) bromochloromethane	8.65	128	249603	199.56	ug/L		99
46) tetrahydrofuran	8.67	42	143585	169.87	ug/L		99
47) chloroform	8.72	85	491884	171.21	ug/L		98
48) T-BUTYL FORMATE	8.75	59	357680	205.97	ug/L		97
51) freon 113	6.25	151	325076	204.39	ug/L		99
52) methacrylonitrile	8.57	41	305507	180.13	ug/L		97
53) 1,1,1-trichloroethane	8.96	97	590838	192.35	ug/L		99
54) cyclohexane	9.06	84	614661	188.04	ug/L		97
57) epichlorohydrin	10.88	57	260157	941.32	ug/L		98
58) n-butyl alcohol	9.76	56	777895	8784.55	ug/L		99
59) carbon tetrachloride	9.14	117	520857	210.43	ug/L		98
60) 1,1-dichloropropene	9.12	75	593169	180.40	ug/L		99
61) hexane	7.52	57	592960	194.65	ug/L		99
63) benzene	9.35	78	1709732	175.26	ug/L		99
64) iso-octane	9.44	57	1613201	190.22	ug/L		100
65) tert-amyl methyl ether	9.41	87	291574	190.88	ug/L		94
66) heptane	9.56	57	363123	193.13	ug/L		98
67) isopropyl acetate	9.24	61	186530	196.10	ug/L		98
68) 1,2-dichloroethane	9.38	62	570786	179.21	ug/L		99
69) trichloroethene	10.02	95	457403	174.51	ug/L		98
71) ethyl acrylate	9.99	55	597458	188.32	ug/L		100
72) 2-nitropropane	10.76	41	187374	189.28	ug/L	#	21
73) 2-chloroethyl vinyl ether	10.78	63	1575816	918.82	ug/L		98
74) methyl methacrylate	10.25	100	133913	207.67	ug/L	#	90
75) 1,2-dichloropropane	10.31	63	476466	176.72	ug/L		99
76) dibromomethane	10.41	93	294169	191.43	ug/L		97
77) methylcyclohexane	10.30	83	680219	196.49	ug/L		97
78) bromodichloromethane	10.55	83	632746	203.08	ug/L		99
79) cis-1,3-dichloropropene	11.01	75	841282	193.41	ug/L		97
81) 4-methyl-2-pentanone	11.10	58	191429	182.97	ug/L		92
82) toluene	11.39	92	1148049	182.19	ug/L		96
83) 3-methyl-1-butanol	11.09	55	447371	3582.10	ug/L		96
84) trans-1,3-dichloropropene	11.58	75	728532	195.36	ug/L		99
85) ethyl methacrylate	11.56	69	648280	190.11	ug/L		97
86) 1,1,2-trichloroethane	11.82	83	377436	190.35	ug/L		99
87) 2-hexanone	11.98	58	186968	178.63	ug/L		94
89) tetrachloroethene	11.97	164	481541	173.42	ug/L		98
90) 1,3-dichloropropane	12.01	76	707030	185.52	ug/L		100
91) butyl acetate	12.06	56	348732	198.10	ug/L		97
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	499500	1894.26	ug/L		97
93) dibromochloromethane	12.27	129	564091	237.31	ug/L		99
94) 1,2-dibromoethane	12.44	107	499409	201.87	ug/L		99
95) n-butyl ether	12.89	57	2397902	188.70	ug/L		100
96) chlorobenzene	12.95	112	1344770	185.50	ug/L		98
97) 1,1,1,2-tetrachloroethane	13.02	131	495234	207.80	ug/L		99
98) ethylbenzene	13.01	91	2173614	180.85	ug/L		99
99) m,p-xylene	13.14	106	1794354	377.77	ug/L		97

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	929808	191.91 ug/L	100
101) styrene	13.59	104	1549808	188.20 ug/L	98
104) isopropylbenzene	13.96	105	2412291	177.67 ug/L	99
107) bromobenzene	14.39	156	703762	181.18 ug/L	99
108) 1,1,2,2-tetrachloroethane	14.28	83	665866	184.54 ug/L	98
109) trans-1,4-dichloro-2-buten	14.32	53	168174	196.27 ug/L	94
110) 1,2,3-trichloropropane	14.38	110	167996	187.34 ug/L	98
111) n-propylbenzene	14.42	91	2796899	172.23 ug/L	98
113) 2-chlorotoluene	14.57	126	626333	183.23 ug/L	99
114) 4-chlorotoluene	14.70	91	1779899	177.38 ug/L	100
115) 1,3,5-trimethylbenzene	14.60	105	1991344	172.11 ug/L	100
116) tert-butylbenzene	14.97	119	1847086	179.71 ug/L	100
117) pentachloroethane	15.05	167	454632	218.40 ug/L	98
118) 1,2,4-trimethylbenzene	15.03	105	2039667	169.19 ug/L	99
119) sec-butylbenzene	15.22	105	2716358	177.52 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	1305699	173.88 ug/L	99
121) p-isopropyltoluene	15.37	119	2366699	176.28 ug/L	99
122) 1,4-dichlorobenzene	15.52	146	1330468	179.82 ug/L	99
123) benzyl chloride	15.62	91	1444884	196.55 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	1259968	176.32 ug/L	100
126) n-butylbenzene	15.82	92	1213704	178.63 ug/L	96
128) 1,2-dibromo-3-chloropropan	16.78	75	123014	207.94 ug/L	99
129) 1,3,5-TRICHLOROBENZENE	16.98	180	1122910	183.44 ug/L	99
130) 1,2,4-trichlorobenzene	17.66	180	1017614	192.50 ug/L	99
131) hexachlorobutadiene	17.78	225	500934	168.11 ug/L	99
132) naphthalene	17.98	128	1959134	199.61 ug/L	99
133) 1,2,3-trichlorobenzene	18.22	180	911577	193.65 ug/L	98
134) hexachloroethane	16.26	201	464743	253.73 ug/L	98

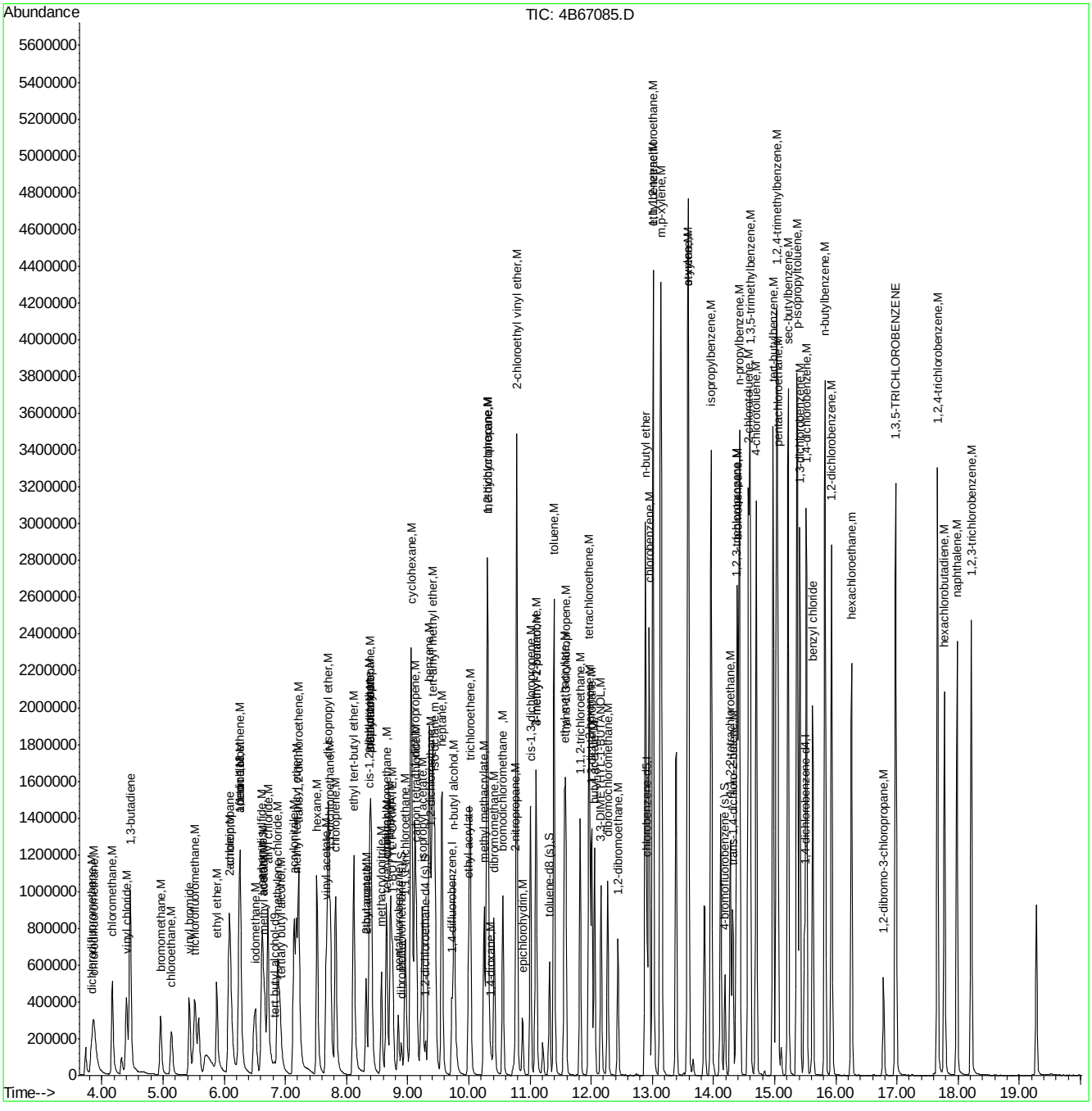
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	104856	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	265498	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	357354	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	334426	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	207252	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	107718	49.63	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.26%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	115707	48.18	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.36%			
80) toluene-d8 (s)	11.32	98	420737	50.02	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.04%			
105) 4-bromofluorobenzene (s)	14.18	95	167922	48.89	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.78%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	71815	269.71	ug/L	98
3) 1,4-dioxane	10.36	88	33125	1236.36	ug/L	97
7) chlorodifluoromethane	3.87	51	189090	62.31	ug/L	97
8) dichlorodifluoromethane	3.83	85	133516	49.49	ug/L	100
10) chloromethane	4.17	52	63983	47.78	ug/L	94
11) vinyl chloride	4.40	62	186682	48.78	ug/L	99
12) bromomethane	4.97	94	96717	50.05	ug/L	97
13) chloroethane	5.15	64	94335	48.57	ug/L	94
14) vinyl bromide	5.44	106	109526	46.67	ug/L	100
15) trichlorofluoromethane	5.52	101	166783	50.70	ug/L	98
16) 1,3-butadiene	4.46	54	165482	50.33	ug/L	100
19) ethyl ether	5.88	74	68501	53.09	ug/L	97
20) 2-chloropropane	6.08	39	52624	53.84	ug/L	99
21) acrolein	6.09	56	256496	481.83	ug/L	97
22) 1,1-dichloroethene	6.26	96	111076	48.99	ug/L	99
23) acetone	6.27	58	12679	51.92	ug/L	99
24) allyl chloride	6.72	76	75842	48.05	ug/L	93
25) acetonitrile	6.63	40	73689	470.35	ug/L	97
26) iodomethane	6.49	142	222107	50.42	ug/L	99
27) carbon disulfide	6.62	76	360266	51.35	ug/L	99
28) methylene chloride	6.88	84	122193	48.91	ug/L	100
29) methyl acetate	6.66	74	19631	54.42	ug/L	91
31) methyl tert butyl ether	7.18	73	648988	95.30	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	111435	49.39	ug/L	98
33) di-isopropyl ether	7.70	45	471049	50.50	ug/L	97
34) 2-butanone	8.31	72	15242	49.08	ug/L	99
35) 1,1-dichloroethane	7.74	63	223472	47.34	ug/L	99
36) chloroprene	7.82	53	202274	54.03	ug/L	100
37) acrylonitrile	7.14	53	238687	243.33	ug/L	99
38) vinyl acetate	7.67	86	24467	55.03	ug/L	89
39) ethyl tert-butyl ether	8.11	59	418466	53.64	ug/L	99
40) ethyl acetate	8.32	45	19622	50.37	ug/L	98
41) 2,2-dichloropropane	8.40	77	112634	50.55	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	129698	48.52	ug/L		97
43) methylacrylate	8.40	85	18916	49.11	ug/L		97
44) propionitrile	8.39	54	178858	464.18	ug/L		99
45) bromochloromethane	8.65	128	67970	50.99	ug/L		98
46) tetrahydrofuran	8.67	42	40750	46.89	ug/L		98
47) chloroform	8.72	85	140900	49.55	ug/L		93
48) T-BUTYL FORMATE	8.75	59	70031	37.84	ug/L		97
51) freon 113	6.25	151	114786	64.11	ug/L		99
52) methacrylonitrile	8.57	41	81436	45.05	ug/L		98
53) 1,1,1-trichloroethane	8.96	97	169167	52.77	ug/L		98
54) cyclohexane	9.06	84	166260	47.72	ug/L		97
57) epichlorohydrin	10.87	57	67053	232.39	ug/L		99
58) n-butyl alcohol	9.75	56	196712	2127.80	ug/L		96
59) carbon tetrachloride	9.14	117	138727	53.69	ug/L		99
60) 1,1-dichloropropene	9.12	75	166744	50.33	ug/L		100
61) hexane	7.52	57	146570	46.09	ug/L		98
63) benzene	9.35	78	476195	46.76	ug/L		99
64) iso-octane	9.44	57	527489	59.58	ug/L		99
65) tert-amyl methyl ether	9.40	87	84947	53.27	ug/L		97
66) heptane	9.56	57	113275	57.71	ug/L		99
67) isopropyl acetate	9.24	61	54469	54.85	ug/L		99
68) 1,2-dichloroethane	9.38	62	164070	49.34	ug/L		99
69) trichloroethene	10.02	95	131460	48.04	ug/L		98
71) ethyl acrylate	10.00	55	163661	49.41	ug/L		100
72) 2-nitropropane	10.76	41	51755	50.08	ug/L	#	39
73) 2-chloroethyl vinyl ether	10.78	63	483702	270.15	ug/L		99
74) methyl methacrylate	10.25	100	34228	49.26	ug/L	#	81
75) 1,2-dichloropropane	10.31	63	132800	47.18	ug/L		99
76) dibromomethane	10.41	93	79406	49.50	ug/L		97
77) methylcyclohexane	10.30	83	216538	59.91	ug/L		97
78) bromodichloromethane	10.55	83	161426	49.63	ug/L		99
79) cis-1,3-dichloropropene	11.00	75	223923	49.31	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	52902	48.43	ug/L		97
82) toluene	11.39	92	308307	49.20	ug/L		98
83) 3-methyl-1-butanol	11.09	55	118568	909.37	ug/L		98
84) trans-1,3-dichloropropene	11.59	75	197787	50.80	ug/L		99
85) ethyl methacrylate	11.56	69	166567	46.79	ug/L		99
86) 1,1,2-trichloroethane	11.82	83	100388	48.49	ug/L		98
87) 2-hexanone	11.98	58	50270	46.00	ug/L		97
89) tetrachloroethene	11.96	164	138867	47.67	ug/L		98
90) 1,3-dichloropropane	12.01	76	192180	48.07	ug/L		98
91) butyl acetate	12.06	56	97582	52.84	ug/L		96
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	137386	496.62	ug/L		98
93) dibromochloromethane	12.27	129	136415	54.70	ug/L		98
94) 1,2-dibromoethane	12.44	107	127555	49.15	ug/L		99
95) n-butyl ether	12.89	57	626495	48.52	ug/L		100
96) chlorobenzene	12.94	112	362803	49.94	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	125386	51.01	ug/L		98
98) ethylbenzene	13.01	91	592215	49.11	ug/L		99
99) m,p-xylene	13.14	106	477946	95.91	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	244167	49.80 ug/L	99
101) styrene	13.59	104	415732	48.12 ug/L	100
102) bromoform	13.85	173	101115	48.91 ug/L	99
104) isopropylbenzene	13.96	105	643842	48.95 ug/L	100
106) cyclohexanone	14.12	55	206094	413.22 ug/L	99
107) bromobenzene	14.39	156	185443	46.97 ug/L	98
108) 1,1,2,2-tetrachloroethane	14.27	83	169027	46.09 ug/L	96
109) trans-1,4-dichloro-2-buten	14.31	53	41659	50.90 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	43719	47.96 ug/L	100
111) n-propylbenzene	14.42	91	761028	48.67 ug/L	100
113) 2-chlorotoluene	14.57	126	164383	47.31 ug/L	99
114) 4-chlorotoluene	14.70	91	472186	48.64 ug/L	99
115) 1,3,5-trimethylbenzene	14.60	105	547979	48.84 ug/L	99
116) tert-butylbenzene	14.97	119	498706	49.79 ug/L	99
117) pentachloroethane	15.05	167	113018	52.16 ug/L	97
118) 1,2,4-trimethylbenzene	15.03	105	570208	48.65 ug/L	100
119) sec-butylbenzene	15.21	105	747015	49.50 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	352650	48.43 ug/L	99
121) p-isopropyltoluene	15.37	119	657412	49.82 ug/L	100
122) 1,4-dichlorobenzene	15.52	146	354313	49.36 ug/L	100
123) benzyl chloride	15.62	91	354520	47.45 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	347621	47.86 ug/L	99
126) n-butylbenzene	15.82	92	340276	50.70 ug/L	99
128) 1,2-dibromo-3-chloropropan	16.78	75	31468	52.33 ug/L	94
129) 1,3,5-TRICHLOROBENZENE	16.98	180	320790	51.55 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	276143	52.72 ug/L	99
131) hexachlorobutadiene	17.78	225	138828	48.16 ug/L	99
132) naphthalene	17.98	128	508737	50.99 ug/L	100
133) 1,2,3-trichlorobenzene	18.22	180	241271	51.56 ug/L	99
134) hexachloroethane	16.26	201	110097	47.31 ug/L	99

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

7.6.11

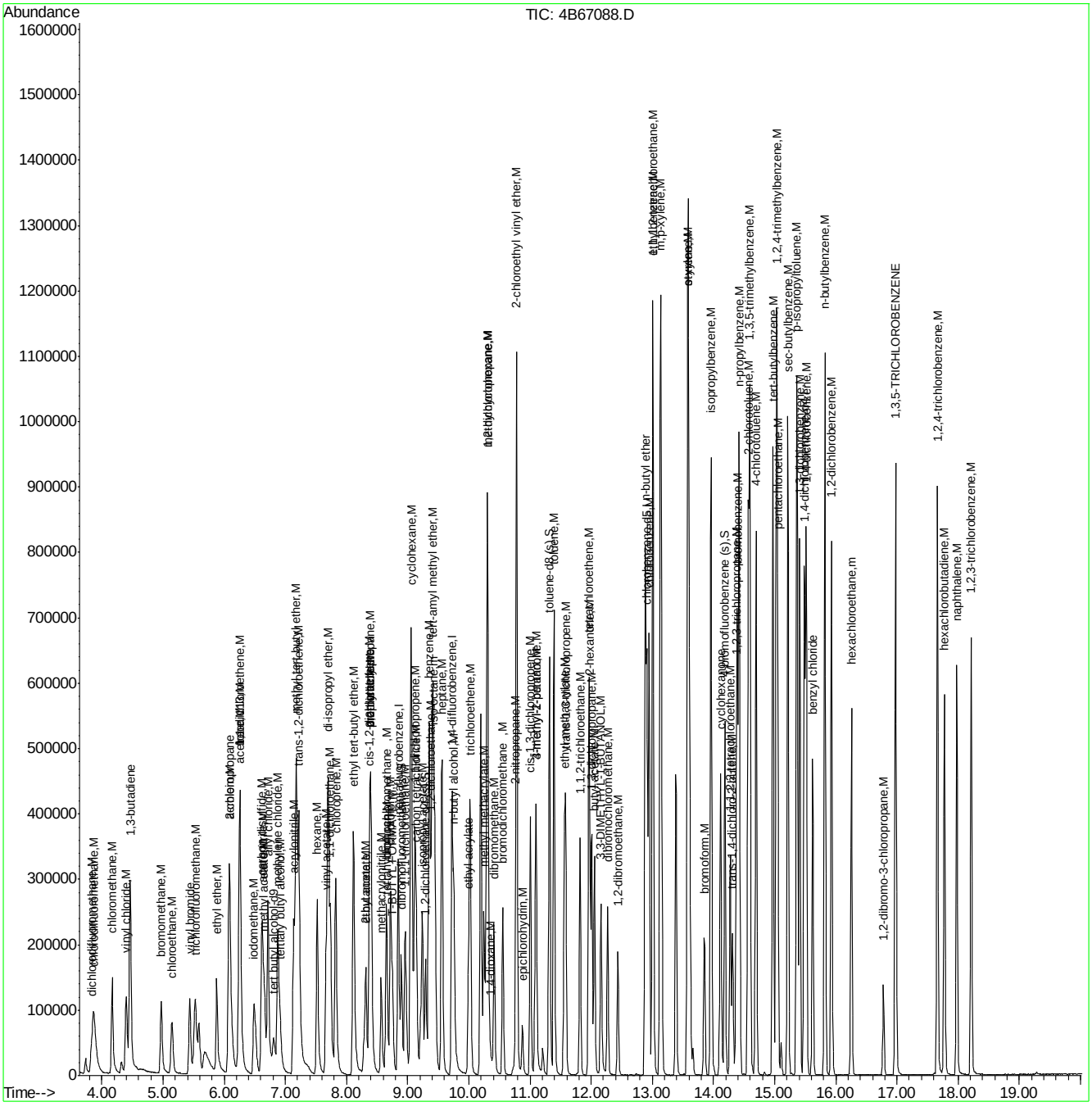
7

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	118057	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	269576	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	365751	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	345460	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	198017	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	114624	52.01	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.02%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	128502	52.70	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.40%			
80) toluene-d8 (s)	11.31	98	432552	50.24	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.48%			
105) 4-bromofluorobenzene (s)	14.18	95	170428	51.93	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.86%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	30963	103.28	ug/L	97
3) 1,4-dioxane	10.34	88	15402	510.59	ug/L	91
7) chlorodifluoromethane	3.87	51	18551	6.02	ug/L	77
8) dichlorodifluoromethane	3.83	85	59849	21.85	ug/L	99
10) chloromethane	4.18	52	29538	21.72	ug/L	96
11) vinyl chloride	4.39	62	82320	21.18	ug/L	94
12) bromomethane	4.98	94	43235	22.03	ug/L	100
13) chloroethane	5.16	64	41410	21.00	ug/L	99
14) vinyl bromide	5.44	106	50017	20.99	ug/L	98
15) trichlorofluoromethane	5.53	101	81774	24.48	ug/L	97
16) 1,3-butadiene	4.47	54	70064	20.99	ug/L	99
19) ethyl ether	5.88	74	27446	20.95	ug/L	98
20) 2-chloropropane	6.08	39	20950	21.11	ug/L	93
21) acrolein	6.09	56	100787	186.47	ug/L	94
22) 1,1-dichloroethene	6.26	96	45611	19.81	ug/L	97
23) acetone	6.26	58	5698	18.26	ug/L	96
24) allyl chloride	6.72	76	28654	17.88	ug/L	96
25) acetonitrile	6.63	40	32384	203.58	ug/L	83
26) iodomethane	6.49	142	88949	19.89	ug/L	94
27) carbon disulfide	6.62	76	122471	17.19	ug/L	97
28) methylene chloride	6.87	84	51037	20.12	ug/L	96
29) methyl acetate	6.65	74	7175	19.59	ug/L #	71
31) methyl tert butyl ether	7.18	73	149475	21.62	ug/L	98
32) trans-1,2-dichloroethene	7.22	96	46662	20.37	ug/L	98
33) di-isopropyl ether	7.70	45	192383	20.31	ug/L	99
34) 2-butanone	8.31	72	6935	21.99	ug/L	96
35) 1,1-dichloroethane	7.74	63	100093	20.88	ug/L	100
36) chloroprene	7.82	53	74980	19.73	ug/L	97
37) acrylonitrile	7.13	53	95216	95.60	ug/L	95
38) vinyl acetate	7.66	86	8434	18.68	ug/L	86
39) ethyl tert-butyl ether	8.11	59	168344	21.25	ug/L	99
40) ethyl acetate	8.32	45	8881	22.45	ug/L	92
41) 2,2-dichloropropane	8.40	77	50759	22.44	ug/L	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	55273	20.36	ug/L		98
43) methylacrylate	8.40	85	7924	20.26	ug/L		97
44) propionitrile	8.39	54	76917	196.60	ug/L		93
45) bromochloromethane	8.65	128	28542	21.09	ug/L		94
46) tetrahydrofuran	8.66	42	17838	20.22	ug/L		93
47) chloroform	8.72	85	61183	21.19	ug/L		98
48) T-BUTYL FORMATE	8.75	59	45428	24.17	ug/L		97
51) freon 113	6.26	151	34337	18.89	ug/L		99
52) methacrylonitrile	8.57	41	36376	19.82	ug/L		99
53) 1,1,1-trichloroethane	8.96	97	70640	21.70	ug/L		98
54) cyclohexane	9.06	84	72004	20.36	ug/L	#	80
57) epichlorohydrin	10.87	57	26280	88.99	ug/L		98
58) n-butyl alcohol	9.75	56	91065	962.42	ug/L		98
59) carbon tetrachloride	9.14	117	69274	26.19	ug/L		98
60) 1,1-dichloropropene	9.11	75	73150	21.57	ug/L		98
61) hexane	7.52	57	61400	18.86	ug/L		97
63) benzene	9.35	78	203242	19.50	ug/L		100
64) iso-octane	9.44	57	183214	20.22	ug/L		97
65) tert-amyl methyl ether	9.40	87	34615	21.21	ug/L		98
66) heptane	9.56	57	43669	21.74	ug/L		98
67) isopropyl acetate	9.24	61	19366	19.05	ug/L	#	87
68) 1,2-dichloroethane	9.37	62	73277	21.53	ug/L		97
69) trichloroethene	10.02	95	56334	20.11	ug/L		96
71) ethyl acrylate	9.99	55	65458	19.31	ug/L	#	77
72) 2-nitropropane	10.75	41	23009	21.75	ug/L	#	13
73) 2-chloroethyl vinyl ether	10.78	63	182044	99.34	ug/L		99
74) methyl methacrylate	10.25	100	14599	20.53	ug/L		95
75) 1,2-dichloropropane	10.30	63	61260	21.26	ug/L		99
76) dibromomethane	10.41	93	34494	21.01	ug/L		100
77) methylcyclohexane	10.30	83	77214	20.87	ug/L		99
78) bromodichloromethane	10.55	83	74134	22.27	ug/L		96
79) cis-1,3-dichloropropene	11.00	75	94839	20.40	ug/L		97
81) 4-methyl-2-pentanone	11.10	58	26959	24.12	ug/L		94
82) toluene	11.39	92	134226	20.93	ug/L		98
83) 3-methyl-1-butanol	11.09	55	51541	386.22	ug/L		97
84) trans-1,3-dichloropropene	11.58	75	82586	20.73	ug/L		95
85) ethyl methacrylate	11.56	69	70922	19.46	ug/L		98
86) 1,1,2-trichloroethane	11.82	83	43294	20.43	ug/L		96
87) 2-hexanone	11.98	58	24529	21.93	ug/L		98
89) tetrachloroethene	11.96	164	57418	19.08	ug/L		98
90) 1,3-dichloropropane	12.00	76	84995	20.58	ug/L		97
91) butyl acetate	12.05	56	38322	20.09	ug/L		98
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	54361	190.23	ug/L		98
93) dibromochloromethane	12.27	129	56616	21.98	ug/L		99
94) 1,2-dibromoethane	12.44	107	54986	20.51	ug/L		100
95) n-butyl ether	12.88	57	255880	19.18	ug/L		99
96) chlorobenzene	12.94	112	152897	20.38	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	56801	22.37	ug/L		97
98) ethylbenzene	13.00	91	261029	20.95	ug/L		96
99) m,p-xylene	13.14	106	201294	39.11	ug/L		99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.57	106	102748	20.29 ug/L	93
101) styrene	13.59	104	173255	19.41 ug/L	91
102) bromoform	13.85	173	35948	18.71 ug/L	98
104) isopropylbenzene	13.96	105	273628	21.77 ug/L	99
106) cyclohexanone	14.11	55	45993	96.52 ug/L	98
107) bromobenzene	14.39	156	77320	20.50 ug/L	93
108) 1,1,2,2-tetrachloroethane	14.27	83	72007	20.55 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	10418	13.32 ug/L	91
110) 1,2,3-trichloropropane	14.37	110	18230	20.93 ug/L	97
111) n-propylbenzene	14.42	91	322225	21.57 ug/L	99
113) 2-chlorotoluene	14.57	126	67669	20.38 ug/L	99
114) 4-chlorotoluene	14.69	91	196793	21.22 ug/L	97
115) 1,3,5-trimethylbenzene	14.59	105	227670	21.24 ug/L	98
116) tert-butylbenzene	14.97	119	206819	21.61 ug/L	98
117) pentachloroethane	15.05	167	45130	21.80 ug/L	97
118) 1,2,4-trimethylbenzene	15.03	105	236032	21.08 ug/L	97
119) sec-butylbenzene	15.21	105	307324	21.31 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	144837	20.82 ug/L	98
121) p-isopropyltoluene	15.36	119	271547	21.54 ug/L	99
122) 1,4-dichlorobenzene	15.51	146	140840	20.53 ug/L	100
123) benzyl chloride	15.62	91	149653	20.96 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	140832	20.29 ug/L	99
126) n-butylbenzene	15.82	92	139136	21.70 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.77	75	12843	22.35 ug/L	87
129) 1,3,5-TRICHLOROBENZENE	16.98	180	122758	20.65 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	104701	20.92 ug/L	99
131) hexachlorobutadiene	17.78	225	61012	22.15 ug/L	97
132) naphthalene	17.98	128	191223	20.06 ug/L	98
133) 1,2,3-trichlorobenzene	18.21	180	91628	20.49 ug/L	98
134) hexachloroethane	16.26	201	47817	22.27 ug/L	98

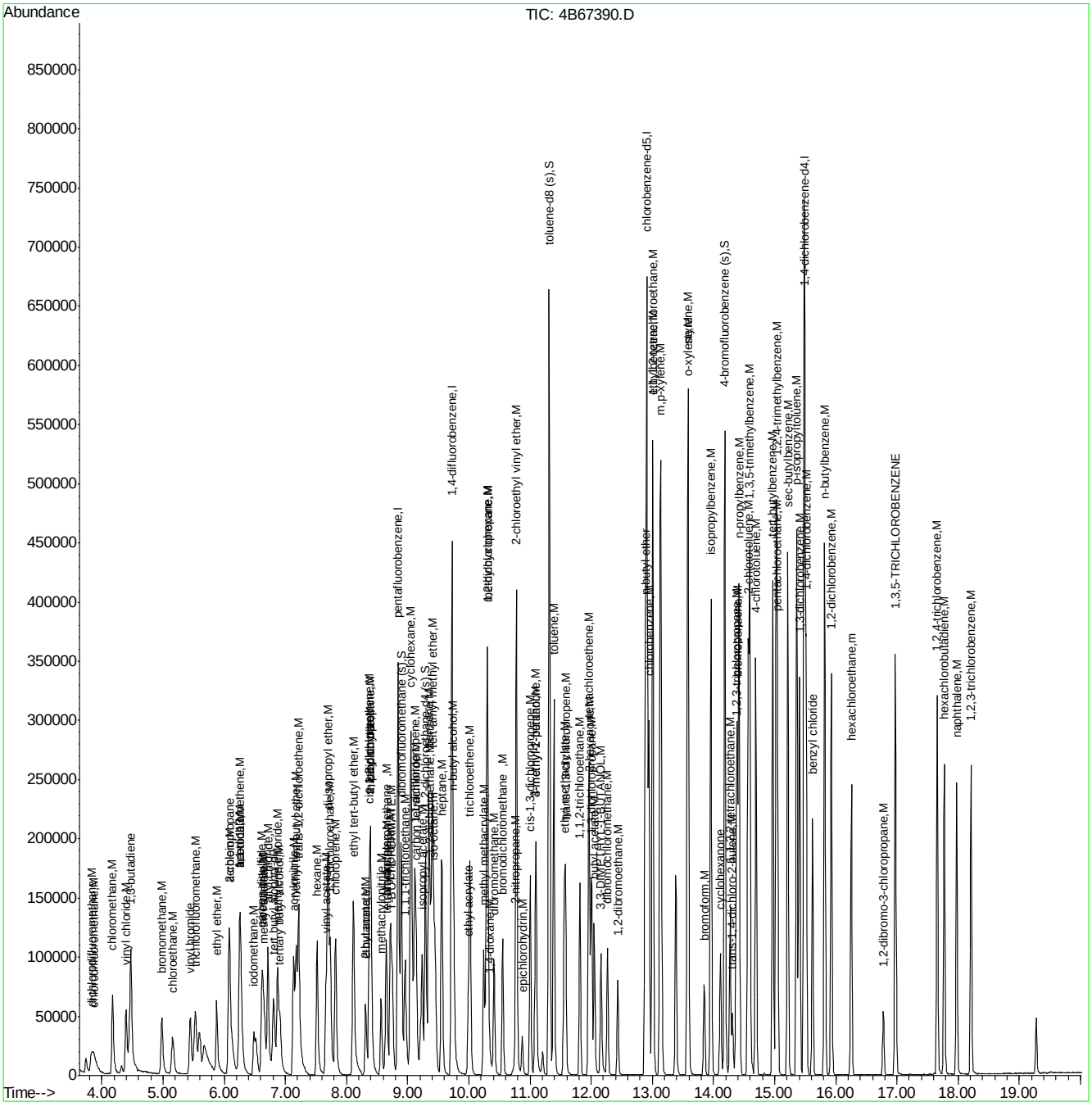
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

SGS ACCUTEST

VOLATILE ANALYSIS LOG

V016-2417-14 IB 250/2500 ml
216315 DH DEPER

Batch ID: V4B 2760 2759

Print Analyst Name: Tuananh Tran 121916

Analyst Signature: [signature]

Columns: RTX624 SIL (60m x 0.25mm x 1.4µm)

Method V8260C

Initial Cal. Method MAB 2759

Date: 12/09/2016

Standard Data

Lot #	Description	Conc.
V016-2376-	124.13 EXT A	100 ppm
016-2376-	139.34 EXT B	100 ppm
016-2417-	4.2 EXT C	100 ppm
016-2417-	4.3 EXT E	100-1000 ppm
016-2417-	5.9 Hex	100 ppm

Standard Data

Lot #	Description	Conc.
V016-2417-	8.17 A	100 ppm
016-2417-	9.16 B	100 ppm
016-2417-	16.8 C	100 ppm
016-2417-	3.18 E	100-1000 ppm
016-2417-	12.3 1,3BTD	100 ppm
V016-2417-	13.9 EXT 1,3BTD	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: [signature] **Date:** 12/9/16

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
	4B 67075	BFB												9L 7:04am	
	67 076	IC 2759-0.2	8260 initial	AQ			5							9L 1µl A,B,C,E,1,3BTD/500ml	
	67 077	IC 2759 -0.5	✓	AQ			5							9L 2.5µl A,B,C,E,1,3BTD/500ml	
	67078	IC 2759 -1	✓	AQ			5							9L 1µl A,B,C,E,1,3BTD/100ml	
	67079	IC 2759 -2	✓	AQ			5							9L 2µl A,B,C,E,1,3BTD/100ml	
	67 080	IC 2759 -5	✓	AQ			5							9L 5µl A,B,C,E,1,3BTD/100ml	
	67 081	IC 2759 -10	✓	AQ			5							9L 10µl A,B,C,E,1,3BTD/100ml	
	67 082	IC 2759 -20	✓	AQ			5							9L 10µl A,B,C,E,1,3BTD/50ml	
	67 083	ICC 2759 -50	✓	AQ			5							9L 25µl A,B,C,E,1,3BTD/50ml	
	67084	IC 2759 -100	✓	AQ			5							9L 50µl A,B,C,E,1,3BTD/50ml	
	67085	IC 2759 -200	✓	AQ			5							9L 100µl A,B,C,E,1,3BTD/50ml	
	67 086	IB													
	67087	IB													
	67088	ICV2759-50	✓	AQ			5							9L 25µl EXT A,B,C,E,Hex,1,3BTD/50ml	
	67089	IB													

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

215

Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST

VOLATILE ANALYSIS LOG

216315 DH paper.

V016-2417-12,10 1,3 BTD 100ppm

Batch ID: V4B 2772

Print Analyst Name: Hueanh Tran

Analyst Signature: huet

Columns: RTX 624SL (60m x 0.25mm x 1.4u)

Method V8260C

Initial Cal. Method M4B 2759

Date: 12/16/2016

Standard Data

Lot #	Description		Conc.
V016-2417	31,7	A	100 ppm
016-2417	9,8	B	100 ppm
016-2417	-26,9	C	100 ppm
016-2417	-3,25	E	100 ppm
016-2417	14	TS	250 2500 ppm

Standard Data

Lot #	Description		Conc.
V016-2417	-32,6	EXT A	100 ppm
016-2417	-34,6	EXT B	100 ppm
016-2417	-27,8	EXT C	100 ppm
016-2417	-41,25	EXT E	100 1000 ppm
016-2417	-25,11	Hex	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:** 12/28/16

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
	4B67388	BIB											ok	9:01 am	
	67389	CC2759-20											NG		
	67390	CC2759-20									✓	✓	ok	#155, 59, 81A	
	67391	IB													
	67392	MB									✓	✓	ok		
	67393	BS									✓	✓	ok		
	67394	IB													
	67395	JC32736-3	10165 TCL20+ TBA	GW			5		1x		✓	✓	ok		✓
	67396	JC32803-12	10170 TCL20+	GW			5		1x		✓	✓	ok		✓
	67397	JC32803-10	✓	GW			5		1x	✓	✓	✓	ok		✓
	67398	JC32803-13	✓	GW			5		1x	✓	✓	✓	ok		✓
	67399	JC33412-2	10532 TCL20+	GW			5		1x		✓	✓	ok		✓
	67400	JC33412-2	✓	GW			5/50		10x		✓	✓	not need		✓
	67401	JC33434-1	10532 TVO	HN			5		1x		✓	✓	ok		✓
	67402	JC33434-1	✓	HN			5/50		10x				not need		✓
	67403	JC33175-1	10644 13BTD	GW	13		5		1x		✓	✓	ok		✓
	67404	JC33175-MS	✓	GW	10		5		1x		✓	✓	ok	20ul EXT A B C E, Hex 13BTD	✓

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.
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

273

Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4B 2772

Date: 12/18/2016

Print Analyst Name: Tweanh Train

Analyst Signature: [illegible]

Columns: RTX 624 SL (60m x 0.25mm x 1.4µm)

Method V8260C

Initial Cal. Method M413 2759

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Rg 273	

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:** 12/21/16

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
	AB 67405	JC33175-1 MS	10644 13BTD	GW	16		5		1x		✓		ok	20µL EXT AB C E Hex 3BTD	✓
	67406	IB													
	67407	FA39345-2	10644 13BTD	W B	1		5		1x		✓		ok		✓
	67408	FA39496-4	✓	W B	1		5		1x		✓		ok		✓
R	67409	JC33247-3	10473 RMG	GW	2		5		1x		✓		ok		✓
R	67410	JC33247-7	✓	GW	2		5		1x		✓		ok	7:57 pm	✓
	67411	IB													

HH 12/18/2016

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.
strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer
scalculation; 4 = analyst's correction error

Form: OR001-10
Rev. Date: 1/19/16

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SGS ACCUTEST

VOLATILE ANALYSIS LOG

216315 DH paper.

V016-2417-12,10 1,3 BTD 40ppm

Date: 12/6/2016

Batch ID: V4B 2772

Print Analyst Name: Huyanh Tran

Analyst Signature: huyl

Columns: RTX 624SL (60m x 0.25mm x 1.4

Method V8260C

Initial Cal. Method M4B 2759

Standard Data

Lot #	Description		Conc.
V016-2417	-31,7	A	100 ppm
V16-2417	-9,8	B	100 ppm
V16-2417	-26,9	C	100 ppm
V16-2417	-3,25	E	100 ppm
V16-2417	14	TS	250 2500 ppm

Standard Data

Lot #	Description		Conc.
V016-2417	-32,6	EXT A	100 ppm
V016-2417	-34,6	EXT B	100 ppm
V016-2417	-27,8	EXT C	100 ppm
V16-2417	-41,25	EXT E	100 ppm
V016-2417	-25,11	Hex	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: 12/28/16

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
	4B67388	BIB											ok	9:01 am	
	67389	CC2759-20											NG		
	67390	CC2759-20									✓		ok	#155, 59, 81A	
	67391	IB											ok		
	67392	MB									✓		ok		
	67393	BS									✓		ok		
	67394	IB											ok		
	67395	JC32736-3	10165 TCL20+ TPH	GW			5		1x		✓		ok		✓
	67396	JC32803-12	10170 TCL20+	GW			5		1x		✓		ok		✓
	67397	JC32803-10	✓	GW			5		1x		✓		ok		✓
	67398	JC32803-13	✓	GW			5		1x		✓		ok		✓
	67399	JC33412-2	10532 TCL20+	GW			5		1x		✓		ok		✓
	67400	JC33412-2	✓	GW			5/50		10x		✓		not need		✓
	67401	JC33434-1	10532 TVO	TH			5		1x		✓		ok		✓
	67402	JC33434-1	✓	TH			5/50		10x				not need		✓
	67403	JC33175-1	10644 13BTD	GW	13		5		1x		✓		ok		✓
	67404	JC33175-MS	✓	GW	10		5		1x		✓		ok	20µl EXT A B C E, Hex 13BTD	✓

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: OR001-10
Rev Date: 1/19/16

273

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4B 2772

Date: 12/18/2016

Print Analyst Name: Tuearch Train

Analyst Signature: [illegible]

Columns: RXI 624 SL (60m x 0.25mm x 1.4µm)

Method V8260C

Initial Cal. Method M413 2759

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Rg 273	

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: 12/21/16

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
	AB 67405	JC33175-1 MSD	10644 13BTD	GW	16		5		1x		W		ok	20µl EXT A,B,C,E, Hex, 3BTD / via	✓
	67406	IB													
	67407	FA39345-2	10644 13BTD	W B	1		5		1x		W		ok		✓
	67408	FA39496-4	✓	W B	1		5		1x		W		ok		✓
R	67409	JC33247-3	10473 RMG	GW	2		5		1x		W		ok		✓
R	67410	JC33247-7	✓	GW	2		5		1x		W		ok	7:57 pm	✓
	67411	IB													

HT 12/18/2016

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.
strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer calculation; 4 = analyst's correction error

Form: OR001-10
Rev. Date: 1/19/16

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7.7.2

7

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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MB1	P109765.D	1	12/14/16	RL	12/13/16	OP99167	EP4874

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MB1	P109765.D	1	12/14/16	RL	12/13/16	OP99167	EP4874

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	4.2	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	39%	14-88%
4165-62-2	Phenol-d5	25%	10-110%

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MB1	P109765.D	1	12/14/16	RL	12/13/16	OP99167	EP4874

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Surrogate Recoveries		Limits
118-79-6	2,4,6-Tribromophenol	88%	39-149%
4165-60-0	Nitrobenzene-d5	60%	32-128%
321-60-8	2-Fluorobiphenyl	69%	35-119%
1718-51-0	Terphenyl-d14	90%	10-126%

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MB1	6P33011.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MB1	6P33011.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	4.7	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	47%	14-88%
4165-62-2	Phenol-d5	30%	10-110%

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MB1	6P33011.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Surrogate Recoveries		Limits
118-79-6	2,4,6-Tribromophenol	83%	39-149%
4165-60-0	Nitrobenzene-d5	83%	32-128%
321-60-8	2-Fluorobiphenyl	70%	35-119%
1718-51-0	Terphenyl-d14	90%	10-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.68	6.3	ug/l	J
	Internal standard added for SIM test	13.58	4	ug/l	J
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167A-MB1	3P57217.D	1	12/14/16	SG	12/13/16	OP99167A	E3P2653

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
56-55-3	Benzo(a)anthracene	ND	0.050	0.023	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.050	0.033	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.043	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.033	ug/l	
218-01-9	Chrysene	ND	0.10	0.026	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.036	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.038	ug/l	
91-20-3	Naphthalene	ND	0.10	0.029	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.049	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	43%	14-81%
4165-62-2	Phenol-d5	28%	11-54%
118-79-6	2,4,6-Tribromophenol	100%	35-145%
4165-60-0	Nitrobenzene-d5	67%	24-125%
321-60-8	2-Fluorobiphenyl	73%	19-127%
1718-51-0	Terphenyl-d14	99%	10-119%

Method Blank Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167A-MB1	3E89388.D	1	12/15/16	AN	12/13/16	OP99167A	E3E3956

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
56-55-3	Benzo(a)anthracene	ND	0.050	0.023	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.050	0.033	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.043	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.033	ug/l	
218-01-9	Chrysene	ND	0.10	0.026	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.036	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.038	ug/l	
91-20-3	Naphthalene	ND	0.10	0.029	ug/l	
123-91-1	1,4-Dioxane	ND	0.10	0.049	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	46%	14-81%
4165-62-2	Phenol-d5	29%	11-54%
118-79-6	2,4,6-Tribromophenol	84%	35-145%
4165-60-0	Nitrobenzene-d5	69%	24-125%
321-60-8	2-Fluorobiphenyl	69%	19-127%
1718-51-0	Terphenyl-d14	113%	10-119%
84-15-1	o-Terphenyl	0%	-%

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-BS1	6P33012.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	25.8	52	48-106
59-50-7	4-Chloro-3-methyl phenol	50	42.2	84	49-113
120-83-2	2,4-Dichlorophenol	50	31.4	63	49-111
105-67-9	2,4-Dimethylphenol	50	44.3	89	42-117
51-28-5	2,4-Dinitrophenol	100	40.9	41	37-132
534-52-1	4,6-Dinitro-o-cresol	50	23.5	47* [a]	49-119
95-48-7	2-Methylphenol	50	34.0	68	42-103
	3&4-Methylphenol	50	33.5	67	39-110
88-75-5	2-Nitrophenol	50	27.8	56	49-114
100-02-7	4-Nitrophenol	50	20.8	42	16-95
87-86-5	Pentachlorophenol	50	20.1	40	30-136
108-95-2	Phenol	50	17.9	36	10-110
58-90-2	2,3,4,6-Tetrachlorophenol	50	23.4	47	47-118
95-95-4	2,4,5-Trichlorophenol	50	30.8	62	55-116
88-06-2	2,4,6-Trichlorophenol	50	28.2	56	56-115
83-32-9	Acenaphthene	50	39.0	78	54-112
208-96-8	Acenaphthylene	50	38.1	76	49-99
98-86-2	Acetophenone	50	38.7	77	52-111
120-12-7	Anthracene	50	39.2	78	58-112
1912-24-9	Atrazine	50	45.2	90	62-134
100-52-7	Benzaldehyde	50	30.0	60	40-129
56-55-3	Benzo(a)anthracene	50	41.2	82	44-120
50-32-8	Benzo(a)pyrene	50	40.3	81	41-127
205-99-2	Benzo(b)fluoranthene	50	41.3	83	41-129
191-24-2	Benzo(g,h,i)perylene	50	41.4	83	34-128
207-08-9	Benzo(k)fluoranthene	50	41.8	84	42-122
101-55-3	4-Bromophenyl phenyl ether	50	44.9	90	54-121
85-68-7	Butyl benzyl phthalate	50	41.7	83	20-143
92-52-4	1,1'-Biphenyl	50	38.4	77	51-106
91-58-7	2-Chloronaphthalene	50	38.6	77	48-104
106-47-8	4-Chloroaniline	50	17.3	35	10-110
86-74-8	Carbazole	50	39.6	79	56-110
105-60-2	Caprolactam	50	12.3	25	10-110
218-01-9	Chrysene	50	38.7	77	45-125
111-91-1	bis(2-Chloroethoxy)methane	50	45.5	91	47-117
111-44-4	bis(2-Chloroethyl)ether	50	42.8	86	48-115

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-BS1	6P33012.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-60-1	bis(2-Chloroisopropyl)ether	50	38.0	76	44-112
7005-72-3	4-Chlorophenyl phenyl ether	50	46.8	94	50-117
121-14-2	2,4-Dinitrotoluene	50	45.3	91	57-122
606-20-2	2,6-Dinitrotoluene	50	42.2	84	58-122
91-94-1	3,3'-Dichlorobenzidine	100	47.9	48	10-110
53-70-3	Dibenzo(a,h)anthracene	50	42.8	86	36-130
132-64-9	Dibenzofuran	50	40.9	82	55-108
84-74-2	Di-n-butyl phthalate	50	42.2	84	45-123
117-84-0	Di-n-octyl phthalate	50	41.4	83	37-144
84-66-2	Diethyl phthalate	50	43.8	88	23-130
131-11-3	Dimethyl phthalate	50	40.8	82	10-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	40.6	81	36-138
206-44-0	Fluoranthene	50	42.7	85	58-116
86-73-7	Fluorene	50	41.7	83	57-113
118-74-1	Hexachlorobenzene	50	43.9	88	49-122
87-68-3	Hexachlorobutadiene	50	34.0	68	24-112
77-47-4	Hexachlorocyclopentadiene	100	71.4	71	14-119
67-72-1	Hexachloroethane	50	28.4	57	31-107
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.7	83	34-128
78-59-1	Isophorone	50	42.1	84	52-119
91-57-6	2-Methylnaphthalene	50	35.5	71	45-107
88-74-4	2-Nitroaniline	50	51.5	103	51-127
99-09-2	3-Nitroaniline	50	25.7	51	10-110
100-01-6	4-Nitroaniline	50	36.7	73	50-112
98-95-3	Nitrobenzene	50	43.8	88	44-116
621-64-7	N-Nitroso-di-n-propylamine	50	42.6	85	49-117
86-30-6	N-Nitrosodiphenylamine	50	37.5	75	51-113
85-01-8	Phenanthrene	50	39.0	78	56-111
129-00-0	Pyrene	50	40.5	81	47-120
95-94-3	1,2,4,5-Tetrachlorobenzene	50	43.6	87	36-114

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	41%	14-88%
4165-62-2	Phenol-d5	36%	10-110%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-BS1	6P33012.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Surrogate Recoveries	BSP	Limits
118-79-6	2,4,6-Tribromophenol	68%	39-149%
4165-60-0	Nitrobenzene-d5	91%	32-128%
321-60-8	2-Fluorobiphenyl	78%	35-119%
1718-51-0	Terphenyl-d14	90%	10-126%

(a) Outside of in house control limits.

8.2.1

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* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167A-BS12	3P57218.D	1	12/14/16	SG	12/13/16	OP99167A	E3P2653

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC33175-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
56-55-3	Benzo(a)anthracene	1	0.891	89	50-119
50-32-8	Benzo(a)pyrene	1	0.587	59	40-104
205-99-2	Benzo(b)fluoranthene	1	0.724	72	39-111
207-08-9	Benzo(k)fluoranthene	1	0.702	70	34-114
218-01-9	Chrysene	1	0.719	72	54-113
53-70-3	Dibenzo(a,h)anthracene	1	0.691	69	22-103
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.700	70	24-101
91-20-3	Naphthalene	1	0.632	63	40-119
123-91-1	1,4-Dioxane	1	0.323	32	20-160

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	14-81%
4165-62-2	Phenol-d5	29%	11-54%
118-79-6	2,4,6-Tribromophenol	94%	35-145%
4165-60-0	Nitrobenzene-d5	62%	24-125%
321-60-8	2-Fluorobiphenyl	63%	19-127%
1718-51-0	Terphenyl-d14	93%	10-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MS	6P33023.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
OP99167-MSD	6P33024.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
JC33175-1 [a]	6P33028.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	JC33175-1 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		103	65.3	63	103	63.1	61	3	49-110/20
59-50-7	4-Chloro-3-methyl phenol	ND		103	91.7	89	103	85.1	83	7	44-121/18
120-83-2	2,4-Dichlorophenol	ND		103	79.1	77	103	74.5	72	6	42-120/19
105-67-9	2,4-Dimethylphenol	ND		103	96.5	94	103	91.7	89	5	33-132/23
51-28-5	2,4-Dinitrophenol	ND		206	196	95	206	183	89	7	21-145/26
534-52-1	4,6-Dinitro-o-cresol	ND		103	95.9	93	103	89.6	87	7	25-134/27
95-48-7	2-Methylphenol	ND		103	73.1	71	103	70.4	68	4	47-112/18
	3&4-Methylphenol	ND		103	71.3	69	103	69.3	67	3	44-113/19
88-75-5	2-Nitrophenol	ND		103	75.2	73	103	72.4	70	4	45-118/20
100-02-7	4-Nitrophenol	ND		103	83.8	81	103	82.6	80	1	23-144/28
87-86-5	Pentachlorophenol	ND		103	97.5	95	103	87.3	85	11	25-151/25
108-95-2	Phenol	ND		103	42.1	41	103	39.9	39	5	22-100/22
58-90-2	2,3,4,6-Tetrachlorophenol	ND		103	84.7	82	103	80.5	78	5	44-122/21
95-95-4	2,4,5-Trichlorophenol	ND		103	84.3	82	103	81.7	79	3	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		103	91.5	89	103	86.2	84	6	53-120/21
83-32-9	Acenaphthene	ND		103	85.6	83	103	78.5	76	9	52-120/23
208-96-8	Acenaphthylene	ND		103	82.8	80	103	76.7	74	8	50-101/22
98-86-2	Acetophenone	ND		103	86.2	84	103	81.5	79	6	31-141/23
120-12-7	Anthracene	1.9		103	83.6	79	103	79.0	75	6	54-117/22
1912-24-9	Atrazine	ND		103	85.7	83	103	82.3	80	4	42-152/23
100-52-7	Benzaldehyde	ND		103	68.0	66	103	66.3	64	3	10-164/30
56-55-3	Benzo(a)anthracene	ND		103	86.4	84	103	81.4	79	6	40-123/24
50-32-8	Benzo(a)pyrene	ND		103	84.7	82	103	79.9	78	6	41-127/25
205-99-2	Benzo(b)fluoranthene	ND		103	89.7	87	103	86.8	84	3	39-127/27
191-24-2	Benzo(g,h,i)perylene	ND		103	87.4	85	103	83.2	81	5	34-128/28
207-08-9	Benzo(k)fluoranthene	ND		103	86.4	84	103	82.3	80	5	39-122/26
101-55-3	4-Bromophenyl phenyl ether	ND		103	94.9	92	103	87.7	85	8	51-124/23
85-68-7	Butyl benzyl phthalate	ND		103	85.4	83	103	80.9	78	5	21-146/28
92-52-4	1,1'-Biphenyl	ND		103	85.5	83	103	80.7	78	6	27-142/23
91-58-7	2-Chloronaphthalene	ND		103	84.7	82	103	80.2	78	5	51-109/23
106-47-8	4-Chloroaniline	ND		103	52.7	51	103	39.4	38	29	10-110/55
86-74-8	Carbazole	ND		103	82.1	80	103	75.1	73	9	52-116/22
105-60-2	Caprolactam	ND		103	26.9	26	103	24.8	24	8	10-106/34
218-01-9	Chrysene	ND		103	80.6	78	103	76.6	74	5	41-128/24
111-91-1	bis(2-Chloroethoxy)methane	ND		103	97.4	94	103	92.5	90	5	46-120/24
111-44-4	bis(2-Chloroethyl)ether	ND		103	92.3	90	103	89.1	86	4	42-123/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MS	6P33023.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
OP99167-MSD	6P33024.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
JC33175-1 [a]	6P33028.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Compound	JC33175-1 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		103	83.0	81	103	77.8	75	6	41-117/25
7005-72-3	4-Chlorophenyl phenyl ether	ND		103	99.1	96	103	93.5	91	6	48-121/21
121-14-2	2,4-Dinitrotoluene	ND		103	94.8	92	103	90.0	87	5	54-123/27
606-20-2	2,6-Dinitrotoluene	ND		103	89.5	87	103	84.5	82	6	55-125/26
91-94-1	3,3'-Dichlorobenzidine	ND		206	137	66	206	110	53	22	10-107/47
53-70-3	Dibenzo(a,h)anthracene	ND		103	91.0	88	103	86.0	83	6	35-130/27
132-64-9	Dibenzofuran	ND		103	87.8	85	103	81.4	79	8	53-112/22
84-74-2	Di-n-butyl phthalate	ND		103	88.1	85	103	82.2	80	7	38-129/23
117-84-0	Di-n-octyl phthalate	ND		103	88.8	86	103	85.2	83	4	35-145/26
84-66-2	Diethyl phthalate	ND		103	93.8	91	103	86.3	84	8	16-136/30
131-11-3	Dimethyl phthalate	ND		103	86.7	84	103	81.4	79	6	10-143/39
117-81-7	bis(2-Ethylhexyl)phthalate	ND		103	84.2	82	103	79.0	77	6	34-141/28
206-44-0	Fluoranthene	ND		103	87.7	85	103	82.3	80	6	47-123/24
86-73-7	Fluorene	ND		103	87.6	85	103	82.9	80	6	56-117/22
118-74-1	Hexachlorobenzene	ND		103	91.1	88	103	87.4	85	4	46-125/24
87-68-3	Hexachlorobutadiene	ND		103	79.1	77	103	76.3	74	4	26-121/24
77-47-4	Hexachlorocyclopentadiene	ND		206	169	82	206	158	77	7	10-133/31
67-72-1	Hexachloroethane	ND		103	66.1	64	103	64.6	63	2	35-111/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		103	88.0	85	103	84.3	82	4	32-130/30
78-59-1	Isophorone	ND		103	92.3	90	103	87.2	85	6	47-126/23
91-57-6	2-Methylnaphthalene	ND		103	77.6	75	103	71.4	69	8	34-123/24
88-74-4	2-Nitroaniline	ND		103	114	111	103	105	102	8	46-137/23
99-09-2	3-Nitroaniline	ND		103	59.7	58	103	52.0	50	14	10-110/50
100-01-6	4-Nitroaniline	ND		103	74.5	72	103	68.8	67	8	38-118/25
98-95-3	Nitrobenzene	ND		103	94.6	92	103	91.1	88	4	35-130/25
621-64-7	N-Nitroso-di-n-propylamine	ND		103	94.1	91	103	88.8	86	6	45-123/22
86-30-6	N-Nitrosodiphenylamine	ND		103	79.8	77	103	75.0	73	6	46-123/24
85-01-8	Phenanthrene	ND		103	81.0	79	103	76.4	74	6	48-121/23
129-00-0	Pyrene	ND		103	85.4	83	103	79.1	77	8	43-124/26
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		103	96.5	94	103	90.1	87	7	25-142/24

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
367-12-4	2-Fluorophenol	55%	56%	47%	14-88%
4165-62-2	Phenol-d5	39%	39%	34%	10-110%

* = Outside of Control Limits.

8.3.1

8

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167-MS	6P33023.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
OP99167-MSD	6P33024.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523
JC33175-1 [a]	6P33028.D	1	12/15/16	CS	12/13/16	OP99167	E6P1523

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC33175-1

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
118-79-6	2,4,6-Tribromophenol	94%	86%	89%	39-149%
4165-60-0	Nitrobenzene-d5	95%	90%	89%	32-128%
321-60-8	2-Fluorobiphenyl	81%	76%	75%	35-119%
1718-51-0	Terphenyl-d14	79%	77%	54%	10-126%

(a) There is compound in BS was outside in house QC limits. The results confirmed by reextraction outside the holding time.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99167A-MS	3P57219.D	1	12/14/16	SG	12/13/16	OP99167A	E3P2653
OP99167A-MSD	3P57220.D	1	12/14/16	SG	12/13/16	OP99167A	E3P2653
JC33175-1	3P57227.D	1	12/14/16	SG	12/13/16	OP99167A	E3P2653

The QC reported here applies to the following samples: **Method:** SW846 8270D BY SIM

JC33175-1

CAS No.	Compound	JC33175-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
56-55-3	Benzo(a)anthracene	ND		2.11	2.39	114	2.11	2.34	111	2	25-135/33
50-32-8	Benzo(a)pyrene	ND		2.11	1.72	82	2.11	1.54	73	11	10-116/38
205-99-2	Benzo(b)fluoranthene	ND		2.11	2.10	100	2.11	1.87	89	12	10-131/40
207-08-9	Benzo(k)fluoranthene	ND		2.11	2.04	97	2.11	1.79	85	13	10-120/45
218-01-9	Chrysene	ND		2.11	1.83	87	2.11	1.89	90	3	31-125/33
53-70-3	Dibenzo(a,h)anthracene	ND		2.11	1.86	88	2.11	1.62	77	14	10-116/48
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2.11	2.04	97	2.11	1.76	84	15	10-116/48
91-20-3	Naphthalene	ND		2.11	1.58	75	2.11	1.57	75	1	23-140/36
123-91-1	1,4-Dioxane	0.910		2.11	1.89	47	2.11	2.40	71	24	20-160/30

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
367-12-4	2-Fluorophenol	46%	59%		14-81%
4165-62-2	Phenol-d5	32%	48%		11-54%
118-79-6	2,4,6-Tribromophenol	107%	106%		35-145%
4165-60-0	Nitrobenzene-d5	73%	70%	67%	24-125%
321-60-8	2-Fluorobiphenyl	71%	70%	70%	19-127%
1718-51-0	Terphenyl-d14	90%	91%	57%	10-119%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3946-DFTPP
Lab File ID: 3E89165.D
Instrument ID: GCMS3E
Injection Date: 12/08/16
Injection Time: 09:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	102765	35.4		Pass
68	Less than 2.0% of mass 69	2727	0.94	(1.92) [a]	Pass
69	Mass 69 relative abundance	141999	49.0		Pass
70	Less than 2.0% of mass 69	668	0.23	(0.47) [a]	Pass
127	40.0 - 60.0% of mass 198	160114	55.2		Pass
197	Less than 1.0% of mass 198	777	0.27		Pass
198	Base peak, 100% relative abundance	289946	100.0		Pass
199	5.0 - 9.0% of mass 198	20003	6.90		Pass
275	10.0 - 30.0% of mass 198	77797	26.8		Pass
365	1.0 - 100.0% of mass 198	16026	5.53		Pass
441	Present, but less than mass 443	19735	6.81	(82.0) [b]	Pass
442	40.0 - 100.0% of mass 198	120456	41.5		Pass
443	17.0 - 23.0% of mass 442	24057	8.30	(20.0) [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
E3E3946-IC3946	3E89166A.D	12/08/16	10:06	00:42	Initial cal 2
E3E3946-IC3946	3E89167.D	12/08/16	10:31	01:07	Initial cal 1
E3E3946-IC3946	3E89168.D	12/08/16	10:57	01:33	Initial cal 100
E3E3946-IC3946	3E89169.D	12/08/16	11:23	01:59	Initial cal 80
E3E3946-ICC3946	3E89170.D	12/08/16	11:49	02:25	Initial cal 50
E3E3946-IC3946	3E89171.D	12/08/16	12:15	02:51	Initial cal 25
E3E3946-IC3946	3E89172.D	12/08/16	12:41	03:17	Initial cal 10
E3E3946-IC3946	3E89173.D	12/08/16	13:07	03:43	Initial cal 5
E3E3946-ICV3946	3E89174.D	12/08/16	13:33	04:09	Initial cal verification 50
E3E3946-ICV3946	3E89175.D	12/08/16	13:59	04:35	Initial cal verification 50
E3E3946-ICV3946	3E89178.D	12/08/16	15:18	05:54	Initial cal verification 50
E3E3946-ICV3946	3E89179.D	12/08/16	15:44	06:20	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3947-DFTPP
Lab File ID: 3E89186.D
Instrument ID: GCMS3E
Injection Date: 12/08/16
Injection Time: 17:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	100158	34.2		Pass
68	Less than 2.0% of mass 69	1402	0.48	(1.20) [a]	Pass
69	Mass 69 relative abundance	117065	40.0		Pass
70	Less than 2.0% of mass 69	903	0.31	(0.77) [a]	Pass
127	40.0 - 60.0% of mass 198	139302	47.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	292568	100.0		Pass
199	5.0 - 9.0% of mass 198	19372	6.62		Pass
275	10.0 - 30.0% of mass 198	86008	29.4		Pass
365	1.0 - 100.0% of mass 198	14737	5.04		Pass
441	Present, but less than mass 443	26462	9.04	(77.6) [b]	Pass
442	40.0 - 100.0% of mass 198	165128	56.4		Pass
443	17.0 - 23.0% of mass 442	34106	11.7	(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
E3E3947-IC3947	3E89187.D	12/08/16	17:44	00:23	Initial cal 100
E3E3947-IC3947	3E89188.D	12/08/16	18:10	00:49	Initial cal 80
E3E3947-ICC3947	3E89189.D	12/08/16	18:36	01:15	Initial cal 50
E3E3947-IC3947	3E89190.D	12/08/16	19:03	01:42	Initial cal 25
E3E3947-IC3947	3E89191.D	12/08/16	19:29	02:08	Initial cal 10
E3E3947-IC3947	3E89192.D	12/08/16	19:55	02:34	Initial cal 5
E3E3947-IC3947	3E89193.D	12/08/16	20:21	03:00	Initial cal 2
E3E3947-IC3947	3E89194.D	12/08/16	20:47	03:26	Initial cal 1
E3E3947-ICV3947	3E89195.D	12/08/16	21:14	03:53	Initial cal verification 50
E3E3947-ICV3946	3E89195A.D	12/08/16	21:14	03:53	Initial cal verification 50
E3E3947-ICV3947	3E89196.D	12/08/16	21:40	04:19	Initial cal verification 50
E3E3947-ICV3947	3E89197.D	12/08/16	22:06	04:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3948-DFTPP
Lab File ID: 3E89206.D
Instrument ID: GCMS3E
Injection Date: 12/09/16
Injection Time: 10:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	76017	33.0		Pass
68	Less than 2.0% of mass 69	897	0.39	(0.85) [a]	Pass
69	Mass 69 relative abundance	104928	45.5		Pass
70	Less than 2.0% of mass 69	661	0.29	(0.63) [a]	Pass
127	40.0 - 60.0% of mass 198	120385	52.2		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	230450	100.0		Pass
199	5.0 - 9.0% of mass 198	15188	6.59		Pass
275	10.0 - 30.0% of mass 198	69056	30.0		Pass
365	1.0 - 100.0% of mass 198	12527	5.44		Pass
441	Present, but less than mass 443	18364	7.97	(74.2) [b]	Pass
442	40.0 - 100.0% of mass 198	123909	53.8		Pass
443	17.0 - 23.0% of mass 442	24741	10.7	(20.0) [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
E3E3948-ICV3946	3E89207.D	12/09/16	11:05	00:21	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3E3956-DFTPP
Lab File ID: 3E89386.D
Instrument ID: GCMS3E
Injection Date: 12/15/16
Injection Time: 09:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	64056	32.9		Pass
68	Less than 2.0% of mass 69	1001	0.51	(1.12) [a]	Pass
69	Mass 69 relative abundance	89082	45.8		Pass
70	Less than 2.0% of mass 69	515	0.26	(0.58) [a]	Pass
127	40.0 - 60.0% of mass 198	101132	51.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	194714	100.0		Pass
199	5.0 - 9.0% of mass 198	12181	6.26		Pass
275	10.0 - 30.0% of mass 198	56091	28.8		Pass
365	1.0 - 100.0% of mass 198	9392	4.82		Pass
441	Present, but less than mass 443	18702	9.60	(80.8) [b]	Pass
442	40.0 - 100.0% of mass 198	119520	61.4		Pass
443	17.0 - 23.0% of mass 442	23160	11.9	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E3956-CC3946	3E89387.D	12/15/16	10:14	00:21	Continuing cal 25
OP99167A-MB1	3E89388.D	12/15/16	10:48	00:55	Method Blank
ZZZZZZ	3E89389.D	12/15/16	11:14	01:21	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3P2579-DFTPP
Lab File ID: 3P56035.D
Instrument ID: GCMS3P
Injection Date: 10/18/16
Injection Time: 12:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	28942	49.1		Pass
68	Less than 2.0% of mass 69	361	0.61	(1.16) [a]	Pass
69	Mass 69 relative abundance	31104	52.7		Pass
70	Less than 2.0% of mass 69	228	0.39	(0.73) [a]	Pass
127	40.0 - 60.0% of mass 198	32075	54.4		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	58984	100.0		Pass
199	5.0 - 9.0% of mass 198	3968	6.73		Pass
275	10.0 - 30.0% of mass 198	10001	17.0		Pass
365	1.0 - 100.0% of mass 198	1095	1.86		Pass
441	Present, but less than mass 443	5605	9.50	(85.3) [b]	Pass
442	40.0 - 100.0% of mass 198	36292	61.5		Pass
443	17.0 - 23.0% of mass 442	6574	11.1	(18.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3P2579-ICC2579	3P56036A.D	10/18/16	12:39	00:13	Initial cal 1.0
E3P2579-IC2579	3P56037.D	10/18/16	13:10	00:44	Initial cal 0.5
E3P2579-IC2579	3P56038.D	10/18/16	13:41	01:15	Initial cal 0.2
E3P2579-IC2579	3P56039.D	10/18/16	14:11	01:45	Initial cal 0.1
E3P2579-IC2579	3P56040.D	10/18/16	14:42	02:16	Initial cal 0.05
E3P2579-IC2579	3P56041.D	10/18/16	15:13	02:47	Initial cal 0.02
E3P2579-IC2579	3P56042.D	10/18/16	15:43	03:17	Initial cal 0.01
E3P2579-IC2579	3P56043.D	10/18/16	16:14	03:48	Initial cal 5.0
E3P2579-IC2579	3P56044.D	10/18/16	16:45	04:19	Initial cal 2.5

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3P2580-DFTPP
Lab File ID: 3P56049.D
Instrument ID: GCMS3P
Injection Date: 10/19/16
Injection Time: 10:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	49457	56.0		Pass
68	Less than 2.0% of mass 69	624	0.71	(1.18) [a]	Pass
69	Mass 69 relative abundance	52944	59.9		Pass
70	Less than 2.0% of mass 69	353	0.40	(0.67) [a]	Pass
127	40.0 - 60.0% of mass 198	51323	58.1		Pass
197	Less than 1.0% of mass 198	220	0.25		Pass
198	Base peak, 100% relative abundance	88352	100.0		Pass
199	5.0 - 9.0% of mass 198	5781	6.54		Pass
275	10.0 - 30.0% of mass 198	14695	16.6		Pass
365	1.0 - 100.0% of mass 198	1745	1.98		Pass
441	Present, but less than mass 443	8083	9.15	(83.2) [b]	Pass
442	40.0 - 100.0% of mass 198	51091	57.8		Pass
443	17.0 - 23.0% of mass 442	9715	11.0	(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
E3P2580-ICV2579	3P56050.D	10/19/16	10:16	00:10	Initial cal verification 1.0
E3P2580-ICV2579	3P56051.D	10/19/16	10:47	00:41	Initial cal verification 1.0
E3P2580-ICV2579	3P56052.D	10/19/16	11:19	01:13	Initial cal verification 1.0

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E3P2653-DFTPP
Lab File ID: 3P57215.D
Instrument ID: GCMS3P
Injection Date: 12/14/16
Injection Time: 09:11

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	23599	48.9		Pass
68	Less than 2.0% of mass 69	387	0.80	(1.44) [a]	Pass
69	Mass 69 relative abundance	26786	55.5		Pass
70	Less than 2.0% of mass 69	76	0.16	(0.28) [a]	Pass
127	40.0 - 60.0% of mass 198	28100	58.2		Pass
197	Less than 1.0% of mass 198	139	0.29		Pass
198	Base peak, 100% relative abundance	48287	100.0		Pass
199	5.0 - 9.0% of mass 198	3401	7.04		Pass
275	10.0 - 30.0% of mass 198	9585	19.9		Pass
365	1.0 - 100.0% of mass 198	1403	2.91		Pass
441	Present, but less than mass 443	5020	10.4	(86.6) [b]	Pass
442	40.0 - 100.0% of mass 198	32099	66.5		Pass
443	17.0 - 23.0% of mass 442	5800	12.0	(18.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3P2653-CC2579	3P57216.D	12/14/16	09:25	00:14	Continuing cal 0.5
OP99167A-MB1	3P57217.D	12/14/16	09:59	00:48	Method Blank
OP99167A-BS12	3P57218.D	12/14/16	10:29	01:18	Blank Spike
OP99167A-MS	3P57219.D	12/14/16	11:00	01:49	Matrix Spike
OP99167A-MSD	3P57220.D	12/14/16	11:31	02:20	Matrix Spike Duplicate
ZZZZZZ	3P57221.D	12/14/16	12:02	02:51	(unrelated sample)
ZZZZZZ	3P57222.D	12/14/16	12:32	03:21	(unrelated sample)
ZZZZZZ	3P57223.D	12/14/16	13:03	03:52	(unrelated sample)
ZZZZZZ	3P57224.D	12/14/16	13:34	04:23	(unrelated sample)
ZZZZZZ	3P57225.D	12/14/16	14:05	04:54	(unrelated sample)
ZZZZZZ	3P57226.D	12/14/16	14:36	05:25	(unrelated sample)
JC33175-1	3P57227.D	12/14/16	15:07	05:56	UP-1

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E6P1488-DFTPP
Lab File ID: 6P32133.D
Instrument ID: GCMS6P
Injection Date: 11/18/16
Injection Time: 08:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	55945	32.4		Pass
68	Less than 2.0% of mass 69	868	0.50	(1.09) [a]	Pass
69	Mass 69 relative abundance	79733	46.2		Pass
70	Less than 2.0% of mass 69	656	0.38	(0.82) [a]	Pass
127	40.0 - 60.0% of mass 198	97738	56.7		Pass
197	Less than 1.0% of mass 198	434	0.25		Pass
198	Base peak, 100% relative abundance	172488	100.0		Pass
199	5.0 - 9.0% of mass 198	11149	6.46		Pass
275	10.0 - 30.0% of mass 198	45362	26.3		Pass
365	1.0 - 100.0% of mass 198	8284	4.80		Pass
441	Present, but less than mass 443	25482	14.8	(84.1) [b]	Pass
442	40.0 - 100.0% of mass 198	158448	91.9		Pass
443	17.0 - 23.0% of mass 442	30282	17.6	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P1488-IC1488	6P32134A.D	11/18/16	11:32	02:38	Initial cal 2
E6P1488-IC1488	6P32135.D	11/18/16	11:56	03:02	Initial cal 1
E6P1488-IC1488	6P32136.D	11/18/16	12:20	03:26	Initial cal 100
E6P1488-IC1488	6P32137.D	11/18/16	12:44	03:50	Initial cal 80
E6P1488-ICC1488	6P32138.D	11/18/16	13:08	04:14	Initial cal 50
E6P1488-IC1488	6P32139.D	11/18/16	14:14	05:20	Initial cal 25
E6P1488-IC1488	6P32140.D	11/18/16	14:38	05:44	Initial cal 10
E6P1488-IC1488	6P32141.D	11/18/16	15:03	06:09	Initial cal 5
E6P1488-ICV1488	6P32142.D	11/18/16	15:28	06:34	Initial cal verification 50
E6P1488-ICV1488	6P32143.D	11/18/16	15:53	06:59	Initial cal verification 50
E6P1488-ICV1488	6P32144.D	11/18/16	16:18	07:24	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E6P1489-DFTPP
Lab File ID: 6P32150.D
Instrument ID: GCMS6P
Injection Date: 11/18/16
Injection Time: 16:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	72877	34.3		Pass
68	Less than 2.0% of mass 69	1408	0.66	(1.39) [a]	Pass
69	Mass 69 relative abundance	101062	47.6		Pass
70	Less than 2.0% of mass 69	713	0.34	(0.71) [a]	Pass
127	40.0 - 60.0% of mass 198	127293	59.9		Pass
197	Less than 1.0% of mass 198	693	0.33		Pass
198	Base peak, 100% relative abundance	212501	100.0		Pass
199	5.0 - 9.0% of mass 198	13764	6.48		Pass
275	10.0 - 30.0% of mass 198	56941	26.8		Pass
365	1.0 - 100.0% of mass 198	8957	4.22		Pass
441	Present, but less than mass 443	32101	15.1	(80.4) [b]	Pass
442	40.0 - 100.0% of mass 198	208173	98.0		Pass
443	17.0 - 23.0% of mass 442	39946	18.8	(19.2) [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
E6P1489-IC1489	6P32151A.D	11/18/16	17:11	00:13	Initial cal 100
E6P1489-IC1489	6P32152.D	11/18/16	17:35	00:37	Initial cal 80
E6P1489-ICC1489	6P32153.D	11/18/16	18:00	01:02	Initial cal 50
E6P1489-IC1489	6P32154.D	11/18/16	18:25	01:27	Initial cal 25
E6P1489-IC1489	6P32155.D	11/18/16	18:49	01:51	Initial cal 10
E6P1489-IC1489	6P32156.D	11/18/16	19:14	02:16	Initial cal 5
E6P1489-IC1489	6P32157.D	11/18/16	19:39	02:41	Initial cal 2
E6P1489-IC1489	6P32158.D	11/18/16	20:04	03:06	Initial cal 1
E6P1489-ICV1489	6P32159A.D	11/18/16	20:29	03:31	Initial cal verification 50
E6P1489-ICV1488	6P32159.D	11/18/16	20:29	03:31	Initial cal verification 50
E6P1489-ICV1489	6P32161A.D	11/18/16	21:18	04:20	Initial cal verification 50
E6P1489-ICV1488	6P32161.D	11/18/16	21:18	04:20	Initial cal verification 50
E6P1489-ICV1489	6P32162.D	11/18/16	21:43	04:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E6P1490-DFTPP
Lab File ID: 6P32163.D
Instrument ID: GCMS6P
Injection Date: 11/21/16
Injection Time: 07:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	69605	33.9		Pass
68	Less than 2.0% of mass 69	1444	0.70	(1.52) [a]	Pass
69	Mass 69 relative abundance	95250	46.4		Pass
70	Less than 2.0% of mass 69	717	0.35	(0.75) [a]	Pass
127	40.0 - 60.0% of mass 198	120224	58.6		Pass
197	Less than 1.0% of mass 198	926	0.45		Pass
198	Base peak, 100% relative abundance	205096	100.0		Pass
199	5.0 - 9.0% of mass 198	13733	6.70		Pass
275	10.0 - 30.0% of mass 198	54474	26.6		Pass
365	1.0 - 100.0% of mass 198	8460	4.12		Pass
441	Present, but less than mass 443	29492	14.4	(79.6) [b]	Pass
442	40.0 - 100.0% of mass 198	196704	95.9		Pass
443	17.0 - 23.0% of mass 442	37039	18.1	(18.8) [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
E6P1490-ICV1488	6P32164.D	11/21/16	08:24	00:31	Initial cal verification 50
E6P1490-ICV1489	6P32164A.D	11/21/16	08:24	00:31	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E6P1523-DFTPP
Lab File ID: 6P33007.D
Instrument ID: GCMS6P
Injection Date: 12/14/16
Injection Time: 22:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	113289	37.6		Pass
68	Less than 2.0% of mass 69	2208	0.73	(1.47) [a]	Pass
69	Mass 69 relative abundance	149922	49.8		Pass
70	Less than 2.0% of mass 69	601	0.20	(0.40) [a]	Pass
127	40.0 - 60.0% of mass 198	180645	60.0		Pass
197	Less than 1.0% of mass 198	1216	0.40		Pass
198	Base peak, 100% relative abundance	301098	100.0		Pass
199	5.0 - 9.0% of mass 198	21156	7.03		Pass
275	10.0 - 30.0% of mass 198	84552	28.1		Pass
365	1.0 - 100.0% of mass 198	15758	5.23		Pass
441	Present, but less than mass 443	47130	15.7	(81.9) [b]	Pass
442	40.0 - 100.0% of mass 198	289666	96.2		Pass
443	17.0 - 23.0% of mass 442	57514	19.1	(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
E6P1523-CC1488	6P33008.D	12/14/16	22:42	00:16	Continuing cal 50
E6P1523-CC1489	6P33009.D	12/14/16	23:07	00:41	Continuing cal 50
OP99167-MB1	6P33011.D	12/15/16	00:00	01:34	Method Blank
OP99167-BS1	6P33012.D	12/15/16	00:24	01:58	Blank Spike
OP99198-MB1	6P33013.D	12/15/16	00:49	02:23	Method Blank
OP99198-BS1	6P33014.D	12/15/16	01:14	02:48	Blank Spike
ZZZZZZ	6P33015.D	12/15/16	01:38	03:12	(unrelated sample)
ZZZZZZ	6P33016.D	12/15/16	02:03	03:37	(unrelated sample)
ZZZZZZ	6P33017.D	12/15/16	02:27	04:01	(unrelated sample)
ZZZZZZ	6P33018.D	12/15/16	02:52	04:26	(unrelated sample)
ZZZZZZ	6P33019.D	12/15/16	03:16	04:50	(unrelated sample)
ZZZZZZ	6P33020.D	12/15/16	03:41	05:15	(unrelated sample)
ZZZZZZ	6P33021.D	12/15/16	04:05	05:39	(unrelated sample)
ZZZZZZ	6P33022.D	12/15/16	04:30	06:04	(unrelated sample)
OP99167-MS	6P33023.D	12/15/16	04:54	06:28	Matrix Spike
OP99167-MSD	6P33024.D	12/15/16	05:19	06:53	Matrix Spike Duplicate
ZZZZZZ	6P33025.D	12/15/16	05:44	07:18	(unrelated sample)
ZZZZZZ	6P33026.D	12/15/16	06:09	07:43	(unrelated sample)
ZZZZZZ	6P33027.D	12/15/16	06:33	08:07	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: E6P1523-DFTPP
Lab File ID: 6P33007.D
Instrument ID: GCMS6P
Injection Date: 12/14/16
Injection Time: 22:26

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC33175-1	6P33028.D	12/15/16	06:58	08:32	UP-1
ZZZZZZ	6P33029.D	12/15/16	07:23	08:57	(unrelated sample)
ZZZZZZ	6P33030.D	12/15/16	07:48	09:22	(unrelated sample)
ZZZZZZ	6P33031.D	12/15/16	08:13	09:47	(unrelated sample)
ZZZZZZ	6P33032.D	12/15/16	08:37	10:11	(unrelated sample)
ZZZZZZ	6P33033.D	12/15/16	09:01	10:35	(unrelated sample)
ZZZZZZ	6P33034.D	12/15/16	09:26	11:00	(unrelated sample)
ZZZZZZ	6P33035.D	12/15/16	09:50	11:24	(unrelated sample)
ZZZZZZ	6P33036.D	12/15/16	10:15	11:49	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EM5525-DFTPP
Lab File ID: M129448.D
Instrument ID: GCMSM
Injection Date: 11/22/16
Injection Time: 09:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	66183	31.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	98924	47.3		Pass
70	Less than 2.0% of mass 69	9	0.00	(0.01) [a]	Pass
127	40.0 - 60.0% of mass 198	123362	59.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	209237	100.0		Pass
199	5.0 - 9.0% of mass 198	14258	6.81		Pass
275	10.0 - 30.0% of mass 198	44378	21.2		Pass
365	1.0 - 100.0% of mass 198	6816	3.26		Pass
441	Present, but less than mass 443	20031	9.57	(78.3) [b]	Pass
442	40.0 - 100.0% of mass 198	121616	58.1		Pass
443	17.0 - 23.0% of mass 442	25582	12.2	(21.0) [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
EM5525-IC5525	M129449.D	11/22/16	09:46	00:13	Initial cal 1
EM5525-IC5525	M129450.D	11/22/16	10:15	00:42	Initial cal 2
EM5525-IC5525	M129451.D	11/22/16	10:45	01:12	Initial cal 5
EM5525-IC5525	M129452.D	11/22/16	11:14	01:41	Initial cal 10
EM5525-IC5525	M129453.D	11/22/16	11:43	02:10	Initial cal 25
EM5525-ICC5525	M129454.D	11/22/16	12:13	02:40	Initial cal 50
EM5525-IC5525	M129455.D	11/22/16	12:42	03:09	Initial cal 80
EM5525-IC5525	M129456.D	11/22/16	13:12	03:39	Initial cal 100

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EM5526-DFTPP
Lab File ID: M129462.D
Instrument ID: GCMSM
Injection Date: 11/22/16
Injection Time: 16:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	46265	32.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	70426	49.4		Pass
70	Less than 2.0% of mass 69	118	0.08	(0.17) [a]	Pass
127	40.0 - 60.0% of mass 198	83813	58.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	142552	100.0		Pass
199	5.0 - 9.0% of mass 198	10814	7.59		Pass
275	10.0 - 30.0% of mass 198	34194	24.0		Pass
365	1.0 - 100.0% of mass 198	5471	3.84		Pass
441	Present, but less than mass 443	14634	10.3	(76.0) [b]	Pass
442	40.0 - 100.0% of mass 198	98442	69.1		Pass
443	17.0 - 23.0% of mass 442	19245	13.5	(19.5) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM5526-IC5526	M129463.D	11/22/16	17:03	00:15	Initial cal 1
EM5526-IC5526	M129464.D	11/22/16	17:33	00:45	Initial cal 2
EM5526-IC5526	M129465.D	11/22/16	18:02	01:14	Initial cal 5
EM5526-IC5526	M129466.D	11/22/16	18:31	01:43	Initial cal 10
EM5526-IC5526	M129467.D	11/22/16	19:01	02:13	Initial cal 25
EM5526-ICC5526	M129468.D	11/22/16	19:30	02:42	Initial cal 50
EM5526-IC5526	M129469.D	11/22/16	19:59	03:11	Initial cal 80
EM5526-IC5526	M129470.D	11/22/16	20:29	03:41	Initial cal 100
EM5526-ICV5525	M129471.D	11/22/16	20:58	04:10	Initial cal verification 50
EM5526-ICV5525	M129472.D	11/22/16	21:27	04:39	Initial cal verification 50
EM5526-ICV5526	M129473A.D	11/22/16	21:56	05:08	Initial cal verification 50
EM5526-ICV5525	M129473.D	11/22/16	21:56	05:08	Initial cal verification 50
EM5526-ICV5526	M129475A.D	11/22/16	22:55	06:07	Initial cal verification 50
EM5526-ICV5525	M129475.D	11/22/16	22:55	06:07	Initial cal verification 50
EM5526-ICV5525	M129476.D	11/22/16	23:25	06:37	Initial cal verification 50
EM5526-ICV5526	M129477.D	11/22/16	23:54	07:06	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EM5527-DFTPP
Lab File ID: M129481.D
Instrument ID: GCMSM
Injection Date: 11/28/16
Injection Time: 13:09

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	54716	31.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	83472	47.7		Pass
70	Less than 2.0% of mass 69	567	0.32	(0.68) [a]	Pass
127	40.0 - 60.0% of mass 198	103186	59.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	174912	100.0		Pass
199	5.0 - 9.0% of mass 198	11251	6.43		Pass
275	10.0 - 30.0% of mass 198	37514	21.4		Pass
365	1.0 - 100.0% of mass 198	6587	3.77		Pass
441	Present, but less than mass 443	15319	8.76	(68.5) [b]	Pass
442	40.0 - 100.0% of mass 198	110141	63.0		Pass
443	17.0 - 23.0% of mass 442	22363	12.8	(20.3) [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
EM5527-ICV5526	M129482A.D	11/28/16	14:07	00:58	Initial cal verification 50
EM5527-ICV5525	M129482.D	11/28/16	14:07	00:58	Initial cal verification 50
EM5527-ICV5525	M129483.D	11/28/16	15:26	02:17	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EM5555-DFTPP
Lab File ID: M130064.D
Instrument ID: GCMSM
Injection Date: 12/16/16
Injection Time: 21:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	66321	35.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	97010	52.5		Pass
70	Less than 2.0% of mass 69	457	0.25	(0.47) [a]	Pass
127	40.0 - 60.0% of mass 198	104168	56.4		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	184682	100.0		Pass
199	5.0 - 9.0% of mass 198	11878	6.43		Pass
275	10.0 - 30.0% of mass 198	51573	27.9		Pass
365	1.0 - 100.0% of mass 198	7185	3.89		Pass
441	Present, but less than mass 443	18965	10.3	(79.9) [b]	Pass
442	40.0 - 100.0% of mass 198	127440	69.0		Pass
443	17.0 - 23.0% of mass 442	23725	12.8	(18.6) [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
EM5555-CC5525	M130065.D	12/16/16	22:10	00:12	Continuing cal 50
EM5555-CC5526	M130066.D	12/16/16	22:40	00:42	Continuing cal 50
OP99254-MB1	M130068.D	12/16/16	23:40	01:42	Method Blank
OP99254-BS1	M130069.D	12/17/16	00:09	02:11	Blank Spike
OP99254-MS	M130070.D	12/17/16	00:39	02:41	Matrix Spike
OP99254-MSD	M130071.D	12/17/16	01:08	03:10	Matrix Spike Duplicate
JC33175-1	M130072.D	12/17/16	01:38	03:40	UP-1
ZZZZZZ	M130074.D	12/17/16	02:37	04:39	(unrelated sample)
ZZZZZZ	M130075.D	12/17/16	03:06	05:08	(unrelated sample)
ZZZZZZ	M130076.D	12/17/16	03:36	05:38	(unrelated sample)
ZZZZZZ	M130077.D	12/17/16	04:06	06:08	(unrelated sample)
ZZZZZZ	M130078.D	12/17/16	04:36	06:38	(unrelated sample)
ZZZZZZ	M130079.D	12/17/16	05:05	07:07	(unrelated sample)
ZZZZZZ	M130080.D	12/17/16	05:35	07:37	(unrelated sample)
ZZZZZZ	M130081.D	12/17/16	06:05	08:07	(unrelated sample)
ZZZZZZ	M130082.D	12/17/16	06:34	08:36	(unrelated sample)
ZZZZZZ	M130083.D	12/17/16	07:04	09:06	(unrelated sample)
ZZZZZZ	M130084.D	12/17/16	07:33	09:35	(unrelated sample)
ZZZZZZ	M130085.D	12/17/16	08:03	10:05	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample:	EM5555-DFTPP	**Injection Date:**	12/16/16
Lab File ID:	M130064.D	**Injection Time:**	21:58
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M130086.D	12/17/16	08:32	10:34	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4851-DFTPP
Lab File ID: P109286.D
Instrument ID: GCMSP
Injection Date: 11/28/16
Injection Time: 15:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	5842	30.7		Pass
68	Less than 2.0% of mass 69	74	0.39	(0.81) [a]	Pass
69	Mass 69 relative abundance	9190	48.2		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	9581	50.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	19053	100.0		Pass
199	5.0 - 9.0% of mass 198	1413	7.42		Pass
275	10.0 - 30.0% of mass 198	4427	23.2		Pass
365	1.0 - 100.0% of mass 198	574	3.01		Pass
441	Present, but less than mass 443	1791	9.40	(80.8) [b]	Pass
442	40.0 - 100.0% of mass 198	11865	62.3		Pass
443	17.0 - 23.0% of mass 442	2217	11.6	(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
EP4851-IC4851	P109287.D	11/28/16	16:24	00:27	Initial cal 100
EP4851-IC4851	P109288.D	11/28/16	16:57	01:00	Initial cal 80
EP4851-ICC4851	P109289.D	11/28/16	17:25	01:28	Initial cal 50
EP4851-IC4851	P109290.D	11/28/16	17:54	01:57	Initial cal 25
EP4851-IC4851	P109291.D	11/28/16	18:22	02:25	Initial cal 10
EP4851-IC4851	P109292.D	11/28/16	18:51	02:54	Initial cal 5
EP4851-IC4851	P109293.D	11/28/16	19:19	03:22	Initial cal 2
EP4851-IC4851	P109294.D	11/28/16	19:47	03:50	Initial cal 1

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4852-DFTPP
Lab File ID: P109296.D
Instrument ID: GCMSP
Injection Date: 11/29/16
Injection Time: 09:36

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	6809	31.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	11333	52.2		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	11522	53.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	21716	100.0		Pass
199	5.0 - 9.0% of mass 198	1578	7.27		Pass
275	10.0 - 30.0% of mass 198	5134	23.6		Pass
365	1.0 - 100.0% of mass 198	628	2.89		Pass
441	Present, but less than mass 443	1975	9.09	(78.8) [b]	Pass
442	40.0 - 100.0% of mass 198	13237	61.0		Pass
443	17.0 - 23.0% of mass 442	2507	11.5	(18.9) [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
EP4852-IC4852	P109297.D	11/29/16	09:49	00:13	Initial cal 100
EP4852-IC4852	P109298.D	11/29/16	10:17	00:41	Initial cal 80
EP4852-ICC4852	P109299.D	11/29/16	10:46	01:10	Initial cal 50
EP4852-IC4852	P109300.D	11/29/16	11:15	01:39	Initial cal 25
EP4852-IC4852	P109301.D	11/29/16	11:45	02:09	Initial cal 10
EP4852-IC4852	P109302.D	11/29/16	12:13	02:37	Initial cal 5
EP4852-IC4852	P109303.D	11/29/16	12:42	03:06	Initial cal 2
EP4852-IC4852	P109304.D	11/29/16	13:11	03:35	Initial cal 1
EP4852-ICV4851	P109307.D	11/29/16	14:37	05:01	Initial cal verification 50
EP4852-ICV4851	P109308.D	11/29/16	15:06	05:30	Initial cal verification 50
EP4852-ICV4851	P109309.D	11/29/16	15:34	05:58	Initial cal verification 50
EP4852-ICV4851	P109311A.D	11/29/16	16:32	06:56	Initial cal verification 50
EP4852-ICV4852	P109311.D	11/29/16	16:32	06:56	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4853-DFTPP
Lab File ID: P109313.D
Instrument ID: GCMSP
Injection Date: 11/29/16
Injection Time: 20:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	6285	30.6		Pass
68	Less than 2.0% of mass 69	90	0.44	(0.88) [a]	Pass
69	Mass 69 relative abundance	10235	49.8		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	10766	52.4		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	20540	100.0		Pass
199	5.0 - 9.0% of mass 198	1475	7.18		Pass
275	10.0 - 30.0% of mass 198	4753	23.1		Pass
365	1.0 - 100.0% of mass 198	578	2.81		Pass
441	Present, but less than mass 443	1929	9.39	(83.9) [b]	Pass
442	40.0 - 100.0% of mass 198	12328	60.0		Pass
443	17.0 - 23.0% of mass 442	2299	11.2	(18.6) [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
EP4853-ICV4852	P109314A.D	11/29/16	20:37	00:16	Initial cal verification 50
EP4853-ICV4851	P109314.D	11/29/16	20:37	00:16	Initial cal verification 50
EP4853-ICV4852	P109315A.D	11/29/16	21:06	00:45	Initial cal verification 50
EP4853-ICV4851	P109315.D	11/29/16	21:06	00:45	Initial cal verification 50
EP4853-ICV4852	P109316.D	11/29/16	21:34	01:13	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4854-DFTPP
Lab File ID: P109317.D
Instrument ID: GCMSP
Injection Date: 11/30/16
Injection Time: 09:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	6759	32.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	11087	53.1		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	10662	51.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	20874	100.0		Pass
199	5.0 - 9.0% of mass 198	1522	7.29		Pass
275	10.0 - 30.0% of mass 198	4853	23.2		Pass
365	1.0 - 100.0% of mass 198	657	3.15		Pass
441	Present, but less than mass 443	2139	10.2	(82.9) [b]	Pass
442	40.0 - 100.0% of mass 198	13000	62.3		Pass
443	17.0 - 23.0% of mass 442	2579	12.4	(19.8) [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
EP4854-ICV4851	P109318.D	11/30/16	09:55	00:33	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: EP4874-DFTPP
Lab File ID: P109761.D
Instrument ID: GCMSP
Injection Date: 12/14/16
Injection Time: 09:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	11868	33.0		Pass
68	Less than 2.0% of mass 69	73	0.20	(0.49) [a]	Pass
69	Mass 69 relative abundance	15005	41.8		Pass
70	Less than 2.0% of mass 69	52	0.14	(0.35) [a]	Pass
127	40.0 - 60.0% of mass 198	16772	46.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	35930	100.0		Pass
199	5.0 - 9.0% of mass 198	2653	7.38		Pass
275	10.0 - 30.0% of mass 198	8245	22.9		Pass
365	1.0 - 100.0% of mass 198	1025	2.85		Pass
441	Present, but less than mass 443	2326	6.47	(84.2) [b]	Pass
442	40.0 - 100.0% of mass 198	14396	40.1		Pass
443	17.0 - 23.0% of mass 442	2764	7.69	(19.2) [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
EP4874-CC4851	P109762.D	12/14/16	10:27	00:28	Continuing cal 50
EP4874-CC4852	P109763.D	12/14/16	11:00	01:01	Continuing cal 50
OP99167-MB1	P109765.D	12/14/16	11:56	01:57	Method Blank
OP99134-MB1	P109780.D	12/14/16	13:20	03:21	Method Blank
ZZZZZZ	P109781.D	12/14/16	14:35	04:36	(unrelated sample)
ZZZZZZ	P109782.D	12/14/16	15:04	05:05	(unrelated sample)
ZZZZZZ	P109767A.D	12/14/16	16:59	07:00	(unrelated sample)
ZZZZZZ	P109768.D	12/14/16	17:28	07:29	(unrelated sample)
ZZZZZZ	P109786.D	12/14/16	19:25	09:26	(unrelated sample)
ZZZZZZ	P109787.D	12/14/16	19:53	09:54	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E3E3956-CC3946	**Injection Date:**	12/15/16
Lab File ID:	3E89387.D	**Injection Time:**	10:14
Instrument ID:	GCMS3E	**Method:**	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	531125	4.10	1871858	5.09	983258	6.96	1565343	9.05	1421535	13.17	839725	15.28
Upper Limit [a]	1062250	4.60	3743716	5.59	1966516	7.46	3130686	9.55	2843070	13.67	1679450	15.78
Lower Limit [b]	265563	3.60	935929	4.59	491629	6.46	782672	8.55	710768	12.67	419863	14.78

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
OP99167A-MB1	426333	4.10	1482476	5.09	847490	6.96	1420447	9.05	1269557	13.17	745845	15.27
ZZZZZZ	360901	4.10	1287092	5.09	752580	6.96	1268635	9.05	1240200	13.16	768130	15.27

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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E3P2653-CC2579	**Injection Date:**	12/14/16
Lab File ID:	3P57216.D	**Injection Time:**	09:25
Instrument ID:	GCMS3P	**Method:**	SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	25843	10.90	32786	13.88	47040	18.04	35656	22.63
Upper Limit [a]	51686	11.40	65572	14.38	94080	18.54	71312	23.13
Lower Limit [b]	12922	10.40	16393	13.38	23520	17.54	17828	22.13

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
OP99167A-MB1	22809	10.90	25527	13.88	37090	18.04	27552	22.62
OP99167A-BS12	26842	10.90	31318	13.88	45231	18.04	34543	22.62
OP99167A-MS	23961	10.90	28365	13.88	41306	18.04	29495	22.62
OP99167A-MSD	25532	10.90	30474	13.88	44730	18.04	35338	22.63
ZZZZZZ	22569	10.90	25737	13.88	37626	18.04	28010	22.63
ZZZZZZ	25490	10.90	28914	13.88	42574	18.04	32930	22.63
ZZZZZZ	26901	10.90	28732	13.88	43737	18.04	34369	22.63
ZZZZZZ	24274	10.90	26156	13.88	37037	18.04	27852	22.62
ZZZZZZ	20142	10.90	23190	13.88	33593	18.04	27180	22.63
ZZZZZZ	26183	10.90	28864	13.88	41277	18.04	31525	22.63
JC33175-1	23026	10.90	25818	13.88	36572	18.04	28951	22.63

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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E6P1523-CC1488	**Injection Date:**	12/14/16
Lab File ID:	6P33008.D	**Injection Time:**	22:42
Instrument ID:	GCMS6P	**Method:**	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	472242	4.48	1916364	5.50	1119617	7.23	1833770	8.92	1916845	12.08	1884629	13.68
Upper Limit [a]	944484	4.98	3832728	6.00	2239234	7.73	3667540	9.42	3833690	12.58	3769258	14.18
Lower Limit [b]	236121	3.98	958182	5.00	559809	6.73	916885	8.42	958423	11.58	942315	13.18

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
OP99167-MB1	392433	4.48	1603675	5.50	894528	7.22	1475335	8.91	1473784	12.07	1528967	13.67
OP99167-BS1	417877	4.48	1691925	5.50	953574	7.22	1540345	8.91	1579008	12.08	1535385	13.67
OP99198-MB1	448357	4.48	1790604	5.50	1008801	7.22	1656866	8.91	1660234	12.07	1734736	13.67
OP99198-BS1	394572	4.48	1558188	5.50	885108	7.22	1435537	8.91	1449945	12.08	1403335	13.67
ZZZZZZ	422702	4.48	1697141	5.50	961461	7.22	1592746	8.91	1593133	12.07	1618240	13.67
ZZZZZZ	370786	4.48	1496345	5.49	850874	7.22	1420737	8.91	1388604	12.07	1437086	13.67
ZZZZZZ	418253	4.48	1683837	5.50	950267	7.22	1568518	8.91	1552126	12.07	1548479	13.67
ZZZZZZ	392277	4.48	1543148	5.49	884175	7.22	1466815	8.91	1455208	12.07	1493104	13.67
ZZZZZZ	391282	4.48	1590173	5.50	908935	7.22	1497407	8.91	1486410	12.07	1484285	13.67
ZZZZZZ	395372	4.48	1611760	5.50	918999	7.22	1504776	8.91	1501073	12.07	1497370	13.67
ZZZZZZ	382128	4.48	1560463	5.50	883260	7.22	1461129	8.91	1466168	12.07	1444118	13.67
ZZZZZZ	371282	4.48	1513169	5.50	849420	7.22	1399252	8.91	1392851	12.07	1412934	13.67
OP99167-MS	397022	4.48	1611054	5.50	898930	7.22	1451899	8.91	1457474	12.07	1337268	13.67
OP99167-MSD	412575	4.48	1661438	5.50	926333	7.22	1506848	8.91	1486198	12.07	1347669	13.67
ZZZZZZ	331913	4.48	1350590	5.50	763770	7.22	1244580	8.91	1208624	12.07	1227010	13.67
ZZZZZZ	340345	4.48	1353221	5.50	774322	7.22	1247636	8.91	1229392	12.07	1215900	13.67
ZZZZZZ	379164	4.48	1529951	5.49	870324	7.22	1426072	8.91	1416837	12.07	1414256	13.67
JC33175-1 [c]	370978	4.48	1507633	5.50	850986	7.22	1385544	8.91	1333592	12.07	1328184	13.67
ZZZZZZ	393701	4.48	1557170	5.50	875715	7.22	1445524	8.91	1438297	12.07	1462115	13.67
ZZZZZZ	411264	4.48	1676099	5.50	944724	7.22	1554276	8.91	1523623	12.07	1555221	13.67
ZZZZZZ	425001	4.48	1750484	5.50	988574	7.22	1609006	8.91	1561816	12.07	1564922	13.67
ZZZZZZ	367866	4.48	1483187	5.50	836778	7.22	1359577	8.91	1336122	12.07	1352410	13.67
ZZZZZZ	425734	4.49	1752787	5.50	1001478	7.22	1621792	8.91	1603341	12.07	1588228	13.67
ZZZZZZ	378840	4.48	1572835	5.50	908024	7.22	1457326	8.91	1417893	12.07	1421958	13.67
ZZZZZZ	388216	4.48	1554722	5.50	894836	7.22	1452119	8.91	1447106	12.07	1395105	13.67
ZZZZZZ	387988	4.48	1571065	5.49	912303	7.22	1508763	8.91	1512968	12.07	1539782	13.67

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.

Semivolatile Internal Standard Area Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	E6P1523-CC1488	**Injection Date:**	12/14/16
Lab File ID:	6P33008.D	**Injection Time:**	22:42
Instrument ID:	GCMS6P	**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**

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) There is compound in BS was outside in house QC limits. The results confirmed by reextraction outside the holding time.

Semivolatile Internal Standard Area Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	EM5555-CC5525	**Injection Date:**	12/16/16
Lab File ID:	M130065.D	**Injection Time:**	22:10
Instrument ID:	GCMSM	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	160462	4.57	625318	5.68	371008	7.98	640468	10.58	648362	15.73	512036	18.35
Upper Limit [a]	320924	5.07	1250636	6.18	742016	8.48	1280936	11.08	1296724	16.23	1024072	18.85
Lower Limit [b]	80231	4.07	312659	5.18	185504	7.48	320234	10.08	324181	15.23	256018	17.85

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
OP99254-MB1	183091	4.57	716689	5.68	435603	7.97	741805	10.57	786766	15.72	743655	18.35
OP99254-BS1	156541	4.57	622414	5.68	380851	7.98	662013	10.57	694369	15.73	635905	18.35
OP99254-MS	154666	4.57	609852	5.68	368209	7.98	631168	10.57	666594	15.73	611932	18.35
OP99254-MSD	158004	4.57	614960	5.68	362315	7.98	616347	10.57	627184	15.73	581023	18.35
JC33175-1 [c]	153332	4.57	609601	5.68	357764	7.98	587320	10.57	587294	15.73	540825	18.34
ZZZZZZ	147289	4.57	592802	5.68	351467	7.97	580784	10.57	588318	15.72	542446	18.34
ZZZZZZ	146444	4.57	576322	5.68	340568	7.98	563931	10.57	562843	15.72	537680	18.34
ZZZZZZ	160257	4.57	629594	5.68	373821	7.97	623385	10.57	617017	15.72	583832	18.34
ZZZZZZ	152854	4.57	597519	5.68	357255	7.98	582343	10.57	593463	15.72	557209	18.34
ZZZZZZ	150998	4.57	600377	5.68	354969	7.97	581766	10.57	591945	15.72	554935	18.34
ZZZZZZ	152177	4.57	595079	5.68	350150	7.97	580092	10.57	588149	15.72	552457	18.34
ZZZZZZ	150292	4.57	594700	5.68	348376	7.97	576766	10.57	572881	15.72	540831	18.34
ZZZZZZ	151002	4.57	582312	5.68	343497	7.97	559707	10.57	564470	15.72	527803	18.34
ZZZZZZ	165199	4.57	639684	5.68	376622	7.97	625665	10.57	615290	15.72	577756	18.35
ZZZZZZ	156000	4.57	599262	5.68	350543	7.98	573385	10.57	594709	15.72	559368	18.34
ZZZZZZ	171957	4.57	650310	5.68	372563	7.98	560649	10.57	610112	15.73	585814	18.35
ZZZZZZ	145401	4.57	578670	5.68	333658	7.98	550432	10.57	550590	15.72	510685	18.34
ZZZZZZ	147050	4.57	571718	5.68	337592	7.97	551772	10.57	557829	15.72	494374	18.34

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

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

Semivolatile Internal Standard Area Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	EP4874-CC4851	**Injection Date:**	12/14/16
Lab File ID:	P109762.D	**Injection Time:**	10:27
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	34361	4.66	118625	5.58	73181	6.98	131565	8.84	144008	14.08	85598	17.12
Upper Limit [a]	68722	5.16	237250	6.08	146362	7.48	263130	9.34	288016	14.58	171196	17.62
Lower Limit [b]	17181	4.16	59313	5.08	36591	6.48	65783	8.34	72004	13.58	42799	16.62

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
OP99167-MB1	36981	4.66	139614	5.58	90267	6.97	165384	8.83	178715	14.07	146619	17.11
OP99134-MB1	32187	4.66	119506	5.58	74370	6.97	129071	8.83	133473	14.06	114853	17.10
ZZZZZZ	33128	4.66	126102	5.58	76084	6.97	129273	8.83	80625	14.07	66124	17.11
ZZZZZZ	31110	4.66	118234	5.58	72750	6.98	122674	8.83	78527	14.07	60508	17.11
ZZZZZZ	39093	4.67	148711	5.58	91312	6.98	154698	8.85	80676	14.09	64640	17.14
ZZZZZZ	36767	4.66	139747	5.58	86649	6.98	152739	8.85	88954	14.09	64202	17.14
ZZZZZZ	37200	4.67	134863	5.58	83884	6.98	142321	8.85	77617	14.10	60546	17.15
ZZZZZZ	35623	4.67	132404	5.58	84395	6.98	147580	8.85	95579	14.10	62357	17.15

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: JC33175
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
JC33175-1	M130072.D	63	45	119	99	98	96
JC33175-1	6P33028.D	47	34	89	89	75	54
OP99167-BS1	6P33012.D	41	36	68	91	78	90
OP99167-MB1	P109765.D	39	25	88	60	69	90
OP99167-MB1	6P33011.D	47	30	83	83	70	90
OP99167-MS	6P33023.D	55	39	94	95	81	79
OP99167-MSD	6P33024.D	56	39	86	90	76	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%

Semivolatile Surrogate Recovery Summary

Job Number: JC33175
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
JC33175-1	3P57227.D	67	70	57
OP99167A-BS12	3P57218.D	62	63	93
OP99167A-MB1	3P57217.D	67	73	99
OP99167A-MB1	3E89388.D	69	69	113
OP99167A-MS	3P57219.D	73	71	90
OP99167A-MSD	3P57220.D	70	70	91

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	24-125%
S2 = 2-Fluorobiphenyl	19-127%
S3 = Terphenyl-d14	10-119%

Initial Calibration Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3946-ICC3946
Lab FileID: 3E89170.D

Response Factor Report MS3E

Method : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
Last Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration

Calibration Files
2 =3E89166a.D 5 =3E89173.D 25 =3E89171.D 80 =3E89169.D
100 =3E89168.D 50 =3E89170.D 1 =3E89167.D 10 =3E89172.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.427	0.527	0.408	0.392	0.388	0.388	0.437	0.395	0.420	11.18
3) Pyridine	0.853	1.163	0.931	0.933	0.950	0.958	0.593	0.934	0.914	17.17
4) N-Nitrosodim	0.744	0.681	0.628	0.630	0.607	0.654	0.564	0.621	0.641	8.37
5) 2-Fluorophen	1.299	1.189	1.140	1.165	1.163	1.154	1.200	1.037	1.168	6.22
6) Indene	2.308	2.331	2.160	2.372	2.331	2.294	2.331	2.054	2.273	4.77
7) Cumene	3.517	3.799	3.384	3.465	3.415	3.419	3.510	3.270	3.473	4.43
8) Phenol-d5	1.828	1.478	1.432	1.659	1.697	1.553	1.860	1.309	1.602	12.08
9) Phenol	1.582	1.686	1.539	1.721	1.741	1.660	1.362	1.467	1.595	8.33
10) Aniline	1.802	1.799	1.533	1.437	1.463	1.436	1.650	1.536	1.582	9.59
11) bis(2-Chloro	1.362	1.366	1.179	1.265	1.265	1.238	1.420	1.135	1.279	7.66
12) 2-Chlorophen	1.454	1.478	1.419	1.789	1.859	1.609	1.429	1.305	1.543	12.53
13) Decane	0.513	0.516	0.496	0.719		0.580	0.509	0.467	0.543	15.58
14) 1,3-Dichloro	1.480	1.557	1.364	1.522	1.552	1.427	1.546	1.327	1.472	6.10
15) 1,4-Dichloro	1.559	1.581	1.406	1.604	1.628	1.520	1.681	1.379	1.545	6.81
16) Benzyl alcoh	0.735	0.719	0.734	0.814	0.817	0.798	0.873	0.701	0.774	7.77
17) 1,2-Dichloro	1.409	1.422	1.281	1.455	1.490	1.354	1.469	1.258	1.392	6.21
18) Acetophenone	1.984	2.076	1.929	1.927	1.876	1.951	2.023	1.802	1.946	4.37
19) 2-Methylphen	1.152	1.219	1.086	1.119	1.081	1.114	1.098	1.048	1.115	4.68
20) 2,2'-oxybis(	0.459	0.478	0.426	0.454	0.458	0.434	0.452	0.426	0.448	4.09
21) 3&4-Methylph	1.217	1.170	1.135	1.203	1.211	1.140	1.122	1.099	1.162	3.84
22) n-Nitroso-di	1.156	1.180	1.107	1.102	1.068	1.097	1.226	1.060	1.125	5.12
23) Hexachloroet	0.522	0.541	0.492	0.567	0.589	0.531	0.531	0.458	0.529	7.74
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.470	0.514	0.469	0.493	0.490	0.475	0.473	0.466	0.481	3.44
26) Nitrobenzene	0.510	0.539	0.461	0.484	0.479	0.463	0.449	0.452	0.479	6.48
27) Quinoline	0.691	0.669	0.618	0.640	0.645	0.605	0.681	0.614	0.645	5.00
28) Isophorone	0.777	0.790	0.720	0.763	0.753	0.735	0.775	0.714	0.753	3.69
29) 2-Nitropheno	0.187	0.191	0.188	0.231	0.240	0.203	0.191	0.185	0.202	10.62
30) 2,4-Dimethyl	0.341	0.343	0.342	0.409	0.418	0.370	0.347	0.324	0.362	9.50
31) Benzoic acid			0.261	0.312	0.310	0.295		0.206	0.277	16.05
32) bis(2-Chloro	0.401	0.395	0.364	0.412	0.414	0.382	0.428	0.373	0.396	5.54
33) 2,4-Dichloro	0.297	0.276	0.265	0.303	0.318	0.277	0.263	0.250	0.281	8.18
34) 2,6-Dichloro	0.266	0.272	0.274	0.362	0.380	0.310	0.272	0.242	0.297	16.58
35) 1,3,5-Trichl	0.354	0.336	0.320	0.414	0.430	0.358	0.339	0.308	0.357	12.08
36) 1,2,4-Trichl	0.317	0.316	0.304	0.374	0.385	0.333	0.305	0.290	0.328	10.45
37) 1,2,3-Trichl	0.314	0.311	0.278	0.335	0.355	0.295	0.328	0.276	0.312	8.88
38) Naphthalene	1.135	1.091	1.020	1.119	1.107	1.054	1.102	0.994	1.078	4.64
39) 4-Chloroanil	0.428	0.424	0.388	0.507	0.526	0.438	0.365	0.393	0.434	13.12
40) 2,3-Dichloro	0.344	0.333	0.306	0.338	0.367	0.319	0.319	0.313	0.330	5.94
41) Caprolactam	0.052	0.058	0.057	0.059	0.059	0.056	0.073	0.054	0.058	11.27
42) Hexachlorobu	0.217	0.206	0.200	0.244	0.257	0.216	0.214	0.191	0.218	10.14
43) 4-Chloro-3-m	0.312	0.331	0.310	0.343	0.339	0.316	0.350	0.296	0.325	5.82
44) 2-Methylnaph	0.638	0.650	0.586	0.688	0.688	0.615	0.648	0.572	0.636	6.71
45) 1-Methylnaph	0.649	0.652	0.610	0.703	0.701	0.628	0.654	0.582	0.647	6.40

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46) Dimethylnaph 0.609 0.607 0.571 0.659 0.704 0.603 0.590 0.563 0.613   7.65

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy       0.215 0.284 0.470 0.495 0.364       0.231 0.343  34.99
            ---- Quadratic regression ----  Coefficient =  0.9984
              Response Ratio = -0.03483 + 0.27129 *A + 0.04751 *A^2

49) 2,4,6-Trichl 0.366 0.335 0.332 0.406 0.423 0.358 0.347 0.315 0.360  10.33
50) 2,4,5-Trichl 0.359 0.327 0.327 0.393 0.411 0.352 0.373 0.323 0.358   9.07
51) 2-Fluorobiph 1.333 1.350 1.300 1.614 1.675 1.466 1.329 1.273 1.417  10.71
52) 2-Chloronaph 1.077 1.034 1.015 1.251 1.332 1.113 1.076 0.987 1.111  10.83
53) Biphenyl     1.450 1.444 1.428 1.781 1.854 1.595 1.395 1.382 1.541  11.90
54) 2-Nitroanili 0.378 0.441 0.425 0.478 0.476 0.447 0.416 0.397 0.432   8.21
55) Dimethylphth 1.312 1.330 1.263 1.399 1.417 1.307 1.271 1.217 1.314   5.13
56) Acenaphthyle 1.795 1.739 1.696 1.912 1.925 1.765 1.725 1.658 1.777   5.45
57) 2,6-Dinitrot 0.277 0.270 0.261 0.303 0.317 0.280 0.239 0.261 0.276   8.95
58) 3-Nitroanili 0.291 0.324 0.318 0.422 0.443 0.349 0.254 0.292 0.336  19.52
59) Acenaphthene 1.148 1.175 1.155 1.475 1.515 1.284 1.141 1.106 1.250  12.81
60) 2,4-Dinitrop 0.055 0.080 0.130 0.183       0.159       0.093 0.117  42.18
            ---- Quadratic regression ----  Coefficient =  0.9997
              Response Ratio = -0.01224 + 0.12239 *A + 0.01596 *A^2

61) 4-Nitropheno 0.223 0.269 0.186 0.261 0.259 0.235 0.184 0.250 0.233  14.27
62) Dibenzofuran 1.550 1.570 1.455 1.686 1.645 1.568 1.572 1.432 1.560   5.46
63) 2,4-Dinitrot 0.338 0.371 0.358 0.386 0.386 0.377 0.288 0.354 0.357   9.08
64) 2,3,4,6-Tetr 0.251 0.254 0.262 0.306 0.312 0.283 0.285 0.245 0.275   9.28
65) Diethylphtha 1.329 1.435 1.366 1.524 1.469 1.429 1.370 1.346 1.408   4.77
66) Fluorene     1.237 1.240 1.201 1.414 1.409 1.290 1.220 1.137 1.269   7.73
67) 4-Chlorophen 0.581 0.602 0.575 0.675 0.670 0.617 0.617 0.543 0.610   7.46
68) 4-Nitroanili 0.251 0.291 0.288 0.325 0.321 0.293 0.264 0.276 0.289   8.85

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.105 0.128 0.165 0.168 0.145       0.104 0.136  20.73
            ---- Quadratic regression ----  Coefficient =  0.9994
              Response Ratio = -0.00708 + 0.13377 *A + 0.01550 *A^2

71) n-Nitrosodip 0.562 0.553 0.531 0.627 0.624 0.575 0.565 0.513 0.569   7.09
72) 1,2-Diphenyl 0.915 1.045 0.970 1.195 1.133 1.011 0.862 0.950 1.010  11.01
73) 2,4,6-Tribro 0.080 0.085 0.082 0.096 0.096 0.090 0.088 0.077 0.087   8.05
74) 4-Bromopheny 0.201 0.195 0.184 0.233 0.229 0.204 0.196 0.178 0.203   9.67
75) Hexachlorobe 0.188 0.198 0.182 0.222 0.225 0.202 0.205 0.174 0.200   9.07
76) Pentachlorop 0.093 0.096 0.107 0.158       0.129       0.091 0.112  23.47
            ---- Quadratic regression ----  Coefficient =  1.0000
              Response Ratio = 0.00158 + 0.08063 *A + 0.01926 *A^2

77) Phenanthrene 1.022 1.050 0.956 1.139 1.178 1.054 1.045 0.935 1.047   7.83
78) Anthracene   1.033 1.046 0.989 1.135 1.178 1.038 0.967 0.955 1.043   7.56
79) Carbazole    0.953 0.987 0.942 1.104 1.137 1.005 1.016 0.899 1.005   8.04
80) Di-n-butylph 1.271 1.383 1.352 1.581 1.548 1.449 1.250 1.285 1.390   9.07
81) Fluoranthene 1.109 1.160 1.122 1.405 1.375 1.247 1.034 1.068 1.190  11.67
82) Octadecane   0.231 0.256 0.241 0.292 0.296 0.263 0.246 0.230 0.257   9.86

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.198 1.257 1.142 1.131 1.179 1.173 1.199 1.142 1.178   3.49
85) Terphenyl-d1 0.745 0.768 0.700 0.720 0.774 0.725 0.730 0.689 0.731   4.12
86) Butylbenzylp 0.565 0.637 0.607 0.606 0.616 0.625 0.552 0.612 0.602   4.86
87) Benzo[a]anth 1.227 1.201 1.058 1.111 1.097 1.100 1.284 1.068 1.143   7.25
88) 3,3'-Dichlor 0.370 0.384 0.367 0.444 0.454 0.410 0.326 0.366 0.390  11.09
89) Chrysene     1.027 1.059 1.004 1.117 1.111 1.100 1.015 0.992 1.053   4.80
90) bis(2-Ethylh 0.757 0.871 0.817 0.788 0.775 0.834 0.762 0.803 0.801   4.86
```

Initial Calibration Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3E3946-ICC3946
Lab FileID: 3E89170.D

```
 91) I   Perylene-d12          ----------------ISTD---------------------
 92) Di-n-octylph 1.504 1.693 1.763 2.158 2.275 1.953 1.462 1.621 1.804  16.56
 93) Benzo[b]fluo 1.217 1.237 1.271 1.811       1.530 1.152 1.182 1.343  17.95
 94) Benzo[k]fluo 1.118 1.160 1.122 1.369 1.495 1.224 1.122 1.024 1.204  12.86
 95) Benzo[a]pyre 1.043 1.086 1.031 1.253 1.316 1.141 0.969 0.980 1.102  11.46
 96) Indeno[1,2,3 1.026 1.190 1.109 1.409 1.503 1.236 0.940 1.052 1.183  16.37
 97) Dibenz(a,h)a 0.778 0.893 0.866 1.093 1.155 0.958 0.743 0.839 0.915  15.89
 98) Dibenz[a,h]a 0.878 0.978 0.951 1.268 1.384 1.079 0.831 0.896 1.033  19.17
 99) 7,12-Dimethy       0.472 0.549 0.765       0.659       0.478 0.585  21.54
100) Benzo[g,h,i] 0.818 0.928 0.868 1.017 1.043 0.928 0.802 0.844 0.906   9.87
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3E3946.M         Thu Dec 08 14:48:59 2016   MS3E
```

8.7.1

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3946-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89174.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3E3946\3E89174.D          Vial: 10
Acq On    :  8 Dec 2016   1:33 pm                    Operator: ashleyn
Sample    : icv3946-50                               Inst    : MS3E
Misc      : op99040,e3e3946                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
Last Update  : Thu Dec 08 14:48:49 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	4.15
9	t	Phenol	1.595	1.427	10.5	94	0.00	3.99
12	t	2-Chlorophenol	1.543	1.174	23.9	79	0.00	4.03
19	t	2-Methylphenol	1.115	1.082	3.0	106	-0.01	4.41
21	t	3&4-Methylphenol	1.162	1.170	-0.7	112	0.00	4.53
24	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00	5.14
29	t	2-Nitrophenol	0.202	0.196	3.0	104	0.00	4.84
30	t	2,4-Dimethylphenol	0.362	0.403	-11.3	117	0.00	4.92
31	t	Benzoic acid	0.277	0.260	6.1	95	0.00	5.10
33	t	2,4-Dichlorophenol	0.281	0.268	4.6	104	0.00	5.07
34	t	2,6-Dichlorophenol	0.297	0.276	7.1	96	0.00	5.24
43	t	4-Chloro-3-methylphenol	0.325	0.309	4.9	105	-0.02	5.76
47	I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.02
49	t	2,4,6-Trichlorophenol	0.360	0.356	1.1	113	-0.01	6.16
50	t	2,4,5-Trichlorophenol	0.358	0.330	7.8	106	-0.02	6.23
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	46.848	6.3	88	0.00	7.19
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.233	0.187	19.7	91	0.00	7.46
64		2,3,4,6-Tetrachlorophenol	0.275	0.259	5.8	104	0.00	7.52
69	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.00	9.10
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	42.979	14.0	100	-0.02	7.91
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	53.294	-6.6	104	0.00	8.90

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 3E89170.D  M3E3946.M        Thu Dec 08 14:53:50 2016   MS3E
```

8.7.2

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3946-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89175.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3946\3E89175.D Vial: 11
Acq On : 8 Dec 2016 1:59 pm Operator: ashleyn
Sample : icv3946-50 Inst : MS3E
Misc : op99040,e3e3946 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
Last Update : Thu Dec 08 14:48:49 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	100	0.00	4.15
3	t	Pyridine	0.914	0.918	-0.4	96	0.22	2.10
10		Aniline	1.582	1.738	-9.9	121	0.00	3.94
16	t	Benzyl alcohol	0.774	0.755	2.5	95	0.00	4.30
24	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.14
39	t	4-Chloroaniline	0.434	0.382	12.0	88	0.00	5.24
44	t	2-Methylnaphthalene	0.636	0.636	0.0	104	0.00	5.82
47	I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	7.02
54	t	2-Nitroaniline	0.432	0.366	15.3	94	0.00	6.53
58	t	3-Nitroaniline	0.336	0.271	19.3	89	0.00	7.06
62	t	Dibenzofuran	1.560	1.554	0.4	114	0.00	7.30
68	t	4-Nitroaniline	0.289	0.257	11.1	101	-0.01	7.90
69	I	Phenanthrene-d10	1.000	1.000	0.0	123	0.00	9.10
79	t	Carbazole	1.005	0.933	7.2	114	0.00	9.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E89170.D M3E3946.M Thu Dec 08 14:55:16 2016 MS3E

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3946-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89178.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3946\3E89178.D Vial: 14
Acq On : 8 Dec 2016 3:18 pm Operator: ashleyn
Sample : icv3946-50 Inst : MS3E
Misc : op99040,e3e3946 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
Last Update : Thu Dec 08 14:48:49 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	120	0.00	4.15
2	t	1,4-Dioxane	0.420	0.329	21.7	101	0.03	1.59
6	t	Indene	2.273	2.283	-0.4	119	0.00	4.34
7	t	Cumene	3.473	3.259	6.2	114	0.01	3.54
13	t	Decane	0.543	0.456	16.0	94	0.00	4.03
18	t	Acetophenone	1.946	1.725	11.4	106	0.00	4.46
24	I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.14
27	t	Quinoline	0.645	0.625	3.1	122	-0.01	5.47
40	t	2,3-Dichloroaniline	0.330	0.275	16.7	102	0.00	6.15
41	t	Caprolactam	0.058	0.043	25.9	91	-0.04	5.57
45	t	1-Methylnaphthalene	0.647	0.583	9.9	110	0.00	5.92
46	t	Dimethylnaphthalene	0.613	0.576	6.0	113	0.00	6.52
47	I	Acenaphthene-d10	1.000	1.000	0.0	119	0.00	7.02
		----------	True	Calc.	% Drift		----------	
48	t	Hexachlorocyclopentadiene	50.000	49.983	0.0	49	0.00	5.98
		----------	AvgRF	CCRF	% Dev		----------	
53	t	Biphenyl	1.541	1.505	2.3	112	0.00	6.33
69	I	Phenanthrene-d10	1.000	1.000	0.0	118	0.00	9.10
82	t	Octadecane	0.257	0.257	0.0	115	0.00	9.07
91	I	Perylene-d12	1.000	1.000	0.0	107	0.00	15.32
99	t	7,12-Dimethylbenz(a)anthr	0.585	0.526	10.1	86	-0.01	14.80

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E89170.D M3E3946.M Thu Dec 08 17:28:19 2016 MS3E

8.7.4

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3946-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89179.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E3E3946\3E89179.D          Vial: 15
Acq On    :  8 Dec 2016   3:44 pm                    Operator: ashleyn
Sample    : icv3946-50                               Inst    : MS3E
Misc      : op99040,e3e3946                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
Last Update  : Thu Dec 08 14:48:49 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	134	0.00	13.22
88 t	3,3'-Dichlorobenzidine	0.390	0.422	-8.2	138	0.00	13.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3E89170.D M3E3946.M Thu Dec 08 17:26:42 2016 MS3E

8.7.5

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3947-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89195A.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3947\3E89195a.D Vial: 10
Acq On : 8 Dec 2016 9:14 pm Operator: ashleyn
Sample : icv3946-50 Inst : MS3E
Misc : op99040,e3e3947 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
Last Update : Fri Dec 09 09:27:30 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	141	0.00	4.15
4	t	N-Nitrosodimethylamine	0.641	0.517	19.3	111	0.03	1.88
11	t	bis(2-Chloroethyl)ether	1.279	1.250	2.3	142	0.00	3.97
14	t	1,3-Dichlorobenzene	1.472	1.541	-4.7	152	0.00	4.11
15	t	1,4-Dichlorobenzene	1.545	1.582	-2.4	146	0.00	4.16
17	t	1,2-Dichlorobenzene	1.392	1.449	-4.1	150	0.00	4.28
20	t	2,2'-oxybis(1-Chloropropa	0.448	0.452	-0.9	147	0.00	4.37
22	t	n-Nitroso-di-n-propylamin	1.125	0.923	18.0	118	0.00	4.47
23	t	Hexachloroethane	0.529	0.580	-9.6	154	0.00	4.52
24	I	Naphthalene-d8	1.000	1.000	0.0	130	0.00	5.14
26	t	Nitrobenzene	0.479	0.423	11.7	119	0.00	4.59
28	t	Isophorone	0.753	0.699	7.2	123	0.00	4.77
32	t	bis(2-Chloroethoxy)methan	0.396	0.432	-9.1	147	0.00	4.95
36	t	1,2,4-Trichlorobenzene	0.328	0.366	-11.6	142	0.00	5.09
38	t	Naphthalene	1.078	1.060	1.7	130	0.00	5.16
42	t	Hexachlorobutadiene	0.218	0.247	-13.3	148	0.00	5.27
47	I	Acenaphthene-d10	1.000	1.000	0.0	138	0.00	7.02
52	t	2-Chloronaphthalene	1.111	1.215	-9.4	151	0.00	6.35
55	t	Dimethylphthalate	1.314	1.316	-0.2	139	0.00	6.75
56	t	Acenaphthylene	1.777	1.826	-2.8	143	0.00	6.84
57	t	2,6-Dinitrotoluene	0.276	0.292	-5.8	144	0.00	6.82
59	t	Acenaphthene	1.250	1.221	2.3	132	0.00	7.07
63	t	2,4-Dinitrotoluene	0.357	0.365	-2.2	134	0.00	7.36
65	t	Diethylphthalate	1.408	1.317	6.5	128	0.00	7.68
66	t	Fluorene	1.269	1.334	-5.1	143	0.00	7.76
67	t	4-Chlorophenyl-phenylethe	0.610	0.692	-13.4	155	0.00	7.78
69	I	Phenanthrene-d10	1.000	1.000	0.0	141	0.00	9.10
71	t	n-Nitrosodiphenylamine	0.569	0.561	1.4	138	0.00	7.98
72	t	1,2-Diphenylhydrazine	1.010	0.864	14.5	120	0.00	8.01
74	t	4-Bromophenyl-phenylether	0.203	0.234	-15.3	162	0.00	8.48
75	t	Hexachlorobenzene	0.200	0.230	-15.0	160	0.00	8.55
77	t	Phenanthrene	1.047	1.073	-2.5	144	0.00	9.14
78	t	Anthracene	1.043	1.078	-3.4	146	0.00	9.22
80	t	Di-n-butylphthalate	1.390	1.271	8.6	124	0.00	10.14
81	t	Fluoranthene	1.190	1.177	1.1	133	0.00	10.97
83	I	Chrysene-d12	1.000	1.000	0.0	130	0.00	13.23
84	t	Pyrene	1.178	1.217	-3.3	135	0.00	11.31

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3947-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89195A.D
Project: BMSMC, Building 5 Area, PR

86	t	Butylbenzylphthalate	0.602	0.566	6.0	118	0.00	12.47
87	t	Benzo[a]anthracene	1.143	1.099	3.8	130	0.00	13.21
89	t	Chrysene	1.053	1.150	-9.2	136	0.00	13.27
90	t	bis(2-Ethylhexyl)phthalat	0.801	0.749	6.5	117	0.00	13.42
91	I	Perylene-d12	1.000	1.000	0.0	131	0.00	15.32
92	t	Di-n-octylphthalate	1.804	1.676	7.1	113	0.00	14.39
93	t	Benzo[b]fluoranthene	1.343	1.324	1.4	114	-0.01	14.81
94	t	Benzo[k]fluoranthene	1.204	1.268	-5.3	136	0.00	14.85
95	t	Benzo[a]pyrene	1.102	1.196	-8.5	138	0.00	15.24
96	t	Indeno[1,2,3-cd]pyrene	1.183	1.344	-13.6	143	0.00	16.65
98	t	Dibenz[a,h]anthracene	1.033	1.115	-7.9	136	0.00	16.67
100	t	Benzo[g,h,i]perylene	0.906	0.987	-8.9	140	0.00	16.97

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 3E89189.D M3E3946.M Fri Dec 09 09:35:16 2016 MS3E

8.7.6

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3E3948-ICV3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89207.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3948\3E89207.D Vial: 2
Acq On : 9 Dec 2016 11:05 am Operator: ashleyn
Sample : icv3946-50 Inst : MS3E
Misc : op99040,e3e3948 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
Last Update : Fri Dec 09 09:27:30 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	142	-0.01	4.14
5	S	2-Fluorophenol	1.168	1.182	-1.2	146	-0.01	3.20
8	S	Phenol-d5	1.602	1.438	10.2	132	-0.02	3.97
24	I	Naphthalene-d8	1.000	1.000	0.0	137	-0.02	5.13
25	S	Nitrobenzene-d5	0.481	0.432	10.2	125	-0.02	4.56
47	I	Acenaphthene-d10	1.000	1.000	0.0	153	-0.02	7.01
51	S	2-Fluorobiphenyl	1.417	1.455	-2.7	152	-0.01	6.22
69	I	Phenanthrene-d10	1.000	1.000	0.0	151	-0.02	9.09
73	S	2,4,6-Tribromophenol	0.087	0.082	5.7	138	-0.02	8.10
83	I	Chrysene-d12	1.000	1.000	0.0	123	-0.02	13.21
85	S	Terphenyl-d14	0.731	0.932	-27.5	159	-0.01	11.62

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 3E89189.D M3E3946.M Fri Dec 09 11:32:50 2016 MS3E

8.7.7

8

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E3E3956-CC3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89387.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E3956\3E89387.D Vial: 2
Acq On : 15 Dec 2016 10:14 am Operator: ashleyn
Sample : cc3946-25 Inst : MS3E
Misc : op99136,e3e3956 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M3E3946.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
Last Update : Mon Dec 19 12:51:25 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	126	0.02	4.10
2	t	1,4-Dioxane	0.420	0.364	13.3	112	-0.03	1.51
3	t	Pyridine	0.914	1.041	-13.9	141	0.03	1.81
4	t	N-Nitrosodimethylamine	0.641	0.585	8.7	117	-0.04	1.79
5	S	2-Fluorophenol	1.168	1.180	-1.0	131	0.00	3.17
6	t	Indene	2.273	2.292	-0.8	134	0.02	4.30
7	t	Cumene	3.473	3.274	5.7	122	0.00	3.48
8	S	Phenol-d5	1.602	1.522	5.0	134	0.02	3.95
9	t	Phenol	1.595	1.642	-2.9	135	0.02	3.95
10		Aniline	1.582	1.429	9.7	118	0.01	3.88
11	t	bis(2-Chloroethyl)ether	1.279	1.265	1.1	135	0.02	3.93
12	t	2-Chlorophenol	1.543	1.481	4.0	132	0.02	3.99
13	t	Decane	0.543	0.612	-12.7	156	0.02	3.99
14	t	1,3-Dichlorobenzene	1.472	1.468	0.3	136	0.02	4.06
15	t	1,4-Dichlorobenzene	1.545	1.525	1.3	137	0.02	4.12
16	t	Benzyl alcohol	0.774	0.771	0.4	133	0.02	4.25
17	t	1,2-Dichlorobenzene	1.392	1.429	-2.7	141	0.02	4.23
18	t	Acetophenone	1.946	1.890	2.9	124	0.03	4.42
19	t	2-Methylphenol	1.115	1.145	-2.7	133	0.03	4.38
20	t	2,2'-oxybis(1-Chloropropa	0.448	0.439	2.0	130	0.03	4.32
21	t	3&4-Methylphenol	1.162	1.200	-3.3	133	0.04	4.50
22	t	n-Nitroso-di-n-propylamin	1.125	1.054	6.3	120	0.02	4.42
23	t	Hexachloroethane	0.529	0.525	0.8	135	0.03	4.47
24	I	Naphthalene-d8	1.000	1.000	0.0	124	0.02	5.09
25	S	Nitrobenzene-d5	0.481	0.444	7.7	117	0.01	4.53
26	t	Nitrobenzene	0.479	0.450	6.1	121	0.02	4.55
27	t	Quinoline	0.645	0.652	-1.1	131	0.02	5.43
28	t	Isophorone	0.753	0.722	4.1	124	0.02	4.72
29	t	2-Nitrophenol	0.202	0.216	-6.9	142	0.02	4.79
30	t	2,4-Dimethylphenol	0.362	0.326	9.9	118	0.03	4.88
31	t	Benzoic acid	0.277	0.282	-1.8	134	0.01	5.04
32	t	bis(2-Chloroethoxy)methan	0.396	0.397	-0.3	135	0.02	4.91
33	t	2,4-Dichlorophenol	0.281	0.300	-6.8	140	0.03	5.03
34	t	2,6-Dichlorophenol	0.297	0.309	-4.0	140	0.02	5.20
35		1,3,5-Trichlorobenzene	0.357	0.358	-0.3	138	0.02	4.78
36	t	1,2,4-Trichlorobenzene	0.328	0.338	-3.0	138	0.02	5.04
37		1,2,3-Trichlorobenzene	0.312	0.332	-6.4	148	0.02	5.24
38	t	Naphthalene	1.078	1.076	0.2	131	0.02	5.11
39	t	4-Chloroaniline	0.434	0.425	2.1	136	0.02	5.19
40	t	2,3-Dichloroaniline	0.330	0.330	0.0	134	0.02	6.09
41	t	Caprolactam	0.058	0.068	-17.2	148	0.00	5.53

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E3E3956-CC3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89387.D
Project: BMSMC, Building 5 Area, PR

42	t	Hexachlorobutadiene	0.218	0.212	2.8	131	0.02	5.22
43	t	4-Chloro-3-methylphenol	0.325	0.297	8.6	119	0.02	5.72
44	t	2-Methylnaphthalene	0.636	0.599	5.8	127	0.03	5.76
45	t	1-Methylnaphthalene	0.647	0.620	4.2	126	0.03	5.86
46	t	Dimethylnaphthalene	0.613	0.602	1.8	131	0.03	6.46
47	I	Acenaphthene-d10	1.000	1.000	0.0	119	0.03	6.96
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	50.000	43.996	12.0	108	0.01	5.93
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.360	0.357	0.8	128	0.02	6.11
50	t	2,4,5-Trichlorophenol	0.358	0.394	-10.1	144	0.00	6.19
51	S	2-Fluorobiphenyl	1.417	1.441	-1.7	132	0.02	6.17
52	t	2-Chloronaphthalene	1.111	1.122	-1.0	132	0.02	6.29
53	t	Biphenyl	1.541	1.561	-1.3	130	0.01	6.27
54	t	2-Nitroaniline	0.432	0.409	5.3	115	0.02	6.47
55	t	Dimethylphthalate	1.314	1.314	0.0	124	0.02	6.68
56	t	Acenaphthylene	1.777	1.832	-3.1	129	0.02	6.78
57	t	2,6-Dinitrotoluene	0.276	0.303	-9.8	138	0.02	6.76
58	t	3-Nitroaniline	0.336	0.342	-1.8	128	0.03	7.00
59	t	Acenaphthene	1.250	1.213	3.0	125	0.02	7.00
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	60.396	-20.8#	153	0.00	7.15
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.233	0.193	17.2	124	0.07	7.42
62	t	Dibenzofuran	1.560	1.600	-2.6	131	0.03	7.24
63	t	2,4-Dinitrotoluene	0.357	0.399	-11.8	133	0.04	7.30
64		2,3,4,6-Tetrachlorophenol	0.275	0.264	4.0	120	0.04	7.47
65	t	Diethylphthalate	1.408	1.382	1.8	121	0.02	7.62
66	t	Fluorene	1.269	1.311	-3.3	130	0.03	7.70
67	t	4-Chlorophenyl-phenylethe	0.610	0.646	-5.9	134	0.03	7.72
68	t	4-Nitroaniline	0.289	0.314	-8.7	130	0.03	7.84
69	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.03	9.05
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	27.279	-9.1	134	0.03	7.87
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.569	0.594	-4.4	130	0.02	7.92
72	t	1,2-Diphenylhydrazine	1.010	0.871	13.8	105	0.02	7.94
73	S	2,4,6-Tribromophenol	0.087	0.091	-4.6	129	0.02	8.06
74	t	4-Bromophenyl-phenylether	0.203	0.223	-9.9	142	0.02	8.41
75	t	Hexachlorobenzene	0.200	0.221	-10.5	142	0.03	8.49
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	46.103	7.8	105	0.04	8.85
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.047	1.060	-1.2	129	0.03	9.08
78	t	Anthracene	1.043	1.065	-2.1	126	0.03	9.16
79	t	Carbazole	1.005	1.028	-2.3	127	0.03	9.47
80	t	Di-n-butylphthalate	1.390	1.362	2.0	118	0.03	10.07
81	t	Fluoranthene	1.190	1.255	-5.5	131	0.05	10.91
82	t	Octadecane	0.257	0.264	-2.7	128	0.03	9.01

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E3E3956-CC3946
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3E89387.D
Project: BMSMC, Building 5 Area, PR

83	I	Chrysene-d12	1.000	1.000	0.0	104	0.03	13.17
84	t	Pyrene	1.178	1.417	-20.3#	128	0.00	11.24
85	S	Terphenyl-d14	0.731	0.892	-22.0#	132	0.02	11.57
86	t	Butylbenzylphthalate	0.602	0.657	-9.1	112	0.02	12.40
87	t	Benzo[a]anthracene	1.143	1.140	0.3	112	0.03	13.15
88	t	3,3'-Dichlorobenzidine	0.390	0.396	-1.5	112	0.03	13.20
89	t	Chrysene	1.053	1.058	-0.5	109	0.03	13.21
90	t	bis(2-Ethylhexyl)phthalat	0.801	0.785	2.0	99	0.02	13.36
91	I	Perylene-d12	1.000	1.000	0.0	76	0.04	15.28
92	t	Di-n-octylphthalate	1.804	1.752	2.9	75	0.02	14.33
93	t	Benzo[b]fluoranthene	1.343	1.294	3.6	77	0.04	14.76
94	t	Benzo[k]fluoranthene	1.204	1.227	-1.9	83	-0.02	14.80
95	t	Benzo[a]pyrene	1.102	1.088	1.3	80	0.04	15.20
96	t	Indeno[1,2,3-cd]pyrene	1.183	1.370	-15.8	94	0.04	16.60
97	t	Dibenz(a,h)acridine	0.915	1.007	-10.1	88	0.04	16.34
98	t	Dibenz[a,h]anthracene	1.033	1.201	-16.3	96	0.05	16.62
99	t	7,12-Dimethylbenz(a)anthr	0.585	0.534	8.7	74	0.02	14.75
100	t	Benzo[g,h,i]perylene	0.906	1.087	-20.0	95	0.04	16.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 3E89190.D M3E3946.M Mon Dec 19 12:54:32 2016 MS3E

8.7.8

8

Initial Calibration Summary

Job Number: JC33175 **Sample:** E3P2579-ICC2579
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3P56036A.D
Project: BMSMC, Building 5 Area, PR

```
                    Response Factor Report  MSGC3P

Method       : C:\MSDCHEM\1\METHODS\M3P2579SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Oct 19 08:56:20 2016
Response via : Initial Calibration

Calibration Files
2.5 =3p56044.D   1.0 =3p56036a.D  0.5 =3p56037.D   0.2 =3p56038.D
0.1 =3p56039.D   0.05=3p56040.D   0.02=3p56041.D   0.01=3p56042.D
5   =3p56043.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
          0.417 0.493 0.460 0.534 0.463                   0.461        0.471    8.30
3)  2-Fluorophenol
          0.648 0.748 0.827 0.841 0.834                   0.668        0.761   11.41
4)  Phenol-d5
          0.856 0.944 1.044 1.047 1.040 1.057 1.012 1.026 0.863        0.988    8.08
5)  Phenol
          0.735 0.865 1.027 1.067 1.095 1.151             0.719        0.952   18.60
6)  bis(2-Chloroethyl)ether
          0.681 0.719 0.821 0.842 0.890 0.938 0.958 0.972 0.658        0.831   14.51
7)  Nitrobenzene-d5
          0.747 0.802 0.891 0.870 0.853 0.851 0.807 0.787 0.706        0.813    7.41
8)  Nitrobenzene
          0.666 0.733 0.844 0.874 0.867 0.866 0.824       0.659        0.791   11.57
9)  Naphthalene
          2.421 2.400 2.564 2.549 2.624 2.704 2.749 2.827 2.377        2.580    6.24
10)  Hexachlorobutadiene
          0.266 0.261 0.286 0.288 0.295 0.316 0.314       0.261        0.286    7.67
11)  2-Methylnaphthalene
          1.282 1.284 1.358 1.367 1.349 1.391             1.290        1.332    3.38
12)  1-Methylnaphthalene
          1.099 1.154 1.268 1.169 1.119 1.139 1.194 1.210 1.124        1.164    4.54
13)  Hexachlorocyclopentadiene
                                                                       0.000#  -1.00

14) I   Fluorene-d10          ----------------ISTD---------------------
15)  2-Fluorobiphenyl
          0.949 1.081 1.231 1.183 1.161 1.199 1.167 1.201 1.242        1.157    7.87
16)  Acenaphthylene
          1.823 1.837 1.890 1.853 1.769 1.755 1.818 1.833 1.950        1.837    3.21
17)  Acenaphthene
          1.126 1.152 1.176 1.161 1.162 1.188 1.194 1.243 1.153        1.173    2.83
18)  4,6-dinitro-2-methylphenol
          0.098 0.085 0.051 0.028 0.021                   0.126        0.068   61.11
           ---- Quadratic regression ----  Coefficient =  0.9997
             Response Ratio = -0.01129 + 0.07780 *A + 0.00793 *A^2

19)  Fluorene
          1.124 1.162 1.217 1.107 1.068 1.076 1.112 1.151 1.173        1.132    4.25
20)  2,4,6-Tribromophenol
          0.182 0.149 0.154 0.133 0.124                                0.148   15.03

21) I   Fluoranthene-d10      ----------------ISTD---------------------
```

8.7.9

8

Initial Calibration Summary

Job Number: JC33175 **Sample:** E3P2579-ICC2579
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3P56036A.D
Project: BMSMC, Building 5 Area, PR

```
22)  Hexachlorobenzene
           0.231 0.232 0.272 0.272 0.256 0.276 0.267 0.286 0.217        0.257    9.42
23)  Pentachlorophenol
           0.142 0.146 0.124 0.101 0.089 0.064             0.150        0.117   28.27
            ---- Quadratic regression ----  Coefficient =  0.9998
              Response Ratio = -0.00611 + 0.13961 *A + 0.00185 *A^2

24)  Phenanthrene
           1.172 1.230 1.415 1.298 1.276 1.323 1.344 1.416 1.119        1.288    7.87
25)  Anthracene
           1.056 1.128 1.231 1.181 1.118 1.120 1.091 1.105 0.998        1.114    6.01
26)  Fluoranthene
           1.091 1.105 1.213 1.120 1.056 1.069 1.290 1.481 1.120        1.172   11.76
27)  Pyrene
           1.123 1.111 1.235 1.132 1.082 1.041 1.084 1.121 1.159        1.121    4.87
28)  Terphenyl-d14
           0.697 0.583 0.652 0.621 0.610 0.563 0.541 0.505              0.597   10.37
29)  Benzo[a]anthracene
           0.827 0.849 0.841 0.759 0.724 0.707 0.683 0.712 0.913        0.780   10.28
30)  Chrysene
           0.805 0.895 0.958 0.903 0.901 0.884 0.943 0.999 0.868        0.906    6.17

31) I   Benzo(a)pyrene-d12    ----------------ISTD---------------------
32)  Benzo[b]fluoranthene
           1.484 1.260 1.366 1.143 1.074                                1.265   13.09
33)  Benzo[k]fluoranthene
           1.210 1.204 1.346 1.342 1.298 1.297 1.286 0.813 1.250        1.227   13.31
34)  Benzo[a]pyrene
           1.146 1.087 1.155 1.107 1.073 1.374             1.114        1.151    8.92
35)  Indeno[1,2,3-cd]pyrene
           1.314 1.248 1.298 1.185 1.105 0.966             1.470        1.226   13.20
36)  Dibenz[a,h]anthracene
           1.019 1.033 1.019 0.983 0.893 0.790             1.136        0.982   11.30
37)  Benzo[g,h,i]perylene
           1.159 1.124 1.195 1.119 1.070 0.987 0.876 0.838 1.297        1.074   13.92
-----------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M3P2579SIM.M        Thu Oct 20 14:42:59 2016
```

8.7.9

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** E3P2580-ICV2579
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3P56050.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\E3P2580\3p56050.D          Vial: 2
Acq On    : 19 Oct 2016  10:16 am                    Operator: shaniceg
Sample    : icv2579-1.0                              Inst    : MSGC3P
Misc      : op97203a,e3p2580                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3P2579SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Oct 19 08:56:20 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	115	-0.02	11.01
6	t	bis(2-Chloroethyl)ether	0.831	0.949	-14.2	152	-0.01	6.68
8	t	Nitrobenzene	0.791	0.972	-22.9	153	-0.02	8.16
9	t	Naphthalene	2.580	2.688	-4.2	129	0.00	9.53
10	t	Hexachlorobutadiene	0.286	0.313	-9.4	138	-0.02	9.83
11	t	2-Methylnaphthalene	1.332	1.314	1.4	118	-0.02	10.88
14	I	Fluorene-d10	1.000	1.000	0.0	108	0.02	13.98
16	t	Acenaphthylene	1.837	2.052	-11.7	121	0.00	12.66
17	t	Acenaphthene	1.173	1.207	-2.9	113	0.01	13.01
		----------	AvgRF	CCRF	% Dev	----------		
19	t	Fluorene	1.132	1.137	-0.4	106	0.02	14.04
21	I	Fluoranthene-d10	1.000	1.000	0.0	95	-0.01	18.15
22	t	Hexachlorobenzene	0.257	0.278	-8.2	113	-0.02	15.15
		----------	AvgRF	CCRF	% Dev	----------		
24	t	Phenanthrene	1.288	1.315	-2.1	101	-0.02	15.94
25	t	Anthracene	1.114	1.154	-3.6	97	-0.03	16.03
26	t	Fluoranthene	1.172	1.121	4.4	96	-0.02	18.17
27	t	Pyrene	1.121	1.166	-4.0	99	-0.02	18.57
29	t	Benzo[a]anthracene	0.780	0.867	-11.2	97	-0.02	20.62
30	t	Chrysene	0.906	0.829	8.5	88	-0.01	20.68
31	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	85	-0.03	22.71
32	t	Benzo[b]fluoranthene	1.265	1.238	2.1	83	-0.02	22.29
33	t	Benzo[k]fluoranthene	1.227	1.136	7.4	80	-0.03	22.32
34	t	Benzo[a]pyrene	1.151	1.100	4.4	86	-0.02	22.74
35	t	Indeno[1,2,3-cd]pyrene	1.226	1.255	-2.4	85	-0.03	24.30
36	t	Dibenz[a,h]anthracene	0.982	0.952	3.1	78	-0.02	24.35
37	t	Benzo[g,h,i]perylene	1.074	1.088	-1.3	82	-0.03	24.72

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3p56036a.D M3P2579SIM.M       Thu Oct 20 14:41:30 2016
```

8.7.10

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3P2580-ICV2579
Lab FileID: 3P56051.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\E3P2580\3p56051.D          Vial: 3
Acq On    : 19 Oct 2016  10:47 am                    Operator: shaniceg
Sample    : icv2579-1.0                              Inst    : MSGC3P
Misc      : op97203a,e3p2580                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3P2579SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Oct 19 08:56:20 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	120	-0.02	11.01
5		Phenol	0.952	1.232	-29.4	170	-0.01	6.54
14	I	Fluorene-d10	1.000	1.000	0.0	114	0.02	13.98
		----------	True	Calc.	% Drift	----------		
18	t	4,6-dinitro-2-methylpheno	5.000	4.210	15.8	86	0.00	14.18
		----------	AvgRF	CCRF	% Dev	----------		
21	I	Fluoranthene-d10	1.000	1.000	0.0	97	-0.01	18.15
		----------	True	Calc.	% Drift	----------		
23	t	Pentachlorophenol	5.000	5.407	-8.1	99	-0.03	15.55

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3p56036a.D M3P2579SIM.M       Thu Oct 20 14:40:13 2016
```

8.7.11

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E3P2580-ICV2579
Lab FileID: 3P56052.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\E3P2580\3p56052.D          Vial: 4
Acq On    : 19 Oct 2016  11:19 am                    Operator: shaniceg
Sample    : icv2579-1.0                              Inst    : MSGC3P
Misc      : op97203a,e3p2580                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3P2579SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Wed Oct 19 08:56:20 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	69	-0.02	11.01
2 t	1,4-dioxane	0.471	0.362	23.1	51	-0.01	2.66

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3p56036a.D M3P2579SIM.M Thu Oct 20 14:40:15 2016

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E3P2653-CC2579
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3P57216.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\E3P2653\3p57216.D          Vial: 2
Acq On    : 14 Dec 2016   9:25 am                    Operator: shaniceg
Sample    : cc2579-0.5                               Inst    : MSGC3P
Misc      : op98910a,e3p2653                         Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M3P2579SIM.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Thu Dec 01 10:18:59 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	112	0.00	10.90
2	t	1,4-dioxane	0.471	0.383	18.7	93	-0.02	2.60
3	S	2-Fluorophenol	0.761	0.762	-0.1	103	0.00	4.91
4	S	Phenol-d5	0.988	0.966	2.2	104	-0.04	6.50
5		Phenol	0.952	0.936	1.7	102	0.00	6.51
6	t	bis(2-Chloroethyl)ether	0.831	0.738	11.2	101	-0.03	6.60
7	S	Nitrobenzene-d5	0.813	0.815	-0.2	102	-0.02	8.03
8	t	Nitrobenzene	0.791	0.817	-3.3	108	-0.02	8.06
9	t	Naphthalene	2.580	2.738	-6.1	119	-0.02	9.42
10	t	Hexachlorobutadiene	0.286	0.331	-15.7	129	0.00	9.72
11	t	2-Methylnaphthalene	1.332	1.538	-15.5	127	0.00	10.79
12	t	1-Methylnaphthalene	1.164	1.376	-18.2	121	0.00	10.97
13		Hexachlorocyclopentadiene		----------NA----------				
14	I	Fluorene-d10	1.000	1.000	0.0	122	0.00	13.88
15	S	2-Fluorobiphenyl	1.157	1.200	-3.7	119	0.00	11.57
16	t	Acenaphthylene	1.837	1.796	2.2	116	0.00	12.55
17	t	Acenaphthene	1.173	1.200	-2.3	125	0.00	12.90
		----------	True	Calc.	% Drift	----------		
18	t	4,6-dinitro-2-methylpheno	2.500	3.662	-46.5#	254	0.03	14.12
		----------	AvgRF	CCRF	% Dev	----------		
19	t	Fluorene	1.132	1.213	-7.2	122	0.02	13.94
20	S	2,4,6-Tribromophenol	0.148	0.156	-5.4	124	0.00	14.43
21	I	Fluoranthene-d10	1.000	1.000	0.0	136	0.00	18.04
22	t	Hexachlorobenzene	0.257	0.248	3.5	124	-0.02	15.04
		----------	True	Calc.	% Drift	----------		
23	t	Pentachlorophenol	2.500	1.739	30.4#	96	0.00	15.48
		----------	AvgRF	CCRF	% Dev	----------		
24	t	Phenanthrene	1.288	1.300	-0.9	125	-0.02	15.83
25	t	Anthracene	1.114	1.178	-5.7	130	-0.02	15.94
26	t	Fluoranthene	1.172	1.214	-3.6	136	0.00	18.07
27	t	Pyrene	1.121	1.285	-14.6	141	0.02	18.47
28	S	Terphenyl-d14	0.597	0.729	-22.1#	152	0.02	18.83
29	t	Benzo[a]anthracene	0.780	1.110	-42.3#	179	0.02	20.53
30	t	Chrysene	0.906	1.036	-14.3	147	0.04	20.59
31	I	Benzo(a)pyrene-d12	1.000	1.000	0.0	142	0.00	22.63

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E3P2653-CC2579
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 3P57216.D
Project: BMSMC, Building 5 Area, PR

32	t	Benzo[b]fluoranthene	1.265	1.720	-36.0#	179	0.00	22.20
33	t	Benzo[k]fluoranthene	1.227	1.118	8.9	118	0.00	22.24
34	t	Benzo[a]pyrene	1.151	1.134	1.5	140	0.00	22.66
35	t	Indeno[1,2,3-cd]pyrene	1.226	1.370	-11.7	150	0.00	24.20
36	t	Dibenz[a,h]anthracene	0.982	1.145	-16.6	160	0.00	24.23
37	t	Benzo[g,h,i]perylene	1.074	1.168	-8.8	139	-0.10	24.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3p56037.D M3P2579SIM.M Wed Dec 14 12:46:31 2016

8.7.13

8

Initial Calibration Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1488-ICC1488
Lab FileID: 6P32138.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
Last Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration

Calibration Files
2 =6p32134a.D 5 =6p32141.D 25 =6p32139.D 80 =6p32137.D
100 =6p32136.D 50 =6p32138.D 1 =6p32135.D 10 =6p32140.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.770	0.708	0.641	0.609	0.608	0.624	0.741	0.617	0.665	9.79
3) Pyridine	1.865	1.791	1.663	1.634	1.661	1.678	1.951	1.648	1.736	6.83
4) N-Nitrosodim	1.272	1.180	1.041	0.989	0.999	1.020	1.232	1.008	1.093	10.59
5) 2-Fluorophen	1.748	1.716	1.519	1.424	1.416	1.486	1.733	1.489	1.566	9.04
6) Indene	3.120	3.070	2.675	2.272	2.134	2.533	3.165	2.681	2.706	14.40
7) Cumene	4.385	4.298	3.726	3.294	3.154	3.521	4.381	3.706	3.808	12.91
8) Phenol-d5	2.400	2.322	2.033	1.922	1.893	2.021	2.392	2.023	2.126	9.91
9) Phenol	2.623	2.485	2.163	1.965	1.870	2.099	2.608	2.152	2.246	12.91
10) Aniline	3.120	2.967	2.198	2.047		2.032	3.127	2.457	2.564	19.40
11) bis(2-Chloro	1.766	1.710	1.509	1.388	1.376	1.482	1.805	1.483	1.565	10.87
12) 2-Chlorophen	1.877	1.781	1.596	1.501	1.448	1.569	1.917	1.569	1.657	10.67
13) Decane	1.366	1.266	1.103	0.954	0.923	1.029	1.391	1.113	1.143	15.72
14) 1,3-Dichloro	1.888	1.849	1.644	1.488	1.438	1.568	1.880	1.625	1.673	10.70
15) 1,4-Dichloro	1.951	1.893	1.670	1.522	1.466	1.612	1.872	1.644	1.704	10.60
16) Benzyl alcoh	1.236	1.137	1.056	1.018	0.998	1.061	1.190	1.055	1.094	7.76
17) 1,2-Dichloro	1.827	1.794	1.577	1.454	1.393	1.519	1.783	1.545	1.611	10.39
18) Acetophenone	2.608	2.494	2.097	1.774	1.686	1.976	2.633	2.161	2.179	16.86
19) 2-Methylphen	1.667	1.679	1.448	1.284	1.217	1.399	1.706	1.473	1.484	12.49
20) 2,2'-oxybis(	0.624	0.624	0.543	0.497	0.483	0.526	0.653	0.543	0.562	11.40
21) 3&4-Methylph	1.797	1.759	1.515	1.305	1.212	1.445	1.798	1.561	1.549	14.48
22) n-Nitroso-di	1.460	1.380	1.160	0.979	0.945	1.094	1.490	1.190	1.212	17.35
23) Hexachloroet	0.512	0.514	0.463	0.430	0.414	0.449	0.530	0.455	0.471	9.08
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.482	0.466	0.428	0.388	0.384	0.411	0.467	0.414	0.430	8.72
26) Nitrobenzene	0.469	0.441	0.412	0.367	0.358	0.394	0.471	0.398	0.414	10.42
27) Quinoline	0.869	0.851	0.774	0.724	0.710	0.772	0.869	0.774	0.793	7.93
28) Isophorone	0.883	0.840	0.759	0.686	0.676	0.728	0.883	0.753	0.776	10.69
29) 2-Nitropheno	0.226	0.225	0.215	0.199	0.193	0.210	0.220	0.208	0.212	5.58
30) 2,4-Dimethyl	0.364	0.372	0.335	0.341	0.334	0.348	0.354	0.346	0.349	3.91
31) Benzoic acid			0.259	0.296	0.291	0.300		0.196	0.268	16.17
32) bis(2-Chloro	0.504	0.497	0.441	0.405	0.396	0.430	0.507	0.441	0.453	9.80
33) 2,4-Dichloro	0.309	0.315	0.292	0.272	0.264	0.286	0.314	0.287	0.292	6.52
34) 2,6-Dichloro	0.311	0.315	0.285	0.259	0.250	0.278	0.300	0.277	0.284	8.17
35) 1,3,5-Trichl	0.347	0.344	0.314	0.275	0.266	0.298	0.342	0.303	0.311	10.14
36) 1,2,4-Trichl	0.330	0.325	0.298	0.264	0.258	0.284	0.317	0.290	0.296	9.08
37) 1,2,3-Trichl	0.331	0.327	0.299	0.263	0.258	0.284	0.324	0.291	0.297	9.59
38) Naphthalene	1.302	1.275	1.148	1.000	0.961	1.079	1.277	1.137	1.147	11.33
39) 4-Chloroanil	0.569	0.560	0.490	0.438	0.423	0.461	0.561	0.502	0.500	11.60
40) 2,3-Dichloro	0.409	0.403	0.365	0.331	0.318	0.354	0.401	0.364	0.368	9.29
41) Caprolactam	0.166	0.153	0.141	0.132	0.133	0.140	0.153	0.139	0.145	8.20
42) Hexachlorobu	0.159	0.165	0.148	0.130	0.126	0.141	0.161	0.144	0.147	9.73
43) 4-Chloro-3-m	0.355	0.358	0.345	0.318	0.307	0.336	0.360	0.336	0.339	5.69
44) 2-Methylnaph	0.706	0.696	0.633	0.565	0.540	0.611	0.704	0.618	0.634	10.03
45) 1-Methylnaph	0.729	0.725	0.650	0.580	0.554	0.631	0.716	0.645	0.654	10.13

```
46) Dimethylnaph 0.741 0.733 0.663 0.593 0.566 0.648 0.710 0.655 0.664   9.48

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.246 0.277 0.270 0.255 0.246 0.265 0.222 0.254 0.254   6.77
49) 2,4,6-Trichl 0.347 0.352 0.329 0.296 0.288 0.320 0.348 0.319 0.325   7.41
50) 2,4,5-Trichl 0.379 0.381 0.359 0.338 0.328 0.356 0.362 0.350 0.357   5.12
51) 2-Fluorobiph 1.478 1.486 1.356 1.208 1.154 1.292 1.474 1.342 1.349   9.39
52) 2-Chloronaph 1.265 1.268 1.149 1.024 0.972 1.103 1.246 1.133 1.145   9.69
53) Biphenyl     1.721 1.698 1.559 1.374 1.315 1.501 1.700 1.547 1.552   9.81
54) 2-Nitroanili 0.379 0.393 0.377 0.350 0.340 0.369 0.363 0.361 0.366   4.65
55) Dimethylphth 1.466 1.430 1.326 1.199 1.152 1.280 1.459 1.307 1.328   8.87
56) Acenaphthyle 2.116 2.083 1.965 1.721 1.639 1.878 2.036 1.892 1.916   8.85
57) 2,6-Dinitrot 0.292 0.297 0.304 0.285 0.276 0.299 0.273 0.287 0.289   3.82
58) 3-Nitroanili 0.404 0.409 0.395 0.368 0.362 0.393 0.389 0.380 0.387   4.29
59) Acenaphthene 1.322 1.308 1.199 1.067 1.021 1.153 1.302 1.181 1.194   9.43
60) 2,4-Dinitrop 0.037 0.079 0.144 0.163 0.160 0.165       0.098 0.121  41.40
         ----- Quadratic regression -----                Coefficient =  0.9991
              Response Ratio = -0.02661 + 0.17738 *A + -0.00221 *A^2

61) 4-Nitropheno 0.158 0.174 0.180 0.164 0.158 0.176 0.150 0.162 0.165   6.48
62) Dibenzofuran 1.800 1.776 1.625 1.439 1.363 1.564 1.737 1.612 1.614   9.71
63) 2,4-Dinitrot 0.369 0.406 0.410 0.373 0.361 0.408 0.330 0.382 0.380   7.31
64) 2,3,4,6-Tetr 0.263 0.272 0.272 0.262 0.254 0.273 0.243 0.259 0.262   3.93
65) Diethylphtha 1.419 1.449 1.344 1.200 1.153 1.303 1.412 1.319 1.325   7.96
66) Fluorene     1.494 1.476 1.362 1.185 1.118 1.302 1.455 1.345 1.342  10.18
67) 4-Chlorophen 0.617 0.612 0.549 0.479 0.457 0.529 0.619 0.552 0.552  11.26
68) 4-Nitroanili 0.424 0.432 0.418 0.390 0.384 0.417 0.420 0.410 0.412   4.00

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.103 0.142 0.145 0.144 0.152       0.113 0.133  15.17
71) n-Nitrosodip 0.696 0.695 0.640 0.577 0.565 0.620 0.678 0.626 0.637   7.92
72) 1,2-Diphenyl 1.014 0.976 0.918 0.818 0.802 0.890 0.992 0.884 0.912   8.60
73) 2,4,6-Tribro 0.129 0.128 0.130 0.128 0.128 0.134 0.124 0.124 0.128   2.50
74) 4-Bromopheny 0.231 0.231 0.224 0.206 0.203 0.218 0.222 0.213 0.219   4.81
75) Hexachlorobe 0.270 0.263 0.247 0.228 0.228 0.245 0.270 0.242 0.249   6.90
76) Pentachlorop 0.091 0.122 0.145 0.142 0.138 0.147       0.125 0.130  15.24
77) Phenanthrene 1.377 1.317 1.214 1.065 1.030 1.168 1.329 1.216 1.215  10.25
78) Anthracene   1.346 1.349 1.232 1.089 1.053 1.191 1.275 1.226 1.220   8.85
79) Carbazole    1.339 1.318 1.217 1.068 1.033 1.175 1.266 1.184 1.200   9.12
80) Di-n-butylph 1.546 1.573 1.495 1.299 1.244 1.440 1.450 1.444 1.436   7.90
81) Fluoranthene 1.309 1.280 1.209 1.055 1.016 1.168 1.211 1.152 1.175   8.60
82) Octadecane   0.553 0.548 0.493 0.431 0.417 0.474 0.492 0.486 0.487   9.89

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.406 1.383 1.278 1.168 1.141 1.244 1.340 1.246 1.276   7.52
85) Terphenyl-d1 0.883 0.879 0.836 0.759 0.747 0.802 0.850 0.793 0.819   6.29
86) Butylbenzylp 0.707 0.697 0.679 0.627 0.616 0.659 0.627 0.650 0.658   5.18
87) Benzo[a]anth 1.317 1.289 1.176 1.045 1.025 1.121 1.340 1.124 1.180  10.38
88) 3,3'-Dichlor 0.505 0.494 0.480 0.427 0.416 0.464 0.480 0.460 0.466   6.64
89) Chrysene     1.265 1.244 1.154 1.029 1.015 1.121 1.219 1.124 1.147   8.15
90) bis(2-Ethylh 0.980 0.988 0.959 0.863 0.840 0.915 0.929 0.882 0.919   5.95

91) I   Perylene-d12          ----------------ISTD---------------------
92) Di-n-octylph 1.772 1.669 1.649 1.491 1.439 1.616 1.709 1.576 1.615   6.84
93) Benzo[b]fluo 1.434 1.359 1.339 1.169 1.212 1.264 1.410 1.226 1.302   7.51
94) Benzo[k]fluo 1.265 1.273 1.166 1.078 0.994 1.144 1.273 1.185 1.172   8.58
95) Benzo[a]pyre 1.258 1.209 1.123 1.028 1.000 1.095 1.241 1.096 1.131   8.50
96) Indeno[1,2,3 1.529 1.472 1.423 1.307 1.282 1.386 1.555 1.358 1.414   7.03
97) Dibenz(a,h)a 1.161 1.121 1.070 0.991 0.968 1.048 1.120 1.025 1.063   6.39
98) Dibenz[a,h]a 1.299 1.283 1.216 1.118 1.094 1.198 1.276 1.154 1.205   6.46
```

Initial Calibration Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1488-ICC1488
Lab FileID: 6P32138.D

```
 99) 7,12-Dimethy 0.584 0.572 0.545 0.519 0.507 0.540 0.545 0.535 0.543   4.66
100) Benzo[g,h,i] 1.292 1.255 1.188 1.102 1.083 1.173 1.283 1.141 1.190   6.75


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

          M6P1488.M         Mon Nov 21 07:22:05 2016   ACLIMS
```

Initial Calibration Verification

Job Number: JC33175 **Sample:** E6P1488-ICV1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P32142.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e6p1488\6p32142.D Vial: 10
Acq On : 18 Nov 2016 3:28 pm Operator: ariellec
Sample : icv1488-50 Inst : MS6P
Misc : op98528,e6p1488 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
Last Update : Fri Nov 18 15:22:46 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	4.62
9	t	Phenol	2.246	1.952	13.1	94	0.00	4.37
12	t	2-Chlorophenol	1.657	1.606	3.1	103	0.00	4.47
19	t	2-Methylphenol	1.484	1.473	0.7	106	0.00	4.82
21	t	3&4-Methylphenol	1.549	1.575	-1.7	110	0.00	4.93
24	I	Naphthalene-d8	1.000	1.000	0.0	99	0.00	5.66
29	t	2-Nitrophenol	0.212	0.208	1.9	99	0.00	5.33
30	t	2,4-Dimethylphenol	0.349	0.382	-9.5	109	0.00	5.37
31	t	Benzoic acid	0.268	0.241	10.1	80	0.05	5.46
33	t	2,4-Dichlorophenol	0.292	0.293	-0.3	102	0.00	5.53
34	t	2,6-Dichlorophenol	0.284	0.290	-2.1	104	0.00	5.73
43	t	4-Chloro-3-methylphenol	0.339	0.335	1.2	99	0.00	6.17
47	I	Acenaphthene-d10	1.000	1.000	0.0	99	0.00	7.41
49	t	2,4,6-Trichlorophenol	0.325	0.335	-3.1	103	0.00	6.61
50	t	2,4,5-Trichlorophenol	0.357	0.337	5.6	93	0.00	6.64
		----------	True	Calc.	% Drift		----------	
60	t	2,4-Dinitrophenol	50.000	43.893	12.2	80	0.00	7.48
		----------	AvgRF	CCRF	% Dev		----------	
61	t	4-Nitrophenol	0.165	0.176	-6.7	99	0.00	7.56
64		2,3,4,6-Tetrachlorophenol	0.262	0.266	-1.5	96	0.00	7.78
69	I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00	9.11
70	t	4,6-Dinitro-2-methylpheno	0.133	0.142	-6.8	90	0.00	8.09
76	t	Pentachlorophenol	0.130	0.144	-10.8	94	0.00	8.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p32138.D M6P1488.M Mon Nov 21 07:21:09 2016 ACLIMS

8.7.15
8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1488-ICV1488
Lab FileID: 6P32143.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e6p1488\6p32143.D Vial: 11
Acq On : 18 Nov 2016 3:53 pm Operator: ariellec
Sample : icv1488-50 Inst : MS6P
Misc : op98528,e6p1488 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
Last Update : Fri Nov 18 15:22:46 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	90	0.00	4.62
3	t	Pyridine	1.736	1.736	0.0	93	0.08	2.57
10		Aniline	2.564	2.557	0.3	114	0.00	4.38
16	t	Benzyl alcohol	1.094	1.125	-2.8	96	0.00	4.73
24	I	Naphthalene-d8	1.000	1.000	0.0	95	0.00	5.66
39	t	4-Chloroaniline	0.500	0.451	9.8	93	0.00	5.72
44	t	2-Methylnaphthalene	0.634	0.577	9.0	90	0.00	6.32
47	I	Acenaphthene-d10	1.000	1.000	0.0	94	0.00	7.41
54	t	2-Nitroaniline	0.366	0.348	4.9	89	0.00	6.92
58	t	3-Nitroaniline	0.387	0.354	8.5	84	0.00	7.37
62	t	Dibenzofuran	1.614	1.532	5.1	92	0.00	7.64
68	t	4-Nitroaniline	0.412	0.377	8.5	85	0.01	8.05
69	I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00	9.11
79	t	Carbazole	1.200	1.129	5.9	90	0.00	9.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p32138.D M6P1488.M Mon Nov 21 07:21:11 2016 ACLIMS

Initial Calibration Verification

Job Number: JC33175 **Sample:** E6P1488-ICV1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P32144.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\e6p1488\6p32144.D          Vial: 12
Acq On    : 18 Nov 2016   4:18 pm                    Operator: ariellec
Sample    : icv1488-50                               Inst    : MS6P
Misc      : op98528,e6p1488                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
Last Update  : Fri Nov 18 15:22:46 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	108	0.00	4.62
5	S	2-Fluorophenol	1.566	1.340	14.4	97	0.00	3.64
8	S	Phenol-d5	2.126	1.787	15.9	95	0.00	4.36
24	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00	5.66
25	S	Nitrobenzene-d5	0.430	0.368	14.4	96	0.00	5.05
47	I	Acenaphthene-d10	1.000	1.000	0.0	106	0.00	7.41
51	S	2-Fluorobiphenyl	1.349	1.180	12.5	97	0.00	6.69
69	I	Phenanthrene-d10	1.000	1.000	0.0	108	0.00	9.11
73	S	2,4,6-Tribromophenol	0.128	0.106	17.2	85	0.00	8.30
83	I	Chrysene-d12	1.000	1.000	0.0	103	0.00	12.29
85	S	Terphenyl-d14	0.819	0.756	7.7	97	0.00	11.05

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 6p32138.D  M6P1488.M        Mon Nov 21 07:21:13 2016   ACLIMS
```

Initial Calibration Summary

Job Number: JC33175 **Sample:** E6P1489-ICC1489
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P32153.D
Project: BMSMC, Building 5 Area, PR

```
                          Response Factor Report  MS6P

  Method       : C:\MSDCHEM\1\METHODS\M6P1489.M (RTE Integrator)
  Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
  Last Update  : Mon Nov 21 07:32:11 2016
  Response via : Initial Calibration

  Calibration Files
  2   =6p32157.D  5   =6p32156.D  25  =6p32154.D  80  =6p32152.D
  100 =6p32151a.D  50  =6p32153.D  1   =6p32158.D  10  =6p32155.D

   Compound          2     5     25    80    100   50    1     10    Avg %RSD
  ---------------------------------------------------------------------------
101)     1,4-Dichlorobenzene-d ----------------ISTD---------------------
102) Benzaldehyde 1.425 1.421 1.249 1.137 1.118 1.195 1.506 1.293 1.293  11.16

103)     Acenaphthene-d10a     ----------------ISTD---------------------
104) 1,2,4,5-Tetr 0.493 0.490 0.443 0.411 0.407 0.427 0.537 0.458 0.458   9.95

105)     Phenanthrene-d10a     ----------------ISTD---------------------
106) Atrazine     0.119 0.116 0.113 0.107 0.105 0.109       0.111 0.111   4.54
107) o-Terphenyl  0.616 0.608 0.549 0.507 0.495 0.520 0.733 0.568 0.574  13.55
108) 1-Chloroocta 0.326 0.343 0.319 0.294 0.280 0.304 0.414 0.326 0.326  12.58

109) I   Chrysene-d12a         ----------------ISTD---------------------
110) benzidine    0.892 0.934 0.886 0.719 0.622 0.821 0.961 0.897 0.841  13.79

111) I   Naphthalene-d8a       ----------------ISTD---------------------
112) Hydroquinone 0.344 0.420 0.413 0.402 0.385 0.413 0.325 0.399 0.388   8.95


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

           M6P1488.M         Mon Nov 21 08:46:16 2016   ACLIMS
```

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1489-ICV1489
Lab FileID: 6P32159A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E6P1489\6p32159a.D         Vial: 10
Acq On    : 18 Nov 2016   8:29 pm                    Operator: ariellec
Sample    : icv1489-50                               Inst    : MS6P
Misc      : op98528,e6p1489                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update  : Mon Nov 21 07:32:11 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.
103	Acenaphthene-d10a	1.000	1.000	0.0	93	0.00	7.41
104	1,2,4,5-Tetrachlorobenzen	0.458	0.484	-5.7	105	0.00	6.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 07:49:43 2016 ACLIMS

Initial Calibration Verification

Job Number: JC33175 **Sample:** E6P1489-ICV1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P32159.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P1489\6p32159.D Vial: 10
Acq On : 18 Nov 2016 8:29 pm Operator: ariellec
Sample : icv1488-50 Inst : MS6P
Misc : op98528,e6p1489 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update : Mon Nov 21 07:32:11 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	97	0.00	4.62
4	t	N-Nitrosodimethylamine	1.093	0.838	23.3	80	0.00	2.45
11	t	bis(2-Chloroethyl)ether	1.565	1.585	-1.3	104	0.00	4.43
14	t	1,3-Dichlorobenzene	1.673	1.639	2.0	101	0.00	4.59
15	t	1,4-Dichlorobenzene	1.704	1.670	2.0	101	0.00	4.64
17	t	1,2-Dichlorobenzene	1.611	1.589	1.4	101	0.00	4.76
20	t	2,2'-oxybis(1-Chloropropa	0.562	0.550	2.1	101	0.00	4.83
22	t	n-Nitroso-di-n-propylamin	1.212	1.090	10.1	97	0.00	4.93
23	t	Hexachloroethane	0.471	0.461	2.1	100	0.00	5.02
24	I	Naphthalene-d8	1.000	1.000	0.0	94	0.00	5.66
26	t	Nitrobenzene	0.414	0.375	9.4	90	0.00	5.07
28	t	Isophorone	0.776	0.697	10.2	90	0.00	5.26
32	t	bis(2-Chloroethoxy)methan	0.453	0.465	-2.6	102	0.00	5.44
36	t	1,2,4-Trichlorobenzene	0.296	0.300	-1.4	100	0.00	5.61
38	t	Naphthalene	1.147	1.078	6.0	94	0.00	5.68
42	t	Hexachlorobutadiene	0.147	0.149	-1.4	99	0.00	5.79
47	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.41
48	t	Hexachlorocyclopentadiene	0.254	0.256	-0.7	90	0.00	6.49
52	t	2-Chloronaphthalene	1.145	1.152	-0.6	97	0.00	6.82
55	t	Dimethylphthalate	1.328	1.256	5.4	91	0.00	7.13
56	t	Acenaphthylene	1.916	1.847	3.6	91	0.00	7.25
57	t	2,6-Dinitrotoluene	0.289	0.280	3.1	87	0.00	7.19
59	t	Acenaphthene	1.194	1.153	3.4	93	0.00	7.45
63	t	2,4-Dinitrotoluene	0.380	0.366	3.7	83	0.00	7.62
65	t	Diethylphthalate	1.325	1.255	5.3	89	0.00	7.91
66	t	Fluorene	1.342	1.297	3.4	93	0.00	8.02
67	t	4-Chlorophenyl-phenylethe	0.552	0.550	0.4	96	0.00	8.04
69	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.00	9.11
71	t	n-Nitrosodiphenylamine	0.637	0.593	6.9	88	0.00	8.17
72	t	1,2-Diphenylhydrazine	0.912	0.867	4.9	89	0.00	8.21
74	t	4-Bromophenyl-phenylether	0.219	0.229	-4.6	96	0.00	8.60
75	t	Hexachlorobenzene	0.249	0.257	-3.2	96	0.00	8.67
77	t	Phenanthrene	1.215	1.151	5.3	90	0.00	9.14
78	t	Anthracene	1.220	1.173	3.9	90	0.00	9.20
80	t	Di-n-butylphthalate	1.436	1.364	5.0	87	0.00	9.86
81	t	Fluoranthene	1.175	1.122	4.5	88	0.00	10.56
83	I	Chrysene-d12	1.000	1.000	0.0	87	0.00	12.29
84	t	Pyrene	1.276	1.249	2.1	87	0.00	10.83

Initial Calibration Verification

Job Number: JC33175 **Sample:** E6P1489-ICV1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P32159.D
Project: BMSMC, Building 5 Area, PR

86	t	Butylbenzylphthalate	0.658	0.648	1.5	85	0.00	11.66
87	t	Benzo[a]anthracene	1.180	1.098	6.9	85	0.00	12.28
89	t	Chrysene	1.147	1.056	7.9	82	0.00	12.33
90	t	bis(2-Ethylhexyl)phthalat	0.919	0.878	4.5	83	0.00	12.38
91	I	Perylene-d12	1.000	1.000	0.0	82	0.00	13.89
92	t	Di-n-octylphthalate	1.615	1.593	1.4	81	0.00	13.12
93	t	Benzo[b]fluoranthene	1.302	1.190	8.6	78	0.00	13.50
94	t	Benzo[k]fluoranthene	1.172	1.178	-0.5	85	0.00	13.53
95	t	Benzo[a]pyrene	1.131	1.114	1.5	84	0.00	13.83
96	t	Indeno[1,2,3-cd]pyrene	1.414	1.349	4.6	80	0.01	15.05
98	t	Dibenz[a,h]anthracene	1.205	1.148	4.7	79	0.00	15.07
100	t	Benzo[g,h,i]perylene	1.190	1.133	4.8	80	0.01	15.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 07:48:42 2016 ACLIMS

8.7.20

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1489-ICV1489
Lab FileID: 6P32161A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E6P1489\6p32161a.D         Vial: 12
Acq On    : 18 Nov 2016   9:18 pm                    Operator: ariellec
Sample    : icv1489-50                               Inst    : MS6P
Misc      : op98528,e6p1489                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update  : Mon Nov 21 07:32:11 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.
109	I	Chrysene-d12a	1.000	1.000	0.0	137	0.00	12.29
110	T	benzidine	0.841	0.882	-4.9	147	0.00	10.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 07:48:48 2016 ACLIMS

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1489-ICV1488
Lab FileID: 6P32161.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E6P1489\6p32161.D          Vial: 12
Acq On    : 18 Nov 2016   9:18 pm                    Operator: ariellec
Sample    : icv1488-50                               Inst    : MS6P
Misc      : op98528,e6p1489                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update  : Mon Nov 21 07:32:11 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	141	0.00	12.29
88	t	3,3'-Dichlorobenzidine	0.466	0.448	3.9	136	0.00	12.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 07:48:46 2016 ACLIMS

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1489-ICV1489
Lab FileID: 6P32162.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E6P1489\6p32162.D          Vial: 13
Acq On    : 18 Nov 2016   9:43 pm                    Operator: ariellec
Sample    : icv1489-50                               Inst    : MS6P
Misc      : op98528,e6p1489                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update  : Mon Nov 21 07:32:11 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.
111	I	Naphthalene-d8a	1.000	1.000	0.0	91	0.00	5.66
112	T	Hydroquinone	0.388	0.474	-22.2	104	0.01	6.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 07:48:50 2016 ACLIMS

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1490-ICV1488
Lab FileID: 6P32164.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e6p1490\6p32164.D Vial: 2
Acq On : 21 Nov 2016 8:24 am Operator: ariellec
Sample : icv1488-50 Inst : MS6P
Misc : op98528,e6p1490 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update : Mon Nov 21 07:32:11 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	95	0.00	4.62
2	t	1,4-Dioxane	0.665	0.572	14.0	88	0.01	2.16
6	t	Indene	2.706	2.579	4.7	97	0.00	4.82
7	t	Cumene	3.808	3.361	11.7	91	0.00	4.03
13	t	Decane	1.143	0.959	16.1	89	0.00	4.51
18	t	Acetophenone	2.179	1.975	9.4	95	0.00	4.93
24	I	Naphthalene-d8	1.000	1.000	0.0	93	0.00	5.66
27	t	Quinoline	0.793	0.708	10.7	85	0.00	5.98
40	t	2,3-Dichloroaniline	0.368	0.315	14.4	83	0.00	6.60
41	t	Caprolactam	0.145	0.102	29.7	68	0.00	6.02
45	t	1-Methylnaphthalene	0.654	0.562	14.1	83	0.00	6.42
46	t	Dimethylnaphthalene	0.664	0.601	9.5	87	0.00	6.96
47	I	Acenaphthene-d10	1.000	1.000	0.0	92	0.00	7.41
53	t	Biphenyl	1.552	1.413	9.0	87	0.00	6.79
69	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.00	9.11
82	t	Octadecane	0.487	0.434	10.9	83	0.00	9.05
91	I	Perylene-d12	1.000	1.000	0.0	88	0.00	13.89
99	t	7,12-Dimethylbenz(a)anthr	0.543	0.513	5.5	84	0.00	13.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 08:45:59 2016 ACLIMS

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: E6P1490-ICV1489
Lab FileID: 6P32164A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\e6p1490\6p32164a.D Vial: 2
Acq On : 21 Nov 2016 8:24 am Operator: ariellec
Sample : icv1489-50 Inst : MS6P
Misc : op98528,e6p1490 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
Last Update : Mon Nov 21 07:32:11 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.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	95	0.00	4.62
102	Benzaldehyde	1.293	1.059	18.1	84	0.00	4.30
105	Phenanthrene-d10a	1.000	1.000	0.0	90	0.00	9.11
106	Atrazine	0.111	0.111	0.0	92	0.01	8.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Mon Nov 21 08:46:01 2016 ACLIMS

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E6P1523-CC1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P33008.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P1523\6p33008.D Vial: 2
Acq On : 14 Dec 2016 10:42 pm Operator: chriss2
Sample : cc1488-50 Inst : MS6P
Misc : op99188,e6p1523 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
Last Update : Tue Dec 13 08:19:32 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	107	-0.03	4.48
2	t	1,4-Dioxane	0.665	0.707	-6.3	121	-0.02	1.96
3	t	Pyridine	1.736	1.820	-4.8	116	0.02	2.31
4	t	N-Nitrosodimethylamine	1.093	1.153	-5.5	120	0.00	2.28
5	S	2-Fluorophenol	1.566	1.542	1.5	111	-0.03	3.52
6	t	Indene	2.706	2.633	2.7	111	-0.03	4.68
7	t	Cumene	3.808	3.869	-1.6	117	-0.05	3.89
8	S	Phenol-d5	2.126	2.062	3.0	109	0.03	4.26
9	t	Phenol	2.246	2.295	-2.2	116	0.02	4.27
10		Aniline	2.564	2.219	13.5	116	-0.02	4.25
11	t	bis(2-Chloroethyl)ether	1.565	1.573	-0.5	113	-0.03	4.29
12	t	2-Chlorophenol	1.657	1.513	8.7	103	-0.01	4.35
13	t	Decane	1.143	1.209	-5.8	125	-0.03	4.37
14	t	1,3-Dichlorobenzene	1.673	1.498	10.5	102	-0.03	4.44
15	t	1,4-Dichlorobenzene	1.704	1.521	10.7	101	-0.03	4.50
16	t	Benzyl alcohol	1.094	1.053	3.7	106	0.00	4.60
17	t	1,2-Dichlorobenzene	1.611	1.455	9.7	102	-0.03	4.61
18	t	Acetophenone	2.179	2.191	-0.6	118	-0.02	4.79
19	t	2-Methylphenol	1.484	1.408	5.1	107	-0.06	4.70
20	t	2,2'-oxybis(1-Chloropropa	0.562	0.544	3.2	110	-0.02	4.69
21	t	3&4-Methylphenol	1.549	1.541	0.5	114	0.01	4.82
22	t	n-Nitroso-di-n-propylamin	1.212	1.361	-12.3	133	-0.01	4.80
23	t	Hexachloroethane	0.471	0.478	-1.5	114	-0.03	4.87
24	I	Naphthalene-d8	1.000	1.000	0.0	104	-0.03	5.50
25	S	Nitrobenzene-d5	0.430	0.482	-12.1	122	-0.03	4.91
26	t	Nitrobenzene	0.414	0.460	-11.1	122	-0.03	4.92
27	t	Quinoline	0.793	0.731	7.8	99	-0.02	5.82
28	t	Isophorone	0.776	0.826	-6.4	118	-0.03	5.12
29	t	2-Nitrophenol	0.212	0.198	6.6	98	-0.02	5.18
30	t	2,4-Dimethylphenol	0.349	0.373	-6.9	112	-0.03	5.23
31	t	Benzoic acid	0.268	0.330	-23.1#	115	-0.01	5.36
32	t	bis(2-Chloroethoxy)methan	0.453	0.464	-2.4	113	-0.03	5.29
33	t	2,4-Dichlorophenol	0.292	0.276	5.5	101	0.00	5.40
34	t	2,6-Dichlorophenol	0.284	0.274	3.5	103	-0.02	5.59
35		1,3,5-Trichlorobenzene	0.311	0.306	1.6	107	-0.03	5.19
36	t	1,2,4-Trichlorobenzene	0.296	0.284	4.1	104	-0.03	5.45
37		1,2,3-Trichlorobenzene	0.297	0.288	3.0	106	-0.03	5.65
38	t	Naphthalene	1.147	1.080	5.8	104	-0.03	5.52
39	t	4-Chloroaniline	0.500	0.441	11.8	100	-0.02	5.58
40	t	2,3-Dichloroaniline	0.368	0.346	6.0	102	-0.01	6.44
41	t	Caprolactam	0.145	0.154	-6.2	115	0.03	5.91

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E6P1523-CC1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P33008.D
Project: BMSMC, Building 5 Area, PR

42	t	Hexachlorobutadiene	0.147	0.163	-10.9	121	-0.03	5.63
43	t	4-Chloro-3-methylphenol	0.339	0.358	-5.6	111	0.02	6.05
44	t	2-Methylnaphthalene	0.634	0.589	7.1	101	-0.03	6.15
45	t	1-Methylnaphthalene	0.654	0.604	7.6	100	-0.03	6.25
46	t	Dimethylnaphthalene	0.664	0.639	3.8	103	-0.02	6.78
47	I	Acenaphthene-d10	1.000	1.000	0.0	106	-0.03	7.23
48	t	Hexachlorocyclopentadiene	0.254	0.305	-20.1#	122	-0.04	6.31
49	t	2,4,6-Trichlorophenol	0.325	0.333	-2.5	110	-0.02	6.45
50	t	2,4,5-Trichlorophenol	0.357	0.355	0.6	105	-0.05	6.50
51	S	2-Fluorobiphenyl	1.349	1.307	3.1	107	-0.03	6.52
52	t	2-Chloronaphthalene	1.145	1.067	6.8	102	-0.03	6.64
53	t	Biphenyl	1.552	1.480	4.6	104	-0.03	6.62
54	t	2-Nitroaniline	0.366	0.450	-23.0#	129	-0.02	6.76
55	t	Dimethylphthalate	1.328	1.265	4.7	104	-0.02	6.96
56	t	Acenaphthylene	1.916	1.786	6.8	100	-0.03	7.07
57	t	2,6-Dinitrotoluene	0.289	0.283	2.1	100	-0.02	7.01
58	t	3-Nitroaniline	0.387	0.345	10.9	93	0.00	7.20
59	t	Acenaphthene	1.194	1.120	6.2	103	-0.03	7.27
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	109.984	-10.0	114	0.00	7.31
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.165	0.232	-40.6#	139	0.00	7.44
62	t	Dibenzofuran	1.614	1.569	2.8	106	-0.03	7.45
63	t	2,4-Dinitrotoluene	0.380	0.401	-5.5	104	0.07	7.45
64		2,3,4,6-Tetrachlorophenol	0.262	0.273	-4.2	106	0.00	7.61
65	t	Diethylphthalate	1.325	1.354	-2.2	110	-0.01	7.74
66	t	Fluorene	1.342	1.301	3.1	106	-0.02	7.84
67	t	4-Chlorophenyl-phenylethe	0.552	0.578	-4.7	115	-0.01	7.85
68	t	4-Nitroaniline	0.412	0.349	15.3	88	0.10	7.89
69	I	Phenanthrene-d10	1.000	1.000	0.0	110	-0.03	8.92
70	t	4,6-Dinitro-2-methylpheno	0.133	0.147	-10.5	107	-0.02	7.92
71	t	n-Nitrosodiphenylamine	0.637	0.577	9.4	103	-0.03	7.99
72	t	1,2-Diphenylhydrazine	0.912	0.988	-8.3	123	-0.04	8.02
73	S	2,4,6-Tribromophenol	0.128	0.132	-3.1	109	-0.04	8.12
74	t	4-Bromophenyl-phenylether	0.219	0.215	1.8	109	-0.04	8.40
75	t	Hexachlorobenzene	0.249	0.240	3.6	108	-0.04	8.47
76	t	Pentachlorophenol	0.130	0.136	-4.6	102	-0.02	8.72
77	t	Phenanthrene	1.215	1.090	10.3	103	-0.03	8.94
78	t	Anthracene	1.220	1.115	8.6	103	-0.03	9.00
79	t	Carbazole	1.200	1.098	8.5	103	-0.02	9.21
80	t	Di-n-butylphthalate	1.436	1.387	3.4	106	0.02	9.66
81	t	Fluoranthene	1.175	1.167	0.7	110	-0.02	10.36
82	t	Octadecane	0.487	0.532	-9.2	124	-0.03	8.85
83	I	Chrysene-d12	1.000	1.000	0.0	117	-0.03	12.08
84	t	Pyrene	1.276	1.161	9.0	109	-0.05	10.62
85	S	Terphenyl-d14	0.819	0.752	8.2	110	-0.04	10.84
86	t	Butylbenzylphthalate	0.658	0.617	6.2	110	-0.04	11.46
87	t	Benzo[a]anthracene	1.180	1.102	6.6	115	-0.03	12.07
88	t	3,3'-Dichlorobenzidine	0.466	0.442	5.2	111	-0.02	12.07
89	t	Chrysene	1.147	1.048	8.6	109	-0.03	12.12
90	t	bis(2-Ethylhexyl)phthalat	0.919	0.868	5.5	111	-0.03	12.18
91	I	Perylene-d12	1.000	1.000	0.0	117	-0.03	13.68
92	t	Di-n-octylphthalate	1.615	1.518	6.0	110	-0.03	12.91
93	t	Benzo[b]fluoranthene	1.302	1.229	5.6	114	-0.03	13.29

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E6P1523-CC1488
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P33008.D
Project: BMSMC, Building 5 Area, PR

94	t	Benzo[k]fluoranthene	1.172	1.134	3.2	116	-0.02	13.32
95	t	Benzo[a]pyrene	1.131	1.064	5.9	113	-0.03	13.62
96	t	Indeno[1,2,3-cd]pyrene	1.414	1.442	-2.0	122	-0.04	14.77
97	t	Dibenz(a,h)acridine	1.063	1.065	-0.2	119	-0.03	14.52
98	t	Dibenz[a,h]anthracene	1.205	1.245	-3.3	121	-0.04	14.79
99	t	7,12-Dimethylbenz(a)anthr	0.543	0.568	-4.6	123	-0.03	13.28
100	t	Benzo[g,h,i]perylene	1.190	1.187	0.3	118	-0.04	15.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Thu Dec 15 07:58:43 2016 ACLIMS

8.7.26

8

Continuing Calibration Summary

Job Number: JC33175 **Sample:** E6P1523-CC1489
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 6P33009.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E6P1523\6p33009.D          Vial: 3
Acq On    : 14 Dec 2016  11:07 pm                    Operator: chriss2
Sample    : cc1489-50                                Inst    : MS6P
Misc      : op99188,e6p1523                          Multiplr: 1.00
MS Integration Params: lscint.p

Method       : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title        : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
Last Update  : Tue Dec 13 08:19:32 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.
101		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	98	-0.03	4.48
102		Benzaldehyde	1.293	0.995	23.0#	82	-0.03	4.16
103		Acenaphthene-d10a	1.000	1.000	0.0	89	-0.04	7.22
104		1,2,4,5-Tetrachlorobenzen	0.458	0.507	-10.7	106	-0.05	6.32
105		Phenanthrene-d10a	1.000	1.000	0.0	92	-0.04	8.91
106		Atrazine	0.111	0.116	-4.5	98	-0.02	8.63
107	I	Chrysene-d12a	1.000	1.000	0.0	94	-0.04	12.07
108	T	benzidine	0.841	0.435	48.3#	50#	-0.04	10.54
109	I	Naphthalene-d8a	1.000	1.000	0.0	94	-0.03	5.50
110	T	Hydroquinone	0.388	0.394	-1.5	90	0.03	5.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of 6p32153.D M6P1488.M Thu Dec 15 07:58:45 2016 ACLIMS

8.7.27

8

Initial Calibration Summary

Job Number: JC33175 **Sample:** EM5525-ICC5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129454.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Nov 22 15:55:11 2016
Response via : Initial Calibration

Calibration Files
2 =M129450.D 5 =M129451.D 100 =M129456.D 50 =M129454.D
1 =M129449.D 10 =M129452.D 80 =M129455.D 25 =M129453.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.215	0.359	0.422	0.385	0.537	0.347	0.412	0.371	0.381	23.52
---- Quadratic regression ---- Coefficient = 0.9999										
Response Ratio = -0.00141 + 0.35457 *A + 0.02763 *A^2										
3) Pyridine	0.857	0.951	1.103	1.065	0.709	1.018	1.079	1.042	0.978	13.77
4) N-Nitrosodim	0.567	0.522	0.610	0.625	0.648	0.581	0.609	0.593	0.594	6.49
5) 2-Fluorophen	1.012	1.059	1.361	1.320	1.136	1.175	1.384	1.267	1.214	11.52
6) Indene	2.112	2.153	2.527	2.386	2.041	2.318	2.545	2.289	2.296	8.13
7) Cumene	3.098	3.173	3.624	3.595	3.357	3.429	3.620	3.511	3.426	5.93
8) Phenol-d5	1.249	1.435	1.706	1.710	1.478	1.564	1.746	1.607	1.562	10.80
9) Phenol	1.565	1.620	1.768	1.715	1.576	1.705	1.793	1.694	1.680	5.04
10) Aniline	1.677	1.869	1.579	1.631	1.869	1.823	1.585	1.701	1.717	7.07
11) bis(2-Chloro	1.020	0.952	1.059	1.059	1.092	1.074	1.069	1.108	1.054	4.62
12) 2-Chlorophen	1.374	1.316	1.457	1.434	1.443	1.437	1.459	1.439	1.420	3.50
13) Decane	0.711	0.687	0.716	0.682	0.593	0.666	0.703	0.687	0.681	5.72
14) 1,3-Dichloro	1.391	1.509	1.582	1.541	1.351	1.594	1.588	1.578	1.517	6.26
15) 1,4-Dichloro	1.358	1.450	1.560	1.511	1.446	1.451	1.568	1.538	1.485	4.84
16) Benzyl alcoh	0.681	0.802	0.902	0.881	0.856	0.849	0.914	0.858	0.843	8.78
17) 1,2-Dichloro	1.381	1.442	1.517	1.479	1.484	1.453	1.508	1.479	1.468	2.92
18) Acetophenone	1.827	1.848	2.047	2.043	2.024	1.992	2.055	1.971	1.976	4.56
19) 2-Methylphen	1.128	1.101	1.149	1.109	1.176	1.140	1.169	1.110	1.135	2.48
20) 2,2'-oxybis(	0.438	0.442	0.451	0.438	0.451	0.415	0.465	0.435	0.442	3.32
21) 3&4-Methylph	1.214	1.137	1.301	1.209	1.274	1.240	1.306	1.255	1.242	4.47
22) n-Nitroso-di	0.906	0.972	1.013	1.062	0.993	1.035	1.034	1.027	1.005	4.85
23) Hexachloroet	0.387	0.430	0.460	0.462	0.455	0.491	0.458	0.458	0.450	6.72
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.360	0.371	0.371	0.385	0.383	0.389	0.386	0.379	0.378	2.61
26) Nitrobenzene	0.369	0.362	0.349	0.361	0.365	0.371	0.362	0.372	0.364	2.02
27) Quinoline	0.672	0.679	0.705	0.721	0.726	0.731	0.739	0.704	0.710	3.39
28) Isophorone	0.619	0.607	0.628	0.650	0.702	0.657	0.659	0.646	0.646	4.54
29) 2-Nitropheno	0.175	0.196	0.214	0.205	0.191	0.204	0.222	0.207	0.202	7.23
30) 2,4-Dimethyl	0.281	0.271	0.337	0.328	0.280	0.290	0.350	0.301	0.305	9.72
31) Benzoic acid			0.263	0.252		0.202	0.272	0.223	0.242	12.04
32) bis(2-Chloro	0.317	0.314	0.329	0.328	0.337	0.324	0.342	0.340	0.329	3.12
33) 2,4-Dichloro	0.268	0.264	0.275	0.273	0.290	0.289	0.284	0.277	0.278	3.39
34) 2,6-Dichloro	0.269	0.255	0.266	0.261	0.270	0.262	0.277	0.258	0.265	2.76
35) 1,3,5-Trichl	0.287	0.284	0.293	0.291	0.289	0.298	0.305	0.286	0.292	2.39
36) 1,2,4-Trichl	0.269	0.280	0.273	0.279	0.277	0.280	0.283	0.273	0.277	1.71
37) 1,2,3-Trichl	0.254	0.265	0.262	0.265	0.275	0.281	0.275	0.268	0.268	3.11
38) Naphthalene	0.918	0.926	0.997	1.000	0.932	0.947	1.039	0.974	0.967	4.44
39) 4-Chloroanil	0.377	0.409	0.399	0.400	0.408	0.414	0.415	0.412	0.404	3.10
40) 2,3-Dichloro	0.342	0.353	0.357	0.351	0.368	0.362	0.371	0.348	0.356	2.84
41) Caprolactam	0.131	0.112	0.109	0.108	0.127	0.107	0.115	0.110	0.115	8.04
42) Hexachlorobu	0.154	0.144	0.140	0.146	0.147	0.147	0.148	0.143	0.146	2.89

Initial Calibration Summary

Job Number: JC33175 **Sample:** EM5525-ICC5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129454.D
Project: BMSMC, Building 5 Area, PR

```
43) 4-Chloro-3-m 0.304 0.302 0.324 0.324 0.312 0.298 0.336 0.325 0.315   4.27
44) 2-Methylnaph 0.585 0.609 0.617 0.631 0.577 0.631 0.646 0.636 0.617   4.04
45) 1-Methylnaph 0.652 0.675 0.707 0.707 0.715 0.704 0.732 0.694 0.698   3.55
46) Dimethylnaph 0.558 0.622 0.620 0.625 0.629 0.637 0.636 0.604 0.616   4.18

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy       0.169 0.271 0.245       0.223 0.277 0.220 0.234  16.89
            ---- Quadratic regression ----  Coefficient =  0.9980
              Response Ratio = -0.02347 + 0.24439 *A + 0.00707 *A^2

49) 2,4,6-Trichl 0.315 0.291 0.309 0.298 0.354 0.319 0.314 0.310 0.314   6.02
50) 2,4,5-Trichl 0.331 0.309 0.349 0.334 0.373 0.348 0.357 0.325 0.341   5.88
51) 2-Fluorobiph 1.223 1.290 1.256 1.276 1.298 1.270 1.283 1.240 1.267   2.03
52) 2-Chloronaph 1.036 1.093 1.066 1.050 1.122 1.105 1.076 1.027 1.072   3.12
53) Biphenyl     1.429 1.501 1.595 1.522 1.355 1.583 1.621 1.448 1.507   6.12
54) 2-Nitroanili 0.335 0.351 0.382 0.372 0.326 0.362 0.380 0.356 0.358   5.69
55) Dimethylphth 1.280 1.323 1.383 1.385 1.370 1.395 1.405 1.325 1.358   3.23
56) Acenaphthyle 1.823 1.850 1.910 1.873 1.955 1.893 1.945 1.830 1.885   2.65
57) 2,6-Dinitrot 0.267 0.260 0.304 0.298 0.328 0.274 0.314 0.285 0.291   8.24
58) 3-Nitroanili 0.365 0.363 0.392 0.383 0.373 0.370 0.396 0.369 0.376   3.27
59) Acenaphthene 1.182 1.191 1.244 1.221 1.099 1.195 1.257 1.170 1.195   4.12
60) 2,4-Dinitrop 0.020 0.047 0.181 0.138       0.104 0.174 0.098 0.109  56.04
            ---- Quadratic regression ----  Coefficient =  0.9979
              Response Ratio = -0.01475 + 0.10648 *A + 0.01607 *A^2

61) 4-Nitropheno 0.229 0.227 0.245 0.238 0.243 0.233 0.249 0.220 0.236   4.13
62) Dibenzofuran 1.485 1.533 1.639 1.613 1.571 1.588 1.648 1.560 1.580   3.47
63) 2,4-Dinitrot 0.365 0.386 0.403 0.404 0.336 0.394 0.407 0.399 0.387   6.39
64) 2,3,4,6-Tetr 0.239 0.226 0.252 0.226 0.163 0.223 0.254 0.223 0.226  12.59
65) Diethylphtha 1.425 1.488 1.514 1.528 1.592 1.564 1.554 1.494 1.520   3.43
66) Fluorene     1.345 1.370 1.426 1.374 1.307 1.390 1.425 1.314 1.369   3.30
67) 4-Chlorophen 0.509 0.533 0.497 0.498 0.530 0.520 0.504 0.480 0.509   3.51
68) 4-Nitroanili 0.328 0.352 0.375 0.371 0.281 0.362 0.385 0.352 0.351   9.50

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.088 0.142 0.127       0.111 0.141 0.111 0.120  17.38
            ---- Quadratic regression ----  Coefficient =  0.9991
              Response Ratio = -0.00520 + 0.11995 *A + 0.01035 *A^2

71) n-Nitrosodip 0.552 0.573 0.587 0.578 0.608 0.584 0.589 0.577 0.581   2.76
72) 1,2-Diphenyl 0.804 0.854 0.832 0.825 0.837 0.869 0.846 0.840 0.838   2.31
73) 2,4,6-Tribro 0.086 0.103 0.111 0.107 0.113 0.101 0.114 0.106 0.105   8.45
74) 4-Bromopheny 0.196 0.187 0.199 0.193 0.191 0.200 0.199 0.188 0.194   2.64
75) Hexachlorobe 0.212 0.227 0.219 0.216 0.205 0.223 0.223 0.216 0.217   3.15
76) Pentachlorop 0.050 0.064 0.119 0.100       0.088 0.120 0.083 0.089  29.35
            ---- Quadratic regression ----  Coefficient =  0.9974
              Response Ratio = -0.00745 + 0.09023 *A + 0.00645 *A^2

77) Phenanthrene 1.015 1.052 1.110 1.058 1.071 1.084 1.128 1.050 1.071   3.36
78) Anthracene   1.057 1.110 1.145 1.100 1.156 1.152 1.153 1.093 1.121   3.24
79) Carbazole    1.102 1.131 1.197 1.154 1.092 1.180 1.209 1.126 1.149   3.78
80) Di-n-butylph 1.535 1.577 1.700 1.698 1.665 1.692 1.717 1.659 1.655   3.94
81) Fluoranthene 1.134 1.092 1.218 1.179 1.149 1.223 1.235 1.166 1.174   4.20
82) Octadecane   0.422 0.393 0.429 0.400 0.465 0.419 0.434 0.390 0.419   5.92

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.322 1.314 1.282 1.274 1.357 1.398 1.308 1.284 1.317   3.21
85) Terphenyl-d1 0.777 0.783 0.825 0.771 0.843 0.848 0.838 0.785 0.809   4.07
86) Butylbenzylp 0.825 0.803 0.839 0.834 0.905 0.852 0.846 0.836 0.843   3.49
87) Benzo[a]anth 1.133 1.163 1.134 1.101 1.268 1.159 1.160 1.105 1.153   4.54
```

Initial Calibration Summary

Job Number: JC33175 **Sample:** EM5525-ICC5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129454.D
Project: BMSMC, Building 5 Area, PR

```
 88) 3,3'-Dichlor 0.422 0.420 0.435 0.419 0.419 0.443 0.442 0.418 0.427   2.55
 89) Chrysene     1.034 1.030 1.031 0.997 1.091 1.069 1.051 0.982 1.036   3.42
 90) bis(2-Ethylh 1.071 1.091 1.128 1.106 1.142 1.104 1.141 1.090 1.109   2.31

 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 2.227 2.155 2.190 2.267 2.293 2.120 2.315 2.246 2.227   3.04
 93) Benzo[b]fluo 1.251 1.325 1.349 1.306 1.376 1.322 1.400 1.264 1.324   3.87
 94) Benzo[k]fluo 1.181 1.193 1.085 1.145 1.268 1.211 1.129 1.148 1.170   4.79
 95) Benzo[a]pyre 1.106 1.097 1.079 1.071 1.311 1.119 1.124 1.072 1.122   7.03
 96) Indeno[1,2,3 0.844 0.888 1.021 0.981 1.046 0.984 1.043 0.886 0.962   8.15
 97) Dibenz(a,h)a 0.924 0.812 0.924 0.897 0.899 0.938 0.953 0.861 0.901   5.11
 98) Dibenz[a,h]a 0.919 0.924 1.011 0.988 0.998 1.036 1.028 0.956 0.982   4.57
 99) 7,12-Dimethy 0.453 0.499 0.580 0.548 0.491 0.524 0.600 0.526 0.528   9.09
100) Benzo[g,h,i] 0.920 0.890 0.997 0.983 0.961 1.016 1.012 0.913 0.961   5.05
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MM5525.M          Tue Nov 22 15:56:21 2016   MSM
```

8.7.28

8

Initial Calibration Summary

Job Number: JC33175 **Sample:** EM5526-ICC5526
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129468.D
Project: BMSMC, Building 5 Area, PR

```
                          Response Factor Report  Instrument #1

  Method       : C:\MSDCHEM\1\METHODS\MM5526.M (RTE Integrator)
  Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
  Last Update  : Wed Nov 23 15:58:02 2016
  Response via : Initial Calibration

  Calibration Files
  2   =M129464.D  5   =M129465.D  100 =M129470.D  50  =M129468.D
  1   =M129463.D  10  =M129466.D  80  =M129469.D  25  =M129467.D

   Compound          2     5     100   50    1     10    80    25    Avg %RSD
   ---------------------------------------------------------------------------
101) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
102) Benzaldehyde 1.077 1.078 1.027 1.061 1.425 1.076 1.053 1.061 1.107  11.69

103) I   Acenaphthene-d10a     ----------------ISTD---------------------
104) 1,2,4,5-Tetr 0.470 0.469 0.413 0.429 0.489 0.452 0.414 0.433 0.446   6.29
105) Atrazine     0.181 0.169 0.149 0.150       0.144 0.150 0.148 0.156   8.83

106) I   Chrysene-d12a         ----------------ISTD---------------------
107) Benzidine    0.900 0.894 0.587 0.762       0.881 0.710 0.832 0.795  14.65
108) 1-chloroocta 0.268 0.297 0.277 0.288       0.276 0.277 0.275 0.280   3.47

109) I   Phenanthrene-d10a     ----------------ISTD---------------------
110) o-terphenyl  0.482 0.523 0.469 0.468 0.659 0.479 0.473 0.478 0.504  12.92

111) I   Naphthalene-d8a       ----------------ISTD---------------------
112) Hydroquinone       0.239 0.317 0.298       0.231 0.311 0.286 0.280  13.06

113)     Chrysene-d12b         ----------------ISTD---------------------
114) 2,3,7,8-TCDD                                                0.000# -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MM5525.M          Wed Nov 23 15:58:30 2016   MSM
```

8.7.29

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5526-ICV5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129471.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129471.D          Vial: 10
Acq On    : 22 Nov 2016   8:58 pm                   Operator: seanb1
Sample    : icv5525-50                              Inst    : Instrument #1
Misc      : op98591,em5526                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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	4.68
9	t	Phenol	1.680	1.563	7.0	92	0.00	4.44
12	t	2-Chlorophenol	1.420	1.497	-5.4	106	0.00	4.53
19	t	2-Methylphenol	1.135	1.241	-9.3	113	0.00	4.90
21	t	3&4-Methylphenol	1.242	1.312	-5.6	110	0.00	5.02
24	I	Naphthalene-d8	1.000	1.000	0.0	95	0.00	5.81
29	t	2-Nitrophenol	0.202	0.214	-5.9	99	0.00	5.44
30	t	2,4-Dimethylphenol	0.305	0.389	-27.5	112	0.00	5.49
31	t	Benzoic acid	0.242	0.214	11.6	80	-0.02	5.61
33	t	2,4-Dichlorophenol	0.278	0.291	-4.7	101	0.00	5.68
34	t	2,6-Dichlorophenol	0.265	0.281	-6.0	102	0.00	5.91
43	t	4-Chloro-3-methylphenol	0.315	0.326	-3.5	95	-0.01	6.48
47	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	8.15
49	t	2,4,6-Trichlorophenol	0.314	0.350	-11.5	110	-0.01	7.03
50	t	2,4,5-Trichlorophenol	0.341	0.325	4.7	91	-0.01	7.10
		----------	True	Calc.	% Drift		----------	
60	t	2,4-Dinitrophenol	100.000	44.150	11.7	66	-0.01	8.30
		----------	AvgRF	CCRF	% Dev		----------	
61	t	4-Nitrophenol	0.236	0.225	4.7	88	-0.01	8.49
64	t	2,3,4,6-Tetrachlorophenol	0.226	0.246	-8.8	102	0.00	8.74
69	I	Phenanthrene-d10	1.000	1.000	0.0	88	0.00	10.77
		----------	True	Calc.	% Drift		----------	
70	t	4,6-Dinitro-2-methylpheno	50.000	46.456	7.1	82	-0.01	9.22
76	t	Pentachlorophenol	100.000	93.676	6.3	76	-0.01	10.47

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 Copy of M129468.D MM5525.M          Mon Nov 28 15:56:16 2016   MSM
```

8.7.30

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5526-ICV5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129472.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129472.D          Vial: 11
Acq On    : 22 Nov 2016   9:27 pm                   Operator: seanb1
Sample    : icv5525-50                              Inst    : Instrument #1
Misc      : op98591,em5526                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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	4.68
3	t	Pyridine	0.978	1.101	-12.6	113	0.08	2.62
10	t	Aniline	1.717	1.969	-14.7	132	0.00	4.43
16	t	Benzyl alcohol	0.843	0.848	-0.6	105	0.00	4.79
24	I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.81
39	t	4-Chloroaniline	0.404	0.401	0.7	112	0.00	5.90
44	t	2-Methylnaphthalene	0.617	0.571	7.5	101	0.00	6.64
47	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	8.15
54	t	2-Nitroaniline	0.358	0.339	5.3	99	0.00	7.47
58	t	3-Nitroaniline	0.376	0.362	3.7	103	0.00	8.11
62	t	Dibenzofuran	1.580	1.517	4.0	102	0.00	8.49
68	t	4-Nitroaniline	0.351	0.341	2.8	100	-0.01	9.16
69	I	Phenanthrene-d10	1.000	1.000	0.0	106	0.00	10.77
79	t	Carbazole	1.149	1.032	10.2	95	0.00	11.27

```
   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    Copy of M129468.D MM5525.M          Mon Nov 28 15:56:18 2016   MSM
```

8.7.31

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EM5526-ICV5526
Lab FileID: M129473A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129473a.D          Vial: 12
Acq On    : 22 Nov 2016   9:56 pm                    Operator: seanb1
Sample    : icv5526-50                               Inst    : Instrument #1
Misc      : op98591,em5526                           Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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.
103 I	Acenaphthene-d10a	1.000	1.000	0.0	95	0.00	8.15
104 I	1,2,4,5-Tetrachlorobenzen	0.446	0.472	-5.8	104	0.00	6.87

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 16:03:49 2016 MSM

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5526-ICV5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129473.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM5526\M129473.D Vial: 12
Acq On : 22 Nov 2016 9:56 pm Operator: seanb1
Sample : icv5525-50 Inst : Instrument #1
Misc : op98591,em5526 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Wed Nov 23 15:58:02 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	4.68
4	t	N-Nitrosodimethylamine	0.594	0.459	22.7	77	0.00	2.51
11	t	bis(2-Chloroethyl)ether	1.054	1.220	-15.7	121	0.00	4.47
14	t	1,3-Dichlorobenzene	1.517	1.661	-9.5	113	0.00	4.64
15	t	1,4-Dichlorobenzene	1.485	1.549	-4.3	108	0.00	4.69
17	t	1,2-Dichlorobenzene	1.468	1.501	-2.2	107	0.00	4.81
20	t	2,2'-oxybis(1-Chloropropa	0.442	0.436	1.4	105	0.00	4.89
22	t	n-Nitroso-di-n-propylamin	1.005	0.927	7.8	92	0.00	4.99
23	t	Hexachloroethane	0.450	0.483	-7.3	110	0.00	5.09
24	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.81
26	t	Nitrobenzene	0.364	0.345	5.2	96	0.00	5.14
28	t	Isophorone	0.646	0.604	6.5	93	0.00	5.35
32	t	bis(2-Chloroethoxy)methan	0.329	0.371	-12.8	114	0.00	5.55
36	t	1,2,4-Trichlorobenzene	0.277	0.287	-3.6	103	0.00	5.76
38	t	Naphthalene	0.967	0.935	3.3	94	0.00	5.83
42	t	Hexachlorobutadiene	0.146	0.152	-4.1	105	0.00	5.97
47	I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00	8.15
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	99.562	0.4	94	0.00	6.85
		----------	AvgRF	CCRF	% Dev	----------		
52	t	2-Chloronaphthalene	1.072	1.166	-8.8	109	0.00	7.30
55	t	Dimethylphthalate	1.358	1.299	4.3	92	0.00	7.76
56	t	Acenaphthylene	1.885	1.766	6.3	92	0.00	7.93
57	t	2,6-Dinitrotoluene	0.291	0.278	4.5	91	0.00	7.85
59	t	Acenaphthene	1.195	1.145	4.2	92	0.00	8.20
63	t	2,4-Dinitrotoluene	0.387	0.368	4.9	89	0.00	8.51
65	t	Diethylphthalate	1.520	1.394	8.3	89	-0.01	8.95
66	t	Fluorene	1.369	1.252	8.5	89	0.00	9.08
67	t	4-Chlorophenyl-phenylethe	0.509	0.482	5.3	95	0.00	9.11
69	I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00	10.77
71	t	n-Nitrosodiphenylamine	0.581	0.500	13.9	81	0.00	9.33
72	t	1,2-Diphenylhydrazine	0.838	0.769	8.2	87	0.00	9.38
74	t	4-Bromophenyl-phenylether	0.194	0.191	1.5	93	0.00	9.98
75	t	Hexachlorobenzene	0.217	0.212	2.3	92	0.00	10.08
77	t	Phenanthrene	1.071	1.002	6.4	89	0.00	10.82
78	t	Anthracene	1.121	1.008	10.1	86	0.00	10.91
80	t	Di-n-butylphthalate	1.655	1.488	10.1	82	0.00	12.06

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5526-ICV5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129473.D
Project: BMSMC, Building 5 Area, PR

81	t	Fluoranthene	1.174	1.022	12.9	81	0.00	13.11
83	I	Chrysene-d12	1.000	1.000	0.0	82	-0.01	15.94
84	t	Pyrene	1.317	1.237	6.1	80	0.00	13.54
86	t	Butylbenzylphthalate	0.843	0.818	3.0	81	0.00	15.00
87	t	Benzo[a]anthracene	1.153	1.094	5.1	82	0.00	15.93
89	t	Chrysene	1.036	0.934	9.8	77	-0.01	16.00
90	t	bis(2-Ethylhexyl)phthalat	1.109	1.074	3.2	80	0.00	16.22
91	I	Perylene-d12	1.000	1.000	0.0	91	-0.01	18.57
92	t	Di-n-octylphthalate	2.227	2.032	8.8	82	0.00	17.44
93	t	Benzo[b]fluoranthene	1.324	1.126	15.0	79	-0.01	17.93
94	t	Benzo[k]fluoranthene	1.170	1.081	7.6	86	-0.02	17.97
95	t	Benzo[a]pyrene	1.122	1.072	4.5	91	-0.01	18.47
96	t	Indeno[1,2,3-cd]pyrene	0.962	0.962	0.0	89	-0.02	20.29
98	t	Dibenz[a,h]anthracene	0.982	0.950	3.3	88	-0.03	20.33
100	t	Benzo[g,h,i]perylene	0.961	0.955	0.6	89	-0.03	20.75

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 16:03:46 2016 MSM

8.7.33

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EM5526-ICV5526
Lab FileID: M129475A.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129475a.D          Vial: 14
Acq On    : 22 Nov 2016  10:55 pm                     Operator: seanb1
Sample    : icv5526-50                                Inst    : Instrument #1
Misc      : op98591,em5526                            Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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.
106	I	Chrysene-d12a	1.000	1.000	0.0	135	0.00	15.95
107	t	Benzidine	0.795	0.912	-14.7	162	0.00	13.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 16:01:43 2016 MSM

8.7.34

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EM5526-ICV5525
Lab FileID: M129475.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129475.D          Vial: 14
Acq On    : 22 Nov 2016  10:55 pm                   Operator: seanb1
Sample    : icv5525-50                              Inst    : Instrument #1
Misc      : op98591,em5526                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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	133	-0.01	15.95
88	t	3,3'-Dichlorobenzidine	0.427	0.423	0.9	134	0.00	15.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 16:01:41 2016 MSM

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5526-ICV5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129476.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129476.D          Vial: 15
Acq On    : 22 Nov 2016  11:25 pm                   Operator: seanb1
Sample    : icv5525-50                              Inst    : Instrument #1
Misc      : op98591,em5526                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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	100	0.00	4.67
5	S	2-Fluorophenol	1.214	1.350	-11.2	102	0.00	3.71
8	S	Phenol-d5	1.562	1.608	-2.9	94	0.00	4.43
24	I	Naphthalene-d8	1.000	1.000	0.0	97	0.00	5.81
25	S	Nitrobenzene-d5	0.378	0.413	-9.3	105	0.00	5.13
47	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	8.15
51	S	2-Fluorobiphenyl	1.267	1.405	-10.9	103	0.00	7.14
69	I	Phenanthrene-d10	1.000	1.000	0.0	86	-0.01	10.77
73	S	2,4,6-Tribromophenol	0.105	0.112	-6.7	90	-0.01	9.51
83	I	Chrysene-d12	1.000	1.000	0.0	77	-0.02	15.94
85	S	Terphenyl-d14	0.809	0.913	-12.9	92	0.00	13.95

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 Copy of M129468.D MM5525.M          Mon Nov 28 15:56:20 2016   MSM
```

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EM5526-ICV5526
Lab FileID: M129477.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5526\M129477.D          Vial: 16
Acq On    : 22 Nov 2016  11:54 pm                   Operator: seanb1
Sample    : icv5526-50                              Inst    : Instrument #1
Misc      : op98591,em5526                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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.
111 I	Naphthalene-d8a	1.000	1.000	0.0	123	0.00	5.81
112	Hydroquinone	0.280	0.327	-16.8	135	0.00	6.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 15:56:22 2016 MSM

8.7.37

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5527-ICV5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129482.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5527\M129482.D          Vial: 2
Acq On    : 28 Nov 2016   2:07 pm                   Operator: kevinm2
Sample    : icv5525-50                              Inst    : Instrument #1
Misc      : op98591,em5527                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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	128	0.00	4.67
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	50.000	49.390	1.2	127	0.00	2.20
		----------	AvgRF	CCRF	% Dev	----------		
6	t	Indene	2.296	2.295	0.0	123	0.00	4.88
7	t	Cumene	3.426	3.213	6.2	114	0.00	4.07
13	t	Decane	0.681	0.657	3.5	123	0.00	4.54
18	t	Acetophenone	1.976	1.701	13.9	107	-0.01	4.99
24	I	Naphthalene-d8	1.000	1.000	0.0	121	-0.01	5.80
27	t	Quinoline	0.710	0.670	5.6	112	-0.03	6.19
40	t	2,3-Dichloroaniline	0.356	0.307	13.8	106	-0.02	7.01
45	t	1-Methylnaphthalene	0.698	0.620	11.2	106	-0.01	6.76
46	t	Dimethylnaphthalene	0.616	0.565	8.3	109	-0.02	7.50
47	I	Acenaphthene-d10	1.000	1.000	0.0	129	-0.02	8.14
53	t	Biphenyl	1.507	1.299	13.8	110	-0.02	7.27
69	I	Phenanthrene-d10	1.000	1.000	0.0	122	-0.03	10.76
82	t	Octadecane	0.419	0.343	18.1	104	-0.01	10.75
83	I	Chrysene-d12	1.000	1.000	0.0	121	-0.03	15.93
91	I	Perylene-d12	1.000	1.000	0.0	133	-0.02	18.56
99	t	7,12-Dimethylbenz(a)anthr	0.528	0.509	3.6	124	-0.03	17.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 15:48:00 2016 MSM

Initial Calibration Verification

Job Number: JC33175 **Sample:** EM5527-ICV5526
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M129482A.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5527\M129482a.D          Vial: 2
Acq On    : 28 Nov 2016   2:07 pm                    Operator: kevinm2
Sample    : icv5526-50                               Inst    : Instrument #1
Misc      : op98591,em5527                           Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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.
101	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	124	0.00	4.67
102	t	Benzaldehyde	1.107	0.942	14.9	110	0.00	4.34
103	I	Acenaphthene-d10a	1.000	1.000	0.0	124	-0.01	8.14
105	t	Atrazine	0.156	0.159	-1.9	131	-0.01	10.36

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 15:50:07 2016 MSM

8.7.39

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EM5527-ICV5525
Lab FileID: M129483.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5527\M129483.D          Vial: 3
Acq On    : 28 Nov 2016   3:26 pm                   Operator: kevinm2
Sample    : icv5525-50                              Inst    : Instrument #1
Misc      : op98591,em5527                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Wed Nov 23 15:58:02 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.
24	I	Naphthalene-d8	1.000	1.000	0.0	111	-0.01	5.80
41	t	Caprolactam	0.115	0.129	-12.2	132	-0.04	6.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Nov 28 15:51:51 2016 MSM

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EM5555-CC5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M130065.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5555\M130065.D          Vial: 2
Acq On    : 16 Dec 2016  10:10 pm                   Operator: juliusj
Sample    : cc5525-50                               Inst    : Instrument #1
Misc      : op99181,em5555                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Mon Dec 19 15:57:39 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	0.04	4.57
		----------	True	Calc.	% Drift	----------		
2	t	1,4-Dioxane	50.000	66.674	-33.3#	100	-0.06	2.08
		----------	AvgRF	CCRF	% Dev	----------		
3	t	Pyridine	0.978	1.461	-49.4#	99	0.01	2.42
4	t	N-Nitrosodimethylamine	0.594	0.697	-17.3	80	-0.03	2.39
5	S	2-Fluorophenol	1.214	1.418	-16.8	77	0.01	3.62
6	t	Indene	2.296	2.386	-3.9	72	0.03	4.77
7	t	Cumene	3.426	3.537	-3.2	71	0.02	3.97
8	S	Phenol-d5	1.562	1.872	-19.8	79	0.04	4.34
9	t	Phenol	1.680	1.974	-17.5	83	0.04	4.35
10	t	Aniline	1.717	1.569	8.6	69	0.04	4.34
11	t	bis(2-Chloroethyl)ether	1.054	1.288	-22.2#	87	0.04	4.38
12	t	2-Chlorophenol	1.420	1.468	-3.4	74	0.04	4.43
13	t	Decane	0.681	0.884	-29.8#	93	0.04	4.45
14	t	1,3-Dichlorobenzene	1.517	1.539	-1.5	72	0.04	4.53
15	t	1,4-Dichlorobenzene	1.485	1.519	-2.3	72	0.04	4.59
16	t	Benzyl alcohol	0.843	0.906	-7.5	74	0.04	4.69
17	t	1,2-Dichlorobenzene	1.468	1.454	1.0	71	0.04	4.71
18	t	Acetophenone	1.976	2.016	-2.0	71	0.04	4.89
19	t	2-Methylphenol	1.135	1.166	-2.7	76	0.04	4.80
20	t	2,2'-oxybis(1-Chloropropa	0.442	0.462	-4.5	76	0.04	4.79
21	t	3&4-Methylphenol	1.242	1.292	-4.0	77	0.05	4.92
22	t	n-Nitroso-di-n-propylamin	1.005	1.075	-7.0	73	0.04	4.89
23	t	Hexachloroethane	0.450	0.482	-7.1	75	0.04	4.97
24	I	Naphthalene-d8	1.000	1.000	0.0	68	0.05	5.68
25	S	Nitrobenzene-d5	0.378	0.410	-8.5	73	0.05	5.02
26	t	Nitrobenzene	0.364	0.392	-7.7	74	0.05	5.04
27	t	Quinoline	0.710	0.765	-7.7	73	0.06	6.08
28	t	Isophorone	0.646	0.729	-12.8	77	0.05	5.24
29	t	2-Nitrophenol	0.202	0.218	-7.9	72	0.05	5.32
30	t	2,4-Dimethylphenol	0.305	0.342	-12.1	71	0.05	5.37
31	t	Benzoic acid	0.242	0.300	-24.0#	81	0.07	5.52
32	t	bis(2-Chloroethoxy)methan	0.329	0.398	-21.0#	83	0.05	5.44
33	t	2,4-Dichlorophenol	0.278	0.289	-4.0	73	0.05	5.57
34	t	2,6-Dichlorophenol	0.265	0.283	-6.8	74	0.05	5.78
35	t	1,3,5-Trichlorobenzene	0.292	0.324	-11.0	76	0.04	5.33
36	t	1,2,4-Trichlorobenzene	0.277	0.303	-9.4	74	0.05	5.63
37	t	1,2,3-Trichlorobenzene	0.268	0.290	-8.2	75	0.05	5.86

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EM5555-CC5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M130065.D
Project: BMSMC, Building 5 Area, PR

38	t	Naphthalene	0.967	1.045	-8.1	72	0.04	5.70
39	t	4-Chloroaniline	0.404	0.401	0.7	69	0.05	5.77
40	t	2,3-Dichloroaniline	0.356	0.377	-5.9	73	0.06	6.87
41	t	Caprolactam	0.115	0.135	-17.4	85	0.06	6.16
42	t	Hexachlorobutadiene	0.146	0.164	-12.3	77	0.05	5.83
43	t	4-Chloro-3-methylphenol	0.315	0.345	-9.5	73	0.06	6.36
44	t	2-Methylnaphthalene	0.617	0.622	-0.8	67	0.05	6.49
45	t	1-Methylnaphthalene	0.698	0.719	-3.0	70	0.06	6.62
46	t	Dimethylnaphthalene	0.616	0.634	-2.9	69	0.06	7.35
47	I	Acenaphthene-d10	1.000	1.000	0.0	72	0.06	7.98
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	88.595	11.4	65	-0.03	6.70
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.314	0.336	-7.0	81	0.06	6.89
50	t	2,4,5-Trichlorophenol	0.341	0.361	-5.9	78	0.06	6.95
51	S	2-Fluorobiphenyl	1.267	1.281	-1.1	73	0.05	6.99
52	t	2-Chloronaphthalene	1.072	1.070	0.2	74	0.05	7.15
53	t	Biphenyl	1.507	1.496	0.7	71	0.05	7.12
54	t	2-Nitroaniline	0.358	0.408	-14.0	79	0.06	7.32
55	t	Dimethylphthalate	1.358	1.391	-2.4	73	0.06	7.60
56	t	Acenaphthylene	1.885	1.815	3.7	70	0.06	7.76
57	t	2,6-Dinitrotoluene	0.291	0.307	-5.5	75	0.06	7.69
58	t	3-Nitroaniline	0.376	0.361	4.0	68	0.07	7.95
59	t	Acenaphthene	1.195	1.118	6.4	66	0.06	8.03
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	114.509	-14.5	88	0.08	8.14
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.236	0.200	15.3	61	0.09	8.35
62	t	Dibenzofuran	1.580	1.617	-2.3	73	0.06	8.32
63	t	2,4-Dinitrotoluene	0.387	0.418	-8.0	75	0.08	8.35
64	t	2,3,4,6-Tetrachlorophenol	0.226	0.287	-27.0#	92	0.08	8.56
65	t	Diethylphthalate	1.520	1.429	6.0	68	0.08	8.78
66	t	Fluorene	1.369	1.318	3.7	69	0.08	8.89
67	t	4-Chlorophenyl-phenylethe	0.509	0.553	-8.6	80	0.08	8.93
68	t	4-Nitroaniline	0.351	0.342	2.6	67	0.09	8.99
69	I	Phenanthrene-d10	1.000	1.000	0.0	76	0.07	10.58
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	53.785	-7.6	83	0.06	9.06
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.581	0.555	4.5	73	0.05	9.15
72	t	1,2-Diphenylhydrazine	0.838	0.801	4.4	73	0.05	9.20
73	S	2,4,6-Tribromophenol	0.105	0.108	-2.9	77	0.04	9.33
74	t	4-Bromophenyl-phenylether	0.194	0.202	-4.1	79	0.09	9.79
75	t	Hexachlorobenzene	0.217	0.213	1.8	75	0.05	9.89
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	100.000	119.545	-19.5	96	0.06	10.29
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.071	1.056	1.4	75	0.07	10.62
78	t	Anthracene	1.121	1.076	4.0	74	0.07	10.71
79	t	Carbazole	1.149	1.102	4.1	72	0.08	11.07

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EM5555-CC5525
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M130065.D
Project: BMSMC, Building 5 Area, PR

80	t	Di-n-butylphthalate	1.655	1.466	11.4	65	0.00	11.86
81	t	Fluoranthene	1.174	1.167	0.6	75	0.11	12.90
82	t	Octadecane	0.419	0.402	4.1	76	0.08	10.57
83	I	Chrysene-d12	1.000	1.000	0.0	80	0.08	15.73
84	t	Pyrene	1.317	1.197	9.1	76	0.03	13.33
85	S	Terphenyl-d14	0.809	0.800	1.1	83	0.04	13.74
86	t	Butylbenzylphthalate	0.843	0.668	20.8#	64	0.07	14.79
87	t	Benzo[a]anthracene	1.153	1.099	4.7	80	0.08	15.71
88	t	3,3'-Dichlorobenzidine	0.427	0.389	8.9	75	0.08	15.74
89	t	Chrysene	1.036	0.994	4.1	80	0.07	15.78
90	t	bis(2-Ethylhexyl)phthalat	1.109	0.918	17.2	67	0.08	16.01
91	I	Perylene-d12	1.000	1.000	0.0	76	0.08	18.35
92	t	Di-n-octylphthalate	2.227	1.969	11.6	66	0.12	17.23
93	t	Benzo[b]fluoranthene	1.324	1.296	2.1	76	0.08	17.72
94	t	Benzo[k]fluoranthene	1.170	1.129	3.5	75	0.09	17.76
95	t	Benzo[a]pyrene	1.122	1.064	5.2	76	0.02	18.25
96	t	Indeno[1,2,3-cd]pyrene	0.962	1.010	-5.0	79	0.12	20.04
97	t	Dibenz(a,h)acridine	0.901	0.943	-4.7	80	0.10	19.69
98	t	Dibenz[a,h]anthracene	0.982	1.032	-5.1	80	0.11	20.08
99	t	7,12-Dimethylbenz(a)anthr	0.528	0.551	-4.4	77	0.07	17.71
100	t	Benzo[g,h,i]perylene	0.961	1.048	-9.1	82	0.11	20.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Dec 19 16:01:04 2016 MSM

8.7.41

8

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EM5555-CC5526
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** M130066.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EM5555\M130066.D          Vial: 3
Acq On    : 16 Dec 2016  10:40 pm                   Operator: juliusj
Sample    : cc5526-50                               Inst    : Instrument #1
Misc      : op99181,em5555                          Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\MSDCHEM\1\METHODS\MM5525.M (RTE Integrator)
Title        : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update  : Mon Dec 19 15:57:39 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.
101	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	82	0.04	4.57
102	t	Benzaldehyde	1.107	0.964	12.9	75	-0.06	4.25
103	I	Acenaphthene-d10a	1.000	1.000	0.0	80	0.05	7.97
104	I	1,2,4,5-Tetrachlorobenzen	0.446	0.537	-20.4#	100	0.04	6.71
105	t	Atrazine	0.156	0.202	-29.5#	107	0.11	10.19
106	I	Chrysene-d12a	1.000	1.000	0.0	92	0.07	15.72
107	t	Benzidine	0.795	0.515	35.2#	62	0.04	13.25
108	s	1-chlorooctadecane	0.280	0.321	-14.6	103	0.04	12.90
109	I	Phenanthrene-d10a	1.000	1.000	0.0	81	0.06	10.57
110	s	o-terphenyl	0.504	0.648	-28.6#	113	0.08	11.38
111	I	Naphthalene-d8a	1.000	1.000	0.0	76	0.05	5.68
112		Hydroquinone	0.280	0.402	-43.6#	102	-0.04	6.19
113		Chrysene-d12b	1.000	1.000	0.0	92	0.07	15.72
114		2,3,7,8-TCDD		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
Copy of M129468.D MM5525.M Mon Dec 19 16:01:18 2016 MSM

Initial Calibration Summary

Job Number: JC33175 **Sample:** EP4851-ICC4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109289.D
Project: BMSMC, Building 5 Area, PR

Response Factor Report MSP

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration

Calibration Files
2 =P109293.D 5 =P109292.D 25 =P109290.D 80 =P109288.D
100 =P109287.D 50 =P109289.D 10 =P109291.D 1 =P109294.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------									
2) 1,4-Dioxane	0.687	0.667	0.615	0.648	0.650	0.611	0.588	0.882	0.668	13.75
3) Pyridine	1.791	1.886	1.749	1.777	1.769	1.722	1.710	1.551	1.744	5.43
4) N-Nitrosodim	0.782	0.735	0.706	0.737	0.724	0.709	0.667	0.768	0.728	5.01
5) 2-Fluorophen	1.689	1.652	1.594	1.641	1.607	1.602	1.494	1.544	1.603	3.86
6) Indene	2.950	2.792	2.419	2.305	2.188	2.300	2.376	2.837	2.521	11.57
7) Cumene	4.315	4.200	3.748	3.637	3.517	3.614	3.683	4.158	3.859	8.09
8) Phenol-d5	2.153	2.195	2.047	2.011	1.901	2.022	1.968	2.238	2.067	5.66
9) Phenol	2.541	2.584	2.285	2.126	1.989	2.185	2.248	2.538	2.312	9.50
10) Aniline	2.993	2.922	2.466	2.114		2.206	2.489	2.936	2.590	14.03
11) bis(2-Chloro	1.799	1.786	1.555	1.459	1.404	1.458	1.513	1.736	1.589	10.09
12) 2-Chlorophen	1.666	1.621	1.447	1.346	1.288	1.349	1.447	1.652	1.477	10.18
13) Decane	1.447	1.370	1.154	1.012	0.984	1.059	1.178	1.498	1.213	16.56
----- Quadratic regression ----- Coefficient = 0.9999										
Response Ratio = 0.02012 + 1.12943 *A + -0.06236 *A^2										
14) 1,3-Dichloro	1.831	1.680	1.496	1.430	1.359	1.427	1.530	1.845	1.575	11.95
15) 1,4-Dichloro	1.758	1.737	1.488	1.429	1.381	1.427	1.469	1.730	1.552	10.30
16) Benzyl alcoh	0.945	1.021	1.000	0.980	0.944	0.984	0.990	0.880	0.968	4.57
17) 1,2-Dichloro	1.735	1.644	1.422	1.345	1.297	1.361	1.393	1.614	1.477	11.06
18) Acetophenone	2.489	2.297	2.098	1.997	1.913	2.021	2.158	2.411	2.173	9.52
19) 2-Methylphen	1.562	1.507	1.323	1.232	1.154	1.248	1.349	1.596	1.371	12.01
20) 2,2'-oxybis(	0.501	0.515	0.471	0.455	0.429	0.446	0.445	0.478	0.467	6.32
21) 3&4-Methylph	1.522	1.616	1.397	1.332	1.267	1.352	1.393	1.627	1.438	9.33
22) n-Nitroso-di	1.548	1.500	1.286	1.218	1.133	1.240	1.278	1.584	1.348	12.59
23) Hexachloroet	0.640	0.604	0.552	0.529	0.512	0.522	0.525	0.537	0.553	8.23
24) I Naphthalene-d8	----------ISTD----------									
25) Nitrobenzene	0.607	0.583	0.501	0.498	0.475	0.501	0.536	0.580	0.535	9.17
26) Nitrobenzene	0.611	0.569	0.499	0.480	0.460	0.491	0.513	0.596	0.527	10.76
27) Quinoline	0.790	0.803	0.716	0.711	0.703	0.731	0.737	0.771	0.745	5.09
28) Isophorone	1.034	0.980	0.875	0.850	0.816	0.879	0.900	1.047	0.923	9.41
29) 2-Nitropheno	0.231	0.227	0.204	0.204	0.200	0.204	0.209	0.222	0.213	5.72
30) 2,4-Dimethyl	0.398	0.391	0.376	0.378	0.375	0.389	0.383	0.384	0.384	2.12
31) Benzoic acid		0.213	0.268	0.306	0.274	0.312	0.241		0.269	13.98
32) bis(2-Chloro	0.563	0.547	0.474	0.465	0.445	0.468	0.495	0.546	0.500	9.07
33) 2,4-Dichloro	0.321	0.332	0.303	0.298	0.290	0.304	0.298	0.317	0.308	4.59
34) 2,6-Dichloro	0.331	0.321	0.280	0.279	0.274	0.285	0.285	0.315	0.296	7.53
35) 1,3,5-Trichl	0.424	0.397	0.349	0.336	0.329	0.340	0.353	0.404	0.367	9.93
36) 1,2,4-Trichl	0.393	0.384	0.331	0.320	0.316	0.323	0.342	0.383	0.349	9.23
37) 1,2,3-Trichl	0.370	0.351	0.319	0.309	0.304	0.314	0.327	0.325	0.328	6.80
38) Naphthalene	1.222	1.197	1.016	0.964	0.926	0.980	1.045	1.183	1.067	10.97
39) 4-Chloroanil	0.519	0.509	0.441	0.420	0.409	0.433	0.463	0.474	0.459	8.77
40) 2,3-Dichloro	0.428	0.424	0.371	0.364	0.353	0.369	0.376	0.396	0.385	7.30
41) Caprolactam	0.169	0.173	0.157	0.152	0.152	0.159	0.155	0.178	0.162	6.10
42) Hexachlorobu	0.232	0.240	0.200	0.204	0.197	0.202	0.198	0.220	0.212	7.95

Initial Calibration Summary

Job Number: JC33175 **Sample:** EP4851-ICC4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109289.D
Project: BMSMC, Building 5 Area, PR

```
43) 4-Chloro-3-m 0.394 0.399 0.362 0.355 0.352 0.373 0.368 0.412 0.377   5.87
44) 2-Methylnaph 0.673 0.699 0.606 0.566 0.552 0.587 0.578 0.673 0.617   9.14
45) 1-Methylnaph 0.807 0.799 0.712 0.664 0.651 0.686 0.729 0.827 0.734   9.34
46) Dimethylnaph 0.727 0.723 0.629 0.607 0.595 0.626 0.639 0.710 0.657   8.26

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.223 0.272 0.304 0.333 0.321 0.318 0.274 0.165 0.276  20.77
         ----- Quadratic regression -----                Coefficient =  0.9992
              Response Ratio = -0.01727 + 0.32992 *A + -0.00042 *A^2

49) 2,4,6-Trichl 0.422 0.424 0.369 0.362 0.354 0.363 0.374 0.428 0.387   8.16
50) 2,4,5-Trichl 0.436 0.424 0.394 0.391 0.381 0.393 0.399 0.392 0.401   4.64
51) 2-Fluorobiph 1.588 1.543 1.328 1.245 1.208 1.285 1.390 1.538 1.391  10.64
52) 2-Chloronaph 1.285 1.240 1.064 1.001 0.968 1.019 1.110 1.295 1.123  11.80
53) Biphenyl     1.727 1.651 1.425 1.347 1.312 1.388 1.491 1.690 1.504  10.87
54) 2-Nitroanili 0.470 0.476 0.441 0.441 0.426 0.445 0.447 0.462 0.451   3.70
55) Dimethylphth 1.491 1.435 1.267 1.218 1.188 1.250 1.328 1.455 1.329   8.79
56) Acenaphthyle 2.105 2.104 1.817 1.702 1.638 1.770 1.904 1.996 1.879   9.46
57) 2,6-Dinitrot 0.304 0.294 0.280 0.277 0.276 0.282 0.290 0.255 0.282   5.22
58) 3-Nitroanili 0.348 0.373 0.348 0.339 0.331 0.351 0.352 0.326 0.346   4.16
59) Acenaphthene 1.241 1.210 1.077 1.049 1.014 1.076 1.117 1.254 1.130   8.19
60) 2,4-Dinitrop 0.029 0.068 0.124 0.167 0.167 0.159 0.097       0.116  46.55
         ----- Quadratic regression -----                Coefficient =  0.9986
              Response Ratio = -0.02530 + 0.15776 *A + 0.00322 *A^2

61) 4-Nitropheno 0.208 0.246 0.241 0.250 0.252 0.250 0.232 0.192 0.234   9.58
62) Dibenzofuran 1.842 1.866 1.626 1.506 1.462 1.584 1.686 1.851 1.678   9.55
63) 2,4-Dinitrot 0.387 0.413 0.396 0.390 0.373 0.396 0.402 0.380 0.392   3.18
64) 2,3,4,6-Tetr 0.315 0.319 0.315 0.326 0.325 0.323 0.310 0.272 0.313   5.58
65) Diethylphtha 1.573 1.543 1.389 1.357 1.320 1.406 1.409 1.512 1.439   6.42
66) Fluorene     1.488 1.481 1.309 1.265 1.220 1.284 1.352 1.411 1.351   7.40
67) 4-Chlorophen 0.754 0.756 0.650 0.663 0.646 0.668 0.687 0.720 0.693   6.43
68) 4-Nitroanili 0.346 0.370 0.354 0.332 0.324 0.353 0.351 0.310 0.342   5.65

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro- 0.063 0.084 0.117 0.134 0.137 0.130 0.104       0.110  25.24
         ----- Quadratic regression -----                Coefficient =  0.9998
              Response Ratio = -0.00507 + 0.12597 *A + 0.00517 *A^2

71) n-Nitrosodip 0.622 0.596 0.529 0.516 0.511 0.517 0.535 0.564 0.549   7.50
72) 1,2-Diphenyl 1.052 1.020 0.924 0.875 0.870 0.893 0.947 1.085 0.958   8.72
73) 2,4,6-Tribro 0.107 0.104 0.100 0.097 0.097 0.098 0.095 0.101 0.100   4.06
74) 4-Bromopheny 0.246 0.232 0.222 0.221 0.221 0.218 0.228 0.243 0.229   4.66
75) Hexachlorobe 0.238 0.240 0.218 0.213 0.210 0.214 0.224 0.236 0.224   5.47
76) Pentachlorop 0.090 0.106 0.127 0.142 0.146 0.138 0.112       0.123  17.02
         ----- Quadratic regression -----                Coefficient =  0.9999
              Response Ratio = -0.00702 + 0.13071 *A + 0.00337 *A^2

77) Phenanthrene 1.153 1.105 1.010 0.956 0.944 0.976 1.020 1.173 1.042   8.63
78) Anthracene   1.159 1.152 1.021 0.964 0.937 0.980 1.045 1.136 1.049   8.49
79) Carbazole    1.144 1.136 1.042 0.999 0.989 1.020 1.040 1.125 1.062   5.97
80) Di-n-butylph 1.445 1.478 1.386 1.357 1.338 1.382 1.375 1.394 1.394   3.28
81) Fluoranthene 1.377 1.372 1.271 1.250 1.217 1.282 1.264 1.278 1.289   4.40
82) Octadecane   0.514 0.517 0.478 0.444 0.436 0.458 0.483 0.537 0.483   7.58

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.412 1.389 1.261 1.233 1.248 1.251 1.260 1.363 1.302   5.59
85) Terphenyl-d1 0.870 0.881 0.784 0.773 0.786 0.785 0.783 0.844 0.813   5.42
86) Butylbenzylp 0.632 0.648 0.621 0.625 0.622 0.629 0.591 0.607 0.622   2.72
87) Benzo[a]anth 1.252 1.228 1.102 1.085 1.076 1.114 1.118 1.309 1.160   7.65
```

8.7.43

8

Initial Calibration Summary

Job Number: JC33175 **Sample:** EP4851-ICC4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109289.D
Project: BMSMC, Building 5 Area, PR

```
 88) 3,3'-Dichlor 0.416 0.403 0.385 0.379 0.373 0.390 0.377 0.402 0.391   3.90
 89) Chrysene     1.167 1.106 0.981 0.935 0.919 0.957 1.010 1.151 1.028   9.63
 90) bis(2-Ethylh 0.814 0.833 0.775 0.746 0.744 0.767 0.771 0.723 0.772   4.76

 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 1.724 1.773 1.748 1.889 1.842 1.819 1.654 1.577 1.753   5.82
 93) Benzo[b]fluo 1.341 1.372 1.284 1.373 1.259 1.340 1.286 1.321 1.322   3.20
 94) Benzo[k]fluo 1.262 1.234 1.126 1.088 1.047 1.090 1.141 1.269 1.157   7.45
 95) Benzo[a]pyre 1.208 1.201 1.093 1.165 1.139 1.129 1.102 1.160 1.150   3.66
 96) Indeno[1,2,3 1.041 0.993 0.932 1.002 1.037 0.959 0.898 1.046 0.989   5.51
 97) Dibenz(a,h)a 0.949 0.915 0.889 0.958 0.965 0.939 0.876 0.902 0.924   3.60
 98) Dibenz[a,h]a 1.070 1.017 0.908 0.984 1.030 0.942 0.942 1.013 0.988   5.49
 99) 7,12-Dimethy 0.538 0.570 0.553 0.597 0.563 0.579 0.517 0.503 0.552   5.73
100) Benzo[g,h,i] 1.089 1.036 0.936 1.009 1.054 0.957 0.947 1.036 1.008   5.54
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MP4851.M          Tue Nov 29 17:10:01 2016
```

8.7.43

8

Initial Calibration Summary

Job Number: JC33175 **Sample:** EP4852-ICC4852
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109299.D
Project: BMSMC, Building 5 Area, PR

```
                          Response Factor Report  MSP

  Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
  Title        : Semi Volatile Extractables by GC/MS
  Last Update  : Tue Nov 29 14:42:56 2016
  Response via : Initial Calibration

  Calibration Files
  2   =P109303.D  5   =P109302.D  25  =P109300.D  80  =P109298.D
  100 =P109297.D  50  =P109299.D  10  =P109301.D  1   =P109304.D

   Compound          2     5     25    80    100   50    10    1     Avg %RSD
  ---------------------------------------------------------------------------

158) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
159) Benzaldehyde 1.432 1.350 1.217 1.133 1.099 1.166 1.265 1.343 1.251   9.39

160) I   Phenanthrene-d10b     ----------------ISTD---------------------
161) Atrazine     0.208 0.215 0.208 0.201 0.196 0.200 0.210       0.205   3.21

162) I   Chrysene-d12b         ----------------ISTD---------------------
163) Benzidine    0.812 0.811 0.757 0.589       0.652 0.810 0.846 0.754  12.82

164) I   Naphthalene-d8b       ----------------ISTD---------------------
165) Hydroquinone 0.377 0.417 0.417 0.422 0.426 0.413 0.406 0.364 0.405   5.51

166) I   Acenaphthene-d10b     ----------------ISTD---------------------
167) 1,2,4,5-Tetr 0.563 0.603 0.516 0.493 0.482 0.517 0.541 0.603 0.539   8.63
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MP4851.M          Tue Nov 29 17:10:01 2016
```

8.7.44

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4852-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109307.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4852\P109307.D Vial: 12
Acq On : 29 Nov 2016 2:37 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 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	89	-0.02	4.64
3	t	Pyridine	1.744	1.812	-3.9	94	0.06	2.60
10	t	Aniline	2.590	2.709	-4.6	109	-0.01	4.40
16	t	Benzyl alcohol	0.968	1.097	-13.3	99	-0.02	4.74
24	I	Naphthalene-d8	1.000	1.000	0.0	98	-0.02	5.55
39	t	4-Chloroaniline	0.459	0.433	5.7	98	-0.02	5.60
44	t	2-Methylnaphthalene	0.617	0.542	12.2	91	-0.02	6.06
47	I	Acenaphthene-d10	1.000	1.000	0.0	95	-0.03	6.94
54	t	2-Nitroaniline	0.451	0.458	-1.6	98	-0.03	6.53
58	t	3-Nitroaniline	0.346	0.367	-6.1	99	-0.03	6.90
62	t	Dibenzofuran	1.678	1.603	4.5	96	-0.03	7.15
68	t	4-Nitroaniline	0.342	0.387	-13.2	104	-0.05	7.55
69	I	Phenanthrene-d10	1.000	1.000	0.0	106	-0.04	8.78
79	t	Carbazole	1.062	0.979	7.8	102	-0.04	9.18
83	I	Chrysene-d12	1.000	1.000	0.0	110	-0.06	14.00
91	I	Perylene-d12	1.000	1.000	0.0	122	-0.05	17.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Tue Nov 29 17:07:51 2016

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4852-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109308.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4852\P109308.D Vial: 13
Acq On : 29 Nov 2016 3:06 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 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	101	-0.02	4.64
9	t	Phenol	2.312	2.128	8.0	98	-0.03	4.40
12	t	2-Chlorophenol	1.477	1.463	0.9	109	-0.02	4.49
19	t	2-Methylphenol	1.371	1.388	-1.2	112	-0.02	4.83
21	t	3&4-Methylphenol	1.438	1.457	-1.3	109	-0.02	4.94
24	I	Naphthalene-d8	1.000	1.000	0.0	94	-0.02	5.55
29	t	2-Nitrophenol	0.213	0.223	-4.7	103	-0.02	5.28
30	t	2,4-Dimethylphenol	0.384	0.445	-15.9	108	-0.02	5.32
31	t	Benzoic acid	0.269	0.278	-3.3	84	-0.04	5.41
33	t	2,4-Dichlorophenol	0.308	0.324	-5.2	100	-0.02	5.46
34		2,6-Dichlorophenol	0.296	0.310	-4.7	102	-0.02	5.62
43	t	4-Chloro-3-methylphenol	0.377	0.388	-2.9	98	-0.03	5.95
47	I	Acenaphthene-d10	1.000	1.000	0.0	97	-0.03	6.94
49	t	2,4,6-Trichlorophenol	0.387	0.398	-2.8	106	-0.02	6.28
50	t	2,4,5-Trichlorophenol	0.401	0.395	1.5	97	-0.03	6.32
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	100.324	-0.3	86	-0.03	7.00
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.234	0.249	-6.4	96	-0.04	7.08
64		2,3,4,6-Tetrachlorophenol	0.313	0.329	-5.1	98	-0.03	7.28
69	I	Phenanthrene-d10	1.000	1.000	0.0	96	-0.04	8.78
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	52.254	-4.5	100	-0.04	7.59
76	t	Pentachlorophenol	100.000	104.160	-4.2	94	-0.04	8.52
83	I	Chrysene-d12	1.000	1.000	0.0	96	-0.06	14.00
91	I	Perylene-d12	1.000	1.000	0.0	110	-0.05	17.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Tue Nov 29 17:07:52 2016

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4852-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109309.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4852\P109309.D Vial: 14
Acq On : 29 Nov 2016 3:34 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 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	111	-0.02	4.64
5	S	2-Fluorophenol	1.603	1.529	4.6	106	-0.02	3.68
8	S	Phenol-d5	2.067	1.939	6.2	106	-0.03	4.39
24	I	Naphthalene-d8	1.000	1.000	0.0	111	-0.02	5.55
25	S	Nitrobenzene-d5	0.535	0.525	1.9	117	-0.02	5.03
47	I	Acenaphthene-d10	1.000	1.000	0.0	110	-0.03	6.94
51	S	2-Fluorobiphenyl	1.391	1.353	2.7	116	-0.02	6.34
69	I	Phenanthrene-d10	1.000	1.000	0.0	106	-0.04	8.78
73	S	2,4,6-Tribromophenol	0.100	0.097	3.0	105	-0.03	7.82
83	I	Chrysene-d12	1.000	1.000	0.0	101	-0.06	14.00
85	S	Terphenyl-d14	0.813	0.849	-4.4	110	-0.04	11.80
91	I	Perylene-d12	1.000	1.000	0.0	117	-0.05	17.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Tue Nov 29 17:07:53 2016

8.7.47

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4852-ICV4852
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109311.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4852\P109311.D          Vial: 16
Acq On    : 29 Nov 2016   4:32 pm                   Operator: robertl1
Sample    : ICV4852-50                              Inst    : MSP
Misc      : OP98670,EP4852                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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.
162 I	Chrysene-d12b	1.000	1.000	0.0	146	0.00	14.00
163	Benzidine	0.754	0.830	-10.1	186	0.00	11.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Tue Nov 29 17:07:54 2016

8.7.48

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4852-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109311A.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4852\P109311A.D          Vial: 16
Acq On    : 29 Nov 2016   4:32 pm                    Operator: robertl1
Sample    : ICV4851-50                               Inst    : MSP
Misc      : OP98670,EP4852                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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	143	-0.05	14.00
88 t	3,3'-Dichlorobenzidine	0.391	0.392	-0.3	144	-0.04	14.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Tue Nov 29 17:07:55 2016

8.7.49

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4853-ICV4852
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109314A.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4853\P109314A.D          Vial: 2
Acq On    : 29 Nov 2016   8:37 pm                    Operator: juliusj
Sample    : ICV4852-50                               Inst    : MSP
Misc      : OP98670,EP4853                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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.
158	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	111	-0.02	4.62
160	I	Phenanthrene-d10b	1.000	1.000	0.0	105	-0.03	8.75
162	I	Chrysene-d12b	1.000	1.000	0.0	94	-0.04	13.97
164	I	Naphthalene-d8b	1.000	1.000	0.0	106	-0.02	5.54
166	I	Acenaphthene-d10b	1.000	1.000	0.0	106	-0.02	6.92
167		1,2,4,5-Tetrachlorobenzen	0.539	0.594	-10.2	122	-0.02	6.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Wed Nov 30 09:44:52 2016

8.7.50

8

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: EP4853-ICV4851
Lab FileID: P109314.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EP4853\P109314.D Vial: 2
Acq On : 29 Nov 2016 8:37 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 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	111	-0.04	4.62
4	t	N-Nitrosodimethylamine	0.728	0.543	25.4	85	-0.05	2.46
11	t	bis(2-Chloroethyl)ether	1.589	1.623	-2.1	123	-0.04	4.42
		----------	AvgRF	CCRF	% Dev	----------		
14	t	1,3-Dichlorobenzene	1.575	1.493	5.2	116	-0.04	4.57
15	t	1,4-Dichlorobenzene	1.552	1.447	6.8	112	-0.04	4.63
17	t	1,2-Dichlorobenzene	1.477	1.401	5.1	114	-0.04	4.74
20	t	2,2'-oxybis(1-Chloropropa	0.467	0.464	0.6	115	-0.03	4.81
22		n-Nitroso-di-n-propylamin	1.348	1.189	11.8	106	-0.04	4.90
23	t	Hexachloroethane	0.553	0.534	3.4	113	-0.04	4.99
24	I	Naphthalene-d8	1.000	1.000	0.0	108	-0.04	5.54
26	t	Nitrobenzene	0.527	0.487	7.6	107	-0.04	5.03
28	t	Isophorone	0.923	0.828	10.3	101	-0.04	5.20
32	t	bis(2-Chloroethoxy)methan	0.500	0.523	-4.6	120	-0.04	5.35
36	t	1,2,4-Trichlorobenzene	0.349	0.336	3.7	112	-0.04	5.49
38	t	Naphthalene	1.067	0.958	10.2	105	-0.04	5.55
42	t	Hexachlorobutadiene	0.212	0.208	1.9	111	-0.04	5.64
47	I	Acenaphthene-d10	1.000	1.000	0.0	105	-0.05	6.92
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	108.898	-8.9	114	-0.04	6.17
		----------	AvgRF	CCRF	% Dev	----------		
52	t	2-Chloronaphthalene	1.123	1.155	-2.8	119	-0.04	6.42
55	t	Dimethylphthalate	1.329	1.247	6.2	104	-0.04	6.66
56	t	Acenaphthylene	1.879	1.716	8.7	102	-0.05	6.79
57	t	2,6-Dinitrotoluene	0.282	0.281	0.4	105	-0.05	6.72
59	t	Acenaphthene	1.130	1.062	6.0	103	-0.05	6.95
63	t	2,4-Dinitrotoluene	0.392	0.366	6.6	97	-0.05	7.11
65	t	Diethylphthalate	1.439	1.307	9.2	97	-0.05	7.36
66	t	Fluorene	1.351	1.217	9.9	99	-0.06	7.50
67	t	4-Chlorophenyl-phenylethe	0.693	0.654	5.6	103	-0.05	7.50
69	I	Phenanthrene-d10	1.000	1.000	0.0	102	-0.07	8.75
71	t	n-Nitrosodiphenylamine	0.549	0.452	17.7	89	-0.06	7.63
72	t	1,2-Diphenylhydrazine	0.958	0.855	10.8	98	-0.06	7.68
74	t	4-Bromophenyl-phenylether	0.229	0.213	7.0	100	-0.06	8.11
75	t	Hexachlorobenzene	0.224	0.206	8.0	99	-0.06	8.21
77	t	Phenanthrene	1.042	0.947	9.1	99	-0.07	8.79

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4853-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109314.D
Project: BMSMC, Building 5 Area, PR

78	t	Anthracene	1.049	0.940	10.4	98	-0.07	8.87
80	t	Di-n-butylphthalate	1.394	1.249	10.4	92	-0.07	9.83
81	t	Fluoranthene	1.289	1.132	12.2	90	-0.09	10.90
83	I	Chrysene-d12	1.000	1.000	0.0	92	-0.09	13.97
84	t	Pyrene	1.302	1.226	5.8	90	-0.09	11.34
86	t	Butylbenzylphthalate	0.622	0.628	-1.0	91	-0.08	12.92
87	t	Benzo[a]anthracene	1.160	1.081	6.8	89	-0.09	13.94
89	t	Chrysene	1.028	0.912	11.3	87	-0.10	14.02
90	t	bis(2-Ethylhexyl)phthalat	0.772	0.741	4.0	89	-0.07	14.32
91	I	Perylene-d12	1.000	1.000	0.0	88	-0.09	17.00
92	t	Di-n-octylphthalate	1.753	1.763	-0.6	85	-0.08	15.76
93	t	Benzo[b]fluoranthene	1.322	1.204	8.9	79	-0.10	16.25
94	t	Benzo[k]fluoranthene	1.157	1.103	4.7	89	-0.11	16.31
95	t	Benzo[a]pyrene	1.150	1.123	2.3	88	-0.10	16.88
96	t	Indeno[1,2,3-cd]pyrene	0.989	1.002	-1.3	92	-0.10	18.93
98	t	Dibenz[a,h]anthracene	0.988	0.957	3.1	90	-0.10	18.99
100	t	Benzo[g,h,i]perylene	1.008	0.998	1.0	92	-0.10	19.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Wed Nov 30 09:44:51 2016

8.7.51
8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4853-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109315.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4853\P109315.D          Vial: 3
Acq On    : 29 Nov 2016   9:06 pm                   Operator: juliusj
Sample    : ICV4851-50                              Inst    : MSP
Misc      : OP98670,EP4853                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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	105	-0.04	4.62
2	t	1,4-Dioxane	0.668	0.528	21.0	91	-0.05	2.17
6	t	Indene	2.521	2.323	7.9	106	-0.04	4.80
7	t	Cumene	3.859	3.228	16.4	94	-0.04	4.03
		----------	True	Calc.	% Drift		----------	
13	t	Decane	50.000	48.404	3.2	103	-0.04	4.50
		----------	AvgRF	CCRF	% Dev		----------	
18	t	Acetophenone	2.173	1.914	11.9	99	-0.04	4.91
24	I	Naphthalene-d8	1.000	1.000	0.0	122	-0.04	5.53
26	t	Nitrobenzene	0.527	0.420	20.3	104	-0.17	4.91
27	t	Quinoline	0.745	0.577	22.6	96	-0.05	5.78
40	t	2,3-Dichloroaniline	0.385	0.272	29.4	90	-0.04	6.26
45	t	1-Methylnaphthalene	0.734	0.530	27.8	94	-0.04	6.12
46	t	Dimethylnaphthalene	0.657	0.503	23.4	98	-0.05	6.53
47	I	Acenaphthene-d10	1.000	1.000	0.0	102	-0.05	6.92
53	t	Biphenyl	1.504	1.317	12.4	97	-0.04	6.40
69	I	Phenanthrene-d10	1.000	1.000	0.0	98	-0.07	8.75
82	t	Octadecane	0.483	0.459	5.0	98	-0.06	8.65
83	I	Chrysene-d12	1.000	1.000	0.0	102	-0.10	13.95
91	I	Perylene-d12	1.000	1.000	0.0	108	-0.10	16.99
99	t	7,12-Dimethylbenz(a)anthr	0.552	0.528	4.3	98	-0.11	16.26

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 P109299a.D MP4851.M          Wed Nov 30 09:44:53 2016
```

8.7.52

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4853-ICV4852
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109315A.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4853\P109315A.D          Vial: 3
Acq On    : 29 Nov 2016   9:06 pm                    Operator: juliusj
Sample    : ICV4852-50                               Inst    : MSP
Misc      : OP98670,EP4853                           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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.
158	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	105	-0.02	4.62
159		Benzaldehyde	1.251	1.039	16.9	93	-0.02	4.29
160	I	Phenanthrene-d10b	1.000	1.000	0.0	101	-0.03	8.75
161		Atrazine	0.205	0.224	-9.3	113	-0.04	8.36
162	I	Chrysene-d12b	1.000	1.000	0.0	104	-0.05	13.95
164	I	Naphthalene-d8b	1.000	1.000	0.0	119	-0.02	5.53
166	I	Acenaphthene-d10b	1.000	1.000	0.0	103	-0.02	6.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Wed Nov 30 09:44:54 2016

8.7.53

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4853-ICV4852
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109316.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4853\P109316.D          Vial: 4
Acq On    : 29 Nov 2016   9:34 pm                   Operator: juliusj
Sample    : ICV4852-50                              Inst    : MSP
Misc      : OP98670,EP4853                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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.
164 I	Naphthalene-d8b	1.000	1.000	0.0	118	-0.02	5.53
165	Hydroquinone	0.405	0.456	-12.6	131	-0.03	5.83

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Wed Nov 30 09:44:55 2016

8.7.54

8

Initial Calibration Verification

Job Number: JC33175 **Sample:** EP4854-ICV4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109318.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4854\P109318.D          Vial: 2
Acq On    : 30 Nov 2016   9:55 am                   Operator: robertl1
Sample    : ICV4851-50                              Inst    : MSP
Misc      : OP98670,EP4854                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Nov 29 14:42:56 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.
24 I	Naphthalene-d8	1.000	1.000	0.0	100	-0.04	5.53
41 t	Caprolactam	0.162	0.169	-4.3	106	-0.08	5.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P109299a.D MP4851.M Wed Nov 30 10:20:06 2016

8.7.55

8

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EP4874-CC4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109762.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4874\P109762.D          Vial: 2
Acq On    : 14 Dec 2016  10:27 am                   Operator: robertl1
Sample    : CC4851-50                               Inst    : MSP
Misc      : OP99060,ep4874                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Dec 13 11:24:16 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	102	-0.03	4.66
2	t	1,4-Dioxane	0.668	0.564	15.6	94	0.05	2.23
3	t	Pyridine	1.744	1.587	9.0	94	0.05	2.56
4	t	N-Nitrosodimethylamine	0.728	0.960	-31.9#	137	0.04	2.53
5	S	2-Fluorophenol	1.603	1.526	4.8	97	0.00	3.71
6	t	Indene	2.521	2.254	10.6	100	-0.03	4.85
7	t	Cumene	3.859	3.781	2.0	106	-0.01	4.07
8	S	Phenol-d5	2.067	1.853	10.4	93	-0.02	4.43
9	t	Phenol	2.312	1.963	15.1	91	-0.03	4.43
10	t	Aniline	2.590	1.753	32.3#	81	-0.02	4.42
11	t	bis(2-Chloroethyl)ether	1.589	1.331	16.2	93	-0.03	4.47
12	t	2-Chlorophenol	1.477	1.364	7.7	103	-0.02	4.53
		----------	True	Calc.	% Drift	----------		
13	t	Decane	50.000	66.514	-33.0#	132	-0.03	4.54
		----------	AvgRF	CCRF	% Dev	----------		
14	t	1,3-Dichlorobenzene	1.575	1.564	0.7	111	-0.03	4.62
15	t	1,4-Dichlorobenzene	1.552	1.530	1.4	109	-0.03	4.68
16	t	Benzyl alcohol	0.968	0.897	7.3	93	-0.03	4.77
17	t	1,2-Dichlorobenzene	1.477	1.442	2.4	108	-0.03	4.79
18	t	Acetophenone	2.173	1.902	12.5	96	-0.04	4.95
19	t	2-Methylphenol	1.371	1.094	20.2#	89	-0.03	4.87
20	t	2,2'-oxybis(1-Chloropropa	0.467	0.442	5.4	101	-0.04	4.86
21	t	3&4-Methylphenol	1.438	1.202	16.4	90	-0.03	4.97
22		n-Nitroso-di-n-propylamin	1.348	1.126	16.5	92	-0.03	4.96
23	t	Hexachloroethane	0.553	0.586	-6.0	114	-0.04	5.03
24	I	Naphthalene-d8	1.000	1.000	0.0	95	-0.03	5.58
25	S	Nitrobenzene-d5	0.535	0.470	12.1	89	-0.01	5.07
26	t	Nitrobenzene	0.527	0.468	11.2	90	-0.01	5.08
27	t	Quinoline	0.745	0.737	1.1	95	-0.03	5.84
28	t	Isophorone	0.923	0.795	13.9	86	-0.02	5.25
29	t	2-Nitrophenol	0.213	0.218	-2.3	101	-0.02	5.31
30	t	2,4-Dimethylphenol	0.384	0.366	4.7	89	-0.02	5.35
31	t	Benzoic acid	0.269	0.321	-19.3	98	-0.02	5.46
32	t	bis(2-Chloroethoxy)methan	0.500	0.434	13.2	88	-0.02	5.40
33	t	2,4-Dichlorophenol	0.308	0.328	-6.5	102	-0.02	5.49
34		2,6-Dichlorophenol	0.296	0.305	-3.0	101	-0.03	5.64
35		1,3,5-Trichlorobenzene	0.367	0.386	-5.2	108	-0.02	5.32
36	t	1,2,4-Trichlorobenzene	0.349	0.361	-3.4	106	-0.02	5.54
37		1,2,3-Trichlorobenzene	0.328	0.343	-4.6	103	-0.02	5.70

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EP4874-CC4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109762.D
Project: BMSMC, Building 5 Area, PR

38	t	Naphthalene	1.067	1.036	2.9	100	-0.02	5.59
39	t	4-Chloroaniline	0.459	0.412	10.2	90	-0.02	5.64
40	t	2,3-Dichloroaniline	0.385	0.403	-4.7	103	-0.03	6.31
41	t	Caprolactam	0.162	0.172	-6.2	102	-0.03	5.89
42	t	Hexachlorobutadiene	0.212	0.242	-14.2	113	-0.03	5.68
43	t	4-Chloro-3-methylphenol	0.377	0.353	6.4	90	-0.03	5.99
44	t	2-Methylnaphthalene	0.617	0.632	-2.4	102	-0.02	6.09
45	t	1-Methylnaphthalene	0.734	0.722	1.6	100	-0.03	6.17
46	t	Dimethylnaphthalene	0.657	0.671	-2.1	101	-0.02	6.59
47	I	Acenaphthene-d10	1.000	1.000	0.0	94	-0.03	6.98
		----------	True	Calc.	% Drift	----------		
48	t	Hexachlorocyclopentadiene	100.000	99.979	0.0	95	-0.03	6.21
		----------	AvgRF	CCRF	% Dev	----------		
49	t	2,4,6-Trichlorophenol	0.387	0.409	-5.7	106	-0.04	6.32
50	t	2,4,5-Trichlorophenol	0.401	0.442	-10.2	106	-0.04	6.36
51	S	2-Fluorobiphenyl	1.391	1.408	-1.2	103	-0.04	6.37
52	t	2-Chloronaphthalene	1.123	1.066	5.1	99	-0.03	6.48
53	t	Biphenyl	1.504	1.495	0.6	102	-0.04	6.45
54	t	2-Nitroaniline	0.451	0.453	-0.4	96	-0.04	6.57
55	t	Dimethylphthalate	1.329	1.354	-1.9	102	-0.04	6.71
56	t	Acenaphthylene	1.879	1.807	3.8	96	-0.03	6.84
57	t	2,6-Dinitrotoluene	0.282	0.304	-7.8	102	-0.04	6.77
58	t	3-Nitroaniline	0.346	0.344	0.6	92	-0.04	6.94
59	t	Acenaphthene	1.130	1.126	0.4	99	-0.03	7.01
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	112.713	-12.7	105	-0.03	7.05
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.234	0.265	-13.2	100	-0.03	7.14
62	t	Dibenzofuran	1.678	1.625	3.2	97	-0.03	7.19
63	t	2,4-Dinitrotoluene	0.392	0.419	-6.9	100	-0.03	7.18
64		2,3,4,6-Tetrachlorophenol	0.313	0.370	-18.2	108	-0.03	7.33
65	t	Diethylphthalate	1.439	1.447	-0.6	97	-0.03	7.43
66	t	Fluorene	1.351	1.391	-3.0	102	-0.03	7.57
67	t	4-Chlorophenyl-phenylethe	0.693	0.730	-5.3	103	-0.03	7.56
68	t	4-Nitroaniline	0.342	0.319	6.7	85	-0.03	7.60
69	I	Phenanthrene-d10	1.000	1.000	0.0	93	-0.04	8.84
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	58.945	-17.9	109	-0.04	7.64
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.549	0.562	-2.4	101	-0.04	7.70
72	t	1,2-Diphenylhydrazine	0.958	0.833	13.0	86	-0.04	7.75
73	S	2,4,6-Tribromophenol	0.100	0.111	-11.0	105	-0.04	7.86
74	t	4-Bromophenyl-phenylether	0.229	0.251	-9.6	107	-0.04	8.19
75	t	Hexachlorobenzene	0.224	0.246	-9.8	107	-0.03	8.29
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	100.000	113.571	-13.6	105	-0.04	8.58
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.042	1.050	-0.8	100	-0.04	8.87
78	t	Anthracene	1.049	1.043	0.6	98	-0.04	8.95
79	t	Carbazole	1.062	1.041	2.0	94	-0.04	9.24

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EP4874-CC4851
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109762.D
Project: BMSMC, Building 5 Area, PR

80	t	Di-n-butylphthalate	1.394	1.448	-3.9	97	-0.06	9.91
81	t	Fluoranthene	1.289	1.403	-8.8	101	-0.05	11.01
82	t	Octadecane	0.483	0.486	-0.6	98	-0.05	8.72
83	I	Chrysene-d12	1.000	1.000	0.0	99	-0.04	14.08
84	t	Pyrene	1.302	1.302	0.0	103	-0.01	11.44
85	S	Terphenyl-d14	0.813	0.859	-5.7	108	-0.02	11.86
86	t	Butylbenzylphthalate	0.622	0.603	3.1	95	-0.05	13.01
87	t	Benzo[a]anthracene	1.160	1.208	-4.1	107	-0.03	14.06
88	t	3,3'-Dichlorobenzidine	0.391	0.403	-3.1	102	-0.05	14.09
89	t	Chrysene	1.028	0.983	4.4	102	-0.04	14.14
90	t	bis(2-Ethylhexyl)phthalat	0.772	0.688	10.9	89	-0.07	14.41
91	I	Perylene-d12	1.000	1.000	0.0	78	-0.04	17.12
92	t	Di-n-octylphthalate	1.753	2.020	-15.2	87	-0.05	15.85
93	t	Benzo[b]fluoranthene	1.322	1.625	-22.9#	95	-0.02	16.37
94	t	Benzo[k]fluoranthene	1.157	1.204	-4.1	86	-0.03	16.43
95	t	Benzo[a]pyrene	1.150	1.298	-12.9	90	-0.03	17.01
96	t	Indeno[1,2,3-cd]pyrene	0.989	0.984	0.5	80	-0.05	19.07
97	t	Dibenz(a,h)acridine	0.924	0.936	-1.3	78	-0.05	18.70
98	t	Dibenz[a,h]anthracene	0.988	0.964	2.4	80	-0.06	19.12
99	t	7,12-Dimethylbenz(a)anthr	0.552	0.673	-21.9#	91	-0.03	16.39
100	t	Benzo[g,h,i]perylene	1.008	0.974	3.4	79	-0.05	19.51

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P108633a.D MP4851.M Wed Dec 14 11:34:02 2016

8.7.56

8

Continuing Calibration Summary

Job Number: JC33175 **Sample:** EP4874-CC4852
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** P109763.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\EP4874\P109763.D          Vial: 3
Acq On    : 14 Dec 2016  11:00 am                   Operator: robertl1
Sample    : CC4852-50                               Inst    : MSP
Misc      : OP99060,ep4874                          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title        : Semi Volatile Extractables by GC/MS
Last Update  : Tue Dec 13 11:24:16 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.
101	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	112	-0.03	4.66
102		Benzaldehyde	1.251	1.070	14.5	103	0.07	4.34
103	I	Phenanthrene-d10b	1.000	1.000	0.0	118	-0.05	8.83
104		Atrazine	0.205	0.229	-11.7	134	-0.03	8.44
105	I	Chrysene-d12b	1.000	1.000	0.0	122	-0.05	14.07
106		Benzidine	0.754	0.522	30.8#	98	0.15	11.33
107	I	Naphthalene-d8b	1.000	1.000	0.0	110	-0.03	5.58
108		Hydroquinone	0.405	0.380	6.2	101	0.07	5.88
109	I	Acenaphthene-d10b	1.000	1.000	0.0	119	-0.03	6.98
110		1,2,4,5-Tetrachlorobenzen	0.539	0.586	-8.7	135	0.06	6.22

(#) = Out of Range SPCC's out = 0 CCC's out = 0
P108633a.D MP4851.M Wed Dec 14 11:34:03 2016

8.7.57

8

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33028.D
Acq On : 15 Dec 2016 6:58 am
Operator : chriss2
Sample : jc33175-1
Misc : op99167,e6p1523,950
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 15 10:57:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

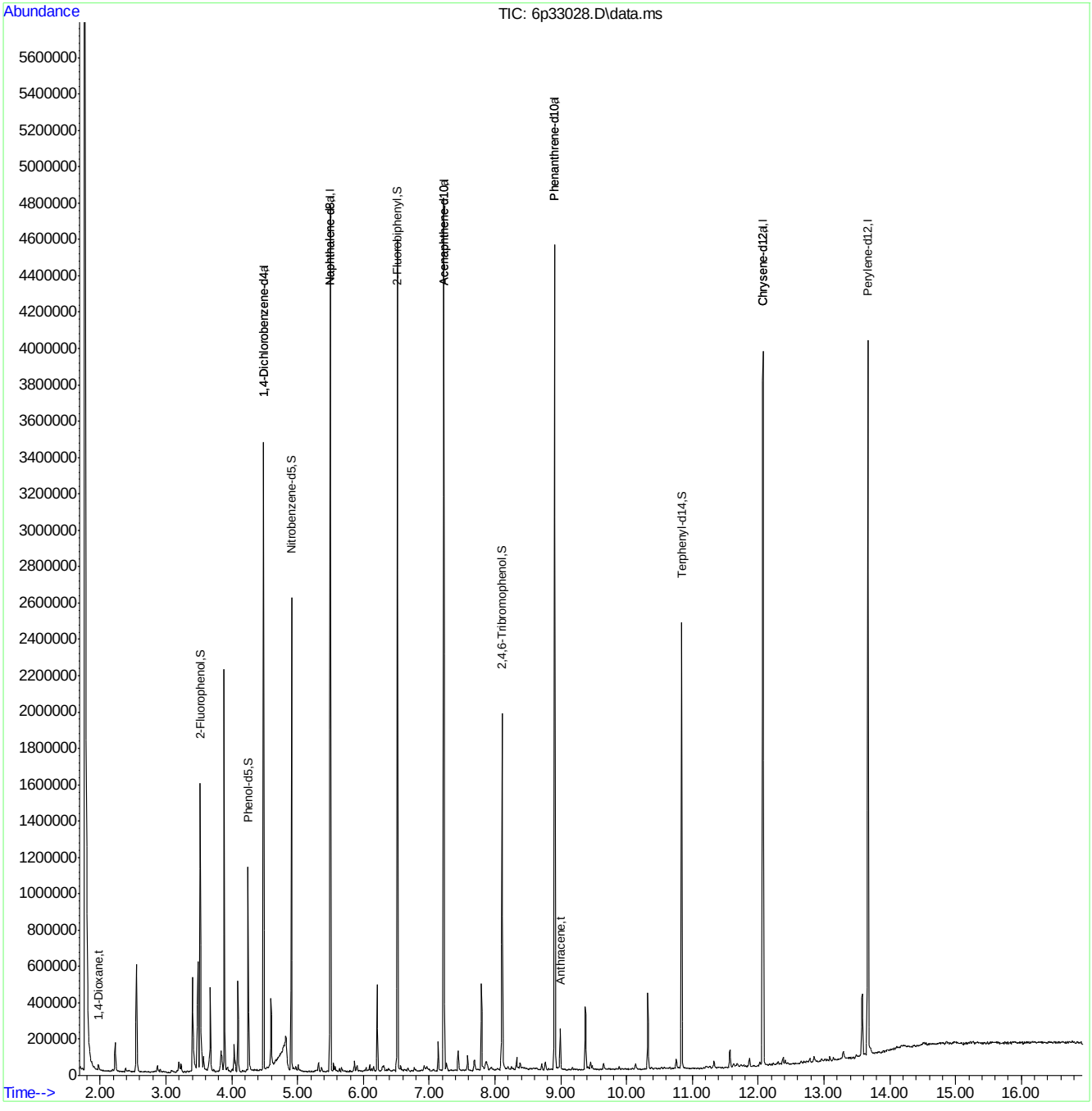
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.484	152	370978	40.00 ppm	-0.03
24) Naphthalene-d8	5.495	136	1507633	40.00 ppm	-0.04
47) Acenaphthene-d10	7.223	164	850986	40.00 ppm	-0.04
69) Phenanthrene-d10	8.907	188	1385544	40.00 ppm	-0.04
83) Chrysene-d12	12.074	240	1333592	40.00 ppm	-0.04
91) Perylene-d12	13.668	264	1328184	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.484	152	370978	40.00 ppm	-0.03
103) Acenaphthene-d10a	7.223	164	850986	40.00 ppm	-0.04
105) Phenanthrene-d10a	8.907	188	1385544	40.00 ppm	-0.04
107) Chrysene-d12a	12.074	240	1333592	40.00 ppm	-0.04
109) Naphthalene-d8a	5.495	136	1507633	40.00 ppm	-0.04
System Monitoring Compounds					
5) 2-Fluorophenol	3.521	112	342809	23.60 ppm	-0.03
Spiked Amount 50.000			Recovery	= 47.20%	
8) Phenol-d5	4.249	99	335054	16.99 ppm	0.02
Spiked Amount 50.000			Recovery	= 33.98%	
25) Nitrobenzene-d5	4.907	82	722095	44.56 ppm	-0.03
Spiked Amount 50.000			Recovery	= 89.12%	
51) 2-Fluorobiphenyl	6.517	172	1079626	37.63 ppm	-0.04
Spiked Amount 50.000			Recovery	= 75.26%	
73) 2,4,6-Tribromophenol	8.111	330	196685	44.32 ppm	-0.04
Spiked Amount 50.000			Recovery	= 88.64%	
85) Terphenyl-d14	10.838	244	732065	26.82 ppm	-0.05
Spiked Amount 50.000			Recovery	= 53.64%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.970	88	13958	2.26 ppm	93
78) Anthracene	8.993	178	75702	1.79 ppm	96

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

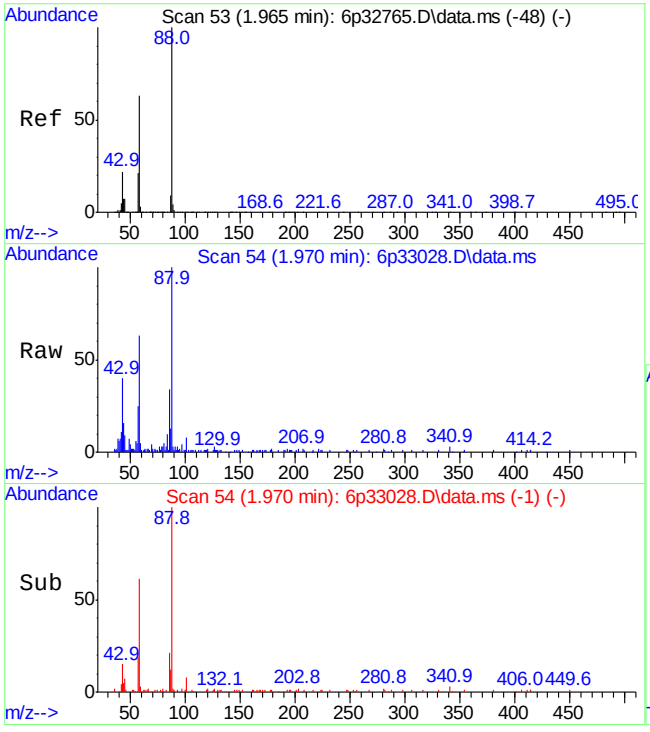
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33028.D
Acq On : 15 Dec 2016 6:58 am
Operator : chriss2
Sample : jc33175-1
Misc : op99167,e6p1523,950
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 15 10:57:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



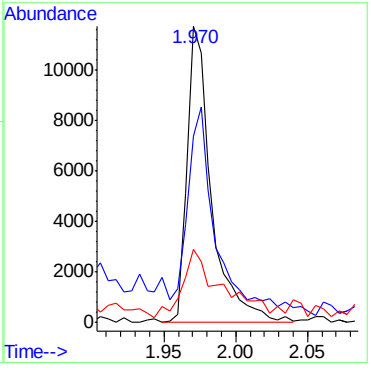
M6P1488.M Thu Dec 15 10:57:55 2016 ACLIMS

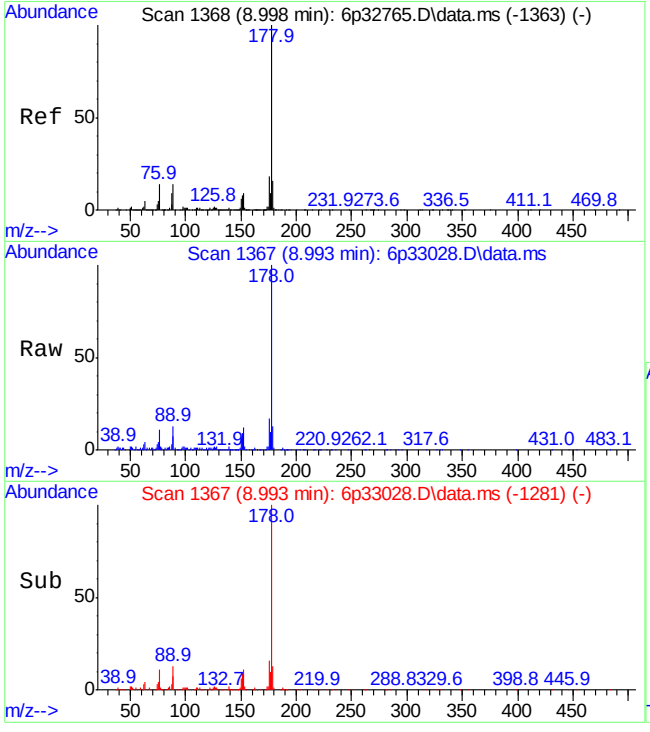


#2
1,4-Dioxane
Concen: 2.26 ppm
RT: 1.970 min Scan# 54
Delta R.T. -0.015 min
Lab File: 6p33028.D
Acq: 15 Dec 2016 6:58 am

Tgt Ion: 88 Resp: 13958

Ion	Ratio	Lower	Upper
88	100		
58	53.0	29.3	89.3
57	18.3	0.0	48.4

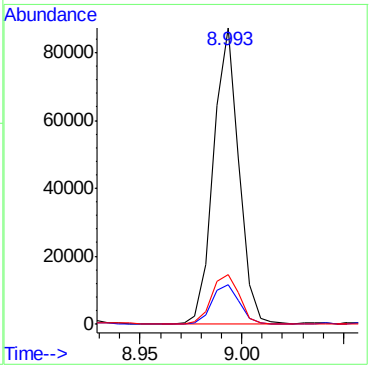




#78
Anthracene
Concen: 1.79 ppm
RT: 8.993 min Scan# 1367
Delta R.T. -0.041 min
Lab File: 6p33028.D
Acq: 15 Dec 2016 6:58 am

Tgt Ion:178 Resp: 75702

Ion	Ratio	Lower	Upper
178	100		
179	13.2	0.0	45.4
176	16.6	0.0	48.0



9.1.1

9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130072.D
Acq On : 17 Dec 2016 1:38 am
Operator : chriss2
Sample : jc33175-1
Misc : op99254,em5555,950
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 19 12:49:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Dec 16 16:33:58 2016
Response via : Initial Calibration

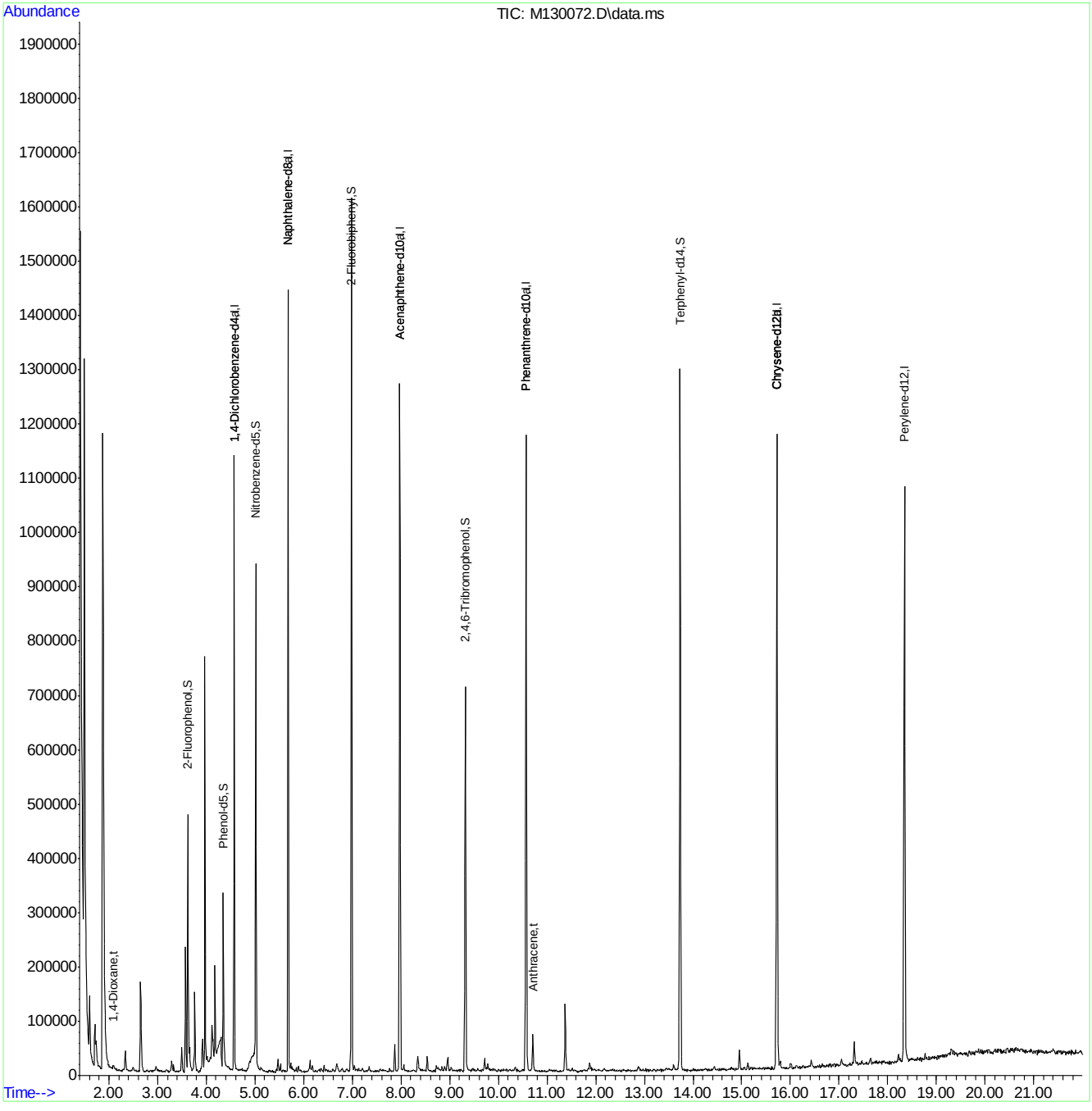
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.574	152	153332	40.00	ppm	0.04
24) Naphthalene-d8	5.679	136	609601	40.00	ppm	0.05
47) Acenaphthene-d10	7.976	164	357764	40.00	ppm	0.06
69) Phenanthrene-d10	10.572	188	587320	40.00	ppm	0.06
83) Chrysene-d12	15.726	240	587294	40.00	ppm	0.07
91) Perylene-d12	18.343	264	540825	40.00	ppm	0.07
101) 1,4-Dichlorobenzene-d4a	4.574	152	153332	40.00	ppm	0.04
103) Acenaphthene-d10a	7.976	164	357764	40.00	ppm	0.06
106) Chrysene-d12a	15.726	240	587294	40.00	ppm	0.07
109) Phenanthrene-d10a	10.572	188	587320	40.00	ppm	0.06
111) Naphthalene-d8a	5.679	136	609601	40.00	ppm	0.05
113) Chrysene-d12b	15.726	240	587294	40.00	ppm	0.07
System Monitoring Compounds						
5) 2-Fluorophenol	3.618	112	146516	31.48	ppm	0.02
Spiked Amount 50.000			Recovery	=	62.96%	
8) Phenol-d5	4.349	99	134564	22.48	ppm	0.05
Spiked Amount 50.000			Recovery	=	44.96%	
25) Nitrobenzene-d5	5.017	82	286221	49.69	ppm	0.05
Spiked Amount 50.000			Recovery	=	99.38%	
51) 2-Fluorobiphenyl	6.983	172	553867	48.88	ppm	0.05
Spiked Amount 50.000			Recovery	=	97.76%	
73) 2,4,6-Tribromophenol	9.322	330	91593	59.36	ppm	0.04
Spiked Amount 50.000			Recovery	=	118.72%	
85) Terphenyl-d14	13.734	244	567023	47.76	ppm	0.04
Spiked Amount 50.000			Recovery	=	95.52%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.085	88	5466	4.15	ppm	79
78) Anthracene	10.705	178	38098	2.32	ppm	93

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

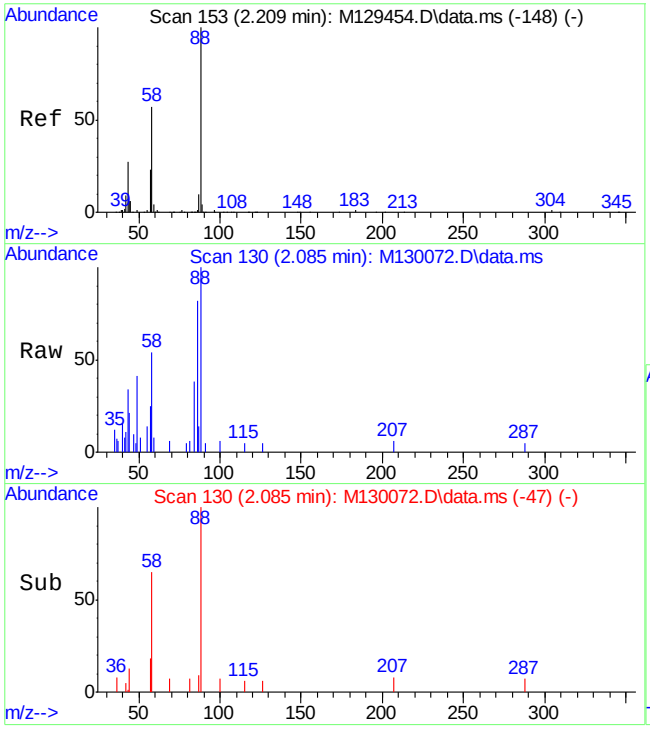
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130072.D
Acq On : 17 Dec 2016 1:38 am
Operator : chriss2
Sample : jc33175-1
Misc : op99254,em5555,950
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 19 12:49:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Dec 16 16:33:58 2016
Response via : Initial Calibration



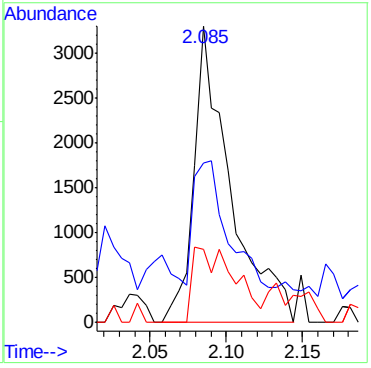
SGS ACCUTEST JC33175

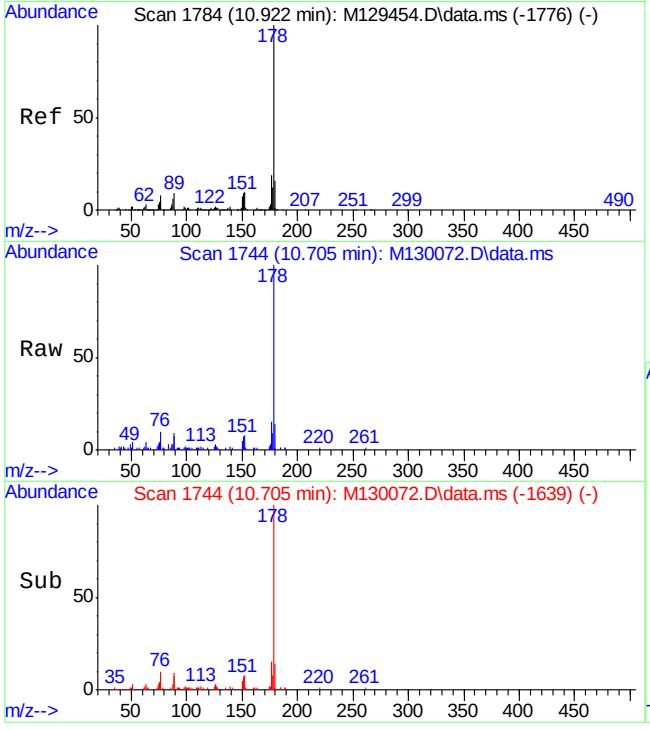


#2
1,4-Dioxane
Concen: 4.15 ppm
RT: 2.085 min Scan# 130
Delta R.T. -0.056 min
Lab File: M130072.D
Acq: 17 Dec 2016 1:38 am

Tgt Ion: 88 Resp: 5466

Ion	Ratio	Lower	Upper
88	100		
58	37.1	27.1	87.1
57	20.1	0.0	52.8

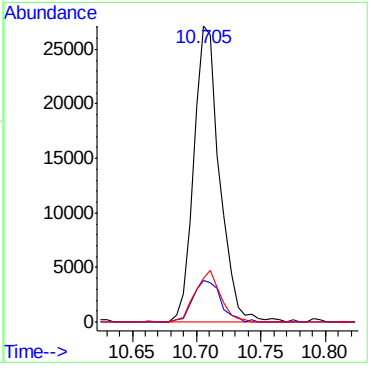




#78
Anthracene
Concen: 2.32 ppm
RT: 10.705 min Scan# 1744
Delta R.T. 0.060 min
Lab File: M130072.D
Acq: 17 Dec 2016 1:38 am

Tgt Ion:178 Resp: 38098

Ion	Ratio	Lower	Upper
178	100		
179	13.7	0.0	46.0
176	15.0	0.0	48.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57227.D
Acq On : 14 Dec 2016 3:07 pm
Operator : shaniceg
Sample : jc33175-1
Misc : op99167a,e3p2653,950
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 10:51:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Dec 15 10:51:16 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	10.900	150	23026	4.00 ppm	0.00
14) Fluorene-d10	13.875	176	25818	4.00 ppm	0.00
21) Fluoranthene-d10	18.042	212	36572	4.00 ppm	0.00
31) Benzo(a)pyrene-d12	22.631	264	28951	4.00 ppm	0.02
System Monitoring Compounds					
3) 2-Fluorophenol	4.918	112	77510	17.70 ppm	0.01
Spiked Amount 50.000			Recovery	= 35.40%	
4) Phenol-d5	6.502	99	80708	14.20 ppm	-0.04
Spiked Amount 50.000			Recovery	= 28.40%	
7) Nitrobenzene-d5	8.026	82	157676	33.70 ppm	-0.02
Spiked Amount 50.000			Recovery	= 67.40%	
15) 2-Fluorobiphenyl	11.565	172	263129	35.23 ppm	0.00
Spiked Amount 50.000			Recovery	= 70.46%	
20) 2,4,6-Tribromophenol	14.428	330	43243	45.12 ppm	0.00
Spiked Amount 50.000			Recovery	= 90.24%	
28) Terphenyl-d14	18.830	244	154549	28.33 ppm	0.02
Spiked Amount 50.000			Recovery	= 56.66%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.604	88	2346	0.86 ppm	85
24) Phenanthrene	15.940	178	19923	1.69 ppm	99

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

9.1.3

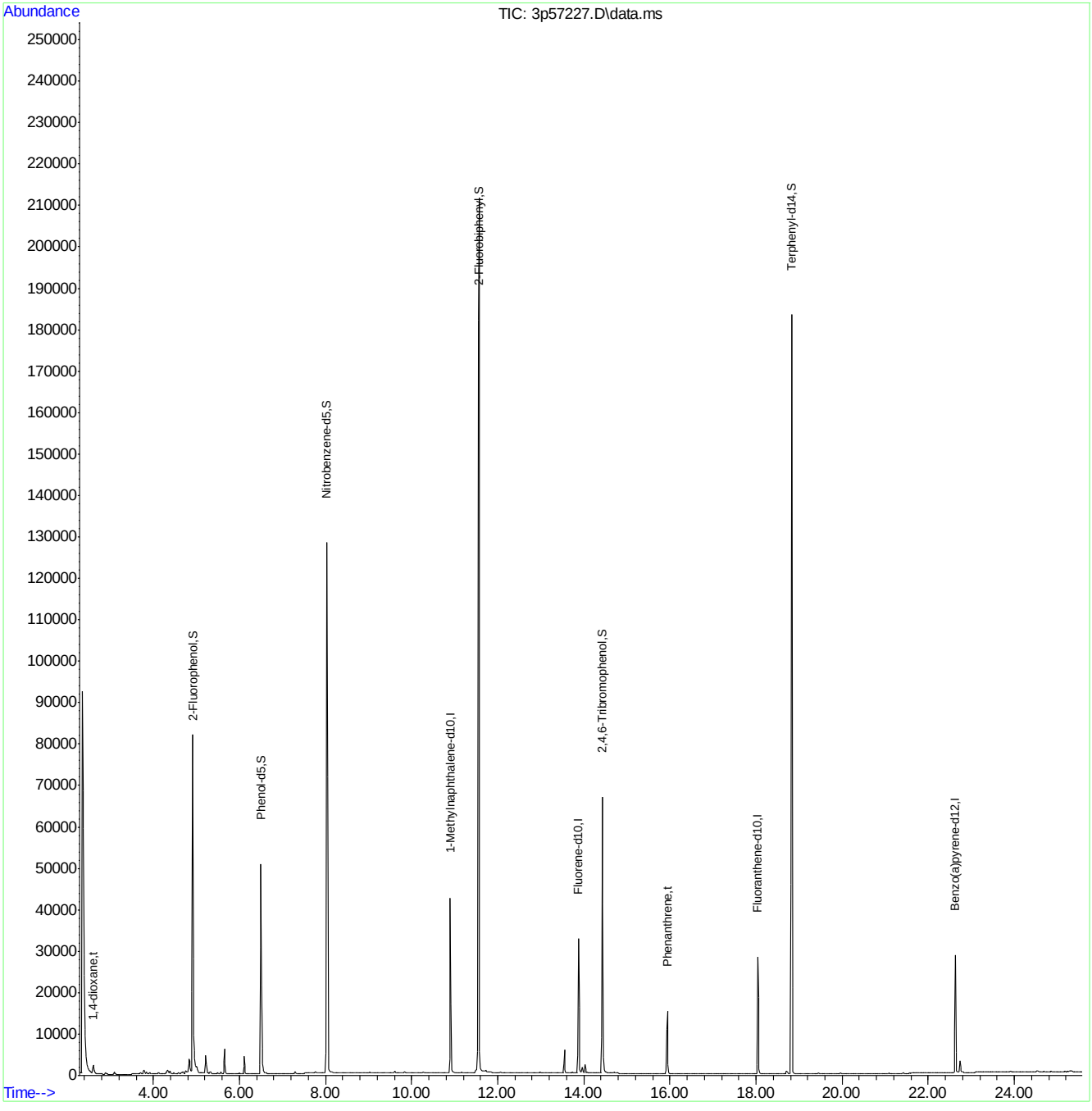
9

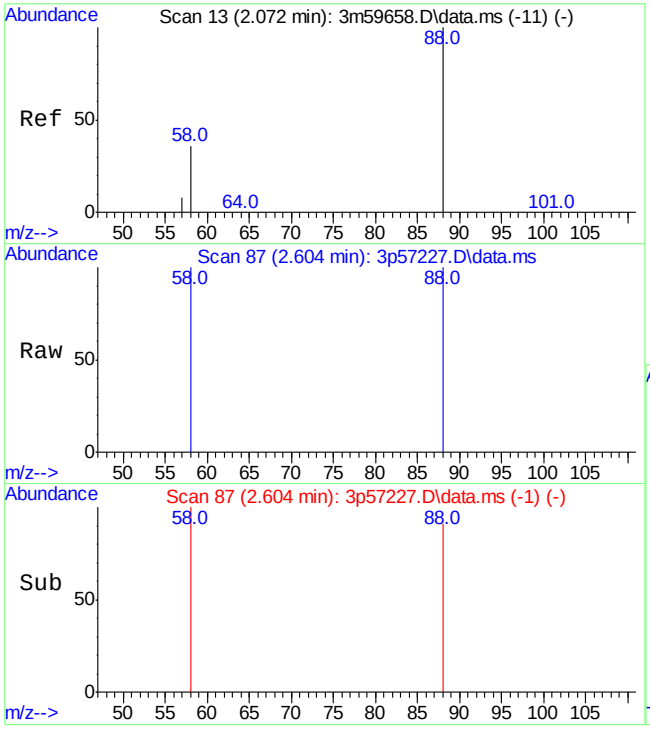
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57227.D
Acq On : 14 Dec 2016 3:07 pm
Operator : shaniceg
Sample : jc33175-1
Misc : op99167a,e3p2653,950
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 10:51:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Dec 15 10:51:16 2016
Response via : Initial Calibration

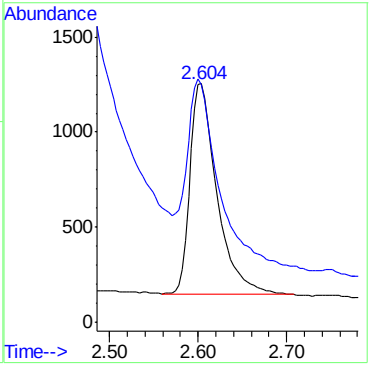


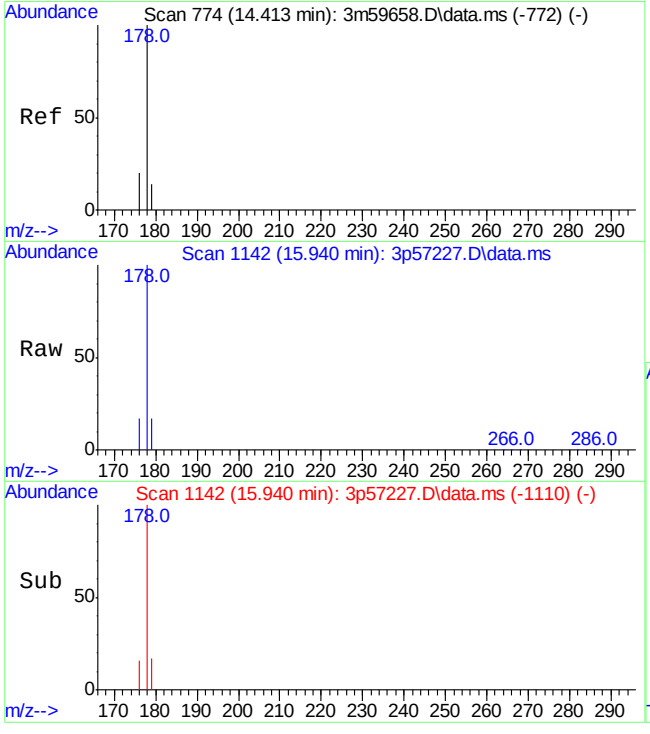


#2
1,4-dioxane
Concen: 0.86 ppm
RT: 2.604 min Scan# 87
Delta R.T. -0.018 min
Lab File: 3p57227.D
Acq: 14 Dec 2016 3:07 pm

Tgt Ion: 88 Resp: 2346

Ion	Ratio	Lower	Upper
88	100		
58	72.5	66.6	106.6

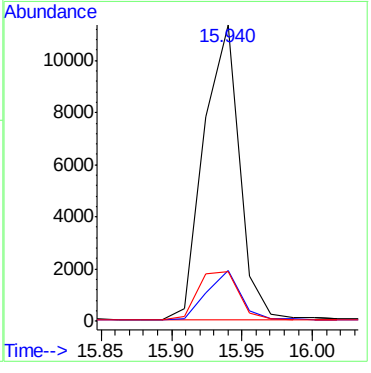




#24
Phenanthrene
Concen: 1.69 ppm
RT: 15.940 min Scan# 1142
Delta R.T. 0.000 min
Lab File: 3p57227.D
Acq: 14 Dec 2016 3:07 pm

Tgt Ion:178 Resp: 19923

Ion	Ratio	Lower	Upper
178	100		
179	16.7	0.0	47.1
176	16.4	0.0	46.8



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4874\P109765.D Vial: 5
Acq On : 14 Dec 2016 11:56 am Operator: robertl1
Sample : OP99167-MB1 Inst : MSP
Misc : OP99167,ep4874,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 12:17:47 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.66	152	36981	40.00	ppm	-0.03
24) Naphthalene-d8	5.58	136	139614	40.00	ppm	-0.03
47) Acenaphthene-d10	6.97	164	90267	40.00	ppm	-0.04
69) Phenanthrene-d10	8.83	188	165384	40.00	ppm	-0.05
83) Chrysene-d12	14.07	240	178715	40.00	ppm	-0.05
91) Perylene-d12	17.11	264	146619	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4b	4.66	152	36981	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.83	188	165384	40.00	ppm	-0.05
105) Chrysene-d12b	14.07	240	178715	40.00	ppm	-0.05
107) Naphthalene-d8b	5.58	136	139614	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.97	164	90267	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.71	112	28539	19.26	ppm	0.00
Spiked Amount 50.000			Recovery = 38.52%			
8) Phenol-d5	4.42	99	23538	12.32	ppm	-0.03
Spiked Amount 50.000			Recovery = 24.64%			
25) Nitrobenzene-d5	5.06	82	55757	29.85	ppm	-0.02
Spiked Amount 50.000			Recovery = 59.70%			
51) 2-Fluorobiphenyl	6.37	172	108299	34.51	ppm	-0.04
Spiked Amount 50.000			Recovery = 69.02%			
73) 2,4,6-Tribromophenol	7.86	330	18200	44.04	ppm	-0.05
Spiked Amount 50.000			Recovery = 88.08%			
85) Terphenyl-d14	11.86	244	164035	45.14	ppm	-0.02
Spiked Amount 50.000			Recovery = 90.28%			
Target Compounds						Qvalue
90) bis(2-Ethylhexyl)phthalate	14.40	149	14541	4.22	ppm	97

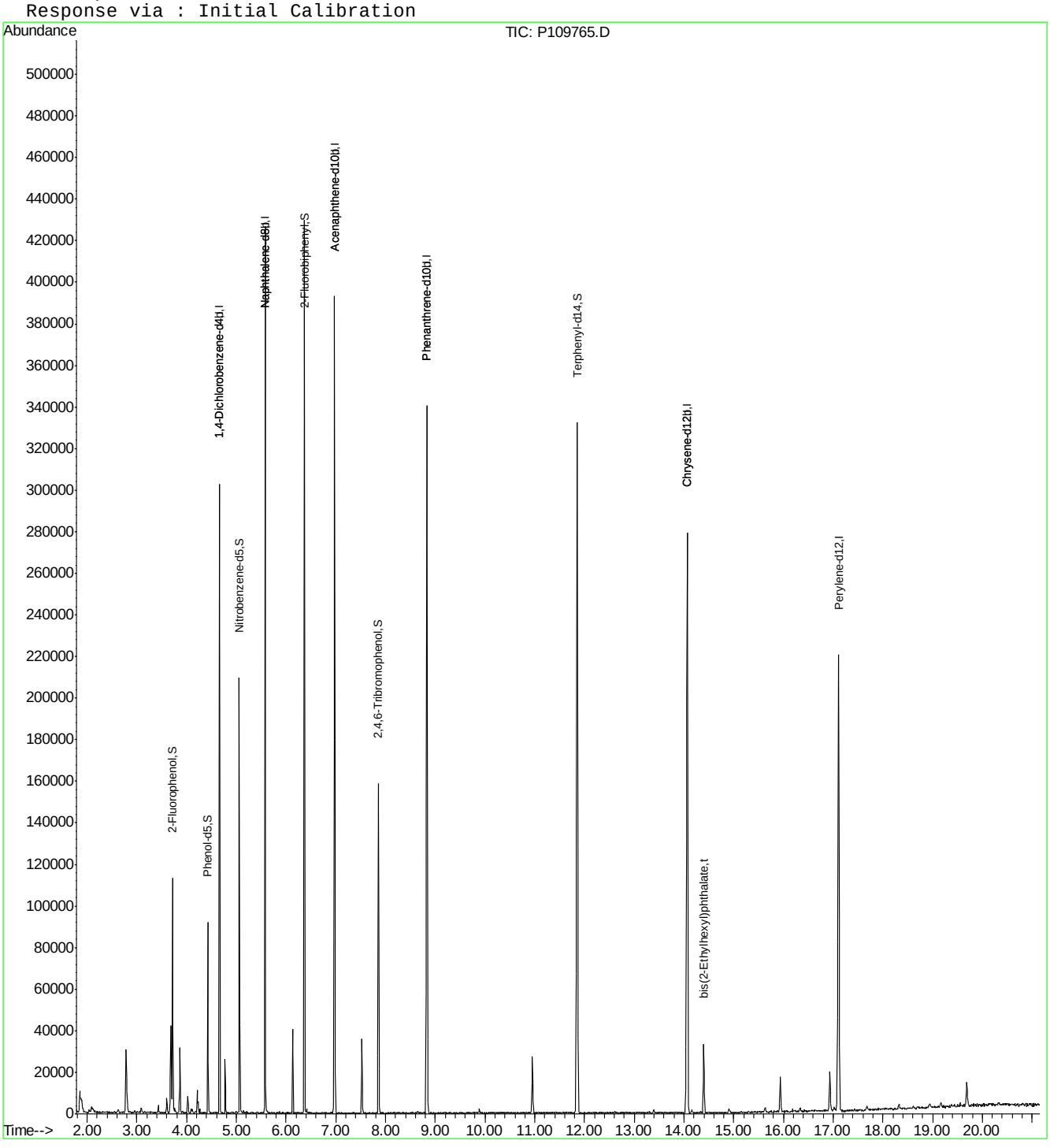
(#) = qualifier out of range (m) = manual integration (+) = signals summed

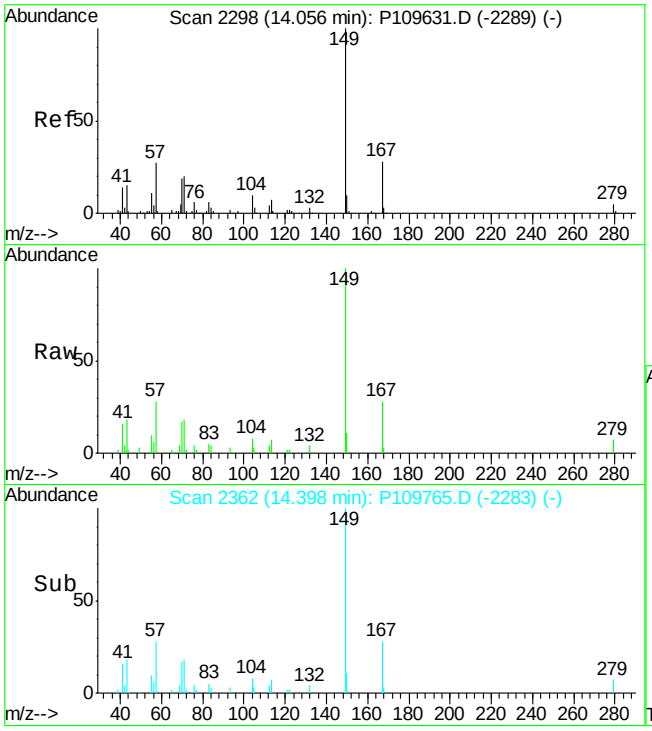
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4874\P109765.D Vial: 5
Acq On : 14 Dec 2016 11:56 am Operator: robertl1
Sample : OP99167-MB1 Inst : MSP
Misc : OP99167,ep4874,1000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 15:25 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration

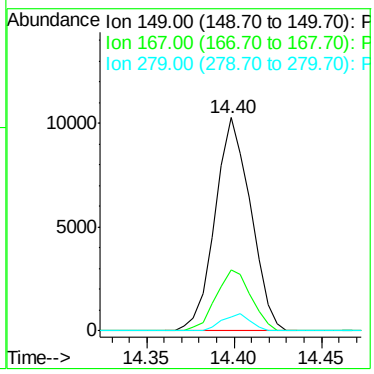




#90
bis(2-Ethylhexyl)phthalate
Concen: 4.22 ppm
RT: 14.40 min Scan# 2362
Delta R.T. -0.08 min
Lab File: P109765.D
Acq: 14 Dec 2016 11:56 am

Tgt Ion:149 Resp: 14541

Ion	Ratio	Lower	Upper
149	100		
167	28.3	0.1	60.1
279	6.6	0.0	36.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33011.D
Acq On : 15 Dec 2016 12:00 am
Operator : chriss2
Sample : op99167-mb1
Misc : op99167,e6p1523,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 15 07:57:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.484	152	392433	40.00 ppm	-0.03
24) Naphthalene-d8	5.495	136	1603675	40.00 ppm	-0.04
47) Acenaphthene-d10	7.223	164	894528	40.00 ppm	-0.04
69) Phenanthrene-d10	8.907	188	1475335	40.00 ppm	-0.04
83) Chrysene-d12	12.074	240	1473784	40.00 ppm	-0.04
91) Perylene-d12	13.673	264	1528967	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.484	152	392433	40.00 ppm	-0.03
103) Acenaphthene-d10a	7.223	164	894528	40.00 ppm	-0.04
105) Phenanthrene-d10a	8.907	188	1475335	40.00 ppm	-0.04
107) Chrysene-d12a	12.074	240	1473784	40.00 ppm	-0.04
109) Naphthalene-d8a	5.495	136	1603675	40.00 ppm	-0.04
System Monitoring Compounds					
5) 2-Fluorophenol	3.521	112	360370	23.45 ppm	-0.03
Spiked Amount 50.000			Recovery	= 46.90%	
8) Phenol-d5	4.254	99	317686	15.23 ppm	0.03
Spiked Amount 50.000			Recovery	= 30.46%	
25) Nitrobenzene-d5	4.907	82	717580	41.63 ppm	-0.03
Spiked Amount 50.000			Recovery	= 83.26%	
51) 2-Fluorobiphenyl	6.517	172	1053867	34.94 ppm	-0.04
Spiked Amount 50.000			Recovery	= 69.88%	
73) 2,4,6-Tribromophenol	8.111	330	195912	41.46 ppm	-0.04
Spiked Amount 50.000			Recovery	= 82.92%	
85) Terphenyl-d14	10.838	244	1360996	45.13 ppm	-0.05
Spiked Amount 50.000			Recovery	= 90.26%	
Target Compounds					Qvalue
90) bis(2-Ethylhexyl)phtha...	12.170	149	159384	4.70 ppm	96

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

9.2.2

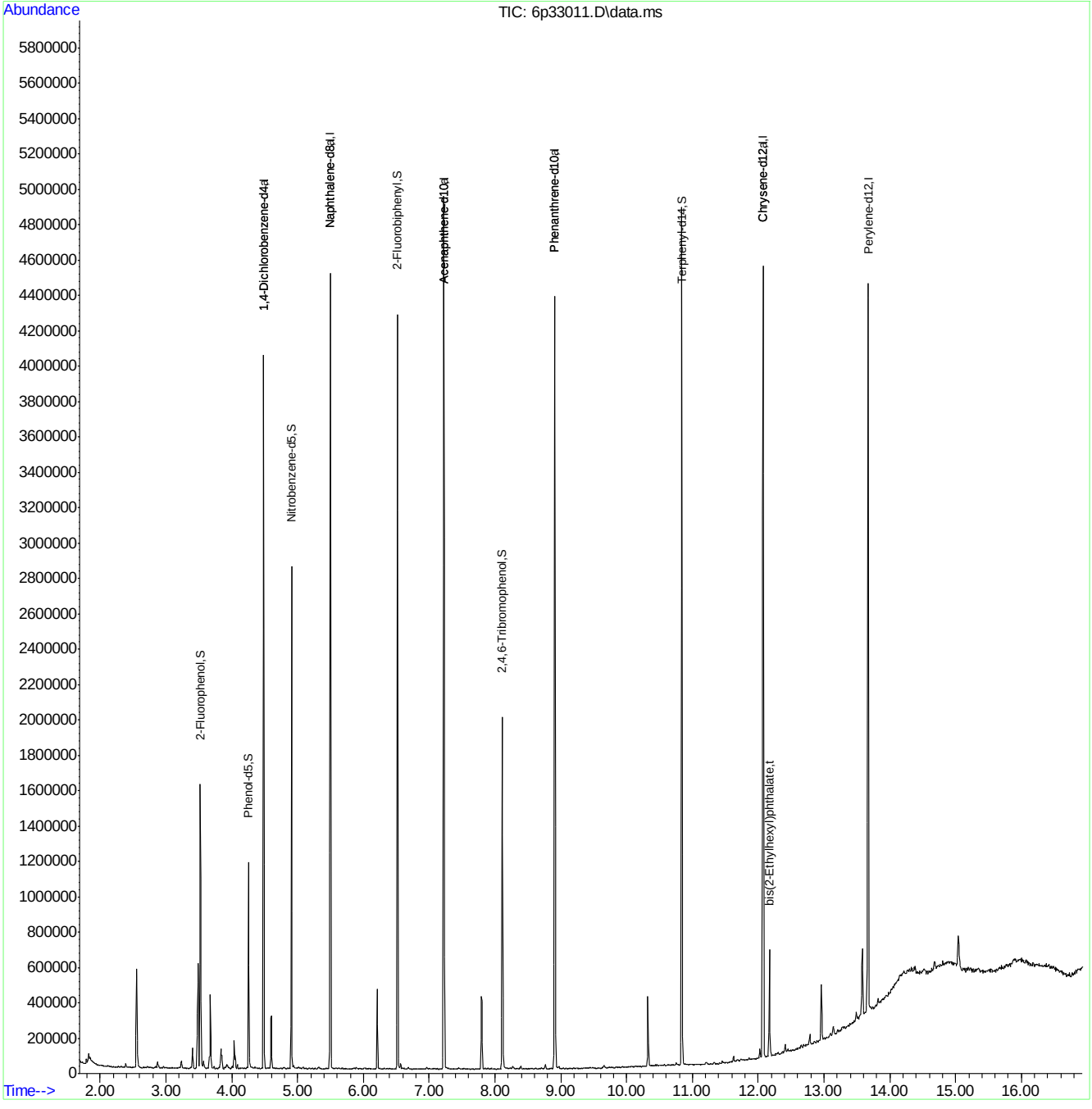
9

SGS ACCUTEST JC33175

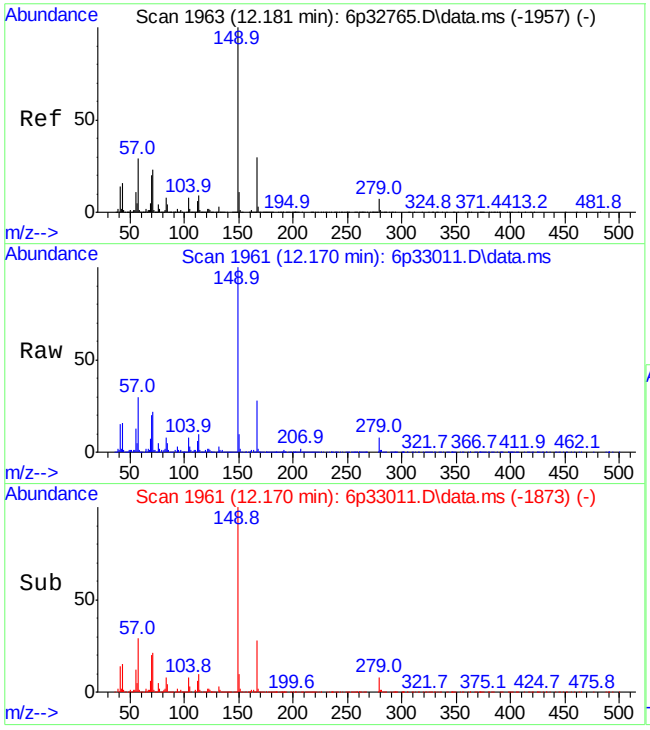
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33011.D
Acq On : 15 Dec 2016 12:00 am
Operator : chriss2
Sample : op99167-mb1
Misc : op99167,e6p1523,1000
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 15 07:57:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



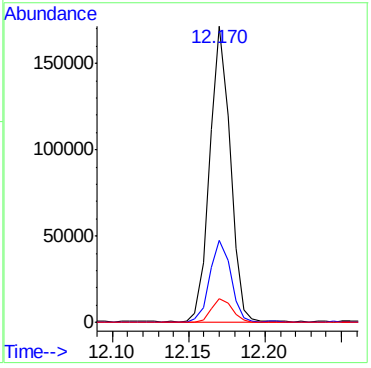
SGS ACCUTEST JC33175



#90
bis(2-Ethylhexyl)phthalate
Concen: 4.70 ppm
RT: 12.170 min Scan# 1961
Delta R.T. -0.031 min
Lab File: 6p33011.D
Acq: 15 Dec 2016 12:00 am

Tgt Ion:149 Resp: 159384

Ion	Ratio	Lower	Upper
149	100		
167	27.8	0.3	60.3
279	7.7	0.0	38.0



9.2.2

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57217.D
Acq On : 14 Dec 2016 9:59 am
Operator : shaniceg
Sample : op99167a-mb1
Misc : op99167a,e3p2653,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 12:42:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.900	150	22809	4.00	ppm	-0.02
14) Fluorene-d10	13.875	176	25527	4.00	ppm	-0.03
21) Fluoranthene-d10	18.042	212	37090	4.00	ppm	-0.03
31) Benzo(a)pyrene-d12	22.615	264	27552	4.00	ppm	-0.05
System Monitoring Compounds						
3) 2-Fluorophenol	4.906	112	92256	21.26	ppm	0.00
Spiked Amount 50.000			Recovery = 42.52%			
4) Phenol-d5	6.502	99	79188	14.06	ppm	0.00
Spiked Amount 50.000			Recovery = 28.12%			
7) Nitrobenzene-d5	8.026	82	156429	33.75	ppm	-0.03
Spiked Amount 50.000			Recovery = 67.50%			
15) 2-Fluorobiphenyl	11.547	172	268712	36.39	ppm	-0.05
Spiked Amount 50.000			Recovery = 72.78%			
20) 2,4,6-Tribromophenol	14.428	330	47340	49.96	ppm	-0.01
Spiked Amount 50.000			Recovery = 99.92%			
28) Terphenyl-d14	18.830	244	274043	49.54	ppm	-0.03
Spiked Amount 50.000			Recovery = 99.08%			

Target Compounds Qvalue

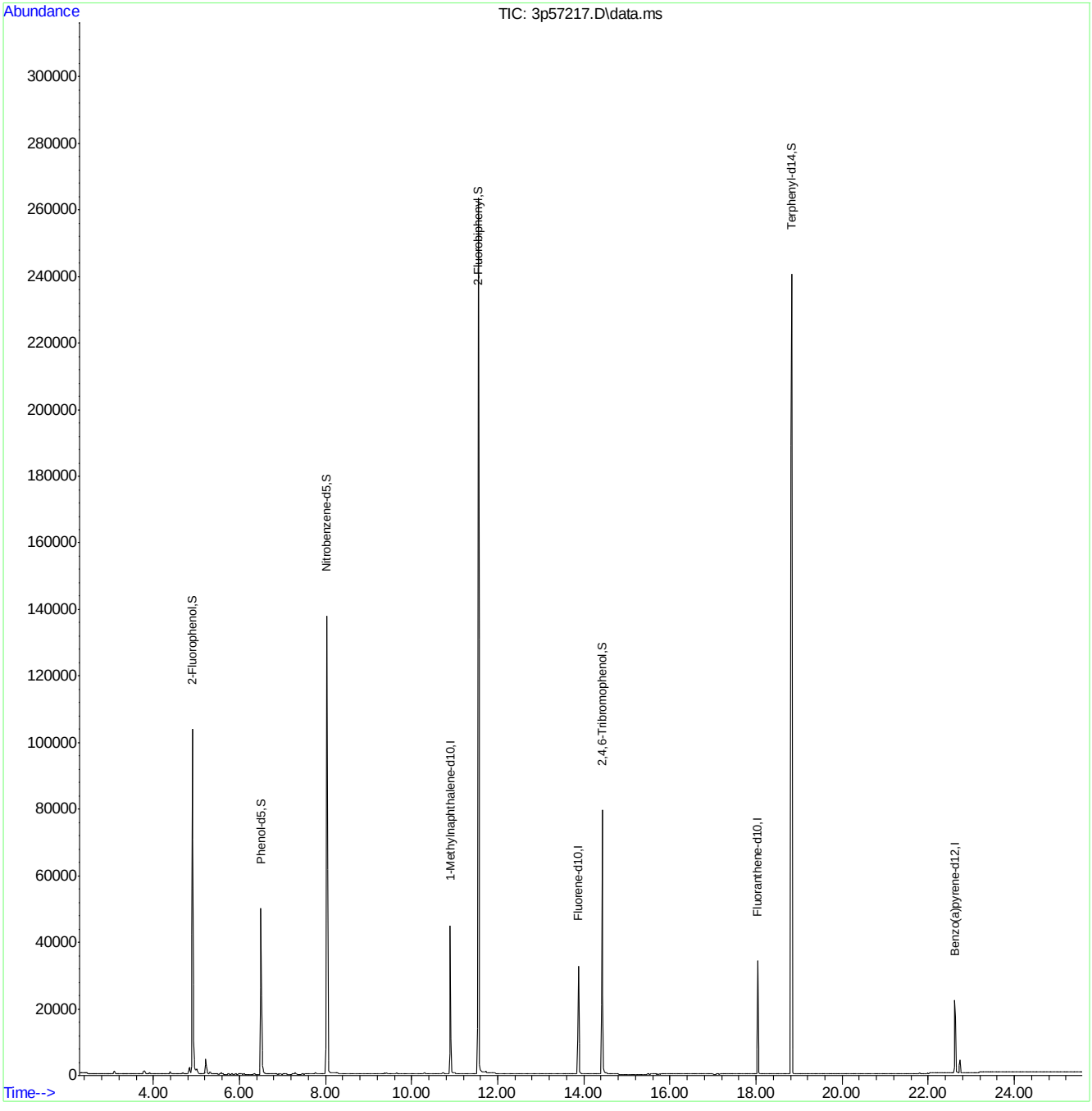
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57217.D
Acq On : 14 Dec 2016 9:59 am
Operator : shaniceg
Sample : op99167a-mb1
Misc : op99167a,e3p2653,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 12:42:24 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration



M3P2579SIM.M Wed Dec 14 12:48:34 2016 Page: 2

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89388.D
Acq On : 15 Dec 2016 10:48 am
Operator : ashleyn
Sample : op99167a-mb1
Misc : op99167a,e3e3956,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 12:53:46 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.103	152	426333	40.00	ppm	0.02
24) Naphthalene-d8	5.087	136	1482476	40.00	ppm	0.02
47) Acenaphthene-d10	6.959	164	847490	40.00	ppm	0.02
69) Phenanthrene-d10	9.045	188	1420447	40.00	ppm	0.03
83) Chrysene-d12	13.169	240	1269557	40.00	ppm	0.03
91) Perylene-d12	15.271	264	745845	40.00	ppm	0.03
101) 1,4-Dichlorobenzene-d4a	4.103	152	426333	40.00	ppm	0.02
103) Acenaphthene-d10a	6.959	164	847490	40.00	ppm	0.02
105) Phenanthrene-d10a	9.045	188	1420447	40.00	ppm	0.03
109) Chrysene-d12a	13.169	240	1269557	40.00	ppm	0.03
111) Naphthalene-d8a	5.087	136	1482476	40.00	ppm	0.02
113) Chrysene-d12b	13.169	240	1269557	40.00	ppm	0.03

System Monitoring Compounds						
5) 2-Fluorophenol	3.167	112	283932	22.80	ppm	0.00
Spiked Amount 50.000			Recovery = 45.60%			
8) Phenol-d5	3.948	99	243332	14.25	ppm	0.02
Spiked Amount 50.000			Recovery = 28.50%			
25) Nitrobenzene-d5	4.531	82	613717	34.42	ppm	0.01
Spiked Amount 50.000			Recovery = 68.84%			
51) 2-Fluorobiphenyl	6.168	172	1037917	34.56	ppm	0.02
Spiked Amount 50.000			Recovery = 69.12%			
73) 2,4,6-Tribromophenol	8.056	330	129722	42.09	ppm	0.02
Spiked Amount 50.000			Recovery = 84.18%			
85) Terphenyl-d14	11.570	244	1310343	56.45	ppm	0.02
Spiked Amount 50.000			Recovery = 112.90%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
90) bis(2-Ethylhexyl)phtha...	13.356	149	122094	4.80	ppm	95

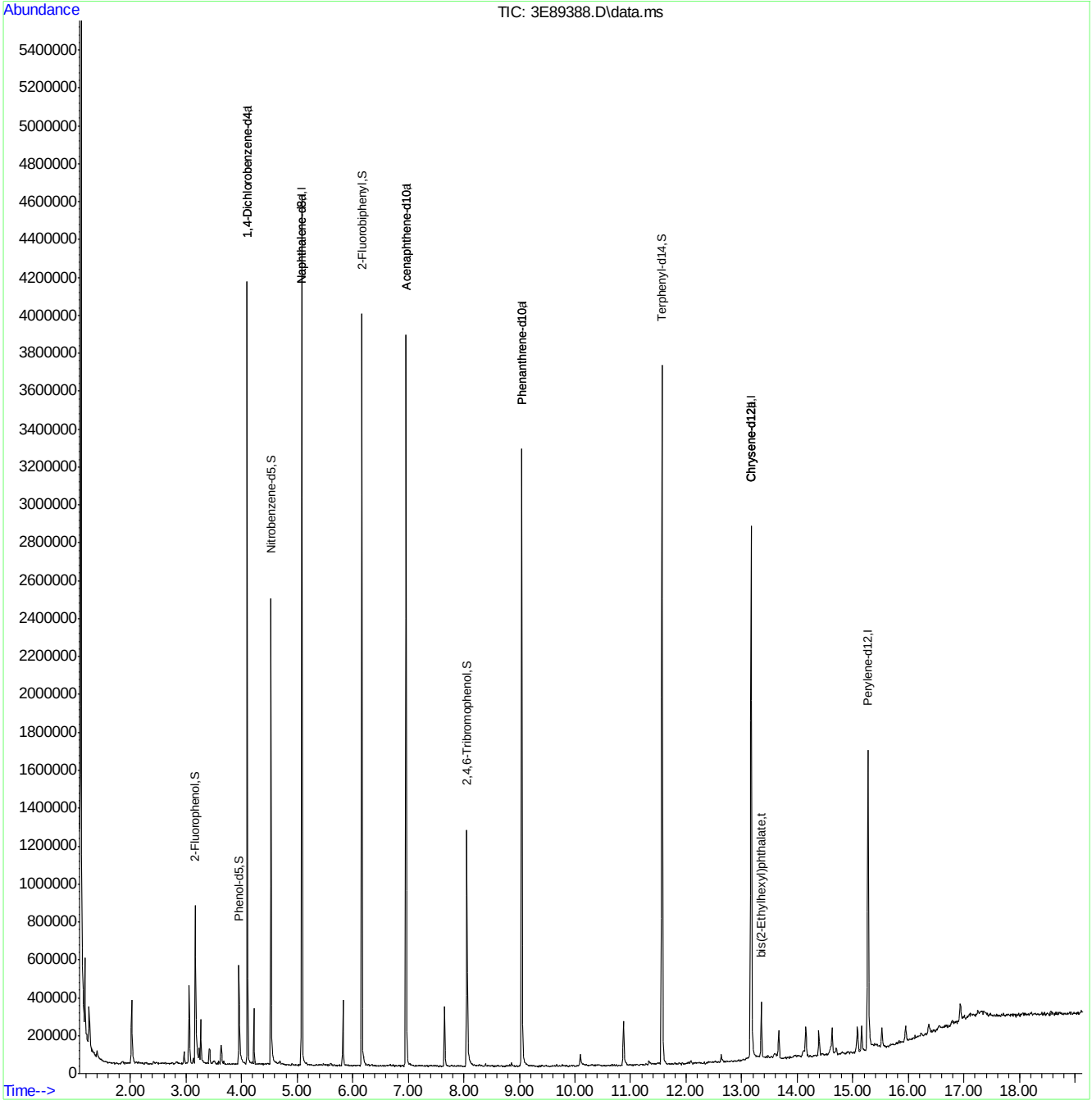
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

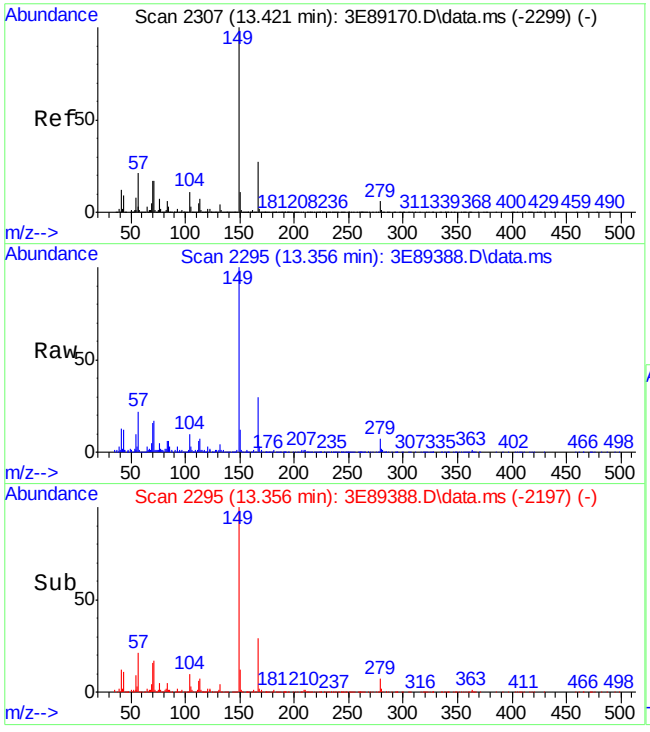
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89388.D
Acq On : 15 Dec 2016 10:48 am
Operator : ashleyn
Sample : op99167a-mb1
Misc : op99167a,e3e3956,1000
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 12:53:46 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration



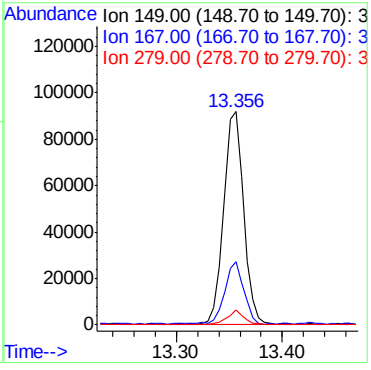
M3E3946.M Mon Dec 19 12:54:16 2016 MS3E



#90
bis(2-Ethylhexyl)phthalate
Concen: 4.80 ppm
RT: 13.356 min Scan# 2295
Delta R.T. 0.023 min
Lab File: 3E89388.D
Acq: 15 Dec 2016 10:48 am

Tgt Ion:149 Resp: 122094

Ion	Ratio	Lower	Upper
149	100		
167	29.2	0.0	56.6
279	7.1	0.0	35.5



9.2.4

9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33012.D
Acq On : 15 Dec 2016 12:24 am
Operator : chriss2
Sample : op99167-bs1
Misc : op99167,e6p1523,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:54:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	417877	40.00	ppm	-0.03
24) Naphthalene-d8	5.500	136	1691925	40.00	ppm	-0.03
47) Acenaphthene-d10	7.223	164	953574	40.00	ppm	-0.04
69) Phenanthrene-d10	8.913	188	1540345	40.00	ppm	-0.04
83) Chrysene-d12	12.079	240	1579008	40.00	ppm	-0.04
91) Perylene-d12	13.673	264	1535385	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.484	152	417877	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.223	164	953574	40.00	ppm	-0.04
105) Phenanthrene-d10a	8.913	188	1540345	40.00	ppm	-0.04
107) Chrysene-d12a	12.079	240	1579008	40.00	ppm	-0.04
109) Naphthalene-d8a	5.500	136	1691925	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.527	112	338725	20.70	ppm	-0.02
Spiked Amount 50.000			Recovery = 41.40%			
8) Phenol-d5	4.254	99	397651	17.91	ppm	0.03
Spiked Amount 50.000			Recovery = 35.82%			
25) Nitrobenzene-d5	4.907	82	828116	45.54	ppm	-0.03
Spiked Amount 50.000			Recovery = 91.08%			
51) 2-Fluorobiphenyl	6.517	172	1259378	39.17	ppm	-0.04
Spiked Amount 50.000			Recovery = 78.34%			
73) 2,4,6-Tribromophenol	8.111	330	168488	34.15	ppm	-0.04
Spiked Amount 50.000			Recovery = 68.30%			
85) Terphenyl-d14	10.838	244	1455896	45.06	ppm	-0.05
Spiked Amount 50.000			Recovery = 90.12%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.976	88	142020	20.45	ppm	99
3) Pyridine	2.318	79	283723	15.64	ppm	94
4) N-Nitrosodimethylamine	2.286	74	260399	22.81	ppm	97
6) Indene	4.677	116	970970	34.34	ppm	97
7) Cumene	3.891	105	1190432	29.92	ppm	96
9) Phenol	4.265	94	419875	17.90	ppm	97
10) Aniline	4.249	93	433979	16.20	ppm	95
11) bis(2-Chloroethyl)ether	4.292	93	700106	42.82	ppm	94
12) 2-Chlorophenol	4.340	128	446279	25.78	ppm	83
13) Decane	4.372	43	366838	30.72	ppm	99
14) 1,3-Dichlorobenzene	4.441	146	468705	26.82	ppm	98
15) 1,4-Dichlorobenzene	4.495	146	495633	27.85	ppm	99
16) Benzyl alcohol	4.597	108	380172	33.27	ppm	77
17) 1,2-Dichlorobenzene	4.613	146	485396	28.83	ppm	99
18) Acetophenone	4.789	105	881587	38.73	ppm	88
19) 2-Methylphenol	4.704	108	527303	34.01	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.693	121	223242	38.04	ppm #	85
21) 3&4-Methylphenol	4.816	108	541824	33.48	ppm	98
22) n-Nitroso-di-n-propyla...	4.794	70	539734	42.62	ppm	94
23) Hexachloroethane	4.869	201	139844	28.43	ppm	96
26) Nitrobenzene	4.923	77	766056	43.78	ppm	85
27) Quinoline	5.816	129	1243944	37.09	ppm	96

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33012.D
Acq On : 15 Dec 2016 12:24 am
Operator : chriss2
Sample : op99167-bs1
Misc : op99167,e6p1523,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:54:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28)	Isophorone	5.110	82	1382832	42.13	ppm		92
29)	2-Nitrophenol	5.180	139	249590	27.84	ppm		78
30)	2,4-Dimethylphenol	5.233	107	653650	44.25	ppm		93
31)	Benzoic acid	5.303	105	62719	5.53	ppm		95
32)	bis(2-Chloroethoxy)met...	5.292	93	871575	45.52	ppm		96
33)	2,4-Dichlorophenol	5.394	162	388205	31.39	ppm		95
34)	2,6-Dichlorophenol	5.581	162	320907	26.69	ppm		98
36)	1,2,4-Trichlorobenzene	5.452	180	413542	33.06	ppm		99
38)	Naphthalene	5.517	128	1617521	33.33	ppm		99
39)	4-Chloroaniline	5.570	127	367136	17.35	ppm		93
40)	2,3-Dichloroaniline	6.437	161	521125	33.47	ppm		94
41)	Caprolactam	5.875	55	75427	12.33	ppm		91
42)	Hexachlorobutadiene	5.629	225	211150	34.04	ppm		98
43)	4-Chloro-3-methylphenol	6.035	107	605468	42.17	ppm		90
44)	2-Methylnaphthalene	6.153	141	952817	35.53	ppm		95
45)	1-Methylnaphthalene	6.249	141	906353	32.78	ppm		95
46)	Dimethylnaphthalene	6.779	156	1042579	37.15	ppm		96
48)	Hexachlorocyclopentadiene	6.313	237	433149	71.45	ppm		100
49)	2,4,6-Trichlorophenol	6.442	196	218422	28.20	ppm		99
50)	2,4,5-Trichlorophenol	6.490	196	261926	30.81	ppm		99
52)	2-Chloronaphthalene	6.634	162	1053136	38.58	ppm		96
53)	Biphenyl	6.618	154	1422393	38.45	ppm		100
54)	2-Nitroaniline	6.752	65	450282	51.54	ppm	#	74
55)	Dimethylphthalate	6.950	163	1291683	40.81	ppm		99
56)	Acenaphthylene	7.068	152	1742397	38.14	ppm		100
57)	2,6-Dinitrotoluene	7.009	165	290867	42.20	ppm		74
58)	3-Nitroaniline	7.191	138	237733	25.74	ppm	#	67
59)	Acenaphthene	7.260	153	1109939	38.99	ppm		99
60)	2,4-Dinitrophenol	7.308	184	145425	40.91	ppm		76
61)	4-Nitrophenol	7.447	109	81951	20.81	ppm	#	1
62)	Dibenzofuran	7.447	168	1573081	40.87	ppm		89
63)	2,4-Dinitrotoluene	7.447	165	410415	45.35	ppm		86
64)	2,3,4,6-Tetrachlorophenol	7.603	232	146507	23.44	ppm		89
65)	Diethylphthalate	7.731	149	1381872	43.76	ppm		97
66)	Fluorene	7.832	166	1335331	41.74	ppm		96
67)	4-Chlorophenyl-phenyle...	7.843	204	615326	46.78	ppm		99
68)	4-Nitroaniline	7.881	138	359948	36.66	ppm		94
70)	4,6-Dinitro-2-methylph...	7.907	198	120318	23.51	ppm		73
71)	n-Nitrosodiphenylamine	7.982	169	919499	37.48	ppm		100
72)	1,2-Diphenylhydrazine	8.025	77	1689648	48.12	ppm		97
74)	4-Bromophenyl-phenylether	8.405	248	377553	44.86	ppm		95
75)	Hexachlorobenzene	8.469	284	420811	43.86	ppm		83
76)	Pentachlorophenol	8.715	266	100436	20.06	ppm		94
77)	Phenanthrene	8.940	178	1823654	38.99	ppm		99
78)	Anthracene	8.998	178	1840680	39.17	ppm		99
79)	Carbazole	9.207	167	1829917	39.60	ppm		98
80)	Di-n-butylphthalate	9.662	149	2333973	42.20	ppm		99
81)	Fluoranthene	10.352	202	1934260	42.75	ppm		95
82)	Octadecane	8.849	57	878722	46.88	ppm		94
84)	Pyrene	10.619	202	2040706	40.52	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33012.D
Acq On : 15 Dec 2016 12:24 am
Operator : chriss2
Sample : op99167-bs1
Misc : op99167,e6p1523,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:54:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
86) Butylbenzylphthalate	11.459	149	1081991	41.67 ppm	93
87) Benzo[a]anthracene	12.063	228	1918921	41.21 ppm	99
88) 3,3'-Dichlorobenzidine	12.063	252	881159	47.93 ppm	98
89) Chrysene	12.106	228	1751066	38.69 ppm	100
90) bis(2-Ethylhexyl)phtha...	12.170	149	1473605	40.60 ppm	99
92) Di-n-octylphthalate	12.914	149	2564756	41.37 ppm	98
93) Benzo[b]fluoranthene	13.277	252	2064101	41.31 ppm	97
94) Benzo[k]fluoranthene	13.310	252	1882024	41.83 ppm	96
95) Benzo[a]pyrene	13.614	252	1749479	40.29 ppm	96
96) Indeno[1,2,3-cd]pyrene	14.759	276	2264143	41.71 ppm	90
98) Dibenz[a,h]anthracene	14.780	278	1980241	42.83 ppm	95
99) 7,12-Dimethylbenz(a)an...	13.277	256	782606	37.53 ppm	100
100) Benzo[g,h,i]perylene	15.064	276	1892007	41.44 ppm	91
102) Benzaldehyde	4.158	105	404663	29.96 ppm	87
104) 1,2,4,5-Tetrachloroben...	6.319	216	475901	43.57 ppm	99
106) Atrazine	8.629	215	193861	45.19 ppm	94
108) benzidine	10.539	184	98707	2.97 ppm	99

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

9.3.1

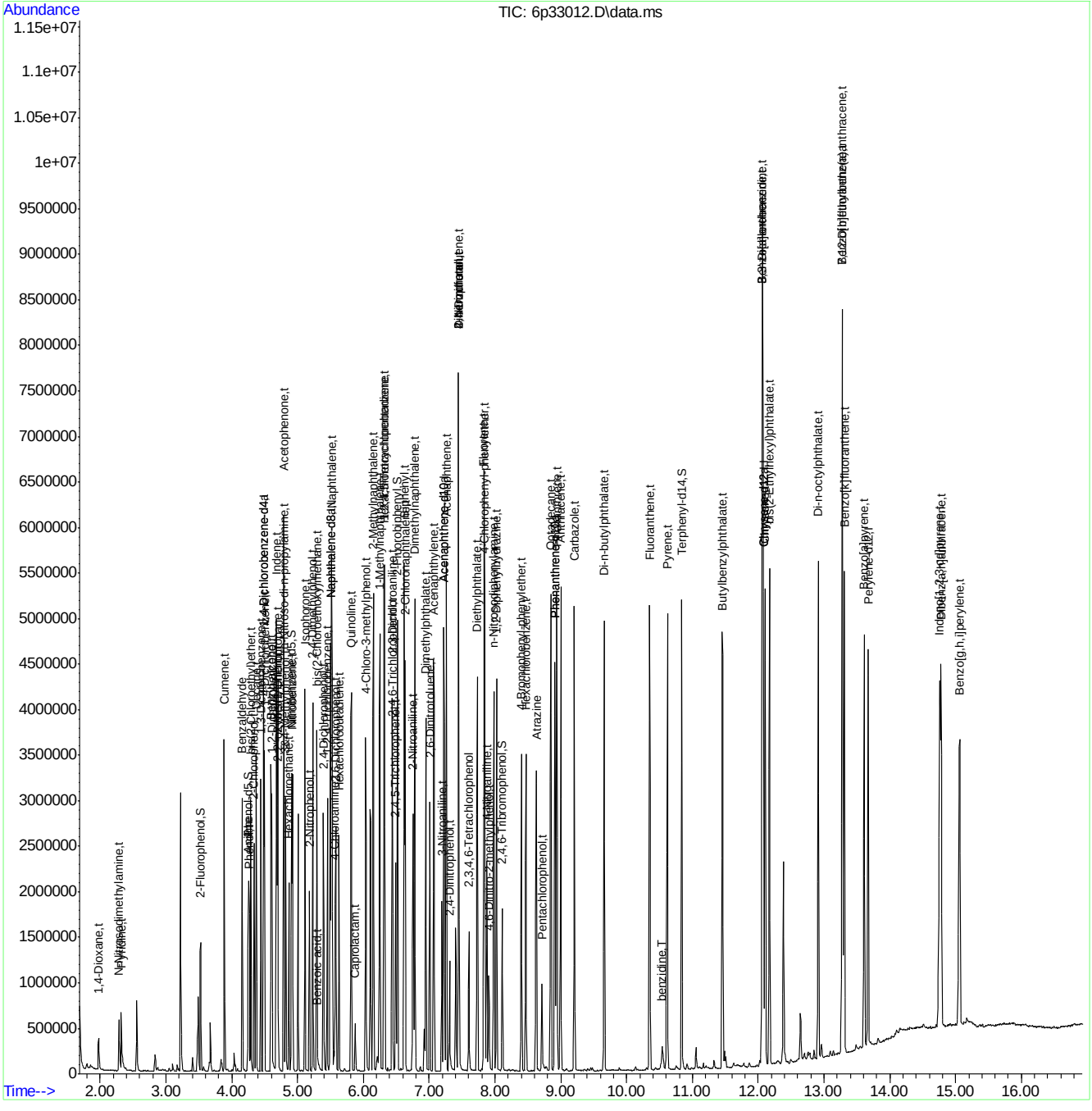
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33012.D
Acq On : 15 Dec 2016 12:24 am
Operator : chriss2
Sample : op99167-bs1
Misc : op99167,e6p1523,1000
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 15 06:54:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57218.D
Acq On : 14 Dec 2016 10:29 am
Operator : shaniceg
Sample : op99167a-bs12
Misc : op99167a,e3p2653,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 12:42:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.900	150	26842	4.00	ppm	-0.02
14) Fluorene-d10	13.876	176	31318	4.00	ppm	-0.03
21) Fluoranthene-d10	18.042	212	45231	4.00	ppm	-0.03
31) Benzo(a)pyrene-d12	22.615	264	34543	4.00	ppm	-0.05
System Monitoring Compounds						
3) 2-Fluorophenol	4.918	112	107085	20.97	ppm	0.00
Spiked Amount 50.000			Recovery = 41.94%			
4) Phenol-d5	6.502	99	97443	14.70	ppm	0.00
Spiked Amount 50.000			Recovery = 29.40%			
7) Nitrobenzene-d5	8.026	82	169924	31.15	ppm	-0.03
Spiked Amount 50.000			Recovery = 62.30%			
15) 2-Fluorobiphenyl	11.547	172	284455	31.40	ppm	-0.05
Spiked Amount 50.000			Recovery = 62.80%			
20) 2,4,6-Tribromophenol	14.428	330	54359	46.76	ppm	-0.01
Spiked Amount 50.000			Recovery = 93.52%			
28) Terphenyl-d14	18.830	244	312942	46.39	ppm	-0.03
Spiked Amount 50.000			Recovery = 92.78%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.608	88	1022	0.32	ppm	86
5) Phenol	6.526	94	10120	1.58	ppm #	87
6) bis(2-Chloroethyl)ether	6.598	93	2968	0.53	ppm	91
8) Nitrobenzene	8.063	77	3254	0.61	ppm	83
9) Naphthalene	9.419	128	10937	0.63	ppm	97
10) Hexachlorobutadiene	9.702	225	1126	0.59	ppm	81
11) 2-Methylnaphthalene	10.789	141	6077	0.68	ppm	91
16) Acenaphthylene	12.546	152	8603	0.60	ppm	98
17) Acenaphthene	12.897	153	6401	0.70	ppm	98
18) 4,6-dinitro-2-methylph...	14.106	198	4102	6.30	ppm	76
19) Fluorene	13.922	166	6735	0.76	ppm	95
22) Hexachlorobenzene	15.043	284	1800	0.62	ppm	83
23) Pentachlorophenol	15.476	266	4251	2.84	ppm	98
24) Phenanthrene	15.832	178	10483	0.72	ppm	91
25) Anthracene	15.924	178	8760	0.70	ppm	93
26) Fluoranthene	18.073	202	10065	0.76	ppm	96
27) Pyrene	18.459	202	10661	0.84	ppm	92
29) Benzo[a]anthracene	20.530	228	7853	0.89	ppm	94
30) Chrysene	20.591	228	7372	0.72	ppm	97
32) Benzo[b]fluoranthene	22.198	252	7913	0.72	ppm	97
33) Benzo[k]fluoranthene	22.229	252	7437	0.70	ppm	95
34) Benzo[a]pyrene	22.646	252	5828	0.59	ppm	97
35) Indeno[1,2,3-cd]pyrene	24.199	276	7414	0.70	ppm	95
36) Dibenz[a,h]anthracene	24.233	278	5860	0.69	ppm	72
37) Benzo[g,h,i]perylene	24.603	276	6072	0.65	ppm	87

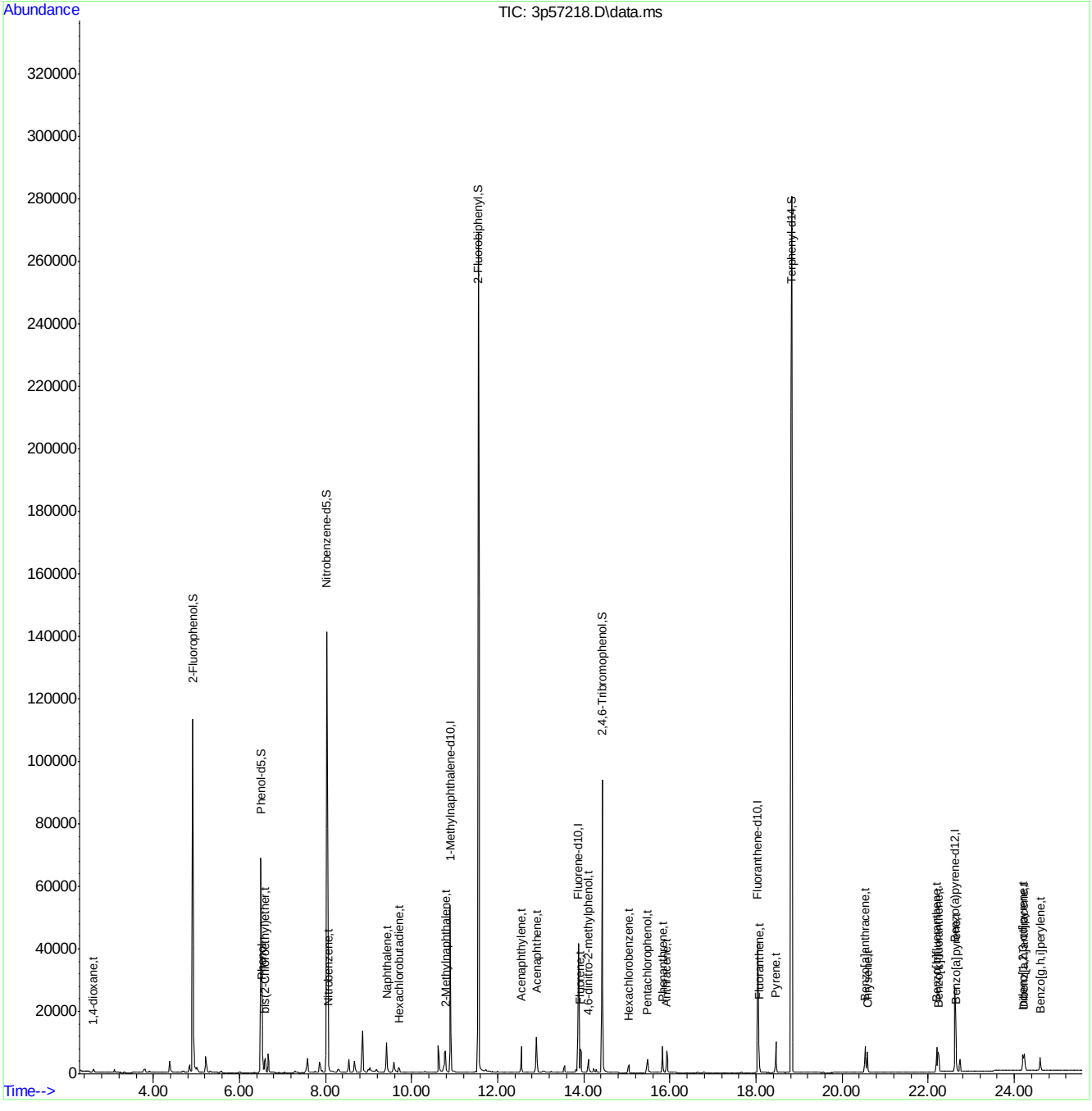
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57218.D
Acq On : 14 Dec 2016 10:29 am
Operator : shaniceg
Sample : op99167a-bs12
Misc : op99167a,e3p2653,1000
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 12:42:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33023.D
Acq On : 15 Dec 2016 4:54 am
Operator : chriss2
Sample : op99167-ms
Misc : op99167,e6p1523,485
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 15 10:38:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	397022	40.00	ppm	-0.03
24) Naphthalene-d8	5.500	136	1611054	40.00	ppm	-0.03
47) Acenaphthene-d10	7.223	164	898930	40.00	ppm	-0.04
69) Phenanthrene-d10	8.907	188	1451899	40.00	ppm	-0.04
83) Chrysene-d12	12.074	240	1457474	40.00	ppm	-0.04
91) Perylene-d12	13.668	264	1337268	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.484	152	397022	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.223	164	898930	40.00	ppm	-0.04
105) Phenanthrene-d10a	8.907	188	1451899	40.00	ppm	-0.04
107) Chrysene-d12a	12.074	240	1457474	40.00	ppm	-0.04
109) Naphthalene-d8a	5.500	136	1611054	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.521	112	430688	27.70	ppm	-0.03
Spiked Amount 50.000			Recovery = 55.40%			
8) Phenol-d5	4.254	99	413057	19.58	ppm	0.03
Spiked Amount 50.000			Recovery = 39.16%			
25) Nitrobenzene-d5	4.907	82	825603	47.68	ppm	-0.03
Spiked Amount 50.000			Recovery = 95.36%			
51) 2-Fluorobiphenyl	6.517	172	1221475	40.30	ppm	-0.04
Spiked Amount 50.000			Recovery = 80.60%			
73) 2,4,6-Tribromophenol	8.111	330	217805	46.84	ppm	-0.04
Spiked Amount 50.000			Recovery = 93.68%			
85) Terphenyl-d14	10.838	244	1176460	39.44	ppm	-0.05
Spiked Amount 50.000			Recovery = 78.88%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.976	88	156725	23.75	ppm	97
3) Pyridine	2.318	79	360959	20.94	ppm	99
4) N-Nitrosodimethylamine	2.286	74	258692	23.86	ppm	95
6) Indene	4.677	116	991915	36.93	ppm	97
7) Cumene	3.885	105	1675095	44.32	ppm	93
9) Phenol	4.260	94	455471	20.43	ppm	88
10) Aniline	4.243	93	662799	26.04	ppm	89
11) bis(2-Chloroethyl)ether	4.292	93	695371	44.76	ppm	93
12) 2-Chlorophenol	4.340	128	521075	31.68	ppm	86
13) Decane	4.372	43	405662	35.75	ppm	98
14) 1,3-Dichlorobenzene	4.441	146	513049	30.90	ppm	97
15) 1,4-Dichlorobenzene	4.495	146	527276	31.18	ppm	98
16) Benzyl alcohol	4.596	108	368596	33.95	ppm	78
17) 1,2-Dichlorobenzene	4.613	146	512013	32.01	ppm	99
18) Acetophenone	4.789	105	904144	41.81	ppm	85
19) 2-Methylphenol	4.698	108	522455	35.47	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.693	121	224521	40.27	ppm #	75
21) 3&4-Methylphenol	4.816	108	531515	34.57	ppm	98
22) n-Nitroso-di-n-propyla...	4.794	70	549254	45.65	ppm	93
23) Hexachloroethane	4.869	201	149805	32.06	ppm	93
26) Nitrobenzene	4.923	77	764323	45.88	ppm	86
27) Quinoline	5.816	129	1192912	37.35	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33023.D
Acq On : 15 Dec 2016 4:54 am
Operator : chriss2
Sample : op99167-ms
Misc : op99167,e6p1523,485
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 15 10:38:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Isophorone	5.110	82	1398328	44.74	ppm		92
29) 2-Nitrophenol	5.179	139	311358	36.47	ppm		72
30) 2,4-Dimethylphenol	5.233	107	658374	46.81	ppm		93
31) Benzoic acid	5.329	105	311347	28.81	ppm		98
32) bis(2-Chloroethoxy)met...	5.292	93	861600	47.26	ppm		97
33) 2,4-Dichlorophenol	5.393	162	451954	38.38	ppm		93
34) 2,6-Dichlorophenol	5.581	162	460911	40.26	ppm		97
36) 1,2,4-Trichlorobenzene	5.452	180	433473	36.40	ppm		98
38) Naphthalene	5.516	128	1638324	35.45	ppm		99
39) 4-Chloroaniline	5.570	127	515364	25.57	ppm		91
40) 2,3-Dichloroaniline	6.436	161	562781	37.96	ppm		93
41) Caprolactam	5.875	55	75885	13.02	ppm		87
42) Hexachlorobutadiene	5.629	225	226528	38.35	ppm		99
43) 4-Chloro-3-methylphenol	6.041	107	608097	44.47	ppm		91
44) 2-Methylnaphthalene	6.153	141	960527	37.62	ppm		95
45) 1-Methylnaphthalene	6.249	141	926973	35.21	ppm		95
46) Dimethylnaphthalene	6.779	156	1055314	39.49	ppm		96
48) Hexachlorocyclopentadiene	6.313	237	467838	81.86	ppm		99
49) 2,4,6-Trichlorophenol	6.442	196	323975	44.37	ppm		98
50) 2,4,5-Trichlorophenol	6.495	196	327785	40.90	ppm		97
52) 2-Chloronaphthalene	6.634	162	1056524	41.06	ppm		95
53) Biphenyl	6.618	154	1446265	41.47	ppm		98
54) 2-Nitroaniline	6.752	65	454400	55.17	ppm	#	72
55) Dimethylphthalate	6.950	163	1253952	42.03	ppm		99
56) Acenaphthylene	7.068	152	1730125	40.18	ppm		100
57) 2,6-Dinitrotoluene	7.009	165	282075	43.41	ppm		72
58) 3-Nitroaniline	7.196	138	252096	28.95	ppm		77
59) Acenaphthene	7.260	153	1114309	41.52	ppm		98
60) 2,4-Dinitrophenol	7.308	184	343181	94.89	ppm	#	60
61) 4-Nitrophenol	7.442	109	150837	40.63	ppm	#	1
62) Dibenzofuran	7.447	168	1545758	42.60	ppm		86
63) 2,4-Dinitrotoluene	7.447	165	392192	45.97	ppm		82
64) 2,3,4,6-Tetrachlorophenol	7.602	232	242027	41.08	ppm		88
65) Diethylphthalate	7.731	149	1354631	45.50	ppm		97
66) Fluorene	7.832	166	1281034	42.47	ppm		99
67) 4-Chlorophenyl-phenyle...	7.843	204	595955	48.07	ppm		99
68) 4-Nitroaniline	7.881	138	334549	36.14	ppm		88
70) 4,6-Dinitro-2-methylph...	7.907	198	224253	46.49	ppm		77
71) n-Nitrosodiphenylamine	7.982	169	895213	38.72	ppm		98
72) 1,2-Diphenylhydrazine	8.020	77	1710474	51.68	ppm		90
74) 4-Bromophenyl-phenylether	8.405	248	365100	46.02	ppm		97
75) Hexachlorobenzene	8.469	284	399572	44.18	ppm		85
76) Pentachlorophenol	8.710	266	223293	47.31	ppm		99
77) Phenanthrene	8.940	178	1732783	39.31	ppm		99
78) Anthracene	8.998	178	1796811	40.57	ppm		99
79) Carbazole	9.207	167	1733813	39.80	ppm		98
80) Di-n-butylphthalate	9.662	149	2226424	42.71	ppm		99
81) Fluoranthene	10.352	202	1814673	42.55	ppm		95
82) Octadecane	8.849	57	640487	36.25	ppm		94
84) Pyrene	10.614	202	1925257	41.42	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33023.D
Acq On : 15 Dec 2016 4:54 am
Operator : chriss2
Sample : op99167-ms
Misc : op99167,e6p1523,485
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 15 10:38:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
86) Butylbenzylphthalate	11.453	149	992636	41.42 ppm	85
87) Benzo[a]anthracene	12.063	228	1801063	41.90 ppm	98
88) 3,3'-Dichlorobenzidine	12.063	252	1129495	66.56 ppm	99
89) Chrysene	12.106	228	1633852	39.11 ppm	98
90) bis(2-Ethylhexyl)phtha...	12.170	149	1368135	40.84 ppm	99
92) Di-n-octylphthalate	12.914	149	2326186	43.08 ppm	98
93) Benzo[b]fluoranthene	13.277	252	1892550	43.49 ppm	97
94) Benzo[k]fluoranthene	13.309	252	1642497	41.92 ppm	95
95) Benzo[a]pyrene	13.609	252	1554364	41.10 ppm	97
96) Indeno[1,2,3-cd]pyrene	14.759	276	2016931	42.66 ppm	90
98) Dibenz[a,h]anthracene	14.780	278	1776748	44.12 ppm	95
99) 7,12-Dimethylbenz(a)an...	13.277	256	603778	33.24 ppm	98
100) Benzo[g,h,i]perylene	15.058	276	1685540	42.39 ppm	93
102) Benzaldehyde	4.158	105	423017	32.96 ppm	88
104) 1,2,4,5-Tetrachloroben...	6.319	216	482163	46.82 ppm	99
106) Atrazine	8.624	215	168121	41.57 ppm	88
108) benzidine	10.539	184	263117	8.58 ppm	97

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

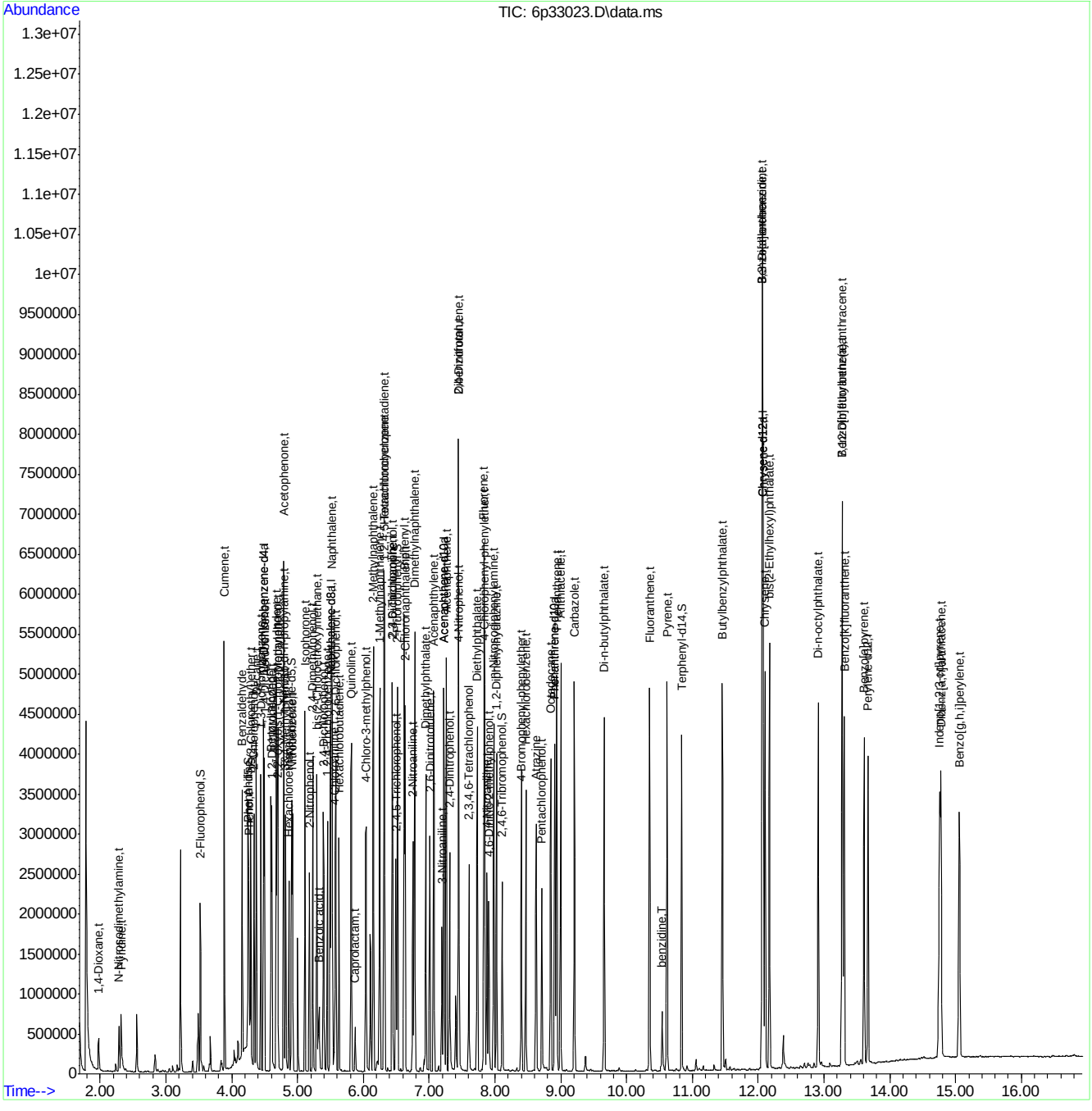
9.4.1

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33023.D
Acq On : 15 Dec 2016 4:54 am
Operator : chriss2
Sample : op99167-ms
Misc : op99167,e6p1523,485
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 15 10:38:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33024.D
Acq On : 15 Dec 2016 5:19 am
Operator : chriss2
Sample : op99167-msd
Misc : op99167,e6p1523,485
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 15 10:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	412575	40.00	ppm	-0.03
24) Naphthalene-d8	5.500	136	1661438	40.00	ppm	-0.03
47) Acenaphthene-d10	7.223	164	926333	40.00	ppm	-0.04
69) Phenanthrene-d10	8.907	188	1506848	40.00	ppm	-0.04
83) Chrysene-d12	12.074	240	1486198	40.00	ppm	-0.04
91) Perylene-d12	13.668	264	1347669	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.484	152	412575	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.223	164	926333	40.00	ppm	-0.04
105) Phenanthrene-d10a	8.907	188	1506848	40.00	ppm	-0.04
107) Chrysene-d12a	12.074	240	1486198	40.00	ppm	-0.04
109) Naphthalene-d8a	5.500	136	1661438	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.521	112	455004	28.16	ppm	-0.03
Spiked Amount 50.000			Recovery = 56.32%			
8) Phenol-d5	4.254	99	422775	19.28	ppm	0.03
Spiked Amount 50.000			Recovery = 38.56%			
25) Nitrobenzene-d5	4.907	82	806544	45.17	ppm	-0.03
Spiked Amount 50.000			Recovery = 90.34%			
51) 2-Fluorobiphenyl	6.517	172	1192906	38.19	ppm	-0.04
Spiked Amount 50.000			Recovery = 76.38%			
73) 2,4,6-Tribromophenol	8.110	330	207257	42.94	ppm	-0.04
Spiked Amount 50.000			Recovery = 85.88%			
85) Terphenyl-d14	10.838	244	1174579	38.62	ppm	-0.05
Spiked Amount 50.000			Recovery = 77.24%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.976	88	162033	23.63	ppm	95
3) Pyridine	2.323	79	165185	9.22	ppm	98
4) N-Nitrosodimethylamine	2.286	74	262645	23.31	ppm	90
6) Indene	4.677	116	1004318	35.98	ppm	97
7) Cumene	3.890	105	1700457	43.29	ppm	96
9) Phenol	4.265	94	447947	19.34	ppm	97
10) Aniline	4.243	93	486630	18.40	ppm	90
11) bis(2-Chloroethyl)ether	4.292	93	697790	43.23	ppm	94
12) 2-Chlorophenol	4.340	128	522885	30.59	ppm	85
13) Decane	4.372	43	414177	35.13	ppm	99
14) 1,3-Dichlorobenzene	4.441	146	511050	29.62	ppm	97
15) 1,4-Dichlorobenzene	4.495	146	535398	30.47	ppm	97
16) Benzyl alcohol	4.596	108	370835	32.87	ppm	78
17) 1,2-Dichlorobenzene	4.612	146	518595	31.20	ppm	98
18) Acetophenone	4.789	105	888060	39.52	ppm	86
19) 2-Methylphenol	4.698	108	522382	34.13	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.693	121	218544	37.72	ppm #	77
21) 3&4-Methylphenol	4.816	108	537062	33.61	ppm	99
22) n-Nitroso-di-n-propyla...	4.794	70	538363	43.06	ppm	93
23) Hexachloroethane	4.869	201	152168	31.33	ppm	94
26) Nitrobenzene	4.923	77	758879	44.17	ppm	86
27) Quinoline	5.816	129	1202266	36.50	ppm	95

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33024.D
Acq On : 15 Dec 2016 5:19 am
Operator : chriss2
Sample : op99167-msd
Misc : op99167,e6p1523,485
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 15 10:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Isophorone	5.110	82	1362826	42.28	ppm		94
29) 2-Nitrophenol	5.179	139	309358	35.14	ppm		75
30) 2,4-Dimethylphenol	5.233	107	645342	44.49	ppm		93
31) Benzoic acid	5.329	105	332483	29.83	ppm		96
32) bis(2-Chloroethoxy)met...	5.292	93	843794	44.88	ppm		97
33) 2,4-Dichlorophenol	5.393	162	439031	36.15	ppm		93
34) 2,6-Dichlorophenol	5.581	162	448545	37.99	ppm		97
36) 1,2,4-Trichlorobenzene	5.452	180	420114	34.21	ppm		98
38) Naphthalene	5.516	128	1624409	34.09	ppm		99
39) 4-Chloroaniline	5.570	127	397219	19.11	ppm		91
40) 2,3-Dichloroaniline	6.436	161	529224	34.61	ppm		95
41) Caprolactam	5.875	55	72251	12.02	ppm		90
42) Hexachlorobutadiene	5.629	225	225488	37.01	ppm		99
43) 4-Chloro-3-methylphenol	6.035	107	582302	41.30	ppm		87
44) 2-Methylnaphthalene	6.153	141	912103	34.64	ppm		94
45) 1-Methylnaphthalene	6.249	141	907145	33.41	ppm		95
46) Dimethylnaphthalene	6.779	156	1029309	37.35	ppm		95
48) Hexachlorocyclopentadiene	6.313	237	451476	76.66	ppm		100
49) 2,4,6-Trichlorophenol	6.442	196	314421	41.79	ppm		99
50) 2,4,5-Trichlorophenol	6.495	196	327447	39.65	ppm		98
52) 2-Chloronaphthalene	6.634	162	1031555	38.90	ppm		95
53) Biphenyl	6.618	154	1407130	39.16	ppm		98
54) 2-Nitroaniline	6.752	65	434111	51.15	ppm	#	74
55) Dimethylphthalate	6.950	163	1213179	39.46	ppm		100
56) Acenaphthylene	7.067	152	1650526	37.19	ppm		100
57) 2,6-Dinitrotoluene	7.009	165	274456	40.99	ppm		75
58) 3-Nitroaniline	7.196	138	226373	25.23	ppm		75
59) Acenaphthene	7.260	153	1053256	38.08	ppm		99
60) 2,4-Dinitrophenol	7.308	184	329582	88.68	ppm		68
61) 4-Nitrophenol	7.442	109	153272	40.07	ppm	#	1
62) Dibenzofuran	7.447	168	1475539	39.47	ppm		85
63) 2,4-Dinitrotoluene	7.447	165	383731	43.64	ppm		84
64) 2,3,4,6-Tetrachlorophenol	7.602	232	237051	39.05	ppm		90
65) Diethylphthalate	7.731	149	1284372	41.87	ppm		97
66) Fluorene	7.832	166	1249198	40.19	ppm		96
67) 4-Chlorophenyl-phenyle...	7.843	204	579506	45.36	ppm		99
68) 4-Nitroaniline	7.880	138	318258	33.37	ppm		87
70) 4,6-Dinitro-2-methylph...	7.907	198	217569	43.46	ppm		79
71) n-Nitrosodiphenylamine	7.982	169	872353	36.35	ppm		98
72) 1,2-Diphenylhydrazine	8.020	77	1636520	47.64	ppm		91
74) 4-Bromophenyl-phenylether	8.399	248	350031	42.51	ppm		87
75) Hexachlorobenzene	8.469	284	397972	42.40	ppm		88
76) Pentachlorophenol	8.715	266	207344	42.33	ppm		98
77) Phenanthrene	8.939	178	1695355	37.05	ppm		99
78) Anthracene	8.998	178	1761335	38.32	ppm		99
79) Carbazole	9.207	167	1646664	36.42	ppm		99
80) Di-n-butylphthalate	9.662	149	2156636	39.86	ppm		98
81) Fluoranthene	10.352	202	1766011	39.90	ppm		97
82) Octadecane	8.849	57	654973	35.72	ppm		94
84) Pyrene	10.614	202	1818432	38.36	ppm		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33024.D
Acq On : 15 Dec 2016 5:19 am
Operator : chriss2
Sample : op99167-msd
Misc : op99167,e6p1523,485
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 15 10:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
86) Butylbenzylphthalate	11.453	149	958570	39.22	ppm		86
87) Benzo[a]anthracene	12.063	228	1730045	39.47	ppm		100
88) 3,3'-Dichlorobenzidine	12.063	252	923525	53.37	ppm		98
89) Chrysene	12.106	228	1582956	37.16	ppm		100
90) bis(2-Ethylhexyl)phtha...	12.170	149	1309096	38.32	ppm		98
92) Di-n-octylphthalate	12.914	149	2247457	41.30	ppm		98
93) Benzo[b]fluoranthene	13.277	252	1845265	42.08	ppm		96
94) Benzo[k]fluoranthene	13.304	252	1576810	39.93	ppm		97
95) Benzo[a]pyrene	13.609	252	1477342	38.76	ppm		97
96) Indeno[1,2,3-cd]pyrene	14.759	276	1948503	40.90	ppm		89
98) Dibenz[a,h]anthracene	14.775	278	1693695	41.73	ppm		97
99) 7,12-Dimethylbenz(a)an...	13.277	256	589177	32.19	ppm		99
100) Benzo[g,h,i]perylene	15.058	276	1617428	40.36	ppm		92
102) Benzaldehyde	4.158	105	428627	32.14	ppm		88
104) 1,2,4,5-Tetrachloroben...	6.319	216	463612	43.69	ppm		98
106) Atrazine	8.624	215	167486	39.91	ppm	#	84
108) benzidine	10.539	184	15374	0.49	ppm		95

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

9.4.2

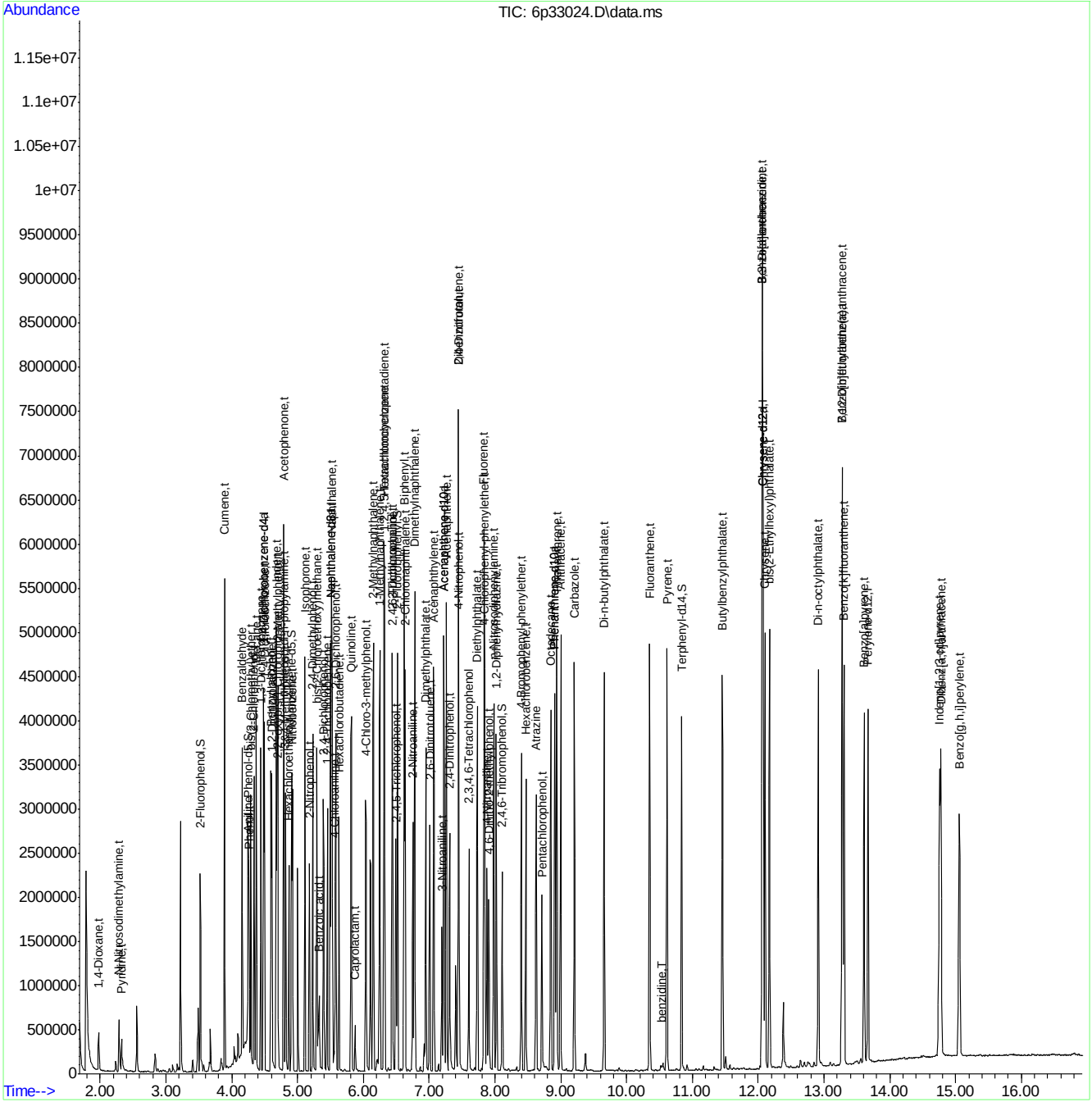
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33024.D
Acq On : 15 Dec 2016 5:19 am
Operator : chriss2
Sample : op99167-msd
Misc : op99167,e6p1523,485
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 15 10:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57219.D
Acq On : 14 Dec 2016 11:00 am
Operator : shaniceg
Sample : op99167a-ms
Misc : op99167a,e3p2653,475
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 12:43:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration

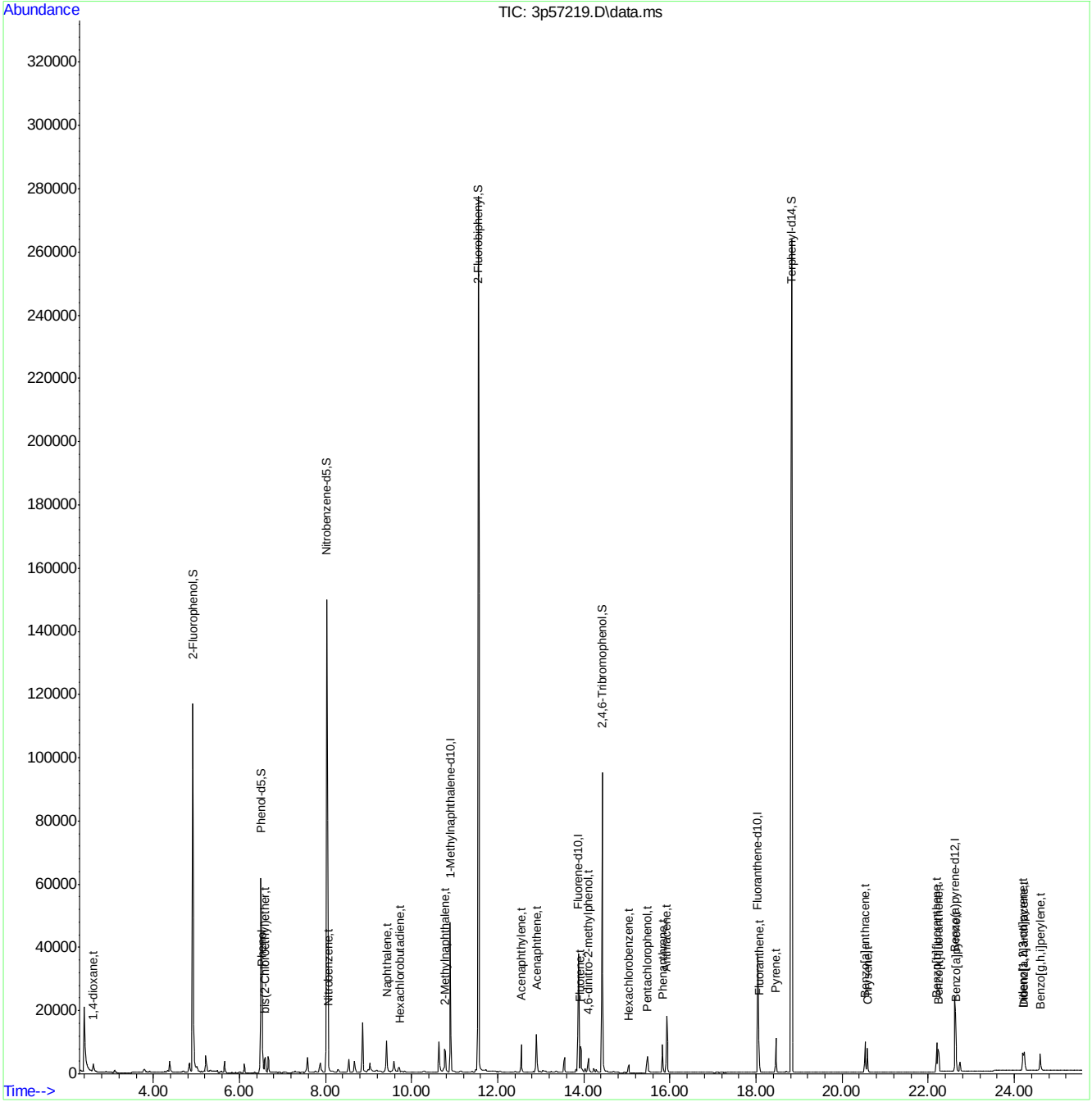
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.899	150	23961	4.00	ppm	-0.02
14) Fluorene-d10	13.875	176	28365	4.00	ppm	-0.03
21) Fluoranthene-d10	18.042	212	41306	4.00	ppm	-0.03
31) Benzo(a)pyrene-d12	22.615	264	29495	4.00	ppm	-0.05
System Monitoring Compounds						
3) 2-Fluorophenol	4.918	112	105146	23.07	ppm	0.00
Spiked Amount 50.000			Recovery = 46.14%			
4) Phenol-d5	6.502	99	93703	15.84	ppm	0.00
Spiked Amount 50.000			Recovery = 31.68%			
7) Nitrobenzene-d5	8.025	82	178539	36.67	ppm	-0.03
Spiked Amount 50.000			Recovery = 73.34%			
15) 2-Fluorobiphenyl	11.547	172	290507	35.40	ppm	-0.05
Spiked Amount 50.000			Recovery = 70.80%			
20) 2,4,6-Tribromophenol	14.428	330	56127	53.31	ppm	-0.02
Spiked Amount 50.000			Recovery = 106.62%			
28) Terphenyl-d14	18.830	244	278755	45.25	ppm	-0.03
Spiked Amount 50.000			Recovery = 90.50%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.604	88	2540	0.90	ppm	87
5) Phenol	6.526	94	9309	1.63	ppm #	76
6) bis(2-Chloroethyl)ether	6.598	93	3176	0.64	ppm	93
8) Nitrobenzene	8.063	77	3521	0.74	ppm	85
9) Naphthalene	9.419	128	11578	0.75	ppm	97
10) Hexachlorobutadiene	9.720	225	1180	0.69	ppm	85
11) 2-Methylnaphthalene	10.770	141	6471	0.81	ppm	79
16) Acenaphthylene	12.545	152	8911	0.68	ppm	97
17) Acenaphthene	12.897	153	6796	0.82	ppm	98
18) 4,6-dinitro-2-methylph...	14.105	198	4310	7.11	ppm	79
19) Fluorene	13.921	166	7133	0.89	ppm	95
22) Hexachlorobenzene	15.043	284	1837	0.69	ppm	80
23) Pentachlorophenol	15.476	266	5028	3.62	ppm	97
24) Phenanthrene	15.831	178	11215	0.84	ppm	91
25) Anthracene	15.924	178	21502	1.87	ppm	95
26) Fluoranthene	18.073	202	10973	0.91	ppm	96
27) Pyrene	18.459	202	11793	1.02	ppm	93
29) Benzo[a]anthracene	20.529	228	9136	1.13	ppm	95
30) Chrysene	20.591	228	8118	0.87	ppm	98
32) Benzo[b]fluoranthene	22.198	252	9293	1.00	ppm	97
33) Benzo[k]fluoranthene	22.229	252	8750	0.97	ppm	95
34) Benzo[a]pyrene	22.646	252	6930	0.82	ppm	97
35) Indeno[1,2,3-cd]pyrene	24.199	276	8746	0.97	ppm	96
36) Dibenz[a,h]anthracene	24.233	278	6386	0.88	ppm	69
37) Benzo[g,h,i]perylene	24.603	276	7519	0.95	ppm	87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57219.D
Acq On : 14 Dec 2016 11:00 am
Operator : shaniceg
Sample : op99167a-ms
Misc : op99167a,e3p2653,475
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 12:43:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57220.D
Acq On : 14 Dec 2016 11:31 am
Operator : shaniceg
Sample : op99167a-msd
Misc : op99167a,e3p2653,475
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 12:43:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Dec 14 11:34:57 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.900	150	25532	4.00	ppm	-0.02
14) Fluorene-d10	13.876	176	30474	4.00	ppm	-0.03
21) Fluoranthene-d10	18.042	212	44730	4.00	ppm	-0.03
31) Benzo(a)pyrene-d12	22.631	264	35338	4.00	ppm	-0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.918	112	142227	29.28	ppm	0.00
Spiked Amount 50.000			Recovery = 58.56%			
4) Phenol-d5	6.502	99	149957	23.79	ppm	-0.05
Spiked Amount 50.000			Recovery = 47.58%			
7) Nitrobenzene-d5	8.026	82	182324	35.14	ppm	-0.03
Spiked Amount 50.000			Recovery = 70.28%			
15) 2-Fluorobiphenyl	11.547	172	309332	35.09	ppm	-0.05
Spiked Amount 50.000			Recovery = 70.18%			
20) 2,4,6-Tribromophenol	14.428	330	60027	53.07	ppm	-0.01
Spiked Amount 50.000			Recovery = 106.14%			
28) Terphenyl-d14	18.830	244	302371	45.32	ppm	-0.03
Spiked Amount 50.000			Recovery = 90.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.604	88	3424	1.14	ppm	84
5) Phenol	6.526	94	15595	2.57	ppm #	87
6) bis(2-Chloroethyl)ether	6.598	93	3039	0.57	ppm	93
8) Nitrobenzene	8.063	77	3673	0.73	ppm	83
9) Naphthalene	9.419	128	12243	0.74	ppm	97
10) Hexachlorobutadiene	9.720	225	1211	0.66	ppm	86
11) 2-Methylnaphthalene	10.789	141	6739	0.79	ppm	90
16) Acenaphthylene	12.546	152	9965	0.71	ppm	98
17) Acenaphthene	12.897	153	7291	0.82	ppm	99
18) 4,6-dinitro-2-methylph...	14.106	198	5429	8.08	ppm	76
19) Fluorene	13.937	166	7663	0.89	ppm	77
22) Hexachlorobenzene	15.043	284	1973	0.69	ppm	83
23) Pentachlorophenol	15.476	266	5642	3.74	ppm	97
24) Phenanthrene	15.832	178	11955	0.83	ppm	92
25) Anthracene	15.924	178	23290	1.87	ppm	92
26) Fluoranthene	18.073	202	11756	0.90	ppm	98
27) Pyrene	18.459	202	12496	1.00	ppm	94
29) Benzo[a]anthracene	20.530	228	9701	1.11	ppm	97
30) Chrysene	20.591	228	9119	0.90	ppm	98
32) Benzo[b]fluoranthene	22.198	252	9905	0.89	ppm	97
33) Benzo[k]fluoranthene	22.245	252	9228	0.85	ppm	88
34) Benzo[a]pyrene	22.646	252	7427	0.73	ppm	99
35) Indeno[1,2,3-cd]pyrene	24.199	276	9055	0.84	ppm	96
36) Dibenz[a,h]anthracene	24.233	278	6673	0.77	ppm	76
37) Benzo[g,h,i]perylene	24.603	276	7682	0.81	ppm	87

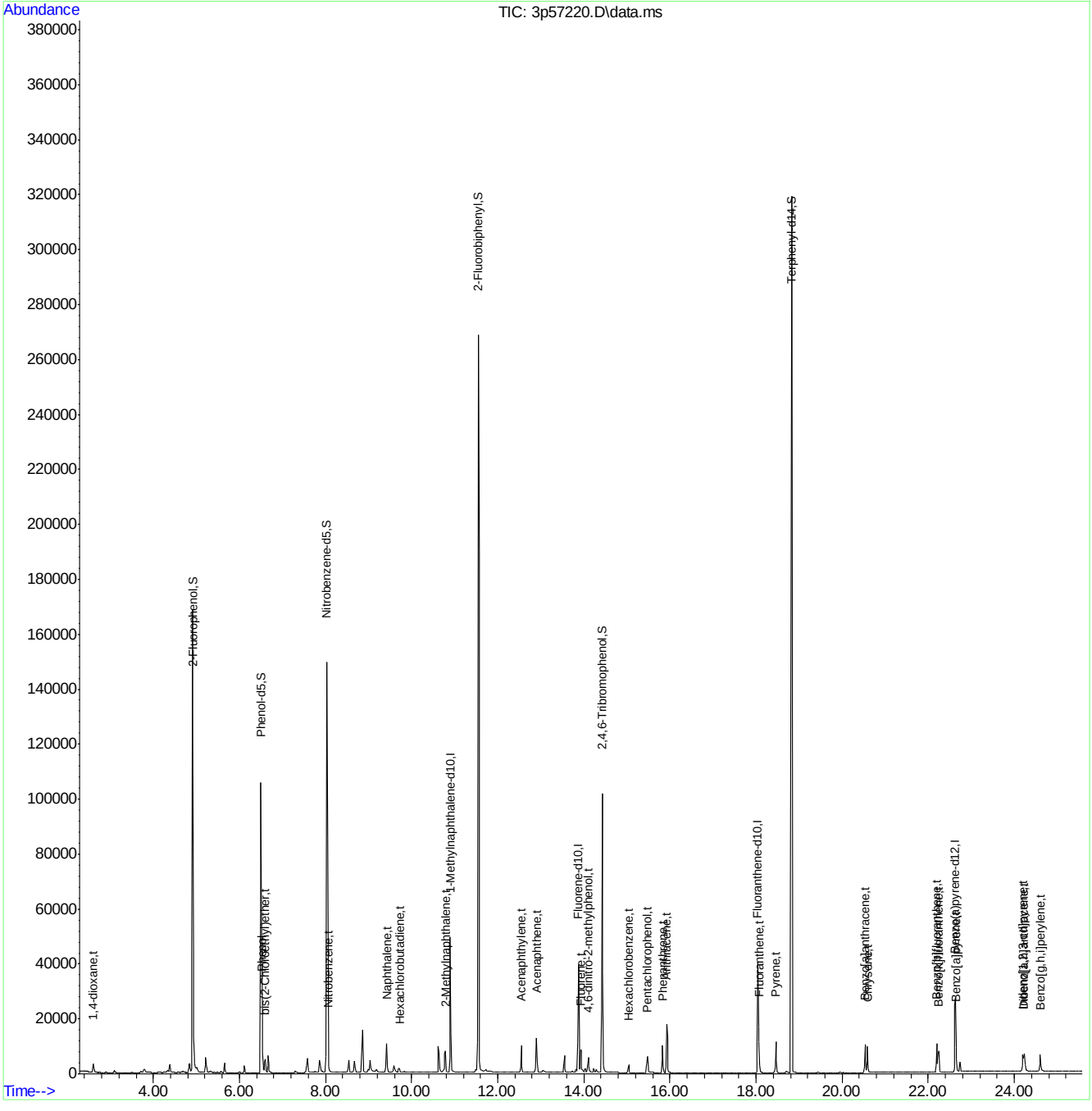
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57220.D
Acq On : 14 Dec 2016 11:31 am
Operator : shaniceg
Sample : op99167a-msd
Misc : op99167a,e3p2653,475
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 12:43:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Dec 14 11:34:57 2016
Response via : Initial Calibration

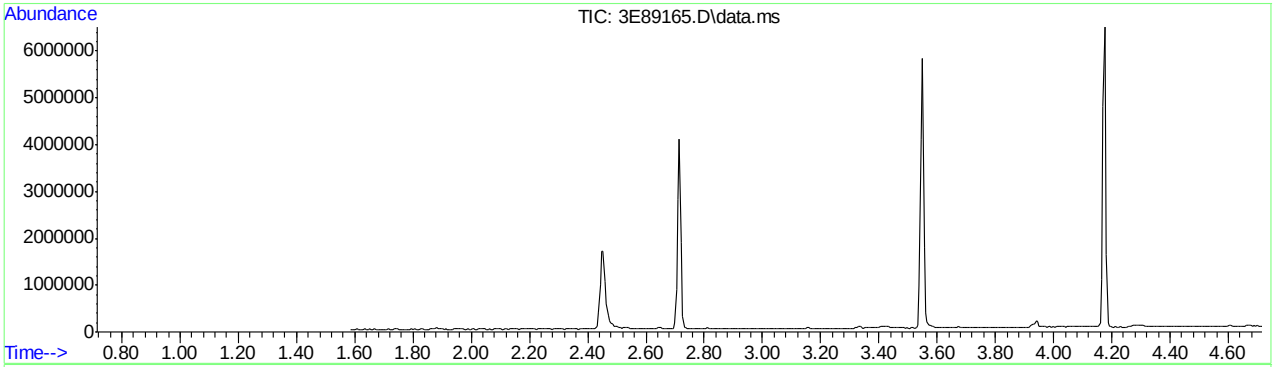


DFTPP

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89165.D
Acq On : 8 Dec 2016 9:24 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3946
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
Last Update : Sun Jul 24 10:08:01 2016



AutoFind: Scans 211, 212, 213; Background Corrected with Scan 206

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.4	102765	PASS
68	69	0.00	2	1.9	2727	PASS
69	198	0.00	100	49.0	141999	PASS
70	69	0.00	2	0.5	668	PASS
127	198	40	60	55.2	160114	PASS
197	198	0.00	1	0.3	777	PASS
198	198	100	100	100.0	289946	PASS
199	198	5	9	6.9	20003	PASS
275	198	10	30	26.8	77797	PASS
365	198	1	100	5.5	16026	PASS
441	443	0.10	100	82.0	19735	PASS
442	198	40	100	41.5	120456	PASS
443	442	17	23	20.0	24057	PASS

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	750	44.00	1	55.00	1372	65.05	1963
36.15	390	44.95	171	56.00	3557	66.00	374
37.05	511	45.20	233	57.05	6965	67.05	94
38.00	2012	45.85	76	57.95	522	68.10	2727
39.10	7082	46.20	98	58.95	146	69.00	141999
40.00	260	47.00	558	59.20	54	70.05	668
40.25	323	49.00	149	60.05	38	71.05	280
41.05	222	50.05	34009	60.90	1559	72.20	118
42.10	251	51.05	102765	62.00	2077	73.05	1338
42.70	224	52.05	5339	63.10	5871	74.05	16600
43.05	108	54.00	141	64.05	697	75.05	26847

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
76.10	9261	87.05	1668	97.15	909	107.05	49449
77.05	162356	87.90	258	98.05	17663	108.05	7698
78.10	10503	89.00	393	99.05	13090	109.10	1057
79.05	12521	90.00	143	100.05	1068	109.95	80241
80.00	8536	91.00	1945	101.10	6064	111.00	12908
81.00	12095	91.20	363	101.95	160	112.05	2382
81.95	2981	92.05	3689	102.20	231	113.05	897
83.05	2100	93.10	21316	102.95	1900	113.85	188
84.00	1762	94.05	1820	104.00	4507	114.15	10
85.05	2311	95.05	921	105.00	4474	114.90	144
86.00	4478	96.00	642	106.20	1333	115.10	148

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.00	3463	126.10	32	136.05	2688	145.05	542
117.10	54344	127.00	160114	137.05	3211	146.00	2118
118.05	4034	128.05	11682	138.00	868	147.05	4880
119.00	408	129.00	71156	138.60	181	148.00	13282
119.95	884	130.00	5633	139.10	236	149.00	3010
121.15	259	130.90	916	139.90	258	150.05	361
122.05	4578	131.20	856	140.15	380	150.25	77
123.10	5241	131.90	523	141.00	10007	150.90	95
123.85	518	133.05	83	142.10	2636	151.30	904
124.10	1074	134.00	2650	143.05	2322	151.90	315
125.00	2105	135.05	5991	144.05	773	152.20	93

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
153.10	3149	163.00	382	174.05	4334	185.05	7451
154.00	1942	163.90	332	175.10	8031	186.10	49738
155.05	5616	164.95	3945	176.10	1751	187.05	15529
156.10	7115	166.00	3173	177.00	3753	188.00	815
157.05	1149	167.05	23444	178.10	1247	188.20	769
157.40	216	168.05	10214	179.00	15695	189.05	4026
158.00	1873	168.95	1810	180.00	10165	189.95	487
158.95	942	170.10	982	181.00	4233	190.90	597
160.00	3746	171.00	451	182.05	715	191.00	1001
161.05	4534	172.00	1804	183.05	552	192.00	5417
162.10	1280	173.05	2433	183.95	1283	193.00	4975

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
194.05	1237	204.05	14636	211.90	287	218.90	182
195.10	401	205.10	23804	212.10	256	219.30	67
196.00	10299	206.10	89768	212.30	132	220.00	284
197.00	777	207.10	12519	212.85	350	220.20	207

dftpp3e.M Thu Dec 08 14:28:27 2016 MS3E Page: 2

197.95	289946	208.00	4131	213.20	34	221.00	11249
199.00	20003	208.80	561	214.00	23	221.95	3540
199.90	1283	209.10	348	214.25	390	223.00	6028
200.80	64	210.00	1779	215.05	1348	224.10	56493
201.40	618	210.40	858	216.10	3111	225.10	13352
201.65	343	211.00	2695	217.00	29840	226.00	1450
202.95	3201	211.20	703	218.05	3239	227.00	30410

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.00	4782	237.05	1696	247.05	2494	256.00	28237
229.05	5542	238.05	416	248.05	598	257.10	1756
230.05	737	238.90	213	248.95	1715	258.00	18167
231.05	1804	239.15	771	250.05	226	259.05	2668
231.85	376	240.00	1250	250.50	64	259.95	509
232.10	168	241.00	1742	250.90	223	260.70	118
232.80	166	242.05	3463	251.20	237	261.30	216
233.00	242	243.10	3208	251.85	283	262.90	90
234.05	2412	244.10	41562	253.10	1037	263.10	116
234.90	2007	245.10	4871	254.00	507	263.95	354
236.10	1774	246.05	11846	254.95	202871	265.00	7403

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
266.00	1397	271.95	616	281.95	179	289.70	81
267.05	159	273.00	5744	282.20	218	290.10	253
267.75	328	274.00	16602	283.05	1206	290.95	139
267.95	117	275.00	77797	284.15	823	291.20	140
268.25	163	276.05	10961	284.95	1640	291.95	134
268.60	75	277.05	10465	286.10	237	292.30	306
268.80	44	278.05	1743	286.40	134	293.05	1743
269.00	38	279.05	290	287.85	108	293.80	294
269.50	4	280.20	32	288.10	50	294.05	326
270.00	413	281.00	128	288.40	72	295.00	796
271.05	512	281.30	366	288.90	432	296.05	39410

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
297.05	5375	307.60	152	313.95	1147	322.20	264
298.10	390	307.90	226	315.05	4454	323.10	7163
299.05	111	308.15	348	315.95	1698	324.05	1506
300.95	343	308.70	74	316.20	199	324.80	155
302.15	714	309.05	294	317.05	380	325.05	33
303.05	3561	310.05	433	318.25	74	325.70	50
304.05	1025	311.15	143	318.85	121	326.05	229
304.80	62	312.00	71	319.20	33	327.05	1977
305.10	119	312.30	86	320.10	71	327.95	704
305.95	72	312.70	62	321.10	1199	328.90	93
306.80	19	313.10	233	321.90	96	329.10	51

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
330.10	62	339.95	129	352.05	1710	363.60	60
330.90	67	341.00	905	353.05	1378	364.20	311
332.00	584	342.40	62	354.05	1841	365.05	16026
333.00	737	344.30	69	355.05	620	366.05	1952
333.30	491	344.95	60	355.85	186	367.05	239
334.10	5242	346.05	2196	357.40	18	367.70	33
335.15	1820	347.00	312	357.80	27	368.00	28
336.10	284	348.00	61	359.15	81	368.60	30
336.75	97	349.70	73	360.80	23	369.20	18
337.90	129	350.70	54	361.05	52	369.80	35
339.05	99	351.40	101	362.20	17	370.00	257

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms

dftpp3e.M Thu Dec 08 14:28:27 2016 MS3E Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
370.30	47	381.40	19	390.05	252	403.05	976
370.80	64	381.70	60	391.15	111	403.90	37
370.95	476	382.95	494	391.50	26	404.10	364
371.30	207	383.20	108	391.95	48	405.00	20
372.15	2681	383.80	97	392.20	24	405.40	27
373.00	525	384.10	339	393.00	31	407.10	28
374.30	147	385.00	30	394.95	150	408.30	45
377.00	36	385.20	27	399.10	76	410.20	43
378.40	38	386.40	122	400.60	30	413.70	54
379.20	22	387.40	26	401.15	48	414.10	40
380.70	63	389.50	28	402.05	1058	414.70	20

Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
415.80	51	425.25	103	433.00	39	439.60	165
417.20	38	426.30	38	434.45	177	441.15	19735
417.80	53	426.80	31	435.20	25	442.20	120456
419.40	51	427.30	51	435.60	36	443.15	24057
420.40	68	427.80	19	435.95	106	444.10	2229
421.10	853	428.70	55	436.50	21	445.00	173
422.10	472	429.30	23	436.80	40	446.40	46
422.30	400	430.70	29	437.40	225	448.40	51
423.15	6824	431.10	21	438.00	179	449.95	54
424.15	1610	431.70	34	438.45	147	453.20	24
425.00	17	432.30	17	438.90	122	456.60	58

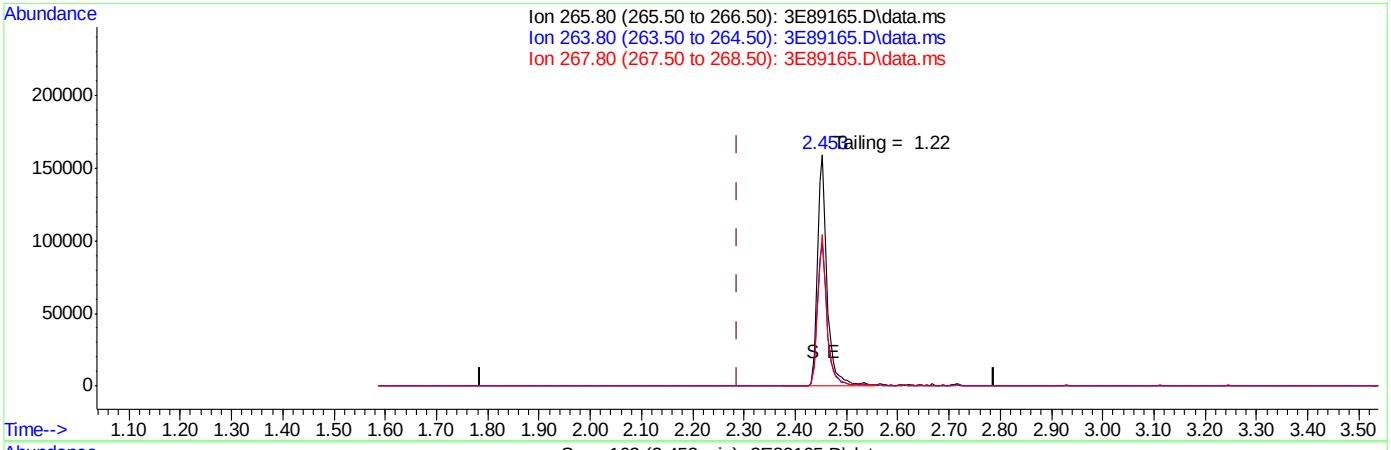
Average of 2.710 to 2.721 min.: 3E89165.D\data.ms
dftpp
Modified:subtracted

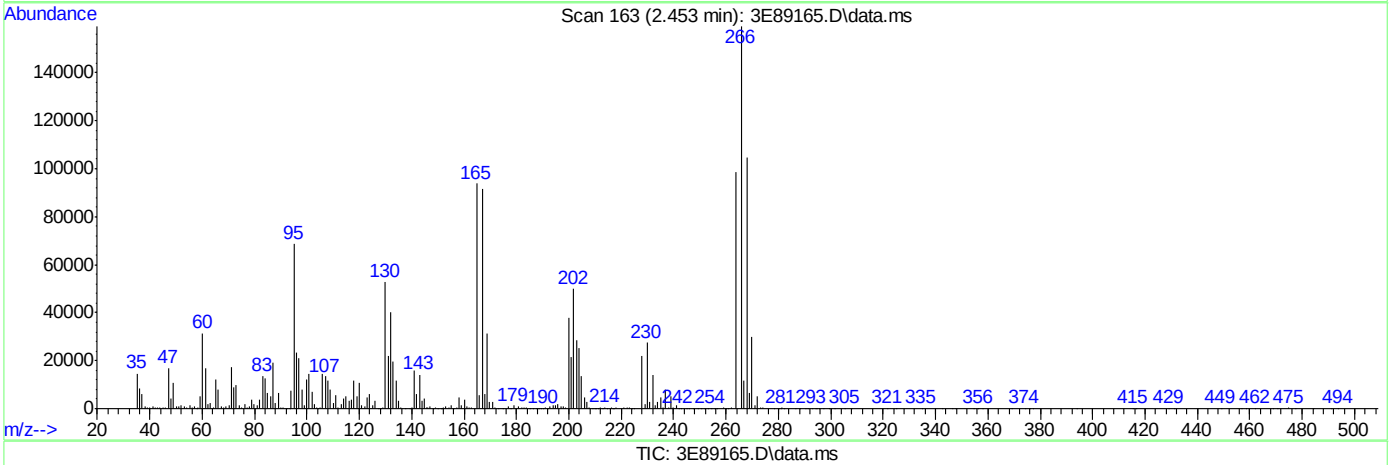
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
465.00	25	495.30	26				
468.00	35	495.80	17				
476.70	39	498.15	53				
482.10	31						
485.30	60						
486.20	30						
488.00	36						
489.00	31						
489.30	35						
490.50	26						
494.60	64						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89165.D
Acq On : 8 Dec 2016 9:24 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3946
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 08 09:34:03 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.453min (+0.166) 127.68ppb

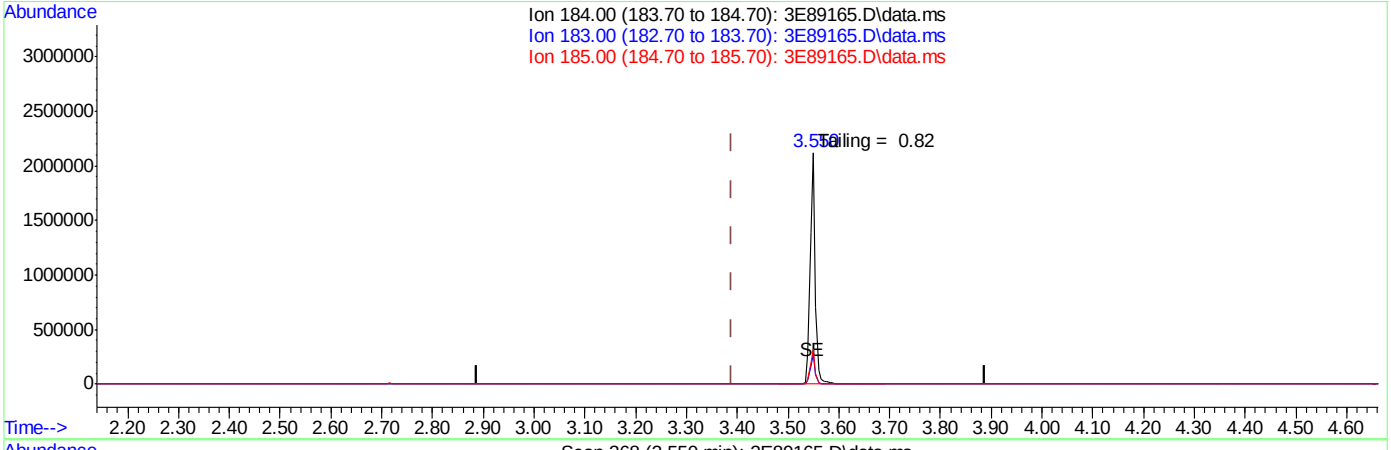
response 199546

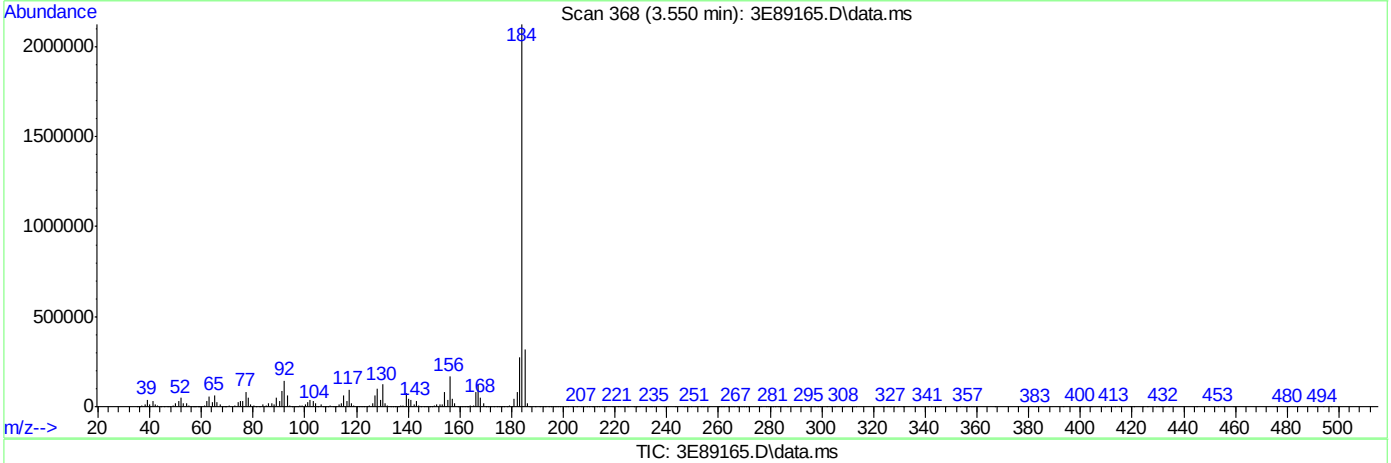
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	61.70
267.80	64.70	65.73
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89165.D
Acq On : 8 Dec 2016 9:24 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3946
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 08 09:34:03 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89165.D\data.ms

(2) Benzidine (t)

3.550min (+0.160) 147.05ppb

response 1544132

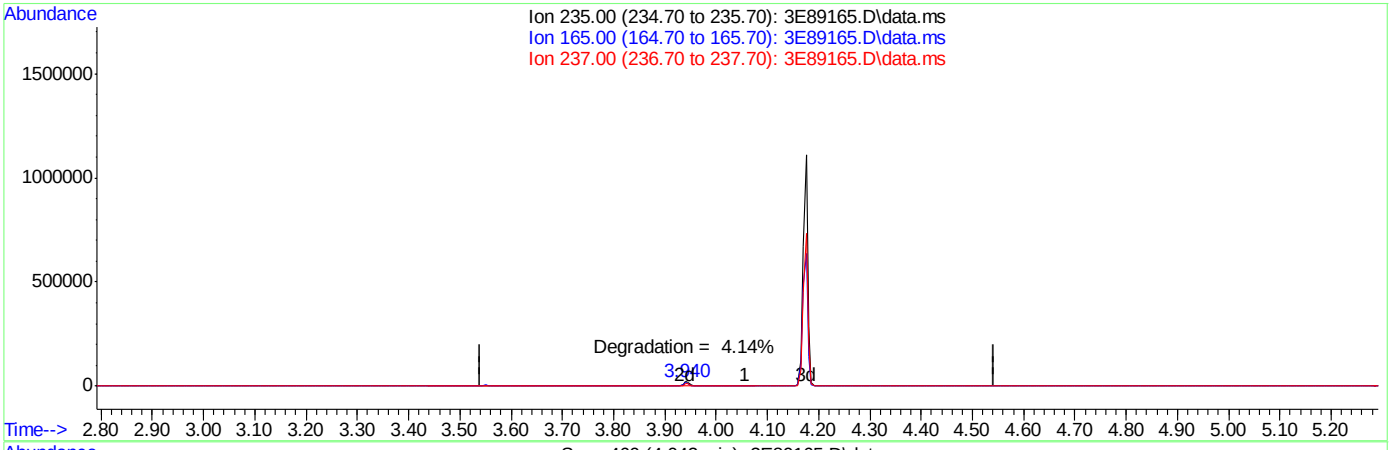
Ion	Exp%	Act%
184.00	100	100
183.00	13.20	12.92
185.00	15.40	15.07
0.00	0.00	0.00

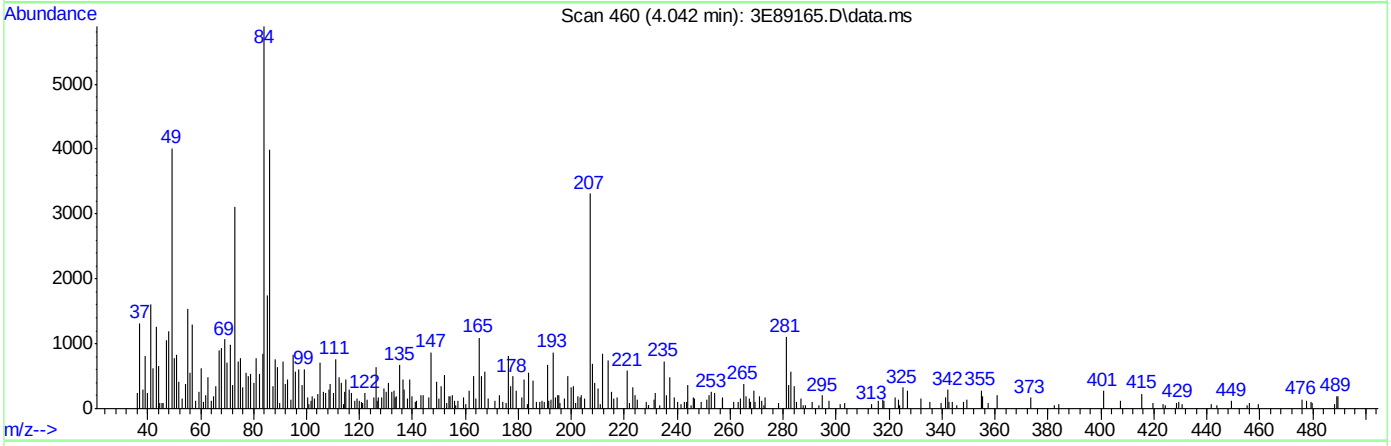
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89165.D
Acq On : 8 Dec 2016 9:24 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3946
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 08 09:34:03 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89165.D\data.ms

(3) PP-DDT (t)

4.042min 0.00ppb d

response 0

Ion	Exp%	Act%
235.00	100	0.00
165.00	0.10	0.00
237.00	0.10	0.00
0.00	0.00	0.00

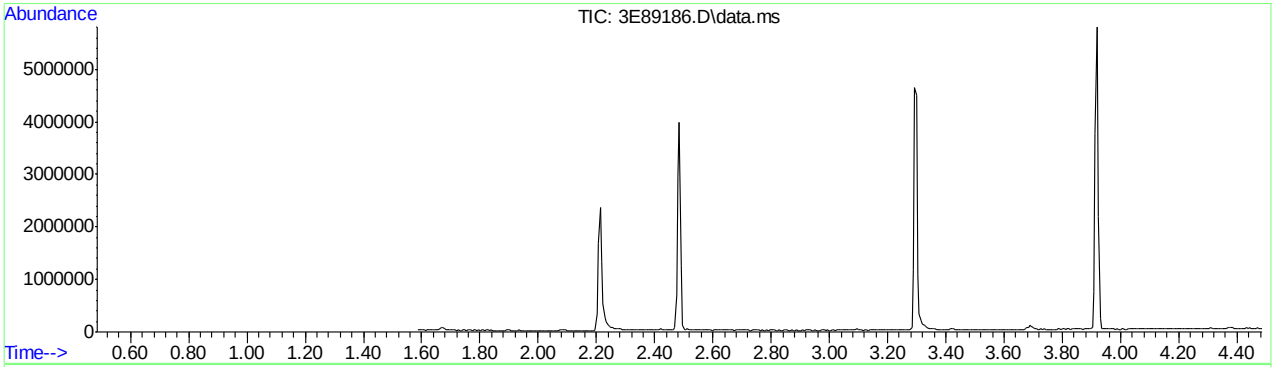
SGS ACCUTEST JC33175

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89186.D
Acq On : 8 Dec 2016 5:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3947
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
Last Update : Sun Jul 24 10:08:01 2016



AutoFind: Scans 168, 169, 170; Background Corrected with Scan 162

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.2	100158	PASS
68	69	0.00	2	1.2	1402	PASS
69	198	0.00	100	40.0	117065	PASS
70	69	0.00	2	0.8	903	PASS
127	198	40	60	47.6	139302	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	292568	PASS
199	198	5	9	6.6	19372	PASS
275	198	10	30	29.4	86008	PASS
365	198	1	100	5.0	14737	PASS
441	443	0.10	100	77.6	26462	PASS
442	198	40	100	56.4	165128	PASS
443	442	17	23	20.7	34106	PASS

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	188	46.75	135	58.30	169	68.10	1402
37.05	694	47.10	53	59.95	670	69.05	117065
38.15	2264	50.10	33233	61.05	1654	70.05	903
39.05	7245	51.05	100158	62.00	1648	70.90	224
40.10	438	52.10	5169	63.10	4933	72.00	165
41.20	233	53.00	328	64.00	529	73.15	1792
42.15	176	54.20	74	65.05	2365	74.10	13610
42.95	114	55.10	654	65.90	211	75.05	21923
43.50	39	56.00	3435	66.90	168	76.15	7951
44.90	274	57.05	7026	67.05	524	77.10	130744
45.75	54	57.95	337	67.80	182	78.10	8936

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
79.10	10721	89.90	32	100.00	663	111.05	11897
79.95	7334	90.20	221	101.00	5271	112.00	1292
81.05	9565	90.40	187	102.10	279	112.20	149
82.00	2654	91.05	2737	103.05	2141	112.90	721
83.00	2528	92.10	3250	104.05	3469	114.05	210
84.00	42	93.05	18364	105.00	3475	115.10	211
85.05	1668	93.95	1077	106.00	564	116.10	2812
86.05	3143	95.00	213	107.10	40997	117.05	44095
87.05	1272	95.95	1073	108.10	6543	118.10	3322
87.95	112	98.10	14984	109.00	306	118.80	160
89.10	343	99.05	8337	110.05	69429	119.10	237

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
119.95	657	129.05	61997	138.20	353	146.05	1861
121.10	308	130.00	5467	138.80	155	147.00	3543
121.40	119	131.15	816	139.10	221	147.20	86
122.05	2714	131.70	121	139.95	452	148.00	10939
123.05	4913	132.10	792	140.20	443	149.05	2389
123.90	1820	132.90	3	141.00	8740	149.80	304
124.20	116	134.10	1736	142.10	2796	150.15	316
125.10	1997	135.00	4145	142.80	342	151.10	930
126.10	352	136.10	1986	143.05	1689	151.90	413
127.10	139302	137.10	2813	144.05	506	152.10	363
128.10	10501	138.00	93	144.95	637	153.00	3030

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.00	2035	163.85	373	173.00	1894	182.00	431
155.10	4555	164.95	3418	174.05	3540	182.85	325
156.05	6849	165.95	2817	175.05	6420	184.05	716
157.05	1293	167.10	19197	176.00	1569	185.00	6742
157.90	1661	168.00	8862	176.20	387	186.10	43794
158.95	1201	168.95	1160	177.10	3222	187.05	13211
160.00	2670	169.90	391	177.90	742	188.10	1580
161.10	3815	170.20	170	179.00	13598	188.80	490
161.60	189	170.80	314	180.00	8008	189.10	3096
161.95	1390	171.00	537	181.00	4201	190.10	654
163.15	564	171.95	1610	181.90	171	190.95	1475

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
192.00	4054	202.95	2709	211.50	215	218.05	3033
193.00	5520	204.05	12480	212.60	70	219.00	338
194.10	978	205.10	21288	212.95	279	220.95	13439
194.90	23	206.10	82578	213.20	78	221.60	922

dftpp3e.M Fri Dec 09 08:58:14 2016 MS3E Page: 2

195.15	654	207.05	10066	213.85	126	221.90	1691
196.05	8915	208.00	3145	214.20	28	222.10	368
198.00	292568	209.00	1345	214.80	664	222.95	3084
199.00	19372	209.90	205	215.15	896	223.20	3048
200.05	1186	210.25	1165	215.80	290	224.10	50896
201.50	1494	210.80	351	216.10	2343	225.10	13108
202.30	162	211.05	2998	217.00	26790	226.20	568

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
227.00	25753	234.05	2279	243.15	3196	252.80	60
228.00	3015	235.05	1617	244.05	39674	253.00	784
229.05	5242	236.05	1341	245.10	5506	253.60	405
229.80	118	236.95	1911	246.00	9480	255.05	198852
230.00	507	238.10	60	247.05	2130	256.00	30901
230.30	35	238.30	134	247.95	475	257.00	3029
231.05	1746	239.10	923	248.90	615	258.00	15508
231.90	125	240.00	968	249.10	760	258.95	2551
232.65	167	240.90	438	250.00	259	259.80	124
232.90	297	241.10	1138	250.90	409	260.00	137
233.35	68	242.05	2970	251.95	266	260.85	170

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
261.10	184	268.80	45	278.05	1744	283.85	187
262.10	98	269.80	250	278.80	82	284.15	597
262.70	69	270.80	92	279.05	481	284.70	261
262.95	281	271.10	313	280.30	56	285.10	1639
264.05	646	271.90	159	280.70	153	286.00	222
265.00	5752	272.10	564	281.10	19	286.35	100
265.85	487	273.00	6475	281.70	35	286.80	65
267.20	213	274.05	16670	281.90	233	287.50	88
267.70	15	275.10	86008	282.70	40	287.90	112
268.00	245	276.05	11603	282.95	924	288.95	396
268.50	48	277.05	9633	283.15	15	290.10	354

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
290.90	381	300.55	230	307.35	114	316.00	1642
291.85	460	300.95	266	308.15	580	316.80	84
292.95	1593	301.30	148	309.15	520	317.10	71
293.60	72	301.90	791	310.05	366	317.40	147
294.00	316	302.20	347	310.85	56	317.80	51
295.00	350	303.05	3419	311.20	63	318.10	66
296.00	33381	304.05	740	311.65	135	318.60	32
297.00	4635	304.60	111	312.90	204	318.95	78
298.00	385	305.90	24	313.25	73	319.40	27
298.85	198	306.30	57	314.05	1821	320.05	210
300.10	103	306.80	24	315.00	4697	321.05	1063

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.90	176	332.00	375	340.15	170	347.10	128
323.05	7499	332.90	465	341.00	1106	347.90	38
324.00	1415	333.15	802	341.70	48	350.00	76
324.90	391	334.05	5544	342.05	220	350.50	139
327.00	1845	335.00	1786	343.00	52	352.05	2608
327.95	811	336.00	48	343.20	44	352.60	213
328.75	83	336.40	57	343.65	76	353.15	1906
329.20	78	337.70	150	345.00	44	354.05	2363
329.75	99	338.80	83	345.90	718	355.05	415
330.90	28	339.30	23	346.05	1726	356.20	77
331.80	352	339.90	56	346.90	473	356.65	81

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms

dftpp3e.M Fri Dec 09 08:58:14 2016 MS3E Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
358.00	191	366.95	110	378.20	35	390.50	108
359.10	185	367.60	18	380.90	41	391.05	257
359.40	53	369.30	34	381.30	17	391.60	92
359.70	21	369.70	76	382.70	111	392.10	274
360.20	32	370.20	230	383.00	644	392.95	183
361.20	115	371.15	771	383.70	297	393.90	23
362.00	24	372.05	3796	385.05	111	394.50	74
362.80	42	373.05	940	385.30	22	397.20	35
363.90	205	373.95	105	386.20	47	400.50	89
365.05	14737	376.60	36	388.30	19	401.15	216
366.00	2281	377.10	39	389.95	489	402.05	1101

Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.10	1670	416.20	78	425.00	173	435.80	57
404.10	550	417.60	19	425.60	25	436.40	76
404.95	71	418.30	19	428.70	19	437.55	293
405.30	25	419.60	35	429.60	29	438.00	106
406.90	17	420.00	32	430.15	137	438.60	311
409.90	34	420.50	127	432.40	22	439.60	228
410.80	23	421.15	990	432.70	31	440.00	198
412.40	29	422.10	2092	433.65	79	441.15	26462
413.10	39	423.10	7654	434.10	64	442.10	165128
414.70	56	424.00	593	434.60	19	443.10	34106
415.15	197	424.20	1386	435.20	73	444.05	3626

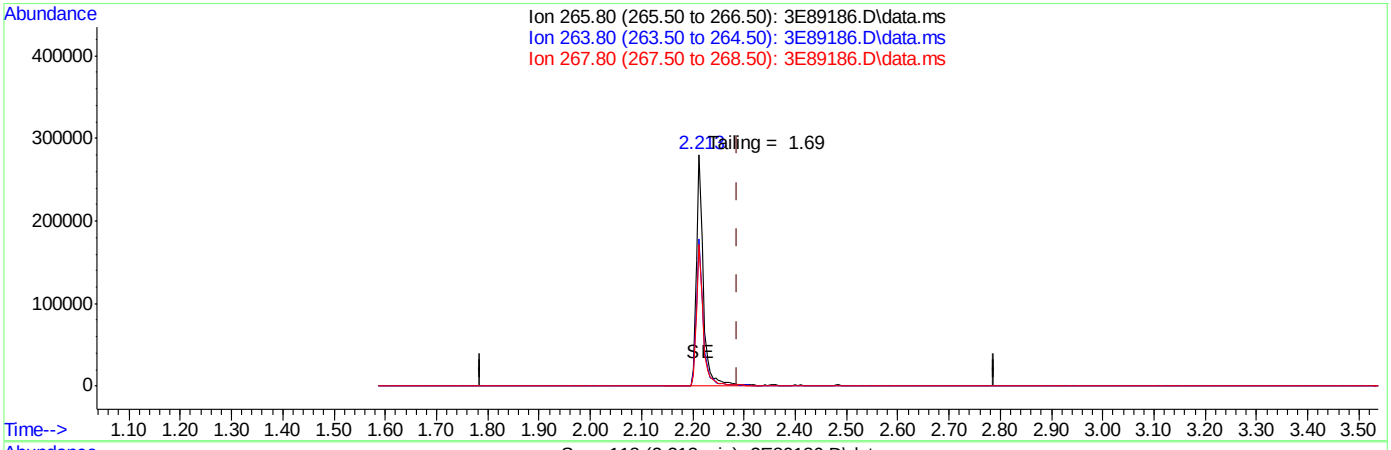
Average of 2.480 to 2.491 min.: 3E89186.D\data.ms
dftpp
Modified:subtracted

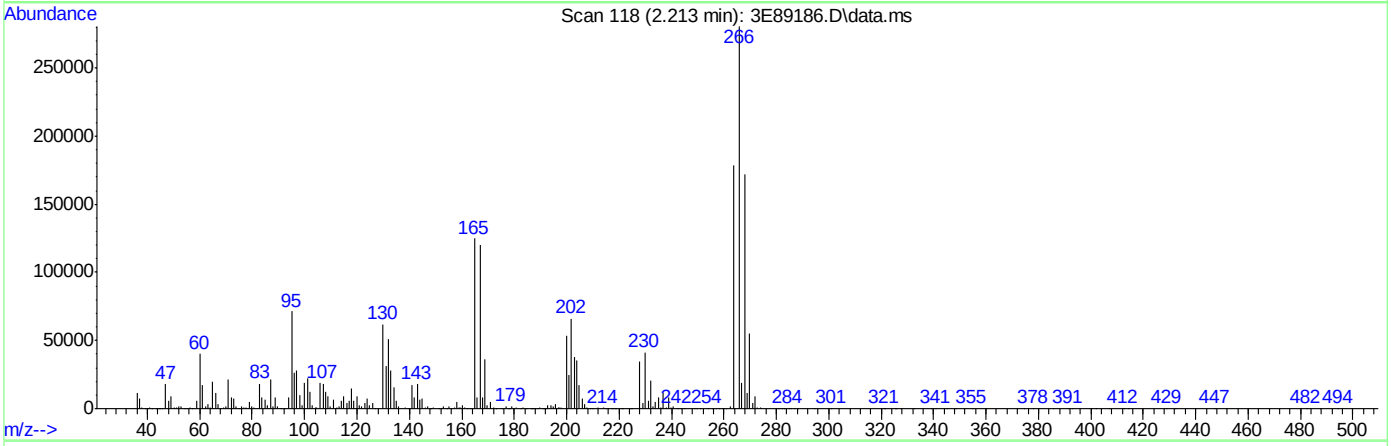
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
445.15	265	473.40	63				
445.50	86	474.10	17				
446.50	16	475.00	42				
449.80	24	486.50	40				
452.40	68	493.30	18				
453.10	25	494.30	21				
456.00	23	496.50	36				
463.60	28	498.00	37				
465.00	43						
467.20	25						
468.80	39						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89186.D
Acq On : 8 Dec 2016 5:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3947
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 08 17:36:15 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





(1) Pentachlorophenol (t)

2.213min (-0.075) 167.14ppb

response 261206

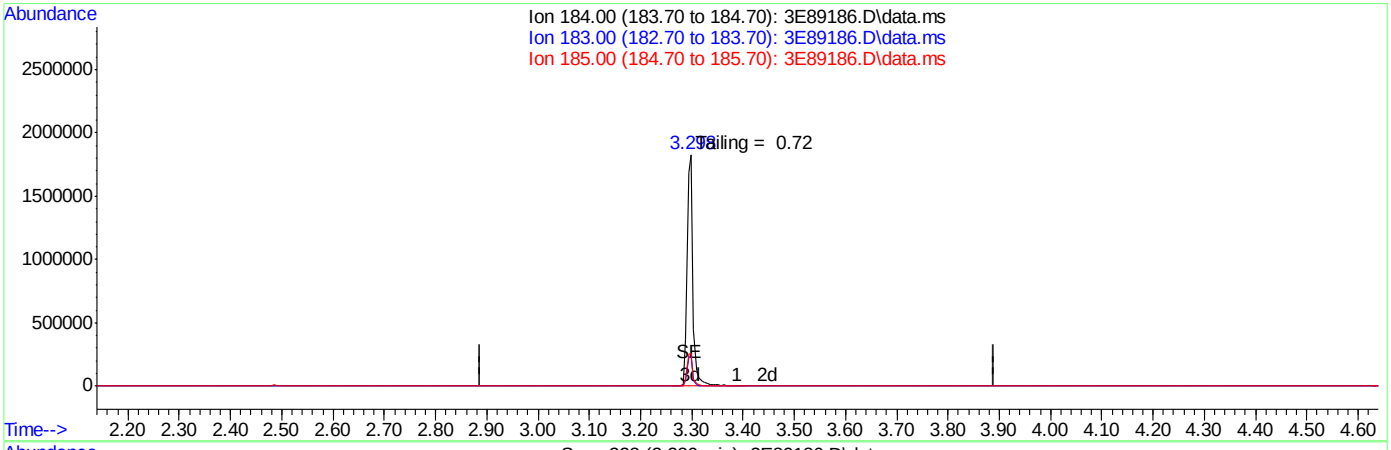
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	63.53
267.80	64.70	61.23
0.00	0.00	0.00

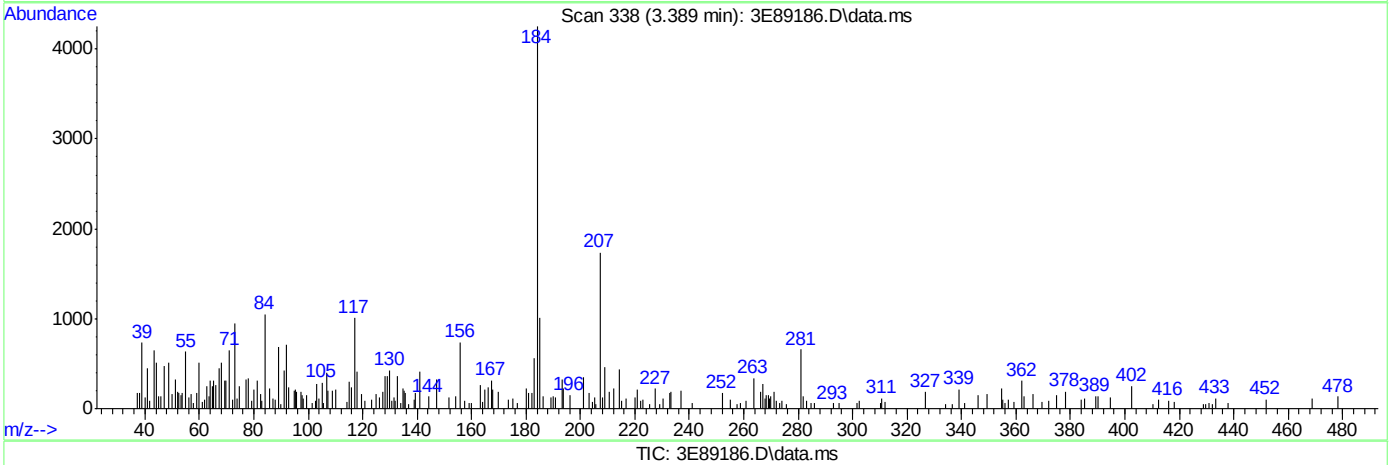
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89186.D
Acq On : 8 Dec 2016 5:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3947
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 08 17:36:15 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89186.D\data.ms

(2) Benzidine (t)

3.389min 0.00ppb d

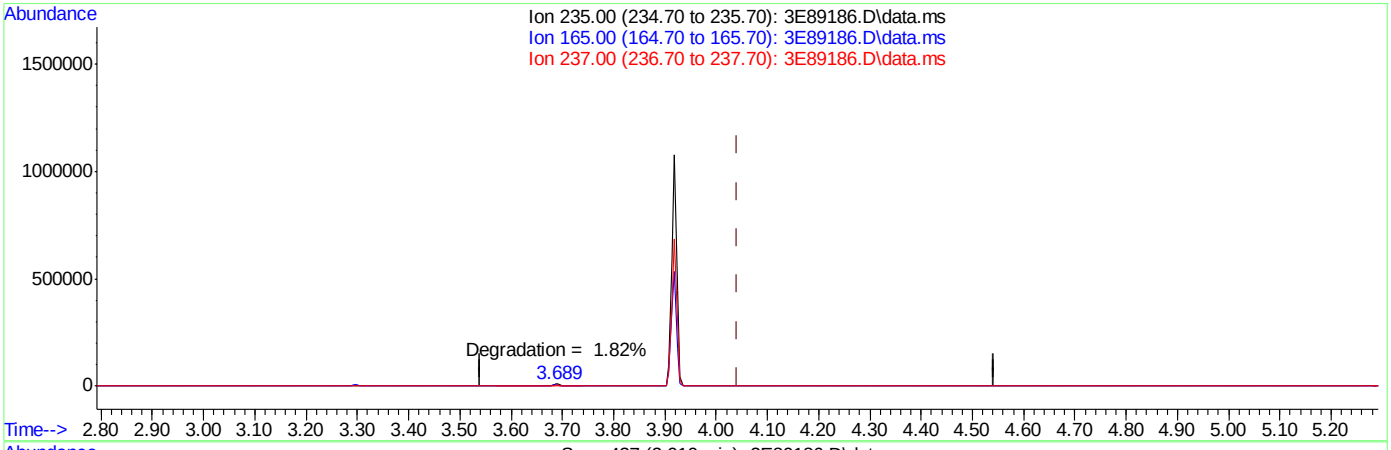
response 0

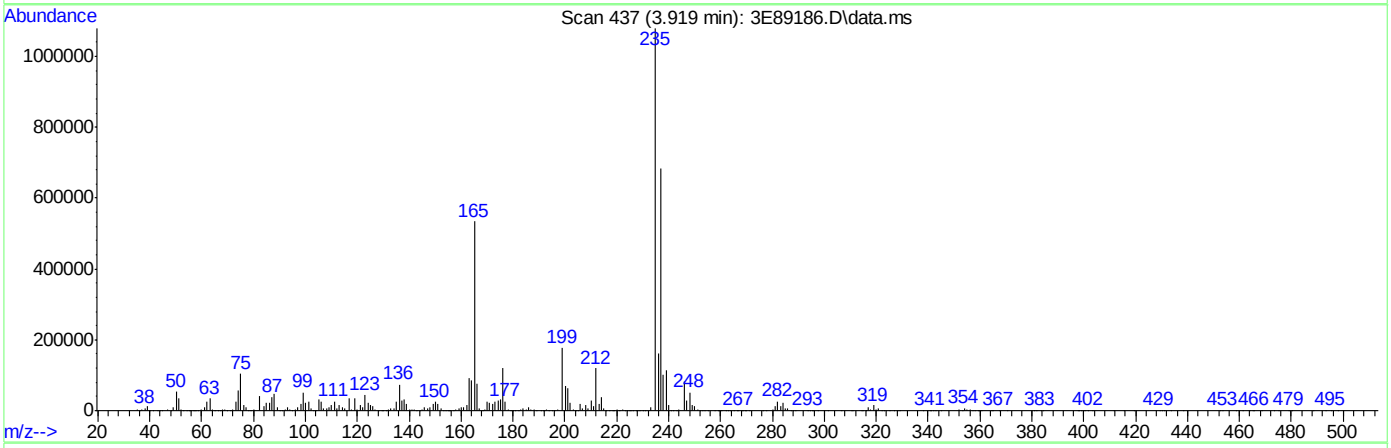
Ion	Exp%	Act%
184.00	100	0.00
183.00	13.20	0.00
185.00	15.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89186.D
Acq On : 8 Dec 2016 5:21 pm
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3947
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 08 17:36:15 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89186.D\data.ms

(3) PP-DDT (t)

3.919min (-0.123) 175.06ppb

response 726763

Ion	Exp%	Act%
235.00	100	100
165.00	0.10	51.42#
237.00	0.10	64.72#
0.00	0.00	0.00

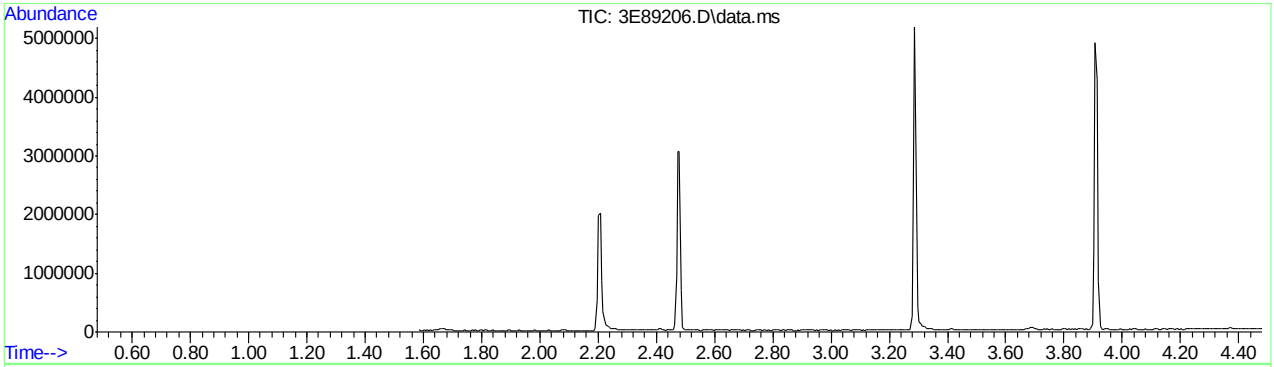
SGS ACCUTEST JC33175

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3948\
Data File : 3E89206.D
Acq On : 9 Dec 2016 10:44 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3948
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
Last Update : Sun Jul 24 10:08:01 2016



AutoFind: Scans 167, 168, 169; Background Corrected with Scan 159

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.0	76017	PASS
68	69	0.00	2	0.9	897	PASS
69	198	0.00	100	45.5	104928	PASS
70	69	0.00	2	0.6	661	PASS
127	198	40	60	52.2	120385	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	230450	PASS
199	198	5	9	6.6	15188	PASS
275	198	10	30	30.0	69056	PASS
365	198	1	100	5.4	12527	PASS
441	443	0.10	100	74.2	18364	PASS
442	198	40	100	53.8	123909	PASS
443	442	17	23	20.0	24741	PASS

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	212	42.15	133	52.10	3887	58.95	127
35.70	96	42.80	77	52.80	86	59.70	76
36.00	78	43.05	202	53.00	44	60.05	63
37.00	320	43.50	26	53.25	137	61.05	1429
37.20	245	45.00	313	53.80	52	61.80	98
38.05	1759	46.00	36	54.60	105	62.05	1217
39.10	5645	47.95	190	54.80	138	63.05	4049
39.90	32	48.30	53	55.15	509	64.05	404
40.15	132	49.05	1767	56.05	2441	64.30	55
40.70	61	50.05	24846	57.05	4777	65.10	1703
41.00	138	51.05	76017	58.05	274	66.20	144

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
67.30	54	76.15	7034	85.80	517	94.00	1198
68.10	897	77.05	115187	86.00	2513	95.10	445
69.05	104928	78.10	8053	87.00	1465	95.95	810
70.05	661	79.00	8962	88.00	479	98.05	12813
70.80	2	80.10	6566	89.00	153	99.10	7580
71.70	37	81.10	8742	89.70	25	99.95	549
72.20	138	81.60	87	90.00	48	101.00	4351
72.50	88	82.00	2291	90.20	36	101.90	125
73.10	1258	82.80	124	91.05	1837	102.10	62
74.10	13060	83.05	2157	92.05	2673	103.10	1618
75.10	17662	85.00	1483	93.05	15826	103.95	2861

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.05	3761	115.05	178	123.90	2055	134.05	1709
106.10	815	116.05	2819	125.00	1930	135.00	4255
107.05	36835	117.10	40946	125.80	64	136.10	1798
108.05	6010	117.95	2653	127.00	120385	137.00	1929
108.90	645	118.20	175	128.05	9769	138.80	5
110.00	58947	118.70	133	128.95	52668	139.10	446
111.00	8799	119.20	190	130.00	4639	139.70	33
112.00	985	120.00	417	131.05	640	140.15	832
113.15	463	120.85	99	132.05	383	141.05	7458
113.85	287	122.00	2343	133.05	124	141.95	2433
114.60	175	123.00	5191	133.80	35	143.05	1585

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.10	573	151.75	211	160.05	2481	168.95	1397
144.40	84	152.10	249	161.00	2921	169.90	407
145.10	258	153.05	2347	162.05	872	170.10	279
146.00	856	153.70	144	162.70	77	170.90	838
146.20	752	154.10	1232	163.70	82	171.90	1305
146.95	3846	155.05	4104	164.00	175	172.30	382
148.00	9486	156.10	5466	165.00	3073	173.10	2147
149.05	2061	157.05	1086	165.80	120	174.00	2830
150.05	515	157.90	1320	166.05	1997	175.05	5268
150.90	74	158.90	726	167.00	16013	176.10	1850
151.15	812	159.05	578	168.10	7871	177.00	2800

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.80	78	186.10	36929	195.10	79	206.05	70296
178.10	897	187.05	11395	196.05	7499	207.10	10784
179.00	12410	187.90	42	198.00	230450	207.95	2328
180.00	6716	188.15	990	199.00	15188	208.90	819

dftpp3e.M Fri Dec 09 11:36:48 2016 MS3E Page: 2

181.00	3354	189.00	2461	199.70	147	210.05	1334
181.90	761	190.00	523	200.00	1278	210.70	278
182.90	228	190.95	1578	200.90	369	210.95	2848
183.15	48	192.05	4159	201.50	1301	211.90	104
183.95	985	193.00	3481	203.05	2620	212.40	194
184.30	459	193.80	176	204.05	11484	213.05	207
185.05	5581	194.05	969	205.05	21107	215.00	1314

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.10	208	225.10	11559	234.00	1886	242.05	2588
216.95	23137	225.80	149	235.10	1451	243.25	3147
218.05	2889	226.10	1548	235.90	450	244.10	32567
219.10	121	227.00	21722	236.05	526	245.00	3448
219.40	123	227.95	3195	236.95	1670	245.30	416
220.10	422	229.10	3607	238.10	434	246.05	7586
220.50	240	230.05	664	239.00	862	247.00	1884
221.00	10173	231.10	1877	239.20	161	248.10	301
221.85	2598	232.00	531	239.85	756	248.80	567
223.05	5084	232.90	357	240.40	52	249.05	462
224.00	43012	233.10	67	240.95	1085	249.90	161

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
250.30	124	259.00	2069	266.05	1045	275.00	69056
251.00	408	259.90	350	267.00	232	276.05	9112
251.20	21	260.70	128	267.95	97	277.00	8733
251.80	279	261.10	257	268.40	109	278.05	1522
252.05	277	261.70	28	268.95	6	279.00	332
253.00	989	262.20	74	269.20	37	279.70	28
253.20	139	263.85	284	270.10	365	281.20	115
255.00	162765	264.00	299	271.10	455	281.70	20
256.00	24308	264.20	131	271.95	669	282.00	94
257.05	2360	265.00	5871	273.00	5178	283.00	1152
258.00	13764	265.70	175	274.05	14070	283.80	147

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.00	97	290.40	28	299.80	16	308.85	201
284.25	576	291.00	223	301.05	476	309.10	132
285.10	1319	292.00	76	301.95	399	309.85	273
286.00	344	293.10	1534	303.05	2750	311.00	163
286.20	27	293.95	582	304.10	749	311.80	89
288.15	320	296.05	28276	305.00	220	312.10	37
288.60	124	297.00	4173	306.00	76	312.80	108
288.90	314	298.00	291	306.85	106	313.10	58
289.20	140	298.20	42	307.30	43	314.15	1786
289.85	218	298.75	78	307.85	112	315.05	3676
290.10	30	299.50	20	308.25	87	315.90	512

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
316.10	893	322.10	187	331.60	40	340.40	67
316.70	85	323.15	6292	332.00	358	340.90	292
317.10	308	324.00	1259	332.95	727	341.10	324
317.50	23	324.95	336	333.20	130	341.95	236
317.90	25	325.40	52	334.05	3876	342.40	33
318.30	105	325.95	234	335.20	854	343.10	43
318.80	22	326.90	1305	335.80	153	344.50	50
319.40	105	328.15	799	336.20	73	345.70	318
320.00	293	329.10	158	336.75	51	346.00	1849
321.10	752	330.10	75	339.10	137	346.95	465
321.75	391	331.00	81	339.95	164	347.80	85

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms

dftpp3e.M Fri Dec 09 11:36:48 2016 MS3E Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
348.00	67	355.30	72	362.10	20	370.00	27
348.40	17	356.20	37	362.60	49	370.20	126
349.85	83	357.25	130	363.30	17	371.00	566
350.20	43	358.10	24	363.55	112	372.10	2431
350.50	29	358.40	32	365.05	12527	373.10	549
351.05	185	358.85	69	365.80	443	374.10	35
352.00	1730	359.20	29	366.10	1298	375.10	22
353.00	1185	359.90	39	367.10	85	377.20	26
353.20	202	360.50	18	367.75	62	378.00	67
354.05	1733	361.10	20	368.80	50	378.90	22
354.85	411	361.60	42	369.55	66	380.10	55

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
382.20	44	391.30	89	403.05	1322	412.00	41
383.05	968	391.70	104	403.90	512	412.40	21
383.95	320	392.40	29	404.30	22	413.00	20
385.10	149	393.00	31	405.30	97	414.00	19
385.90	44	395.20	44	405.70	30	414.90	55
386.40	30	397.50	47	406.40	21	415.40	75
388.90	36	398.40	35	407.10	44	416.25	69
389.70	33	399.40	32	407.50	28	416.50	29
390.05	305	399.70	23	408.80	50	418.20	51
390.70	68	401.05	93	409.30	65	419.35	166
391.05	130	402.05	640	409.90	65	420.60	311

Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.10	1186	432.10	33	438.45	203	450.00	16
421.80	342	432.80	19	438.90	70	451.70	27
422.10	425	433.35	62	439.10	30	454.10	22
423.10	6225	433.90	41	439.55	182	454.90	18
424.10	1360	434.95	233	439.90	88	459.20	40
425.00	68	436.05	77	441.10	18364	459.80	29
425.80	18	436.50	34	442.10	123909	461.80	19
428.20	22	437.00	89	443.10	24741	468.90	20
429.10	24	437.30	38	444.10	2354	473.00	18
430.05	77	437.50	80	444.90	24	475.90	19
431.20	61	437.85	115	449.60	29	479.30	79

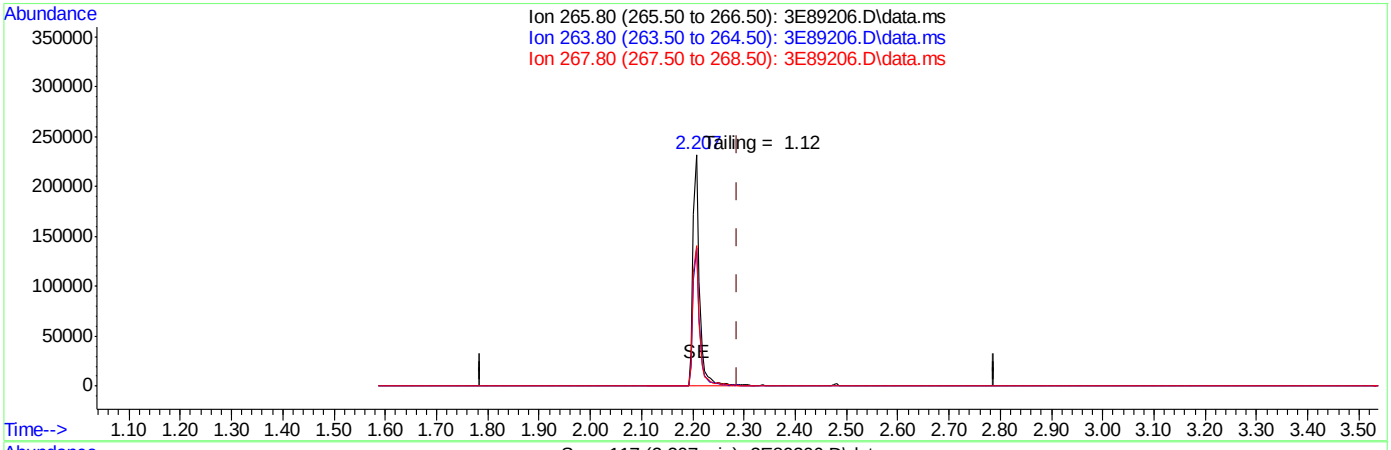
Average of 2.475 to 2.485 min.: 3E89206.D\data.ms
dftpp
Modified:subtracted

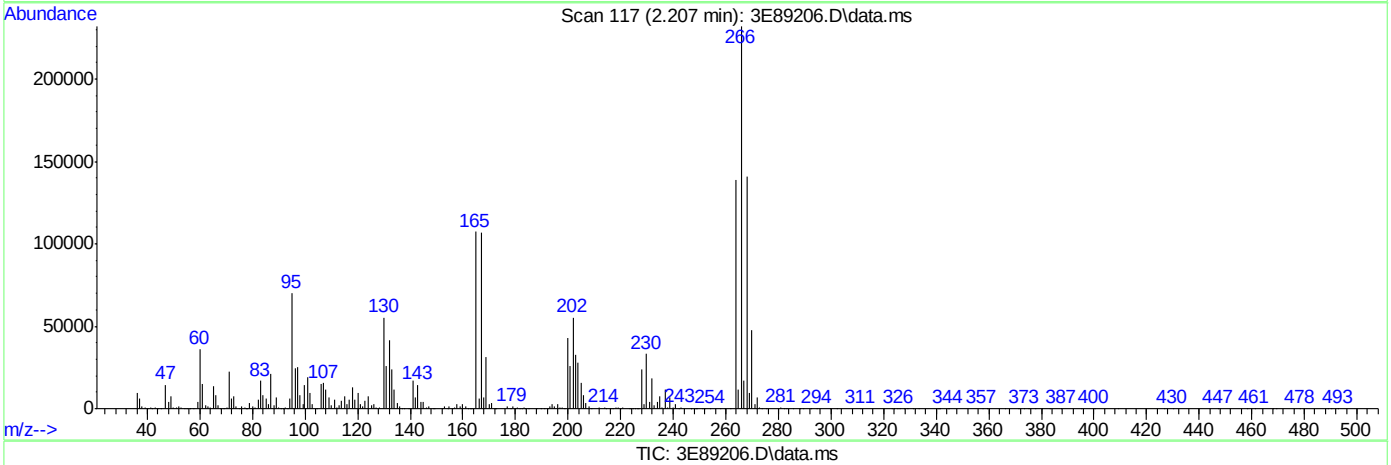
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
482.40	22						
492.30	46						
494.10	26						
499.50	28						
499.80	30						

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E3E3948\
Data File : 3E89206.D
Acq On    :  9 Dec 2016  10:44 am
Operator  : ashleyn
Sample    : dftpp
Misc      : op99040,e3e3948
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Dec 09 10:50:37 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title  : Semi Volatile  GC/MS,zb-5msplus  30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration
```





(1) Pentachlorophenol (t)

2.207min (-0.080) 130.85ppb

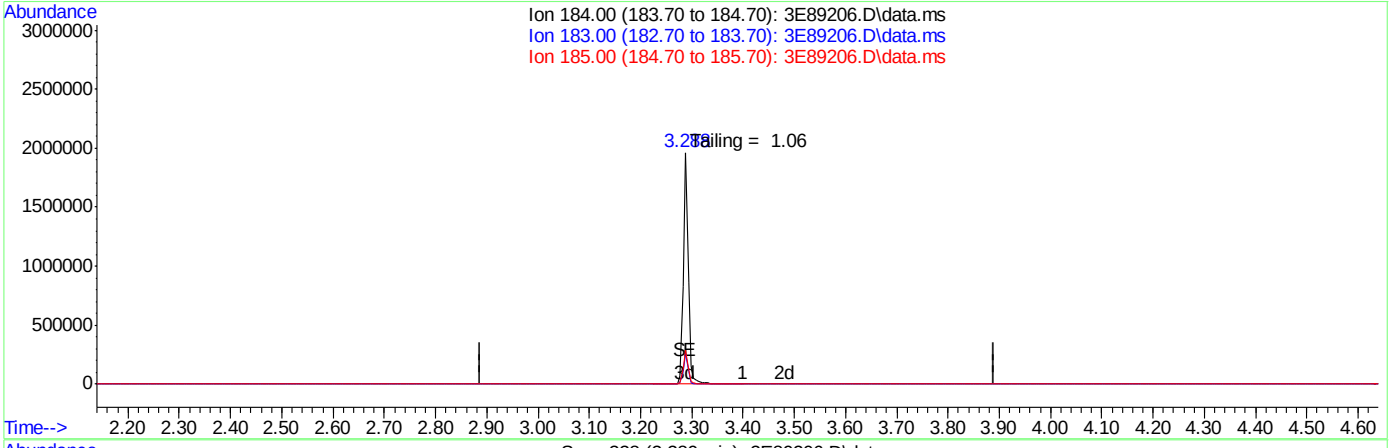
response 204490

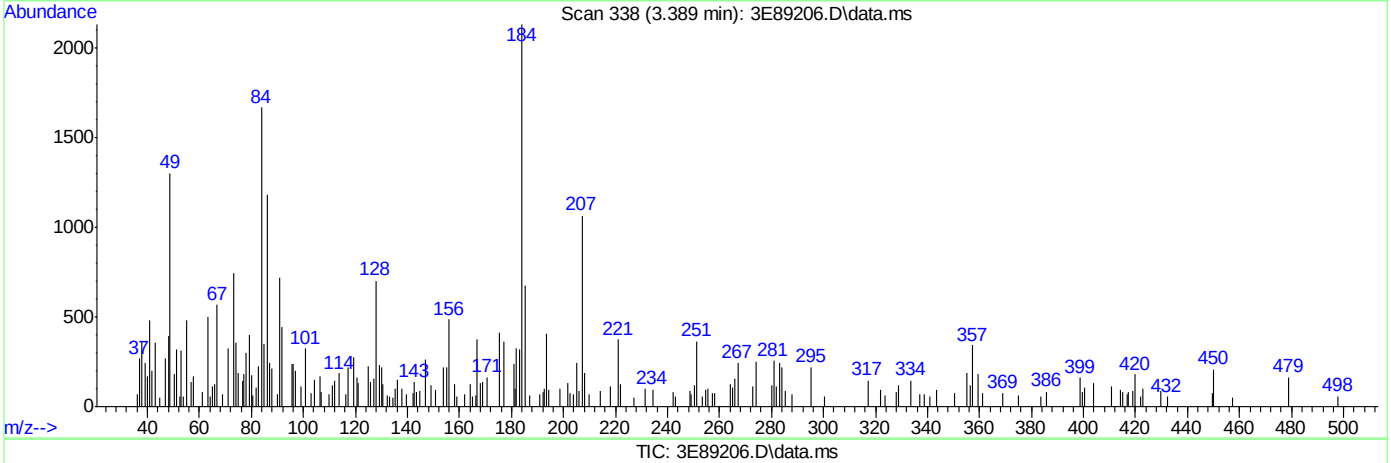
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	59.80
267.80	64.70	60.70
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3948\
Data File : 3E89206.D
Acq On : 9 Dec 2016 10:44 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3948
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 09 10:50:37 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89206.D\data.ms

(2) Benzidine (t)

3.389min 0.00ppb d

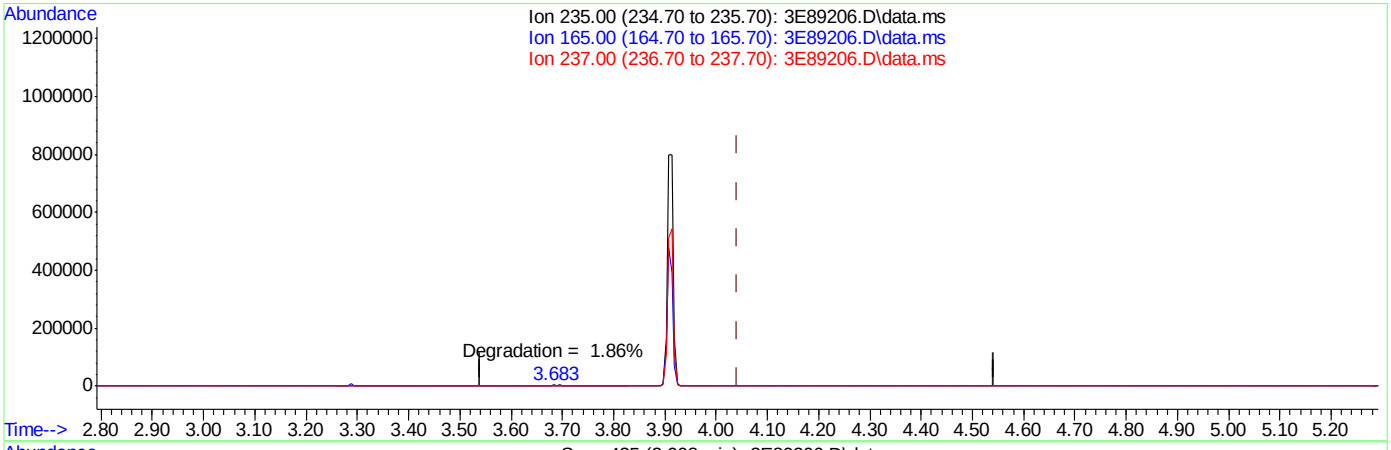
response 0

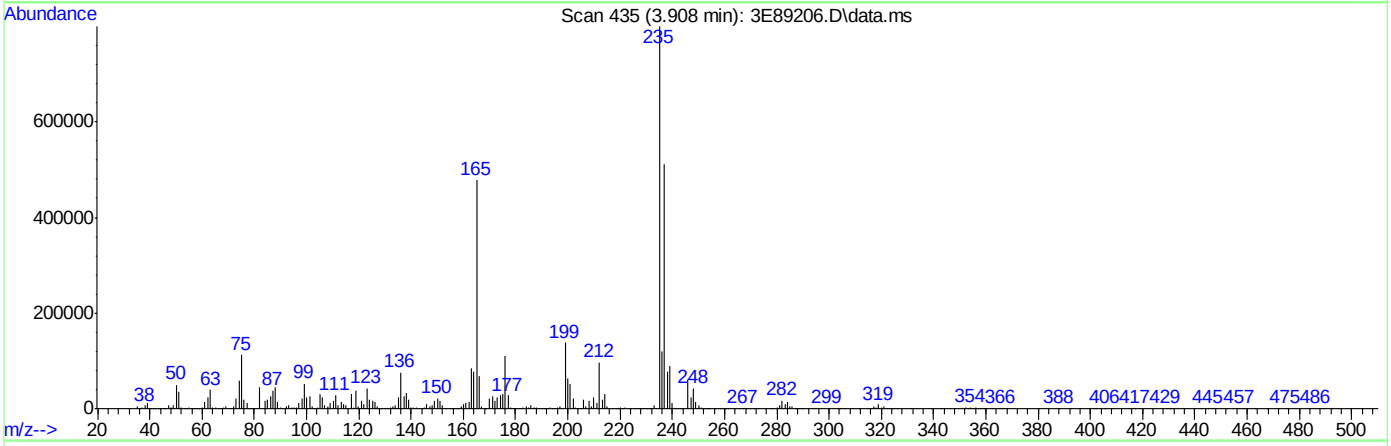
Ion	Exp%	Act%
184.00	100	0.00
183.00	13.20	0.00
185.00	15.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3948\
Data File : 3E89206.D
Acq On : 9 Dec 2016 10:44 am
Operator : ashleyn
Sample : dftpp
Misc : op99040,e3e3948
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 09 10:50:37 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89206.D\data.ms

(3) PP-DDT (t)

3.908min (-0.134) 151.63ppb

response 629510

Ion	Exp%	Act%
235.00	100	100
165.00	0.10	55.81#
237.00	0.10	66.15#
0.00	0.00	0.00

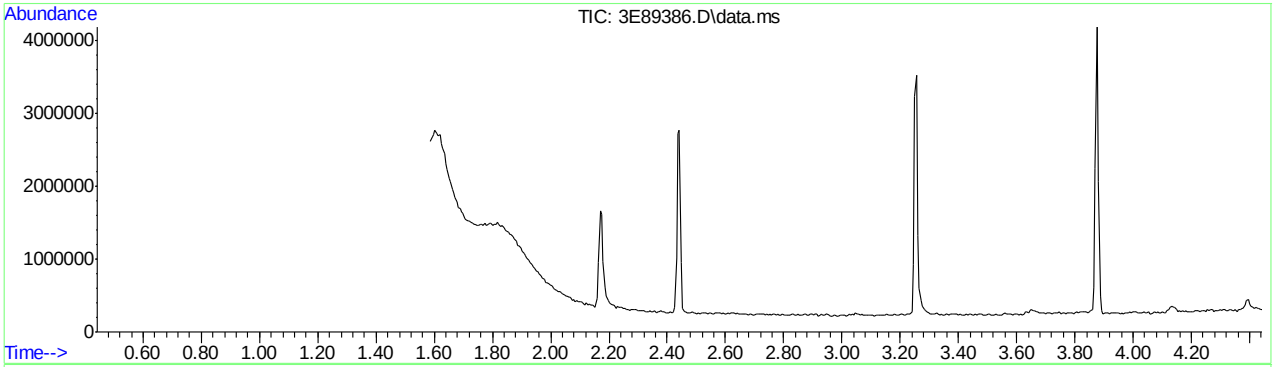
SGS ACCUTEST JC33175

DFTPP

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89386.D
Acq On : 15 Dec 2016 9:53 am
Operator : ashleyn
Sample : dftpp
Misc : op99136,e3e3956
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp3e.M
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
Last Update : Sun Jul 24 10:08:01 2016



AutoFind: Scans 160, 161, 162; Background Corrected with Scan 154

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.9	64056	PASS
68	69	0.00	2	1.1	1001	PASS
69	198	0.00	100	45.8	89082	PASS
70	69	0.00	2	0.6	515	PASS
127	198	40	60	51.9	101132	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	194714	PASS
199	198	5	9	6.3	12181	PASS
275	198	10	30	28.8	56091	PASS
365	198	1	100	4.8	9392	PASS
441	443	0.10	100	80.8	18702	PASS
442	198	40	100	61.4	119520	PASS
443	442	17	23	19.4	23160	PASS

SGS ACCUTEST JC33175

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	4128	49.05	5472	59.10	86	69.00	89082
37.00	904	50.05	20206	59.60	180	70.00	515
38.00	1093	51.10	64056	60.00	125	71.10	643
39.10	6467	52.10	3836	61.05	1173	73.10	1766
40.10	756	53.10	507	62.05	1643	74.05	10769
41.05	600	54.00	427	63.00	3339	75.05	14140
43.10	492	55.05	1524	63.20	191	76.05	5239
43.95	256	56.10	2324	64.10	647	77.10	97189
45.90	27	57.10	4526	65.05	1248	78.10	6404
47.00	835	57.90	107	66.05	76	79.00	6921
48.05	435	58.10	165	68.10	1001	80.00	5483

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
81.10	6965	93.00	13003	106.05	1258	118.00	1897
82.00	2229	94.05	987	107.05	29606	119.10	453
83.10	2269	96.10	423	108.05	4566	119.90	156
84.00	4333	97.10	37	109.10	517	120.20	177
85.05	1340	98.00	10105	110.00	50312	120.95	909
86.00	6616	99.05	7906	111.10	8187	121.80	234
86.95	1631	100.10	479	112.05	401	122.05	2257
87.95	380	101.00	4231	113.15	88	122.70	294
89.10	84	103.00	1323	115.30	194	123.05	1981
91.00	1522	104.10	2892	116.00	2222	124.10	2020
92.10	1700	105.05	2210	117.05	29566	125.00	1373

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.05	101132	135.05	3221	146.10	1215	157.00	1006
128.05	8141	136.05	1617	147.10	2839	158.00	1079
129.00	43198	137.10	1843	148.05	7640	159.00	1134
130.00	4373	138.15	596	149.00	1662	160.05	2241
131.05	421	138.95	137	150.10	319	160.95	2948
131.70	45	139.90	331	151.05	544	162.05	714
131.90	57	141.00	6141	151.90	825	163.10	33
132.20	109	142.00	1716	152.90	1689	164.10	482
132.60	18	143.05	1300	154.00	1362	164.95	2454
133.00	446	143.95	474	155.10	3455	166.00	1668
134.00	956	145.00	239	156.00	4638	167.00	12188

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
168.05	5242	179.00	8808	189.00	2830	199.90	1324
169.05	1148	180.00	7072	190.00	475	200.20	163
169.80	200	181.05	3427	190.95	1214	201.45	853
171.00	430	182.10	745	192.05	2784	202.10	80
172.00	1197	183.10	294	193.10	3526	203.00	1814
173.05	1477	184.00	882	193.95	773	204.00	8890
174.05	2471	185.00	4380	194.80	383	205.10	15634
175.05	3772	186.05	30929	195.10	165	206.05	58557
176.10	942	187.00	8904	196.00	6027	207.05	7494
176.90	2246	187.70	104	198.00	194714	208.00	2690
178.00	1028	188.00	909	199.00	12181	209.00	603

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
210.20	1513	218.95	44	229.00	3090	238.30	186
210.95	2608	219.20	214	230.05	757	238.60	115
211.95	600	219.95	332	230.95	1259	239.10	1185
212.70	210	221.00	9524	232.10	293	239.80	200

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213.10	316	221.95	2949	232.65	214	240.05	480
213.30	50	223.00	3424	232.90	86	241.05	890
213.95	192	224.05	34976	233.20	9	242.00	1985
215.00	1148	225.05	9613	234.05	1176	243.15	2407
216.05	1542	226.10	506	234.95	1216	244.10	25531
217.00	17859	227.10	16586	236.05	941	245.00	3399
218.05	2476	228.05	2787	236.95	1245	245.95	6385

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
247.00	1474	256.05	19728	264.05	331	276.00	7548
247.95	520	257.00	2022	264.95	4742	277.05	6045
249.05	1161	257.95	9784	265.90	155	278.05	1002
249.90	21	258.90	539	266.85	243	279.10	5
250.20	71	259.10	997	267.80	321	280.15	232
250.80	50	260.15	324	268.85	150	281.20	223
251.10	68	260.95	454	270.90	38	282.10	210
252.15	471	261.20	76	271.20	430	282.40	93
253.00	624	262.20	78	273.05	4827	283.00	719
253.30	503	262.75	3	274.00	10775	284.00	679
255.00	127441	263.60	293	275.00	56091	285.10	957

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
285.80	66	293.80	124	301.60	102	308.00	227
287.95	160	294.05	13	302.15	421	309.00	174
289.05	370	294.30	93	303.10	2083	309.40	98
289.75	301	295.10	395	303.95	716	310.10	146
290.10	238	296.05	22691	305.00	14	310.80	41
290.30	21	297.10	3086	305.20	95	311.10	166
290.70	19	298.00	212	306.00	102	312.00	109
290.95	86	298.90	106	306.30	51	312.20	227
291.80	175	299.10	19	306.60	24	313.15	202
292.20	108	300.10	40	307.00	33	313.80	54
293.00	1232	300.95	143	307.80	158	314.10	650

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.30	171	321.05	827	329.30	32	338.75	133
314.80	981	322.00	47	330.05	100	339.10	30
315.05	1331	322.30	303	330.60	27	339.70	37
316.00	895	323.05	5653	330.90	21	341.05	501
316.20	140	324.15	917	331.10	87	341.90	141
316.85	281	325.05	321	331.95	457	342.10	281
317.25	89	325.75	60	332.90	207	344.30	17
317.95	7	326.25	126	334.10	3672	344.70	62
318.45	149	327.00	642	334.90	294	345.15	157
319.30	34	328.10	628	335.15	635	346.00	1392
319.95	95	329.10	137	336.15	124	347.00	292

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
348.00	25	355.00	154	364.00	79	372.10	2123
348.20	18	356.00	127	365.05	9392	373.05	608
349.00	30	356.20	67	366.00	1249	374.30	30
350.05	122	357.40	45	366.90	38	375.90	35
350.40	68	358.00	59	367.05	119	376.50	32
351.10	178	358.50	42	367.80	17	377.15	78
351.40	161	359.00	225	368.10	25	378.60	28
352.05	1456	360.90	41	369.50	26	379.00	35
353.00	1153	361.55	60	369.90	34	380.60	31
353.70	188	362.15	120	370.10	143	381.25	53
354.25	1354	363.50	61	370.95	580	381.50	23

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms

dftpp3e.M Mon Dec 19 12:50:31 2016 MS3E Page: 3

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
381.90	59	390.85	98	398.10	22	407.20	26
383.00	569	391.10	75	398.30	35	408.00	18
384.10	84	391.50	66	399.20	81	409.10	20
384.90	87	391.90	31	400.00	38	410.00	20
385.20	36	392.15	136	400.70	84	410.70	36
386.10	30	393.10	46	400.90	74	412.40	21
387.00	34	393.30	20	401.20	70	413.25	62
387.95	61	394.70	44	401.95	565	414.00	32
388.40	17	395.10	30	403.00	646	414.50	34
389.80	175	395.30	63	404.05	541	415.35	186
390.25	116	397.20	28	405.10	58	415.70	28

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
416.80	18	425.90	61	437.40	31	445.35	180
417.50	87	426.40	88	437.70	68	447.30	30
418.10	22	426.80	23	438.20	56	449.10	58
418.90	167	428.25	72	438.45	51	451.10	20
420.30	122	430.50	33	438.70	91	453.60	39
421.00	1003	431.70	173	439.00	75	454.60	46
422.05	1034	434.10	43	439.20	21	458.70	42
423.05	6173	434.80	53	441.10	18702	461.90	25
424.05	1371	435.15	41	442.10	119520	462.10	25
425.00	282	436.50	33	443.10	23160	464.10	20
425.50	41	436.90	210	444.05	2483	465.20	19

Average of 2.437 to 2.448 min.: 3E89386.D\data.ms
dftpp
Modified:subtracted

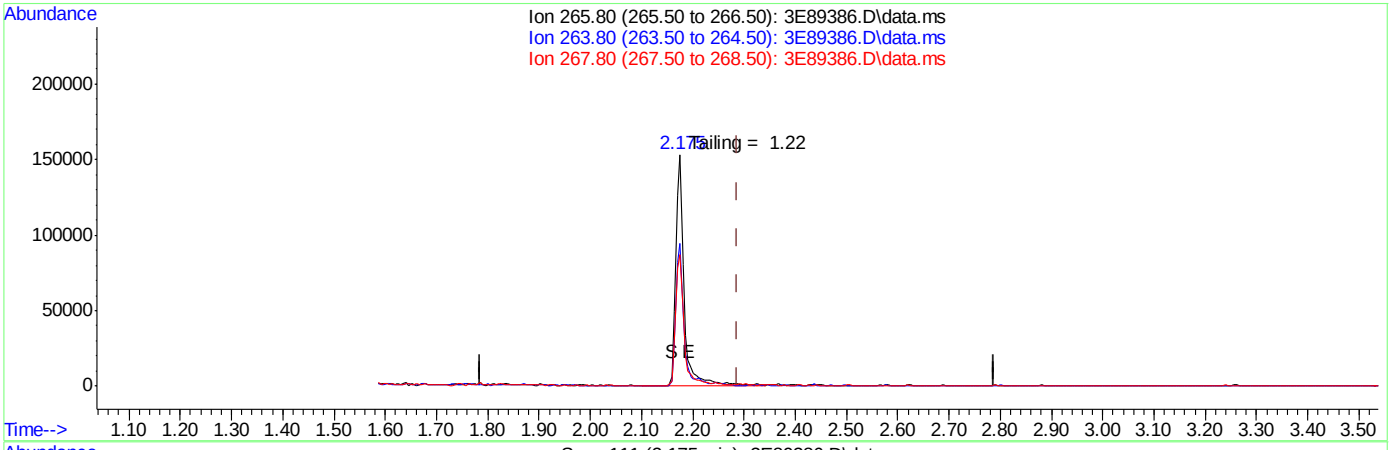
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
467.70	40	482.80	32				
469.80	33	485.60	20				
474.00	24	494.25	43				
474.80	19	498.20	30				
475.90	17	498.90	23				
476.50	107	499.70	43				
476.80	25						
478.80	24						
479.30	36						
480.35	89						
480.85	80						

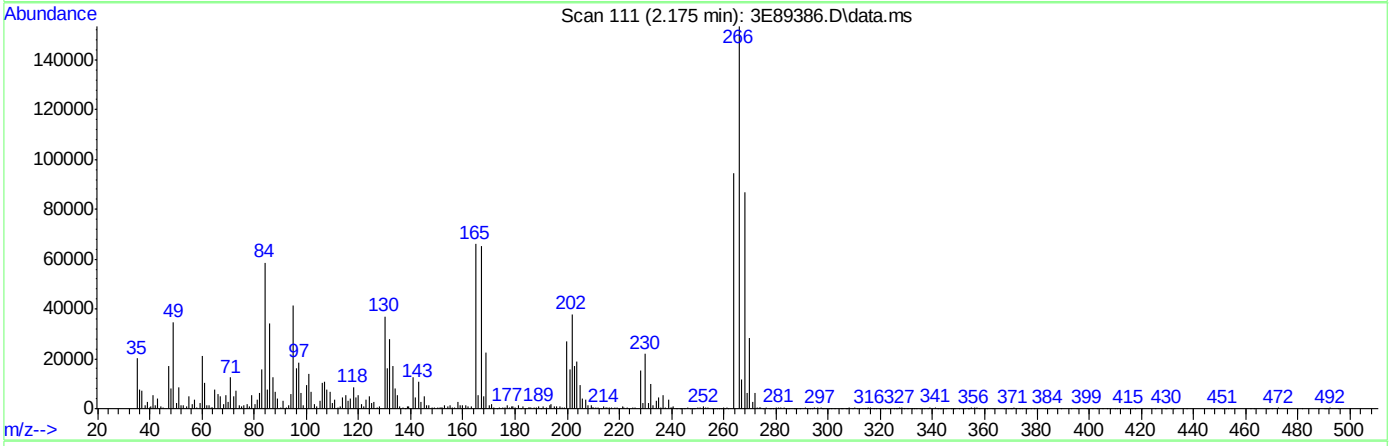
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89386.D
Acq On : 15 Dec 2016 9:53 am
Operator : ashleyn
Sample : dftpp
Misc : op99136,e3e3956
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 10:06:31 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89386.D\data.ms

(1) Pentachlorophenol (t)

2.175min (-0.112) 109.37ppb

response 170923

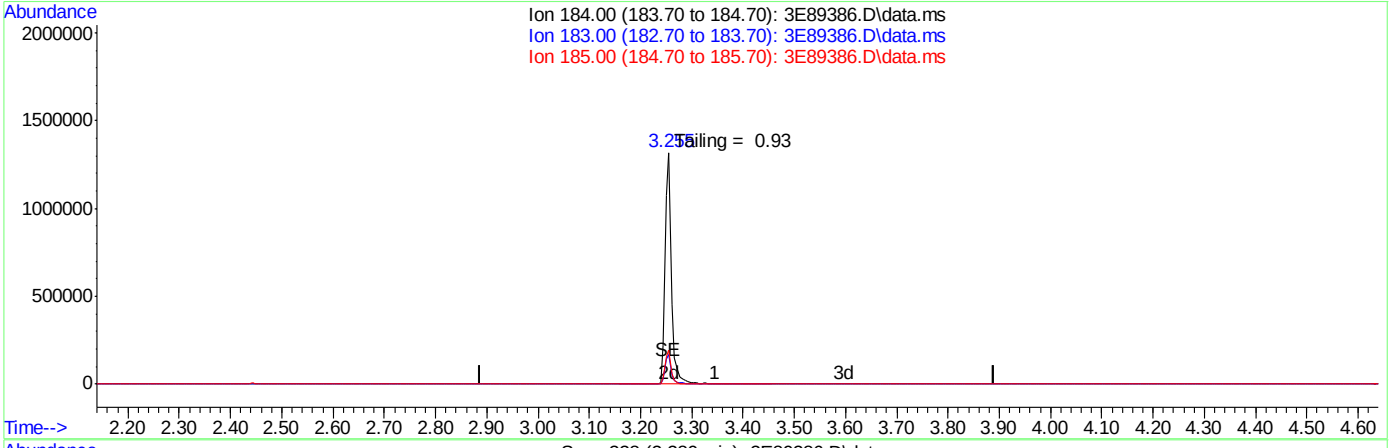
Ion	Exp%	Act%
265.80	100	100
263.80	62.20	61.42
267.80	64.70	56.39
0.00	0.00	0.00

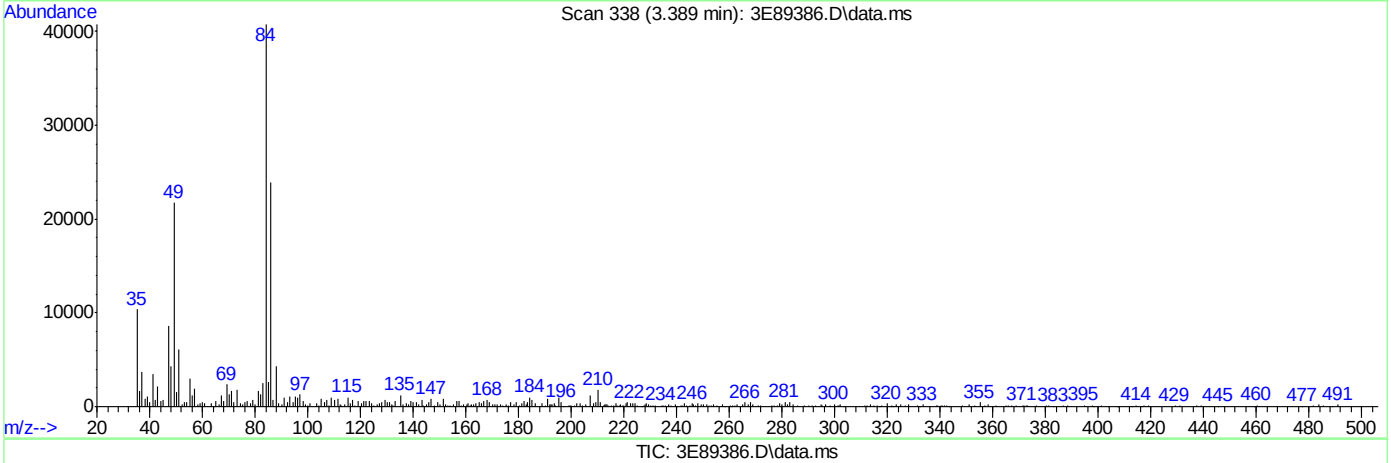
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89386.D
Acq On : 15 Dec 2016 9:53 am
Operator : ashleyn
Sample : dftpp
Misc : op99136,e3e3956
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 10:06:31 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89386.D\data.ms

(2) Benzidine (t)

3.389min 0.00ppb d

response 0

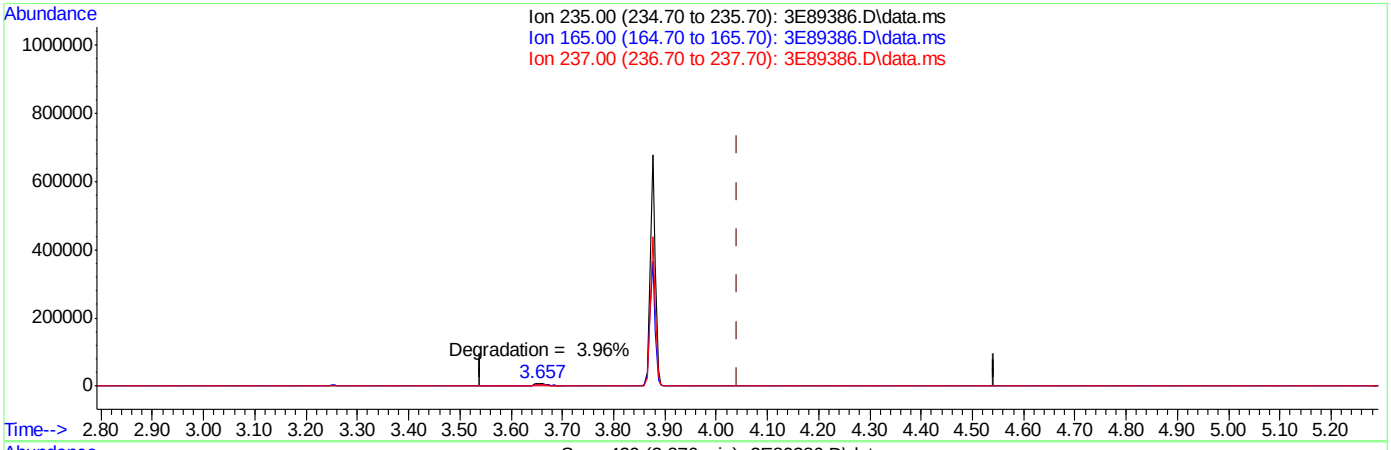
Ion	Exp%	Act%
184.00	100	0.00
183.00	13.20	0.00
185.00	15.40	0.00
0.00	0.00	0.00

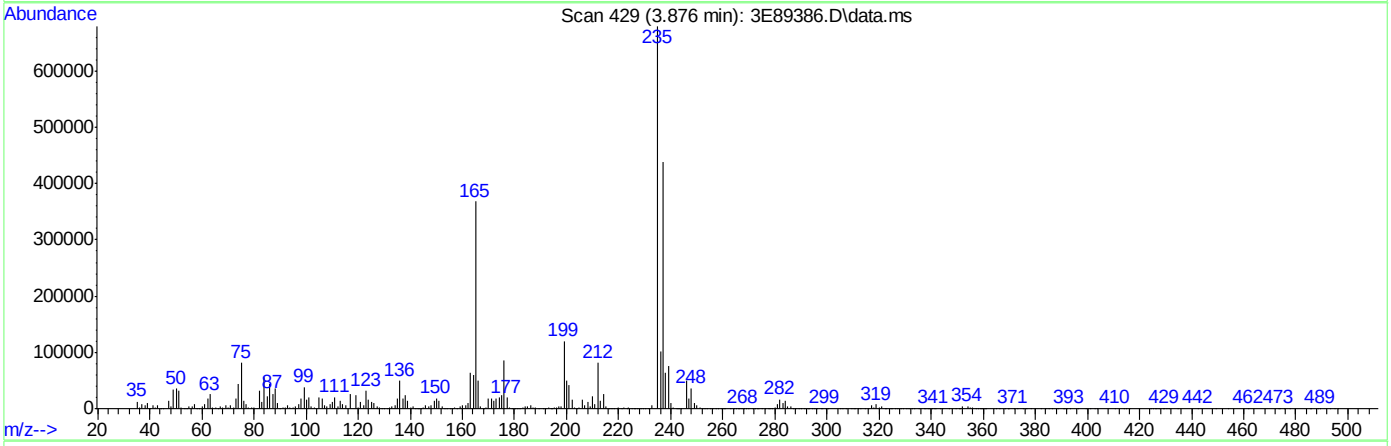
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89386.D
Acq On : 15 Dec 2016 9:53 am
Operator : ashleyn
Sample : dftpp
Misc : op99136,e3e3956
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 10:06:31 2016
Quant Method : C:\msdchem\1\METHODS\dftpp3e.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25Sun Jul 24 10:08:01 2016
QLast Update : Sun Jul 24 10:08:01 2016
Response via : Initial Calibration





TIC: 3E89386.D\data.ms

(3) PP-DDT (t)

3.876min (-0.166) 109.67ppb

response 455278

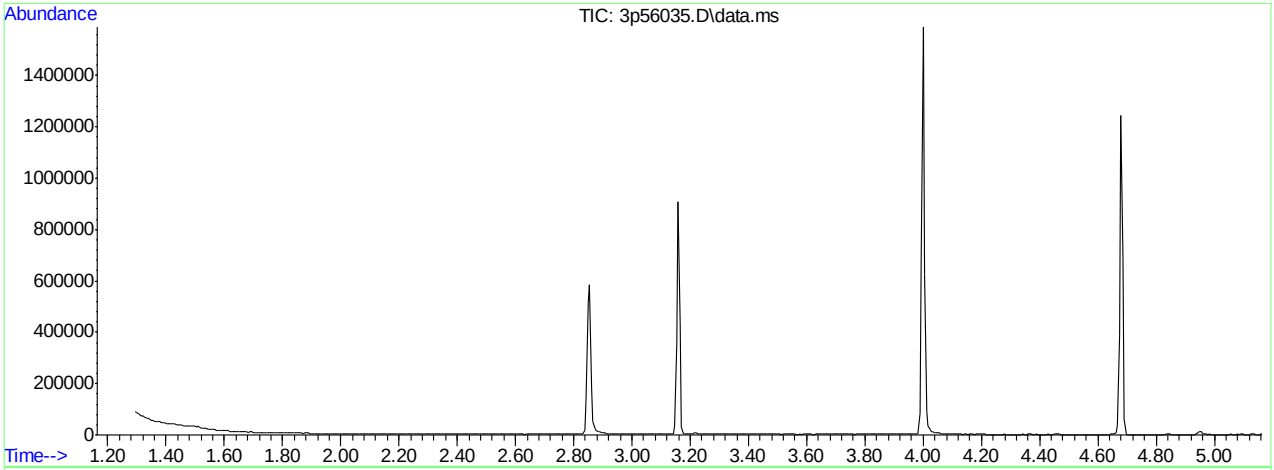
Ion	Exp%	Act%
235.00	100	100
165.00	0.10	54.55#
237.00	0.10	63.96#
0.00	0.00	0.00

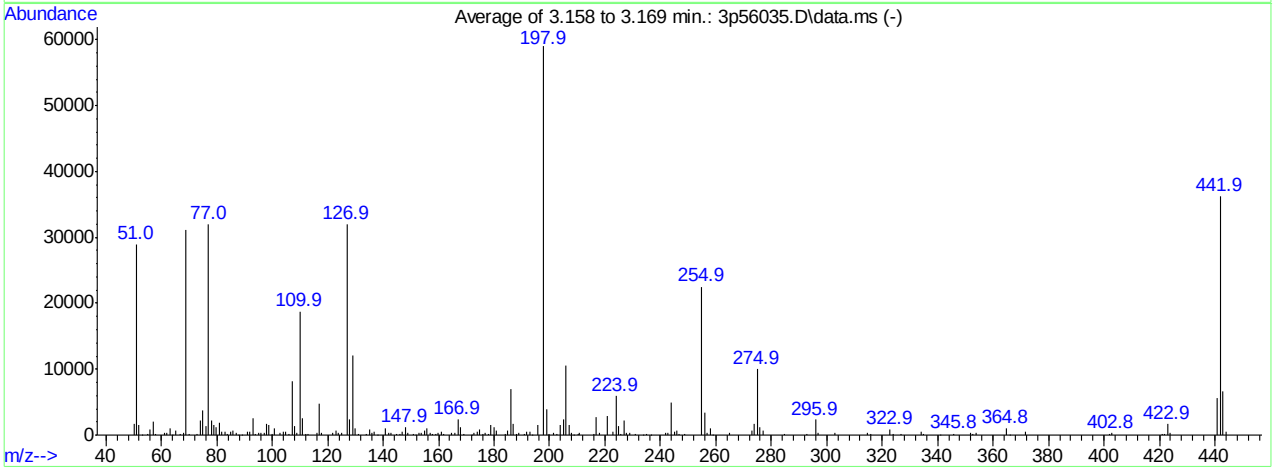
SGS ACCUTEST JC33175

DFTPP

Data File : C:\msdchem\1\data\E3P2578\3p56035.D Vial: 1
Acq On : 18 Oct 2016 12:26 pm Operator: shaniceg
Sample : dftpp Inst : MSGC3P
Misc : op97203a,e3p2579 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M (ChemStation Integrator)
Title : zebron ZB-5msi 30mx0.25mmx0.25um





AutoFind: Scans 327, 328, 329; Background Corrected with Scan 322

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.1	28942	PASS
68	69	0.00	2	1.2	361	PASS
69	198	0.00	100	52.7	31104	PASS
70	69	0.00	2	0.7	228	PASS
127	198	40	60	54.4	32075	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	58984	PASS
199	198	5	9	6.7	3968	PASS
275	198	10	30	17.0	10001	PASS
365	198	1	100	1.9	1095	PASS
441	443	0.01	100	85.3	5605	PASS
442	198	40	100	61.5	36292	PASS
443	442	17	23	18.1	6574	PASS

3p56035.D DFTPP3P.M Wed Oct 19 08:59:42 2016

Average of 3.158 to 3.169 min.: 3p56035.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.00	1758	64.00	87	78.00	2292	88.90	69
51.00	28942	65.00	602	78.90	1485	90.90	530
52.00	1468	66.95	242	79.90	1157	91.90	451
52.90	72	67.95	361	80.95	1874	92.90	2476
55.00	235	68.90	31104	81.90	492	93.90	150
55.95	800	70.00	228	82.90	502	95.00	334
56.95	2003	72.95	157	83.90	171	95.95	312
58.00	100	74.00	2209	84.95	491	97.05	301
60.90	268	75.00	3791	85.90	639	97.90	1762
61.95	288	76.00	1335	86.90	290	98.90	1599
63.00	956	77.00	32056	87.90	89	99.85	196

Average of 3.158 to 3.169 min.: 3p56035.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
100.90	1006	113.00	100	129.90	1003	145.90	128
102.90	332	115.90	346	130.90	213	146.90	578
103.85	552	116.90	4813	133.85	245	147.90	1215
104.95	564	117.85	335	134.90	879	148.90	334
105.95	233	121.90	395	135.90	348	150.90	132
107.00	8095	122.90	727	136.90	462	151.60	76
107.90	1304	123.90	342	137.90	68	152.90	334
108.90	262	124.90	368	140.90	1023	153.90	311
109.90	18792	126.90	32075	141.90	386	154.85	666
110.90	2509	127.90	2313	142.85	325	155.90	997
111.90	204	128.90	12129	144.90	118	156.90	295

Average of 3.158 to 3.169 min.: 3p56035.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
157.90	198	172.90	289	185.90	6908	199.85	240
158.90	128	173.90	524	186.90	1635	201.40	322
159.85	342	174.90	845	187.90	144	202.80	230
160.90	548	175.80	178	188.80	266	203.90	1496
161.90	192	176.90	338	190.90	135	204.90	2449
164.80	380	177.80	100	191.85	532	205.90	10559
165.85	340	178.85	1606	192.90	504	206.90	1498
166.90	2428	179.90	1117	193.80	72	207.85	312
167.90	1135	180.90	604	195.90	1510	208.90	71
168.90	188	183.90	102	197.90	58984	210.30	159
171.80	80	184.90	690	198.90	3968	210.90	389

Average of 3.158 to 3.169 min.: 3p56035.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
215.80	111	230.80	101	254.90	22540	284.90	171
216.90	2678	233.90	73	255.90	3444	292.90	201
217.90	338	234.90	92	256.90	320	295.90	2383
220.85	2881	236.80	88	257.85	1098	296.85	330
222.85	597	241.85	278	258.80	91	302.80	281
223.90	5949	242.85	298	264.85	414	314.80	318
224.90	1311	243.90	4902	272.80	677	315.80	120
225.80	109	244.90	586	273.90	1669	322.90	858
226.90	2164	245.90	747	274.90	10001	323.85	191
227.85	273	246.80	123	275.85	1261	326.85	167
228.85	408	248.85	165	276.85	759	333.90	570

Average of 3.158 to 3.169 min.: 3p56035.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
334.80	115	420.80	234				
340.90	68	421.80	216				
345.80	188	422.85	1684				
351.80	344	423.80	299				

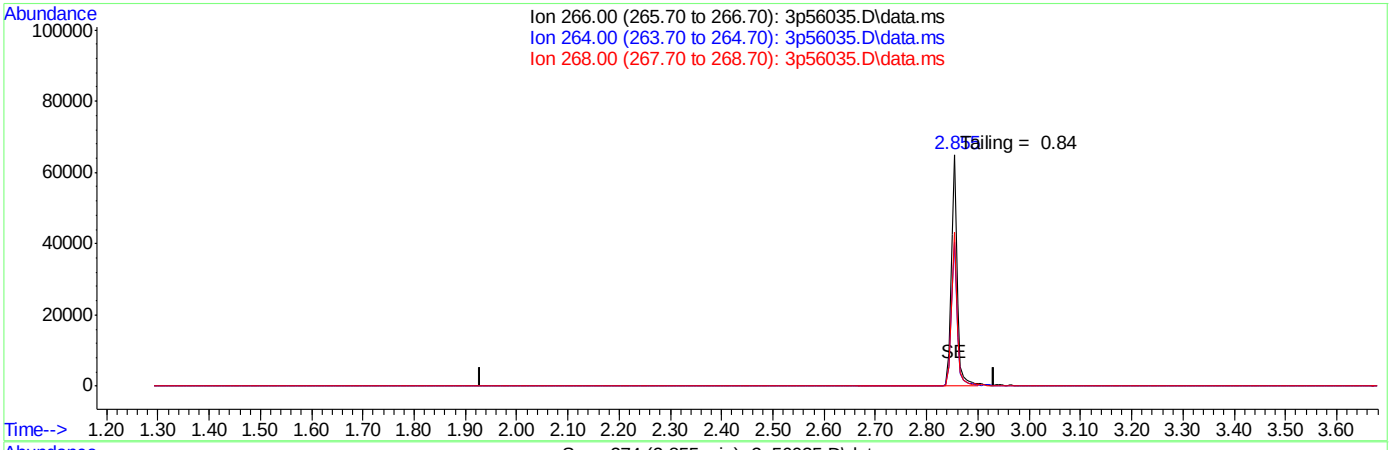
DFTPP3P.M Wed Oct 19 08:59:37 2016 Page: 0

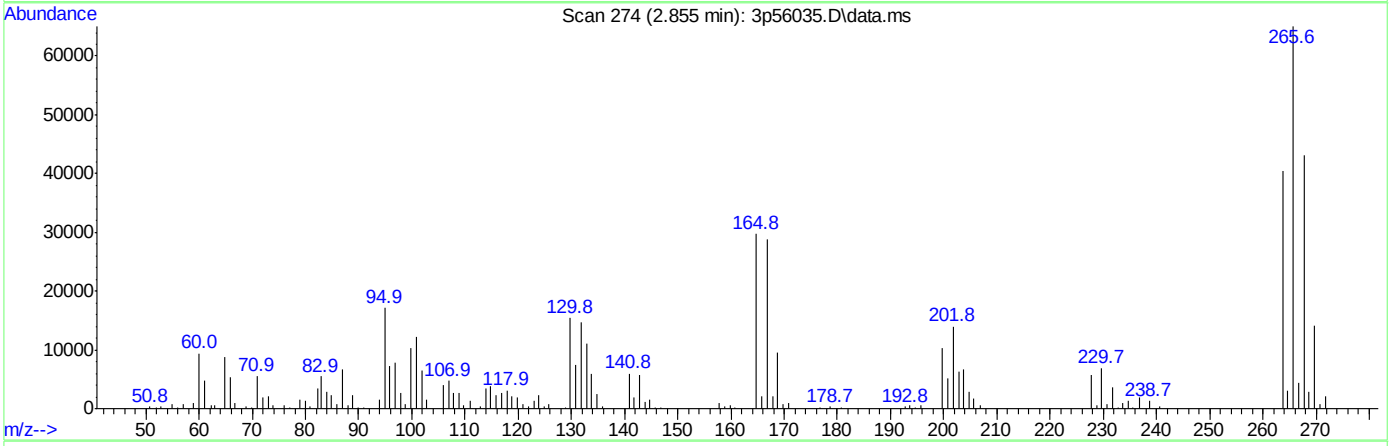
352.85	184	440.90	5605
353.85	290	441.90	36292
364.80	1095	442.90	6574
365.80	67	443.85	569
371.85	493		
401.80	203		
402.80	290		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\E3P2578\
Data File : 3p56035.D
Acq On : 18 Oct 2016 12:26 pm
Operator : shaniceg
Sample : dftpp
Misc : op97203a,e3p2579
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 18 12:31:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration





TIC: 3p56035.D\data.ms

(1) Pentachlorophenol

2.431min (-2.431) 0.00

response 0

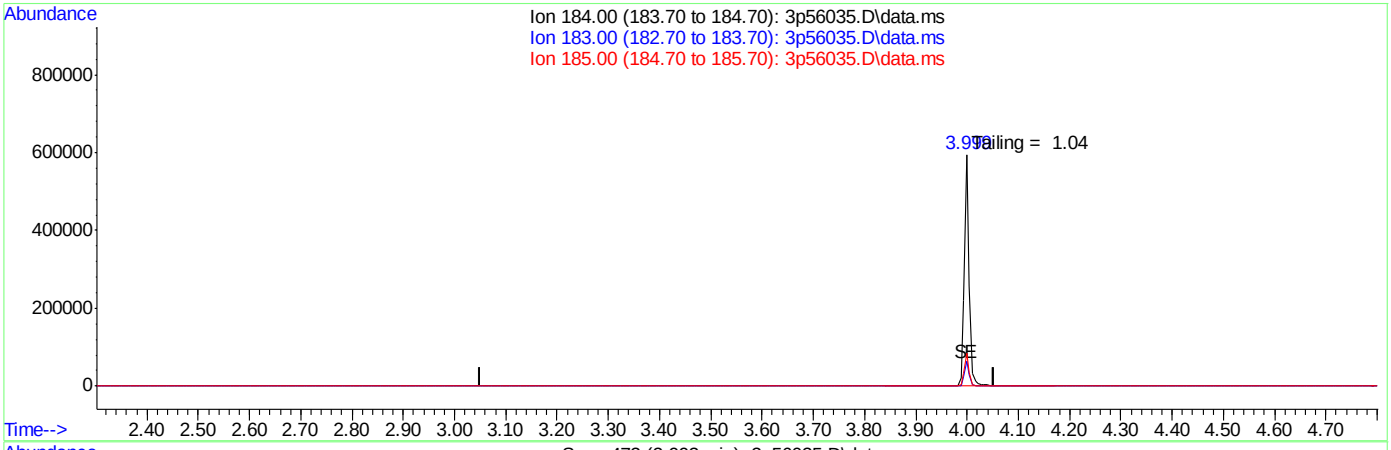
Ion	Exp%	Act%
266.00	100	0.00
264.00	0.00	0.00
268.00	0.00	0.00
0.00	0.00	0.00

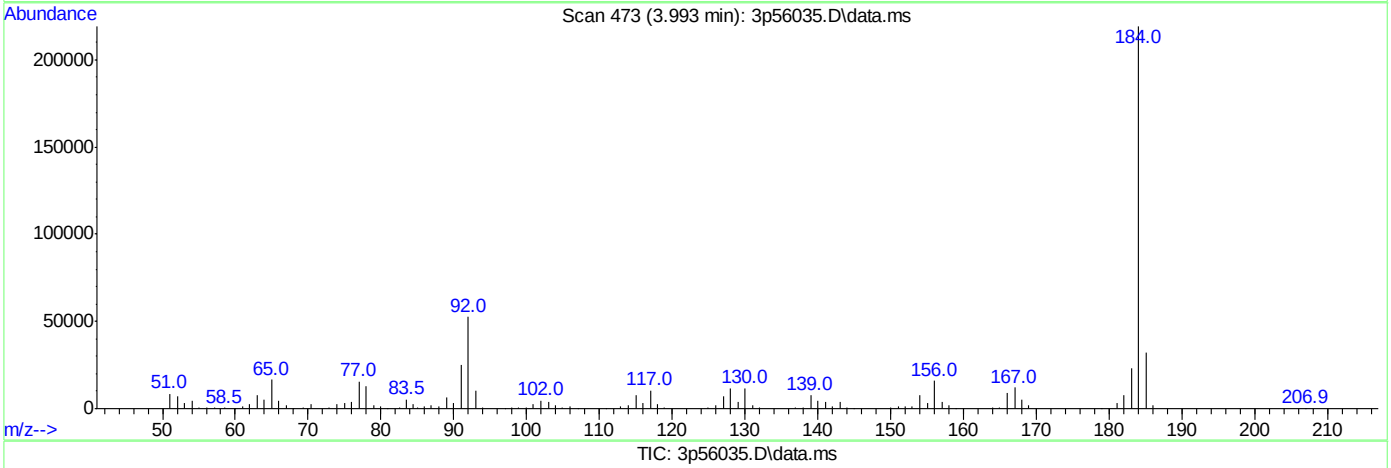
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\E3P2578\
Data File : 3p56035.D
Acq On : 18 Oct 2016 12:26 pm
Operator : shaniceg
Sample : dftpp
Misc : op97203a,e3p2579
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 18 12:31:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration





TIC: 3p56035.D\data.ms

(2) Benzidine

3.552min (-3.552) 0.00

response 0

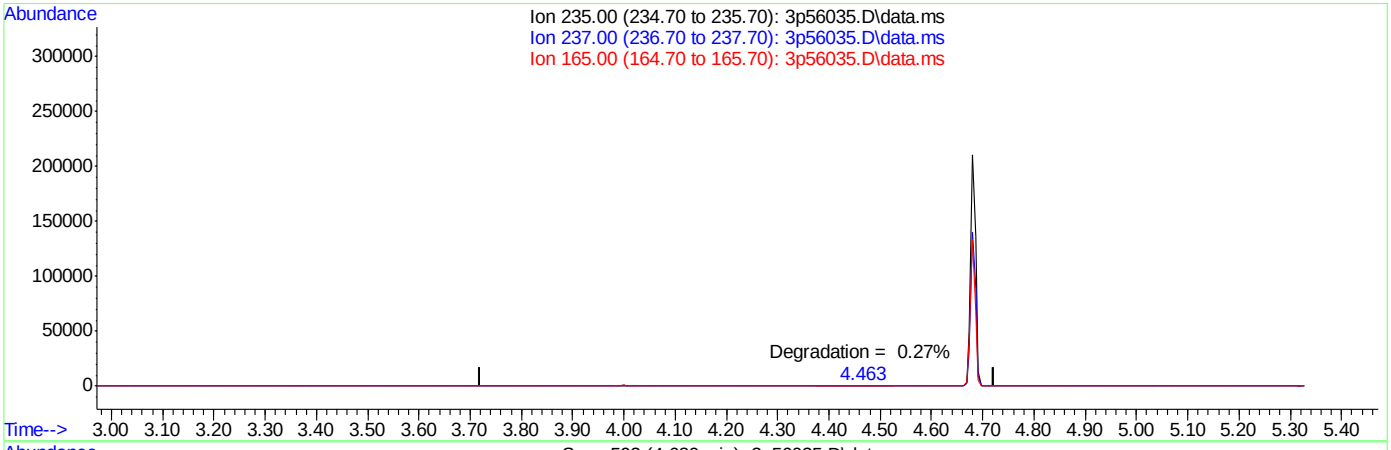
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

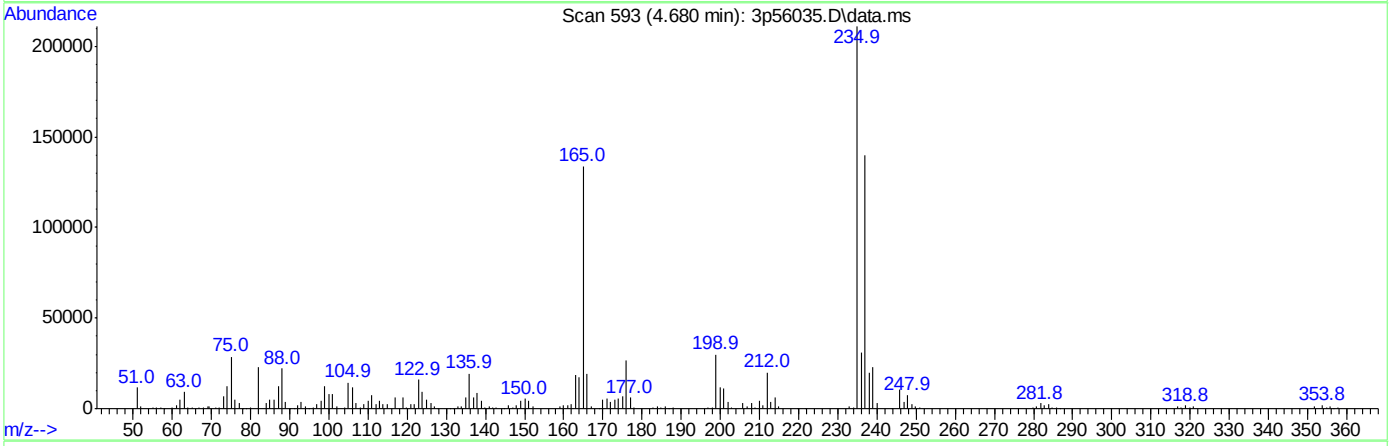
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\E3P2578\
Data File : 3p56035.D
Acq On    : 18 Oct 2016  12:26 pm
Operator  : shaniceg
Sample    : dftpp
Misc      : op97203a,e3p2579
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Oct 18 12:31:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title  : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration
```





TIC: 3p56035.D\data.ms

(3) PP-DDT

4.222min (-4.222) 0.00

response 0

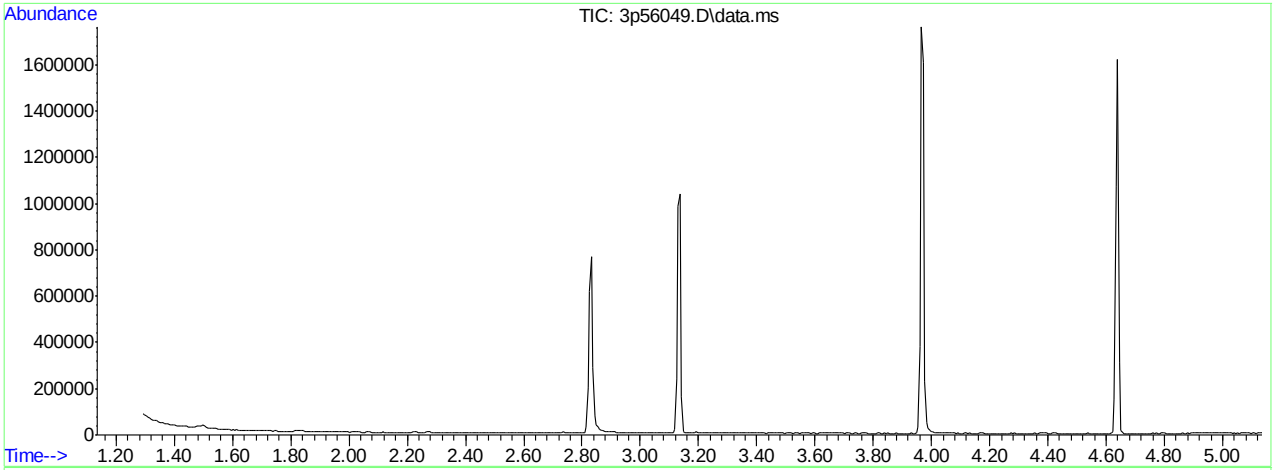
Ion	Exp%	Act%
235.00	100	0.00
237.00	0.00	0.00
165.00	0.00	0.00
0.00	0.00	0.00

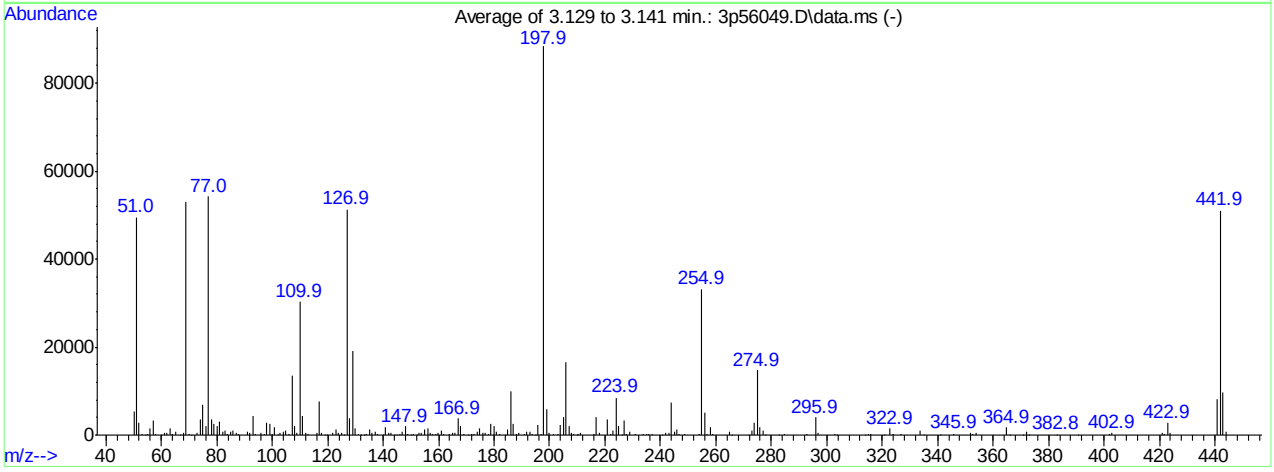
SGS ACCUTEST JC33175

DFTPP

Data File : C:\msdchem\1\data\E3P2580\3p56049.D Vial: 1
Acq On : 19 Oct 2016 10:06 am Operator: shaniceg
Sample : dftpp Inst : MSGC3P
Misc : op97203a,e3p2580 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M (ChemStation Integrator)
Title : zebron ZB-5msi 30mx0.25mmx0.25um





AutoFind: Scans 322, 323, 324; Background Corrected with Scan 317

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.0	49457	PASS
68	69	0.00	2	1.2	624	PASS
69	198	0.00	100	59.9	52944	PASS
70	69	0.00	2	0.7	353	PASS
127	198	40	60	58.1	51323	PASS
197	198	0.00	1	0.2	220	PASS
198	198	100	100	100.0	88352	PASS
199	198	5	9	6.5	5781	PASS
275	198	10	30	16.6	14695	PASS
365	198	1	100	2.0	1745	PASS
441	443	0.01	100	83.2	8083	PASS
442	198	40	100	57.8	51091	PASS
443	442	17	23	19.0	9715	PASS

3p56049.D DFTPP3P.M Thu Oct 20 14:37:21 2016

Average of 3.129 to 3.141 min.: 3p56049.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.00	5340	61.95	577	75.00	6855	85.90	928
51.00	49457	63.00	1596	76.00	2061	86.90	395
52.00	2695	64.00	228	77.00	54228	87.90	187
52.95	164	65.00	837	78.00	3458	90.90	765
54.10	75	66.90	37	79.00	2668	91.90	600
55.00	308	67.95	624	79.95	2155	92.95	4275
56.00	1508	68.95	52944	80.90	3063	93.90	314
57.00	3446	69.95	353	81.95	844	95.95	428
57.95	208	71.00	134	82.95	917	97.00	375
59.90	73	72.90	404	83.90	177	97.95	2827
60.95	480	74.00	3554	84.90	895	98.95	2652

Average of 3.129 to 3.141 min.: 3p56049.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
99.90	204	110.90	4231	124.90	484	135.90	437
100.90	1804	111.90	412	126.00	102	136.95	699
101.90	70	112.85	180	126.90	51323	137.85	145
102.90	519	115.90	611	127.90	3823	139.80	75
103.90	779	117.00	7697	128.90	19024	140.90	1802
104.90	912	117.90	512	129.90	1592	141.90	573
105.85	278	118.90	76	130.90	305	142.90	457
107.00	13513	119.90	70	131.85	135	144.00	75
107.95	2064	121.90	573	132.90	67	144.90	104
109.00	399	122.90	1182	133.85	360	145.85	299
109.90	30284	123.90	511	134.90	1358	146.90	776

Average of 3.129 to 3.141 min.: 3p56049.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
147.90	1928	158.85	214	171.90	248	183.90	87
148.85	377	159.90	496	172.90	338	184.90	1199
149.90	68	160.90	969	173.90	669	185.90	10033
151.00	246	161.90	242	174.90	1486	186.95	2649
151.90	72	163.80	161	175.85	430	187.90	232
152.85	520	164.85	559	176.90	590	188.90	440
153.80	410	165.90	518	177.90	163	190.85	215
154.90	1168	166.90	3780	178.90	2656	191.90	820
155.95	1567	167.90	2108	179.90	1974	192.90	768
156.90	412	168.90	309	180.90	860	193.85	184
157.90	303	170.80	80	181.90	164	194.90	77

Average of 3.129 to 3.141 min.: 3p56049.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
195.90	2186	207.90	492	223.90	8439	240.80	128
196.90	220	208.85	143	224.90	2103	241.90	459
197.90	88352	209.90	114	225.90	84	242.90	513
198.90	5781	210.30	207	226.90	3221	244.00	7340
199.90	436	210.95	537	227.90	362	244.90	889
201.40	272	215.90	284	228.90	728	245.90	1160
202.90	375	216.90	4127	230.90	355	246.85	177
203.90	2410	217.90	562	233.85	167	248.80	203
204.90	4026	220.90	3688	234.90	174	253.85	147
206.00	16631	221.90	237	235.85	174	254.90	33138
207.00	2172	222.85	999	236.85	224	255.90	4980

Average of 3.129 to 3.141 min.: 3p56049.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
256.90	336	277.80	97	320.80	128	364.90	1745
257.90	1691	282.80	86	322.90	1450	365.80	131
258.90	236	284.90	192	323.85	214	370.80	85
264.85	685	292.90	254	326.80	231	371.90	820

M3P2579SIM.M Thu Oct 20 13:57:44 2016 Page: 0

265.80	99	295.90	3977	333.85	970	372.90	127
271.90	69	296.90	547	334.90	91	382.80	131
272.90	1043	302.95	391	340.90	81	390.80	75
273.90	2849	303.90	68	345.85	334	401.85	252
274.90	14695	313.90	70	351.90	453	402.90	418
275.90	1869	314.85	391	352.85	271	420.85	418
276.90	1036	315.90	193	353.90	417	421.90	338

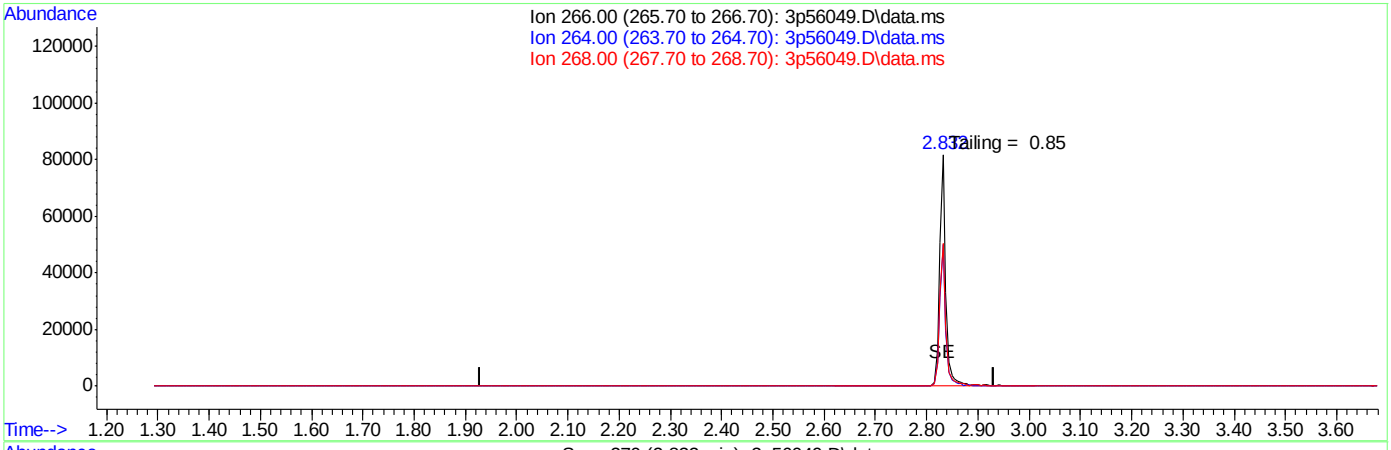
Average of 3.129 to 3.141 min.: 3p56049.D\data.ms
dftpp
Modified:subtracted

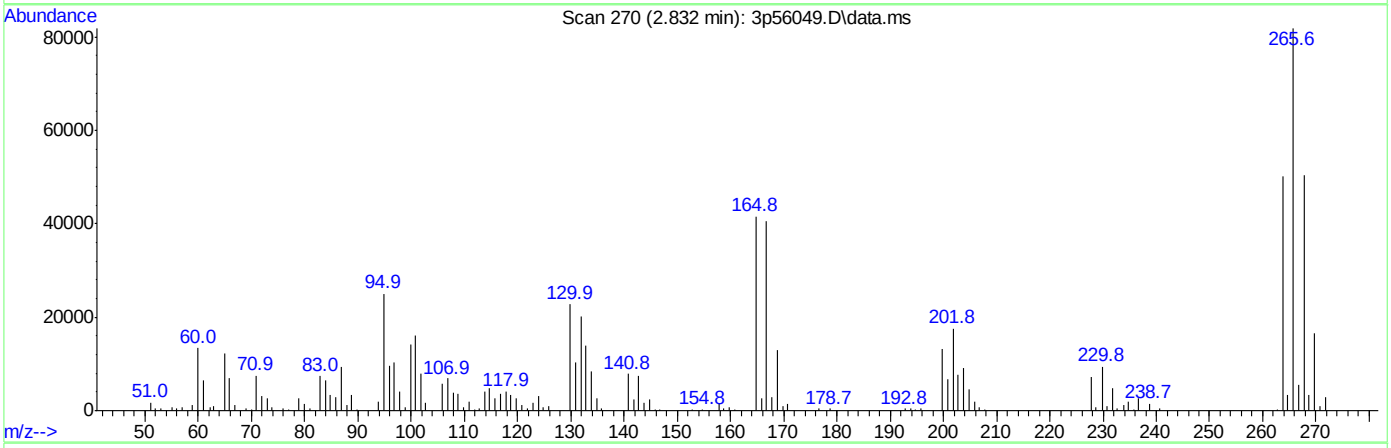
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.90	2731						
423.90	405						
440.90	8083						
441.90	51091						
442.90	9715						
443.85	774						

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56049.D
Acq On    : 19 Oct 2016  10:06 am
Operator  : shaniceg
Sample    : dftpp
Misc      : op97203a,e3p2580
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Oct 19 10:12:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title  : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration
```





(1) Pentachlorophenol

2.431min (-2.431) 0.00

response 0

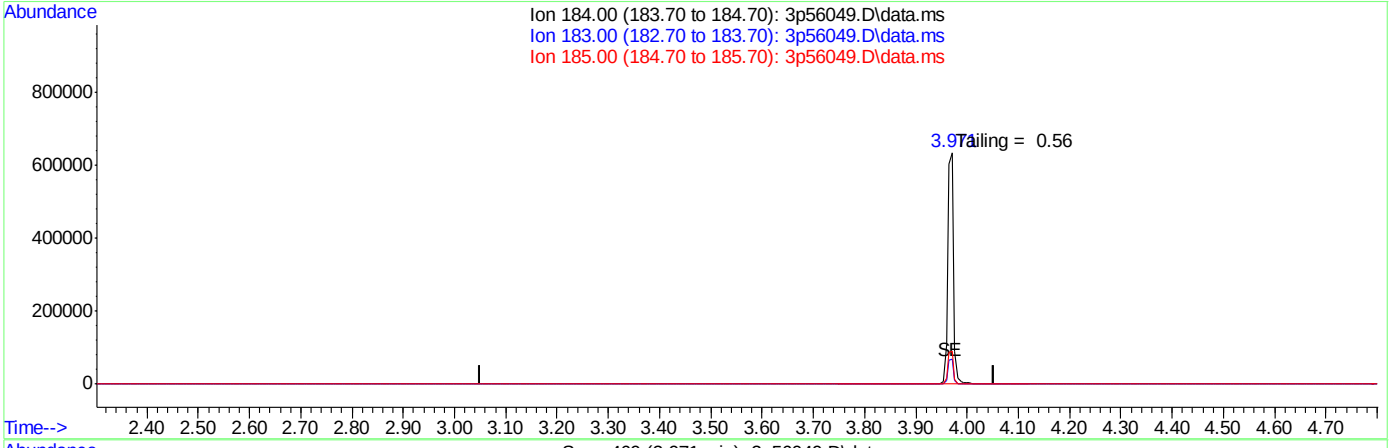
Ion	Exp%	Act%
266.00	100	0.00
264.00	0.00	0.00
268.00	0.00	0.00
0.00	0.00	0.00

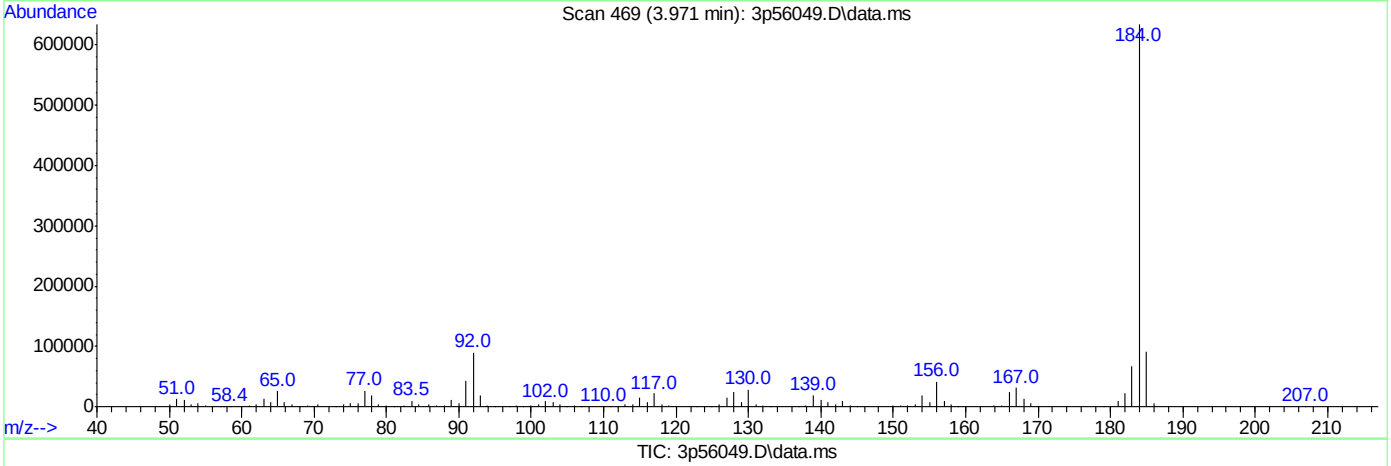
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56049.D
Acq On    : 19 Oct 2016  10:06 am
Operator  : shaniceg
Sample    : dftpp
Misc      : op97203a,e3p2580
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Oct 19 10:12:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title  : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration
```





TIC: 3p56049.D\data.ms

(2) Benzidine

3.552min (-3.552) 0.00

response 0

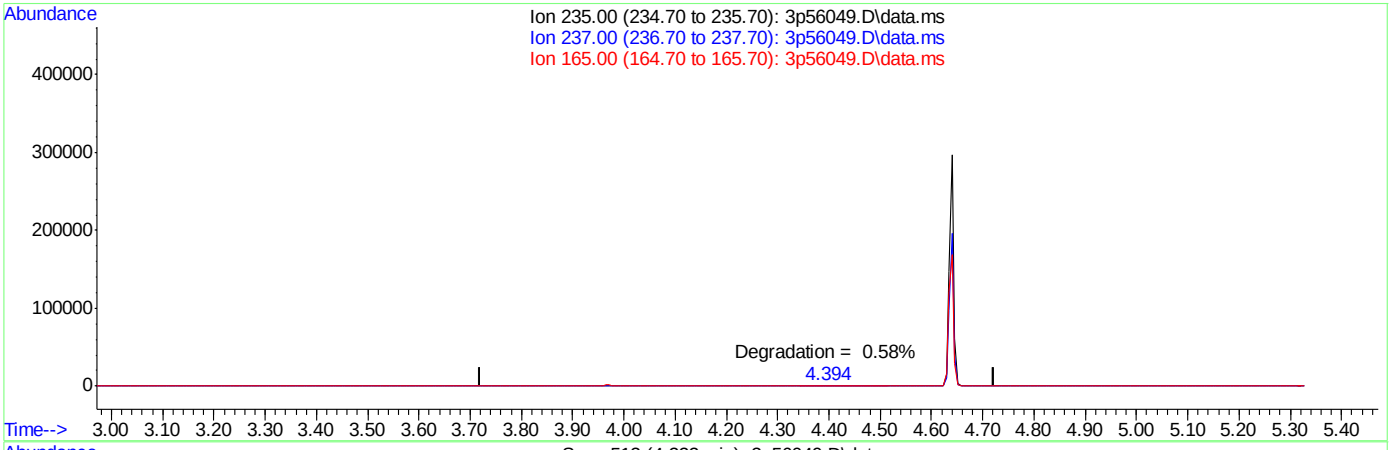
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

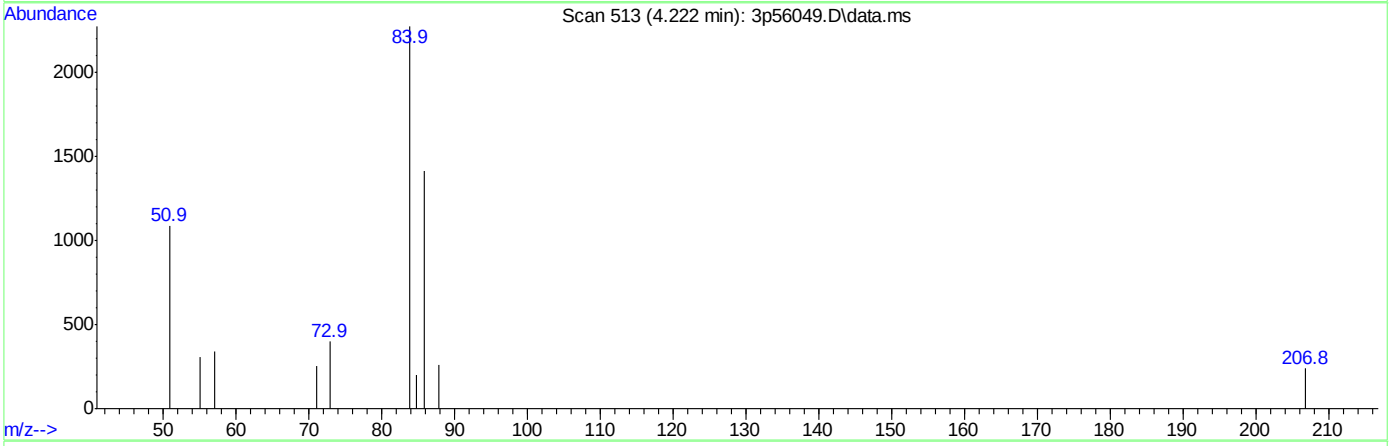
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56049.D
Acq On    : 19 Oct 2016  10:06 am
Operator  : shaniceg
Sample    : dftpp
Misc      : op97203a,e3p2580
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Oct 19 10:12:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title  : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration
```





TIC: 3p56049.D\data.ms

(3) PP-DDT

4.222min (-4.222) 0.00

response 0

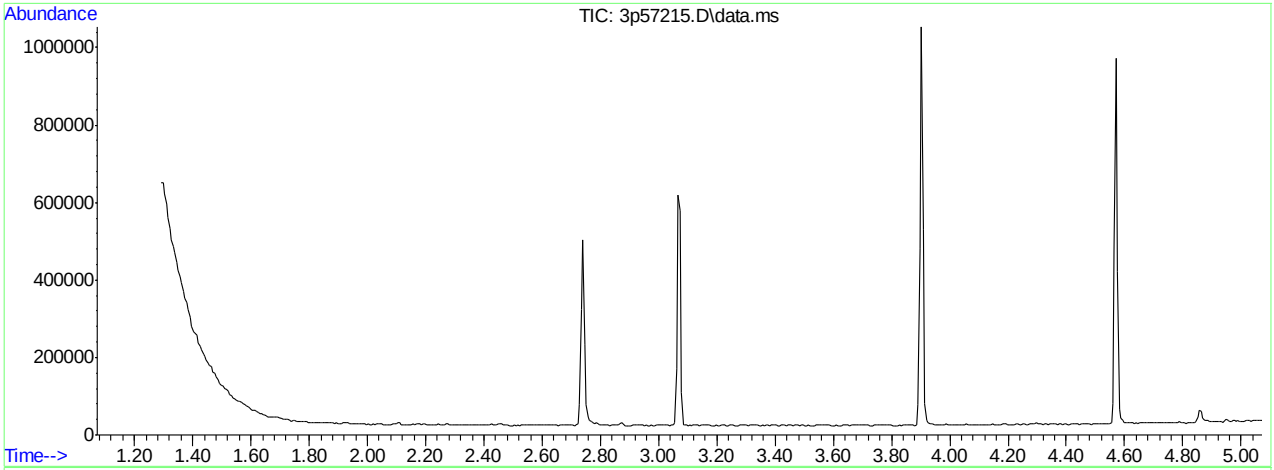
Ion	Exp%	Act%
235.00	100	0.00
237.00	0.00	0.00
165.00	0.00	0.00
0.00	0.00	0.00

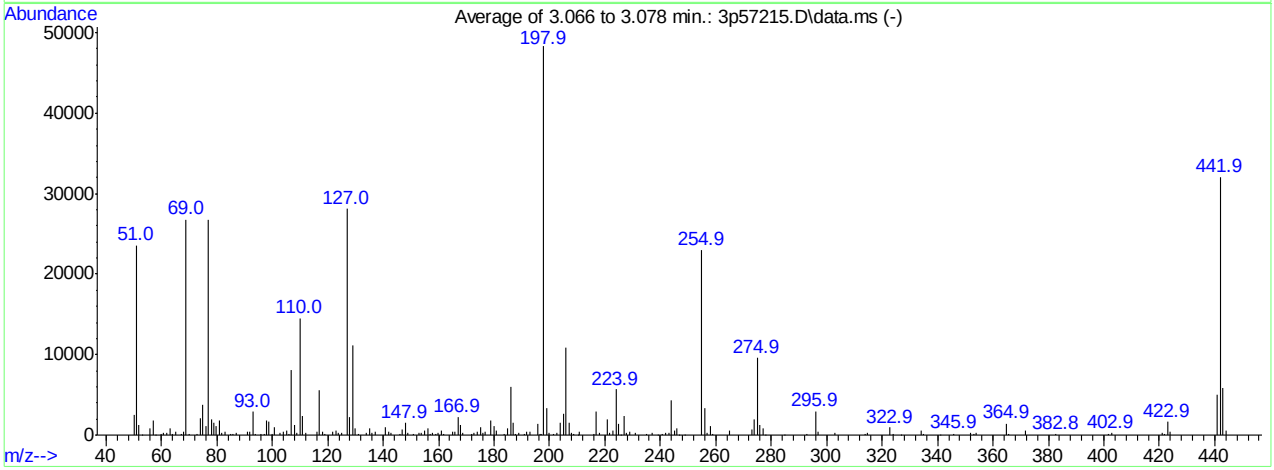
SGS ACCUTEST JC33175

DFTPP

Data File : C:\msdchem\1\data\E3P2653\3p57215.D Vial: 1
Acq On : 14 Dec 2016 9:11 am Operator: shaniceg
Sample : dftpp Inst : MSGC3P
Misc : op98910a,e3p2653 Multiplr: 1.00
MS Integration Params: events.e

Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M (ChemStation Integrator)
Title : zebron ZB-5msi 30mx0.25mmx0.25um





AutoFind: Scans 311, 312, 313; Background Corrected with Scan 307

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	48.9	23599	PASS
68	69	0.00	2	1.4	387	PASS
69	198	0.00	100	55.5	26786	PASS
70	69	0.00	2	0.3	76	PASS
127	198	40	60	58.2	28100	PASS
197	198	0.00	1	0.3	139	PASS
198	198	100	100	100.0	48287	PASS
199	198	5	9	7.0	3401	PASS
275	198	10	30	19.9	9585	PASS
365	198	1	100	2.9	1403	PASS
441	443	0.01	100	86.6	5020	PASS
442	198	40	100	66.5	32099	PASS
443	442	17	23	18.1	5800	PASS

3p57215.D DFTPP3P.M Wed Dec 14 12:37:36 2016

Average of 3.066 to 3.078 min.: 3p57215.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
50.00	2474	64.00	88	78.00	1959	92.95	2911
51.00	23599	64.95	447	78.95	1521	93.90	102
52.00	1287	67.00	172	79.90	1110	96.00	180
53.00	67	68.00	387	81.00	1882	96.95	143
56.00	849	68.95	26786	81.90	313	97.95	1871
57.00	1796	69.90	76	82.90	467	98.90	1716
58.00	71	72.95	128	84.90	148	100.00	90
60.00	80	74.00	2042	85.90	194	100.90	1012
60.90	272	75.00	3776	86.90	273	102.90	296
61.90	291	76.00	1152	90.90	435	103.95	472
63.00	893	77.00	26683	91.95	387	105.00	493

Average of 3.066 to 3.078 min.: 3p57215.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.90	190	121.95	403	135.90	316	153.85	263
107.00	8025	122.90	562	136.95	388	154.90	609
107.90	1201	123.90	337	140.90	1005	155.95	882
109.00	216	125.00	319	141.90	416	156.90	183
109.95	14513	127.00	28100	142.90	302	157.85	216
110.95	2384	127.95	2181	145.85	189	158.90	167
111.90	255	128.90	11100	146.95	665	159.90	303
115.95	387	129.90	839	147.95	1495	160.90	557
116.95	5551	130.95	183	148.95	274	161.90	158
117.95	386	133.95	272	150.90	204	164.85	453
118.95	147	134.95	826	152.85	322	165.90	360

Average of 3.066 to 3.078 min.: 3p57215.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
166.95	2291	180.90	555	196.70	139	207.90	278
167.90	1297	183.80	141	196.90	86	208.90	144
168.85	221	184.90	822	197.90	48287	210.30	69
171.85	163	185.90	6032	198.90	3401	210.90	417
172.90	293	186.95	1596	199.85	237	215.90	175
173.90	423	187.85	170	201.40	100	216.90	2905
174.95	987	188.85	321	202.85	293	217.90	331
175.90	231	190.90	187	203.90	1524	220.95	1898
176.90	387	191.90	471	205.00	2633	221.85	260
178.90	1771	193.00	467	206.00	10902	222.85	602
179.90	1104	195.90	1433	206.95	1488	223.95	5652

Average of 3.066 to 3.078 min.: 3p57215.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.90	1359	242.95	271	264.90	496	302.90	322
225.90	67	243.95	4334	272.90	730	313.80	79
226.90	2405	245.00	556	273.90	1903	314.80	284
227.90	326	245.90	773	274.90	9585	322.90	920
228.85	491	246.90	68	275.90	1223	323.90	113
230.90	218	248.90	71	276.90	844	326.80	68
234.90	171	254.90	23045	277.90	68	333.90	554
236.90	252	255.90	3328	284.90	73	334.90	156
238.90	70	256.90	235	292.90	199	340.90	70
240.80	75	257.90	1118	295.90	2954	345.90	169
241.90	312	258.85	194	296.85	357	351.90	305

Average of 3.066 to 3.078 min.: 3p57215.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
352.90	106	423.85	376				
353.90	284	440.90	5020				
364.90	1403	441.90	32099				
365.80	124	442.90	5800				

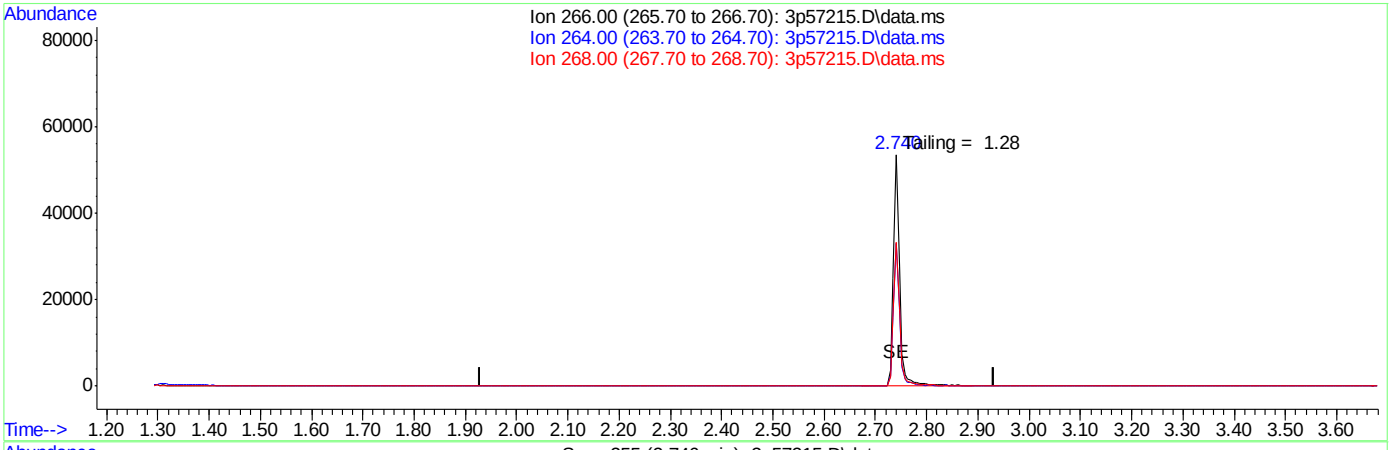
DFTPP3P.M Wed Dec 14 12:37:11 2016 Page: 0

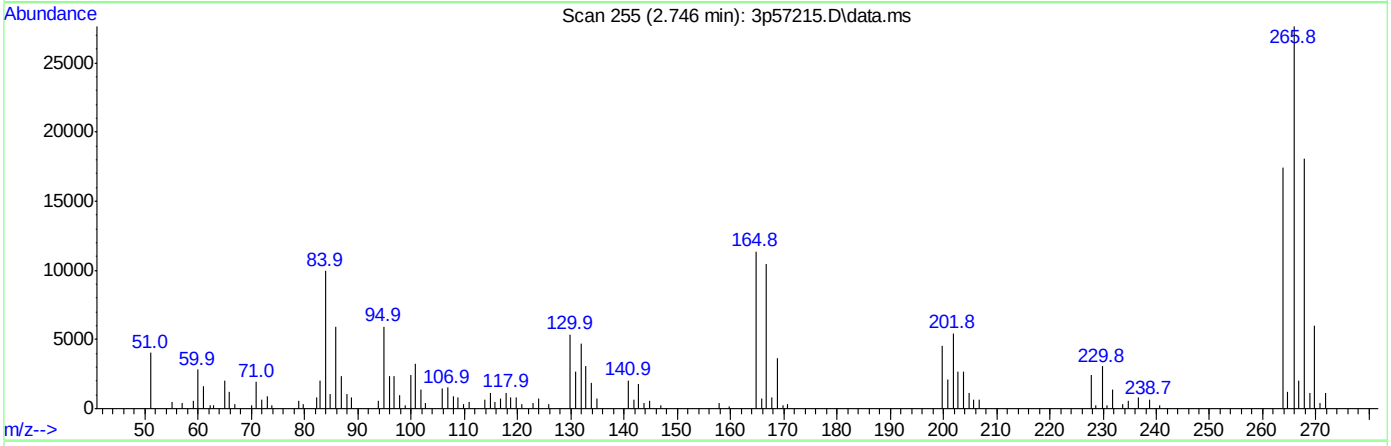
371.85	506	443.90	569
382.80	100		
401.80	113		
402.85	277		
420.85	238		
421.90	137		
422.90	1632		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57215.D
Acq On : 14 Dec 2016 9:11 am
Operator : shaniceg
Sample : dftpp
Misc : op98910a,e3p2653
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 14 09:17:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration





TIC: 3p57215.D\data.ms

(1) Pentachlorophenol

2.431min (-2.431) 0.00

response 0

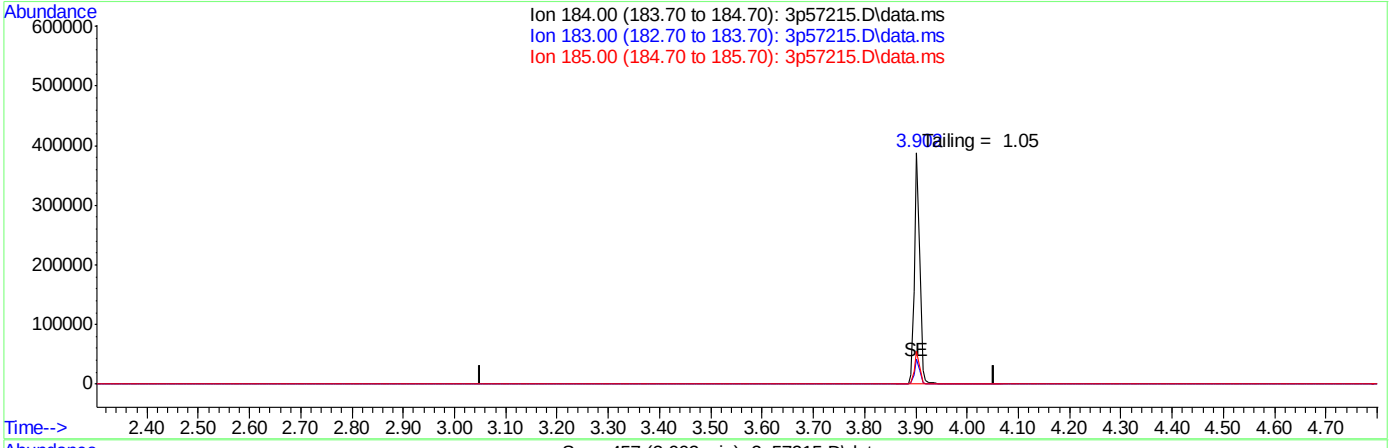
Ion	Exp%	Act%
266.00	100	0.00
264.00	0.00	0.00
268.00	0.00	0.00
0.00	0.00	0.00

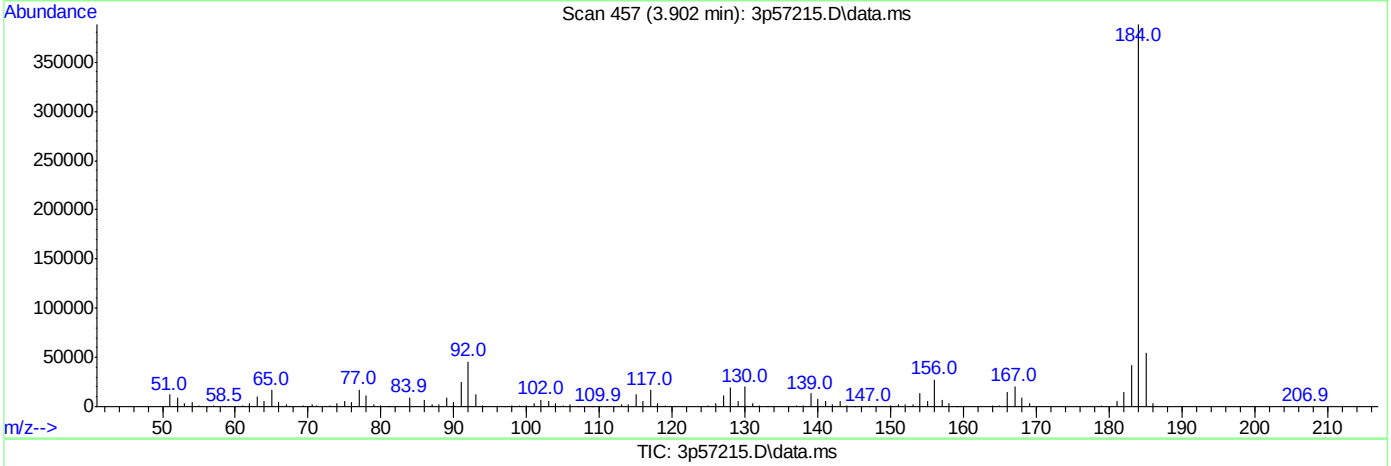
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57215.D
Acq On    : 14 Dec 2016   9:11 am
Operator  : shaniceg
Sample    : dftpp
Misc      : op98910a,e3p2653
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Dec 14 09:17:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title  : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration
```





TIC: 3p57215.D\data.ms

(2) Benzidine

3.552min (-3.552) 0.00

response 0

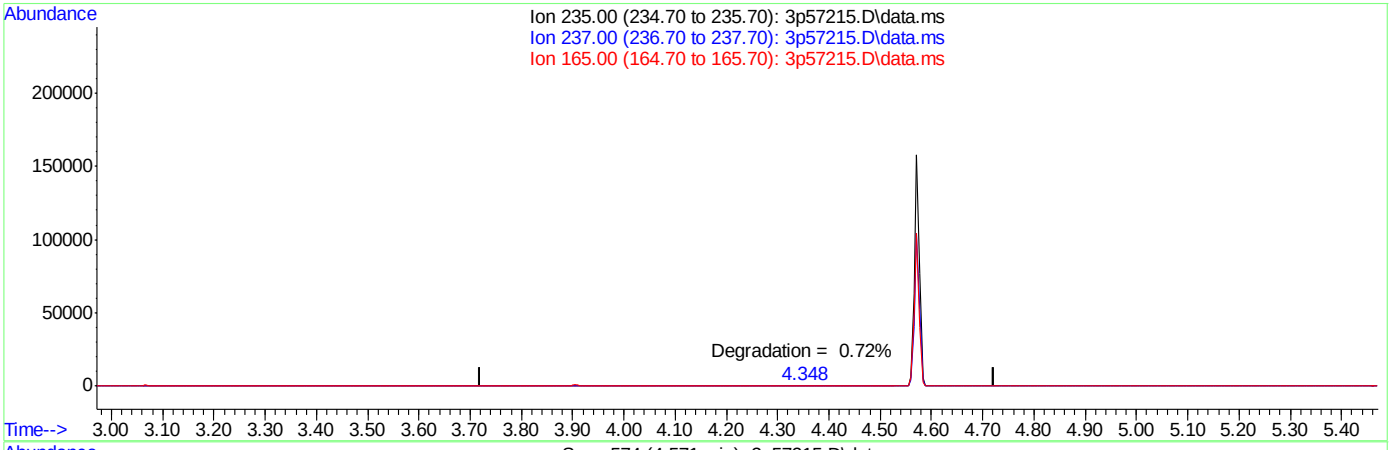
Ion	Exp%	Act%
184.00	100	0.00
183.00	0.00	0.00
185.00	0.00	0.00
0.00	0.00	0.00

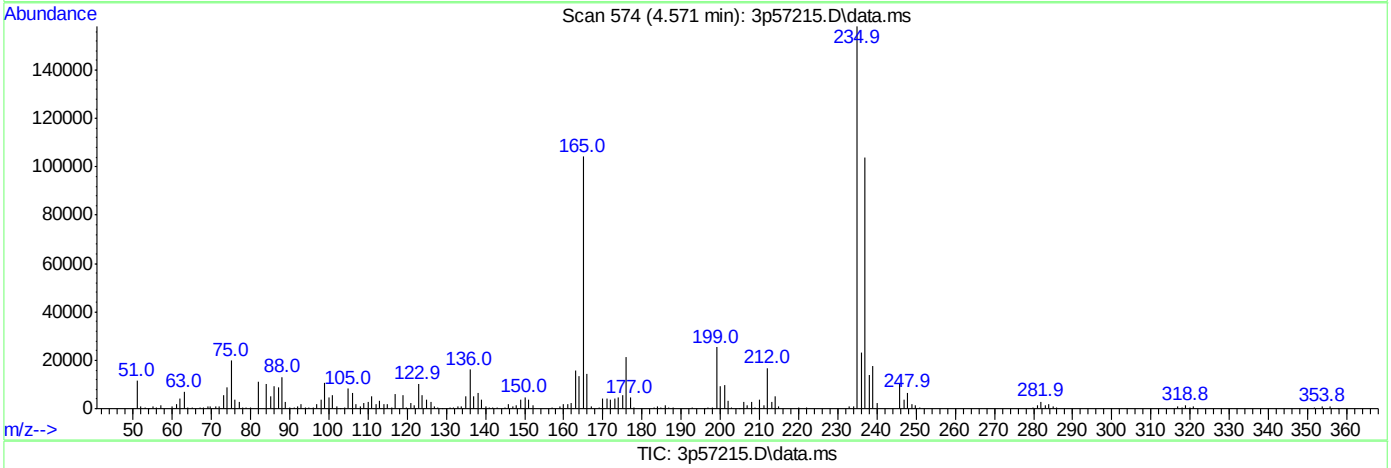
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57215.D
Acq On    : 14 Dec 2016   9:11 am
Operator  : shaniceg
Sample    : dftpp
Misc      : op98910a,e3p2653
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Dec 14 09:17:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP3P.M
Quant Title  : zebron ZB-5msi 30mx0.25mmx0.25um
QLast Update : Wed Mar 02 08:34:25 2016
Response via : Initial Calibration
```





(3) PP-DDT

4.222min (-4.222) 0.00

response 0

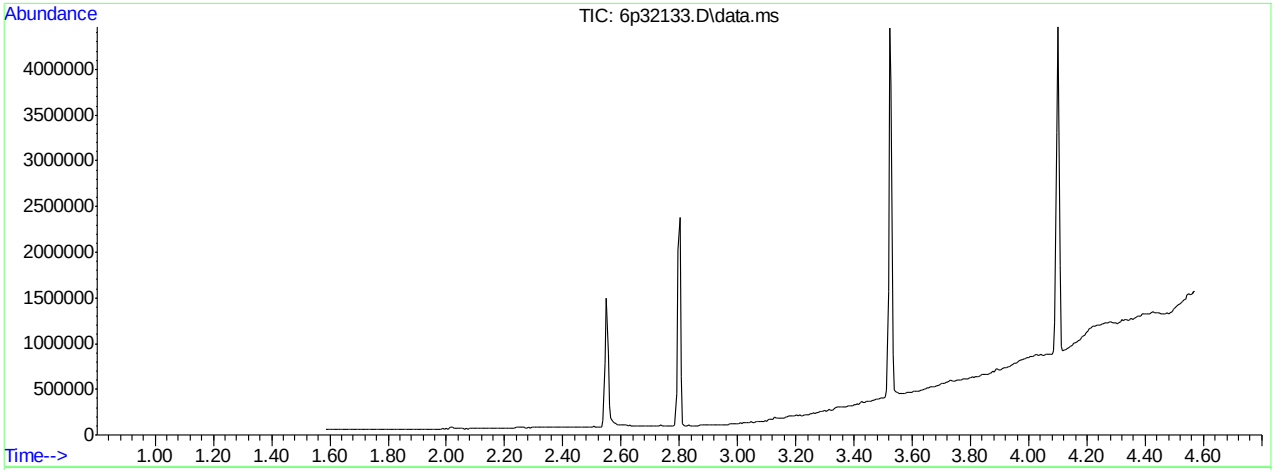
Ion	Exp%	Act%
235.00	100	0.00
237.00	0.00	0.00
165.00	0.00	0.00
0.00	0.00	0.00

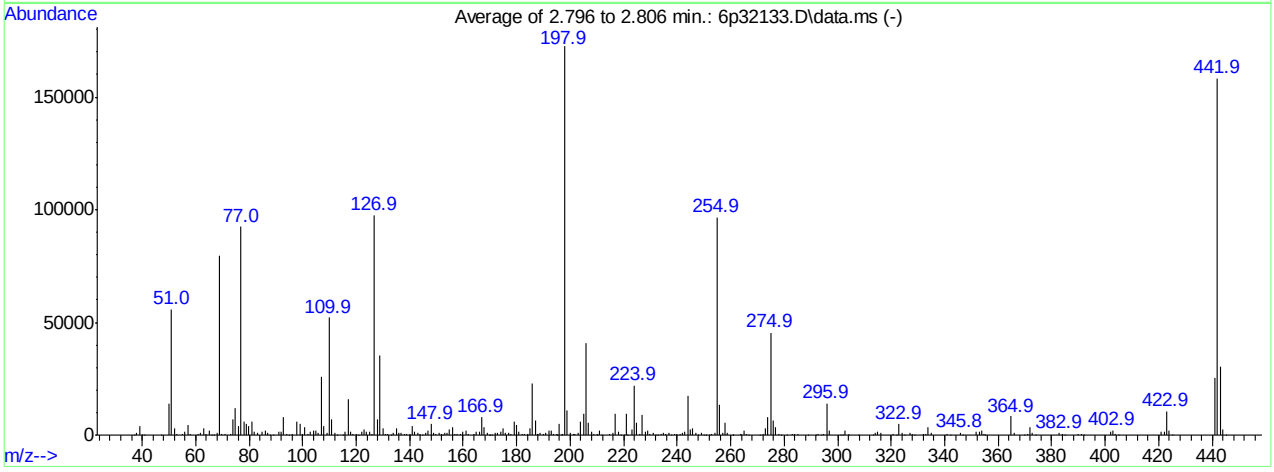
SGS ACCUTEST JC33175

DFTPP

Data File : C:\msdchem\1\DATA\e6p1488\6p32133.D Vial: 1
Acq On : 18 Nov 2016 8:54 am Operator: ariellec
Sample : dftpp Inst : MS6P
Misc : op98528,e6p1488 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um





AutoFind: Scans 227, 228, 229; Background Corrected with Scan 222

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.4	55945	PASS
68	69	0.00	2	1.1	868	PASS
69	198	0.00	100	46.2	79733	PASS
70	69	0.00	2	0.8	656	PASS
127	198	40	60	56.7	97738	PASS
197	198	0.00	1	0.3	434	PASS
198	198	100	100	100.0	172488	PASS
199	198	5	9	6.5	11149	PASS
275	198	10	30	26.3	45362	PASS
365	198	1	100	4.8	8284	PASS
441	443	0.10	100	84.1	25482	PASS
442	198	40	100	91.9	158448	PASS
443	442	17	23	19.1	30282	PASS

6p32133.D DFTPP6P.M Fri Nov 18 11:57:17 2016 ACLIMS

Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.85	139	55.90	1291	68.90	79733	80.90	5790
37.90	785	57.00	4352	69.90	656	81.90	1426
38.95	4045	57.95	489	71.00	296	82.95	1227
39.90	213	60.85	656	72.90	319	84.90	1411
40.95	132	61.90	999	73.90	7086	85.85	2012
46.90	16	62.90	2768	74.90	12025	86.90	859
49.90	13928	63.85	408	75.95	4121	87.80	121
50.95	55945	64.90	1955	76.95	92486	88.90	112
51.95	3112	65.80	119	78.00	5845	90.90	1342
52.90	493	66.90	54	78.90	4792	91.90	1559
54.90	323	67.90	868	79.90	4081	92.90	7876

Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.90	588	105.85	807	117.90	1363	128.90	35311
94.95	34	106.90	25661	118.90	454	129.90	3200
95.90	389	107.90	4132	119.90	436	130.90	418
97.90	6043	108.90	1088	120.90	100	131.90	565
98.90	5173	109.90	52136	121.90	1731	132.85	175
99.90	507	110.90	7151	122.90	2397	133.90	871
100.90	3374	111.90	789	123.90	1639	134.90	2848
101.85	379	112.90	107	124.90	1439	135.90	1227
102.85	1320	114.85	142	125.95	321	136.90	1114
103.90	2125	115.95	1530	126.90	97738	137.95	518
104.90	1984	116.90	15994	127.90	7206	139.00	469

Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.90	453	150.95	1001	160.90	1915	171.85	1005
140.90	3825	151.80	506	161.95	679	172.90	895
141.90	1676	152.20	150	163.95	347	173.90	1741
142.90	972	152.90	1122	164.80	1310	174.85	3204
143.80	300	153.90	1064	165.90	1356	175.90	1188
144.90	169	154.90	2615	166.90	8039	176.85	1212
145.90	956	155.85	3348	167.90	3535	177.90	637
146.85	2004	156.90	569	168.90	873	178.90	5869
147.90	4812	157.85	719	169.70	173	179.90	4284
148.85	930	158.90	534	169.90	145	180.90	1652
149.95	457	159.95	1389	170.90	255	181.95	480

Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.85	469	192.90	2023	201.85	394	211.90	156
183.90	642	193.95	401	202.90	1233	214.85	487
184.90	2901	194.80	297	203.90	5752	215.90	943
185.90	23046	195.00	162	204.90	9371	216.90	9696
186.90	6590	195.90	4929	205.90	40581	217.85	1353
187.80	334	196.50	108	206.90	5547	218.90	249
188.00	312	196.90	434	207.90	1498	220.10	102
188.90	1019	197.90	172488	208.90	355	220.90	9238
189.80	320	198.90	11149	209.90	258	221.50	252
190.90	1006	199.85	1006	210.20	324	222.90	2603
191.90	1921	201.25	747	210.95	1766	223.90	22137

Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.90	5731	235.85	537	246.90	876	257.90	5430
225.95	641	236.90	979	247.80	128	258.90	1047
226.90	8953	237.90	106	248.90	843	260.80	118
227.90	1472	238.85	483	249.90	122	261.00	128

228.90	1926	239.90	416	250.90	214	263.70	118
229.85	372	240.90	566	251.90	154	263.85	284
230.90	1052	241.95	1138	252.85	385	264.85	2108
231.95	238	242.90	1433	253.90	774	265.70	335
232.90	150	243.90	17636	254.90	96706	266.85	239
233.90	488	244.90	2409	255.90	13401	270.80	120
234.95	821	245.90	3251	256.90	1139	271.95	333

Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.90	2985	288.80	217	304.00	213	326.85	958
273.90	7820	292.00	116	307.80	234	327.85	540
274.90	45362	292.80	663	313.00	119	328.80	102
275.90	6491	293.90	179	313.85	827	331.90	457
276.90	3672	294.90	384	314.90	1523	332.90	630
277.90	752	295.90	14101	315.90	848	333.90	3458
279.00	103	296.90	2013	320.85	530	334.90	1068
280.90	240	300.85	249	321.80	116	340.95	697
282.90	546	301.80	160	322.90	4878	342.00	236
283.90	414	302.90	1827	323.90	987	345.80	1108
284.90	628	303.80	163	325.00	255	346.80	172

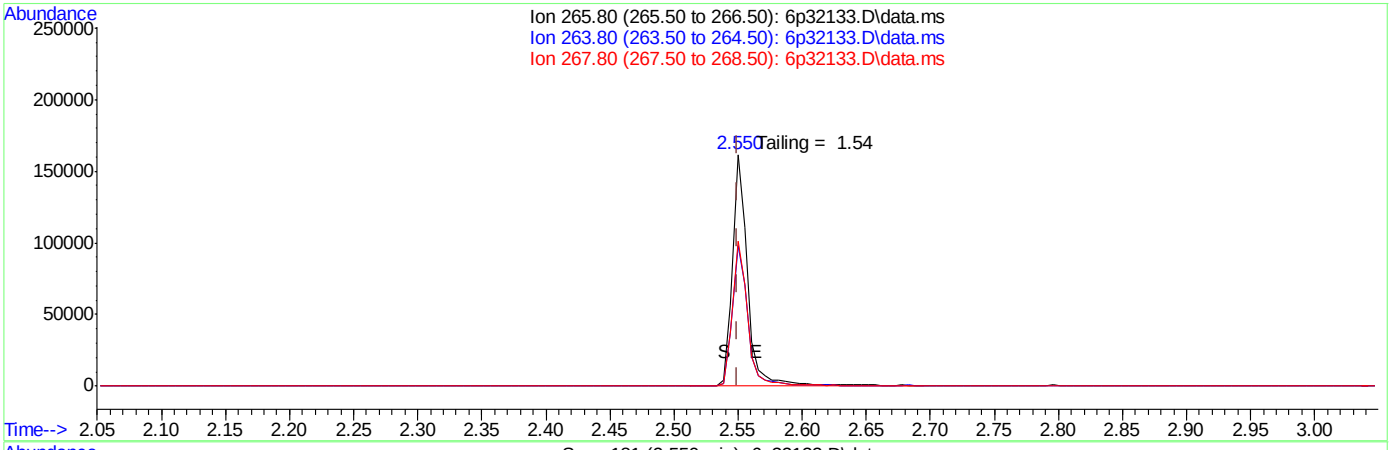
Average of 2.796 to 2.806 min.: 6p32133.D\data.ms
dftpp
Modified:subtracted

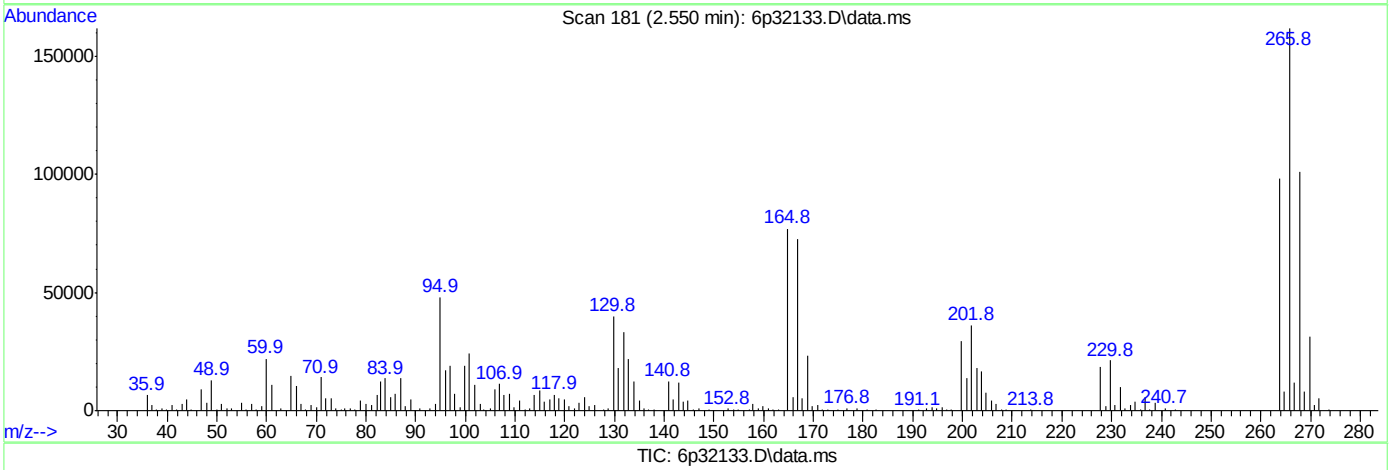
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
351.85	1701	373.90	122	420.90	1695		
352.85	1364	382.90	880	421.95	1450		
353.90	1784	383.90	312	422.90	10596		
354.80	374	384.90	102	423.90	2075		
355.00	150	389.85	546	424.90	155		
364.90	8284	390.95	356	440.90	25482		
365.85	1229	392.00	154	441.90	158448		
369.90	163	401.90	1330	442.90	30282		
370.85	526	402.85	1997	443.90	2694		
371.90	3294	403.85	719	445.00	133		
372.80	832	405.00	121				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32133.D
Acq On : 18 Nov 2016 8:54 am
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1488
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 18 08:59:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32133.D\data.ms

(1) Pentachlorophenol (t)

2.550min (0.000) 0.00ppb

response 131932

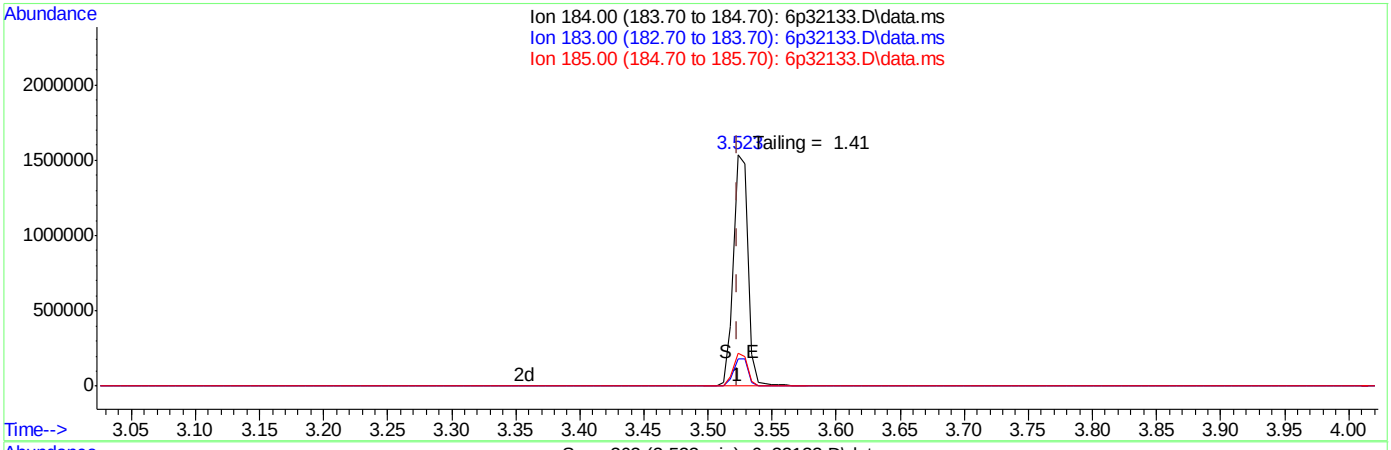
Ion	Exp%	Act%
265.80	100	100
263.80	60.80	60.68
267.80	62.50	62.49
0.00	0.00	0.00

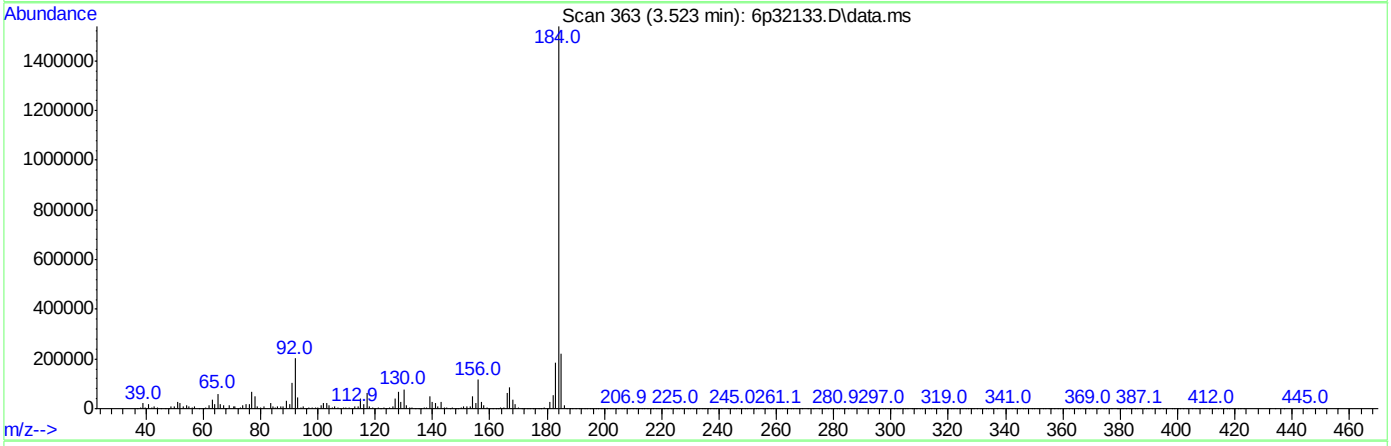
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32133.D
Acq On    : 18 Nov 2016   8:54 am
Operator  : ariellec
Sample    : dftpp
Misc      : op98528,e6p1488
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Nov 18 08:59:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title  : Semi Volatile  GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration
```





TIC: 6p32133.D\data.ms

(2) Benzidine (t)

3.523min (0.000) 0.00ppb

response 1214548

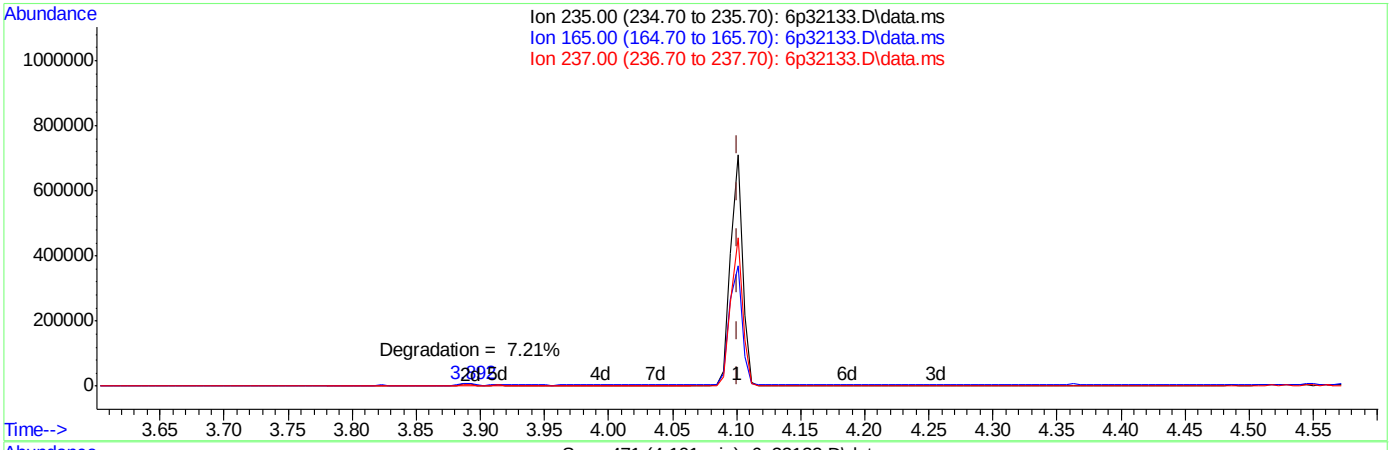
Ion	Exp%	Act%
184.00	100	100
183.00	12.00	11.87
185.00	14.30	14.18
0.00	0.00	0.00

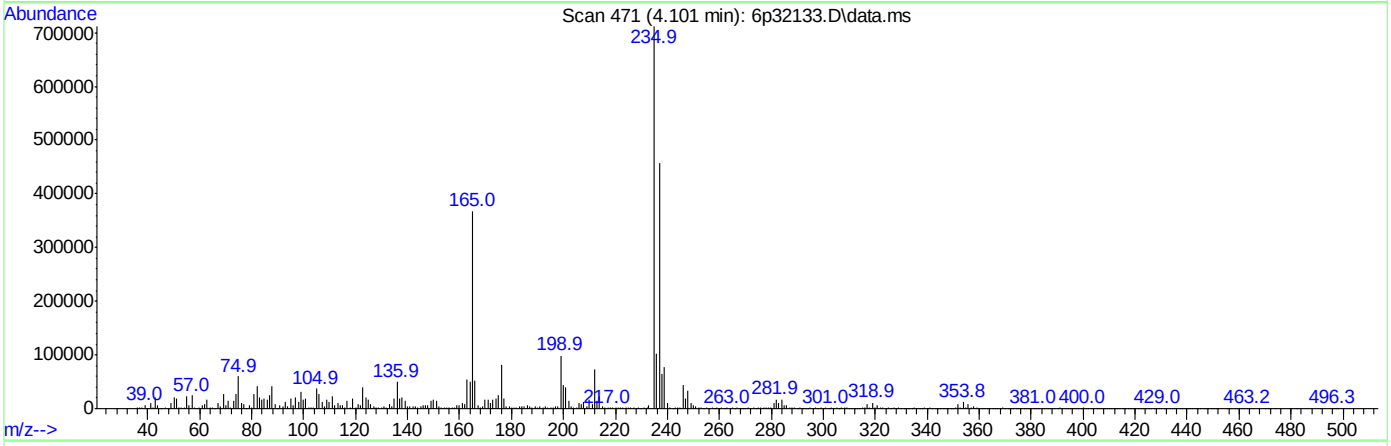
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32133.D
Acq On : 18 Nov 2016 8:54 am
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1488
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 18 08:59:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32133.D\data.ms

(3) PP-DDT (t)

4.101min (0.000) 0.00ppb

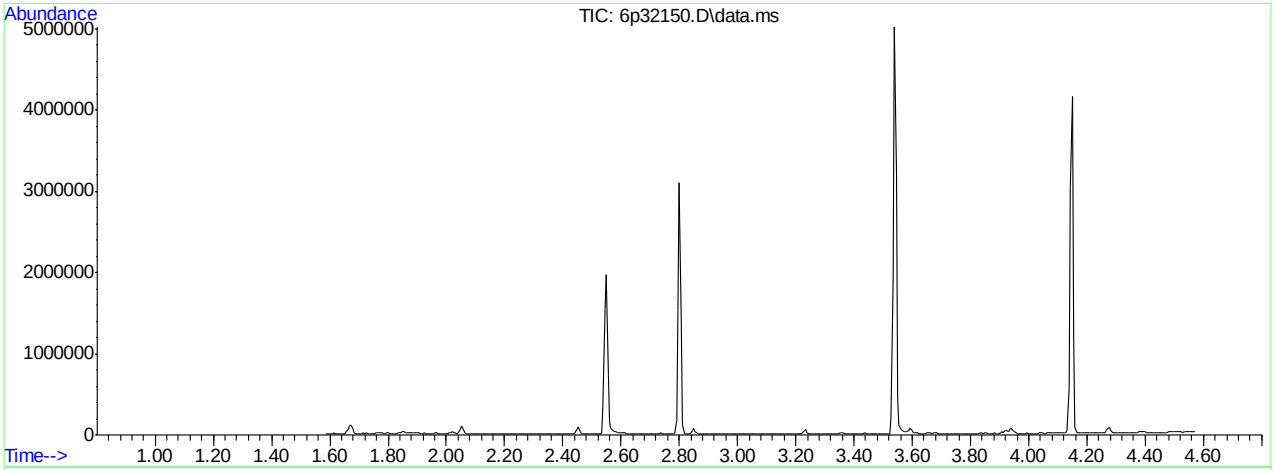
response 446543

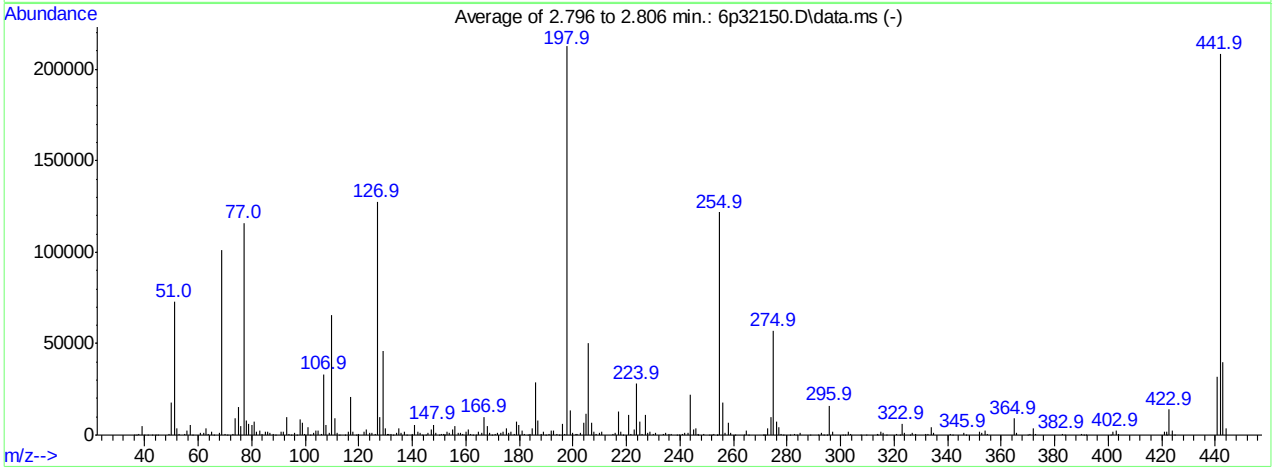
Ion	Exp%	Act%
235.00	100	100
165.00	51.80	57.77
237.00	64.10	63.64
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E6P1489\6p32150.D Vial: 1
Acq On : 18 Nov 2016 4:58 pm Operator: ariellec
Sample : dftpp Inst : MS6P
Misc : op98528,e6p1489 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um





AutoFind: Scans 227, 228, 229; Background Corrected with Scan 222

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.3	72877	PASS
68	69	0.00	2	1.4	1408	PASS
69	198	0.00	100	47.6	101062	PASS
70	69	0.00	2	0.7	713	PASS
127	198	40	60	59.9	127293	PASS
197	198	0.00	1	0.3	693	PASS
198	198	100	100	100.0	212501	PASS
199	198	5	9	6.5	13764	PASS
275	198	10	30	26.8	56941	PASS
365	198	1	100	4.2	8957	PASS
441	443	0.10	100	80.4	32101	PASS
442	198	40	100	98.0	208173	PASS
443	442	17	23	19.2	39946	PASS

6p32150.D DFTPP6P.M Mon Nov 21 07:23:20 2016 ACLIMS

Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	115	51.00	72877	64.90	2048	77.95	7852
36.80	203	52.00	3722	65.85	210	78.90	6186
37.90	914	52.90	334	67.95	1408	79.90	5412
38.95	5208	54.90	384	68.90	101062	80.90	7222
39.90	75	55.90	2495	69.90	713	81.90	1952
40.90	311	56.90	5463	70.95	227	82.90	2248
42.90	78	57.90	242	72.90	630	83.90	405
43.90	266	60.90	1150	73.90	8957	84.90	1784
44.90	222	61.90	1257	74.90	15188	85.85	2104
48.95	661	62.90	3619	76.00	5211	86.90	1166
49.95	17497	63.90	403	76.95	115910	87.80	384

Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.90	120	100.90	4475	111.90	1223	124.90	1456
90.90	1552	101.90	169	112.75	313	126.05	692
91.90	1971	102.90	1289	114.90	108	126.90	127293
92.90	10036	103.90	2607	115.90	1783	127.90	9563
93.85	881	104.90	2228	116.90	20843	128.90	46146
94.90	165	105.90	757	117.90	1728	129.90	3978
95.90	1001	106.90	33305	118.90	139	130.80	465
96.90	78	107.90	5232	119.95	538	131.00	385
97.90	8402	108.85	1013	121.90	2077	131.90	379
98.90	6501	109.90	65864	122.90	3191	132.75	269
99.85	533	110.90	9245	123.85	1361	133.90	1085

Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
134.90	3832	146.90	3056	155.95	4891	166.90	9919
135.90	1468	147.90	5633	156.95	1143	167.90	4771
136.85	1716	148.80	1349	157.85	1106	168.90	988
137.90	218	149.90	172	158.85	488	169.85	277
139.90	368	150.85	651	159.90	1578	170.80	434
140.90	5240	151.50	183	160.90	2867	171.90	974
141.90	1963	151.65	336	161.85	685	172.90	1452
142.90	1194	152.10	143	162.70	131	173.90	1872
143.80	155	152.85	1601	163.85	289	174.95	3708
144.90	292	153.90	1318	164.85	1982	175.90	1246
145.85	953	154.90	3277	165.90	1423	176.90	2089

Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.90	733	188.90	1779	199.85	1061	210.90	1886
178.90	7293	189.80	230	201.00	380	214.75	413
179.90	5582	190.90	864	201.45	902	215.85	1138
180.85	2249	191.85	2239	202.90	1445	216.85	12961
181.90	425	192.90	2568	203.90	7042	217.90	1594
182.90	114	193.85	567	204.90	11665	218.90	125
183.80	702	195.00	208	205.90	50160	220.90	11307
184.90	3554	195.90	6192	206.90	6635	221.60	666
185.90	28749	196.90	693	207.85	1955	222.90	2907
186.90	7930	197.90	212501	208.80	508	223.90	28085
187.95	636	198.90	13764	209.95	944	224.90	7226

Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.85	906	239.80	144	251.90	123	264.90	2545
226.90	11034	240.85	724	252.75	503	265.70	210
227.90	1355	241.90	1385	253.80	211	270.90	215
228.85	2091	242.90	1424	254.00	302	271.60	156

229.85	352	243.90	22211	254.90	121842	271.90	111
230.90	1064	244.95	2901	255.90	17685	272.90	3530
233.90	628	245.85	3922	256.90	1419	273.90	9603
234.80	980	246.70	165	257.90	6869	274.90	56941
235.85	560	246.85	789	258.90	957	275.90	7642
236.90	860	248.85	903	260.80	115	276.85	4533
238.80	176	250.80	138	263.80	295	277.90	801

Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
278.80	121	296.85	2153	317.00	149	334.90	962
281.00	120	300.80	103	320.85	608	340.90	761
282.85	527	301.75	286	322.00	312	341.90	161
283.80	308	302.85	2010	322.90	5899	345.85	1436
284.85	1000	303.85	482	323.95	1172	346.80	117
288.80	133	307.70	131	325.90	104	351.90	2081
291.80	138	309.80	122	326.90	1101	352.85	1370
292.85	1270	313.70	119	327.85	427	353.90	2298
293.85	293	313.90	819	331.80	333	354.95	441
294.90	180	314.85	2106	332.85	717	364.90	8957
295.90	15996	315.85	1123	333.90	4118	365.85	1197

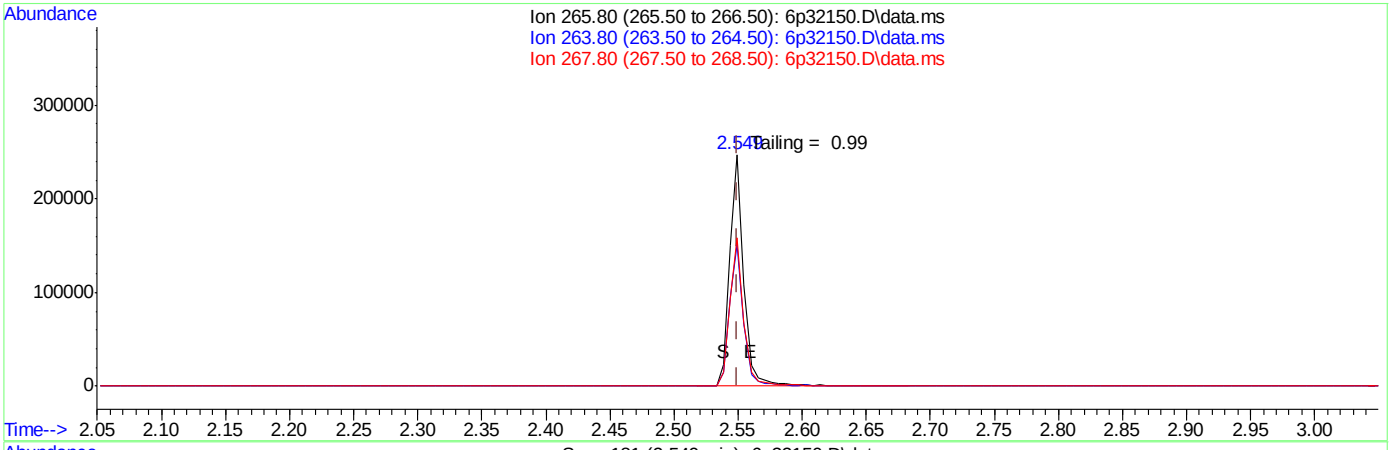
Average of 2.796 to 2.806 min.: 6p32150.D\data.ms
dftpp
Modified:subtracted

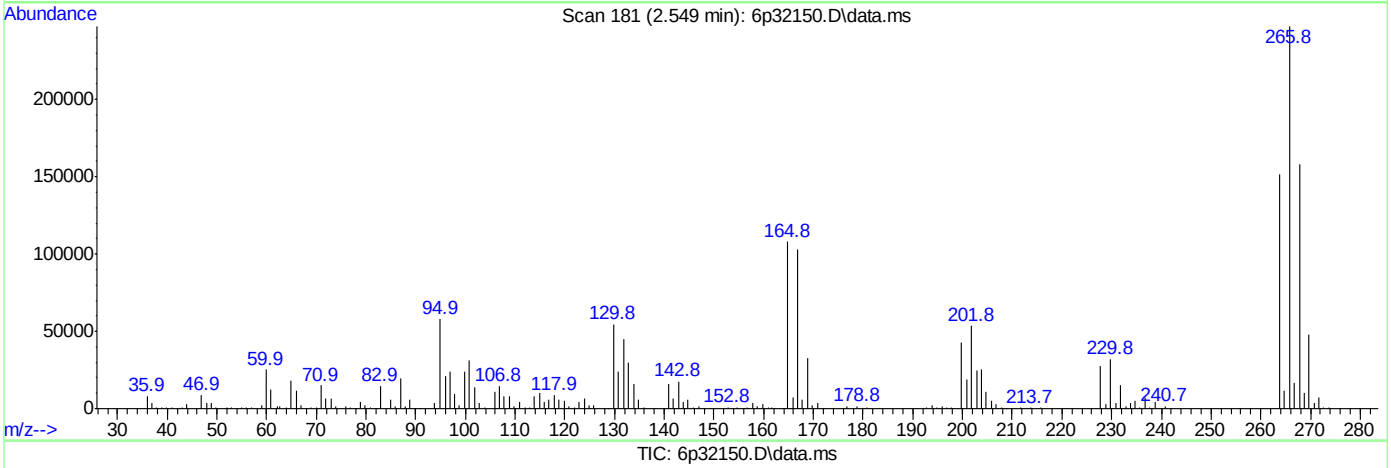
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
369.90	128	402.90	2304	443.90	3667		
370.90	511	403.85	655				
371.90	3953	420.90	2055				
372.85	914	421.80	237				
382.85	855	421.95	1729				
383.85	248	422.90	13925				
389.90	467	423.90	2605				
390.80	158	424.90	120				
391.80	302	440.90	32101				
400.80	244	441.90	208173				
401.90	1687	442.90	39946				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32150.D
Acq On : 18 Nov 2016 4:58 pm
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1489
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 18 17:03:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32150.D\data.ms

(1) Pentachlorophenol (t)

2.549min (-0.000) 0.00ppb

response 190722

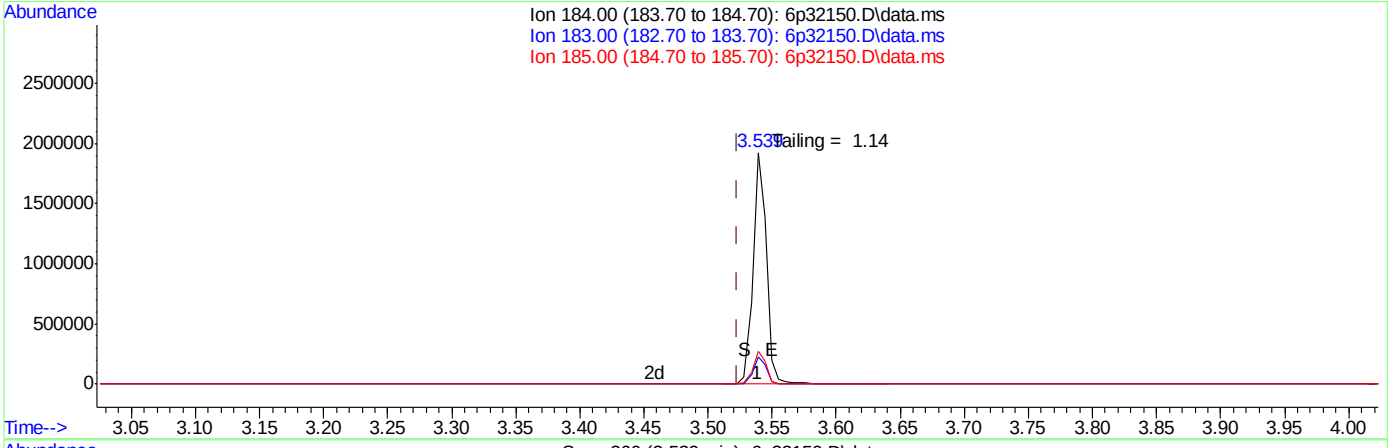
Ion	Exp%	Act%
265.80	100	100
263.80	60.80	61.15
267.80	62.50	63.85
0.00	0.00	0.00

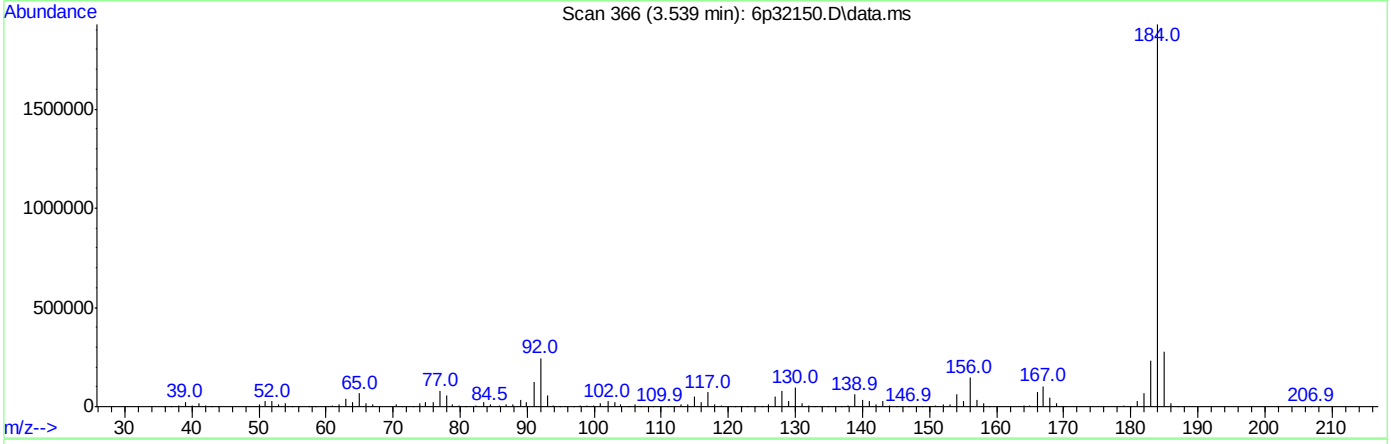
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32150.D
Acq On    : 18 Nov 2016   4:58 pm
Operator  : ariellec
Sample    : dftpp
Misc      : op98528,e6p1489
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Nov 18 17:03:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title  : Semi Volatile  GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration
```





TIC: 6p32150.D\data.ms

(2) Benzidine (t)

3.539min (+0.016) 0.00ppb

response 1416750

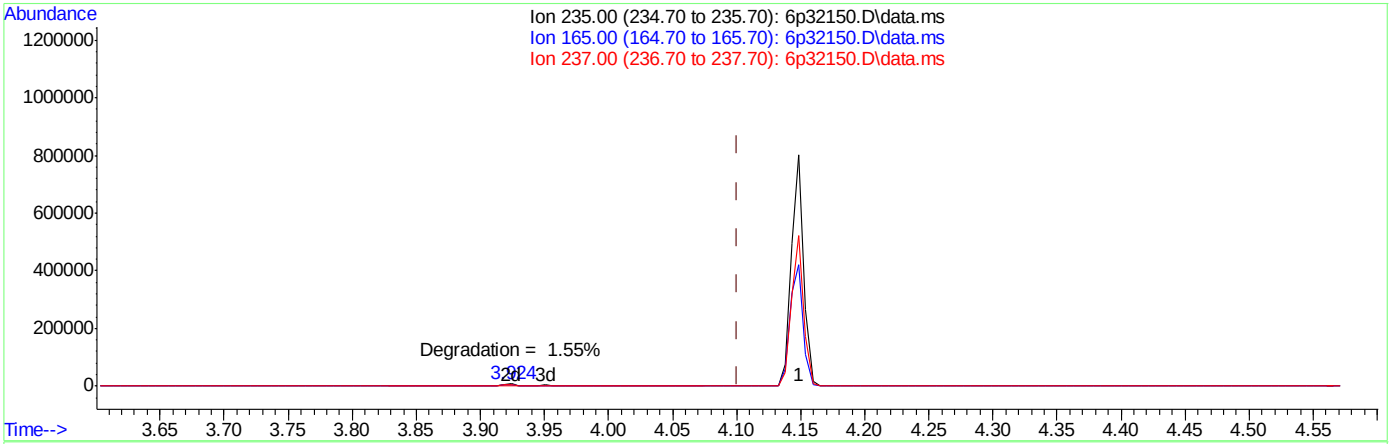
Ion	Exp%	Act%
184.00	100	100
183.00	12.00	11.92
185.00	14.30	14.31
0.00	0.00	0.00

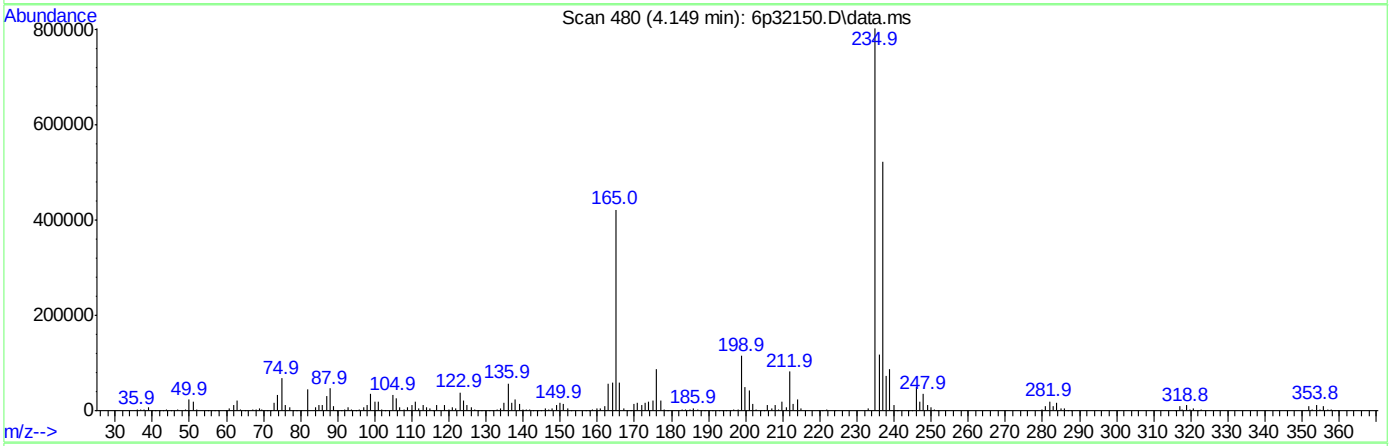
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32150.D
Acq On : 18 Nov 2016 4:58 pm
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1489
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 18 17:03:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32150.D\data.ms

(3) PP-DDT (t)

4.149min (+0.048) 0.00ppb

response 533062

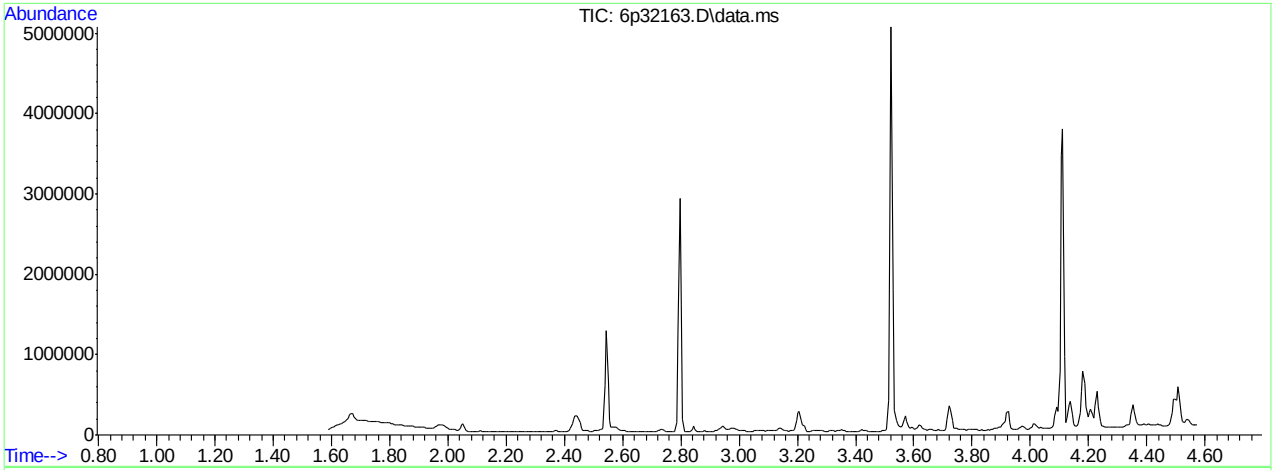
Ion	Exp%	Act%
235.00	100	100
165.00	51.80	55.72
237.00	64.10	64.74
0.00	0.00	0.00

SGS ACCUTEST JC33175

DFTPP

Data File : C:\msdchem\1\DATA\e6p1490\6p32163.D Vial: 1
Acq On : 21 Nov 2016 7:53 am Operator: ariellec
Sample : dftpp Inst : MS6P
Misc : op98528,e6p1490 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P1488.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016



AutoFind: Scans 226, 227, 228; Background Corrected with Scan 222

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.9	69605	PASS
68	69	0.00	2	1.5	1444	PASS
69	198	0.00	100	46.4	95250	PASS
70	69	0.00	2	0.8	717	PASS
127	198	40	60	58.6	120224	PASS
197	198	0.00	1	0.5	926	PASS
198	198	100	100	100.0	205096	PASS
199	198	5	9	6.7	13733	PASS
275	198	10	30	26.6	54474	PASS
365	198	1	100	4.1	8460	PASS
441	443	0.10	100	79.6	29492	PASS
442	198	40	100	95.9	196704	PASS
443	442	17	23	18.8	37039	PASS

6p32163.D M6P1488.M Mon Nov 21 08:13:04 2016 ACLIMS

Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	303	54.95	45	67.90	1444	79.90	4371
37.95	908	55.90	2404	68.90	95250	80.90	7165
38.95	5094	56.90	4971	69.95	717	81.95	1709
39.90	238	57.90	252	71.00	64	82.90	2021
41.90	62	58.95	262	72.90	51	83.90	186
44.90	67	60.00	110	73.90	8628	84.95	1717
48.90	602	60.90	1071	74.90	14667	85.95	2096
50.00	17168	61.90	1249	75.95	5146	86.90	1141
51.00	69605	62.95	3546	77.00	110588	87.90	345
51.95	3596	63.90	432	78.00	7640	89.00	123
52.90	518	64.95	2051	78.90	6020	90.90	1545

Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.90	1853	103.90	2411	115.95	1493	126.10	464
92.90	9887	104.90	2287	116.90	19712	126.90	120224
93.90	1067	105.95	904	117.85	1420	127.90	9384
95.90	702	106.90	31704	118.90	68	128.90	43515
96.95	417	107.90	5083	119.90	524	129.90	3662
97.90	7424	109.00	582	120.85	206	130.90	939
98.90	6785	109.90	61126	121.95	1945	131.85	504
99.90	807	110.90	8232	122.90	2683	132.90	244
100.90	4050	111.95	1331	123.90	1340	133.90	1468
101.90	132	112.85	558	124.90	1641	134.90	2918
102.90	1553	114.90	557	125.80	155	135.90	1353

Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
136.90	1802	147.90	5173	158.90	763	169.85	383
137.95	416	148.90	956	159.90	1519	170.70	543
138.95	439	149.95	565	160.90	2440	171.90	1023
139.85	651	151.00	666	161.95	729	172.85	1093
140.90	5186	151.95	739	162.90	449	173.90	2282
141.90	1716	152.90	1646	163.95	343	174.95	4100
142.90	1423	153.95	1419	164.90	1792	175.90	1221
143.85	442	154.95	2996	165.90	1700	176.90	1644
144.95	570	155.90	4552	166.90	9306	177.90	718
145.90	1068	156.95	1245	167.90	4027	178.90	7195
146.90	2654	157.85	1003	168.95	1014	179.90	5251

Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
180.95	2463	190.95	494	200.80	244	210.90	2084
182.00	327	191.90	2281	201.10	207	211.80	135
182.90	407	192.90	2654	201.50	1053	212.90	142
183.80	151	193.90	731	202.85	1379	214.85	552
184.00	508	194.95	453	203.90	6707	215.90	1085
184.90	3224	195.90	6373	204.95	11448	216.90	11785
185.90	26968	196.70	782	205.90	48352	217.90	1569
186.95	7670	196.95	926	206.90	6410	218.90	148
187.95	681	197.90	205096	207.90	1647	220.10	246
188.85	1642	198.90	13733	208.85	576	220.90	10141
189.90	204	199.90	1160	210.00	777	221.65	898

Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.90	2891	233.90	780	244.90	2751	255.90	16401
223.90	26113	234.90	799	245.90	3941	256.90	1194
224.90	6527	235.85	564	246.80	960	257.90	6262
225.90	737	236.90	990	247.90	108	258.85	1011

226.90	10400	237.80	109	248.85	825	259.70	103
227.85	1519	238.90	354	249.90	135	260.85	295
228.90	2345	239.90	155	251.80	133	263.85	362
229.90	613	240.80	872	252.85	549	264.90	2468
230.95	1062	241.90	1382	253.70	119	265.70	125
231.90	193	242.90	1679	253.95	681	265.90	493
232.90	157	243.90	20246	254.90	114266	266.80	113

Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.75	343	283.95	499	300.90	153	320.85	674
270.80	110	284.95	925	301.90	213	321.85	235
271.80	305	288.90	102	302.90	2026	322.90	5253
272.90	3234	289.90	122	303.80	569	323.70	155
273.90	9023	291.70	131	307.85	271	323.90	906
274.90	54474	292.70	159	309.75	247	326.85	1156
275.90	7816	292.90	1049	313.90	911	327.95	554
276.90	4177	293.85	315	314.60	118	331.90	451
277.90	606	294.90	356	314.90	1708	332.85	590
280.90	201	295.90	14585	315.90	1181	333.90	4183
282.85	790	296.90	2181	316.90	124	334.95	1152

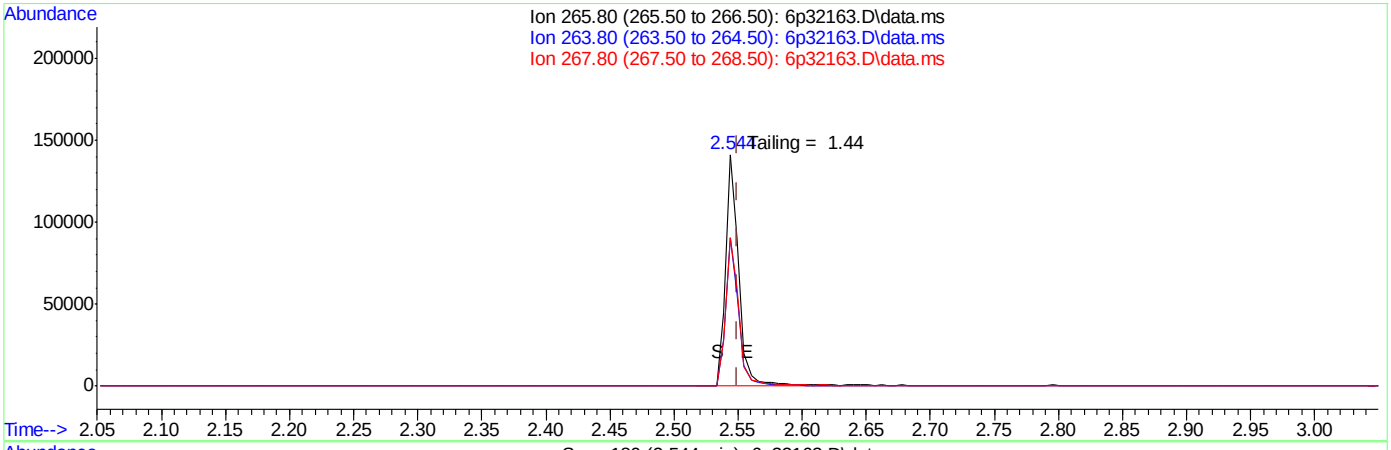
Average of 2.790 to 2.801 min.: 6p32163.D\data.ms
dftpp
Modified:subtracted

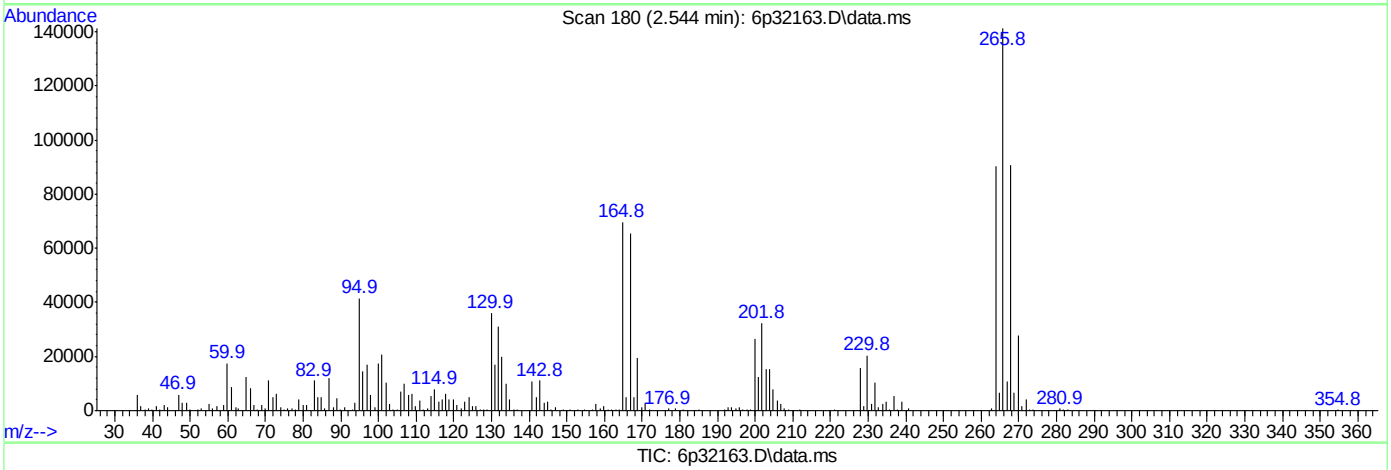
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
340.90	1044	369.85	245	403.90	910		
341.90	139	370.90	635	420.90	1881		
345.85	1346	371.90	3787	421.85	1535		
346.80	125	372.95	808	422.90	13664		
351.85	2013	382.85	1138	423.90	2606		
352.70	161	389.90	425	424.90	271		
352.90	1275	390.85	327	440.90	29492		
353.90	1916	391.70	112	441.90	196704		
354.85	146	400.80	317	442.95	37039		
364.90	8460	401.90	1503	443.90	3374		
365.90	1456	402.90	2285	444.80	104		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32163.D
Acq On : 21 Nov 2016 7:53 am
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1490
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 21 07:57:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32163.D\data.ms

(1) Pentachlorophenol (t)

2.544min (-0.006) 0.00ppb

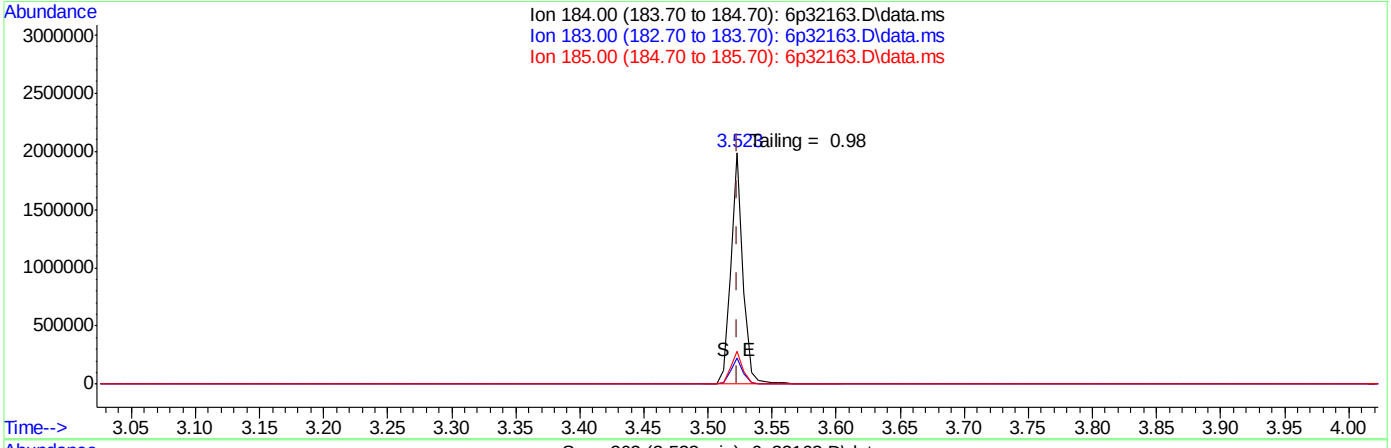
response 105230

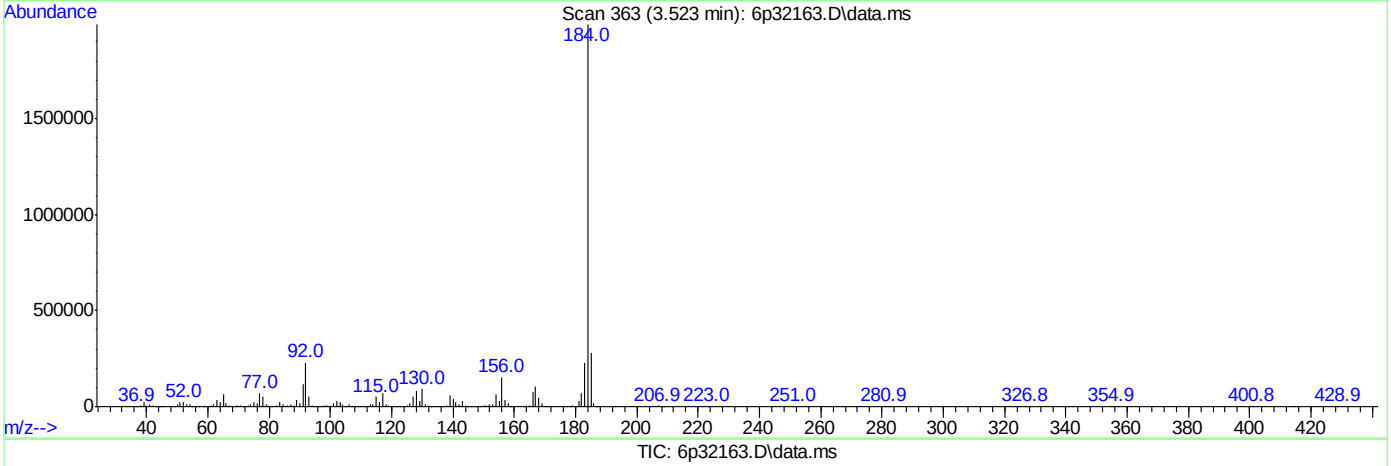
Ion	Exp%	Act%
265.80	100	100
263.80	60.80	64.06
267.80	62.50	64.04
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32163.D
Acq On : 21 Nov 2016 7:53 am
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1490
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 21 07:57:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32163.D\data.ms

(2) Benzidine (t)

3.523min (-0.000) 0.00ppb

response 1325324

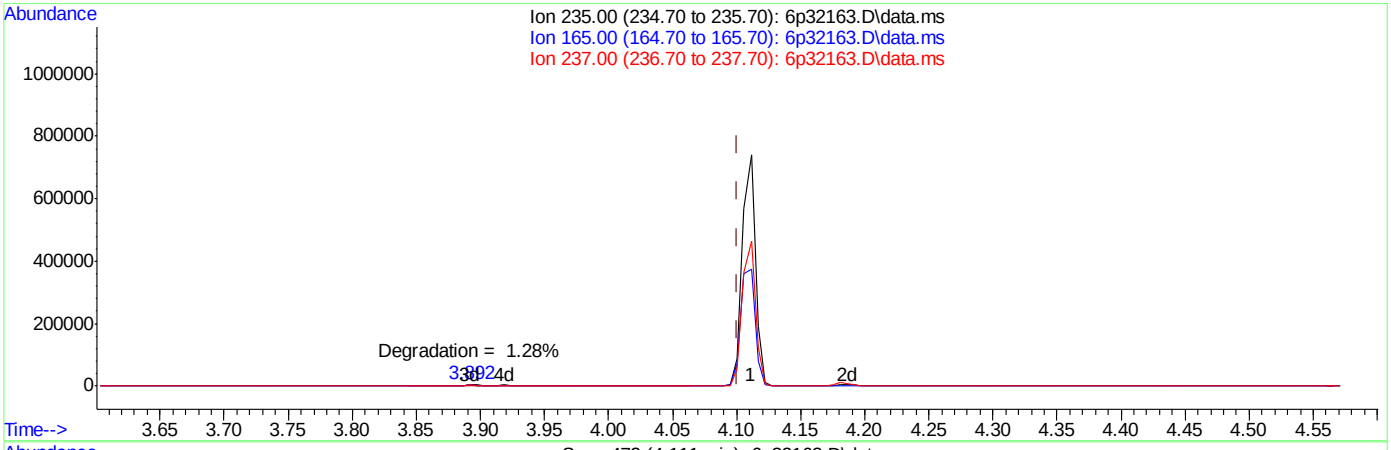
Ion	Exp%	Act%
184.00	100	100
183.00	12.00	11.52
185.00	14.30	14.06
0.00	0.00	0.00

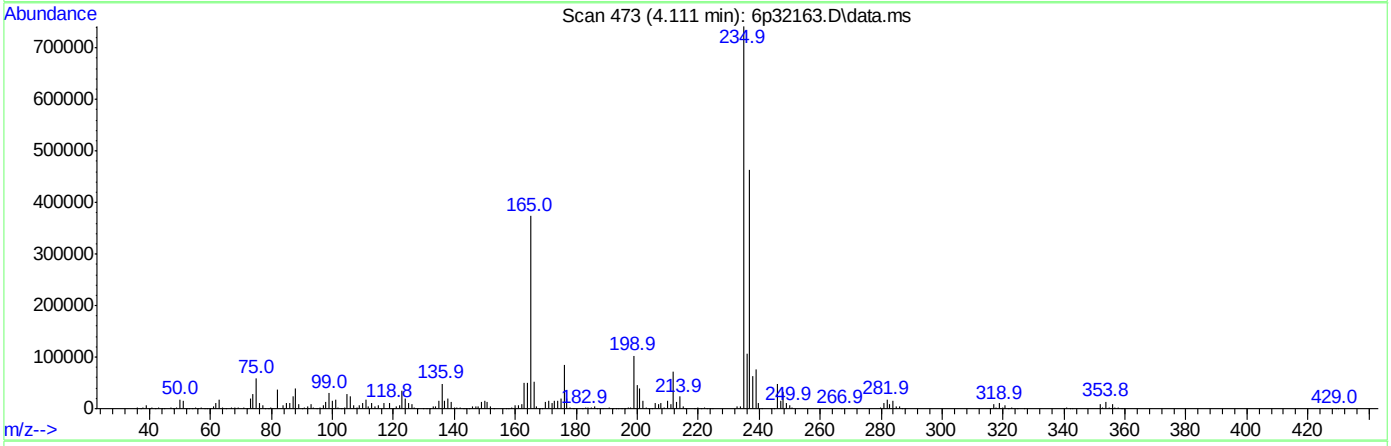
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32163.D
Acq On : 21 Nov 2016 7:53 am
Operator : ariellec
Sample : dftpp
Misc : op98528,e6p1490
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 21 07:57:41 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p32163.D\data.ms

(3) PP-DDT (t)

4.111min (+0.011) 0.00ppb

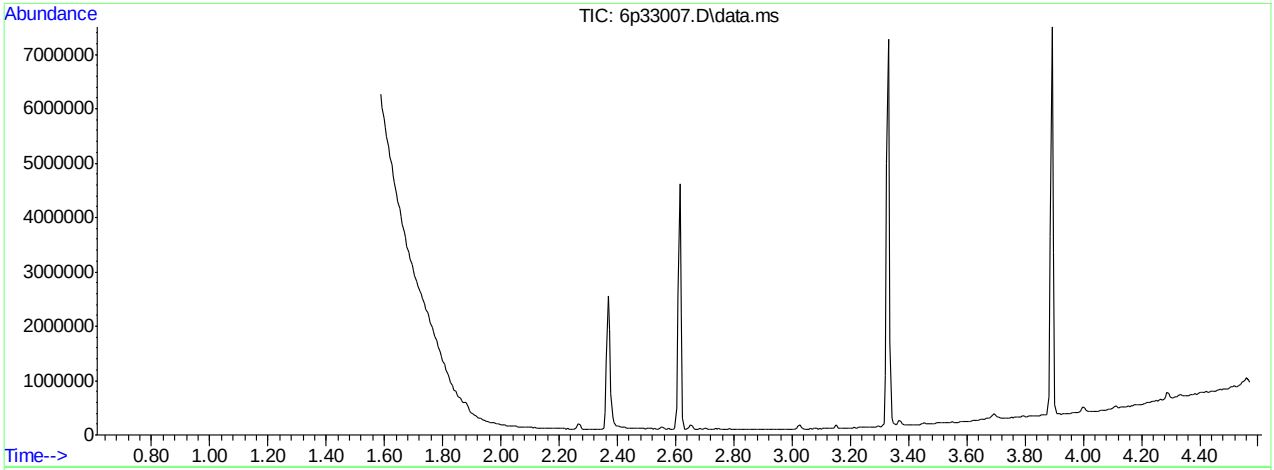
response 516059

Ion	Exp%	Act%
235.00	100	100
165.00	51.80	55.74
237.00	64.10	63.31
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\E6P1523\6p33007.D Vial: 1
Acq On : 14 Dec 2016 10:26 pm Operator: chriss2
Sample : dftpp Inst : MS6P
Misc : op99188,e6p1523 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um



AutoFind: Scans 192, 193, 194; Background Corrected with Scan 187

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.6	113289	PASS
68	69	0.00	2	1.5	2208	PASS
69	198	0.00	100	49.8	149922	PASS
70	69	0.00	2	0.4	601	PASS
127	198	40	60	60.0	180645	PASS
197	198	0.00	1	0.4	1216	PASS
198	198	100	100	100.0	301098	PASS
199	198	5	9	7.0	21156	PASS
275	198	10	30	28.1	84552	PASS
365	198	1	100	5.2	15758	PASS
441	443	0.10	100	81.9	47130	PASS
442	198	40	100	96.2	289666	PASS
443	442	17	23	19.9	57514	PASS

6p33007.D DFTPP6P.M Thu Dec 15 06:57:08 2016 ACLIMS

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	162	52.00	5674	63.90	940	74.85	23967
36.95	743	52.95	99	64.90	3222	75.90	8076
37.95	1269	54.95	732	65.80	252	76.95	176753
38.95	7905	55.95	3631	66.00	197	77.95	11180
44.90	170	56.95	8731	66.95	121	78.90	11185
46.80	135	57.90	78	68.00	2208	79.90	8400
47.70	137	58.90	242	68.90	149922	80.90	11545
47.85	419	59.95	157	70.00	601	81.90	2837
48.90	1160	60.90	1540	71.95	476	82.95	2475
49.90	28765	61.90	1786	72.90	1620	83.90	181
50.95	113289	62.95	5880	73.90	14467	84.90	1677

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.80	2824	95.90	757	106.10	277	117.90	2473
86.90	1338	96.95	415	106.90	49964	118.85	382
87.80	528	97.90	12764	107.90	7935	119.90	1025
88.90	522	98.90	10408	109.00	1507	121.00	168
89.10	157	99.85	1084	109.90	92914	121.90	2838
90.00	151	100.90	6180	110.90	14145	122.90	4423
90.90	2517	101.80	721	111.85	1650	123.90	2589
91.90	2128	102.85	2351	112.90	1146	124.90	2019
92.90	17328	103.90	4332	114.90	490	126.05	830
93.90	1344	104.90	4183	115.90	3035	126.90	180645
94.90	312	105.85	1361	116.90	37991	127.85	12649

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.90	69503	138.90	509	148.95	2336	158.90	1039
129.90	6173	139.90	947	149.85	419	159.80	2415
130.85	906	140.90	8822	150.95	1112	160.90	3386
131.95	815	141.90	3048	151.50	247	161.90	764
132.90	68	142.90	2399	151.90	242	162.85	653
133.85	2096	143.80	238	152.90	2839	163.90	549
134.90	4856	143.95	414	153.85	2121	164.85	2784
135.85	2218	144.90	165	154.90	5069	165.85	2708
136.90	2250	145.85	1617	155.90	7503	166.90	16114
137.60	483	146.85	3809	157.00	1479	167.90	7571
138.05	524	147.90	9624	157.80	1555	168.80	1278

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.70	125	178.90	12458	188.90	3259	198.85	21156
169.95	126	179.90	8025	189.90	779	199.85	1752
170.80	219	180.90	3779	190.85	1298	200.70	179
171.00	374	181.90	507	191.85	3871	201.00	271
171.75	1217	182.70	127	192.85	4527	201.35	579
172.85	2004	182.85	684	193.85	1199	201.60	578
173.90	3706	183.95	1068	194.95	665	202.90	1898
174.90	6651	184.90	5865	195.90	8718	203.90	11883
175.80	1643	185.90	43480	196.60	1545	204.90	18542
176.90	2494	186.90	12532	196.90	1216	205.90	80709
177.85	1201	187.90	1412	197.90	301098	206.90	10020

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
207.80	2860	217.90	3079	227.90	2806	237.90	257
208.95	527	218.95	490	228.90	4315	238.85	1192
209.90	692	219.80	217	229.85	730	239.85	796
210.10	837	220.90	14523	230.85	1688	240.85	935

210.90	3366	221.70	664	231.85	505	241.85	1881
211.60	712	221.90	1922	232.60	101	242.95	2632
212.85	345	222.85	4875	232.90	593	243.90	34154
214.05	233	223.90	43546	233.90	1115	244.95	4683
214.90	967	224.95	10814	234.85	1737	245.90	7243
215.95	1881	225.90	1278	235.85	1153	246.85	1666
216.90	21388	226.90	19976	236.85	1763	247.80	328

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
248.00	111	257.90	12272	272.90	5602	284.90	1690
248.90	1335	258.85	1996	273.90	15135	285.80	136
249.80	390	259.80	107	274.90	84552	287.70	130
250.70	234	260.85	283	275.90	12111	288.80	471
251.00	240	263.90	396	276.85	8060	289.90	178
251.85	700	264.80	3987	277.90	1306	291.95	504
252.95	1115	265.80	1106	278.85	398	292.95	1744
253.95	1959	269.00	404	279.90	143	293.75	426
254.90	186354	269.85	465	281.85	97	294.75	584
255.90	28621	270.80	220	282.85	1351	295.90	27357
256.90	2112	271.85	693	283.90	566	296.90	3680

Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
297.90	476	314.85	3157	328.90	125	344.90	145
299.80	126	315.80	1627	331.85	962	345.85	2575
300.90	634	316.90	179	332.90	1143	346.85	542
302.05	756	317.10	106	333.90	6510	348.90	140
302.90	3882	320.90	938	334.85	1521	349.95	252
303.95	1084	321.75	466	335.95	327	350.90	449
307.75	327	322.90	8652	338.90	107	351.95	3263
308.95	435	323.85	1458	339.80	192	352.90	2515
309.80	556	324.85	252	340.95	1452	353.95	3374
312.85	233	326.85	2023	341.85	375	354.95	933
313.85	1507	327.85	1167	342.80	165	355.90	127

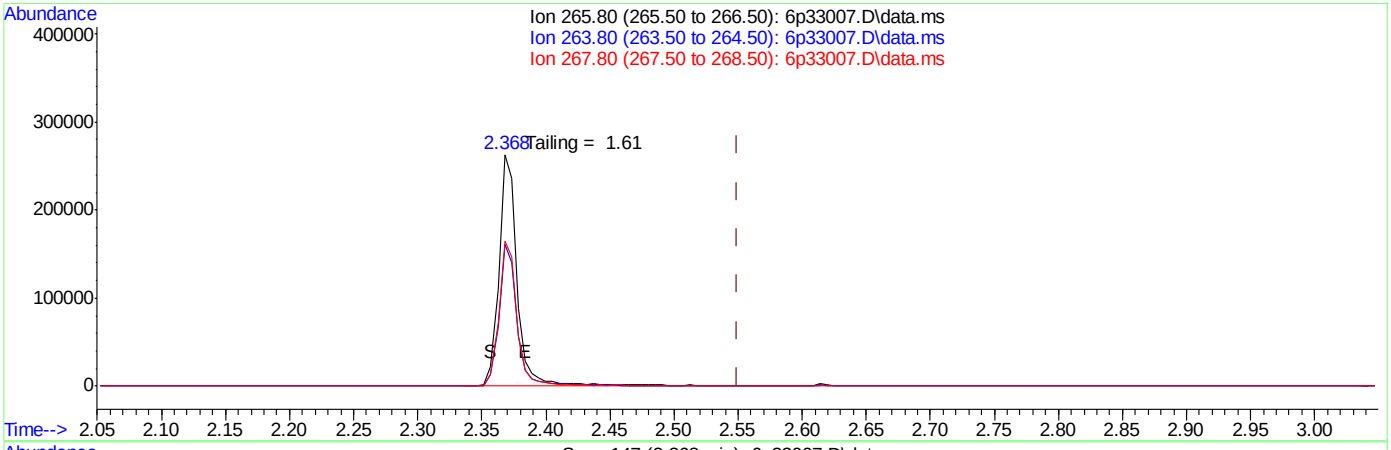
Average of 2.608 to 2.619 min.: 6p33007.D\data.ms
dftpp
Modified:subtracted

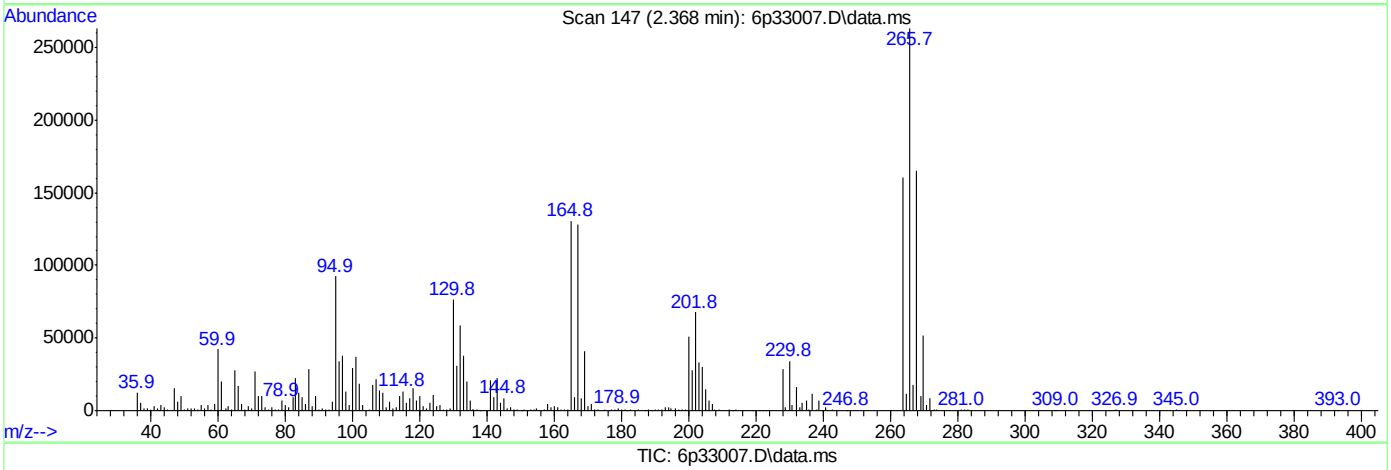
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
356.70	150	371.90	6295	392.90	124	424.70	368
358.00	280	372.85	1254	400.85	675	436.90	112
358.80	166	373.80	125	401.85	2613	438.30	112
360.20	113	382.90	1596	402.90	3448	439.00	126
362.90	108	383.80	317	403.85	966	439.60	161
363.80	109	384.00	236	404.90	148	440.90	47130
364.85	15758	384.90	100	420.90	2930	441.90	289666
365.85	2299	389.85	828	421.60	286	442.90	57514
366.90	178	390.80	561	421.90	2453	443.90	4641
369.75	415	391.60	156	422.90	19781	444.80	328
370.90	834	391.95	424	423.90	4155	466.00	105

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33007.D
Acq On : 14 Dec 2016 10:26 pm
Operator : chriss2
Sample : dftpp
Misc : op99188,e6p1523
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 14 22:31:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p33007.D\data.ms

(1) Pentachlorophenol (t)

2.368min (-0.182) 0.00ppb

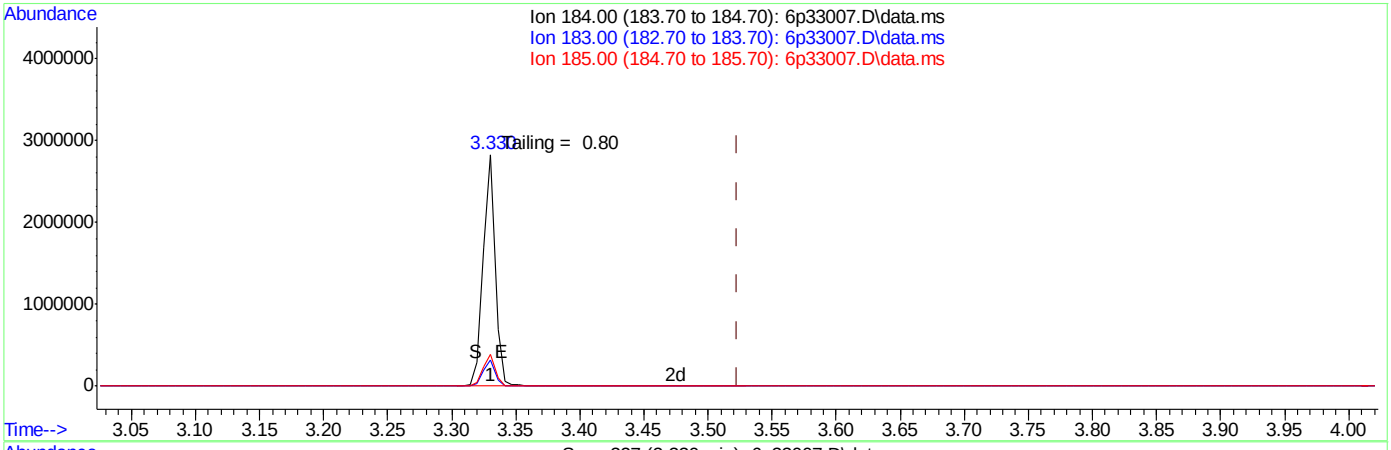
response 260347

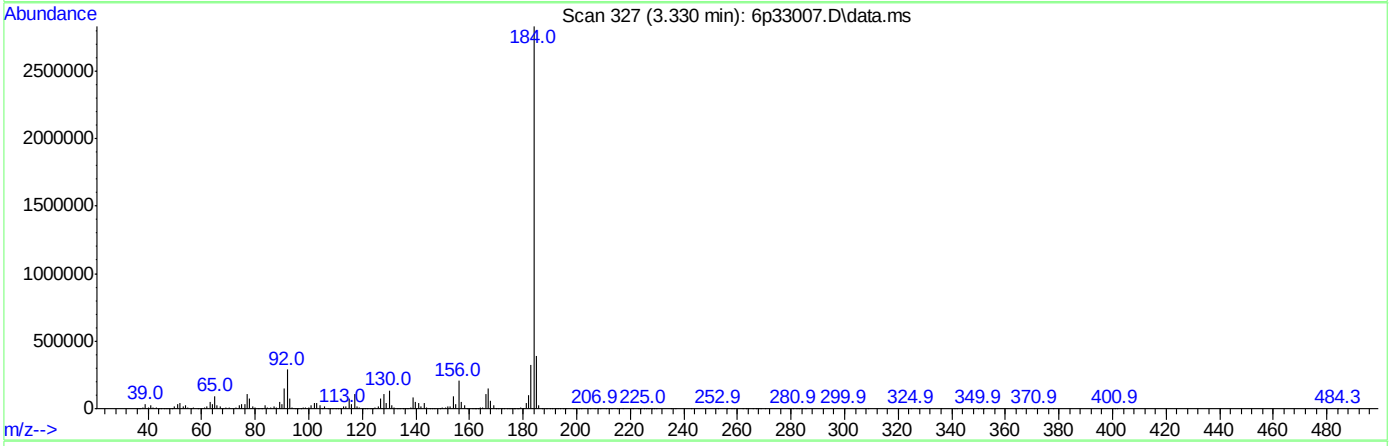
Ion	Exp%	Act%
265.80	100	100
263.80	60.80	60.88
267.80	62.50	62.85
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33007.D
Acq On    : 14 Dec 2016  10:26 pm
Operator  : chriss2
Sample    : dftpp
Misc      : op99188,e6p1523
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Dec 14 22:31:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title  : Semi Volatile  GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration
```





TIC: 6p33007.D\data.ms

(2) Benzidine (t)

3.330min (-0.193) 0.00ppb

response 1822859

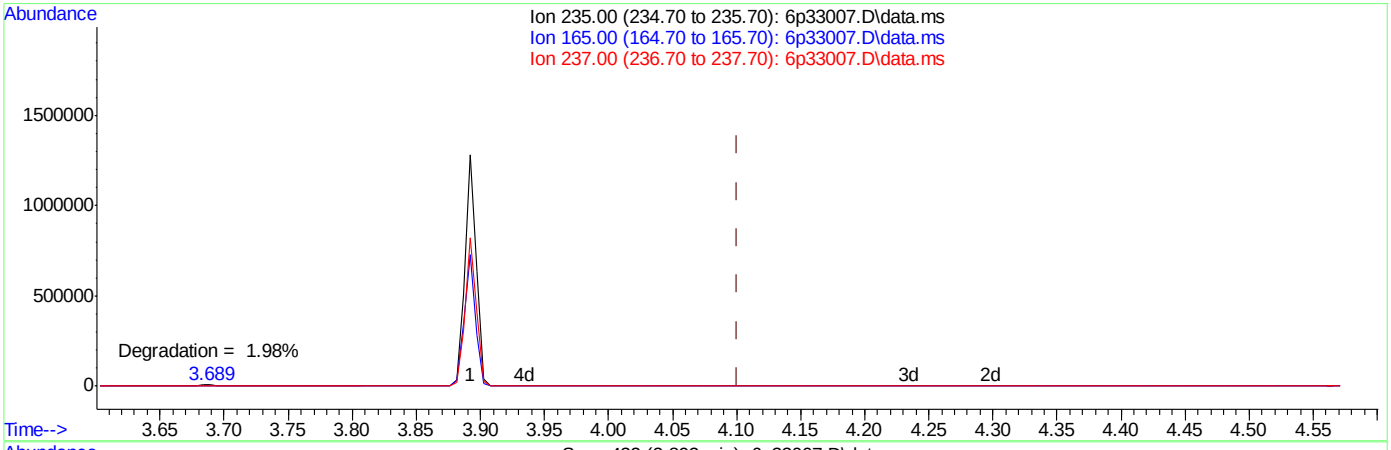
Ion	Exp%	Act%
184.00	100	100
183.00	12.00	11.54
185.00	14.30	13.86
0.00	0.00	0.00

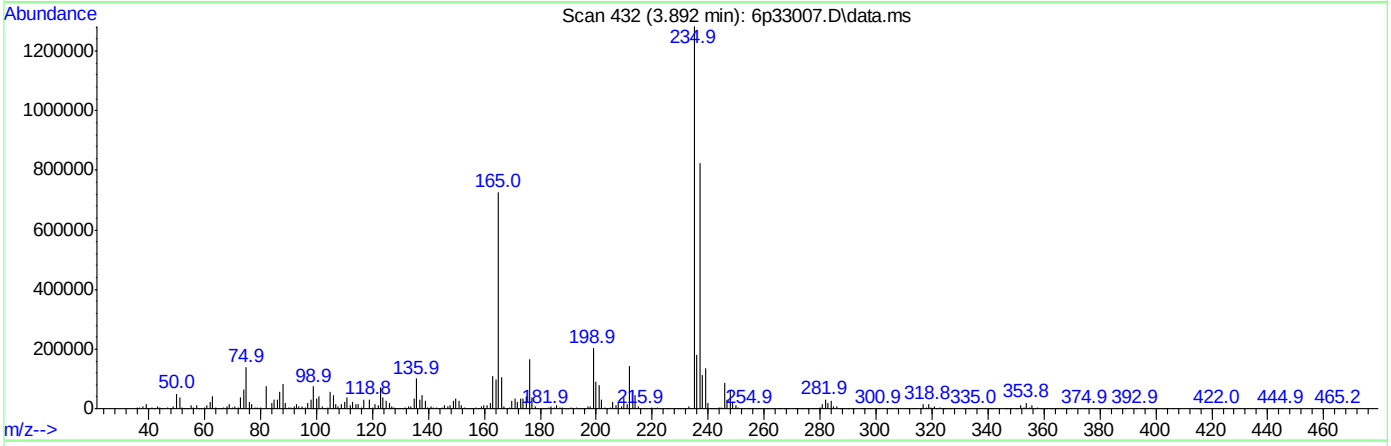
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33007.D
Acq On : 14 Dec 2016 10:26 pm
Operator : chriss2
Sample : dftpp
Misc : op99188,e6p1523
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 14 22:31:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPP6P.M
Quant Title : Semi Volatile GC/MS, ZB-5 15m x .25mm x .25um
QLast Update : Fri Nov 18 08:59:23 2016
Response via : Initial Calibration





TIC: 6p33007.D\data.ms

(3) PP-DDT (t)

3.892min (-0.209) 0.00ppb

response 800914

Ion	Exp%	Act%
235.00	100	100
165.00	51.80	55.76
237.00	64.10	63.56
0.00	0.00	0.00

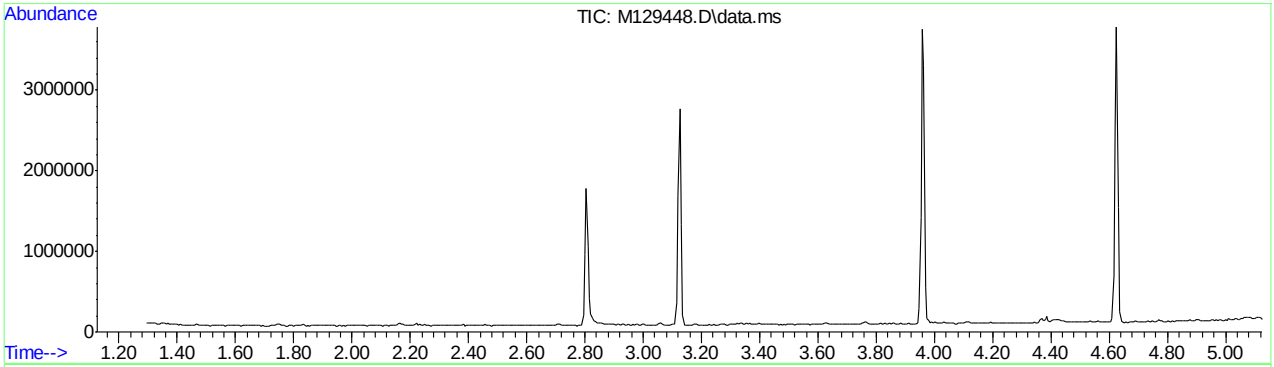
SGS ACCUTEST JC33175

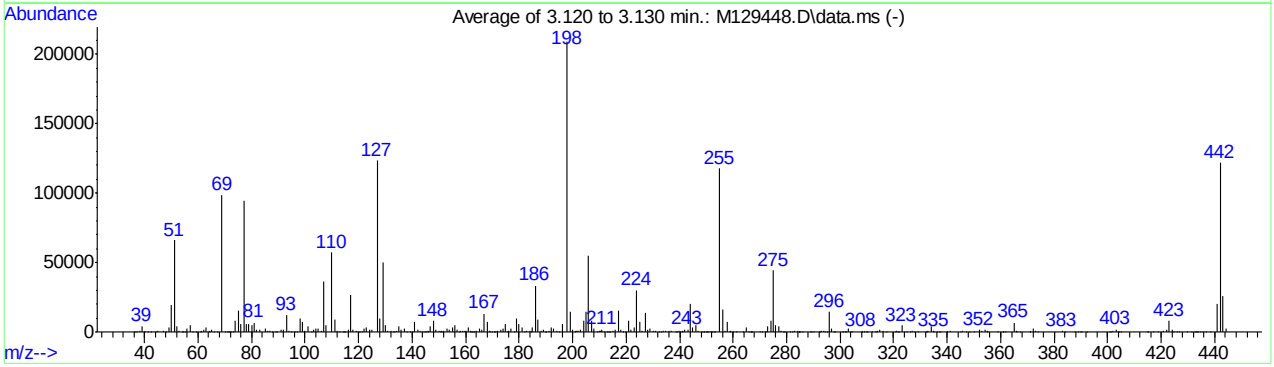
DFTPPR

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129448.D
Acq On : 22 Nov 2016 9:33 am
Operator : ashleyd
Sample : dftpp
Misc : op98591,em5525
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
Last Update : Sun Nov 13 11:36:44 2016





AutoFind: Scans 343, 344, 345; Background Corrected with Scan 338

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.6	66183	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.3	98924	PASS
70	69	0.00	2	0.0	9	PASS
127	198	40	60	59.0	123362	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	209237	PASS
199	198	5	9	6.8	14258	PASS
275	198	10	30	21.2	44378	PASS
365	198	1	100	3.3	6816	PASS
441	443	0.10	100	78.3	20031	PASS
442	198	40	100	58.1	121616	PASS
443	442	17	23	21.0	25582	PASS

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	14	47.00	575	57.05	4663	67.10	140
36.20	104	48.00	393	57.95	337	69.00	98924
37.20	356	49.00	2879	59.00	130	70.00	9
38.10	1014	50.10	19568	60.90	409	70.90	75
39.10	4253	51.05	66183	61.10	784	71.40	101
39.90	263	52.10	4087	62.05	1472	71.90	75
40.10	129	53.00	537	63.05	3204	72.20	101
41.10	185	54.00	147	64.10	516	73.05	158
42.30	162	54.30	81	64.30	133	74.05	8342
44.00	73	55.10	59	65.10	1335	75.00	15461
45.05	466	56.00	2547	66.10	105	76.10	5724

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
77.10	94730	88.90	171	99.95	781	112.00	1152
78.00	5548	89.20	153	101.05	3882	113.00	273
79.05	5797	91.05	1690	102.20	113	114.20	99
80.00	5071	92.05	1640	103.00	1805	114.50	91
81.00	6549	93.00	12126	103.95	2430	115.10	186
82.00	1819	94.05	1015	105.00	2416	116.10	1481
83.00	1812	94.70	166	106.05	690	117.00	26977
85.05	2222	96.05	248	107.00	36136	117.95	2029
86.00	1035	97.05	375	108.00	4906	119.05	510
86.95	1078	98.00	9717	110.00	57082	119.85	371
87.90	157	99.00	7218	111.00	8842	120.20	90

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
121.10	270	132.85	59	142.90	1025	150.90	709
122.00	2158	133.20	81	143.95	399	151.20	353
123.00	3040	134.00	1218	144.50	114	152.00	451
123.95	1970	134.95	3812	144.90	113	152.90	2129
125.00	1877	136.00	1287	145.90	348	153.90	1322
127.00	123362	136.95	2053	146.10	786	155.00	3418
128.00	10105	138.00	234	146.95	3797	156.00	5263
129.00	49837	139.10	334	148.00	8057	156.95	1259
130.00	4591	140.00	228	148.95	1614	157.70	245
131.05	715	141.00	7114	150.05	606	158.00	1130
131.95	607	142.00	2029	150.70	257	158.95	1239

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
159.85	588	166.95	13016	175.80	279	185.05	3505
160.10	1117	168.00	7281	176.10	952	186.00	33128
161.05	3169	168.90	747	176.95	2121	187.00	9087
161.70	141	169.10	220	178.00	242	188.10	856
162.00	706	169.95	379	178.95	9441	188.95	1923
162.20	135	170.80	154	180.00	6035	189.90	349
162.70	101	171.05	381	181.00	3476	190.10	166
163.05	329	172.00	1043	181.90	48	191.00	674
163.95	462	173.00	1850	183.00	437	191.95	3406
165.00	2427	174.05	2509	184.00	508	193.00	2383
166.00	1798	175.00	5409	184.30	216	194.00	1060

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
195.10	294	205.05	14304	213.10	237	222.95	3315
196.00	5726	205.95	54581	213.60	187	224.00	30152
198.00	209237	206.95	7800	214.00	157	225.00	7009
199.00	14258	207.95	2082	214.95	857	226.00	572

DFTPPM.M Tue Nov 22 15:37:24 2016 MSM Page: 2

200.00	1533	209.05	304	215.95	1505	227.00	14025
200.70	141	210.05	929	217.00	15411	227.95	1800
201.30	539	210.40	643	217.95	1856	228.90	2401
201.45	822	210.80	500	218.85	329	229.95	535
202.10	472	211.05	1797	219.80	124	231.00	973
203.10	1661	211.75	136	221.00	8351	232.15	303
204.00	7790	212.80	119	221.85	1979	232.90	182

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
233.95	798	243.00	1668	251.40	82	259.95	153
234.95	627	244.00	20139	251.80	117	261.05	174
236.05	706	245.00	3251	251.95	225	263.75	258
236.95	873	245.95	4987	252.85	242	264.95	3500
238.70	170	247.00	918	253.10	417	265.70	130
238.95	424	247.95	135	255.00	117658	266.55	250
239.90	558	248.90	393	256.00	15784	266.80	103
240.10	82	249.10	275	257.00	1102	267.20	127
241.00	707	249.70	101	258.00	6984	269.95	349
241.20	196	250.10	101	258.70	307	270.90	300
242.05	1525	250.85	260	259.00	853	271.90	248

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.10	153	282.95	638	292.95	708	302.10	93
273.00	3922	284.05	491	294.00	485	302.95	2150
273.95	8047	284.60	96	294.30	134	304.00	370
275.00	44378	284.80	104	295.00	241	304.20	147
275.95	5162	285.15	231	296.00	14201	307.90	221
277.05	4081	285.80	75	296.95	2222	308.20	95
278.00	988	288.80	148	297.80	106	308.80	73
278.90	128	289.10	99	298.10	69	309.90	157
279.20	148	289.90	286	300.90	107	310.20	95
281.40	71	292.00	191	301.10	291	311.70	89
281.90	101	292.70	262	301.90	329	312.90	225

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
313.60	100	324.90	83	336.10	117	351.90	1392
314.00	743	326.10	77	337.10	122	353.00	1195
314.90	1878	326.80	834	337.40	81	354.05	1435
315.95	1046	327.95	359	339.80	76	354.95	548
317.10	135	328.90	92	340.10	71	355.20	75
320.70	107	331.90	243	341.05	588	358.80	144
320.95	475	332.20	306	344.80	93	360.80	132
321.40	71	332.85	556	345.90	1072	361.00	129
322.05	181	334.00	3892	347.05	187	361.50	67
323.00	4489	334.80	107	348.20	114	364.95	6816
323.95	397	335.00	678	349.90	72	365.80	222

Average of 3.120 to 3.130 min.: M129448.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
365.95	668	389.80	337	415.10	102	431.20	100
367.00	192	390.10	204	417.00	165	432.30	116
370.80	180	392.10	93	418.50	71	433.10	67
371.05	404	400.70	73	420.95	1104	433.30	73
372.00	2613	401.00	87	421.95	1598	433.70	83
373.05	670	402.00	1182	422.95	8056	434.40	73
374.00	255	403.00	1652	423.95	1478	435.40	96
383.00	570	403.90	83	424.60	72	436.60	124
383.90	145	404.10	423	425.60	218	438.30	80
387.60	91	405.00	78	426.60	102	441.00	20031
389.00	108	414.80	81	429.50	75	442.00	121616

Average of 3.120 to 3.130 min.: M129448.D\data.ms

DFTPPM.M Tue Nov 22 15:37:24 2016 MSM Page: 3

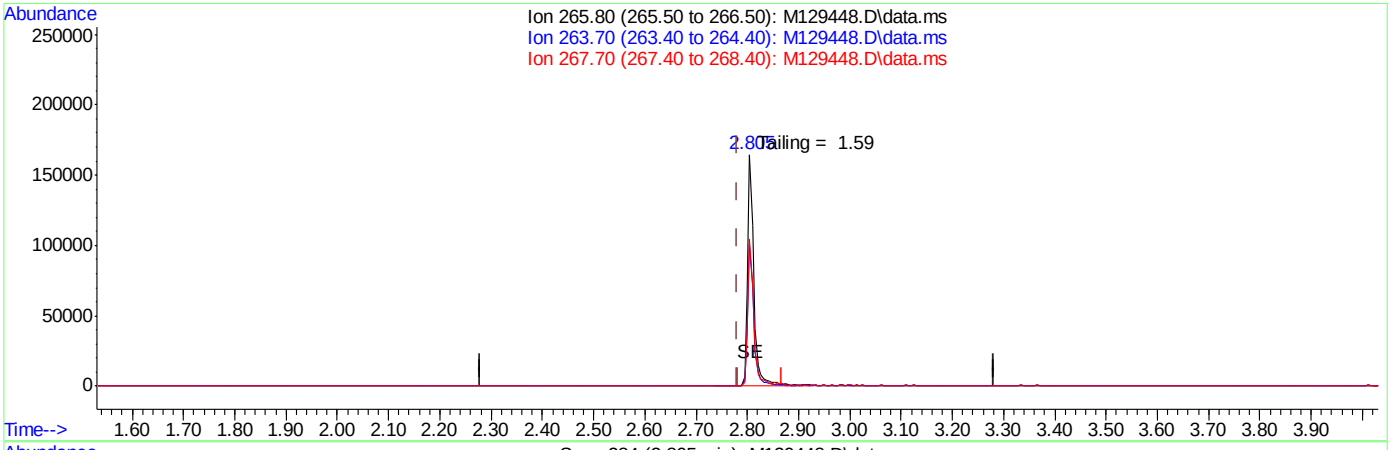
dftpp
Modified:subtracted

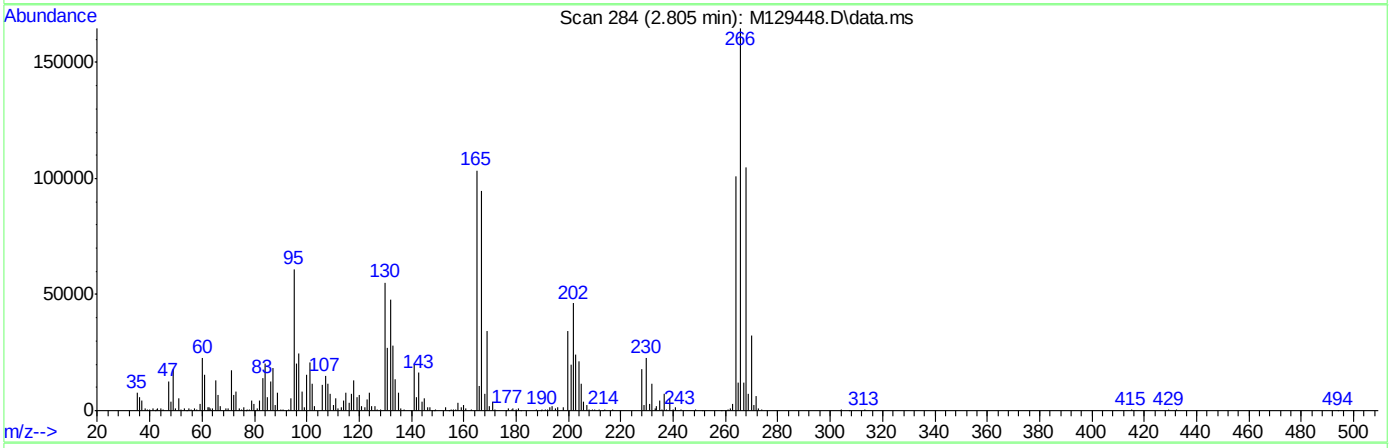
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.00	25582						
444.05	2186						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129448.D
Acq On : 22 Nov 2016 9:33 am
Operator : ashleyd
Sample : dftpp
Misc : op98591,em5525
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 15:36:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129448.D\data.ms

(1) Pentachlorophenol (MC)

2.805min (+0.024) 0.00ppm

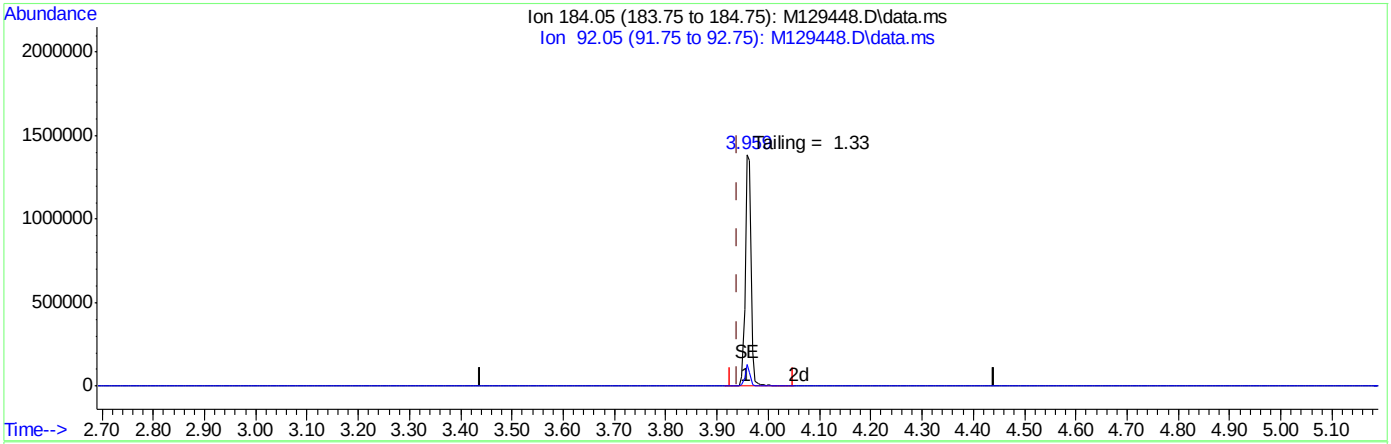
response 140807

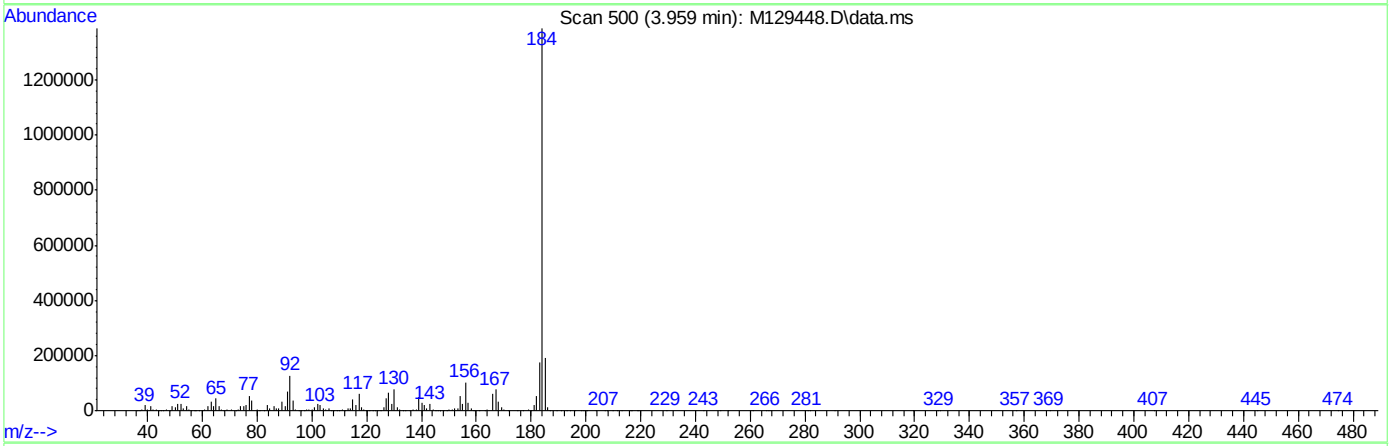
Ion	Exp%	Act%
265.80	100	100
263.70	59.00	60.97
267.70	66.70	63.29
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129448.D
Acq On : 22 Nov 2016 9:33 am
Operator : ashleyd
Sample : dftpp
Misc : op98591,em5525
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 15:36:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129448.D\data.ms

(2) Benzidine (M)

3.959min (+0.018) 0.00ppm

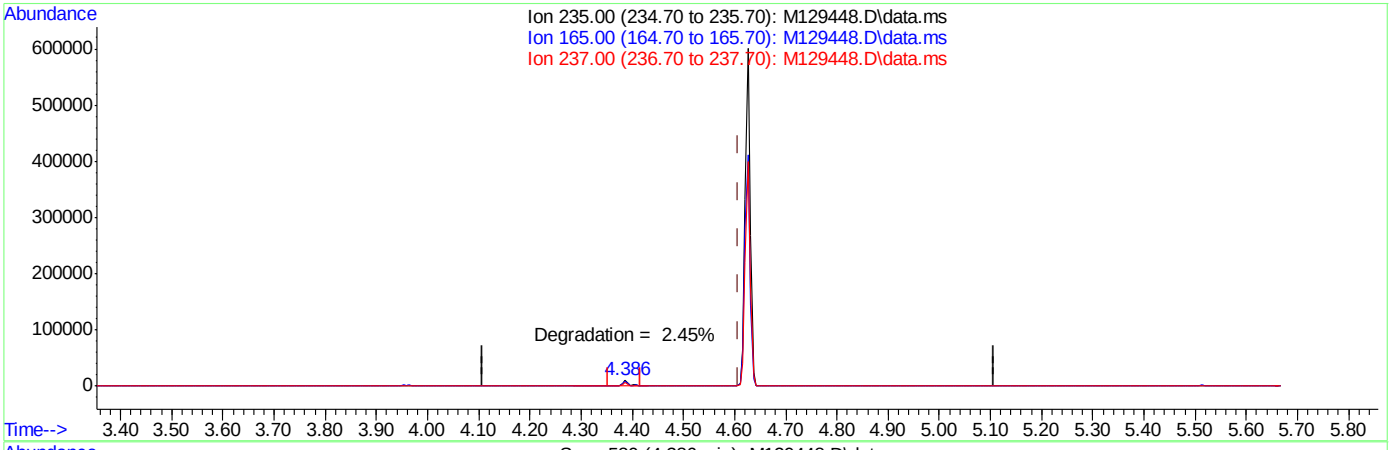
response 1138955

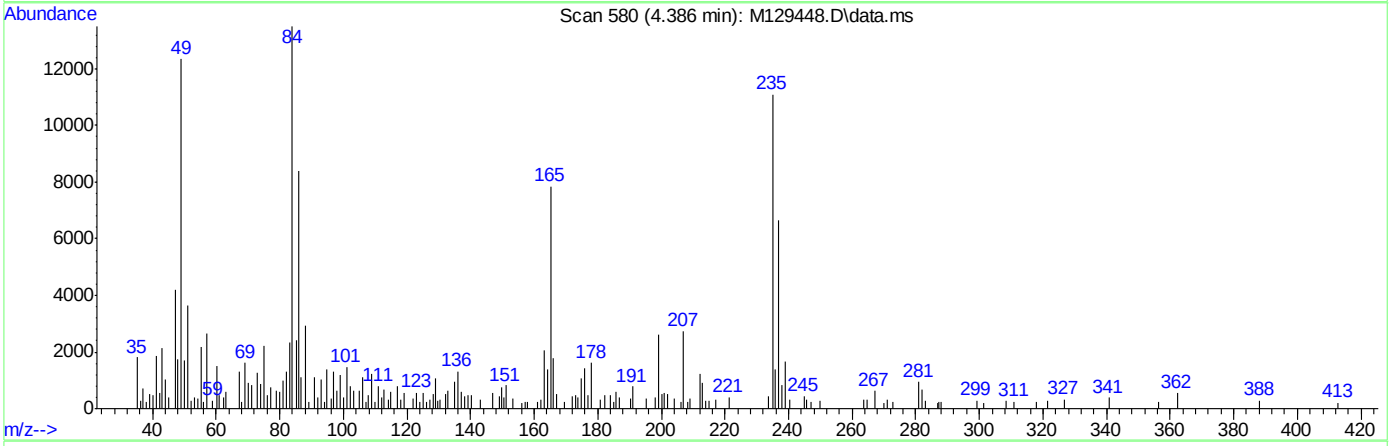
Ion	Exp%	Act%
184.05	100	100
92.05	10.20	9.15
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129448.D
Acq On : 22 Nov 2016 9:33 am
Operator : ashleyd
Sample : dftpp
Misc : op98591,em5525
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 15:36:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129448.D\data.ms

(3) PP-DDT (MC)

4.386min (-0.222) 0.00ppm

response 9761

Ion	Exp%	Act%
235.00	100	100
165.00	50.00	64.18
237.00	67.20	58.78
0.00	0.00	0.00

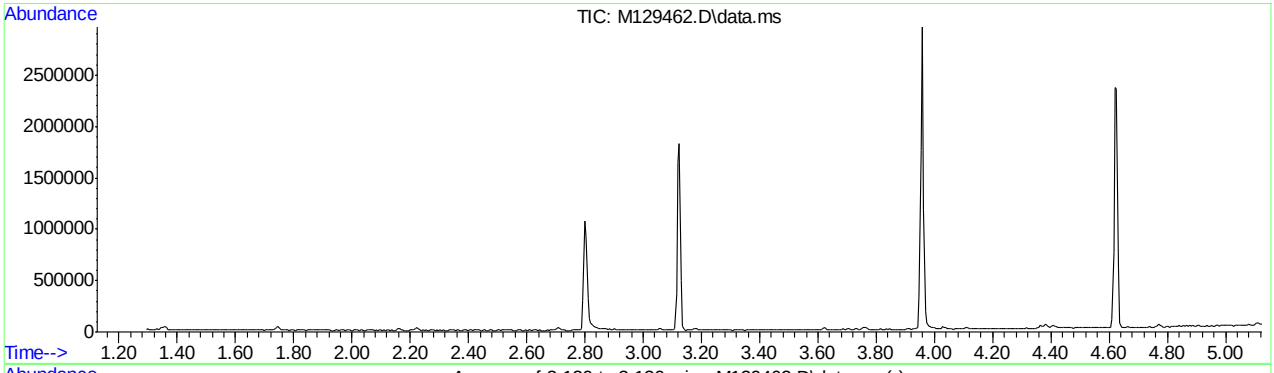
SGS ACCUTEST JC33175

DFTPPR

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129462.D
Acq On : 22 Nov 2016 4:48 pm
Operator : seanb1
Sample : dftpp
Misc : op98591,em5526
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
Last Update : Sun Nov 13 11:36:44 2016



AutoFind: Scans 343, 344, 345; Background Corrected with Scan 338

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.5	46265	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.4	70426	PASS
70	69	0.00	2	0.2	118	PASS
127	198	40	60	58.8	83813	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	142552	PASS
199	198	5	9	7.6	10814	PASS
275	198	10	30	24.0	34194	PASS
365	198	1	100	3.8	5471	PASS
441	443	0.10	100	76.0	14634	PASS
442	198	40	100	69.1	98442	PASS
443	442	17	23	19.5	19245	PASS

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	216	51.10	46265	64.05	453	79.95	3908
38.30	241	52.10	2250	65.00	600	81.00	4729
39.05	2690	53.00	102	68.95	70426	82.00	1150
40.10	313	55.00	541	70.00	118	83.05	1001
41.05	405	55.95	1825	73.05	961	84.05	480
42.20	78	57.00	3437	74.05	6442	85.00	622
44.05	20	58.00	184	75.00	10583	85.95	1401
45.10	69	61.10	818	76.15	3476	87.10	675
46.70	153	61.90	231	77.10	67177	88.10	125
49.00	147	62.10	330	78.10	5133	89.00	166
50.10	13165	63.05	2050	79.05	4719	91.05	538

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.95	1270	101.00	2490	114.90	224	123.05	2653
93.00	8961	103.00	1183	115.15	380	123.90	1200
94.20	7	104.00	1812	115.80	102	125.00	654
95.10	67	104.95	2005	116.05	1346	126.95	83813
95.60	122	106.10	614	117.00	19811	128.00	5613
96.05	453	107.00	23430	118.00	1417	128.95	35914
96.95	550	108.00	2961	119.05	426	130.00	3674
98.00	6139	110.00	42062	119.80	231	130.70	72
98.95	5229	111.05	6232	120.00	92	130.95	113
99.80	228	112.00	774	121.10	178	132.05	622
100.25	367	113.00	150	122.00	1438	133.95	949

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
134.95	3039	143.00	895	151.60	372	159.95	1549
135.95	1162	143.90	340	152.20	267	160.95	1883
136.30	155	144.90	217	153.00	2154	161.70	97
137.00	1286	145.90	333	154.00	1338	162.00	634
137.30	91	146.10	481	154.95	2523	162.75	380
137.80	358	147.00	2444	156.00	3271	163.40	91
138.70	76	148.00	6052	156.95	501	164.95	2084
139.15	372	149.00	1376	157.70	174	166.05	1520
139.90	231	150.00	245	158.10	183	166.95	7555
140.95	4281	150.60	75	158.60	98	167.90	4356
142.05	1349	151.05	455	159.25	789	169.10	910

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.70	73	176.15	1077	184.95	1252	193.70	416
170.00	219	177.05	1633	185.20	1262	194.00	208
170.70	350	177.90	778	186.00	22363	194.50	134
171.00	118	178.10	67	187.05	5768	194.90	443
171.30	140	179.00	5934	187.70	103	196.05	5351
172.00	1033	180.00	4098	187.95	615	198.00	142552
173.05	701	180.95	1697	188.95	1252	199.00	10814
174.05	1992	181.80	126	189.85	429	199.70	516
174.70	304	182.15	343	191.00	577	199.90	869
174.95	2675	182.70	227	192.00	2251	200.70	115
175.20	309	184.05	716	193.05	1742	201.20	345

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.60	1235	210.40	408	218.70	126	227.95	1170
202.10	114	210.60	209	219.90	273	228.80	301
203.05	1379	211.00	1403	220.10	89	229.05	1280
204.00	5432	211.70	89	221.05	5347	230.00	547

DFTPPM.M Wed Nov 23 15:36:14 2016 MSM Page: 2

205.00	9384	212.00	80	221.90	922	230.95	609
206.00	39895	212.90	106	222.90	2417	231.30	86
207.00	4492	213.10	90	224.00	21267	232.00	192
207.90	1408	215.05	511	225.05	5301	233.05	183
208.90	469	216.00	756	225.90	69	233.80	606
209.60	201	216.95	9286	226.15	69	235.00	534
210.20	327	217.95	1283	227.00	9699	235.85	741

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.10	80	245.00	1601	253.80	261	264.95	2381
236.90	278	245.95	3209	255.00	78152	265.80	270
238.00	67	247.00	481	256.00	11690	266.20	200
238.70	274	247.90	87	256.70	100	270.00	151
238.95	504	249.10	359	257.00	871	271.00	117
240.00	207	249.90	193	258.00	5828	271.95	333
240.95	515	251.15	146	259.05	767	273.00	2178
242.00	878	252.10	80	260.95	279	274.05	6614
242.20	136	252.60	284	261.60	71	275.00	34194
243.00	1022	252.80	175	262.80	97	276.00	5243
244.00	14090	253.20	395	263.70	183	277.00	3467

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
277.95	406	291.90	125	304.70	85	321.10	95
280.90	142	293.00	1196	307.80	188	321.95	148
281.40	164	294.00	299	308.00	144	323.00	3021
282.70	154	294.90	76	309.90	152	324.05	907
283.10	559	296.00	10188	312.90	143	325.80	79
283.70	107	297.00	1511	314.00	516	326.70	139
283.90	238	297.70	66	314.90	1481	326.90	495
285.05	868	302.10	206	316.00	707	327.80	117
285.60	66	302.95	1426	316.90	78	331.60	126
288.90	125	303.70	150	319.20	70	331.90	165
290.00	84	304.00	176	320.80	163	332.90	185

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.95	2458	353.10	394	366.30	160	398.20	69
334.95	1061	353.80	115	366.60	92	402.00	861
337.80	79	354.15	284	370.40	91	402.95	1109
339.10	84	354.80	208	371.10	279	403.90	273
341.05	392	355.30	114	371.90	1802	418.20	68
342.10	88	356.90	82	373.00	408	420.80	518
343.00	67	357.30	148	373.70	136	421.05	443
345.85	770	359.00	96	380.70	75	421.90	1176
346.85	216	363.10	86	382.90	767	423.00	5927
352.00	1000	364.90	5471	390.00	79	424.00	868
352.90	566	365.90	584	391.15	234	425.10	113

Average of 3.120 to 3.130 min.: M129462.D\data.ms
dftpp
Modified:subtracted

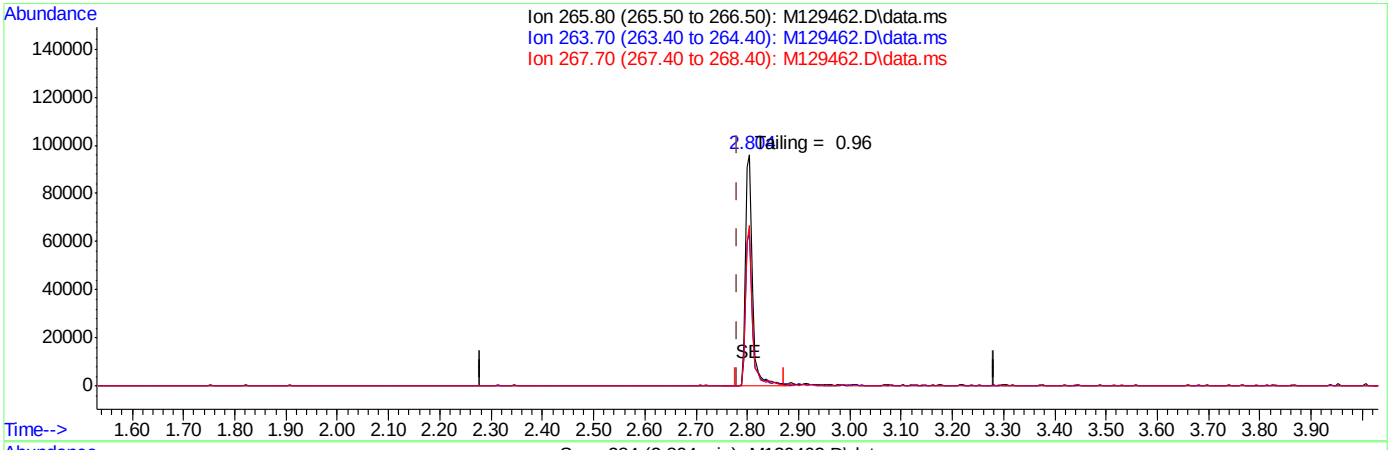
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
427.30	67	444.10	1472				
428.60	85	467.90	104				
431.00	96	487.30	91				
433.00	107						
434.00	105						
434.30	94						
437.60	68						
440.95	14634						
442.00	98442						
443.00	19245						
443.90	339						

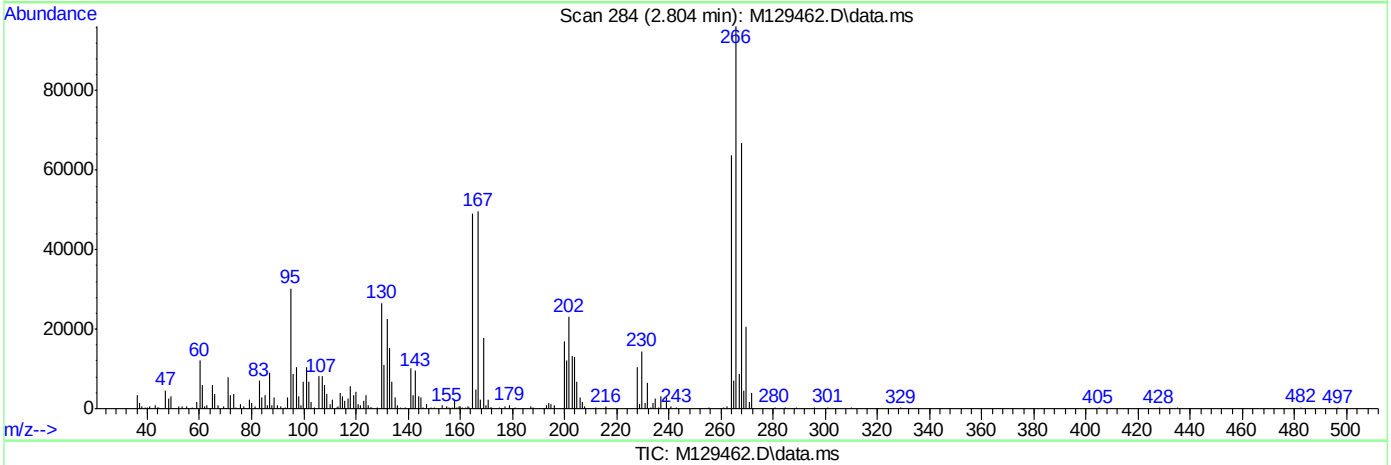
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129462.D
Acq On : 22 Nov 2016 4:48 pm
Operator : seanb1
Sample : dftpp
Misc : op98591,em5526
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 16:54:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129462.D\data.ms

(1) Pentachlorophenol (MC)

2.804min (+0.024) 0.00ppm

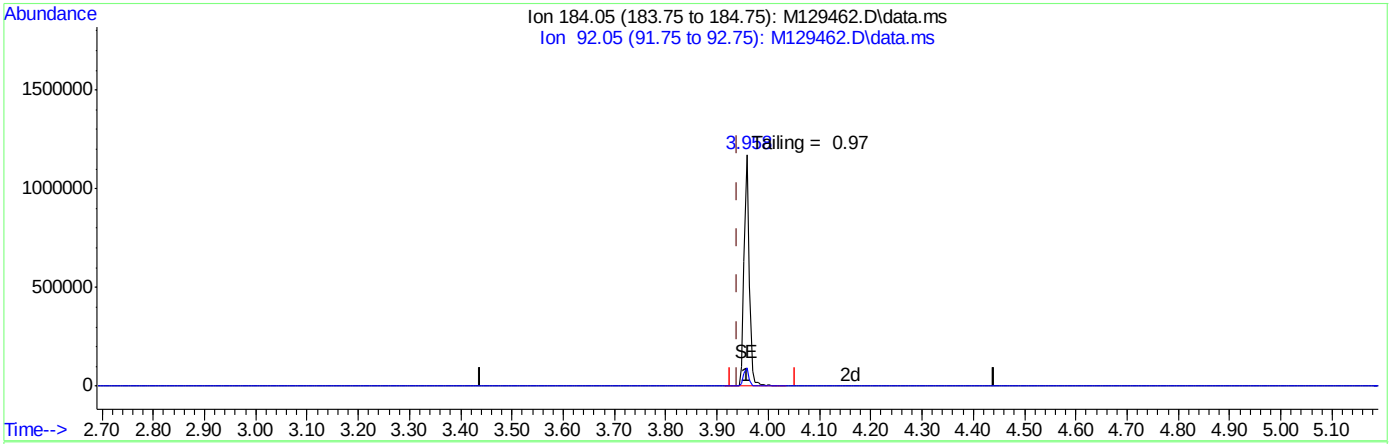
response 89498

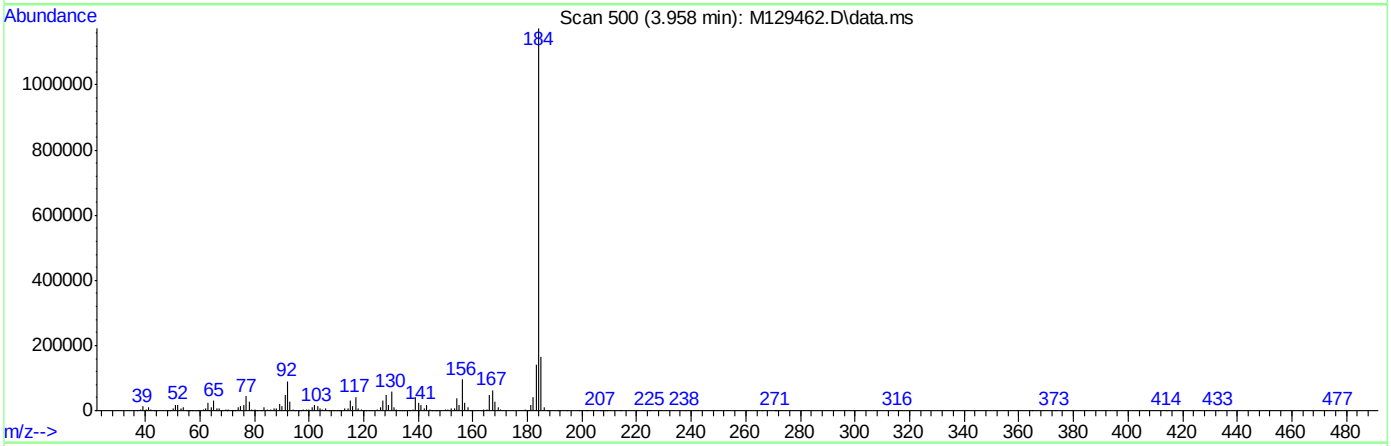
Ion	Exp%	Act%
265.80	100	100
263.70	59.00	66.01
267.70	66.70	69.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129462.D
Acq On : 22 Nov 2016 4:48 pm
Operator : seanb1
Sample : dftpp
Misc : op98591,em5526
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 16:54:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129462.D\data.ms

(2) Benzidine (M)

3.958min (+0.018) 0.00ppm

response 827253

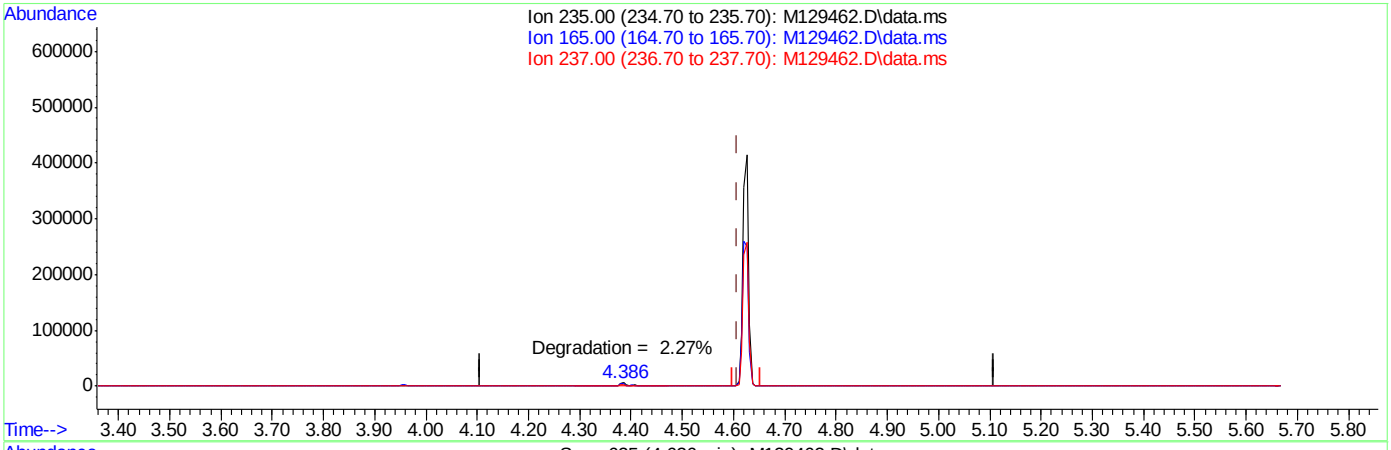
Ion	Exp%	Act%
184.05	100	100
92.05	10.20	7.69
0.00	0.00	0.00
0.00	0.00	0.00

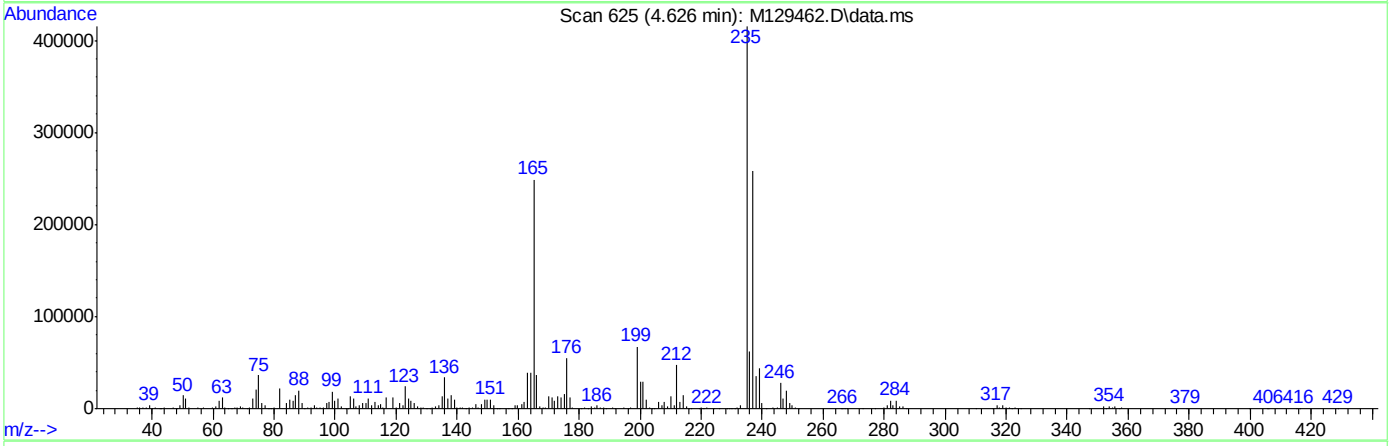
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129462.D
Acq On : 22 Nov 2016 4:48 pm
Operator : seanb1
Sample : dftpp
Misc : op98591,em5526
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 16:54:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129462.D\data.ms

(3) PP-DDT (MC)

4.626min (+0.018) 0.00ppm

response 317641

Ion	Exp%	Act%
235.00	100	100
165.00	50.00	59.80
237.00	67.20	62.13
0.00	0.00	0.00

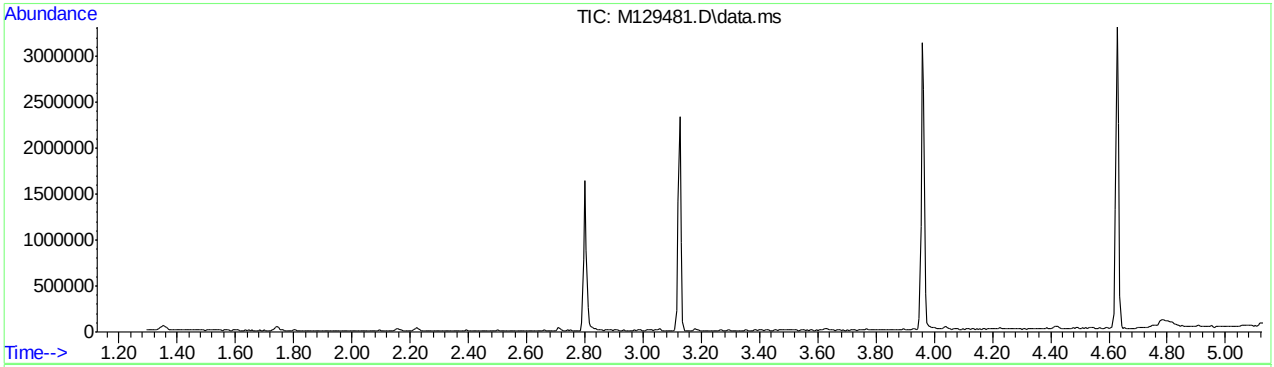
SGS ACCUTEST JC33175

DFTPPR

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129481.D
Acq On : 28 Nov 2016 1:09 pm
Operator : kevinm2
Sample : dftpp
Misc : op98591,em5527
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
Last Update : Sun Nov 13 11:36:44 2016



AutoFind: Scans 343, 344, 345; Background Corrected with Scan 338

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.3	54716	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.7	83472	PASS
70	69	0.00	2	0.7	567	PASS
127	198	40	60	59.0	103186	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	174912	PASS
199	198	5	9	6.4	11251	PASS
275	198	10	30	21.4	37514	PASS
365	198	1	100	3.8	6587	PASS
441	443	0.10	100	68.5	15319	PASS
442	198	40	100	63.0	110141	PASS
443	442	17	23	20.3	22363	PASS

SGS ACCUTEST JC33175

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	225	51.05	54716	62.10	522	73.00	577
38.15	636	51.80	258	63.05	2780	74.10	7922
39.00	3589	52.05	2537	63.80	106	75.05	12153
39.80	161	55.05	915	64.10	134	76.05	3638
39.90	186	56.00	1693	65.05	531	77.10	81466
40.95	478	57.00	4711	66.00	290	78.10	5005
42.20	133	58.10	101	67.00	15	79.00	5235
45.00	139	59.05	217	69.00	83472	80.00	4333
46.90	71	60.00	86	70.05	567	81.00	6308
49.00	470	60.95	723	71.10	91	82.05	1542
50.10	14464	61.90	402	72.10	75	83.00	1799

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.90	46	96.10	1043	106.20	239	117.80	173
85.10	1130	97.00	485	107.00	27683	118.05	1814
86.05	1917	98.00	6861	108.05	4238	119.00	461
87.05	601	99.00	5951	109.00	432	120.00	453
88.00	389	99.90	464	110.00	49408	121.10	182
89.15	243	101.00	3815	111.05	7145	122.05	2061
90.00	111	102.00	275	112.00	897	123.00	3505
91.05	1827	102.95	899	113.05	410	124.00	1531
92.05	1708	104.05	2408	114.95	411	125.00	853
93.00	10959	105.05	2987	115.95	1537	127.00	103186
94.00	815	106.00	390	117.00	22425	128.00	8648

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
129.00	42781	137.95	443	147.05	2232	156.00	4329
130.00	3032	138.70	77	148.00	7563	156.80	86
131.00	881	138.90	217	148.95	1761	157.05	421
132.00	731	139.95	379	150.00	76	157.95	1354
132.90	90	140.95	5099	150.90	233	159.00	296
133.05	113	142.05	1674	151.10	565	160.00	1655
133.70	218	143.00	1223	151.90	123	161.00	2144
134.00	1212	144.10	676	152.10	176	162.00	660
135.00	2963	145.10	603	152.90	1744	163.00	305
136.05	1201	145.95	778	154.00	1180	163.90	506
137.00	1457	146.15	542	155.00	3098	164.95	1890

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
166.00	1999	174.00	2510	183.10	144	194.00	669
167.00	10994	175.00	4323	183.90	828	194.75	248
168.00	4155	175.95	458	185.00	4239	195.00	143
169.00	1135	176.30	365	185.95	26671	196.00	4933
169.90	119	176.90	1312	187.05	8092	198.00	174912
170.10	397	178.00	455	187.95	877	198.95	11251
170.80	130	178.95	8156	188.95	1715	199.95	1425
170.95	316	180.00	4929	189.95	240	200.90	152
171.90	1064	181.00	2232	190.90	1035	201.45	1016
172.10	113	182.20	200	192.00	2836	202.15	251
173.00	1290	182.70	92	192.95	2601	202.90	1576

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.95	6367	211.95	244	221.85	1994	233.80	287
205.00	11331	213.10	75	222.95	2989	234.10	158
206.00	47312	214.00	127	224.00	23589	235.00	779
207.00	5580	214.85	597	225.00	5678	235.80	81

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208.00	1849	216.00	699	226.00	849	235.95	503
208.70	316	217.00	12095	226.95	9838	236.95	603
208.90	426	217.80	232	228.00	1847	237.70	98
209.70	268	218.00	1045	229.00	2360	239.15	344
209.90	717	219.10	273	231.00	848	239.50	120
210.85	1462	220.30	105	231.80	117	239.90	80
211.50	490	220.95	7077	233.20	113	240.95	492

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
241.95	1495	252.60	109	262.40	70	273.95	7560
243.00	1532	252.95	664	263.75	286	275.00	37514
244.00	18827	253.80	192	264.95	2904	276.00	5208
245.00	3057	255.00	95368	265.90	629	276.90	3802
246.00	4642	256.00	14144	268.70	120	277.70	136
247.00	758	257.05	1604	269.80	115	277.95	651
248.00	333	258.00	6730	270.15	158	278.85	273
248.95	993	258.95	887	271.10	170	279.60	73
251.05	245	259.80	67	271.80	101	280.60	68
252.00	243	260.20	80	272.10	321	281.00	86
252.30	184	260.90	115	272.95	2512	282.90	235

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.95	542	297.00	2134	311.00	75	326.95	907
284.95	549	298.00	447	313.20	187	328.05	623
286.10	122	301.85	242	313.95	781	330.00	71
288.10	88	302.90	1232	314.95	1704	331.00	68
289.00	213	303.70	191	315.90	446	331.85	324
290.05	440	304.00	215	316.15	317	332.70	164
291.80	77	305.00	88	316.90	66	333.00	142
292.30	106	306.10	98	321.05	432	334.00	2955
293.00	738	307.90	274	321.95	182	334.95	854
293.80	154	308.90	87	322.95	4154	341.05	430
296.00	14009	309.30	92	324.10	848	342.15	276

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
343.30	101	365.00	6587	383.80	81	404.10	143
345.00	74	365.75	315	389.10	81	407.70	91
346.10	686	365.90	391	389.80	68	411.00	70
350.30	76	366.10	231	390.10	198	413.60	94
352.00	840	368.90	88	391.00	246	420.95	1239
352.95	519	371.10	188	391.70	119	421.90	528
353.95	892	372.00	2281	396.30	89	422.10	144
354.80	94	373.00	518	399.60	70	423.00	7129
355.00	239	374.20	69	401.90	922	423.95	1187
361.90	97	381.75	160	402.95	1414	424.90	160
363.60	78	383.00	489	403.80	206	425.20	141

Average of 3.120 to 3.131 min.: M129481.D\data.ms
dftpp
Modified:subtracted

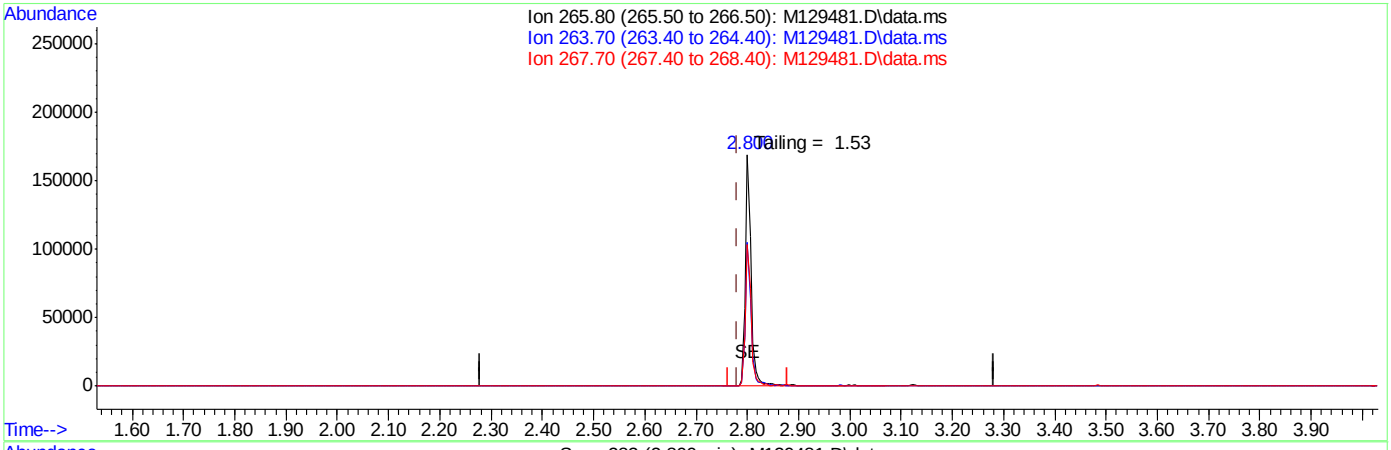
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
427.40	74	444.20	470				
428.20	78	444.85	157				
429.80	86	445.70	83				
431.80	161	453.50	109				
432.40	104	479.30	77				
432.60	159						
436.40	72						
440.95	15319						
442.00	110141						
443.00	22363						
443.90	1967						

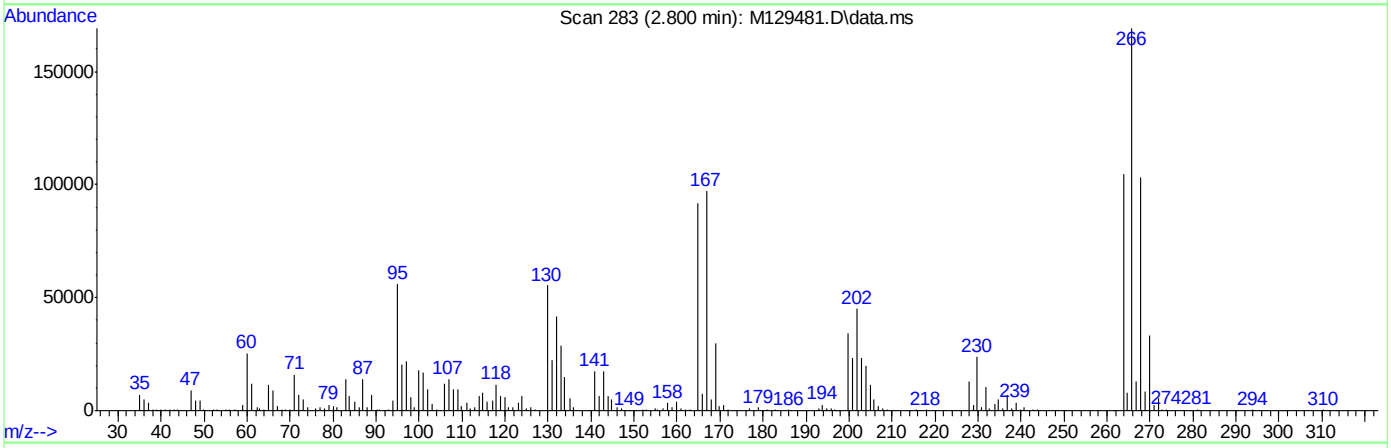
DFTPPM.M Mon Nov 28 14:03:48 2016 MSM Page: 3

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129481.D
Acq On    : 28 Nov 2016   1:09 pm
Operator  : kevinm2
Sample    : dftpp
Misc      : op98591,em5527
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Nov 28 13:14:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title  : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:
```





(1) Pentachlorophenol (MC)

2.800min (+0.019) 0.00ppm

response 129801

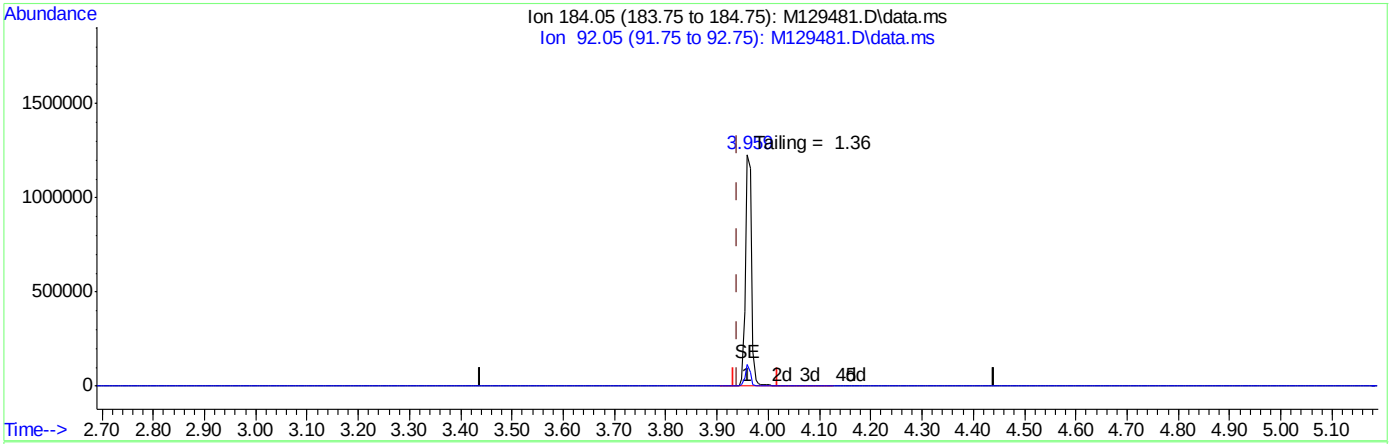
Ion	Exp%	Act%
265.80	100	100
263.70	59.00	61.89
267.70	66.70	60.86
0.00	0.00	0.00

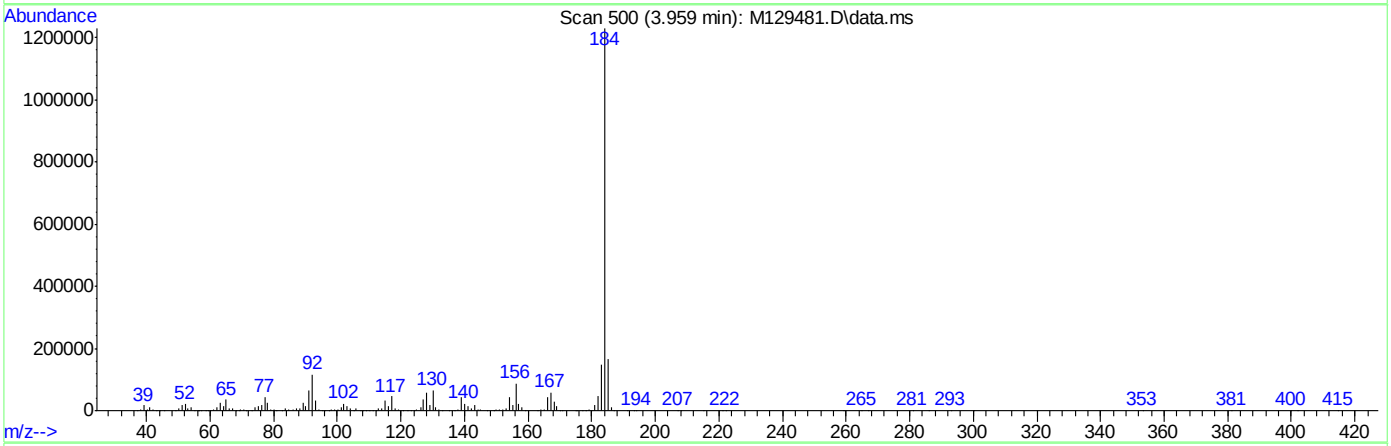
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129481.D
Acq On : 28 Nov 2016 1:09 pm
Operator : kevinm2
Sample : dftpp
Misc : op98591,em5527
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 28 13:14:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





TIC: M129481.D\data.ms

(2) Benzidine (M)

3.959min (+0.019) 0.00ppm

response 989888

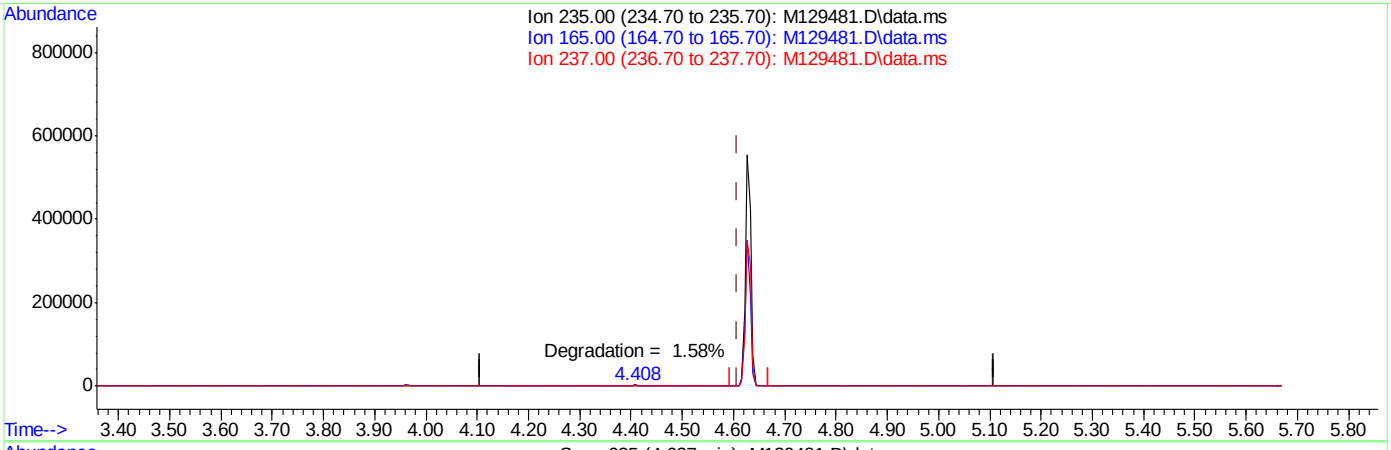
Ion	Exp%	Act%
184.05	100	100
92.05	10.20	9.50
0.00	0.00	0.00
0.00	0.00	0.00

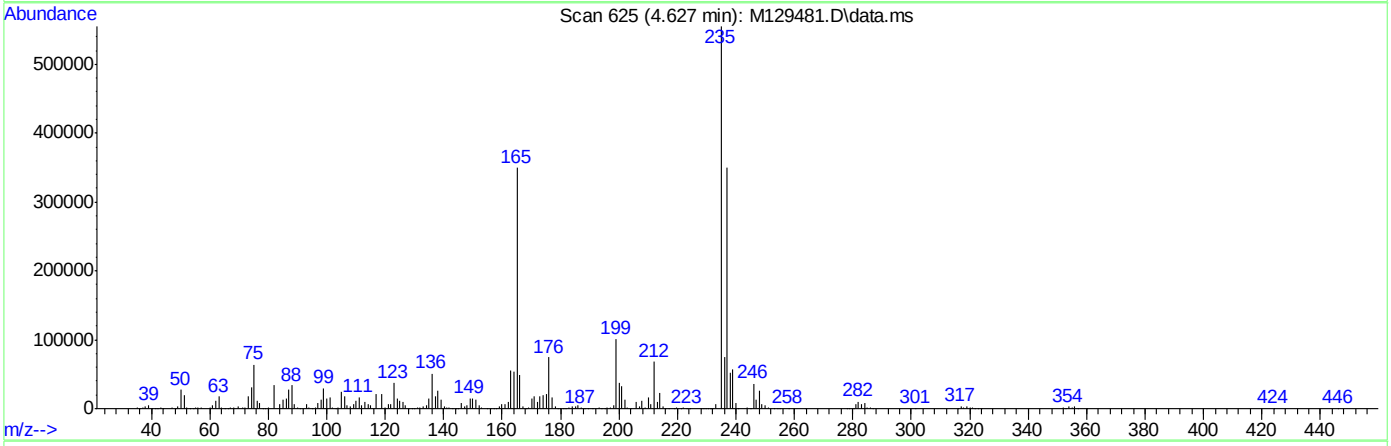
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129481.D
Acq On : 28 Nov 2016 1:09 pm
Operator : kevinm2
Sample : dftpp
Misc : op98591,em5527
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 28 13:14:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





(3) PP-DDT (MC)

4.627min (+0.019) 0.00ppm

response 402653

Ion	Exp%	Act%
235.00	100	100
165.00	50.00	62.92
237.00	67.20	63.10
0.00	0.00	0.00

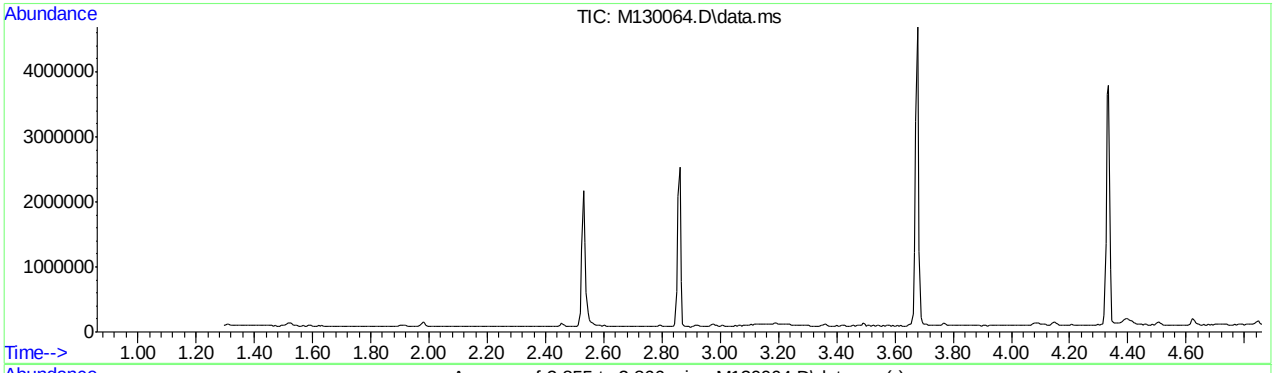
SGS ACCUTEST JC33175

DFTPPR

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130064.D
Acq On : 16 Dec 2016 9:58 pm
Operator : juliusj
Sample : dftpp
Misc : op99181,em5555
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
Last Update : Sun Nov 13 11:36:44 2016



AutoFind: Scans 293, 294, 295; Background Corrected with Scan 288

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.9	66321	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.5	97010	PASS
70	69	0.00	2	0.5	457	PASS
127	198	40	60	56.4	104168	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	184682	PASS
199	198	5	9	6.4	11878	PASS
275	198	10	30	27.9	51573	PASS
365	198	1	100	3.9	7185	PASS
441	443	0.10	100	79.9	18965	PASS
442	198	40	100	69.0	127440	PASS
443	442	17	23	18.6	23725	PASS

SGS ACCUTEST JC33175

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	50	55.15	431	67.10	273	78.15	6258
38.05	1168	56.05	2149	69.05	97010	79.05	6606
39.10	6015	57.10	4973	69.95	215	80.05	4933
40.10	768	58.10	274	70.15	457	81.05	6702
42.10	217	60.05	57	71.15	74	82.00	1867
44.15	390	61.15	1190	72.05	53	83.05	1340
48.05	263	62.10	1284	73.15	669	85.05	784
50.15	18880	63.15	3085	74.15	9738	86.05	4005
51.10	66321	64.10	499	75.05	14857	87.05	814
52.15	3405	65.10	1855	76.20	4536	88.05	304
53.10	156	66.05	95	77.15	87905	89.00	218

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.05	1925	104.05	2710	116.15	1011	127.05	104168
92.15	1810	105.05	2405	117.05	23150	128.10	7349
93.05	10950	106.15	110	118.10	1616	129.05	42570
94.05	633	107.05	27770	119.10	312	130.05	3655
96.15	236	108.05	4663	120.15	409	130.75	74
98.05	9254	110.05	53953	121.05	182	131.10	721
99.05	5737	111.05	8031	122.05	2285	132.10	125
100.10	681	112.05	1137	123.05	3460	133.00	345
101.05	3566	113.05	285	124.00	1477	134.05	1023
102.05	237	114.05	100	125.05	1376	135.05	2791
103.05	1348	115.15	280	126.05	88	136.05	1194

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
137.15	1334	147.05	2778	157.10	1108	165.25	247
138.10	256	148.05	6057	157.85	370	166.15	1604
139.00	451	149.05	1153	158.05	462	167.05	9024
139.95	183	150.05	475	159.05	795	168.00	4269
140.15	280	151.10	609	160.05	1700	169.10	750
141.05	6433	151.85	256	161.05	2569	170.05	310
142.05	2137	152.15	227	161.85	262	171.00	446
143.15	1211	153.00	1714	162.05	424	172.10	981
144.10	297	154.10	1115	163.05	225	173.05	1227
145.05	261	155.05	2729	164.00	204	174.05	2397
146.00	1011	156.05	3877	165.05	1832	175.10	3784

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.05	1403	185.05	3947	196.05	7104	207.05	6190
177.05	1881	186.05	26114	196.65	647	208.05	1757
178.05	904	187.10	8196	198.05	184682	209.05	449
179.00	7444	188.10	819	199.05	11878	210.35	932
180.05	5852	189.05	1754	200.00	953	211.05	2203
181.10	2552	190.00	394	201.55	1131	211.65	146
182.00	612	191.10	670	202.15	144	212.10	251
182.25	102	192.00	2109	203.05	1429	212.95	79
183.15	125	193.05	2719	204.05	6557	215.10	608
183.95	336	194.10	436	205.05	11878	215.95	423
184.10	366	195.10	577	206.10	46712	216.15	640

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
217.05	12807	225.05	6756	234.00	766	245.10	2659
218.05	1765	226.05	424	235.05	975	246.05	4686
218.95	118	227.05	11750	236.00	694	247.05	1066
219.45	168	227.95	1704	237.05	1062	247.95	145

DFTPPM.M Mon Dec 19 15:35:18 2016 MSM

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220.05	169	228.15	269	238.05	232	249.00	724
221.05	10536	229.05	2269	239.05	535	250.05	97
221.75	822	230.00	246	240.05	375	251.15	90
222.00	1139	231.05	1122	241.00	814	252.05	96
222.95	1015	231.95	84	242.05	1489	252.75	69
223.10	1797	232.15	111	243.10	1663	253.00	427
224.05	27017	233.05	225	244.15	21352	255.05	113194

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
256.05	16910	267.95	122	281.05	101	296.05	15369
257.00	1084	268.95	71	281.85	79	297.05	2346
258.05	7134	270.00	183	283.10	537	297.95	114
259.05	1064	271.00	184	284.05	421	300.95	167
259.95	154	272.05	296	285.05	1024	301.95	325
260.95	77	273.05	3349	286.00	204	303.05	1889
263.75	151	274.05	9067	288.85	85	304.00	337
264.00	270	275.05	51573	292.35	134	307.95	296
265.05	2912	276.05	6499	293.05	1081	309.10	229
265.90	386	277.05	4594	294.10	357	310.05	118
267.75	68	278.00	686	294.95	283	314.15	783

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.05	1840	329.05	94	350.95	85	370.95	468
316.05	962	330.05	73	352.05	1397	372.05	2616
317.05	69	331.85	292	353.10	1013	373.05	537
321.05	570	332.15	116	354.10	1302	383.05	648
322.25	143	333.00	475	354.95	102	384.05	168
323.05	5116	334.10	3032	355.35	74	390.00	388
324.05	974	335.05	726	359.05	73	391.10	279
324.85	76	341.05	508	363.75	109	401.05	74
325.95	176	341.90	185	365.00	7185	402.05	1089
326.95	1065	346.00	803	366.00	1102	403.05	1568
328.10	423	347.00	174	369.85	137	404.00	618

Average of 2.855 to 2.866 min.: M130064.D\data.ms
dftpp
Modified:subtracted

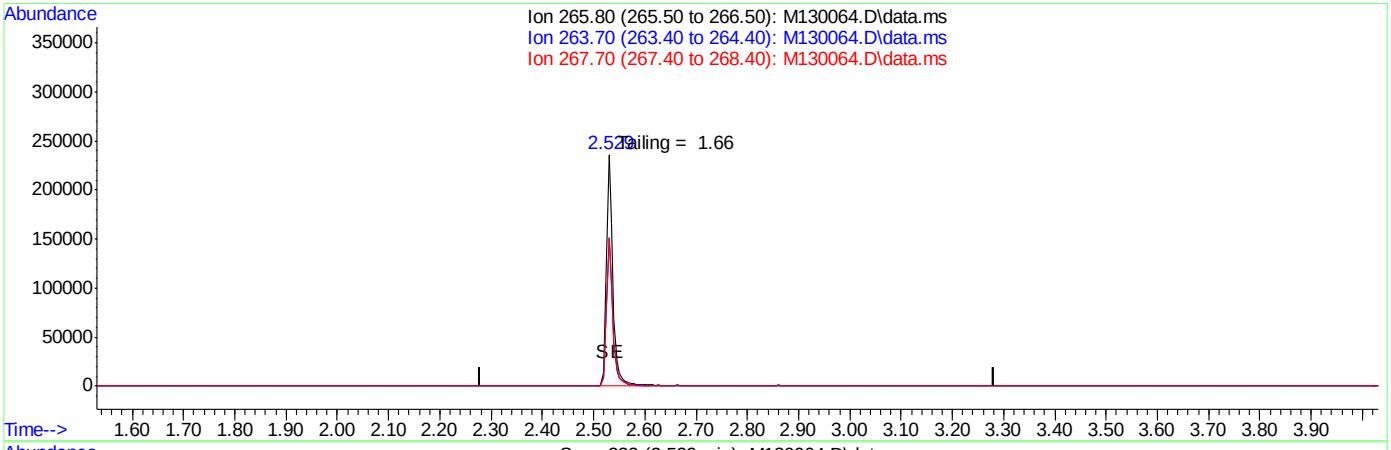
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.00	1108	441.05	18965				
422.05	1431	442.05	127440				
423.05	8781	443.05	23725				
424.00	1669	444.00	2247				
424.95	69						
434.85	76						
436.40	158						
437.15	90						
438.65	165						
439.35	87						
439.95	129						

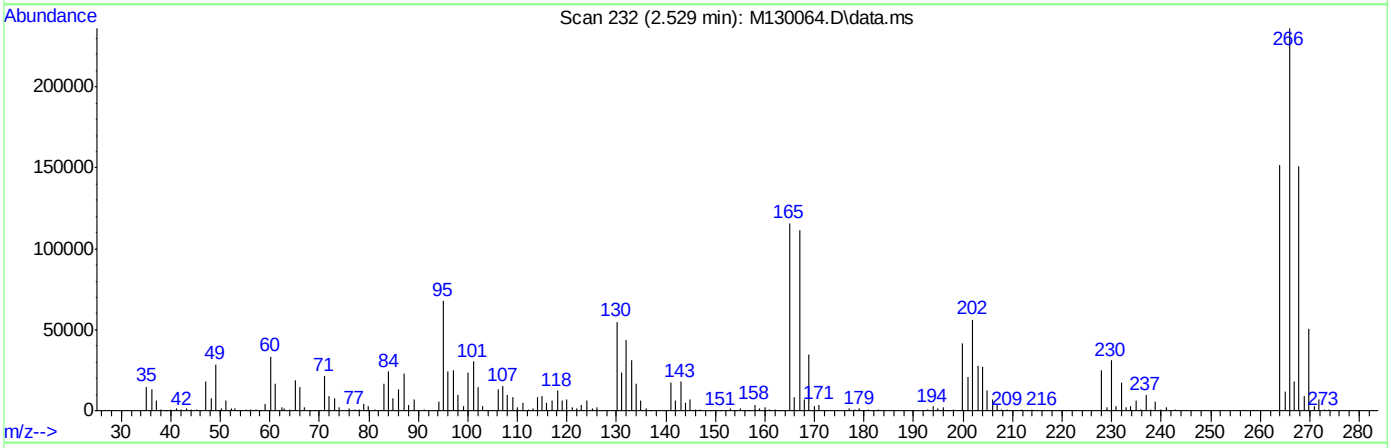
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130064.D
Acq On : 16 Dec 2016 9:58 pm
Operator : juliusj
Sample : dftpp
Misc : op99181,em5555
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:22:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:





(1) Pentachlorophenol (MC)

2.529min (-0.251) 0.00ppm m

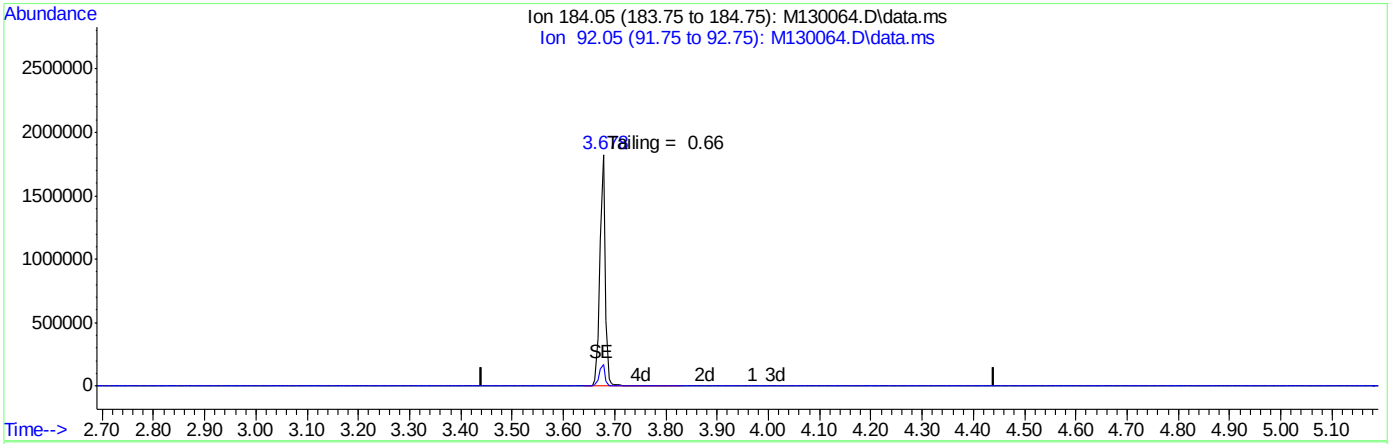
response 212809

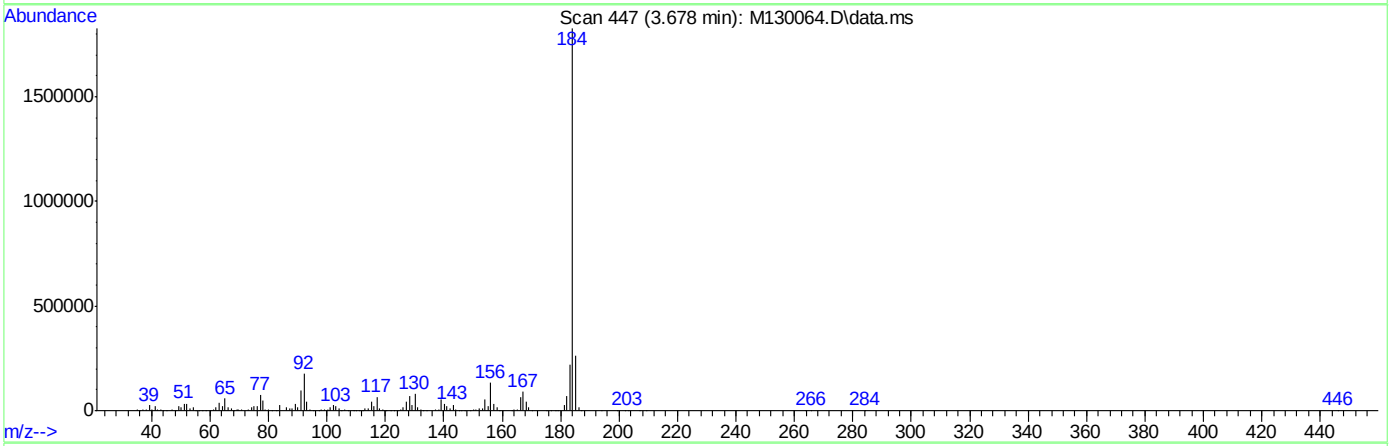
Ion	Exp%	Act%
265.80	100	100
263.70	59.00	64.26
267.70	66.70	63.91
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130064.D
Acq On    : 16 Dec 2016   9:58 pm
Operator  : juliusj
Sample    : dftpp
Misc      : op99181,em5555
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Dec 19 10:22:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title  : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:
```





TIC: M130064.D\data.ms

(2) Benzidine (M)

3.678min (-0.262) 0.00ppm m

response 1297882

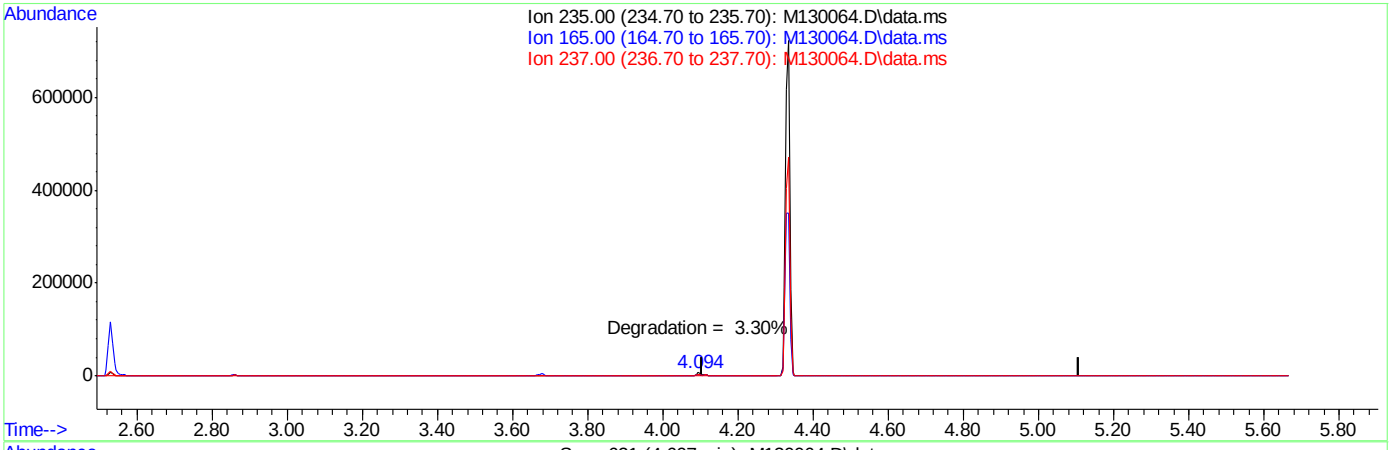
Ion	Exp%	Act%
184.05	100	100
92.05	10.20	9.58
0.00	0.00	0.00
0.00	0.00	0.00

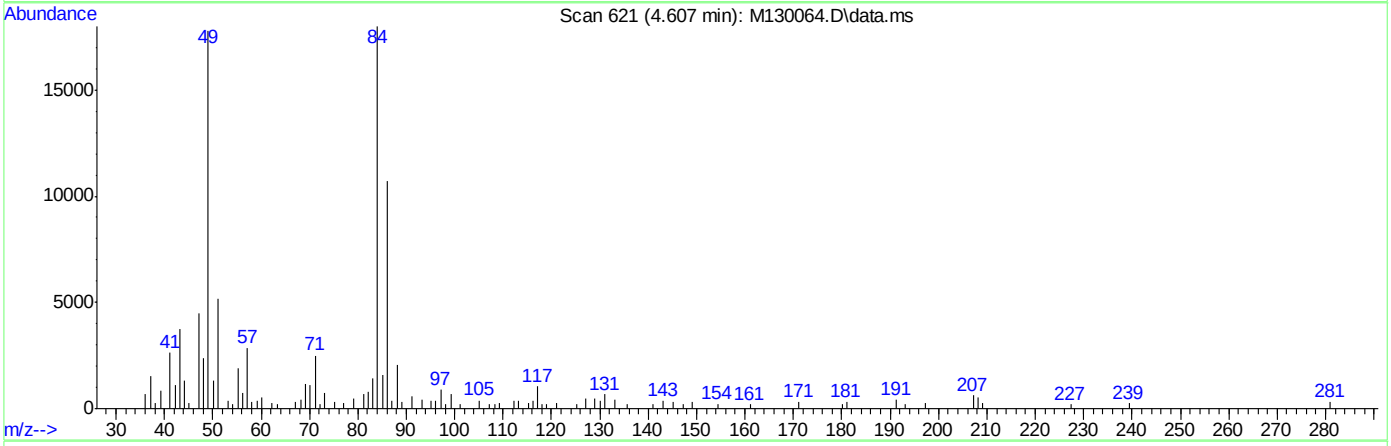
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130064.D
Acq On    : 16 Dec 2016   9:58 pm
Operator  : juliusj
Sample    : dftpp
Misc      : op99181,em5555
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Dec 19 10:22:27 2016
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title  : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Nov 13 11:36:44 2016
QLast Update : Sun Nov 13 11:36:44 2016
Response via : Continuing Cal File:
```





TIC: M130064.D\data.ms

(3) PP-DDT (MC)

4.608min (-4.608) 0.00ppm

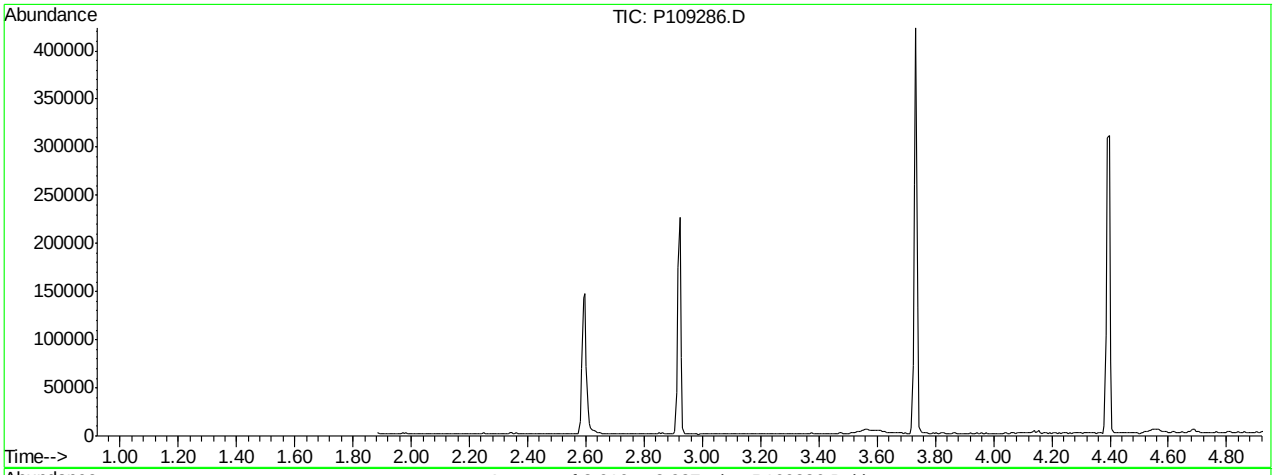
response 0

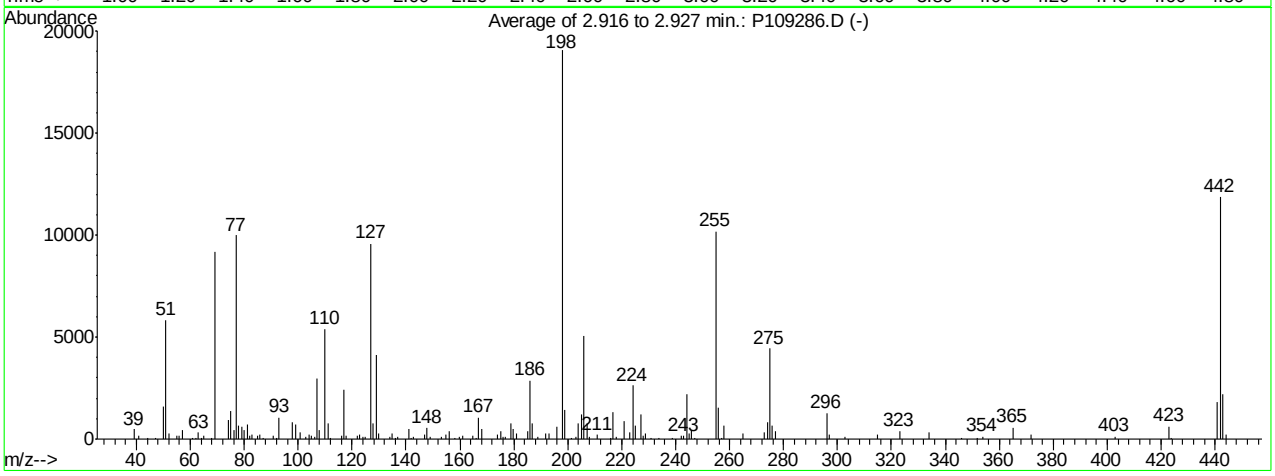
Ion	Exp%	Act%
235.00	100	0.00
165.00	50.00	0.00#
237.00	67.20	0.00#
0.00	0.00	0.00

SGS ACCUTEST JC33175

DFTPP

```
Data File : C:\MSDChem\1\DATA\ep4851\P109286.D          Vial: 1
Acq On    : 28 Nov 2016   3:57 pm                   Operator: robertl1
Sample    : dftpp                                   Inst    : MSP
Misc      : OP98670,EP4851                          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 194, 195, 196; Background Corrected with Scan 189

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.7	5842	PASS
68	69	0.00	2	0.8	74	PASS
69	198	0.00	100	48.2	9190	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	50.3	9581	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	19053	PASS
199	198	5	9	7.4	1413	PASS
275	198	10	30	23.2	4427	PASS
365	198	1	100	3.0	574	PASS
441	443	0.10	100	80.8	1791	PASS
442	198	40	100	62.3	11865	PASS
443	442	17	23	18.7	2217	PASS

P109286.D DFTPPP.M Mon Nov 28 16:16:49 2016

Average of 2.916 to 2.927 min.: P109286.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
39.00	477	62.00	54	78.95	588	97.95	819
41.05	177	63.00	316	80.00	459	98.90	702
44.00	62	64.00	61	81.00	721	100.90	308
47.00	66	65.00	190	81.95	175	102.95	114
50.00	1570	68.00	74	82.95	199	103.95	203
51.00	5842	69.00	9190	85.05	179	104.90	179
52.00	286	74.00	932	85.90	225	106.05	121
55.00	158	75.00	1396	87.00	54	107.00	2959
56.00	192	76.00	463	90.95	160	108.00	457
57.00	444	77.00	10000	91.90	61	110.00	5391
61.00	51	78.00	658	92.95	1071	110.95	781

Average of 2.916 to 2.927 min.: P109286.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.90	64	129.95	299	152.90	86	175.00	362
115.95	176	133.95	112	154.95	223	175.85	102
116.95	2436	134.95	292	156.00	386	176.90	128
117.95	146	135.90	55	158.00	55	178.90	776
121.90	140	136.90	126	159.85	124	179.90	498
122.90	245	140.90	493	160.80	175	180.90	257
123.95	134	142.00	62	164.90	145	185.00	361
124.90	136	142.90	114	165.90	78	186.00	2862
127.00	9581	146.90	196	166.95	1048	186.95	777
127.95	782	147.90	530	168.00	522	188.95	136
128.95	4101	148.90	111	173.95	222	191.90	251

Average of 2.916 to 2.927 min.: P109286.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
192.90	250	210.95	202	230.90	64	256.90	78
195.90	594	216.00	58	233.90	50	257.90	661
197.90	19053	216.90	1347	238.90	51	264.90	284
198.90	1413	217.90	106	241.90	140	272.90	336
201.30	54	220.90	902	242.95	141	273.90	826
202.85	105	222.90	307	244.00	2183	274.90	4427
204.00	764	224.00	2636	244.90	294	275.90	637
204.90	1223	224.95	680	245.90	440	276.90	405
206.00	5040	226.90	1210	246.90	60	295.90	1272
206.95	762	227.90	165	254.90	10182	296.90	215
207.90	112	228.90	271	255.90	1561	302.95	131

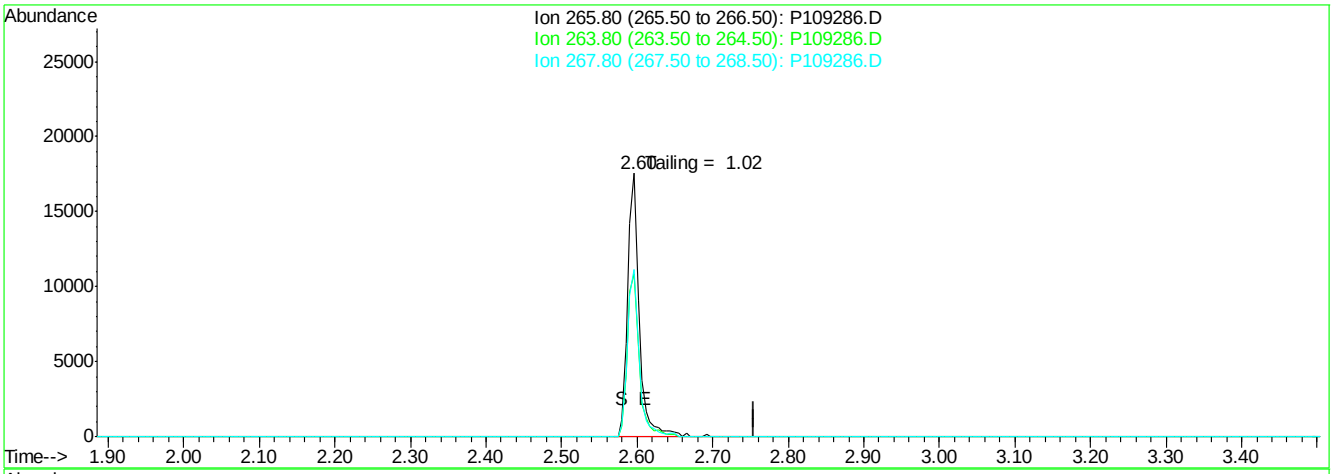
Average of 2.916 to 2.927 min.: P109286.D
dftpp
Modified:subtracted

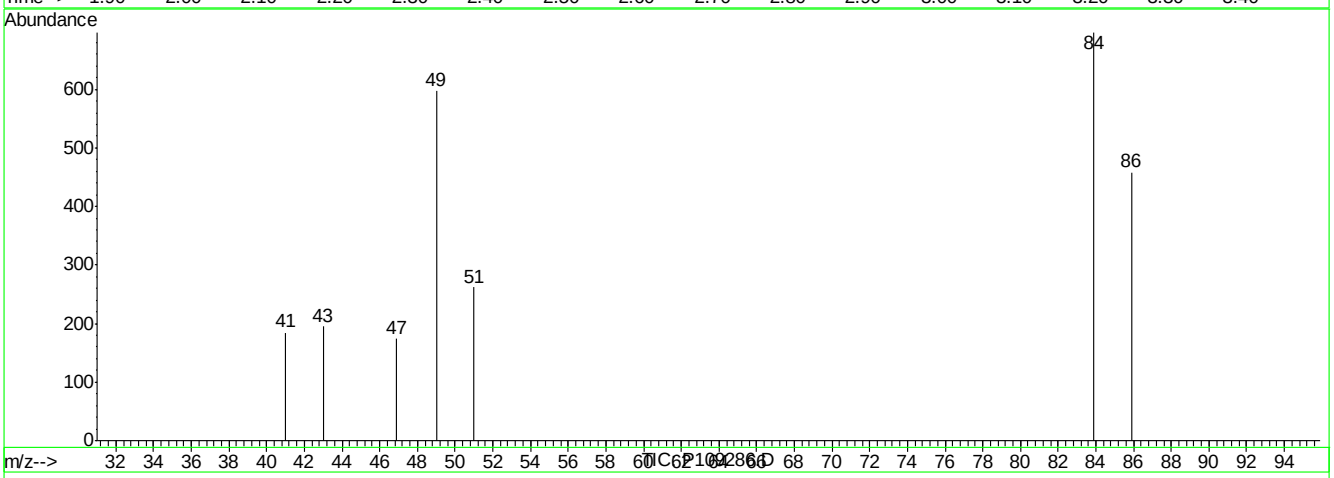
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.85	198	440.90	1791				
322.95	388	441.95	11865				
333.90	325	442.95	2217				
345.90	50	443.95	240				
351.90	61						
353.85	119						
364.90	574						
371.95	234						
402.90	122						
422.90	612						
423.90	62						

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4851\P109286.D Vial: 1
Acq On : 28 Nov 2016 3:57 pm Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 28 16:03 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

2.25min 0.00ppb

response 0

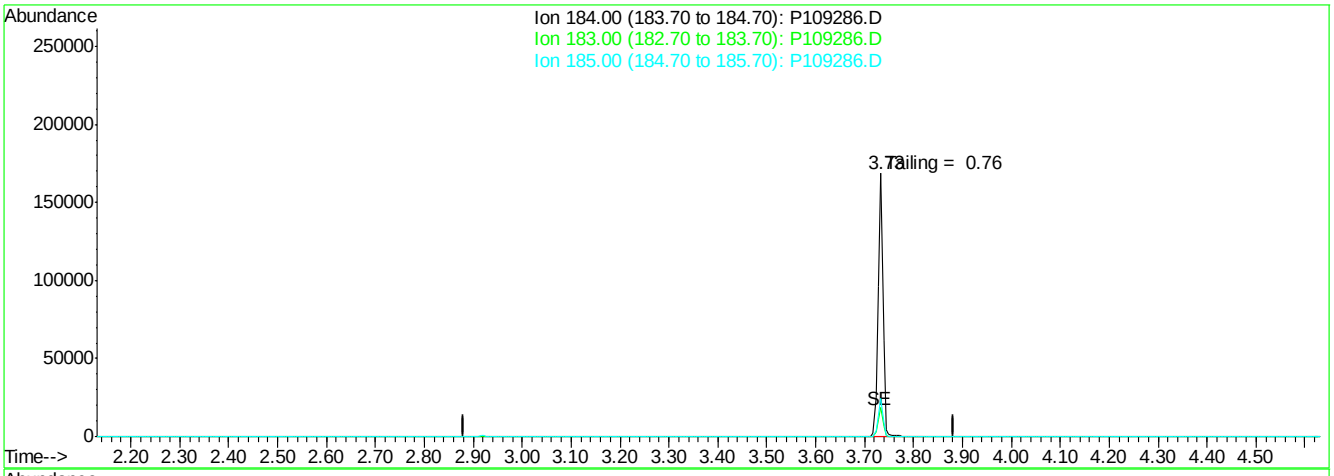
Ion	Exp%	Act%
265.80	100	0.00
263.80	67.60	0.00#
267.80	69.90	0.00#
0.00	0.00	0.00

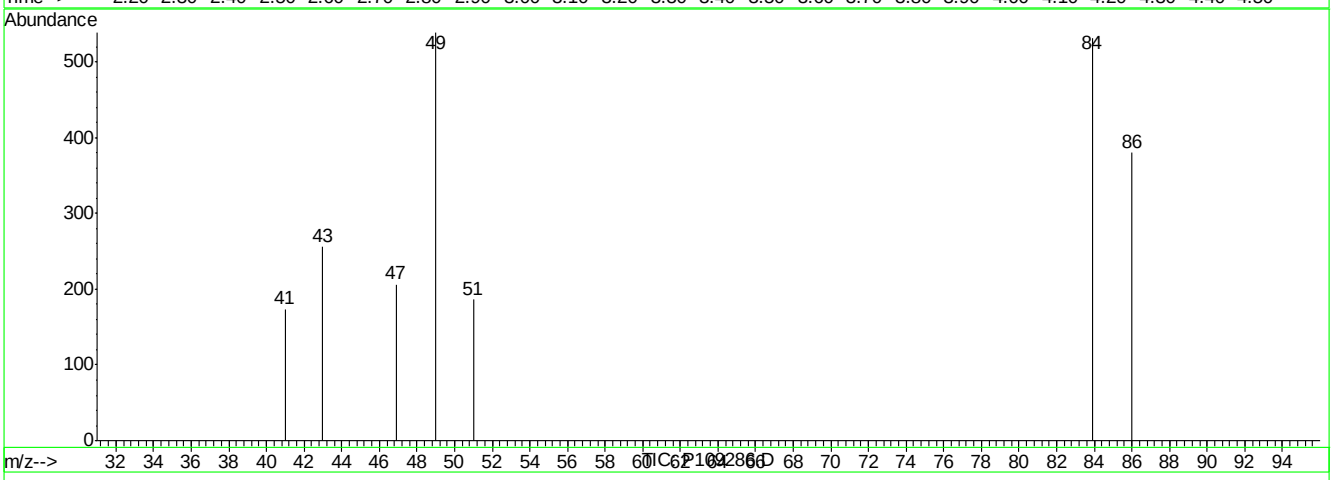
P109286.D DFTPPP.M Mon Nov 28 16:16:34 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4851\P109286.D Vial: 1
Acq On : 28 Nov 2016 3:57 pm Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 28 16:03 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(2) Benzidine (t)

3.38min 0.00ppb

response 0

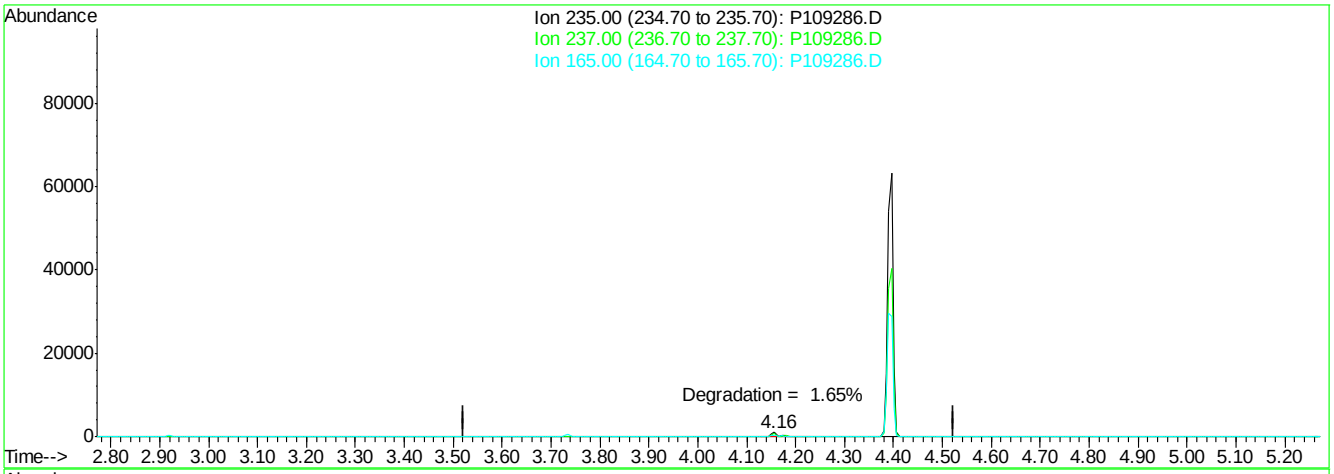
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.20	0.00
185.00	13.60	0.00
0.00	0.00	0.00

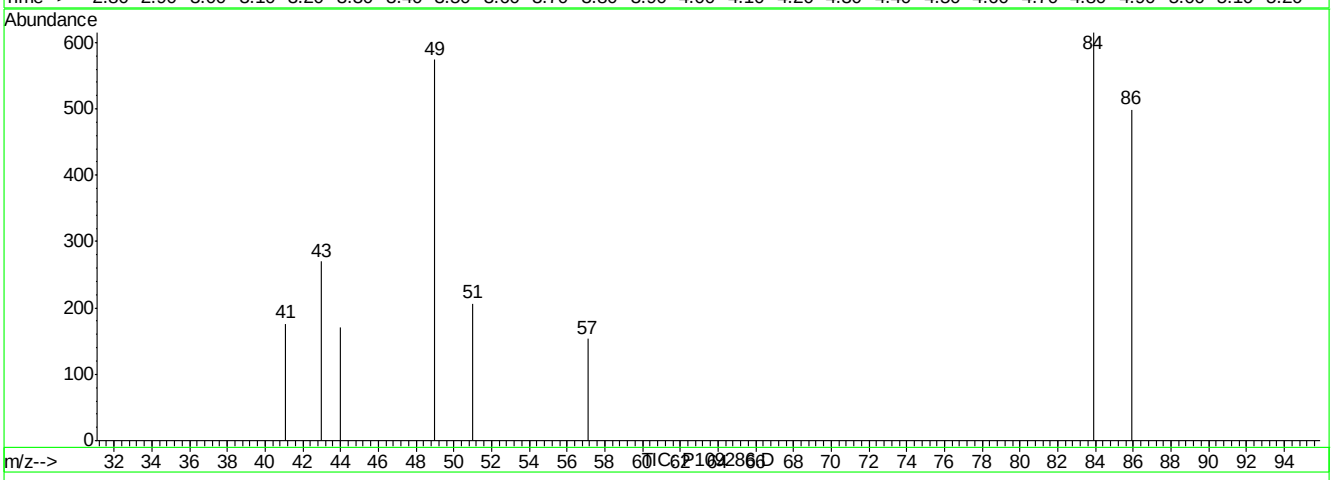
P109286.D DFTPPP.M Mon Nov 28 16:16:38 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4851\P109286.D Vial: 1
Acq On : 28 Nov 2016 3:57 pm Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 28 16:03 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(3) ddt

4.02min 0.00ppb

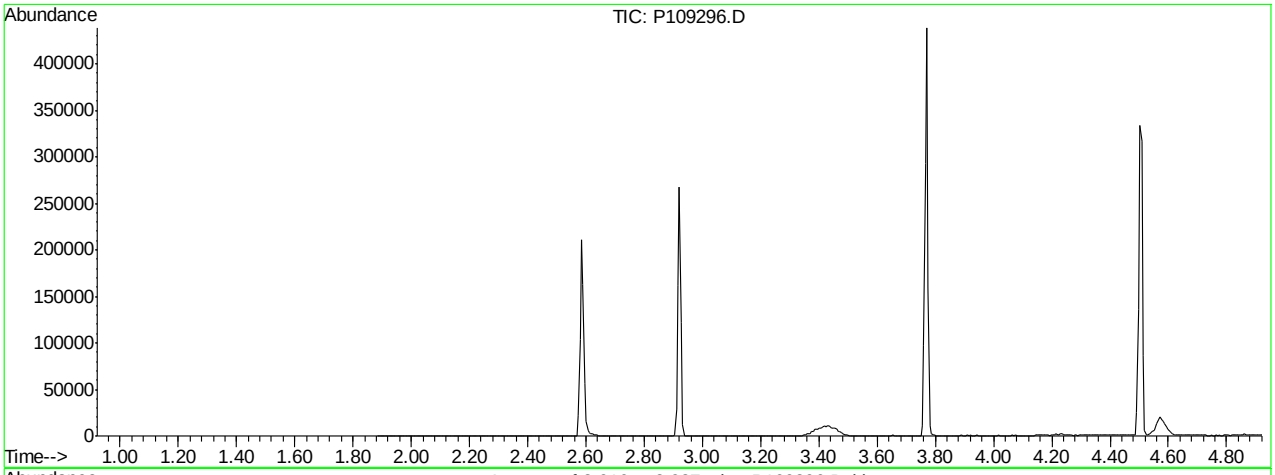
response 0

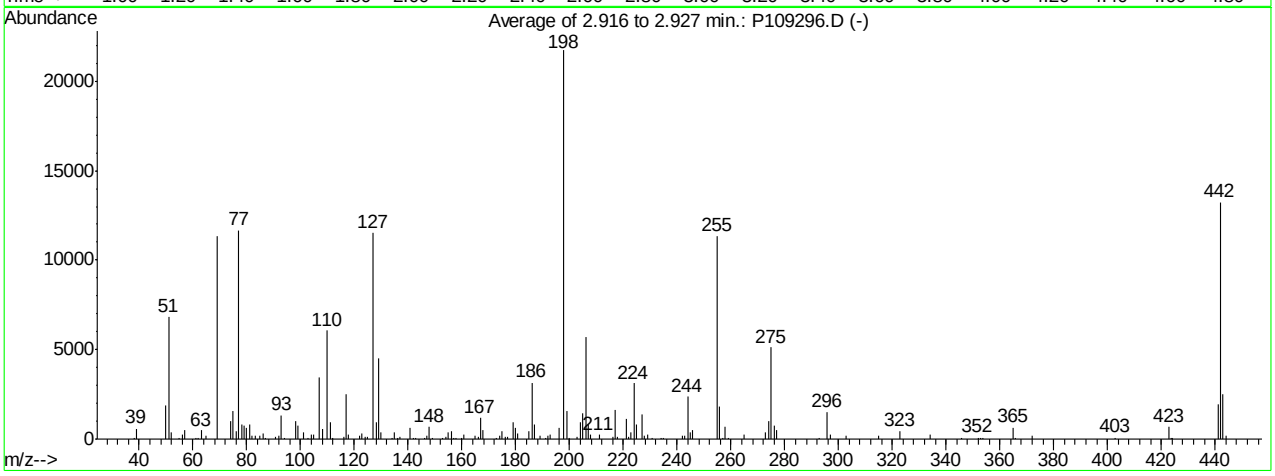
Ion	Exp%	Act%
235.00	100	0.00
237.00	55.80	0.00#
165.00	51.00	0.00#
0.00	0.00	0.00

P109286.D DFTPPP.M Mon Nov 28 16:16:43 2016

DFTPP

Data File : C:\MSDChem\1\DATA\ep4852\P109296.D Vial: 1
Acq On : 29 Nov 2016 9:36 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4852 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 194, 195, 196; Background Corrected with Scan 189

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.4	6809	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.2	11333	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.1	11522	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	21716	PASS
199	198	5	9	7.3	1578	PASS
275	198	10	30	23.6	5134	PASS
365	198	1	100	2.9	628	PASS
441	443	0.10	100	78.8	1975	PASS
442	198	40	100	61.0	13237	PASS
443	442	17	23	18.9	2507	PASS

P109296.D DFTPPP.M Tue Nov 29 09:44:21 2016

Average of 2.916 to 2.927 min.: P109296.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	70	65.00	192	83.00	170	102.90	80
39.00	585	69.00	11333	84.95	202	103.90	225
50.00	1883	74.00	1018	85.95	291	104.90	274
51.00	6809	75.00	1570	87.00	56	107.00	3427
52.00	396	76.00	448	90.90	151	108.00	583
55.00	59	77.00	11675	92.00	200	109.95	6075
55.90	235	78.00	842	92.95	1344	110.95	943
57.00	472	79.00	749	94.00	53	111.90	58
61.00	57	80.00	635	98.00	1027	115.95	143
62.00	84	81.00	832	98.95	748	117.00	2507
63.00	481	81.95	169	101.00	387	117.95	245

Average of 2.916 to 2.927 min.: P109296.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
121.95	170	136.95	135	155.95	443	174.95	438
122.95	330	140.90	601	156.90	51	175.95	125
123.95	137	141.90	95	157.80	52	176.90	116
124.95	114	142.90	60	159.90	76	178.90	920
127.00	11522	146.00	50	160.90	269	179.90	605
128.00	922	146.90	219	164.80	195	180.90	289
128.95	4523	147.90	670	165.95	142	184.95	455
129.90	387	149.00	52	166.95	1183	185.95	3150
133.90	68	152.90	81	167.90	528	186.95	816
134.90	396	153.90	114	172.90	75	188.90	194
136.00	56	154.95	364	173.90	161	191.10	54

Average of 2.916 to 2.927 min.: P109296.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
191.90	220	207.90	241	227.90	206	255.90	1804
192.95	236	210.95	241	228.90	281	256.90	58
195.95	629	216.00	145	230.90	74	257.90	717
197.90	21716	216.90	1605	233.90	62	258.90	80
198.90	1578	217.90	110	234.90	70	264.85	275
199.90	76	220.95	1118	241.95	163	272.90	380
202.90	132	221.90	154	242.90	174	273.90	992
203.90	935	222.90	385	244.00	2363	274.95	5134
205.00	1464	224.00	3121	244.90	361	275.95	724
206.00	5724	224.90	823	245.90	502	276.90	500
207.00	807	226.90	1353	254.90	11351	292.90	58

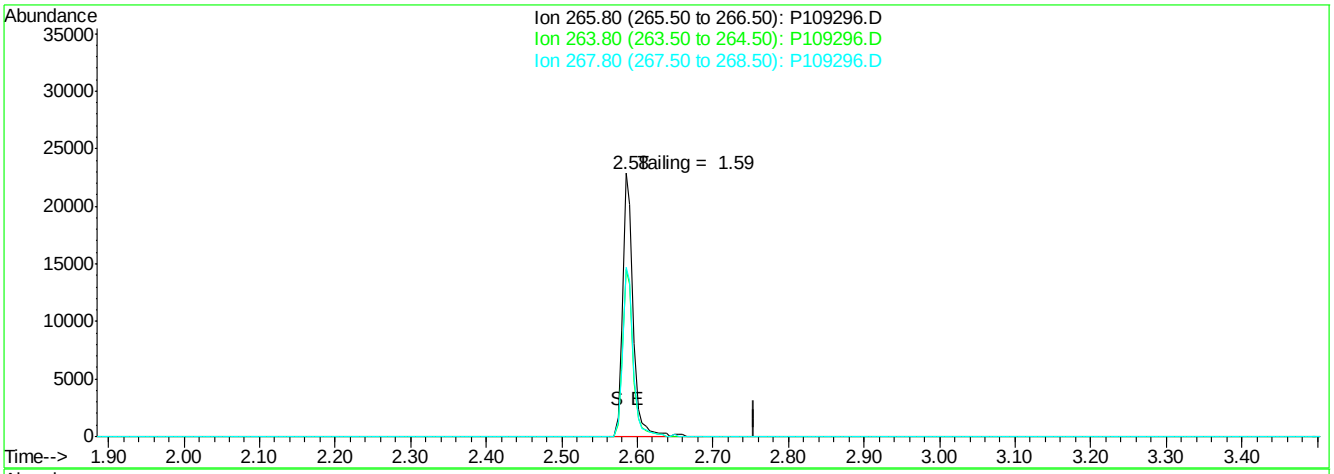
Average of 2.916 to 2.927 min.: P109296.D
dftpp
Modified:subtracted

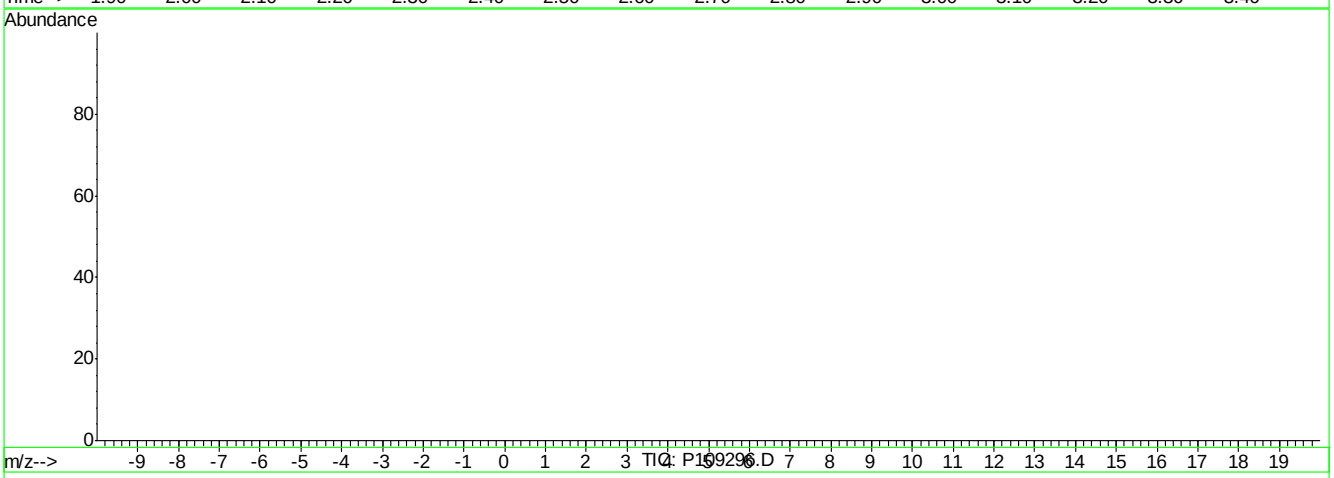
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
295.90	1533	365.90	50				
296.90	251	371.90	181				
302.90	180	402.90	86				
314.90	171	422.90	680				
322.95	447	423.80	50				
333.95	252	424.00	70				
345.90	58	440.95	1975				
351.90	88	441.95	13237				
353.00	70	442.95	2507				
353.80	50	443.90	211				
364.90	628						

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4852\P109296.D Vial: 1
Acq On : 29 Nov 2016 9:36 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 9:42 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

2.25min 0.00ppb

response 0

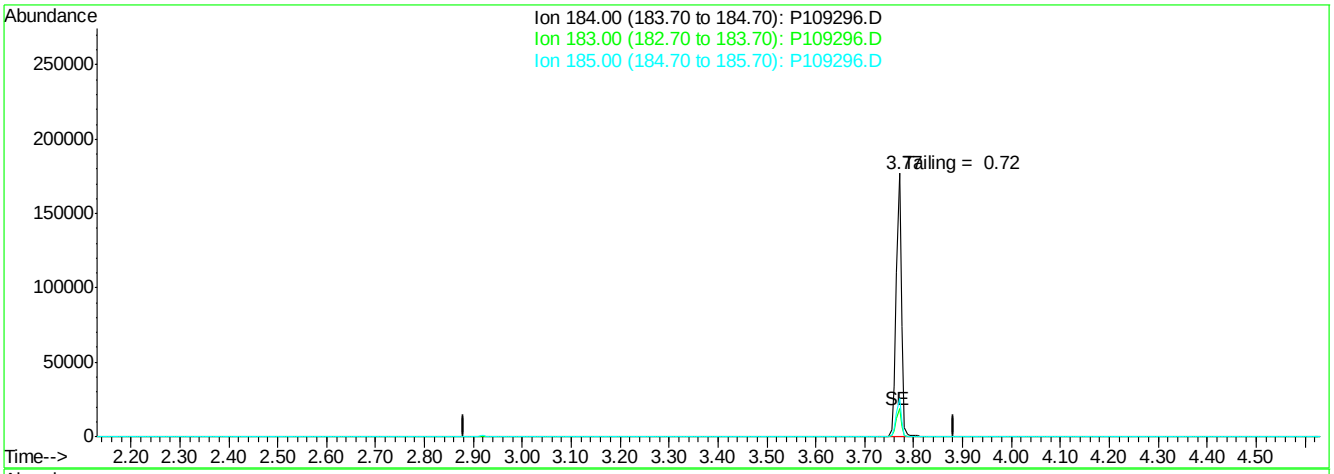
Ion	Exp%	Act%
265.80	100	0.00
263.80	67.60	0.00#
267.80	69.90	0.00#
0.00	0.00	0.00

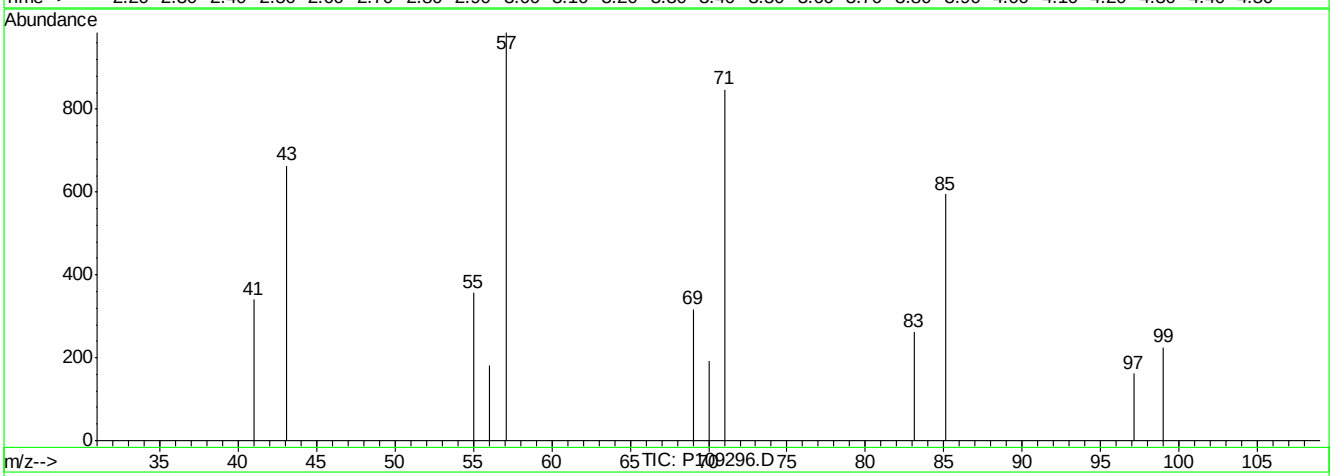
P109296.D DFTPPP.M Tue Nov 29 09:44:05 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4852\P109296.D Vial: 1
Acq On : 29 Nov 2016 9:36 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 9:42 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(2) Benzidine (t)

3.38min 0.00ppb

response 0

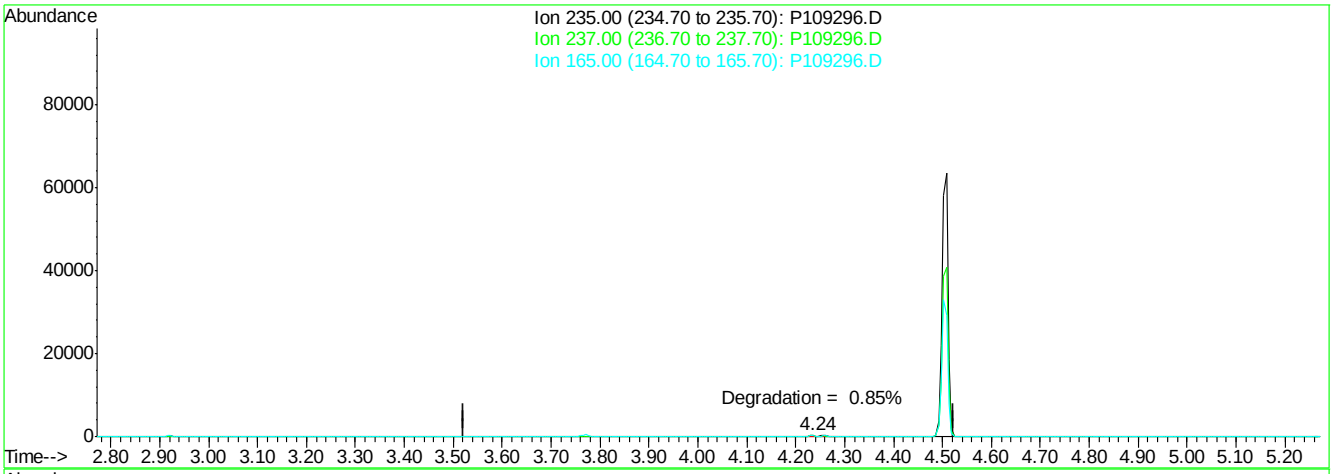
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.20	0.00
185.00	13.60	0.00
0.00	0.00	0.00

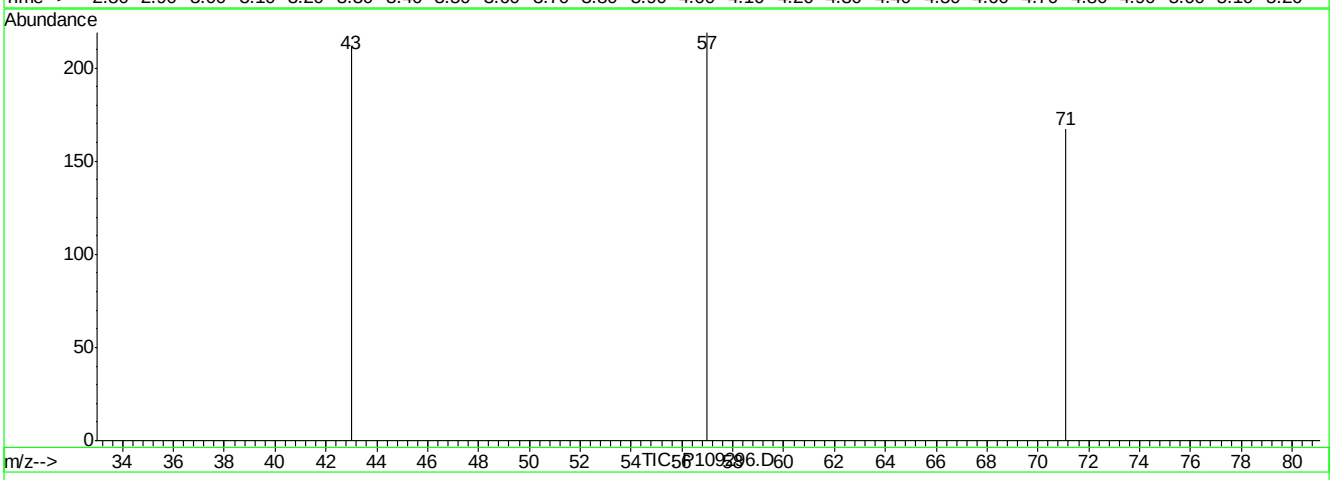
P109296.D DFTPPP.M Tue Nov 29 09:44:09 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4852\P109296.D Vial: 1
Acq On : 29 Nov 2016 9:36 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 9:42 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(3) ddt

4.02min 0.00ppb

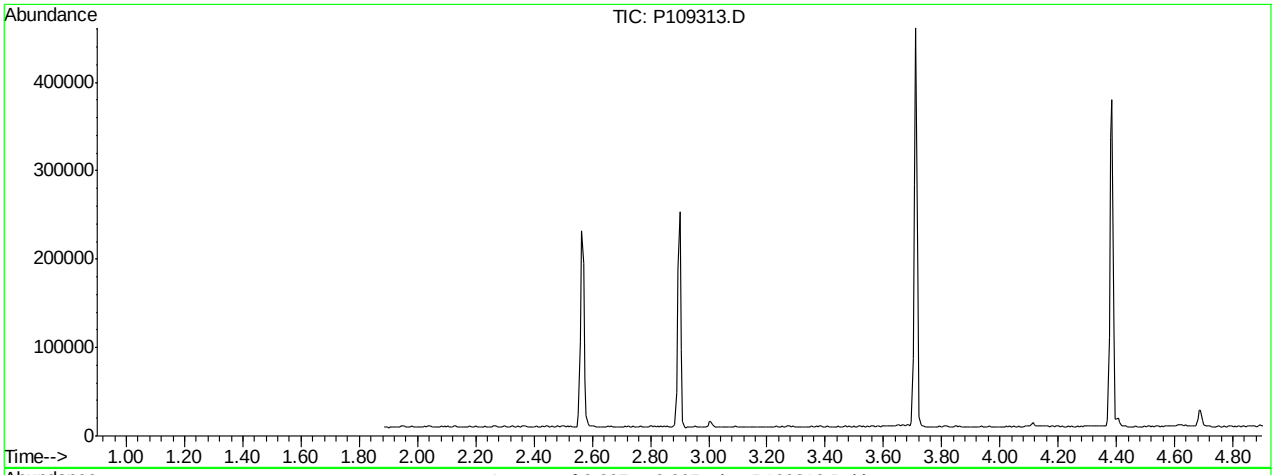
response 0

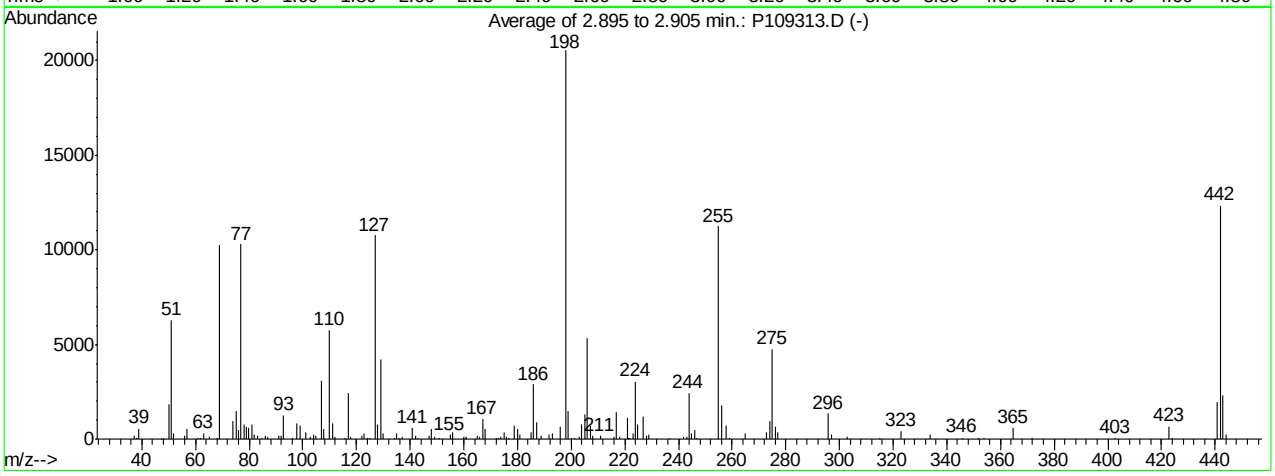
Ion	Exp%	Act%
235.00	100	0.00
237.00	55.80	0.00#
165.00	51.00	0.00#
0.00	0.00	0.00

P109296.D DFTPPP.M Tue Nov 29 09:44:16 2016

DFTPP

Data File : C:\MSDChem\1\DATA\ep4853\P109313.D Vial: 1
Acq On : 29 Nov 2016 8:21 pm Operator: juliusj
Sample : dftpp Inst : MSP
Misc : OP98670,EP4853 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 190, 191, 192; Background Corrected with Scan 185

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.6	6285	PASS
68	69	0.00	2	0.9	90	PASS
69	198	0.00	100	49.8	10235	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	52.4	10766	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	20540	PASS
199	198	5	9	7.2	1475	PASS
275	198	10	30	23.1	4753	PASS
365	198	1	100	2.8	578	PASS
441	443	0.10	100	83.9	1929	PASS
442	198	40	100	60.0	12328	PASS
443	442	17	23	18.6	2299	PASS

P109313.D DFTPPP.M Wed Nov 30 09:22:37 2016

Average of 2.895 to 2.905 min.: P109313.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	203	62.00	62	79.95	592	97.90	836
38.00	60	63.00	318	80.95	788	98.90	726
39.00	541	65.00	138	81.95	216	100.90	339
47.00	29	68.00	90	82.95	197	102.90	107
47.90	4	69.00	10235	84.90	73	103.90	256
50.00	1850	74.00	972	85.90	164	104.95	181
51.00	6285	75.00	1493	86.90	114	107.00	3098
52.00	300	76.00	478	90.95	175	107.95	546
56.00	205	77.00	10306	92.00	154	110.00	5748
57.00	545	78.00	780	92.90	1269	111.00	860
60.90	55	79.00	681	96.00	55	111.90	114

Average of 2.895 to 2.905 min.: P109313.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.90	73	134.00	58	154.90	220	173.95	149
116.90	2409	134.90	293	155.95	372	175.00	378
117.90	133	135.90	54	159.95	124	175.95	126
121.90	169	136.95	124	160.80	80	176.90	87
122.95	273	140.90	575	161.00	108	178.90	727
124.00	58	141.90	166	164.90	197	179.95	561
124.90	68	143.00	70	165.90	149	180.90	251
127.00	10766	146.90	197	166.90	1060	184.90	381
128.00	795	147.90	548	167.95	549	186.00	2897
128.90	4236	148.95	132	171.90	54	186.95	861
129.95	296	151.00	52	173.00	66	188.90	170

Average of 2.895 to 2.905 min.: P109313.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
191.90	212	207.00	715	224.90	778	254.90	11232
192.95	276	207.90	168	226.90	1205	255.90	1783
195.95	658	210.95	176	227.90	177	257.90	693
197.90	20540	215.85	134	228.90	254	258.90	55
198.90	1475	216.90	1403	237.00	51	264.90	303
200.00	52	217.95	123	241.95	128	272.90	347
201.40	63	220.90	1098	242.95	144	273.90	979
202.95	126	221.60	60	243.95	2439	274.95	4753
203.90	797	221.90	80	245.00	314	276.00	652
205.00	1298	222.90	315	245.90	479	276.85	358
206.00	5338	224.00	3050	246.90	60	295.90	1362

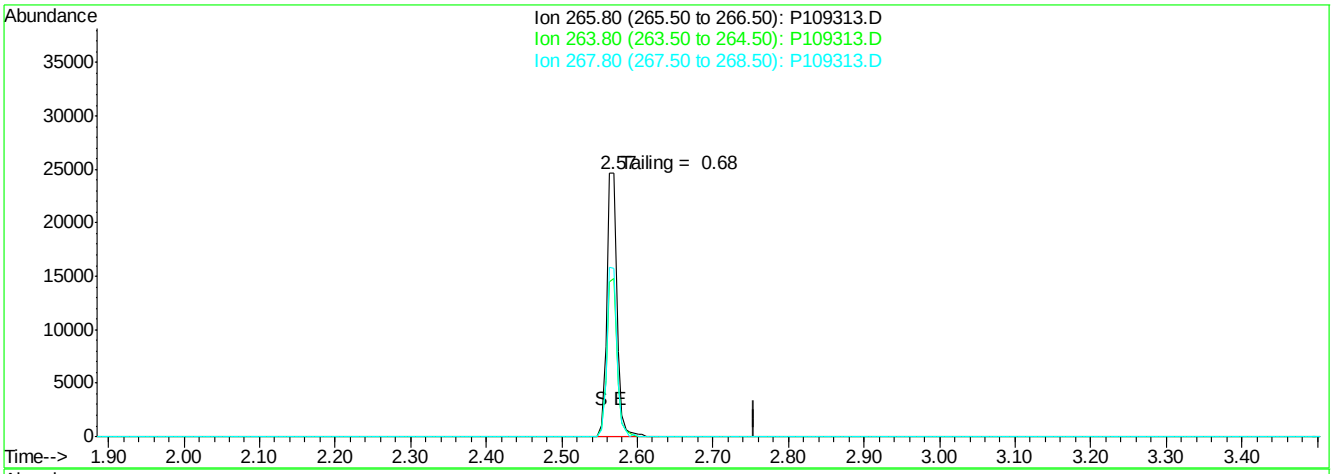
Average of 2.895 to 2.905 min.: P109313.D
dftpp
Modified:subtracted

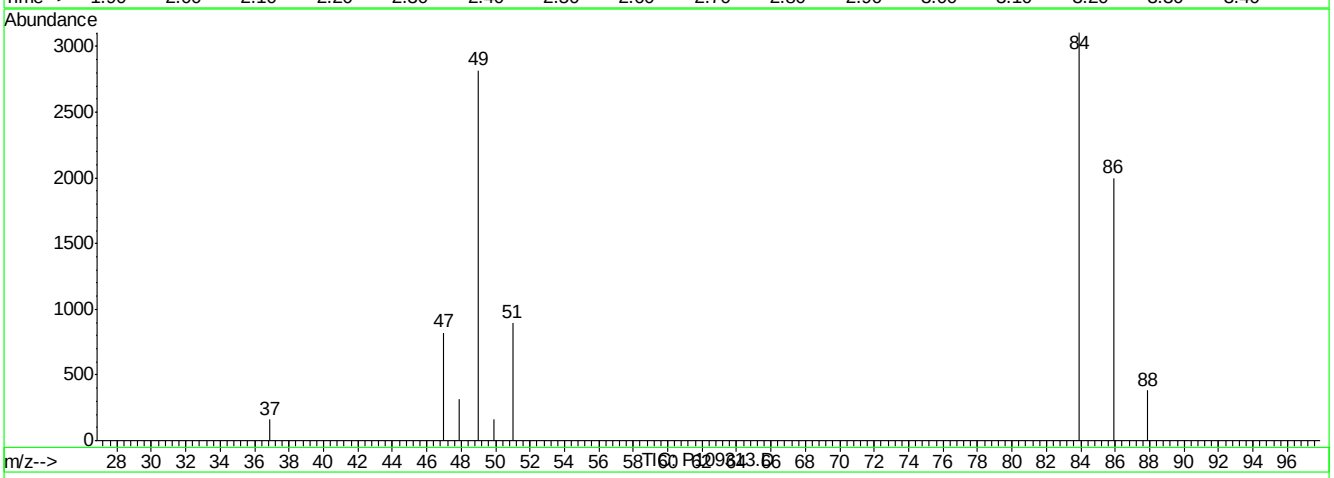
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.90	230	422.90	666				
303.00	109	423.90	67				
314.90	76	440.90	1929				
322.95	441	441.95	12328				
333.90	264	442.90	2299				
345.90	80	443.90	216				
351.90	74						
353.90	67						
364.90	578						
372.00	70						
402.90	50						

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4853\P109313.D Vial: 1
Acq On : 29 Nov 2016 8:21 pm Operator: juliusj
Sample : dftpp Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 20:27 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

2.25min 0.00ppb

response 0

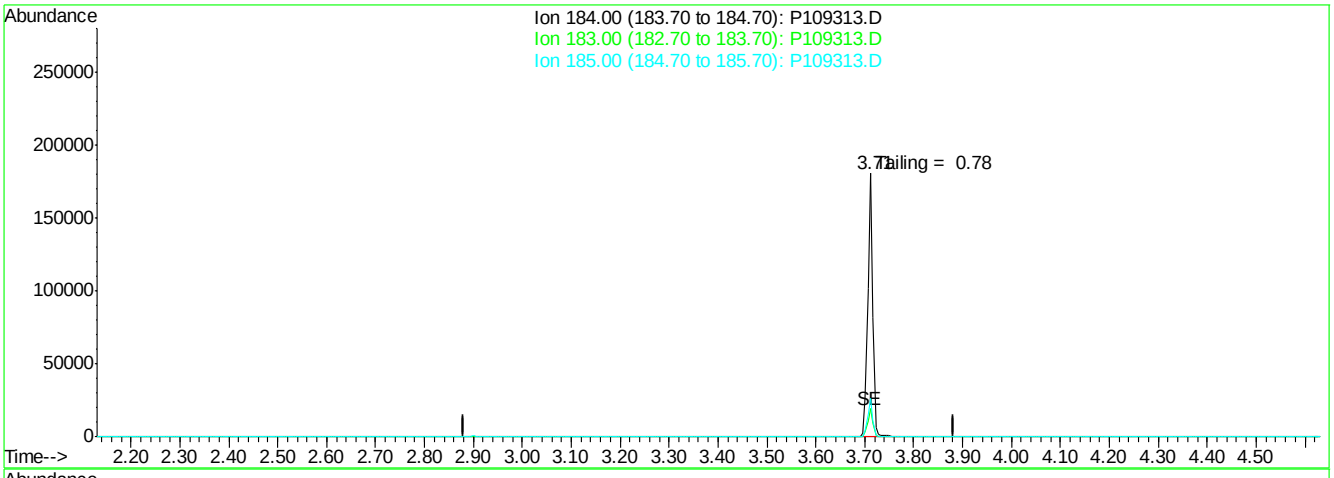
Ion	Exp%	Act%
265.80	100	0.00
263.80	67.60	0.00#
267.80	69.90	0.00#
0.00	0.00	0.00

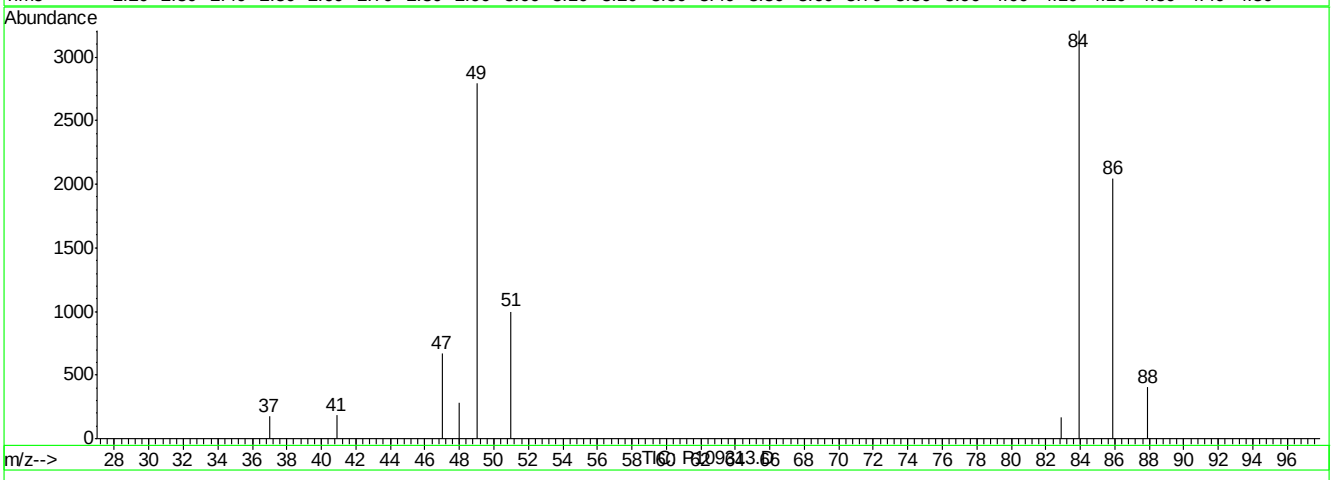
P109313.D DFTPPP.M Wed Nov 30 09:22:44 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4853\P109313.D Vial: 1
Acq On : 29 Nov 2016 8:21 pm Operator: juliusj
Sample : dftpp Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 20:27 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(2) Benzidine (t)

3.38min 0.00ppb

response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.20	0.00
185.00	13.60	0.00
0.00	0.00	0.00

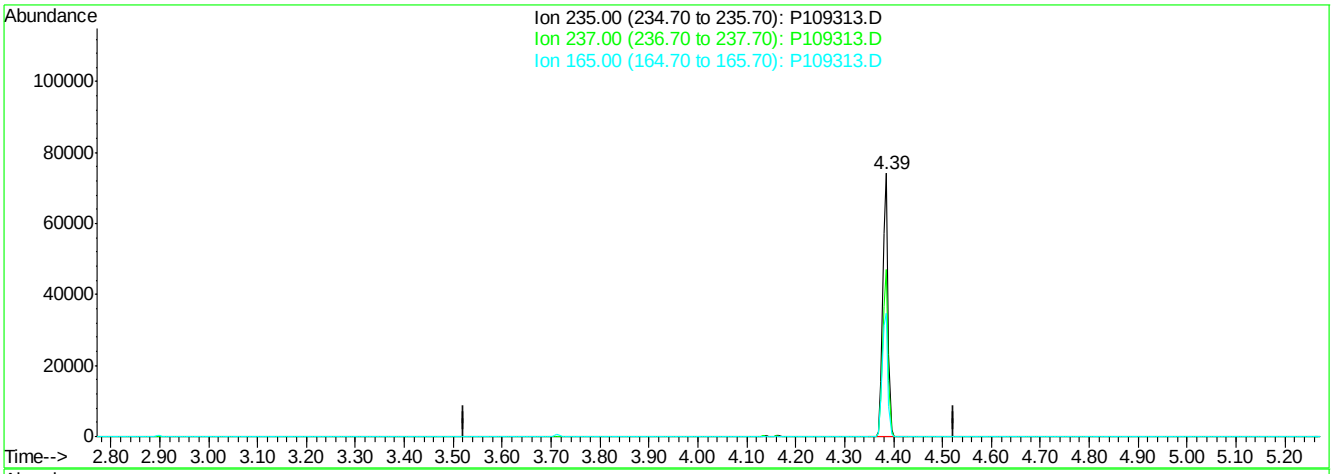
P109313.D DFTPPP.M Wed Nov 30 09:22:48 2016

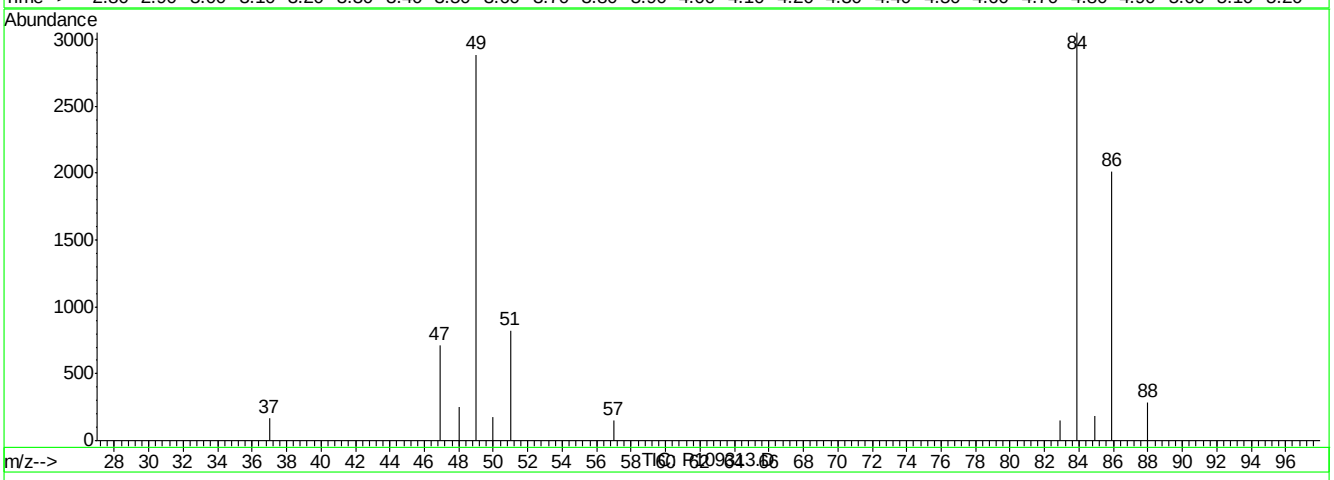
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4853\P109313.D Vial: 1
Acq On : 29 Nov 2016 8:21 pm Operator: juliusj
Sample : dftpp Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 20:27 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(3) ddt

4.02min 0.00ppb

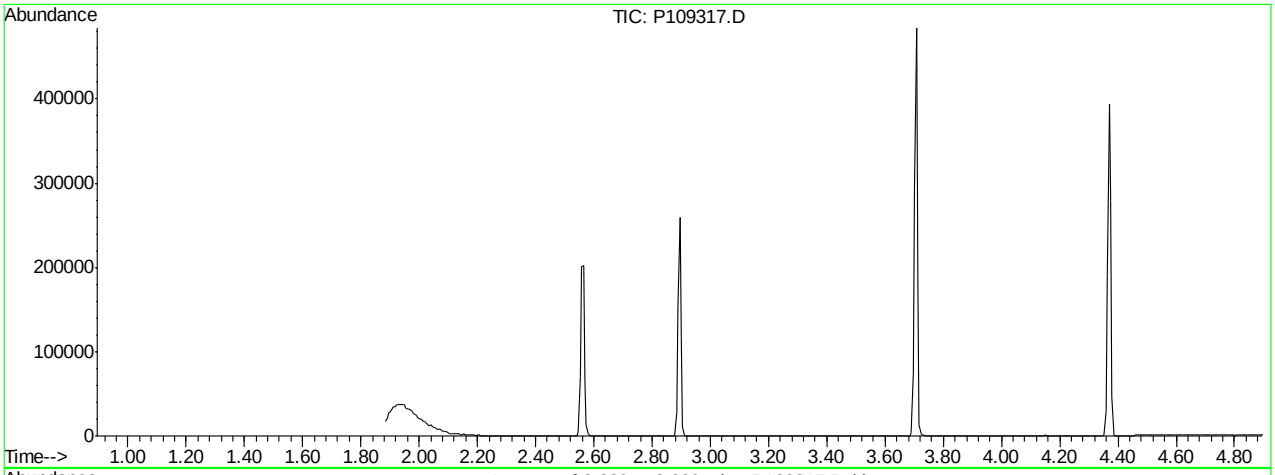
response 0

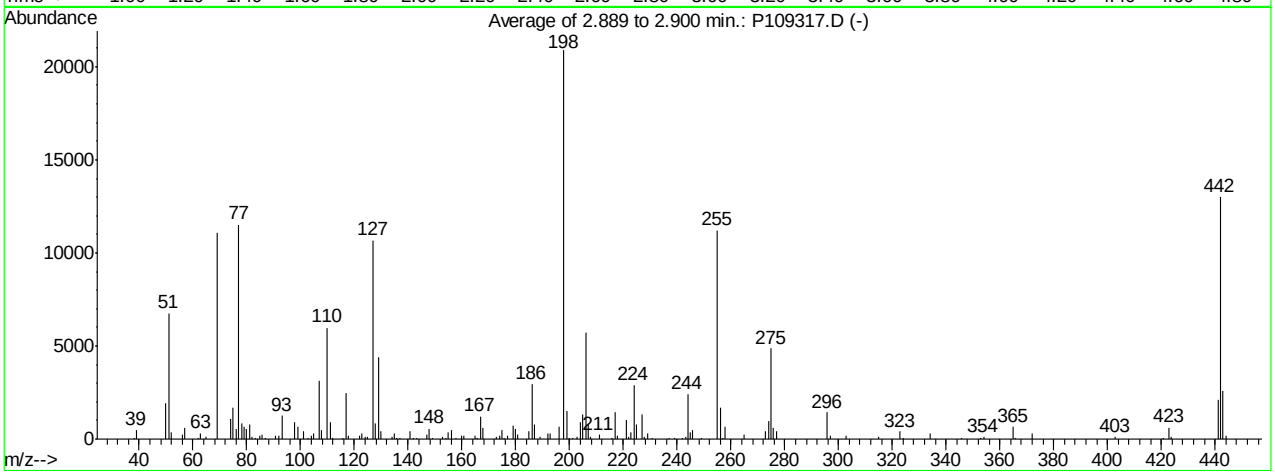
Ion	Exp%	Act%
235.00	100	0.00
237.00	55.80	0.00#
165.00	51.00	0.00#
0.00	0.00	0.00

P109313.D DFTPPP.M Wed Nov 30 09:22:52 2016

DFTPP

Data File : C:\MSDChem\1\DATA\ep4854\P109317.D Vial: 1
Acq On : 30 Nov 2016 9:22 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4854 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 189, 190, 191; Background Corrected with Scan 184

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.4	6759	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	53.1	11087	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	51.1	10662	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	20874	PASS
199	198	5	9	7.3	1522	PASS
275	198	10	30	23.2	4853	PASS
365	198	1	100	3.1	657	PASS
441	443	0.10	100	82.9	2139	PASS
442	198	40	100	62.3	13000	PASS
443	442	17	23	19.8	2579	PASS

P109317.D DFTPPP.M Wed Nov 30 09:40:01 2016

Average of 2.889 to 2.900 min.: P109317.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	72	74.00	1077	85.90	235	106.95	3144
39.00	483	75.00	1661	87.00	63	107.95	480
50.00	1918	76.05	539	90.90	161	110.00	5980
51.00	6759	77.00	11526	91.90	160	110.95	934
52.00	368	78.00	847	93.00	1257	111.90	75
56.00	228	79.00	646	97.90	916	115.90	82
57.00	608	79.95	567	98.90	657	117.00	2468
61.90	63	80.95	759	101.00	407	117.95	168
62.95	324	81.95	135	102.90	89	121.90	165
64.95	149	83.00	85	103.90	201	122.95	323
69.00	11087	85.00	159	104.95	302	123.90	140

Average of 2.889 to 2.900 min.: P109317.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
124.95	144	143.00	67	164.90	206	180.90	230
127.00	10662	146.95	256	165.90	71	184.90	402
127.95	832	147.90	562	166.95	1205	186.00	2978
128.90	4382	149.00	50	167.90	587	187.00	770
129.90	422	152.90	152	172.85	125	188.90	142
133.95	114	153.90	59	173.95	189	191.90	295
134.90	314	154.95	337	174.95	461	192.95	294
135.90	69	155.95	473	175.90	71	195.95	693
136.90	91	157.90	56	176.90	170	197.90	20874
140.90	420	159.90	177	178.90	742	198.90	1522
141.90	69	160.90	163	179.90	528	199.90	61

Average of 2.889 to 2.900 min.: P109317.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.30	69	220.95	1026	241.90	68	272.90	406
202.90	123	221.90	108	243.10	114	273.90	992
203.95	919	222.90	347	244.00	2416	274.90	4853
204.95	1335	223.95	2897	244.95	349	275.90	621
206.00	5741	224.90	757	245.90	490	276.90	409
206.95	768	226.90	1300	249.00	50	295.90	1430
207.90	138	227.90	130	254.90	11217	296.90	175
210.95	235	228.85	303	255.95	1702	302.95	154
215.90	58	230.90	55	256.90	68	314.90	120
216.90	1462	237.00	50	257.90	642	322.95	413
217.90	153	238.90	67	264.90	255	323.90	55

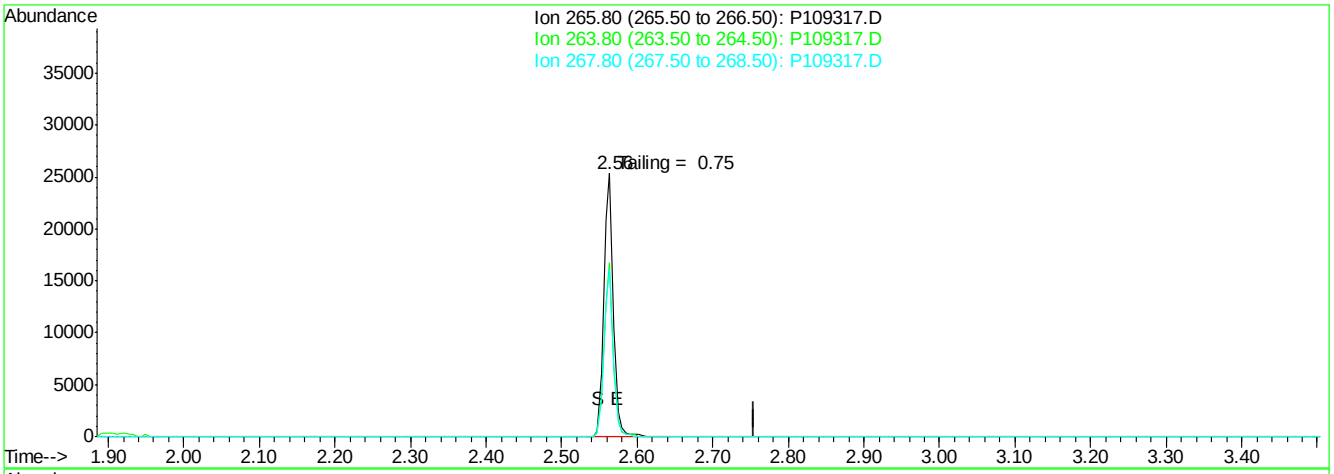
Average of 2.889 to 2.900 min.: P109317.D
dftpp
Modified:subtracted

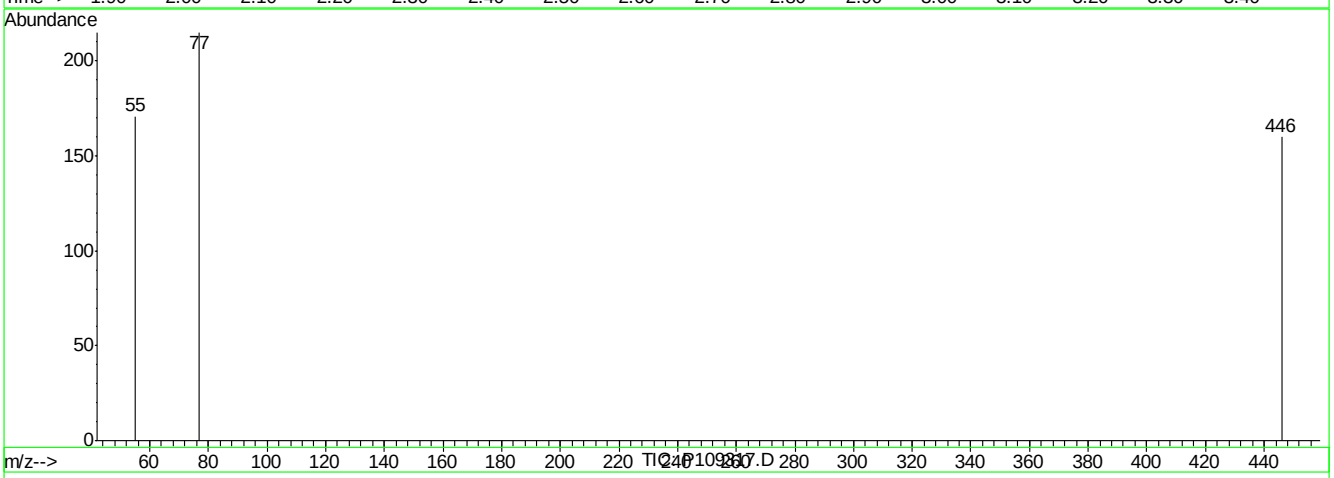
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.90	294	440.95	2139				
345.80	52	441.95	13000				
352.80	51	442.90	2579				
353.95	118	443.90	185				
364.90	657						
365.80	60						
371.95	273						
402.90	118						
420.90	54						
422.95	612						
423.80	131						

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4854\P109317.D Vial: 1
Acq On : 30 Nov 2016 9:22 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4854 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 9:28 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

2.25min 0.00ppb

response 0

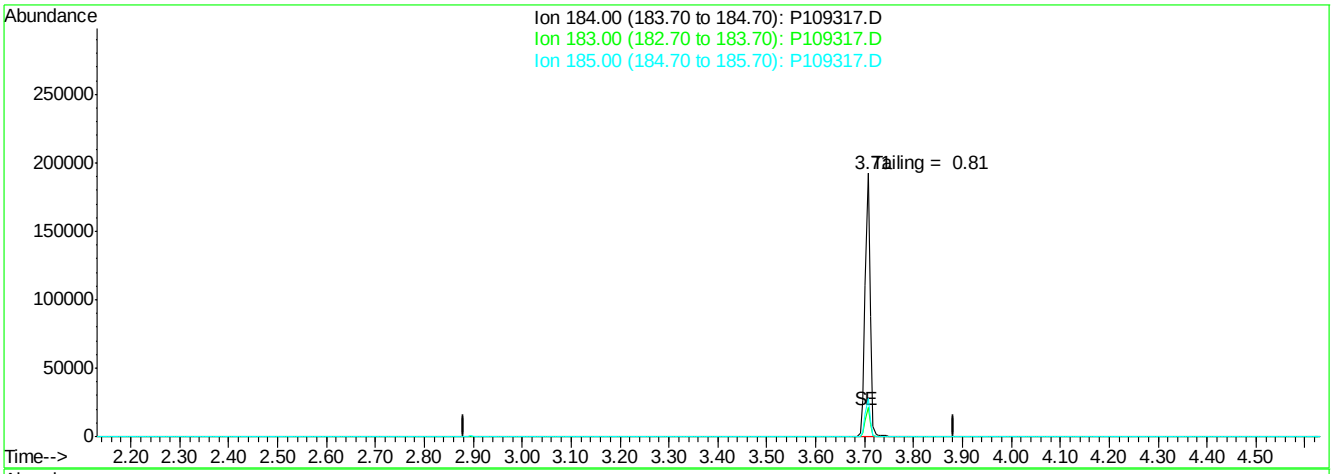
Ion	Exp%	Act%
265.80	100	0.00
263.80	67.60	0.00#
267.80	69.90	0.00#
0.00	0.00	0.00

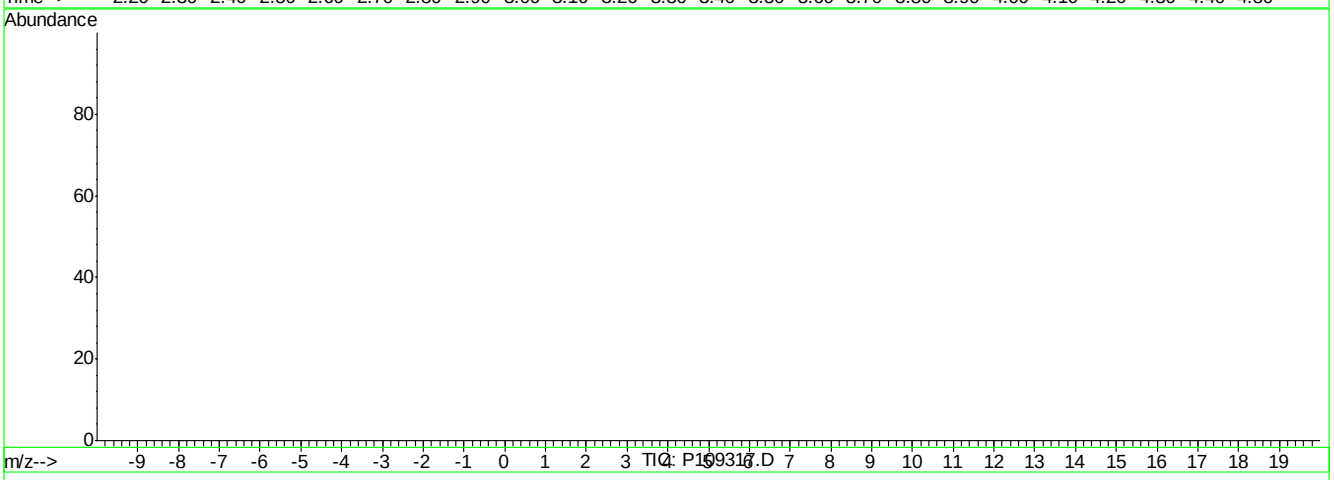
P109317.D DFTPPP.M Wed Nov 30 09:39:49 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4854\P109317.D Vial: 1
Acq On : 30 Nov 2016 9:22 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4854 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 9:28 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(2) Benzidine (t)

3.38min 0.00ppb

response 0

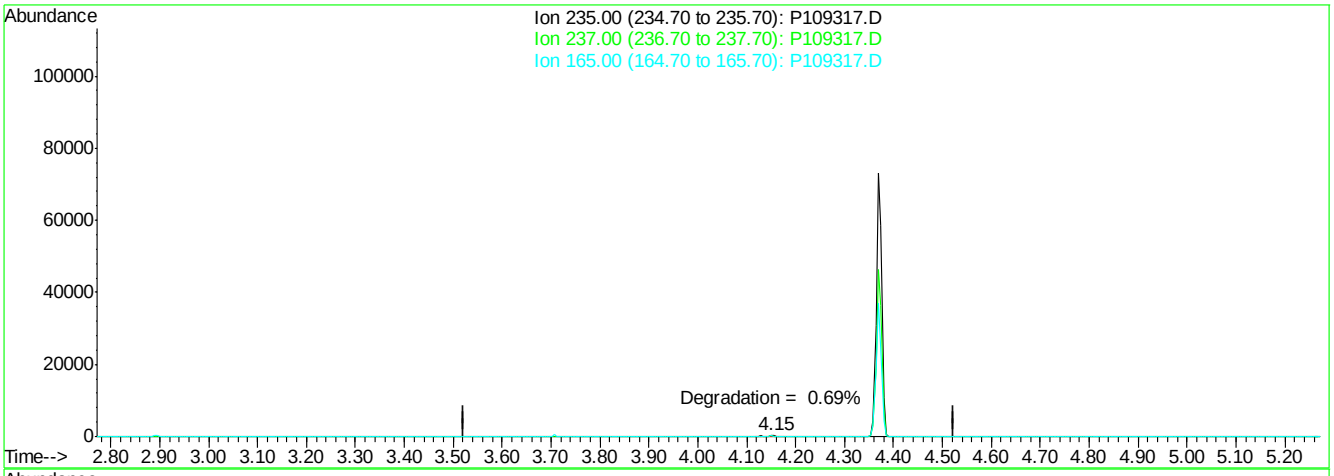
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.20	0.00
185.00	13.60	0.00
0.00	0.00	0.00

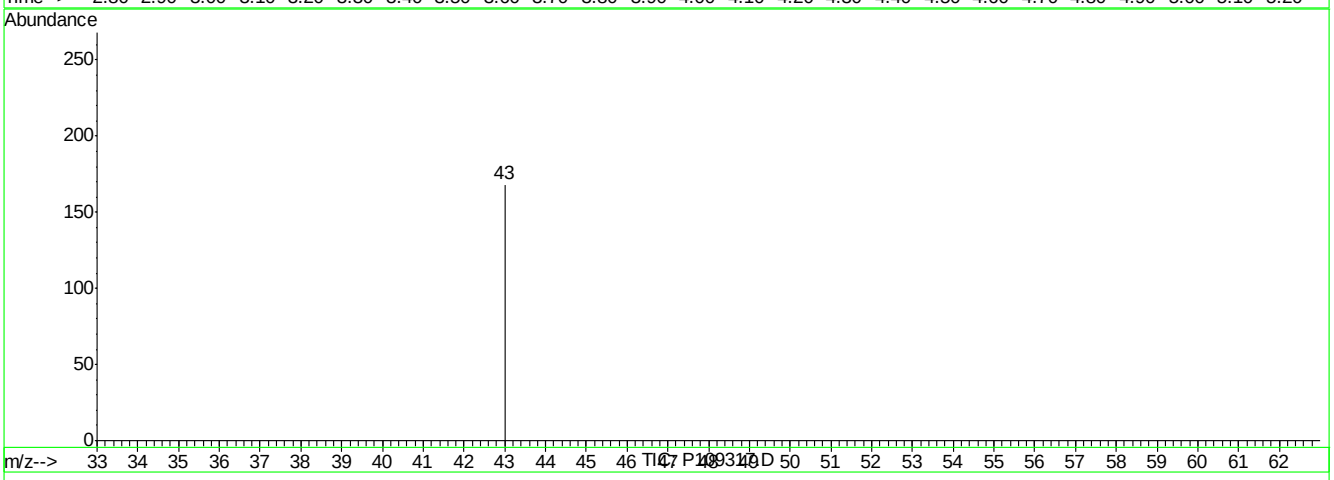
P109317.D DFTPPP.M Wed Nov 30 09:39:52 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4854\P109317.D Vial: 1
Acq On : 30 Nov 2016 9:22 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP98670,EP4854 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 9:28 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(3) ddt

4.02min 0.00ppb

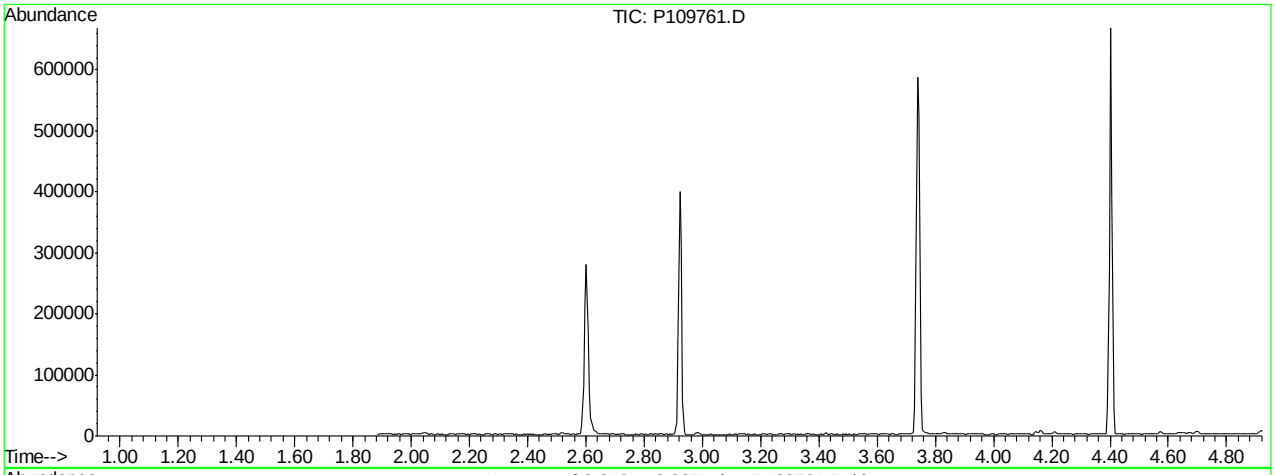
response 0

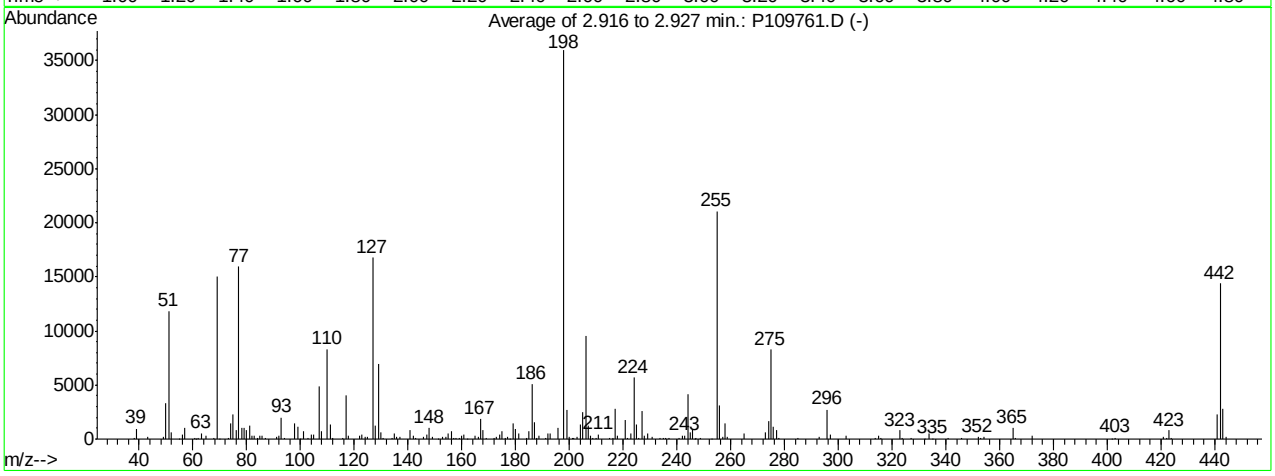
Ion	Exp%	Act%
235.00	100	0.00
237.00	55.80	0.00#
165.00	51.00	0.00#
0.00	0.00	0.00

P109317.D DFTPPP.M Wed Nov 30 09:39:57 2016

DFTPP

Data File : C:\MSDChem\1\DATA\ep4874\P109761.D Vial: 1
Acq On : 14 Dec 2016 9:59 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP99060,ep4874 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 194, 195, 196; Background Corrected with Scan 190

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.0	11868	PASS
68	69	0.00	2	0.5	73	PASS
69	198	0.00	100	41.8	15005	PASS
70	69	0.00	2	0.3	52	PASS
127	198	40	60	46.7	16772	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	35930	PASS
199	198	5	9	7.4	2653	PASS
275	198	10	30	22.9	8245	PASS
365	198	1	100	2.9	1025	PASS
441	443	0.10	100	84.2	2326	PASS
442	198	40	100	40.1	14396	PASS
443	442	17	23	19.2	2764	PASS

P109761.D DFTPPP.M Wed Dec 14 10:19:07 2016

Average of 2.916 to 2.927 min.: P109761.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	133	61.10	50	77.00	15951	91.00	197
39.00	944	62.00	154	78.00	1087	91.95	295
43.05	189	63.00	524	79.00	1034	92.90	2021
49.00	214	65.00	297	79.90	876	93.90	69
50.00	3307	67.90	73	80.95	1208	97.95	1455
50.95	11868	68.95	15005	81.90	343	98.90	1122
52.00	583	69.90	52	82.95	327	99.80	53
55.00	55	73.00	138	83.90	100	100.95	706
56.00	420	74.00	1492	84.95	312	102.95	142
57.00	1004	75.00	2297	85.90	274	103.90	400
60.90	72	76.00	802	87.00	66	104.90	394

Average of 2.916 to 2.927 min.: P109761.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
107.00	4846	124.95	238	141.95	294	156.95	121
107.90	732	126.95	16772	142.85	155	157.80	117
109.95	8332	127.90	1290	145.90	192	158.90	68
110.95	1324	128.90	6914	146.90	406	159.90	328
111.95	140	129.90	641	147.90	1037	160.90	419
115.90	134	130.90	106	148.90	232	161.80	50
116.90	4063	133.90	138	151.00	54	164.90	364
117.90	318	134.95	501	152.90	259	165.95	263
121.95	334	135.90	199	153.90	223	166.95	1865
122.95	467	136.90	257	154.90	503	167.95	883
123.90	253	140.90	810	155.95	705	168.90	145

Average of 2.916 to 2.927 min.: P109761.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.80	113	184.95	716	199.95	228	210.90	461
172.95	229	186.00	5127	201.30	113	214.90	111
173.95	402	186.95	1530	201.50	82	216.00	73
174.95	705	187.95	145	202.90	213	216.90	2815
175.95	159	188.85	292	203.90	1389	217.90	363
176.90	239	190.95	125	204.95	2476	220.90	1750
177.90	53	191.95	498	206.00	9508	221.70	83
178.90	1485	192.95	556	206.95	1290	222.95	545
179.90	910	195.90	1065	207.85	351	223.95	5675
180.95	494	197.90	35930	208.85	108	224.90	1336
183.90	131	198.90	2653	209.90	71	225.90	56

Average of 2.916 to 2.927 min.: P109761.D
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.90	2597	244.00	4160	258.85	201	296.90	423
227.95	268	244.95	584	264.85	490	302.90	307
228.90	483	245.90	956	272.90	671	313.80	60
230.95	179	246.70	50	273.90	1675	314.90	267
233.85	138	247.00	68	274.90	8245	315.90	132
234.90	134	248.85	119	275.95	1131	322.95	819
235.90	112	252.90	52	276.90	836	323.90	66
236.95	144	254.90	21063	277.90	143	326.90	117
240.85	132	255.90	3072	284.95	132	332.00	54
241.95	301	256.95	230	292.90	163	333.90	474
242.95	356	257.90	1414	295.90	2706	335.00	55

Average of 2.916 to 2.927 min.: P109761.D
dftpp
Modified:subtracted

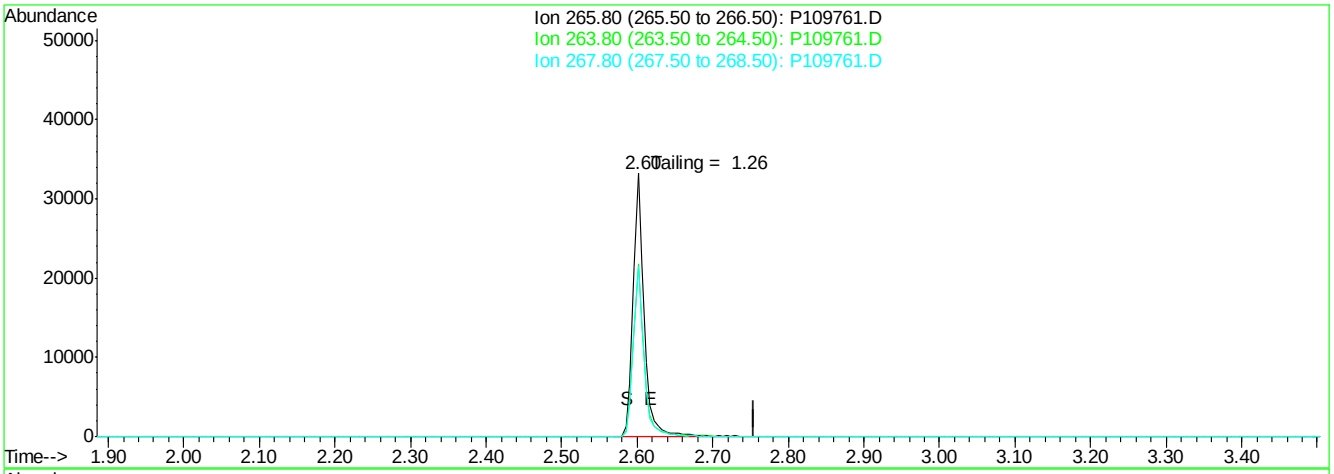
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
340.80	59	421.95	107				
345.90	66	422.95	818				
351.95	194	423.90	151				
352.90	56	440.95	2326				

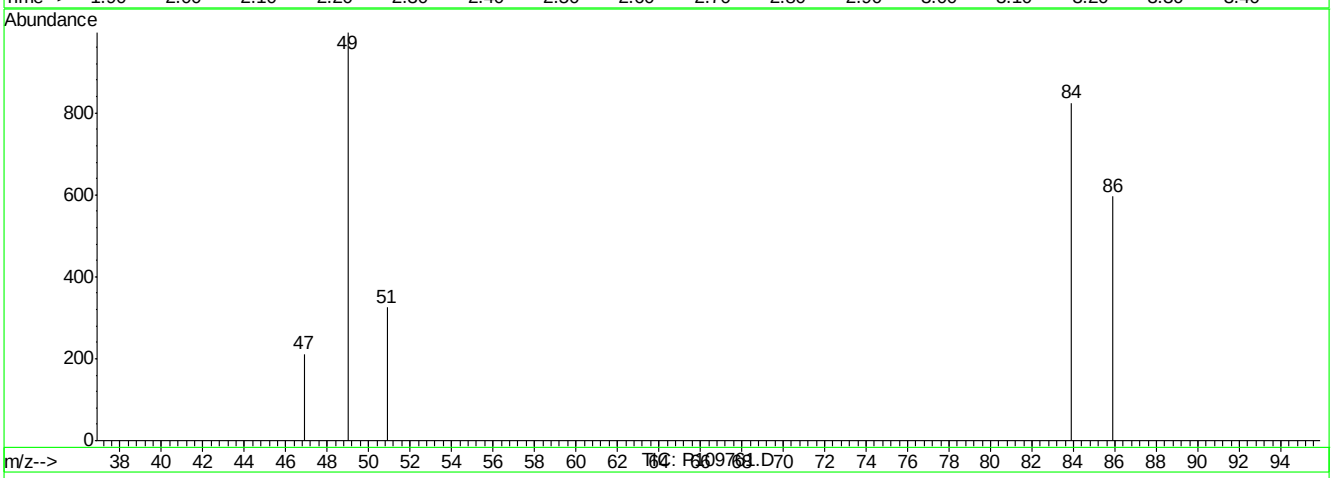
353.95	180	441.95	14396
364.90	1025	442.95	2764
365.80	132	444.00	233
371.90	315		
401.80	53		
402.90	111		
420.85	168		

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4874\P109761.D Vial: 1
Acq On : 14 Dec 2016 9:59 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 14 10:05 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(1) Pentachlorophenol (t)

2.25min 0.00ppb

response 0

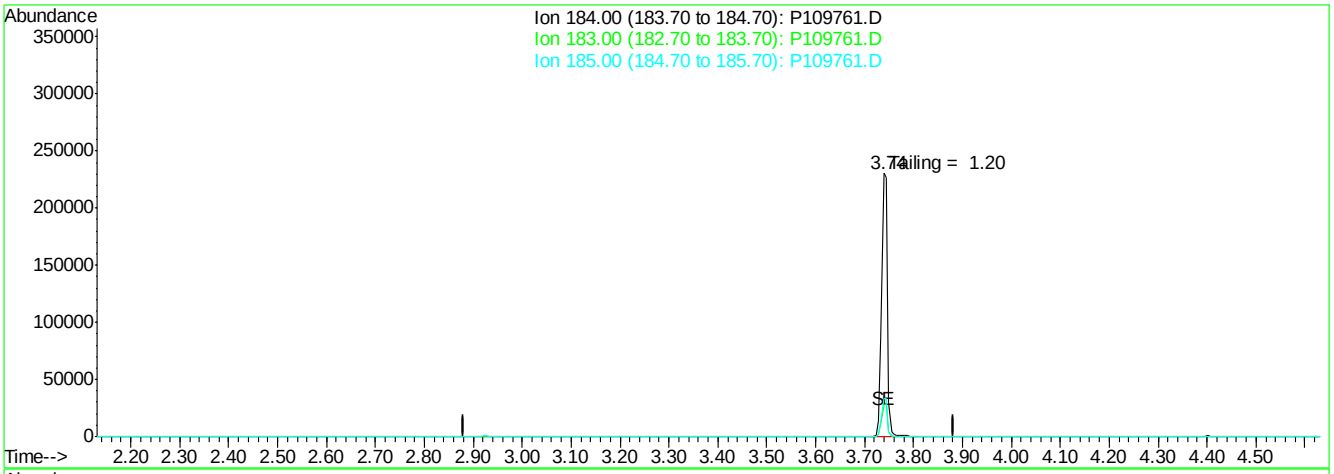
Ion	Exp%	Act%
265.80	100	0.00
263.80	67.60	0.00#
267.80	69.90	0.00#
0.00	0.00	0.00

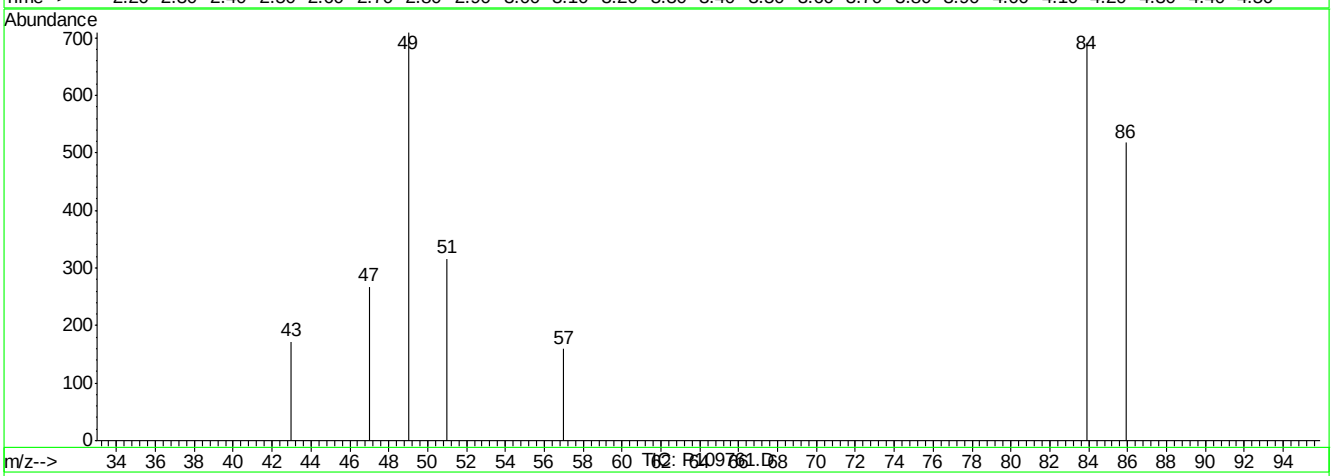
P109761.D DFTPPP.M Wed Dec 14 10:18:50 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4874\P109761.D Vial: 1
Acq On : 14 Dec 2016 9:59 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 14 10:05 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(2) Benzidine (t)

3.38min 0.00ppb

response 0

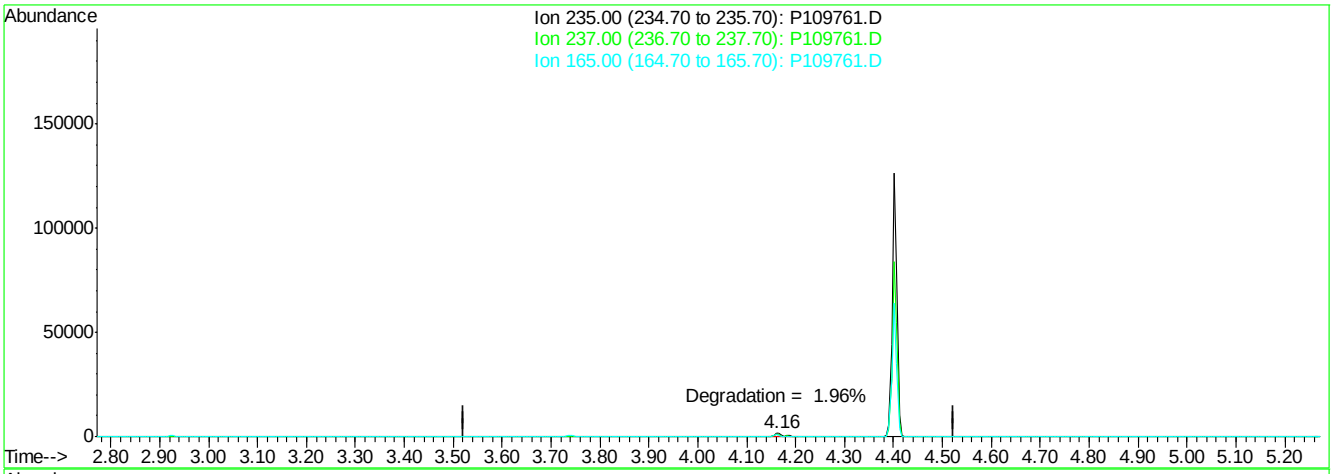
Ion	Exp%	Act%
184.00	100	0.00
183.00	10.20	0.00
185.00	13.60	0.00
0.00	0.00	0.00

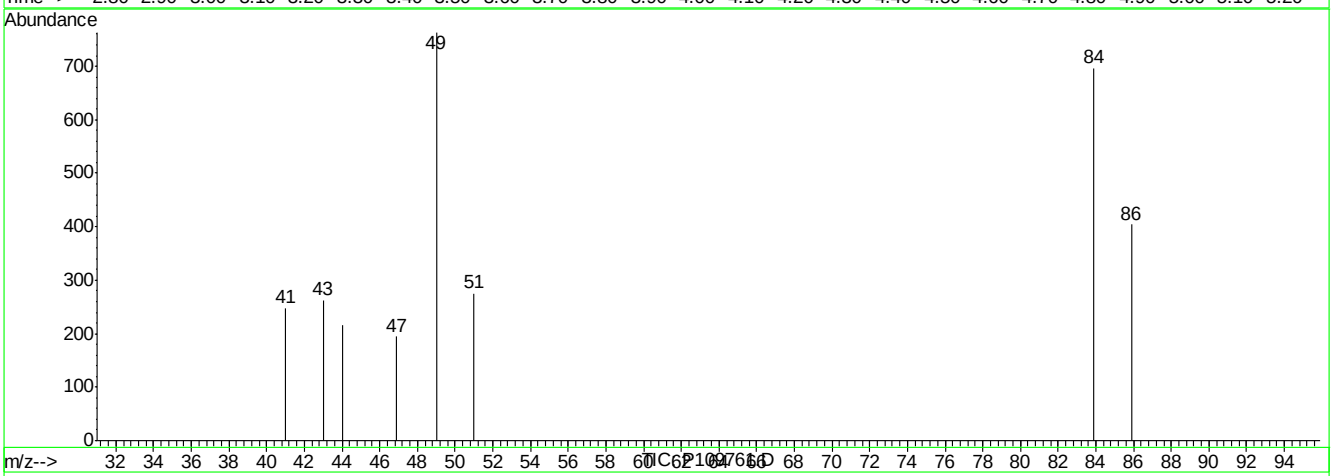
P109761.D DFTPPP.M Wed Dec 14 10:18:55 2016

Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\ep4874\P109761.D Vial: 1
Acq On : 14 Dec 2016 9:59 am Operator: robertl1
Sample : dftpp Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 14 10:05 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 : Sun Oct 09 10:48:10 2016
Response via : Single Level Calibration





(3) ddt

4.02min 0.00ppb

response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	55.80	0.00#
165.00	51.00	0.00#
0.00	0.00	0.00

P109761.D DFTPPP.M Wed Dec 14 10:19:02 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89166a.D
Acq On : 8 Dec 2016 10:06 am
Operator : ashleyn
Sample : ic3946-2
Misc : op99040,e3e3946
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 11:52:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:52:03 2016
QLast Update : Thu Dec 08 11:52:03 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.146	152	698230	40.00 ppm	0.00
24) Naphthalene-d8	5.136	136	2532228	40.00 ppm	0.00
47) Acenaphthene-d10	7.024	164	1437565	40.00 ppm	0.00
69) Phenanthrene-d10	9.104	188	2316639	40.00 ppm	-0.01
83) Chrysene-d12	13.223	240	2262984	40.00 ppm	-0.01
91) Perylene-d12	15.325	264	1927953	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.146	152	698230	40.00 ppm	0.00
103) Acenaphthene-d10a	7.024	164	1437565	40.00 ppm	0.00
105) Phenanthrene-d10a	9.104	188	2316639	40.00 ppm	-0.01
109) Chrysene-d12a	13.223	240	2262984	40.00 ppm	-0.01
111) Naphthalene-d8a	5.136	136	2532228	40.00 ppm	0.00
113) Chrysene-d12b	13.223	240	2262984	40.00 ppm	-0.01

System Monitoring Compounds					
5) 2-Fluorophenol	3.231	112	45352	2.23 ppm	0.02
Spiked Amount 50.000			Recovery	= 4.46%	
8) Phenol-d5	4.002	99	63807	2.15 ppm	0.02
Spiked Amount 50.000			Recovery	= 4.30%	
25) Nitrobenzene-d5	4.579	82	59455	1.92 ppm	0.00
Spiked Amount 50.000			Recovery	= 3.84%	
51) 2-Fluorobiphenyl	6.221	172	95824	1.59 ppm	-0.01
Spiked Amount 50.000			Recovery	= 3.18%	
73) 2,4,6-Tribromophenol	8.115	330	9321	1.68 ppm	-0.01
Spiked Amount 50.000			Recovery	= 3.36%	
85) Terphenyl-d14	11.623	244	84248	1.92 ppm	-0.01
Spiked Amount 50.000			Recovery	= 3.84%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds						Qvalue
2) 1,4-Dioxane	1.579	88	14900	2.20 ppm	#	52
3) Pyridine	1.937	79	29793	1.80 ppm	#	48
4) N-Nitrosodimethylamine	1.884	74	25980	2.45 ppm		96
6) Indene	4.339	116	80584	1.98 ppm		94
7) Cumene	3.531	105	122801	2.06 ppm		84
9) Phenol	4.007	94	55228	1.82 ppm		86
10) Aniline	3.937	93	62919	2.46 ppm		99
11) bis(2-Chloroethyl)ether	3.975	93	47566	2.15 ppm		92
12) 2-Chlorophenol	4.034	128	50755	1.56 ppm		91
13) Decane	4.028	43	17900	1.23 ppm	#	26
14) 1,3-Dichlorobenzene	4.109	146	51656	1.91 ppm		95
15) 1,4-Dichlorobenzene	4.162	146	54441	1.92 ppm		97
16) Benzyl alcohol	4.312	108	25652	1.80 ppm	#	61
17) 1,2-Dichlorobenzene	4.280	146	49206	1.89 ppm		99
18) Acetophenone	4.467	105	69275	2.12 ppm		93
19) 2-Methylphenol	4.419	108	40206	2.13 ppm		94
20) 2,2'-oxybis(1-Chloropr...	4.365	121	16029	2.01 ppm	#	1
21) 3&4-Methylphenol	4.542	108	42470	2.01 ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89166a.D
Acq On : 8 Dec 2016 10:06 am
Operator : ashleyn
Sample : ic3946-2
Misc : op99040,e3e3946
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 11:52:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:52:03 2016
QLast Update : Thu Dec 08 11:52:03 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.467	70	40356	2.16	ppm		70
23) Hexachloroethane	4.515	201	18235	1.77	ppm		85
26) Nitrobenzene	4.590	77	64525	2.13	ppm		72
27) Quinoline	5.478	129	87437	2.14	ppm		93
28) Isophorone	4.766	82	98382	2.06	ppm		84
29) 2-Nitrophenol	4.841	139	23629	1.56	ppm		63
30) 2,4-Dimethylphenol	4.922	107	43132	1.63	ppm	#	72
31) Benzoic acid	5.061	105	24351	1.24	ppm		78
32) bis(2-Chloroethoxy)met...	4.954	93	50790	1.94	ppm		96
33) 2,4-Dichlorophenol	5.087	162	37642	1.87	ppm		89
34) 2,6-Dichlorophenol	5.248	162	33673	1.40	ppm		88
35) 1,3,5-Trichlorobenzene	4.831	180	44841	1.65	ppm		95
36) 1,2,4-Trichlorobenzene	5.093	180	40095	1.65	ppm		97
37) 1,2,3-Trichlorobenzene	5.291	180	39817	1.77	ppm		98
38) Naphthalene	5.157	128	143715	2.05	ppm		95
39) 4-Chloroaniline	5.243	127	54147	1.62	ppm		81
40) 2,3-Dichloroaniline	6.152	161	43500	1.87	ppm		91
41) Caprolactam	5.569	55	6532	1.76	ppm	#	34
42) Hexachlorobutadiene	5.264	225	27442	1.68	ppm		99
43) 4-Chloro-3-methylphenol	5.777	107	39452	1.84	ppm		77
44) 2-Methylnaphthalene	5.815	141	80822	1.86	ppm		86
45) 1-Methylnaphthalene	5.916	141	82211	1.85	ppm		90
46) Dimethylnaphthalene	6.510	156	77108	1.73	ppm		86
48) Hexachlorocyclopentadiene	5.981	237	23826	1.34	ppm		97
49) 2,4,6-Trichlorophenol	6.168	196	26338	1.73	ppm		92
50) 2,4,5-Trichlorophenol	6.253	196	25815	1.75	ppm		95
52) 2-Chloronaphthalene	6.344	162	77390	1.62	ppm		91
53) Biphenyl	6.328	154	104234	1.56	ppm		99
54) 2-Nitroaniline	6.532	65	27167	1.59	ppm		87
55) Dimethylphthalate	6.735	163	94277	1.85	ppm		97
56) Acenaphthylene	6.842	152	129039	1.86	ppm		97
57) 2,6-Dinitrotoluene	6.815	165	19941	1.75	ppm		91
58) 3-Nitroaniline	7.061	138	20895	1.31	ppm		78
59) Acenaphthene	7.061	153	82540	1.52	ppm		92
60) 2,4-Dinitrophenol	7.211	184	7860	1.13	ppm	#	43
61) 4-Nitrophenol	7.521	109	16040	1.72	ppm	#	18
62) Dibenzofuran	7.296	168	111422	1.88	ppm		85
63) 2,4-Dinitrotoluene	7.355	165	24290	1.75	ppm		89
64) 2,3,4,6-Tetrachlorophenol	7.526	232	18025	1.61	ppm		77
65) Diethylphthalate	7.676	149	95533	1.81	ppm		90
66) Fluorene	7.756	166	88886	1.76	ppm		98
67) 4-Chlorophenyl-phenyle...	7.778	204	41790	1.74	ppm		76
68) 4-Nitroaniline	7.906	138	18047	1.57	ppm	#	34
70) 4,6-Dinitro-2-methylph...	7.922	198	8633	0.89	ppm	#	60
71) n-Nitrosodiphenylamine	7.970	169	65107	1.80	ppm		96
72) 1,2-Diphenylhydrazine	8.002	77	105989	1.62	ppm		83
74) 4-Bromophenyl-phenylether	8.473	248	23277	1.75	ppm	#	82
75) Hexachlorobenzene	8.543	284	21799	1.68	ppm		66
76) Pentachlorophenol	8.906	266	21598	2.20	ppm		88
77) Phenanthrene	9.136	178	118389	1.74	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89166a.D
Acq On : 8 Dec 2016 10:06 am
Operator : ashleyn
Sample : ic3946-2
Misc : op99040,e3e3946
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 11:52:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:52:03 2016
QLast Update : Thu Dec 08 11:52:03 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Anthracene	9.217	178	119691	1.75	ppm		98
79) Carbazole	9.537	167	110427	1.68	ppm		95
80) Di-n-butylphthalate	10.131	149	147265	1.64	ppm		97
81) Fluoranthene	10.966	202	128507	1.61	ppm		92
82) Octadecane	9.067	57	26809	1.56	ppm	#	22
84) Pyrene	11.303	202	135537	2.03	ppm		96
86) Butylbenzylphthalate	12.463	149	63911	1.84	ppm		80
87) Benzo[a]anthracene	13.207	228	138827	2.24	ppm		97
88) 3,3'-Dichlorobenzidine	13.255	252	41817	1.63	ppm		87
89) Chrysene	13.260	228	116173	1.85	ppm		96
90) bis(2-Ethylhexyl)phtha...	13.415	149	85668	1.95	ppm		95
92) Di-n-octylphthalate	14.383	149	144980	1.32	ppm		95
93) Benzo[b]fluoranthene	14.801	252	117352	1.33	ppm		100
94) Benzo[k]fluoranthene	14.838	252	107732	1.50	ppm		94
95) Benzo[a]pyrene	15.239	252	100496	1.58	ppm		93
96) Indeno[1,2,3-cd]pyrene	16.646	276	98881	1.36	ppm		94
97) Dibenz(a,h)acridine	16.384	279	75015	1.35	ppm		100
98) Dibenz[a,h]anthracene	16.667	278	84646	1.27	ppm		86
99) 7,12-Dimethylbenz(a)an...	14.784	256	44457	1.16	ppm		94
100) Benzo[g,h,i]perylene	16.967	276	78815	1.57	ppm		85

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

9.6.1

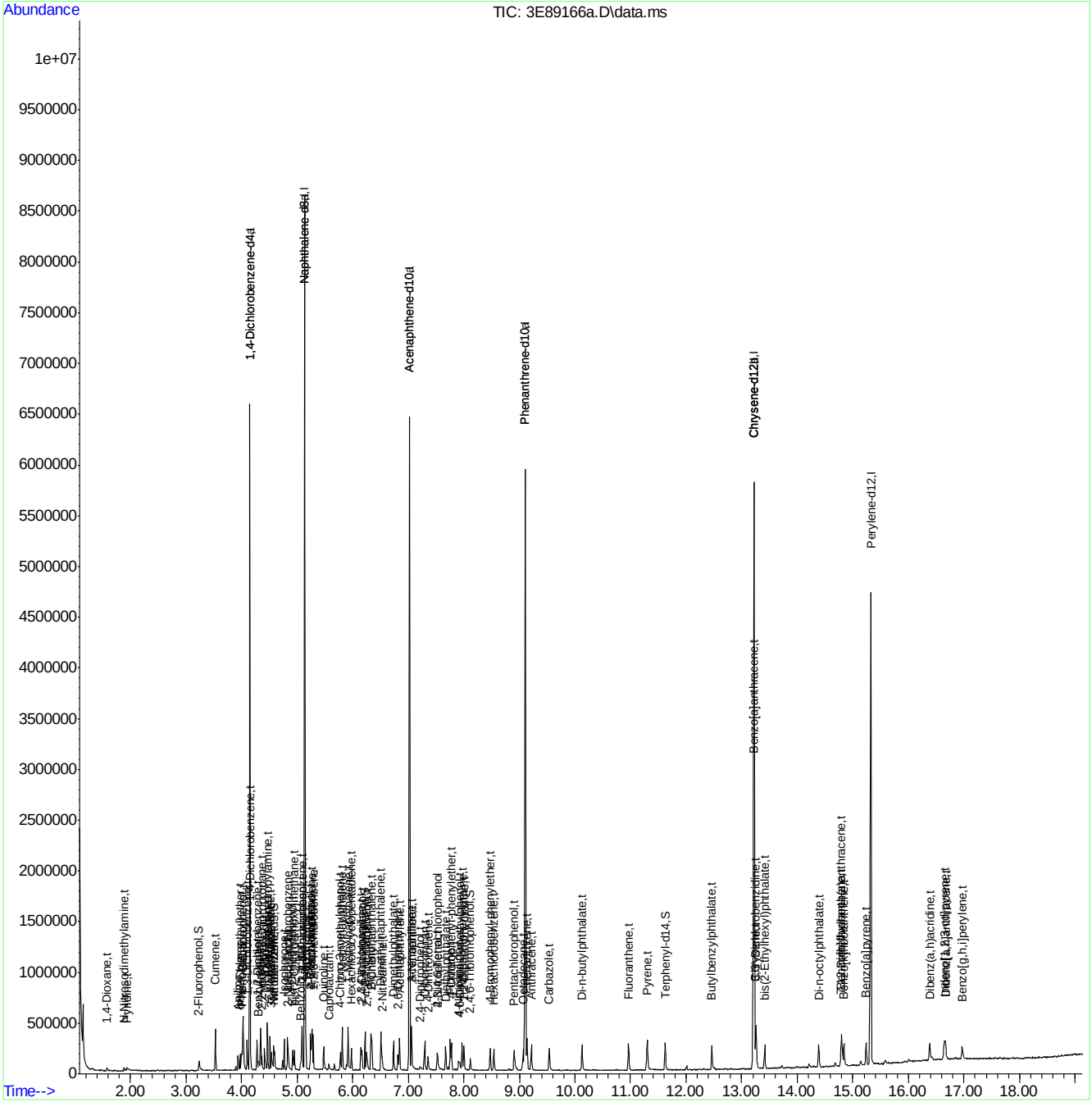
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89166a.D
Acq On : 8 Dec 2016 10:06 am
Operator : ashleyn
Sample : ic3946-2
Misc : op99040,e3e3946
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 11:52:51 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:52:03 2016
QLast Update : Thu Dec 08 11:52:03 2016
Response via : Initial Calibration



M3E3946.M Thu Dec 08 11:55:22 2016 MS3E

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89167.D
Acq On : 8 Dec 2016 10:31 am
Operator : ashleyn
Sample : ic3946-1
Misc : op99040,e3e3946
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 11:57:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:56:11 2016
QLast Update : Thu Dec 08 11:56:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.146	152	597909	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	2242172	40.00	ppm	0.00
47) Acenaphthene-d10	7.024	164	1281873	40.00	ppm	0.00
69) Phenanthrene-d10	9.104	188	2087930	40.00	ppm	-0.01
83) Chrysene-d12	13.223	240	2017818	40.00	ppm	-0.01
91) Perylene-d12	15.319	264	1784939	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.146	152	597909	40.00	ppm	0.00
103) Acenaphthene-d10a	7.024	164	1281873	40.00	ppm	0.00
105) Phenanthrene-d10a	9.104	188	2087930	40.00	ppm	-0.01
109) Chrysene-d12a	13.223	240	2017818	40.00	ppm	-0.01
111) Naphthalene-d8a	5.136	136	2242172	40.00	ppm	0.00
113) Chrysene-d12b	13.223	240	2017818	40.00	ppm	-0.01

System Monitoring Compounds						
5) 2-Fluorophenol	3.237	112	17941	0.98	ppm	0.02
Spiked Amount 50.000			Recovery	=	1.96%	
8) Phenol-d5	4.007	99	27806	1.06	ppm	0.02
Spiked Amount 50.000			Recovery	=	2.12%	
25) Nitrobenzene-d5	4.579	82	26505	0.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.98%	
51) 2-Fluorobiphenyl	6.227	172	42578	0.88	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.76%	
73) 2,4,6-Tribromophenol	8.120	330	4614	1.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.00%	
85) Terphenyl-d14	11.623	244	36814	0.96	ppm	-0.01
Spiked Amount 50.000			Recovery	=	1.92%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	1.579	88	6533	1.07	ppm		58
3) Pyridine	1.969	79	8870	0.66	ppm	#	40
4) N-Nitrosodimethylamine	1.900	74	8432	0.84	ppm		98
6) Indene	4.339	116	34845	1.00	ppm		82
7) Cumene	3.531	105	52467	1.01	ppm		82
9) Phenol	4.018	94	20366	0.82	ppm		77
10) Aniline	3.938	93	24658	1.01	ppm		93
11) bis(2-Chloroethyl)ether	3.975	93	21221	1.08	ppm		89
12) 2-Chlorophenol	4.039	128	21366	0.86	ppm		93
13) Decane	4.028	43	7601	0.75	ppm	#	35
14) 1,3-Dichlorobenzene	4.109	146	23108	1.02	ppm		95
15) 1,4-Dichlorobenzene	4.162	146	25126	1.05	ppm		97
16) Benzyl alcohol	4.312	108	13042	1.12	ppm	#	67
17) 1,2-Dichlorobenzene	4.280	146	21952	1.01	ppm		93
18) Acetophenone	4.472	105	30233	1.05	ppm		96
19) 2-Methylphenol	4.424	108	16418	0.98	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.365	121	6758	0.99	ppm	#	4
21) 3&4-Methylphenol	4.547	108	16768	0.92	ppm		87

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89167.D
Acq On : 8 Dec 2016 10:31 am
Operator : ashleyn
Sample : ic3946-1
Misc : op99040,e3e3946
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 11:57:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:56:11 2016
QLast Update : Thu Dec 08 11:56:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.467	70	18324	1.10	ppm		67
23) Hexachloroethane	4.515	201	7941	0.96	ppm	#	79
26) Nitrobenzene	4.595	77	25168	0.91	ppm		77
27) Quinoline	5.483	129	38164	1.02	ppm		94
28) Isophorone	4.772	82	43415	1.01	ppm		83
29) 2-Nitrophenol	4.847	139	10728	0.90	ppm		53
30) 2,4-Dimethylphenol	4.927	107	19438	0.91	ppm		83
32) bis(2-Chloroethoxy)met...	4.954	93	23989	1.05	ppm		95
33) 2,4-Dichlorophenol	5.093	162	14730	0.85	ppm		95
34) 2,6-Dichlorophenol	5.248	162	15249	0.84	ppm		89
35) 1,3,5-Trichlorobenzene	4.831	180	19029	0.87	ppm		94
36) 1,2,4-Trichlorobenzene	5.093	180	17102	0.87	ppm		95
37) 1,2,3-Trichlorobenzene	5.291	180	18381	0.98	ppm		94
38) Naphthalene	5.157	128	61745	0.98	ppm		98
39) 4-Chloroaniline	5.248	127	20439	0.76	ppm		83
40) 2,3-Dichloroaniline	6.152	161	17891	0.90	ppm		88
41) Caprolactam	5.574	55	4116	1.33	ppm	#	32
42) Hexachlorobutadiene	5.269	225	12018	0.90	ppm		89
43) 4-Chloro-3-methylphenol	5.783	107	19591	1.07	ppm		80
44) 2-Methylnaphthalene	5.815	141	36337	0.98	ppm		79
45) 1-Methylnaphthalene	5.916	141	36632	0.97	ppm		89
46) Dimethylnaphthalene	6.510	156	33080	0.90	ppm		89
48) Hexachlorocyclopentadiene	5.981	237	7434	0.70	ppm		82
49) 2,4,6-Trichlorophenol	6.168	196	11131	0.88	ppm		97
50) 2,4,5-Trichlorophenol	6.259	196	11940	0.97	ppm		95
52) 2-Chloronaphthalene	6.350	162	34477	0.89	ppm		84
53) Biphenyl	6.334	154	44719	0.84	ppm		98
54) 2-Nitroaniline	6.537	65	13347	0.98	ppm	#	77
55) Dimethylphthalate	6.740	163	40729	0.93	ppm		94
56) Acenaphthylene	6.842	152	55280	0.93	ppm		98
57) 2,6-Dinitrotoluene	6.815	165	7656	0.80	ppm		88
58) 3-Nitroaniline	7.066	138	8132	0.69	ppm	#	51
59) Acenaphthene	7.061	153	36569	0.86	ppm		94
60) 2,4-Dinitrophenol	7.227	184	1973	0.50	ppm		62
61) 4-Nitrophenol	7.537	109	5900	0.76	ppm	#	12
62) Dibenzofuran	7.296	168	50372	0.98	ppm		86
63) 2,4-Dinitrotoluene	7.361	165	9237	0.80	ppm		64
64) 2,3,4,6-Tetrachlorophenol	7.526	232	9120	1.01	ppm	#	70
65) Diethylphthalate	7.676	149	43900	0.98	ppm		95
66) Fluorene	7.756	166	39111	0.92	ppm		97
67) 4-Chlorophenyl-phenyle...	7.778	204	19761	0.99	ppm		75
68) 4-Nitroaniline	7.917	138	8456	0.92	ppm		80
70) 4,6-Dinitro-2-methylph...	7.928	198	2620	0.41	ppm	#	69
71) n-Nitrosodiphenylamine	7.970	169	29490	0.95	ppm		95
72) 1,2-Diphenylhydrazine	8.002	77	45011	0.84	ppm		83
74) 4-Bromophenyl-phenylether	8.473	248	10240	0.91	ppm	#	68
75) Hexachlorobenzene	8.537	284	10702	0.99	ppm		70
76) Pentachlorophenol	8.917	266	8802	1.28	ppm		90
77) Phenanthrene	9.136	178	54547	0.95	ppm		94
78) Anthracene	9.222	178	50457	0.87	ppm		97

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89167.D
Acq On : 8 Dec 2016 10:31 am
Operator : ashleyn
Sample : ic3946-1
Misc : op99040,e3e3946
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 11:57:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:56:11 2016
QLast Update : Thu Dec 08 11:56:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
79) Carbazole	9.538	167	53041	0.97	ppm		96
80) Di-n-butylphthalate	10.131	149	65259	0.89	ppm		94
81) Fluoranthene	10.966	202	53984	0.83	ppm		93
82) Octadecane	9.067	57	12848	0.93	ppm	#	48
84) Pyrene	11.303	202	60494	1.01	ppm		96
86) Butylbenzylphthalate	12.463	149	27832	0.93	ppm		74
87) Benzo[a]anthracene	13.207	228	64794	1.11	ppm		96
88) 3,3'-Dichlorobenzidine	13.260	252	16437	0.79	ppm		88
89) Chrysene	13.260	228	51206	0.95	ppm		95
90) bis(2-Ethylhexyl)phtha...	13.415	149	38427	0.99	ppm		89
92) Di-n-octylphthalate	14.383	149	65224	0.77	ppm		92
93) Benzo[b]fluoranthene	14.806	252	51428	0.76	ppm		96
94) Benzo[k]fluoranthene	14.838	252	50067	0.86	ppm		95
95) Benzo[a]pyrene	15.239	252	43230	0.82	ppm		92
96) Indeno[1,2,3-cd]pyrene	16.646	276	41936	0.74	ppm		89
97) Dibenz(a,h)acridine	16.384	279	33144	0.77	ppm		97
98) Dibenz[a,h]anthracene	16.673	278	37065	0.73	ppm		88
99) 7,12-Dimethylbenz(a)an...	14.785	256	20147	0.72	ppm		94
100) Benzo[g,h,i]perylene	16.972	276	35806	0.86	ppm		94

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

9.6.2

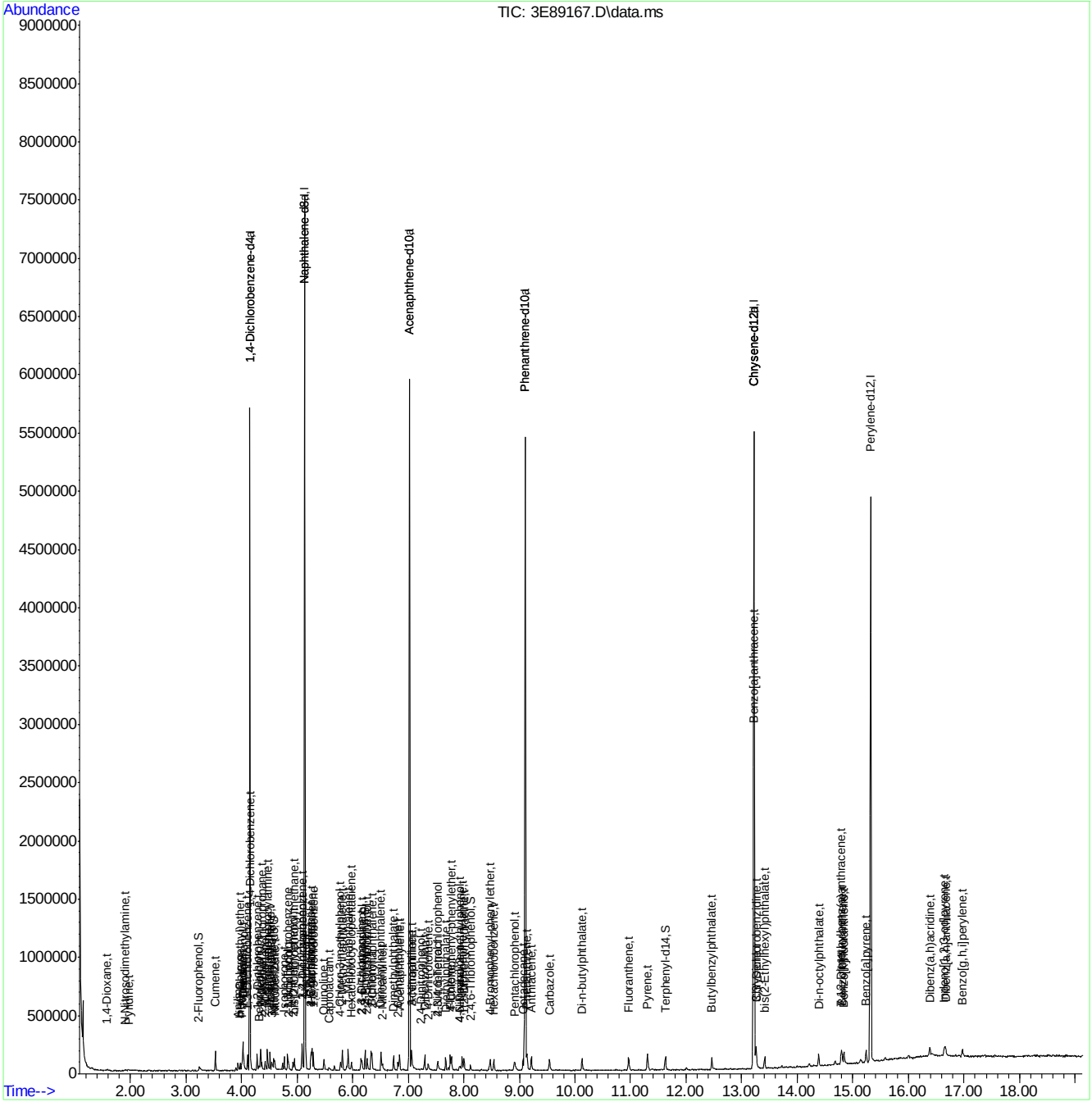
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89167.D
Acq On : 8 Dec 2016 10:31 am
Operator : ashleyn
Sample : ic3946-1
Misc : op99040,e3e3946
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 11:57:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:56:11 2016
QLast Update : Thu Dec 08 11:56:11 2016
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 12/09/16 12:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:49:26 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.151	152	472342	40.00	ppm	0.00
24) Naphthalene-d8	5.141	136	1533613	40.00	ppm	0.00
47) Acenaphthene-d10	7.024	164	804729	40.00	ppm	0.00
69) Phenanthrene-d10	9.115	188	1225891	40.00	ppm	0.00
83) Chrysene-d12	13.233	240	1515284	40.00	ppm	0.00
91) Perylene-d12	15.325	264	872938	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.151	152	472342	40.00	ppm	0.00
103) Acenaphthene-d10a	7.024	164	804729	40.00	ppm	0.00
105) Phenanthrene-d10a	9.115	188	1225891	40.00	ppm	0.00
109) Chrysene-d12a	13.233	240	1515284	40.00	ppm	0.00
111) Naphthalene-d8a	5.141	136	1533613	40.00	ppm	0.00
113) Chrysene-d12b	13.233	240	1515284	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.215	112	1373042	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
8) Phenol-d5	3.986	99	2003374	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
25) Nitrobenzene-d5	4.579	82	1877556	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
51) 2-Fluorobiphenyl	6.232	172	3369605	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
73) 2,4,6-Tribromophenol	8.125	330	293176	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
85) Terphenyl-d14	11.634	244	2933893	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	1.557	88	458526	100.00	ppm	#	54
3) Pyridine	1.873	79	1121278	100.00	ppm	#	51
4) N-Nitrosodimethylamine	1.846	74	716527	100.00	ppm		82
6) Indene	4.339	116	2752397	100.00	ppm		94
7) Cumene	3.526	105	4032885	100.00	ppm		90
9) Phenol	3.991	94	2055597	100.00	ppm		76
10) Aniline	3.932	93	1727588	100.00	ppm		98
11) bis(2-Chloroethyl)ether	3.970	93	1493270	100.00	ppm		97
12) 2-Chlorophenol	4.028	128	2195459	100.00	ppm		91
13) Decane	4.028	43	985346	100.00	ppm	#	68
14) 1,3-Dichlorobenzene	4.109	146	1832250	100.00	ppm		95
15) 1,4-Dichlorobenzene	4.162	146	1921984	100.00	ppm		95
16) Benzyl alcohol	4.301	108	965288	100.00	ppm	#	58
17) 1,2-Dichlorobenzene	4.280	146	1759017	100.00	ppm		97
18) Acetophenone	4.467	105	2214953	100.00	ppm		95
19) 2-Methylphenol	4.424	108	1276090	100.00	ppm		96
20) 2,2'-oxybis(1-Chloropr...	4.365	121	540476	100.00	ppm	#	1
21) 3&4-Methylphenol	4.531	108	1430453	100.00	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:49:26 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.483	70	1261417	100.00	ppm		75
23) Hexachloroethane	4.515	201	695667	100.00	ppm		93
26) Nitrobenzene	4.595	77	1835896	100.00	ppm		81
27) Quinoline	5.494	129	2471077	100.00	ppm		92
28) Isophorone	4.777	82	2888063	100.00	ppm		87
29) 2-Nitrophenol	4.841	139	918907	100.00	ppm		63
30) 2,4-Dimethylphenol	4.922	107	1603125	100.00	ppm		84
31) Benzoic acid	5.130	105	1187517m	99.79	ppm		
32) bis(2-Chloroethoxy)met...	4.959	93	1588744	100.00	ppm		97
33) 2,4-Dichlorophenol	5.071	162	1217957	100.00	ppm		95
34) 2,6-Dichlorophenol	5.248	162	1456774	100.00	ppm		95
35) 1,3,5-Trichlorobenzene	4.831	180	1649950	100.00	ppm		97
36) 1,2,4-Trichlorobenzene	5.093	180	1475991	100.00	ppm		95
37) 1,2,3-Trichlorobenzene	5.296	180	1359205	100.00	ppm		98
38) Naphthalene	5.162	128	4244554	100.00	ppm		94
39) 4-Chloroaniline	5.248	127	2018169	100.00	ppm		89
40) 2,3-Dichloroaniline	6.152	161	1405834	100.00	ppm		91
41) Caprolactam	5.638	55	224494m	100.11	ppm		
42) Hexachlorobutadiene	5.269	225	986937	100.00	ppm		98
43) 4-Chloro-3-methylphenol	5.783	107	1301646	100.00	ppm		87
44) 2-Methylnaphthalene	5.820	141	2637433	100.00	ppm		89
45) 1-Methylnaphthalene	5.922	141	2687335	100.00	ppm		91
46) Dimethylnaphthalene	6.521	156	2699996	100.00	ppm		94
48) Hexachlorocyclopentadiene	5.986	237	1991030	200.00	ppm		98
49) 2,4,6-Trichlorophenol	6.173	196	850424	100.00	ppm		99
50) 2,4,5-Trichlorophenol	6.248	196	826019	100.00	ppm		99
52) 2-Chloronaphthalene	6.355	162	2679185	100.00	ppm		87
53) Biphenyl	6.344	154	3730725	100.00	ppm		95
54) 2-Nitroaniline	6.537	65	958279	100.00	ppm	#	82
55) Dimethylphthalate	6.751	163	2849871	100.00	ppm		99
56) Acenaphthylene	6.847	152	3873426	100.00	ppm		96
57) 2,6-Dinitrotoluene	6.826	165	637671	100.00	ppm		100
58) 3-Nitroaniline	7.066	138	890800	100.00	ppm		83
59) Acenaphthene	7.072	153	3048238	100.00	ppm		97
60) 2,4-Dinitrophenol	7.205	184	777152	200.00	ppm	#	48
61) 4-Nitrophenol	7.462	109	521249	100.00	ppm	#	36
62) Dibenzofuran	7.307	168	3310000	100.00	ppm		82
63) 2,4-Dinitrotoluene	7.366	165	777053	100.00	ppm		89
64) 2,3,4,6-Tetrachlorophenol	7.526	232	627252	100.00	ppm		86
65) Diethylphthalate	7.698	149	2955056	100.00	ppm		97
66) Fluorene	7.767	166	2835028	100.00	ppm		97
67) 4-Chlorophenyl-phenyle...	7.788	204	1348186	100.00	ppm		79
68) 4-Nitroaniline	7.933	138	645307	100.00	ppm	#	35
70) 4,6-Dinitro-2-methylph...	7.944	198	515494	100.00	ppm	#	72
71) n-Nitrosodiphenylamine	7.992	169	1912997	100.00	ppm		94
72) 1,2-Diphenylhydrazine	8.018	77	3471871	100.00	ppm		86
74) 4-Bromophenyl-phenylether	8.484	248	702462	100.00	ppm	#	79
75) Hexachlorobenzene	8.553	284	688476	100.00	ppm		59
76) Pentachlorophenol	8.912	266	1038719	200.00	ppm		99
77) Phenanthrene	9.152	178	3608743	100.00	ppm		96

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:49:26 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Anthracene	9.227	178	3611061	100.00	ppm		97
79) Carbazole	9.543	167	3485463	100.00	ppm		93
80) Di-n-butylphthalate	10.142	149	4745441	100.00	ppm		95
81) Fluoranthene	10.976	202	4214820	100.00	ppm		94
82) Octadecane	9.078	57	906552	100.00	ppm	#	52
84) Pyrene	11.313	202	4467366	100.00	ppm		96
86) Butylbenzylphthalate	12.474	149	2331804	100.00	ppm		78
87) Benzo[a]anthracene	13.217	228	4154719	100.00	ppm		96
88) 3,3'-Dichlorobenzidine	13.265	252	1721173	100.00	ppm		99
89) Chrysene	13.282	228	4206934	100.00	ppm		97
90) bis(2-Ethylhexyl)phtha...	13.421	149	2936514	100.00	ppm		91
92) Di-n-octylphthalate	14.399	149	4965710	100.00	ppm		98
93) Benzo[b]fluoranthene	14.833	252	3982573	100.00	ppm		95
94) Benzo[k]fluoranthene	14.865	252	3262700	100.00	ppm		96
95) Benzo[a]pyrene	15.255	252	2871895	100.00	ppm		96
96) Indeno[1,2,3-cd]pyrene	16.667	276	3280145	100.00	ppm		99
97) Dibenz(a,h)acridine	16.394	279	2519835	100.00	ppm		99
98) Dibenz[a,h]anthracene	16.689	278	3021394	100.00	ppm		96
99) 7,12-Dimethylbenz(a)an...	14.817	256	1741546	100.00	ppm		85
100) Benzo[g,h,i]perylene	16.994	276	2276908	100.00	ppm		93

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

9.6.3

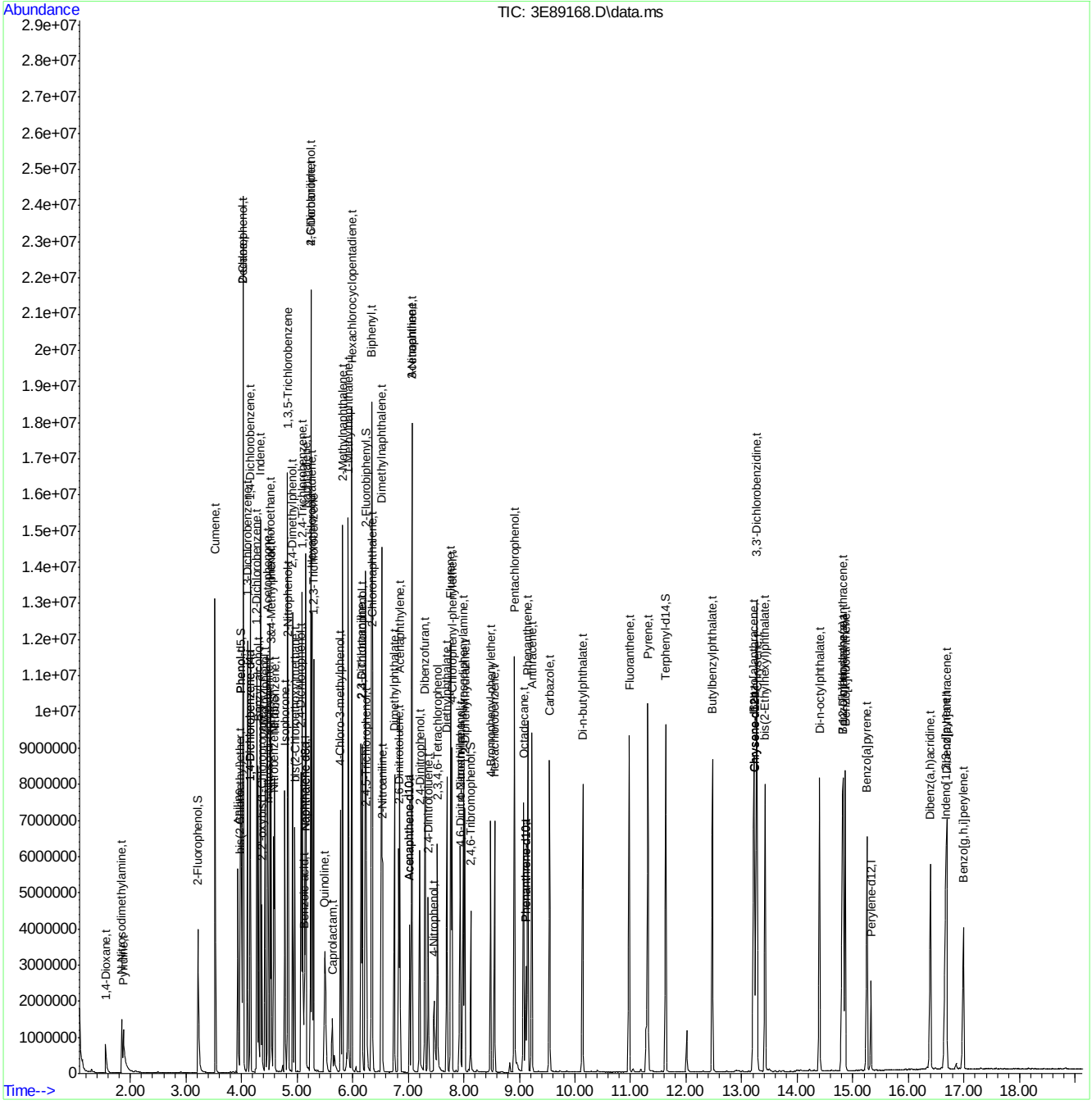
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:49:26 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integration Approval Summary

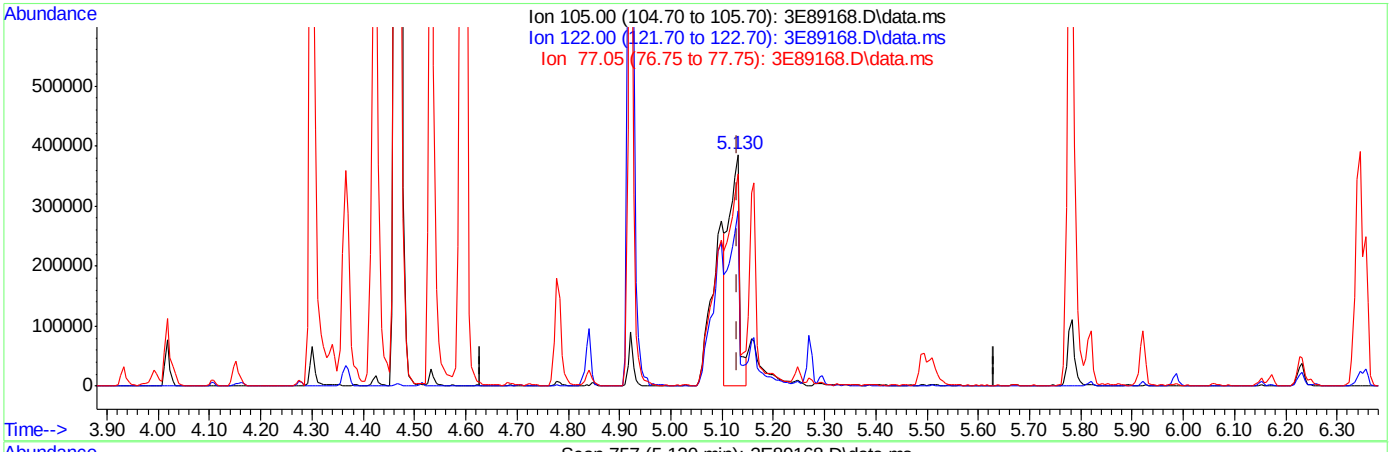
Sample Number:	E3E3946-IC3946	**Method:**	SW846 8270D
Lab FileID:	3E89168.D	**Analyst approved:**	12/08/16 14:50 Ashley Noble
Injection Time:	12/08/16 10:57	**Supervisor approved:**	12/09/16 12:53 Kristi Schollenberger

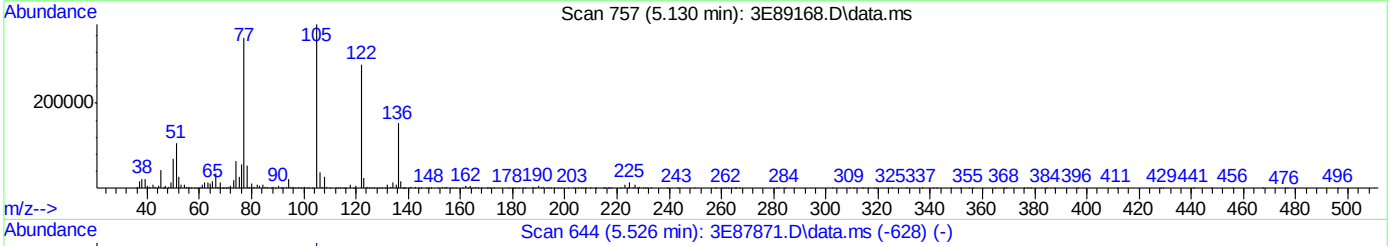
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.13	Split peak
Caprolactam	105-60-2		5.64	Split peak

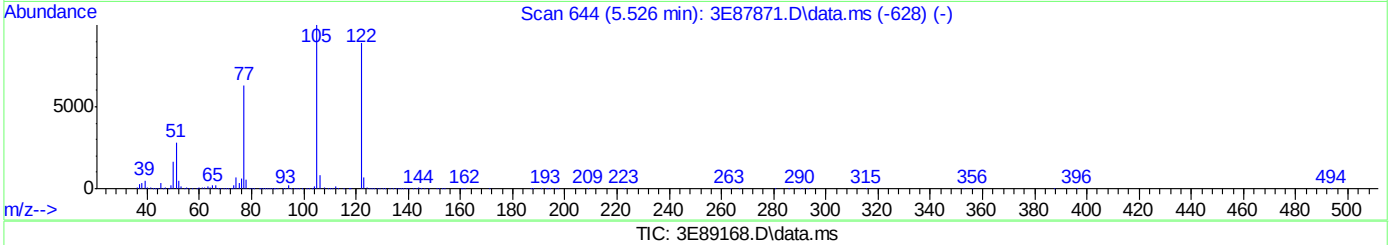
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:48:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration







TIC: 3E89168.D\data.ms

(31) Benzoic acid (t)

5.130min (0.000) 46.39ppm

response 552088

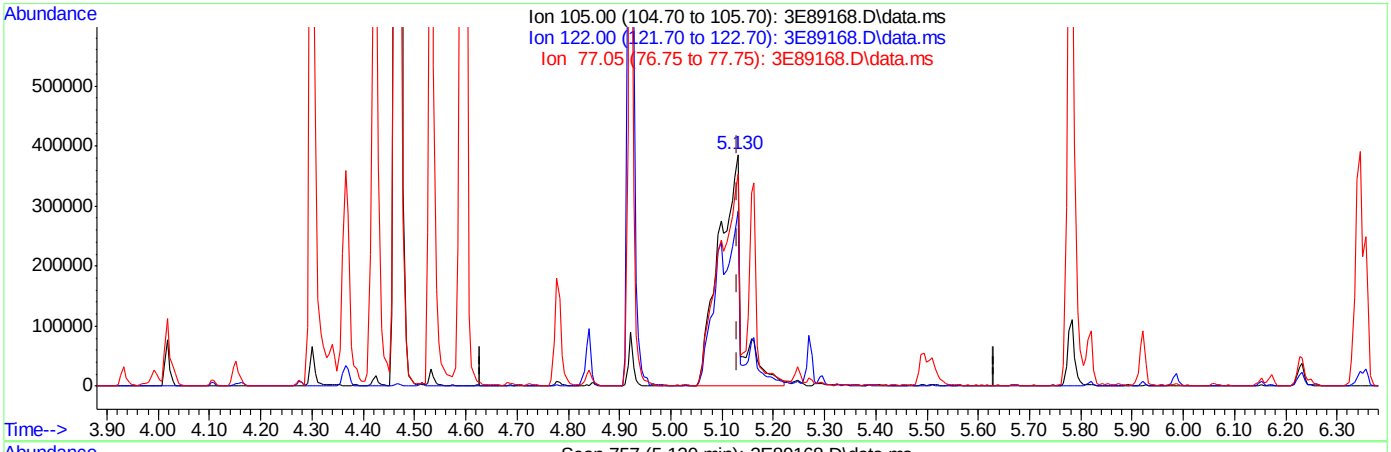
Ion	Exp%	Act%
105.00	100	100
122.00	89.30	76.64
77.05	63.20	90.18
0.00	0.00	0.00

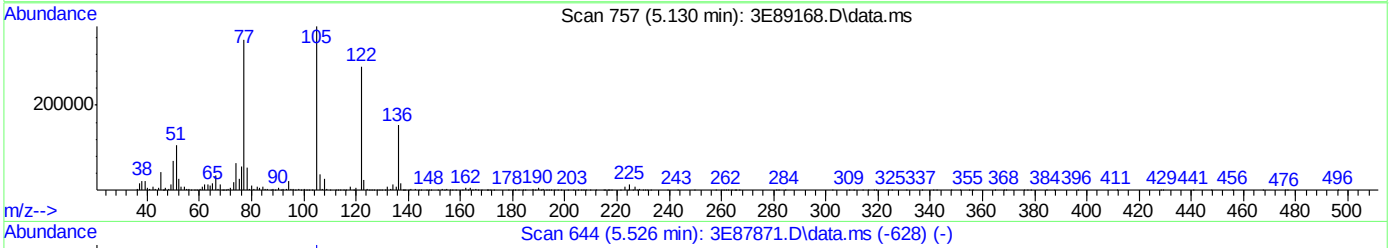
SGS ACCUTEST JC33175

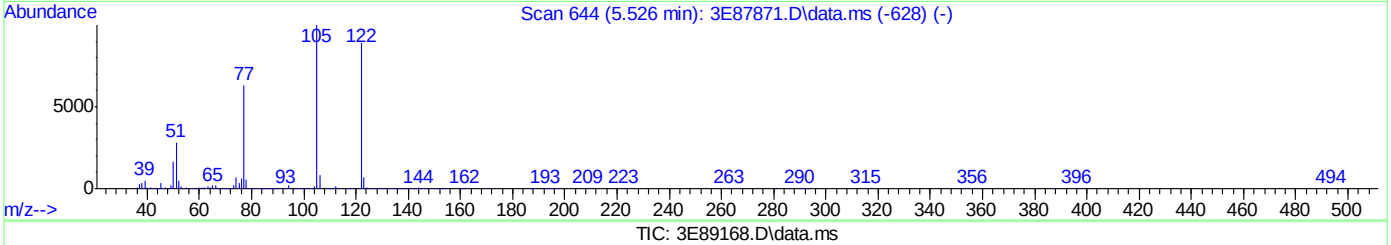
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:48:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration







TIC: 3E89168.D\data.ms

(31) Benzoic acid (t)

5.130min (0.000) 99.79ppm m

response 1187517

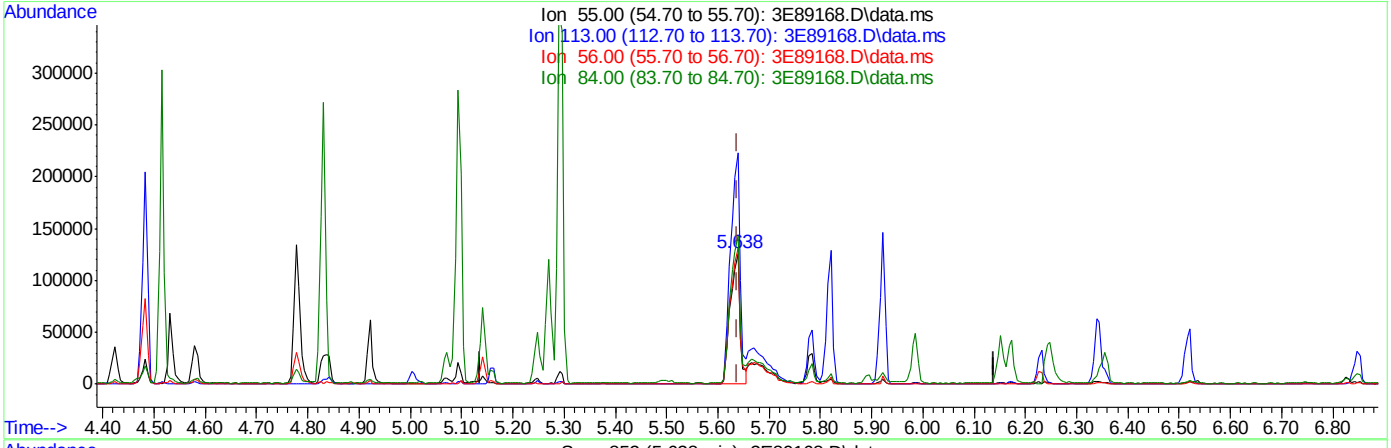
Ion	Exp%	Act%
105.00	100	100
122.00	89.30	75.44
77.05	63.20	91.58
0.00	0.00	0.00

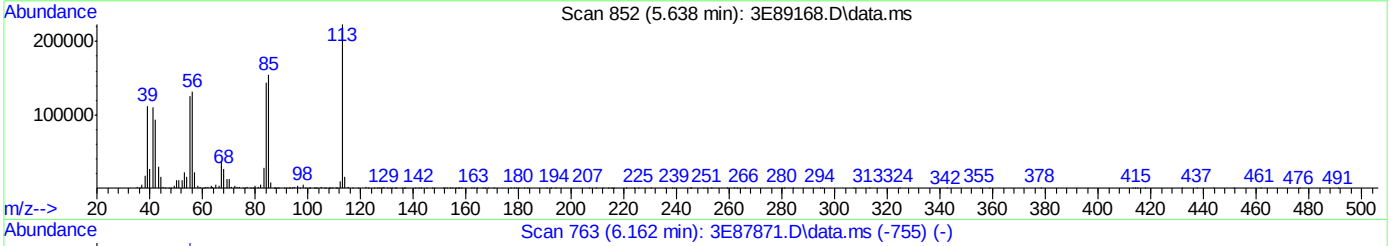
SGS ACCUTEST JC33175

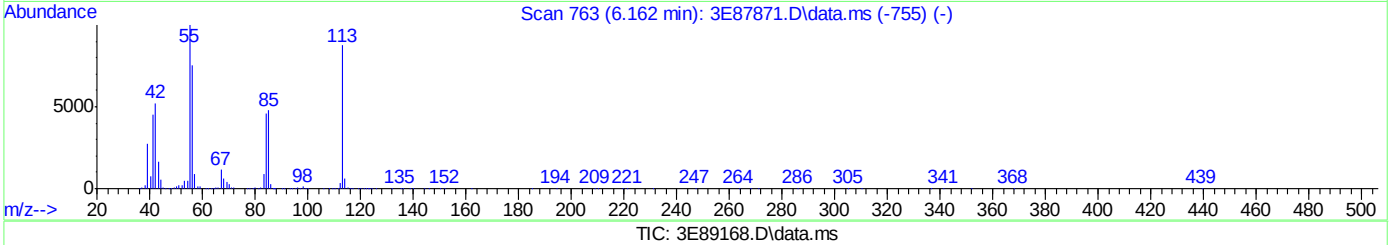
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:48:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration







TIC: 3E89168.D\data.ms

(41) Caprolactam (t)

5.638min (0.000) 73.18ppm

response 164094

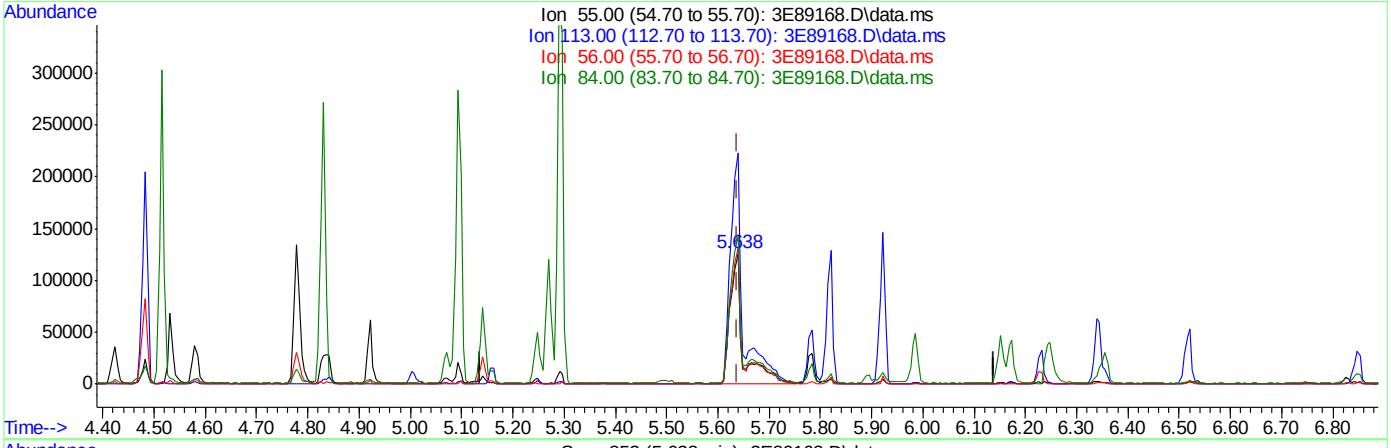
Ion	Exp%	Act%
55.00	100	100
113.00	87.80	177.76#
56.00	75.20	105.14
84.00	45.80	113.00#

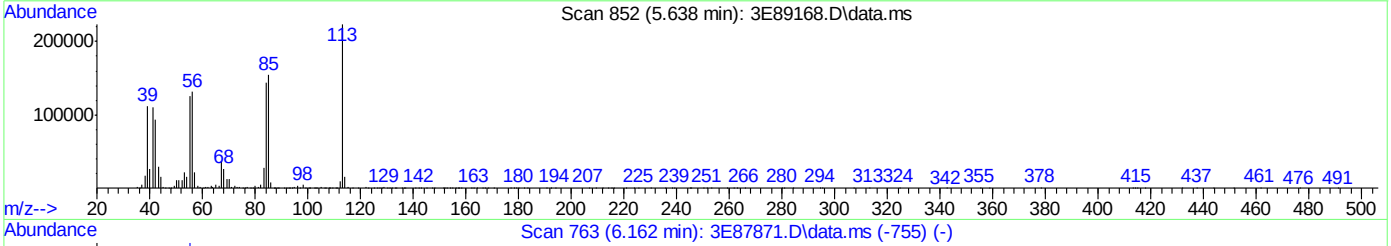
SGS ACCUTEST JC33175

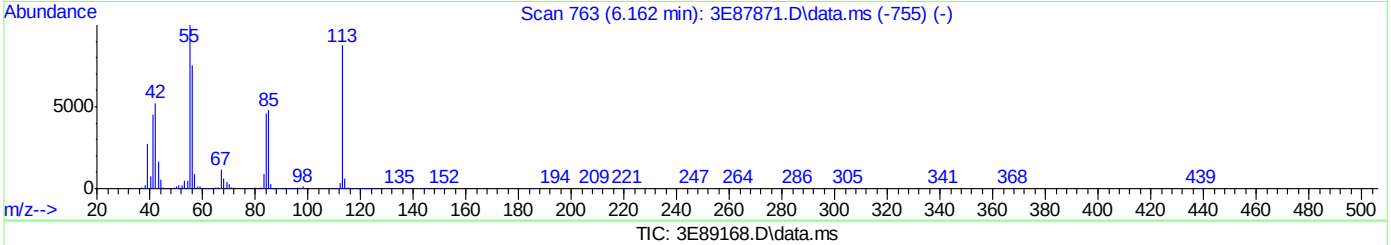
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89168.D
Acq On : 8 Dec 2016 10:57 am
Operator : ashleyn
Sample : ic3946-100
Misc : op99040,e3e3946
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 11:48:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:48:20 2016
QLast Update : Thu Dec 08 11:48:20 2016
Response via : Initial Calibration







TIC: 3E89168.D\data.ms

(41) Caprolactam (t)

5.638min (0.000) 100.11ppm m

response 224494

Ion	Exp%	Act%
55.00	100	100
113.00	87.80	177.34#
56.00	75.20	104.11
84.00	45.80	113.91#

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 12/09/16 12:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:59:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.152	152	456862	40.00	ppm	0.00
24) Naphthalene-d8	5.141	136	1522027	40.00	ppm	0.00
47) Acenaphthene-d10	7.024	164	772706	40.00	ppm	0.00
69) Phenanthrene-d10	9.110	188	1196835	40.00	ppm	0.00
83) Chrysene-d12	13.234	240	1508811	40.00	ppm	0.00
91) Perylene-d12	15.325	264	938066	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.152	152	456862	40.00	ppm	0.00
103) Acenaphthene-d10a	7.024	164	772706	40.00	ppm	0.00
105) Phenanthrene-d10a	9.110	188	1196835	40.00	ppm	0.00
109) Chrysene-d12a	13.234	240	1508811	40.00	ppm	0.00
111) Naphthalene-d8a	5.141	136	1522027	40.00	ppm	0.00
113) Chrysene-d12b	13.234	240	1508811	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.216	112	1064588	76.36	ppm	0.00
Spiked Amount 50.000			Recovery = 152.72%			
8) Phenol-d5	3.980	99	1515965	73.95	ppm	0.00
Spiked Amount 50.000			Recovery = 147.90%			
25) Nitrobenzene-d5	4.580	82	1502161	82.70	ppm	0.00
Spiked Amount 50.000			Recovery = 165.40%			
51) 2-Fluorobiphenyl	6.227	172	2493841	89.31	ppm	0.00
Spiked Amount 50.000			Recovery = 178.62%			
73) 2,4,6-Tribromophenol	8.126	330	229357	86.93	ppm	0.00
Spiked Amount 50.000			Recovery = 173.86%			
85) Terphenyl-d14	11.634	244	2173929	76.88	ppm	0.00
Spiked Amount 50.000			Recovery = 153.76%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	1.558	88	358433	75.19	ppm	#	53
3) Pyridine	1.873	79	852482	93.44	ppm	#	53
4) N-Nitrosodimethylamine	1.846	74	575924	78.99	ppm		84
6) Indene	4.339	116	2167142	81.67	ppm		95
7) Cumene	3.526	105	3166416	79.64	ppm		89
9) Phenol	3.991	94	1572215	88.14	ppm		76
10) Aniline	3.932	93	1313125	70.18	ppm		97
11) bis(2-Chloroethyl)ether	3.970	93	1155562	75.00	ppm		97
12) 2-Chlorophenol	4.029	128	1634321	90.52	ppm		94
13) Decane	4.029	43	656671	92.95	ppm	#	57
14) 1,3-Dichlorobenzene	4.109	146	1390790	79.81	ppm		97
15) 1,4-Dichlorobenzene	4.162	146	1465502	79.07	ppm		95
16) Benzyl alcohol	4.301	108	743675	80.56	ppm	#	57
17) 1,2-Dichlorobenzene	4.275	146	1329549	79.96	ppm		97
18) Acetophenone	4.467	105	1760737	78.62	ppm		96
19) 2-Methylphenol	4.419	108	1022213	80.61	ppm		96
20) 2,2'-oxybis(1-Chloropr...	4.366	121	414534	79.54	ppm	#	1
21) 3&4-Methylphenol	4.531	108	1099337	81.35	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:59:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.478	70	1007231	76.68	ppm		73
23) Hexachloroethane	4.515	201	518113	82.84	ppm		95
26) Nitrobenzene	4.596	77	1473447	80.82	ppm		81
27) Quinoline	5.489	129	1946768	76.14	ppm		92
28) Isophorone	4.777	82	2323526	79.48	ppm		89
29) 2-Nitrophenol	4.842	139	702805	89.71	ppm		62
30) 2,4-Dimethylphenol	4.922	107	1244567	88.75	ppm		84
31) Benzoic acid	5.120	105	949033m	99.36	ppm		
32) bis(2-Chloroethoxy)met...	4.954	93	1254842	79.56	ppm		97
33) 2,4-Dichlorophenol	5.072	162	922489	82.86	ppm		95
34) 2,6-Dichlorophenol	5.248	162	1100764	94.54	ppm		96
35) 1,3,5-Trichlorobenzene	4.831	180	1259247	88.33	ppm		97
36) 1,2,4-Trichlorobenzene	5.093	180	1138469	89.16	ppm		97
37) 1,2,3-Trichlorobenzene	5.291	180	1020880	80.74	ppm		96
38) Naphthalene	5.157	128	3405042	80.29	ppm		96
39) 4-Chloroaniline	5.248	127	1544642	92.35	ppm		93
40) 2,3-Dichloroaniline	6.152	161	1029103	78.82	ppm		90
41) Caprolactam	5.628	55	179418m	77.06	ppm		
42) Hexachlorobutadiene	5.269	225	742365	85.00	ppm		99
43) 4-Chloro-3-methylphenol	5.778	107	1043993	82.26	ppm		83
44) 2-Methylnaphthalene	5.820	141	2094623	83.64	ppm		88
45) 1-Methylnaphthalene	5.922	141	2139727	84.19	ppm		89
46) Dimethylnaphthalene	6.516	156	2006364	83.11	ppm		92
48) Hexachlorocyclopentadiene	5.986	237	1452316	290.44	ppm		97
49) 2,4,6-Trichlorophenol	6.173	196	627222	85.71	ppm		99
50) 2,4,5-Trichlorophenol	6.243	196	607734	82.62	ppm		98
52) 2-Chloronaphthalene	6.355	162	1933335	86.17	ppm		90
53) Biphenyl	6.339	154	2751960	90.93	ppm		97
54) 2-Nitroaniline	6.532	65	738071	90.20	ppm	#	78
55) Dimethylphthalate	6.751	163	2161331	83.93	ppm		97
56) Acenaphthylene	6.847	152	2955076	84.27	ppm		97
57) 2,6-Dinitrotoluene	6.826	165	467827	87.19	ppm		99
58) 3-Nitroaniline	7.061	138	651831	102.54	ppm		77
59) Acenaphthene	7.067	153	2278848	93.02	ppm		97
60) 2,4-Dinitrophenol	7.200	184	564866	314.86	ppm	#	32
61) 4-Nitrophenol	7.462	109	402739	93.86	ppm	#	34
62) Dibenzofuran	7.302	168	2604990	84.86	ppm		79
63) 2,4-Dinitrotoluene	7.361	165	596176	91.45	ppm		79
64) 2,3,4,6-Tetrachlorophenol	7.521	232	472397	86.60	ppm		80
65) Diethylphthalate	7.692	149	2355035	87.75	ppm		96
66) Fluorene	7.767	166	2184792	87.76	ppm		96
67) 4-Chlorophenyl-phenyle...	7.789	204	1042447	86.66	ppm		80
68) 4-Nitroaniline	7.928	138	502549	93.39	ppm	#	31
70) 4,6-Dinitro-2-methylph...	7.938	198	394306	134.97	ppm	#	74
71) n-Nitrosodiphenylamine	7.987	169	1501127	85.94	ppm		94
72) 1,2-Diphenylhydrazine	8.013	77	2859932	98.53	ppm		83
74) 4-Bromophenyl-phenylether	8.479	248	556784	89.13	ppm	#	73
75) Hexachlorobenzene	8.554	284	532340	86.39	ppm		64
76) Pentachlorophenol	8.912	266	756885	218.70	ppm		98
77) Phenanthrene	9.153	178	2726908	84.27	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:59:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Anthracene	9.227	178	2717602	85.73	ppm		96
79) Carbazole	9.543	167	2643647	85.32	ppm		94
80) Di-n-butylphthalate	10.137	149	3784278	93.23	ppm		94
81) Fluoranthene	10.971	202	3362685	95.81	ppm		95
82) Octadecane	9.072	57	698945	90.61	ppm	#	47
84) Pyrene	11.313	202	3412642	75.89	ppm		97
86) Butylbenzylphthalate	12.474	149	1827494	83.91	ppm		81
87) Benzo[a]anthracene	13.218	228	3351250	73.87	ppm		97
88) 3,3'-Dichlorobenzidine	13.260	252	1339100	92.63	ppm		96
89) Chrysene	13.276	228	3369949	85.02	ppm		97
90) bis(2-Ethylhexyl)phtha...	13.421	149	2379099	82.48	ppm		91
92) Di-n-octylphthalate	14.394	149	4047815	98.80	ppm		99
93) Benzo[b]fluoranthene	14.827	252	3398412	103.64	ppm		98
94) Benzo[k]fluoranthene	14.860	252	2569327	88.01	ppm		95
95) Benzo[a]pyrene	15.255	252	2351709	90.42	ppm		94
96) Indeno[1,2,3-cd]pyrene	16.662	276	2642762	97.47	ppm		96
97) Dibenz(a,h)acridine	16.395	279	2050535	98.04	ppm		99
98) Dibenz[a,h]anthracene	16.683	278	2379855	98.42	ppm		96
99) 7,12-Dimethylbenz(a)an...	14.811	256	1435479	107.34	ppm		81
100) Benzo[g,h,i]perylene	16.988	276	1908296	91.66	ppm		93

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

9.6.4

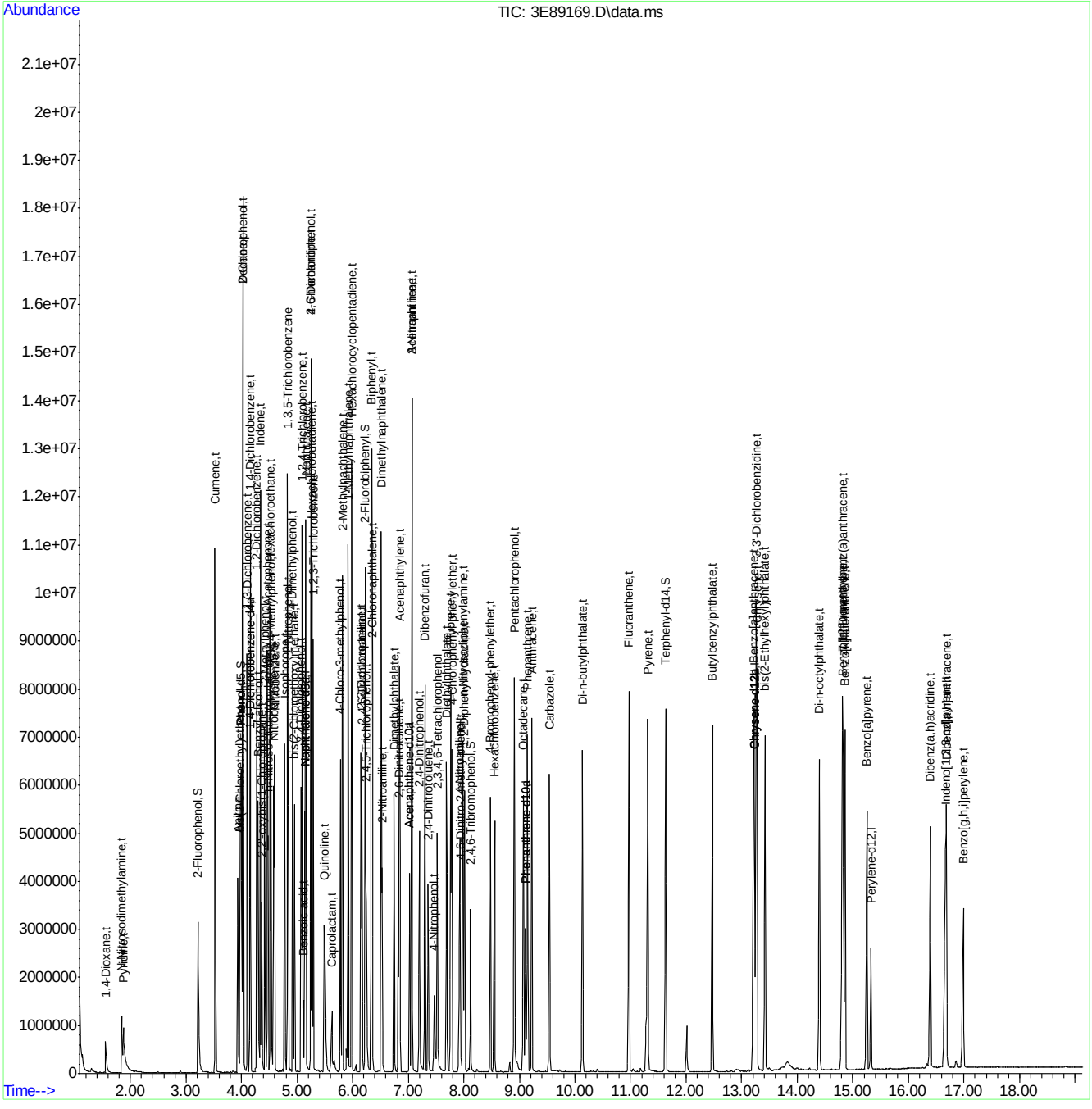
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:59:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integration Approval Summary

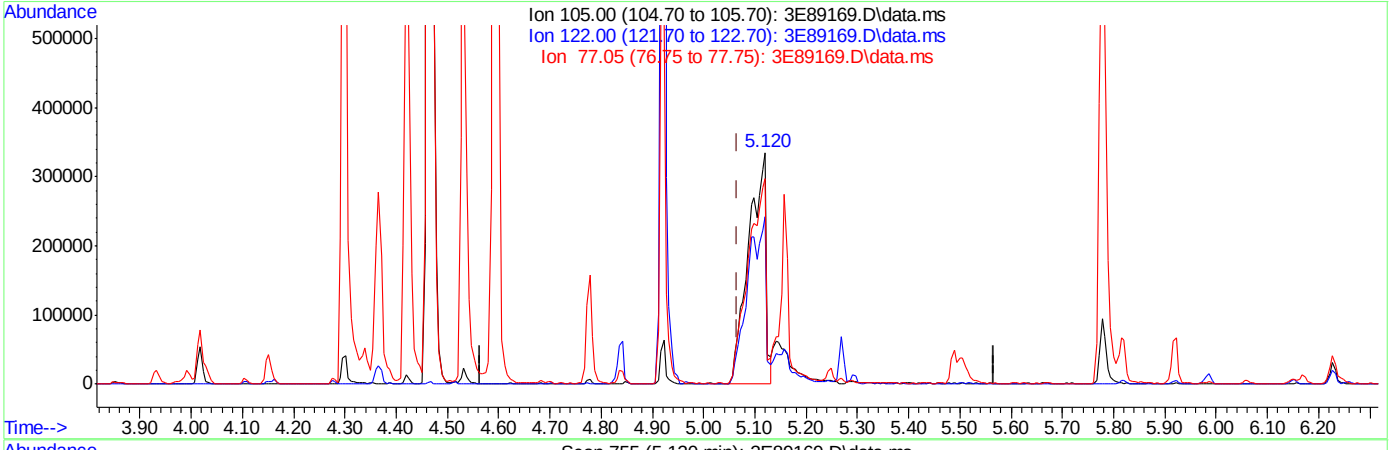
Sample Number:	E3E3946-IC3946	**Method:**	SW846 8270D
Lab FileID:	3E89169.D	**Analyst approved:**	12/08/16 14:50 Ashley Noble
Injection Time:	12/08/16 11:23	**Supervisor approved:**	12/09/16 12:53 Kristi Schollenberger

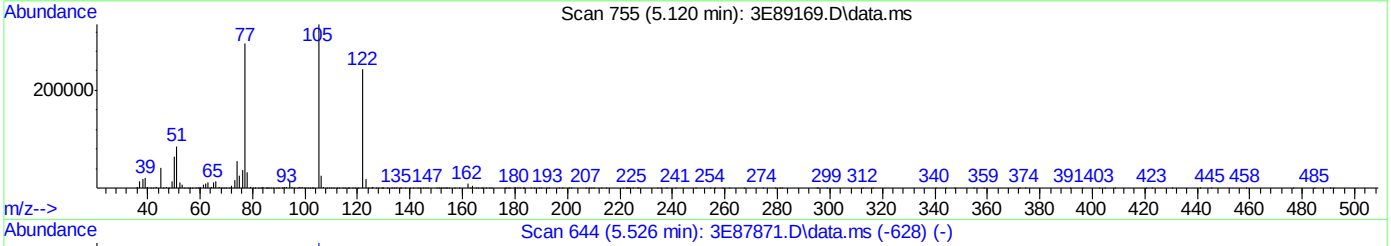
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.12	Split peak
Caprolactam	105-60-2		5.63	Split peak

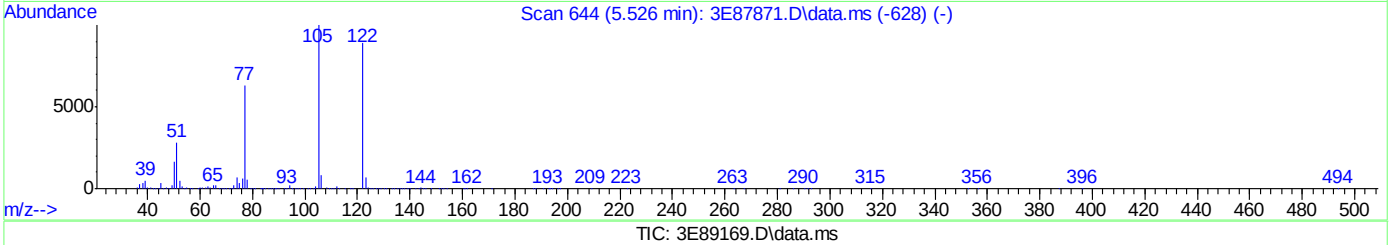
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:57:44 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration







TIC: 3E89169.D\data.ms

(31) Benzoic acid (t)

5.120min (+0.054) 83.31ppm

response 795758

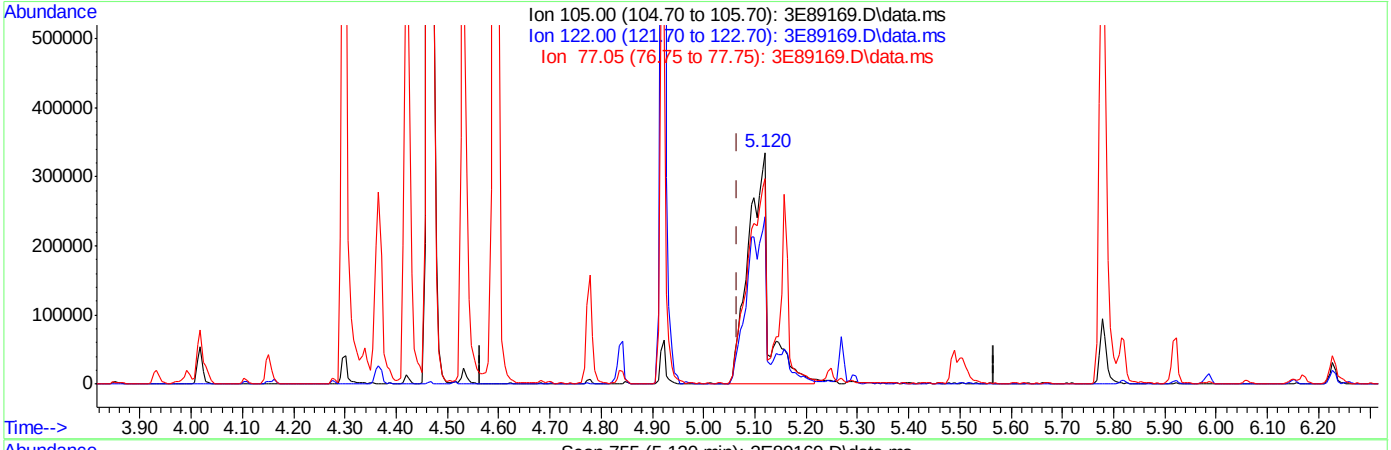
Ion	Exp%	Act%
105.00	100	100
122.00	47.70	72.32
77.05	78.00	88.00
0.00	0.00	0.00

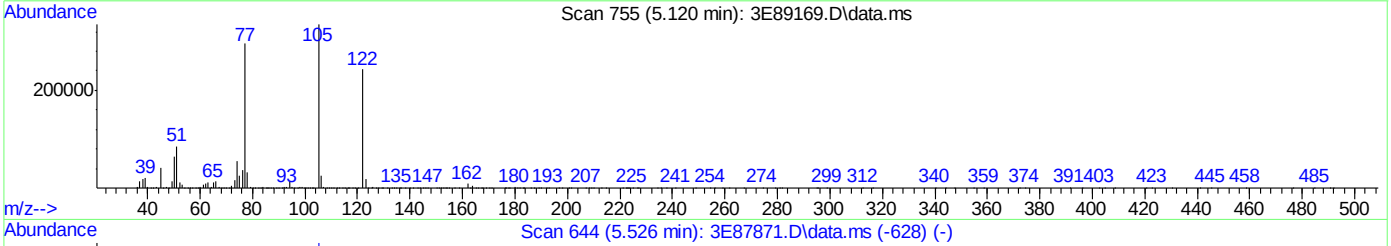
SGS ACCUTEST JC33175

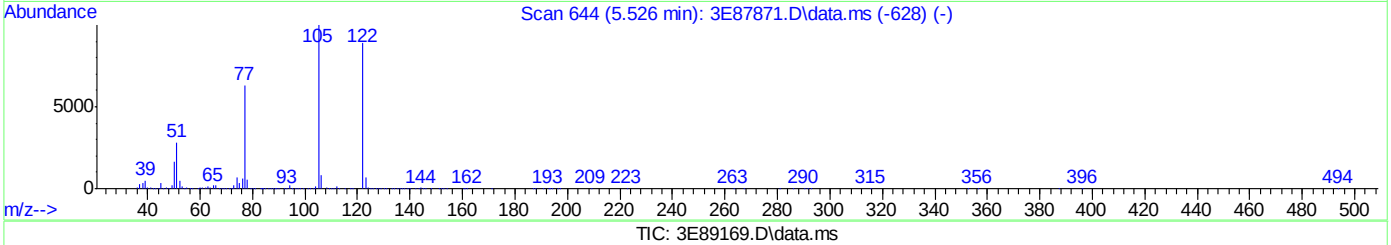
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:57:44 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration







TIC: 3E89169.D\data.ms

(31) Benzoic acid (t)

5.120min (+0.054) 99.36ppm m

response 949033

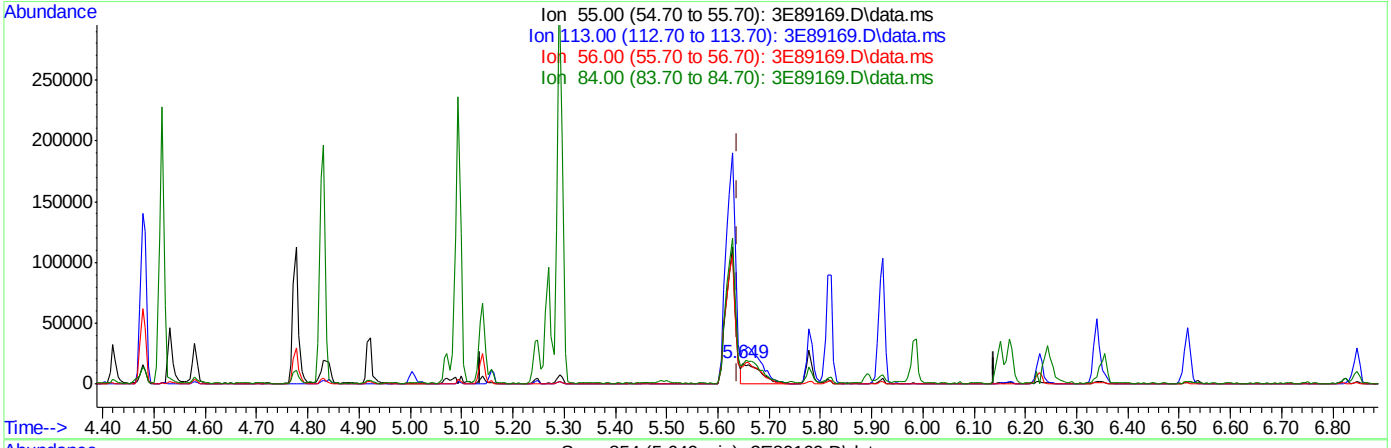
Ion	Exp%	Act%
105.00	100	100
122.00	47.70	72.37
77.05	78.00	88.50
0.00	0.00	0.00

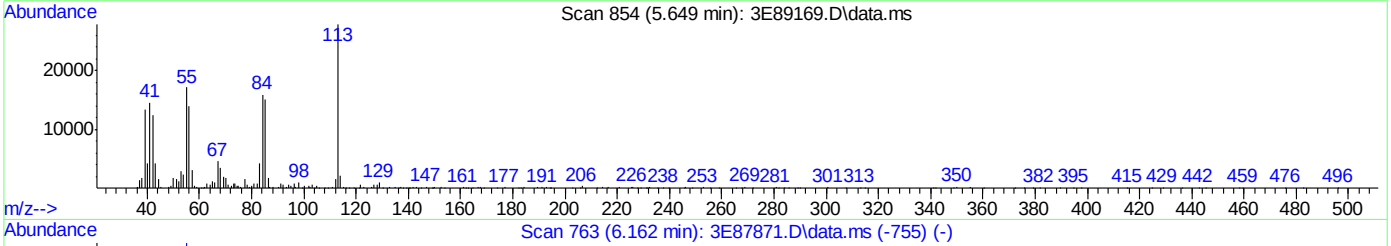
SGS ACCUTEST JC33175

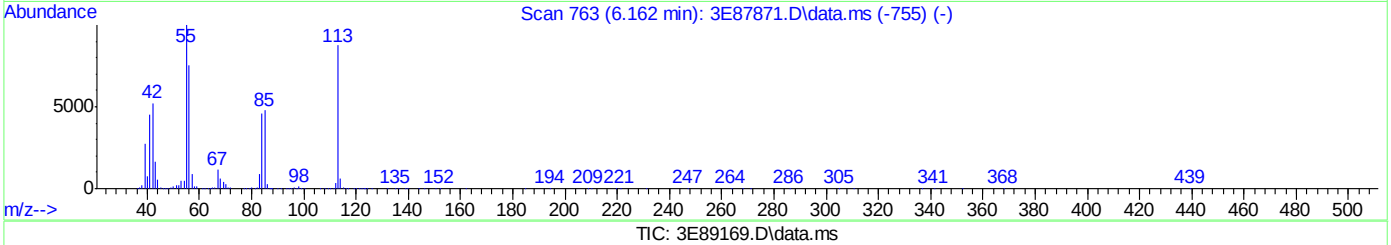
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:57:44 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration







TIC: 3E89169.D\data.ms

(41) Caprolactam (t)

5.649min (+0.011) 18.18ppm

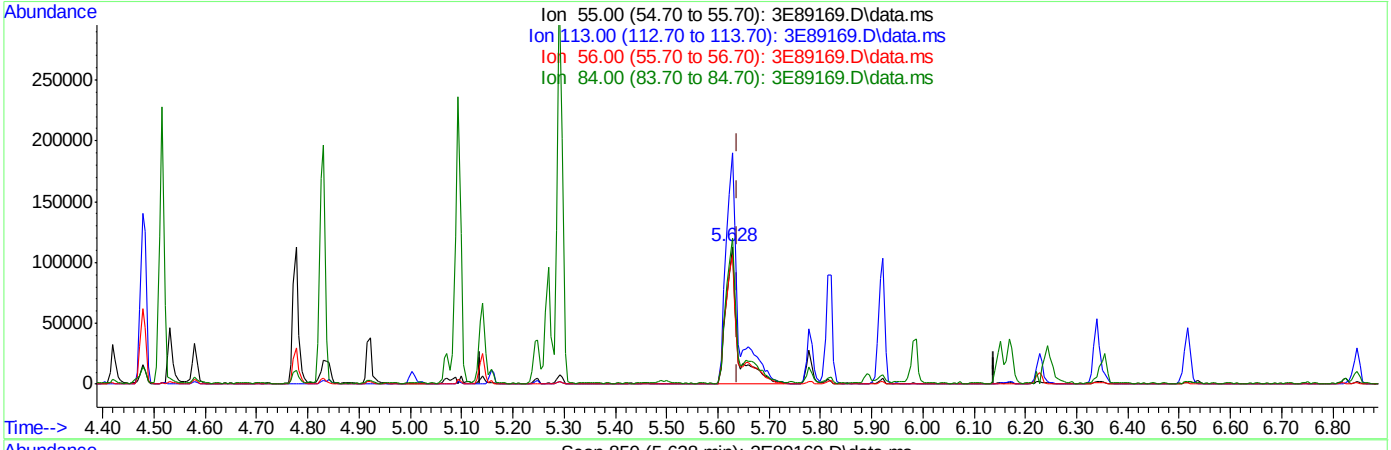
response 42333

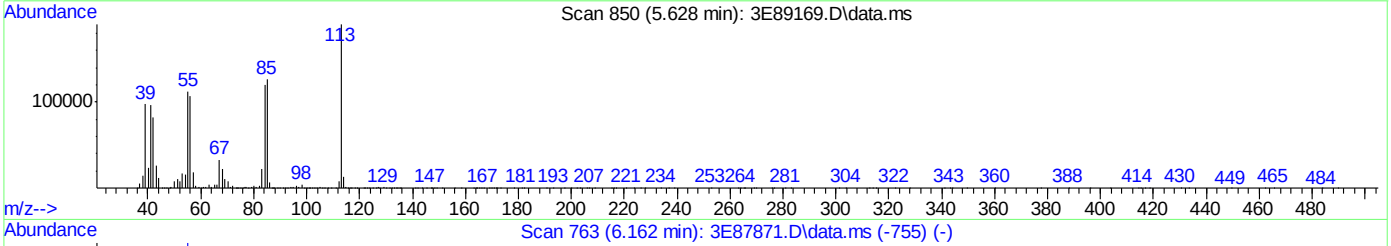
Ion	Exp%	Act%
55.00	100	100
113.00	87.80	147.29#
56.00	75.20	61.55
84.00	45.80	67.45

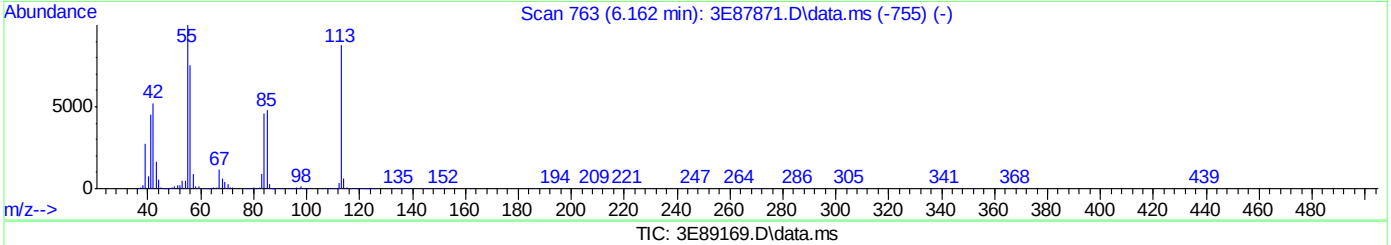
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89169.D
Acq On : 8 Dec 2016 11:23 am
Operator : ashleyn
Sample : ic3946-80
Misc : op99040,e3e3946
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 11:57:44 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:57:19 2016
QLast Update : Thu Dec 08 11:57:19 2016
Response via : Initial Calibration







TIC: 3E89169.D\data.ms

(41) Caprolactam (t)

5.628min (-0.011) 77.06ppm m

response 179418

Ion	Exp%	Act%
55.00	100	100
113.00	87.80	168.82#
56.00	75.20	94.57
84.00	45.80	106.65#

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 12/09/16 12:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89170.D
Acq On : 8 Dec 2016 11:49 am
Operator : ashleyn
Sample : icc3946-50
Misc : op99040,e3e3946
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 12:11:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:59:14 2016
QLast Update : Thu Dec 08 11:59:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.152	152	447786	40.00 ppm	0.00
24) Naphthalene-d8	5.141	136	1590083	40.00 ppm	0.00
47) Acenaphthene-d10	7.024	164	819246	40.00 ppm	0.00
69) Phenanthrene-d10	9.110	188	1293521	40.00 ppm	0.00
83) Chrysene-d12	13.228	240	1422235	40.00 ppm	0.00
91) Perylene-d12	15.325	264	1031374	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.152	152	447786	40.00 ppm	0.00
103) Acenaphthene-d10a	7.024	164	819246	40.00 ppm	0.00
105) Phenanthrene-d10a	9.110	188	1293521	40.00 ppm	0.00
109) Chrysene-d12a	13.228	240	1422235	40.00 ppm	0.00
111) Naphthalene-d8a	5.141	136	1590083	40.00 ppm	0.00
113) Chrysene-d12b	13.228	240	1422235	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.216	112	646089	47.82 ppm	0.00
Spiked Amount 50.000			Recovery	= 95.64%	
8) Phenol-d5	3.986	99	869326	44.10 ppm	0.00
Spiked Amount 50.000			Recovery	= 88.20%	
25) Nitrobenzene-d5	4.579	82	943456	49.30 ppm	0.00
Spiked Amount 50.000			Recovery	= 98.60%	
51) 2-Fluorobiphenyl	6.227	172	1500769	49.26 ppm	0.00
Spiked Amount 50.000			Recovery	= 98.52%	
73) 2,4,6-Tribromophenol	8.120	330	145579	49.97 ppm	0.00
Spiked Amount 50.000			Recovery	= 99.94%	
85) Terphenyl-d14	11.629	244	1288488	48.82 ppm	0.00
Spiked Amount 50.000			Recovery	= 97.64%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds						Qvalue
2) 1,4-Dioxane	1.563	88	217082	47.17 ppm		56
3) Pyridine	1.878	79	536089	57.53 ppm	#	52
4) N-Nitrosodimethylamine	1.852	74	365809	51.35 ppm		85
6) Indene	4.339	116	1284284	49.12 ppm		93
7) Cumene	3.526	105	1913757	49.17 ppm		86
9) Phenol	3.991	94	929011	51.82 ppm		72
10) Aniline	3.932	93	803737	45.21 ppm		99
11) bis(2-Chloroethyl)ether	3.970	93	692707	46.60 ppm		93
12) 2-Chlorophenol	4.029	128	900643	49.27 ppm		95
13) Decane	4.029	43	324499	45.04 ppm	#	46
14) 1,3-Dichlorobenzene	4.103	146	798900	46.80 ppm		97
15) 1,4-Dichlorobenzene	4.162	146	850647	46.96 ppm		96
16) Benzyl alcohol	4.296	108	446910	49.31 ppm	#	45
17) 1,2-Dichlorobenzene	4.275	146	757742	46.50 ppm		98
18) Acetophenone	4.462	105	1092298	49.98 ppm		89
19) 2-Methylphenol	4.419	108	623817	50.10 ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.365	121	242802	47.60 ppm	#	1
21) 3&4-Methylphenol	4.531	108	638073	47.97 ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89170.D
Acq On : 8 Dec 2016 11:49 am
Operator : ashleyn
Sample : icc3946-50
Misc : op99040,e3e3946
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 12:11:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:59:14 2016
QLast Update : Thu Dec 08 11:59:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.472	70	614254	48.21	ppm		74
23) Hexachloroethane	4.515	201	297087	48.04	ppm		92
26) Nitrobenzene	4.590	77	920044	48.18	ppm		75
27) Quinoline	5.483	129	1202210	45.56	ppm		93
28) Isophorone	4.772	82	1461869	47.94	ppm		85
29) 2-Nitrophenol	4.836	139	403506	47.85	ppm	#	36
30) 2,4-Dimethylphenol	4.916	107	734526	48.80	ppm		79
31) Benzoic acid	5.098	105	586414m	54.38	ppm		
32) bis(2-Chloroethoxy)met...	4.954	93	760162	46.20	ppm		96
33) 2,4-Dichlorophenol	5.072	162	549990	46.87	ppm		96
34) 2,6-Dichlorophenol	5.248	162	616282	48.46	ppm		96
35) 1,3,5-Trichlorobenzene	4.831	180	710589	46.50	ppm		96
36) 1,2,4-Trichlorobenzene	5.093	180	661926	48.24	ppm		96
37) 1,2,3-Trichlorobenzene	5.291	180	586228	44.28	ppm		95
38) Naphthalene	5.157	128	2094050	47.22	ppm		99
39) 4-Chloroaniline	5.243	127	869755	47.93	ppm		91
40) 2,3-Dichloroaniline	6.152	161	633642	46.63	ppm		91
41) Caprolactam	5.612	55	110807	45.98	ppm	#	30
42) Hexachlorobutadiene	5.269	225	428460	46.24	ppm		98
43) 4-Chloro-3-methylphenol	5.778	107	627304	46.98	ppm		83
44) 2-Methylnaphthalene	5.815	141	1223351	46.23	ppm		85
45) 1-Methylnaphthalene	5.917	141	1248429	46.41	ppm		88
46) Dimethylnaphthalene	6.516	156	1198576	47.07	ppm		93
48) Hexachlorocyclopentadiene	5.986	237	745123	116.75	ppm		95
49) 2,4,6-Trichlorophenol	6.168	196	366994	46.47	ppm		98
50) 2,4,5-Trichlorophenol	6.243	196	360844	45.89	ppm		100
52) 2-Chloronaphthalene	6.350	162	1139488	47.00	ppm		87
53) Biphenyl	6.339	154	1633073	49.21	ppm		99
54) 2-Nitroaniline	6.532	65	458212	51.18	ppm		84
55) Dimethylphthalate	6.746	163	1338312	48.42	ppm		97
56) Acenaphthylene	6.842	152	1807611	47.98	ppm		97
57) 2,6-Dinitrotoluene	6.821	165	287235	49.38	ppm		96
58) 3-Nitroaniline	7.056	138	357856	49.60	ppm	#	70
59) Acenaphthene	7.067	153	1314637	48.63	ppm		94
60) 2,4-Dinitrophenol	7.195	184	326540	138.23	ppm	#	30
61) 4-Nitrophenol	7.462	109	240601	50.69	ppm	#	38
62) Dibenzofuran	7.297	168	1605428	48.59	ppm		80
63) 2,4-Dinitrotoluene	7.355	165	386142	53.94	ppm		81
64) 2,3,4,6-Tetrachlorophenol	7.521	232	289599	49.06	ppm		80
65) Diethylphthalate	7.687	149	1463768	50.23	ppm		95
66) Fluorene	7.762	166	1321264	48.87	ppm		96
67) 4-Chlorophenyl-phenyle...	7.783	204	632202	48.56	ppm		75
68) 4-Nitroaniline	7.912	138	299933	50.46	ppm	#	22
70) 4,6-Dinitro-2-methylph...	7.928	198	235176	63.56	ppm	#	63
71) n-Nitrosodiphenylamine	7.981	169	929017	48.32	ppm		94
72) 1,2-Diphenylhydrazine	8.008	77	1634197	49.24	ppm		81
74) 4-Bromophenyl-phenylether	8.479	248	330536	47.60	ppm	#	73
75) Hexachlorobenzene	8.548	284	326750	48.10	ppm		58
76) Pentachlorophenol	8.906	266	417844	102.32	ppm		96
77) Phenanthrene	9.147	178	1703942	48.08	ppm		97

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89170.D
Acq On : 8 Dec 2016 11:49 am
Operator : ashleyn
Sample : icc3946-50
Misc : op99040,e3e3946
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 12:11:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:59:14 2016
QLast Update : Thu Dec 08 11:59:14 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Anthracene	9.222	178	1678714	48.14	ppm		98
79) Carbazole	9.538	167	1625071	47.73	ppm		93
80) Di-n-butylphthalate	10.137	149	2343421	51.30	ppm		95
81) Fluoranthene	10.966	202	2016428	50.66	ppm		95
82) Octadecane	9.072	57	425807	49.44	ppm	#	44
84) Pyrene	11.308	202	2084733	49.82	ppm		97
86) Butylbenzylphthalate	12.469	149	1110902	53.46	ppm		72
87) Benzo[a]anthracene	13.212	228	1956345	46.64	ppm		99
88) 3,3'-Dichlorobenzidine	13.255	252	728379	51.42	ppm		97
89) Chrysene	13.271	228	1954917	51.52	ppm		98
90) bis(2-Ethylhexyl)phtha...	13.421	149	1482992	54.12	ppm		89
92) Di-n-octylphthalate	14.389	149	2517777	52.79	ppm		99
93) Benzo[b]fluoranthene	14.817	252	1973106	50.96	ppm		98
94) Benzo[k]fluoranthene	14.854	252	1578210	47.97	ppm		96
95) Benzo[a]pyrene	15.245	252	1471014	49.82	ppm		94
96) Indeno[1,2,3-cd]pyrene	16.651	276	1593270	50.68	ppm		97
97) Dibenz(a,h)acridine	16.389	279	1234979	50.84	ppm		98
98) Dibenz[a,h]anthracene	16.673	278	1391400	49.49	ppm		95
99) 7,12-Dimethylbenz(a)an...	14.806	256	849210	53.21	ppm		81
100) Benzo[g,h,i]perylene	16.978	276	1196220	50.42	ppm		91

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

9.6.5

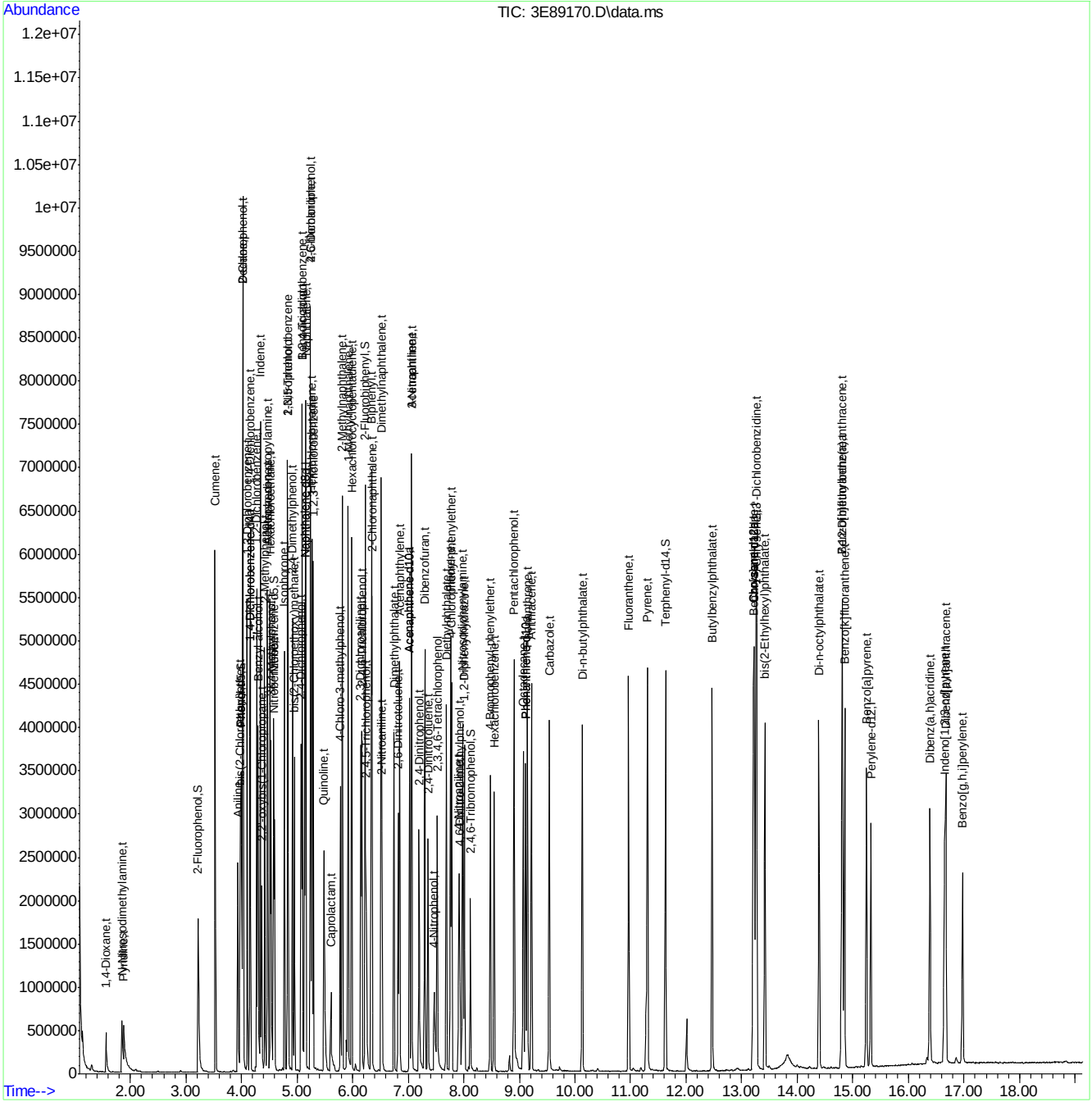
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89170.D
Acq On : 8 Dec 2016 11:49 am
Operator : ashleyn
Sample : icc3946-50
Misc : op99040,e3e3946
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 12:11:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:59:14 2016
QLast Update : Thu Dec 08 11:59:14 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integration Approval Summary

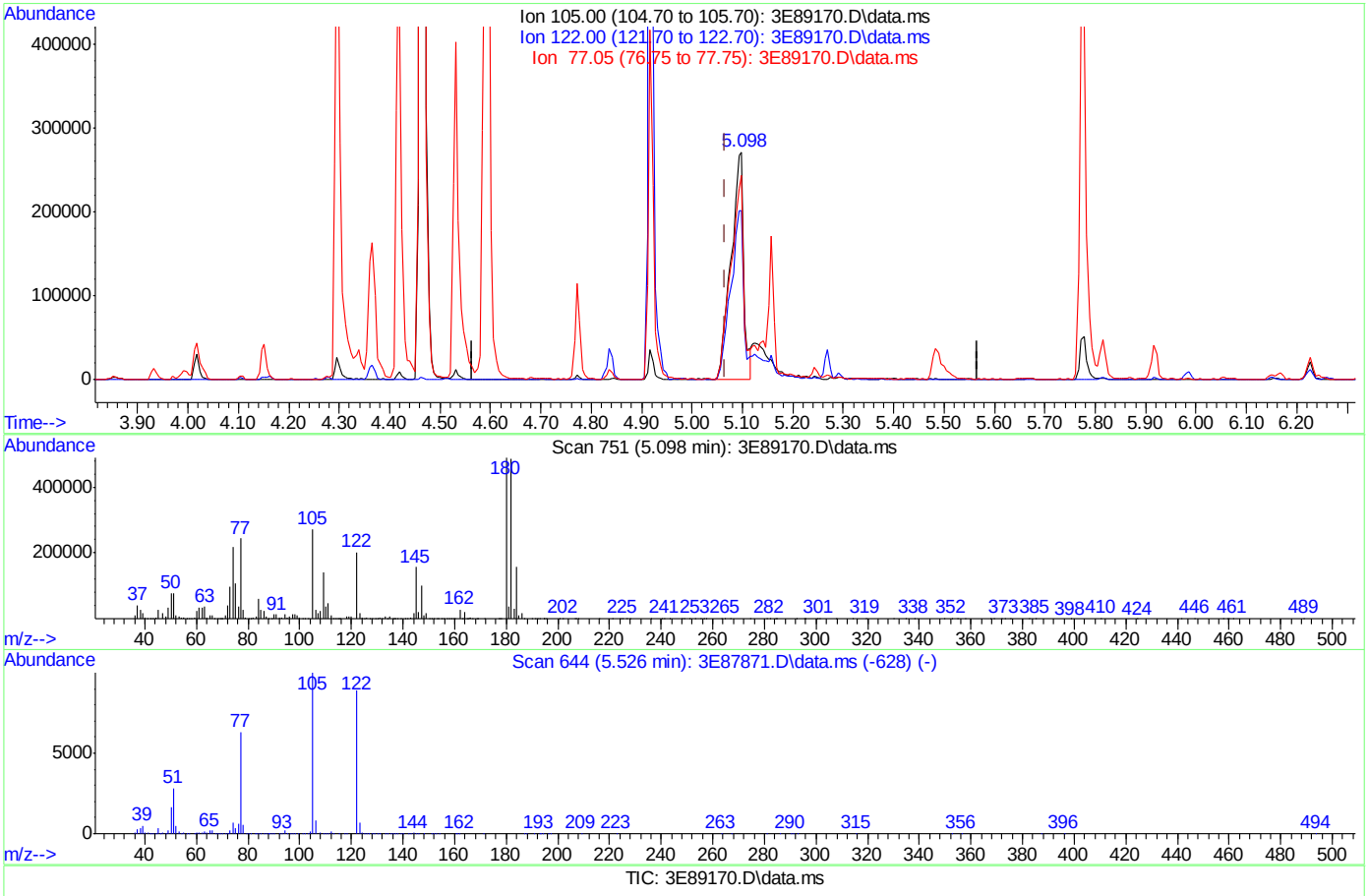
Sample Number:	E3E3946-ICC3946	**Method:**	SW846 8270D
Lab FileID:	3E89170.D	**Analyst approved:**	12/08/16 14:50 Ashley Noble
Injection Time:	12/08/16 11:49	**Supervisor approved:**	12/09/16 12:53 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.10	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89170.D
Acq On : 8 Dec 2016 11:49 am
Operator : ashleyn
Sample : icc3946-50
Misc : op99040,e3e3946
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 12:10:23 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:59:14 2016
QLast Update : Thu Dec 08 11:59:14 2016
Response via : Initial Calibration



(31) Benzoic acid (t)

5.098min (+0.032) 43.83ppm

response 472629

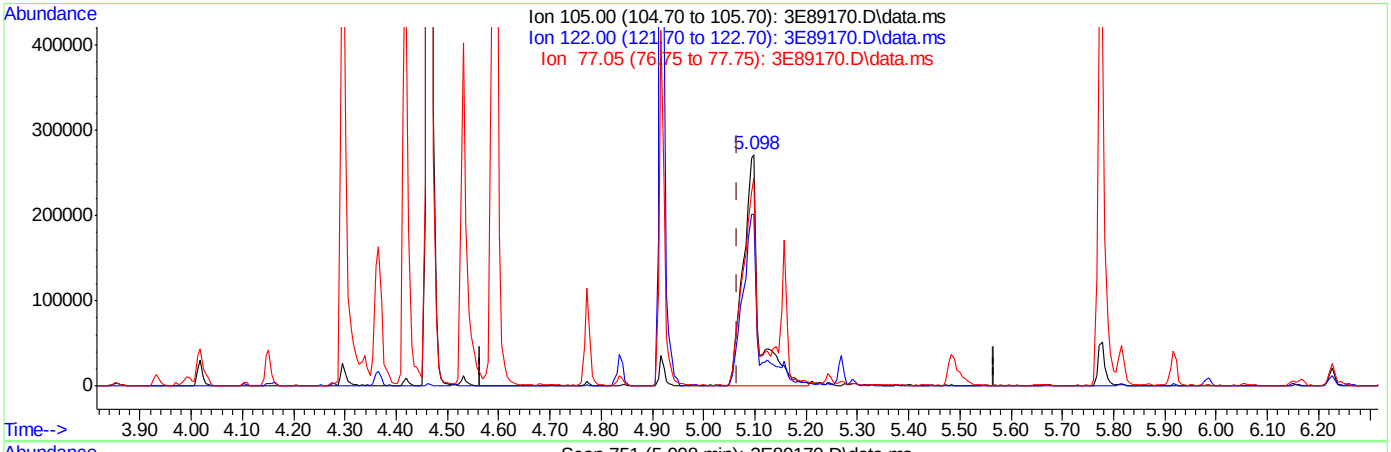
Ion	Exp%	Act%
105.00	100	100
122.00	47.70	74.06
77.05	78.00	88.98
0.00	0.00	0.00

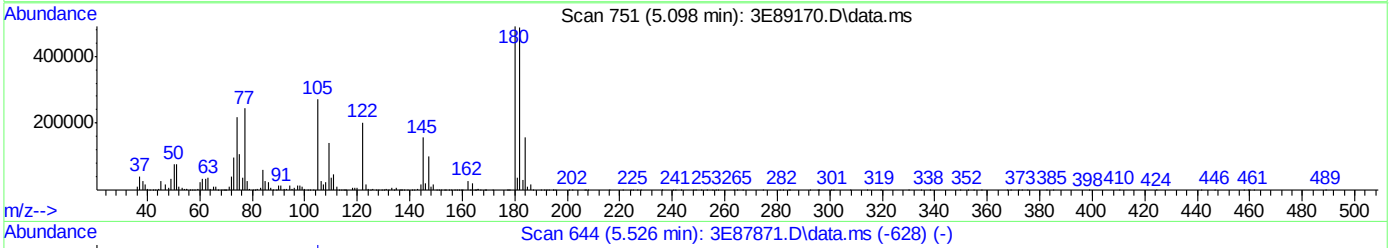
SGS ACCUTEST JC33175

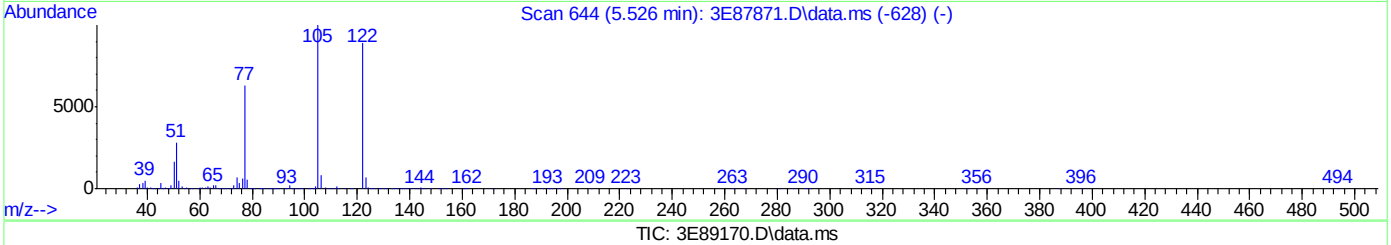
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89170.D
Acq On : 8 Dec 2016 11:49 am
Operator : ashleyn
Sample : icc3946-50
Misc : op99040,e3e3946
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 12:10:23 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 11:59:14 2016
QLast Update : Thu Dec 08 11:59:14 2016
Response via : Initial Calibration







TIC: 3E89170.D\data.ms

(31) Benzoic acid (t)

5.098min (+0.032) 54.38ppm m

response 586414

Ion	Exp%	Act%
105.00	100	100
122.00	47.70	74.09
77.05	78.00	89.63
0.00	0.00	0.00

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89171.D
Acq On : 8 Dec 2016 12:15 pm
Operator : ashleyn
Sample : ic3946-25
Misc : op99040,e3e3946
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:56:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:12:10 2016
QLast Update : Thu Dec 08 12:12:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.146	152	421031	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	1509916	40.00	ppm	0.00
47) Acenaphthene-d10	7.024	164	825406	40.00	ppm	0.00
69) Phenanthrene-d10	9.110	188	1341297	40.00	ppm	0.00
83) Chrysene-d12	13.228	240	1373131	40.00	ppm	0.00
91) Perylene-d12	15.325	264	1105578	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.146	152	421031	40.00	ppm	0.00
103) Acenaphthene-d10a	7.024	164	825406	40.00	ppm	0.00
105) Phenanthrene-d10a	9.110	188	1341297	40.00	ppm	0.00
109) Chrysene-d12a	13.228	240	1373131	40.00	ppm	0.00
111) Naphthalene-d8a	5.136	136	1509916	40.00	ppm	0.00
113) Chrysene-d12b	13.228	240	1373131	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.221	112	300013	23.83	ppm	0.00
Spiked Amount 50.000			Recovery = 47.66%			
8) Phenol-d5	3.986	99	376784	20.82	ppm	0.00
Spiked Amount 50.000			Recovery = 41.64%			
25) Nitrobenzene-d5	4.574	82	442372	24.41	ppm	0.00
Spiked Amount 50.000			Recovery = 48.82%			
51) 2-Fluorobiphenyl	6.222	172	670811	21.92	ppm	0.00
Spiked Amount 50.000			Recovery = 43.84%			
73) 2,4,6-Tribromophenol	8.115	330	68660	22.73	ppm	0.00
Spiked Amount 50.000			Recovery = 45.46%			
85) Terphenyl-d14	11.629	244	600795	23.69	ppm	0.00
Spiked Amount 50.000			Recovery = 47.38%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
2) 1,4-Dioxane	1.568	88	107348	25.09	ppm	99
3) Pyridine	1.884	79	244964	27.14	ppm	99
4) N-Nitrosodimethylamine	1.857	74	165363	24.56	ppm	100
6) Indene	4.339	116	568363	23.20	ppm	95
7) Cumene	3.526	105	890413	24.41	ppm	98
9) Phenol	3.997	94	404974	23.85	ppm	97
10) Aniline	3.932	93	403406	24.61	ppm	99
11) bis(2-Chloroethyl)ether	3.970	93	310361	22.51	ppm	98
12) 2-Chlorophenol	4.029	128	373444	21.79	ppm	97
13) Decane	4.029	43	130550	19.66	ppm	92
14) 1,3-Dichlorobenzene	4.104	146	358844	22.65	ppm	97
15) 1,4-Dichlorobenzene	4.162	146	370109	22.00	ppm	98
16) Benzyl alcohol	4.296	108	193052	22.72	ppm	96
17) 1,2-Dichlorobenzene	4.275	146	337010	22.31	ppm	97
18) Acetophenone	4.462	105	507528	24.70	ppm	98
19) 2-Methylphenol	4.414	108	285803	24.40	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.366	121	111993	23.58	ppm #	93
21) 3&4-Methylphenol	4.531	108	298756	24.08	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89171.D
Acq On : 8 Dec 2016 12:15 pm
Operator : ashleyn
Sample : ic3946-25
Misc : op99040,e3e3946
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:56:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:12:10 2016
QLast Update : Thu Dec 08 12:12:10 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	4.467	70	291341	24.50 ppm	98
23) Hexachloroethane	4.515	201	129456	22.44 ppm	96
26) Nitrobenzene	4.590	77	434629	24.14 ppm	97
27) Quinoline	5.478	129	583371	23.70 ppm	98
28) Isophorone	4.767	82	679359	23.66 ppm	98
29) 2-Nitrophenol	4.836	139	177391	22.34 ppm	96
30) 2,4-Dimethylphenol	4.917	107	323060	22.71 ppm	98
31) Benzoic acid	5.072	105	245983	23.51 ppm	95
32) bis(2-Chloroethoxy)met...	4.954	93	343364	22.31 ppm	99
33) 2,4-Dichlorophenol	5.072	162	250337	22.75 ppm	92
34) 2,6-Dichlorophenol	5.243	162	258455	21.54 ppm	92
35) 1,3,5-Trichlorobenzene	4.826	180	302084	21.11 ppm	95
36) 1,2,4-Trichlorobenzene	5.093	180	286530	22.15 ppm	98
37) 1,2,3-Trichlorobenzene	5.291	180	261906	21.32 ppm	96
38) Naphthalene	5.157	128	962540	23.11 ppm	99
39) 4-Chloroaniline	5.243	127	366052	21.42 ppm	99
40) 2,3-Dichloroaniline	6.147	161	289237	22.72 ppm	97
41) Caprolactam	5.585	55	53836	23.91 ppm	95
42) Hexachlorobutadiene	5.270	225	189187	21.83 ppm	97
43) 4-Chloro-3-methylphenol	5.772	107	292490	23.35 ppm	97
44) 2-Methylnaphthalene	5.815	141	553326	22.36 ppm	98
45) 1-Methylnaphthalene	5.917	141	575465	22.86 ppm	97
46) Dimethylnaphthalene	6.510	156	538466	22.53 ppm	96
48) Hexachlorocyclopentadiene	5.981	237	292823	44.06 ppm	99
49) 2,4,6-Trichlorophenol	6.163	196	171269	21.83 ppm	97
50) 2,4,5-Trichlorophenol	6.243	196	168550	21.63 ppm	97
52) 2-Chloronaphthalene	6.350	162	523652	21.70 ppm	98
53) Biphenyl	6.334	154	736635	22.10 ppm	99
54) 2-Nitroaniline	6.526	65	219232	24.19 ppm	96
55) Dimethylphthalate	6.740	163	651352	23.54 ppm	98
56) Acenaphthylene	6.842	152	875112	23.24 ppm	98
57) 2,6-Dinitrotoluene	6.815	165	134784	23.06 ppm	98
58) 3-Nitroaniline	7.051	138	164096	22.61 ppm	97
59) Acenaphthene	7.061	153	596039	22.01 ppm	100
60) 2,4-Dinitrophenol	7.190	184	134168	52.37 ppm	90
61) 4-Nitrophenol	7.473	109	95808	19.98 ppm	88
62) Dibenzofuran	7.297	168	750762	22.68 ppm	100
63) 2,4-Dinitrotoluene	7.350	165	184646	25.20 ppm	98
64) 2,3,4,6-Tetrachlorophenol	7.521	232	134948	22.78 ppm	95
65) Diethylphthalate	7.682	149	704644	23.98 ppm	99
66) Fluorene	7.757	166	619825	22.86 ppm	98
67) 4-Chlorophenyl-phenyle...	7.783	204	296483	22.73 ppm	97
68) 4-Nitroaniline	7.901	138	148652	24.78 ppm	91
70) 4,6-Dinitro-2-methylph...	7.917	198	106912	26.43 ppm	84
71) n-Nitrosodiphenylamine	7.976	169	445561	22.50 ppm	100
72) 1,2-Diphenylhydrazine	8.008	77	812870	23.69 ppm	98
74) 4-Bromophenyl-phenylether	8.473	248	154199	21.62 ppm	95
75) Hexachlorobenzene	8.543	284	152491	21.81 ppm	94
76) Pentachlorophenol	8.907	266	178809	42.03 ppm	98
77) Phenanthrene	9.142	178	801146	21.97 ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89171.D
Acq On : 8 Dec 2016 12:15 pm
Operator : ashleyn
Sample : ic3946-25
Misc : op99040,e3e3946
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:56:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:12:10 2016
QLast Update : Thu Dec 08 12:12:10 2016
Response via : Initial Calibration

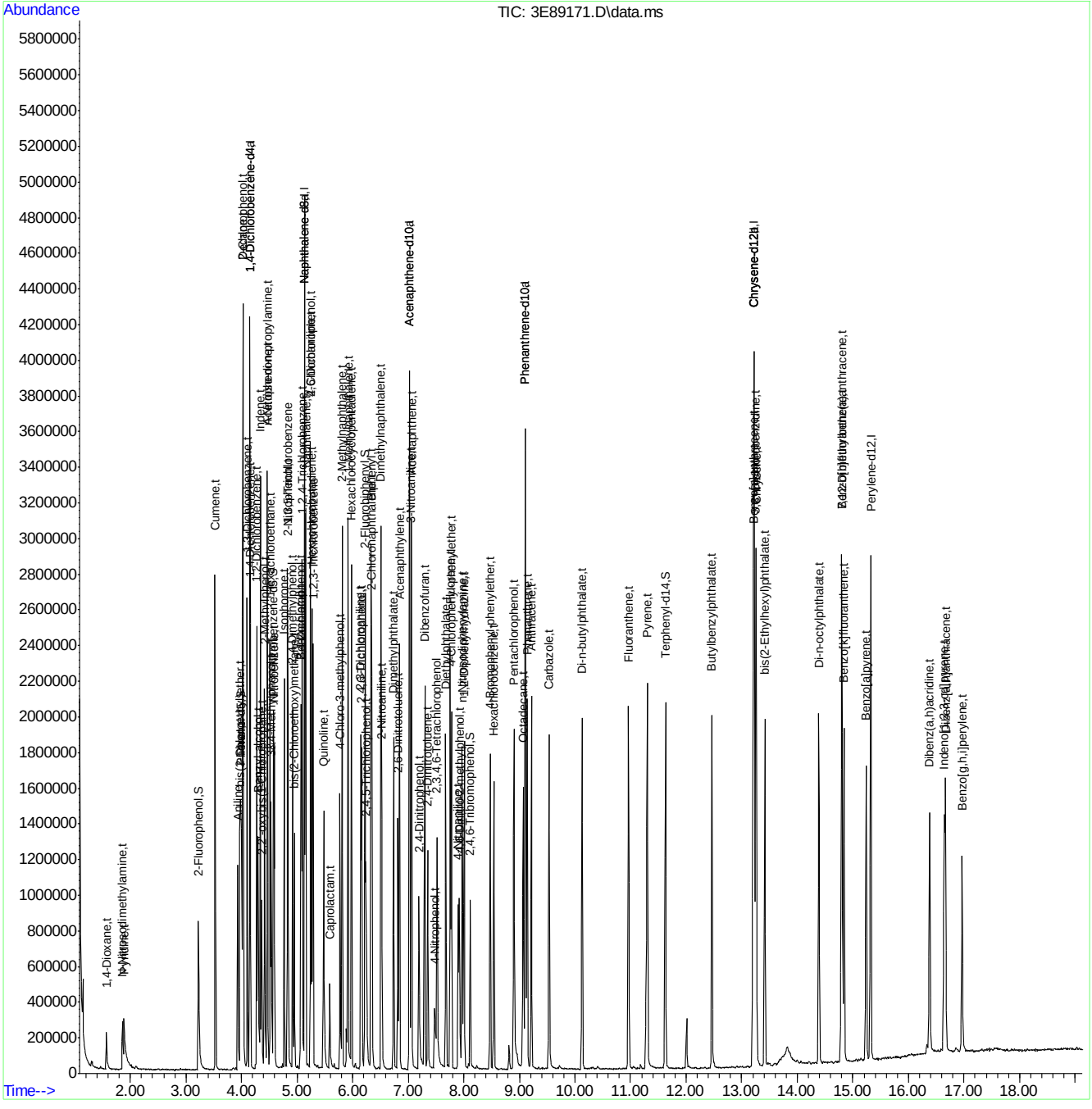
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.217	178	828840	23.09 ppm	100
79) Carbazole	9.532	167	789479	22.57 ppm	99
80) Di-n-butylphthalate	10.131	149	1133011	23.79 ppm	98
81) Fluoranthene	10.960	202	940277	22.72 ppm	97
82) Octadecane	9.067	57	202157	22.69 ppm	96
84) Pyrene	11.303	202	980052	24.28 ppm	99
86) Butylbenzylphthalate	12.463	149	520819	25.61 ppm	99
87) Benzo[a]anthracene	13.207	228	908205	22.73 ppm	98
88) 3,3'-Dichlorobenzidine	13.250	252	314993	22.90 ppm	99
89) Chrysene	13.260	228	861778	23.38 ppm	99
90) bis(2-Ethylhexyl)phtha...	13.416	149	701444	26.09 ppm	99
92) Di-n-octylphthalate	14.389	149	1218068	23.56 ppm	98
93) Benzo[b]fluoranthene	14.806	252	878518	21.09 ppm	97
94) Benzo[k]fluoranthene	14.844	252	775084	22.16 ppm	99
95) Benzo[a]pyrene	15.239	252	712573	22.53 ppm	97
96) Indeno[1,2,3-cd]pyrene	16.646	276	766565	22.68 ppm	95
97) Dibenz(a,h)acridine	16.379	279	598252	22.90 ppm	99
98) Dibenz[a,h]anthracene	16.667	278	656863	21.84 ppm	97
99) 7,12-Dimethylbenz(a)an...	14.795	256	379651	21.91 ppm	97
100) Benzo[g,h,i]perylene	16.967	276	600001	23.55 ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89171.D
Acq On : 8 Dec 2016 12:15 pm
Operator : ashleyn
Sample : ic3946-25
Misc : op99040,e3e3946
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:56:31 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:12:10 2016
QLast Update : Thu Dec 08 12:12:10 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

3E89172.D

Manual Integrations APPROVED (compounds with "m" flag)

Kristi Schollenberger 12/09/16 12:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:30:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.146	152	453822	40.00 ppm	0.00
24) Naphthalene-d8	5.136	136	1607133	40.00 ppm	0.00
47) Acenaphthene-d10	7.018	164	888509	40.00 ppm	0.00
69) Phenanthrene-d10	9.104	188	1453377	40.00 ppm	0.00
83) Chrysene-d12	13.223	240	1414534	40.00 ppm	0.00
91) Perylene-d12	15.325	264	1218965	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.146	152	453822	40.00 ppm	0.00
103) Acenaphthene-d10a	7.018	164	888509	40.00 ppm	0.00
105) Phenanthrene-d10a	9.104	188	1453377	40.00 ppm	0.00
109) Chrysene-d12a	13.223	240	1414534	40.00 ppm	0.00
111) Naphthalene-d8a	5.136	136	1607133	40.00 ppm	0.00
113) Chrysene-d12b	13.223	240	1414534	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	3.226	112	117609	8.73 ppm	0.01
Spiked Amount 50.000			Recovery	= 17.46%	
8) Phenol-d5	3.991	99	148566	7.83 ppm	0.00
Spiked Amount 50.000			Recovery	= 15.66%	
25) Nitrobenzene-d5	4.574	82	187344	9.75 ppm	0.00
Spiked Amount 50.000			Recovery	= 19.50%	
51) 2-Fluorobiphenyl	6.221	172	282770	8.76 ppm	0.00
Spiked Amount 50.000			Recovery	= 17.52%	
73) 2,4,6-Tribromophenol	8.115	330	27859	8.64 ppm	0.00
Spiked Amount 50.000			Recovery	= 17.28%	
85) Terphenyl-d14	11.623	244	243522	9.40 ppm	0.00
Spiked Amount 50.000			Recovery	= 18.80%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	

Target Compounds					Qvalue
2) 1,4-Dioxane	1.573	88	44785	9.71 ppm	97
3) Pyridine	1.894	79	105918	10.73 ppm	98
4) N-Nitrosodimethylamine	1.868	74	70495	9.74 ppm	99
6) Indene	4.339	116	233067	8.93 ppm	93
7) Cumene	3.531	105	371004	9.47 ppm	99
9) Phenol	4.002	94	166391	9.16 ppm	99
10) Aniline	3.932	93	174266	9.89 ppm	97
11) bis(2-Chloroethyl)ether	3.970	93	128760	8.81 ppm	97
12) 2-Chlorophenol	4.028	128	148106	8.19 ppm	91
13) Decane	4.028	43	53037	7.68 ppm	89
14) 1,3-Dichlorobenzene	4.103	146	150544	8.96 ppm	93
15) 1,4-Dichlorobenzene	4.162	146	156476	8.81 ppm	95
16) Benzyl alcohol	4.296	108	79514	8.81 ppm	83
17) 1,2-Dichlorobenzene	4.280	146	142753	8.93 ppm	99
18) Acetophenone	4.462	105	204427	9.25 ppm	93
19) 2-Methylphenol	4.414	108	118846	9.45 ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.365	121	48293	9.52 ppm	84
21) 3&4-Methylphenol	4.537	108	124680	9.38 ppm	92

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:30:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.467	70	120296	9.42	ppm		97
23) Hexachloroethane	4.515	201	51912	8.49	ppm		91
26) Nitrobenzene	4.590	77	181628	9.53	ppm		99
27) Quinoline	5.473	129	246523	9.49	ppm		96
28) Isophorone	4.767	82	287037	9.48	ppm		97
29) 2-Nitrophenol	4.836	139	74304	8.95	ppm		90
30) 2,4-Dimethylphenol	4.916	107	130370	8.74	ppm		94
31) Benzoic acid	5.050	105	82827m	7.53	ppm		
32) bis(2-Chloroethoxy)met...	4.948	93	150043	9.33	ppm		96
33) 2,4-Dichlorophenol	5.077	162	100310	8.70	ppm		94
34) 2,6-Dichlorophenol	5.243	162	97292	7.80	ppm		94
35) 1,3,5-Trichlorobenzene	4.825	180	123947	8.36	ppm		95
36) 1,2,4-Trichlorobenzene	5.093	180	116596	8.63	ppm		99
37) 1,2,3-Trichlorobenzene	5.291	180	111089	8.71	ppm		98
38) Naphthalene	5.157	128	399437	9.13	ppm		98
39) 4-Chloroaniline	5.243	127	158021	8.90	ppm		99
40) 2,3-Dichloroaniline	6.146	161	125754	9.42	ppm		95
41) Caprolactam	5.574	55	21569	9.07	ppm		90
42) Hexachlorobutadiene	5.264	225	76684	8.49	ppm		99
43) 4-Chloro-3-methylphenol	5.772	107	118942	9.02	ppm		97
44) 2-Methylnaphthalene	5.815	141	229863	8.88	ppm		98
45) 1-Methylnaphthalene	5.916	141	233987	8.86	ppm		98
46) Dimethylnaphthalene	6.510	156	226245	9.04	ppm		98
48) Hexachlorocyclopentadiene	5.981	237	102540	14.62	ppm		99
49) 2,4,6-Trichlorophenol	6.162	196	69985	8.47	ppm		98
50) 2,4,5-Trichlorophenol	6.243	196	71754m	8.75	ppm		
52) 2-Chloronaphthalene	6.344	162	219288	8.63	ppm		96
53) Biphenyl	6.334	154	306896	8.72	ppm		97
54) 2-Nitroaniline	6.526	65	88125	9.08	ppm		92
55) Dimethylphthalate	6.735	163	270388	9.17	ppm		99
56) Acenaphthylene	6.842	152	368264	9.19	ppm		99
57) 2,6-Dinitrotoluene	6.815	165	57951	9.33	ppm		96
58) 3-Nitroaniline	7.050	138	64755	8.42	ppm		97
59) Acenaphthene	7.061	153	245704	8.60	ppm		97
60) 2,4-Dinitrophenol	7.195	184	41369	14.88	ppm		98
61) 4-Nitrophenol	7.500	109	55613	11.15	ppm		88
62) Dibenzofuran	7.291	168	318182	9.07	ppm		95
63) 2,4-Dinitrotoluene	7.350	165	78706	9.97	ppm		97
64) 2,3,4,6-Tetrachlorophenol	7.521	232	54481	8.67	ppm		96
65) Diethylphthalate	7.676	149	298920	9.51	ppm		99
66) Fluorene	7.756	166	252564	8.78	ppm		90
67) 4-Chlorophenyl-phenyle...	7.778	204	120650	8.73	ppm		99
68) 4-Nitroaniline	7.895	138	61350	9.51	ppm		95
70) 4,6-Dinitro-2-methylph...	7.917	198	37946	8.58	ppm	#	66
71) n-Nitrosodiphenylamine	7.970	169	186220	8.83	ppm		96
72) 1,2-Diphenylhydrazine	8.002	77	345217	9.37	ppm		99
74) 4-Bromophenyl-phenylether	8.473	248	64528	8.54	ppm		95
75) Hexachlorobenzene	8.543	284	63161	8.52	ppm		92
76) Pentachlorophenol	8.901	266	66333	14.78	ppm		96
77) Phenanthrene	9.136	178	339706	8.77	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:30:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.217	178	346852	9.03 ppm	99
79) Carbazole	9.532	167	326598	8.76 ppm	98
80) Di-n-butylphthalate	10.131	149	466776	9.12 ppm	97
81) Fluoranthene	10.960	202	387987	8.79 ppm	97
82) Octadecane	9.067	57	83736	8.81 ppm	99
84) Pyrene	11.303	202	403920	9.76 ppm	97
86) Butylbenzylphthalate	12.463	149	216600	10.30 ppm	98
87) Benzo[a]anthracene	13.207	228	377776	9.32 ppm	99
88) 3,3'-Dichlorobenzidine	13.255	252	129449	9.27 ppm	94
89) Chrysene	13.260	228	350691	9.34 ppm	100
90) bis(2-Ethylhexyl)phtha...	13.415	149	283818	10.17 ppm	98
92) Di-n-octylphthalate	14.389	149	494034	8.75 ppm	98
93) Benzo[b]fluoranthene	14.801	252	360330	8.05 ppm	99
94) Benzo[k]fluoranthene	14.838	252	312029m	8.25 ppm	
95) Benzo[a]pyrene	15.239	252	298637	8.71 ppm	94
96) Indeno[1,2,3-cd]pyrene	16.640	276	320710	8.74 ppm	97
97) Dibenz(a,h)acridine	16.384	279	255568	9.00 ppm	95
98) Dibenz[a,h]anthracene	16.662	278	273106	8.41 ppm	97
99) 7,12-Dimethylbenz(a)an...	14.790	256	145665	7.79 ppm	94
100) Benzo[g,h,i]perylene	16.967	276	257204	9.25 ppm	96

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

9.6.7

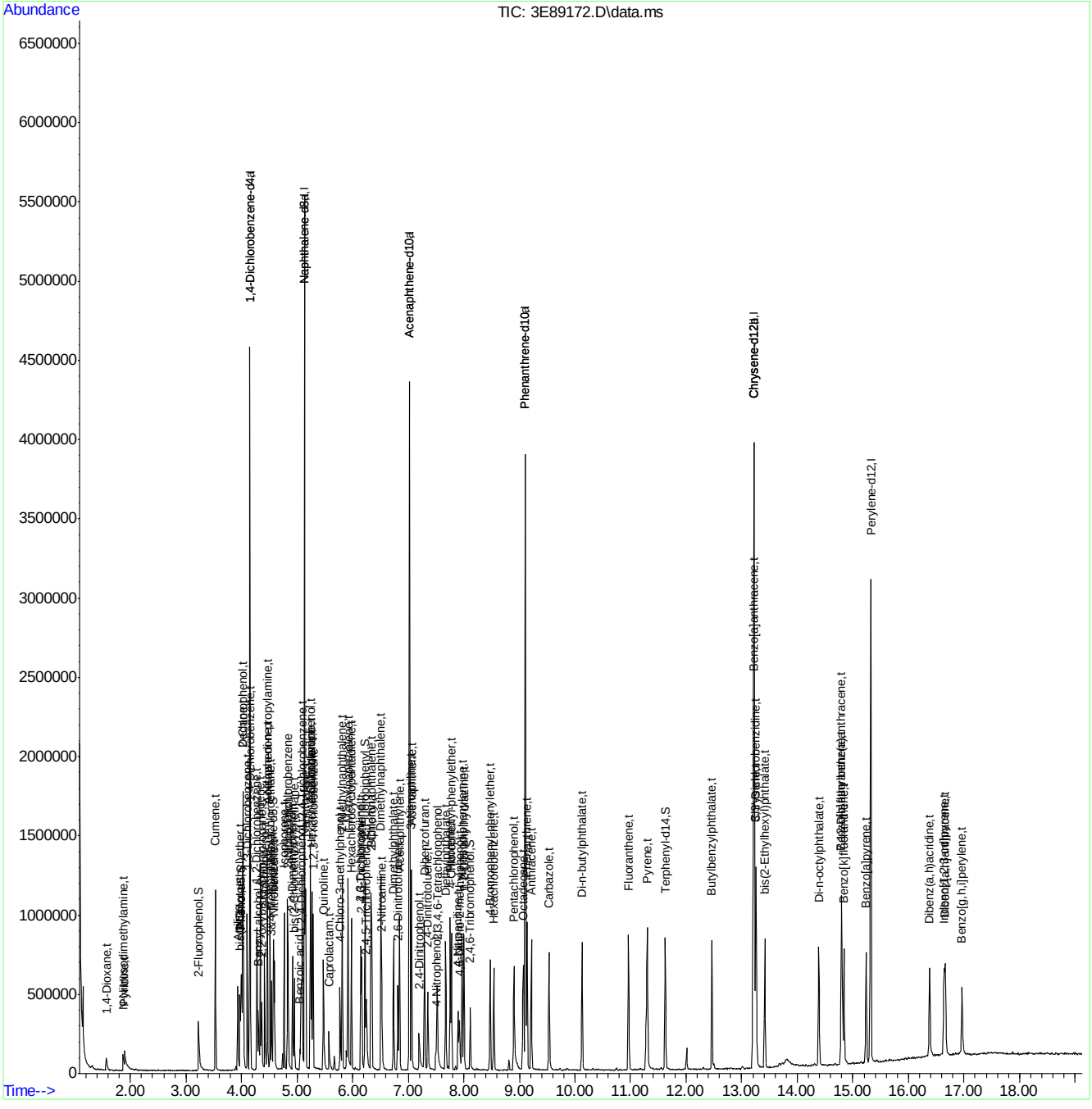
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:30:01 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integration Approval Summary

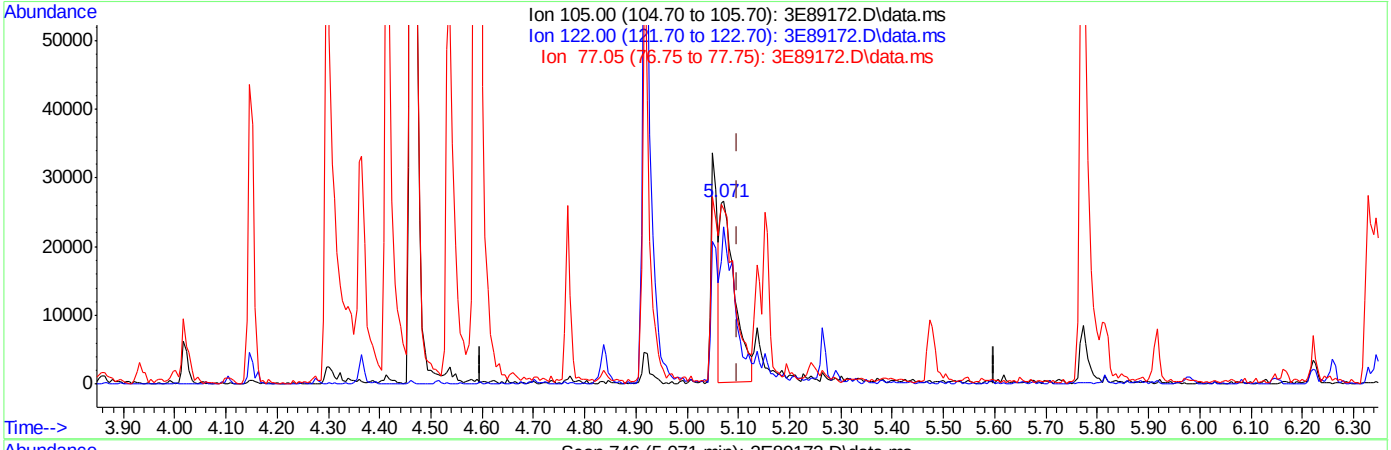
Sample Number:	E3E3946-IC3946	**Method:**	SW846 8270D
Lab FileID:	3E89172.D	**Analyst approved:**	12/08/16 14:50 Ashley Noble
Injection Time:	12/08/16 12:41	**Supervisor approved:**	12/09/16 12:53 Kristi Schollenberger

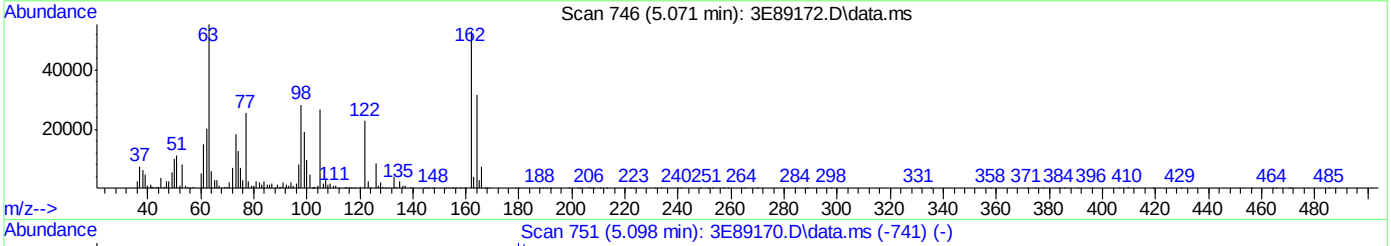
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.05	Split peak
2,4,5-Trichlorophenol	95-95-4		6.24	Poor instrument integration
Benzo(k)fluoranthene	207-08-9		14.84	Poor instrument integration

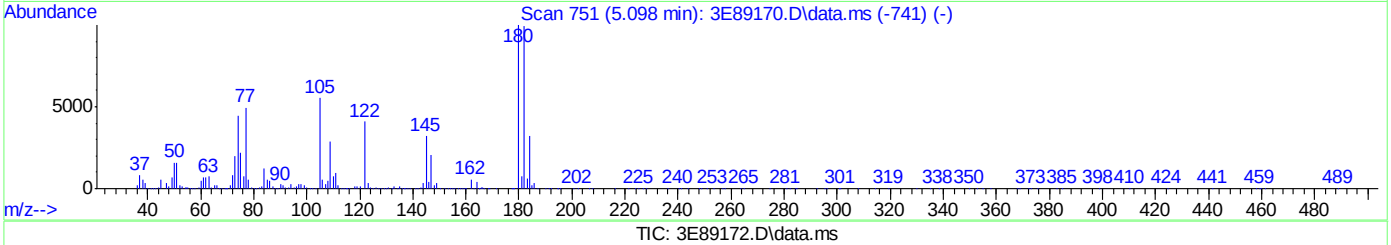
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:28:53 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration







TIC: 3E89172.D\data.ms

(31) Benzoic acid (t)

5.071min (-0.027) 4.72ppm

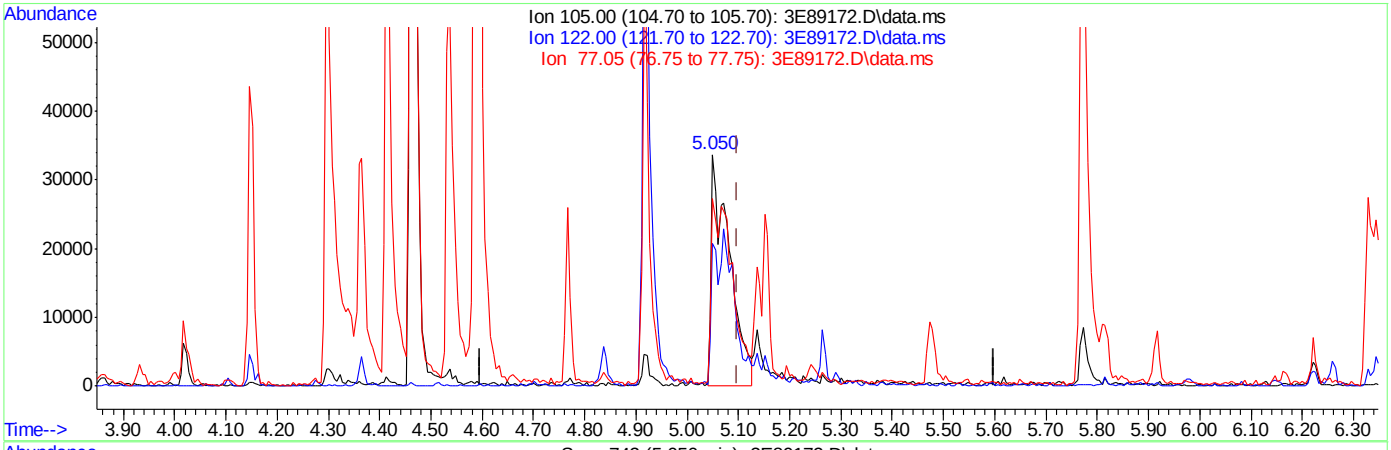
response 51994

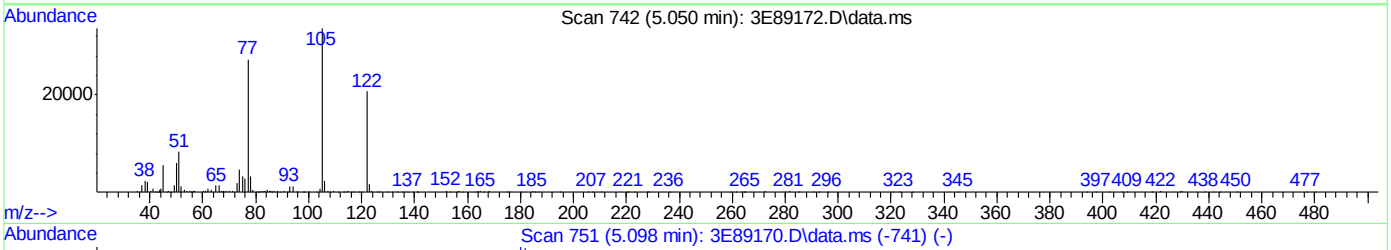
Ion	Exp%	Act%
105.00	100	100
122.00	74.10	97.18
77.05	89.60	86.86
0.00	0.00	0.00

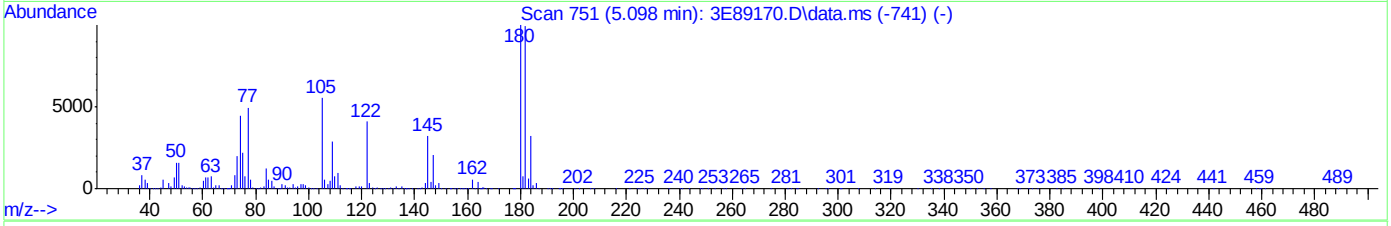
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:28:53 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration







TIC: 3E89172.D\data.ms

(31) Benzoic acid (t)

5.050min (-0.048) 7.53ppm m

response 82827

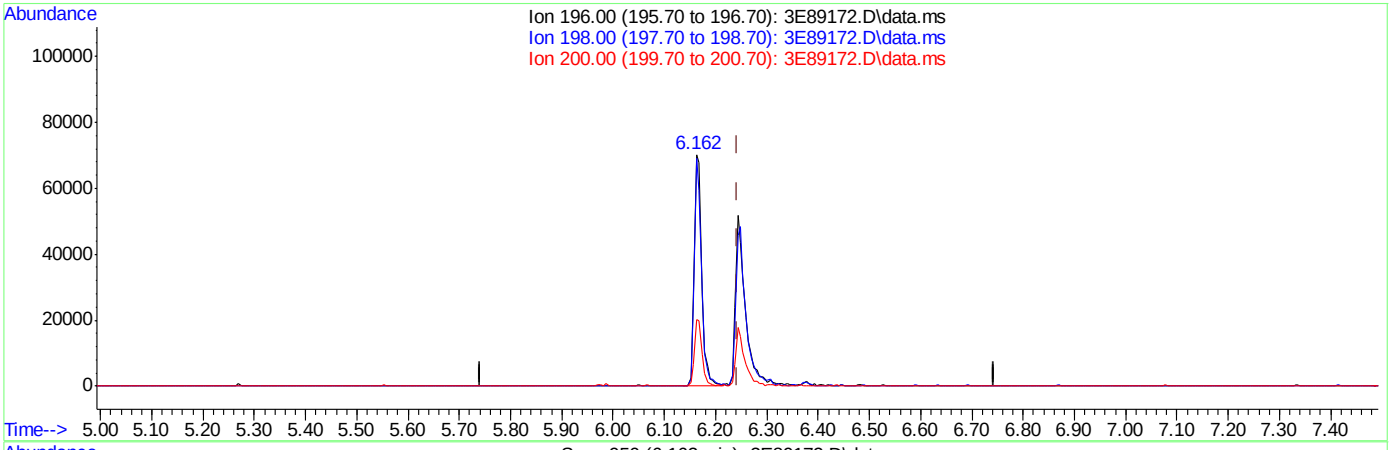
Ion	Exp%	Act%
105.00	100	100
122.00	74.10	61.43
77.05	89.60	80.92
0.00	0.00	0.00

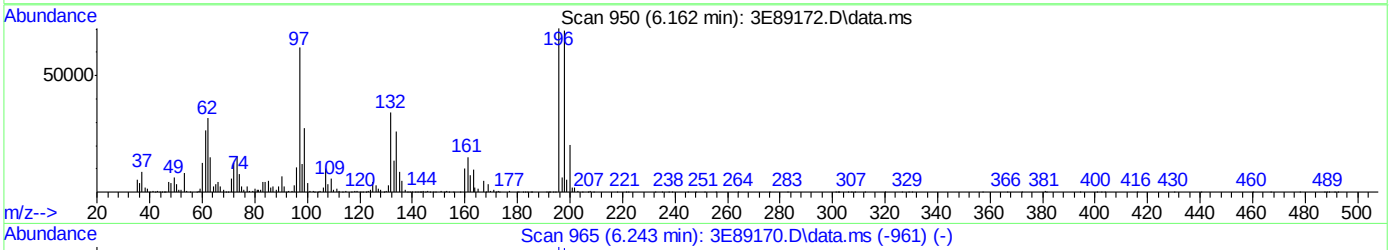
SGS ACCUTEST JC33175

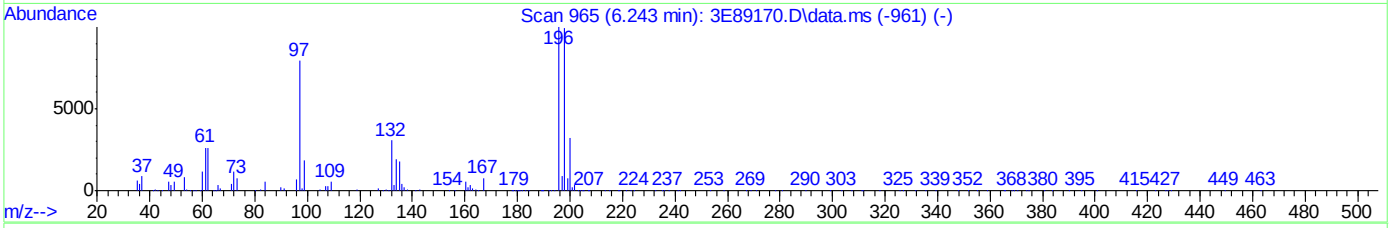
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:28:53 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration







TIC: 3E89172.D\data.ms

(50) 2,4,5-Trichlorophenol (t)

6.162min (-0.080) 8.54ppm

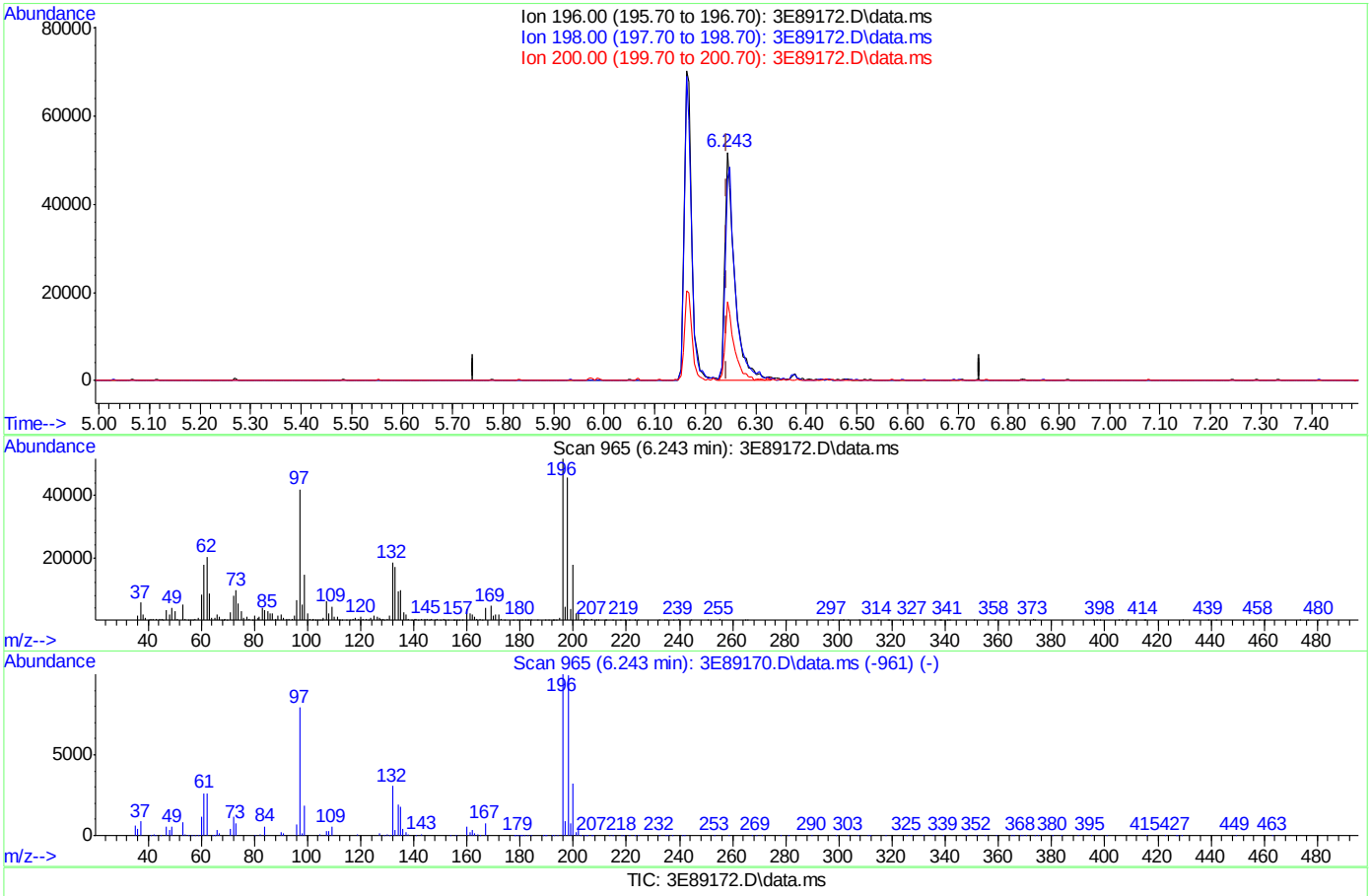
response 69985

Ion	Exp%	Act%
196.00	100	100
198.00	99.00	98.12
200.00	32.40	28.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:28:53 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration



(50) 2,4,5-Trichlorophenol (t)

6.243min (-0.000) 8.75ppm m

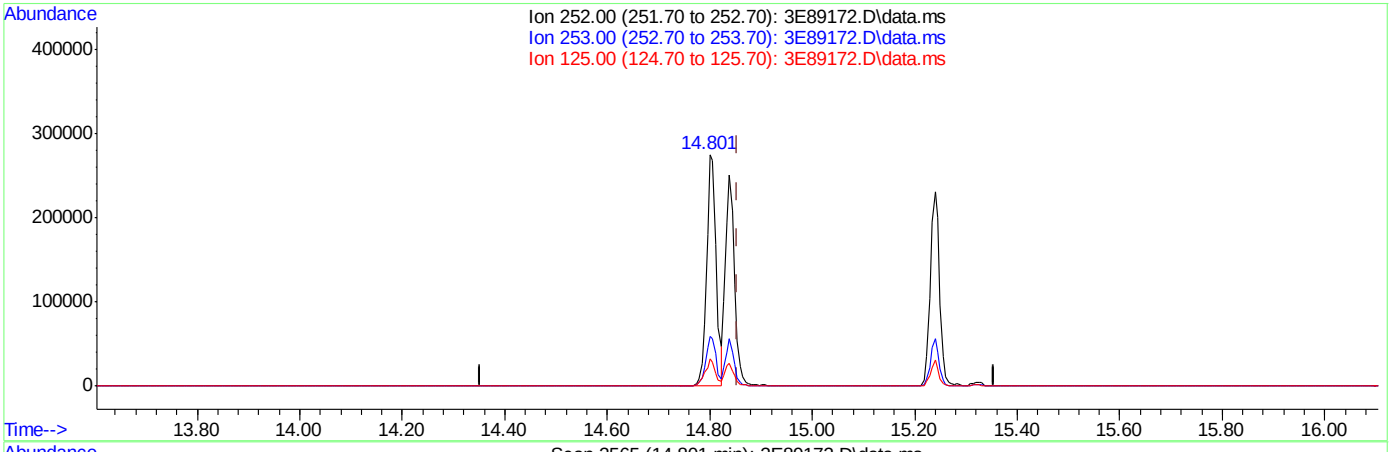
response 71754

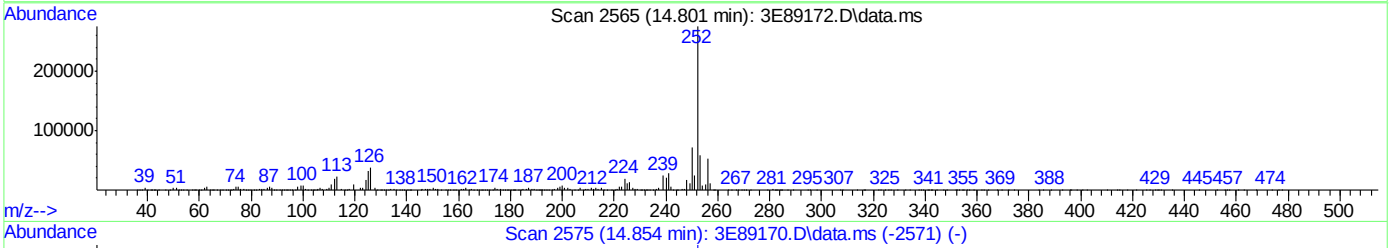
Ion	Exp%	Act%
196.00	100	100
198.00	99.00	88.12
200.00	32.40	34.42
0.00	0.00	0.00

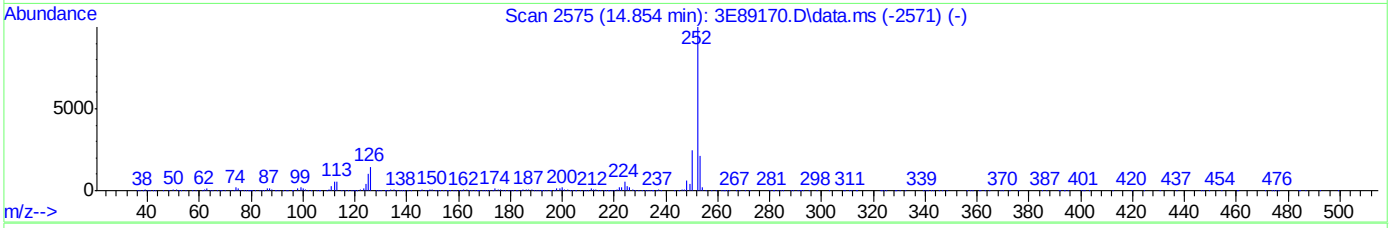
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:28:53 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration







TIC: 3E89172.D\data.ms

(94) Benzo[k]fluoranthene (t)

14.801min (-0.054) 9.52ppm

response 360330

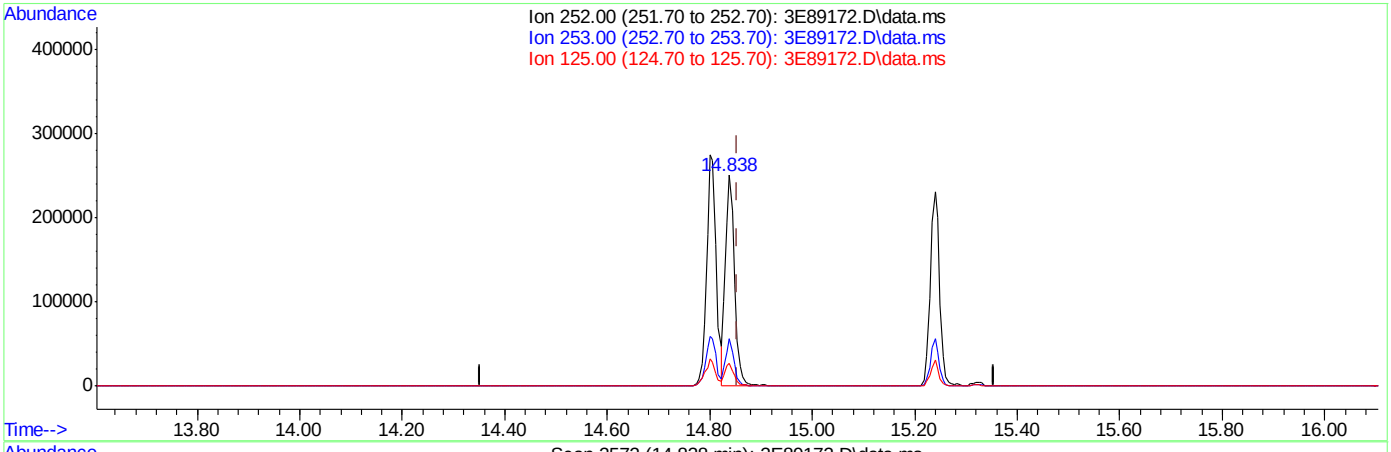
Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.81
125.00	10.20	11.93
0.00	0.00	0.00

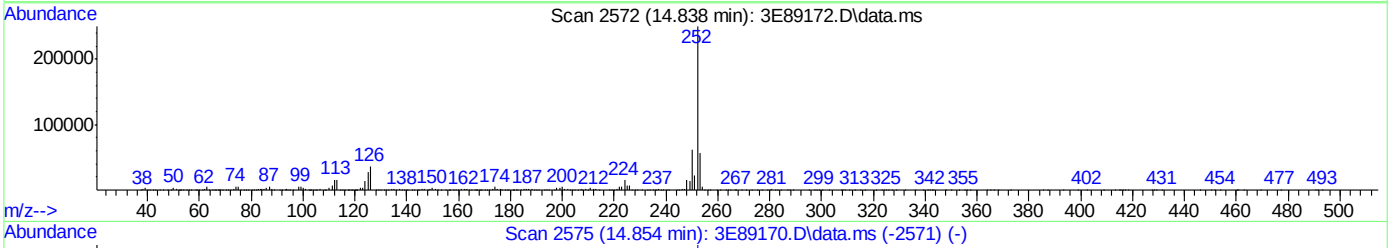
SGS ACCUTEST JC33175

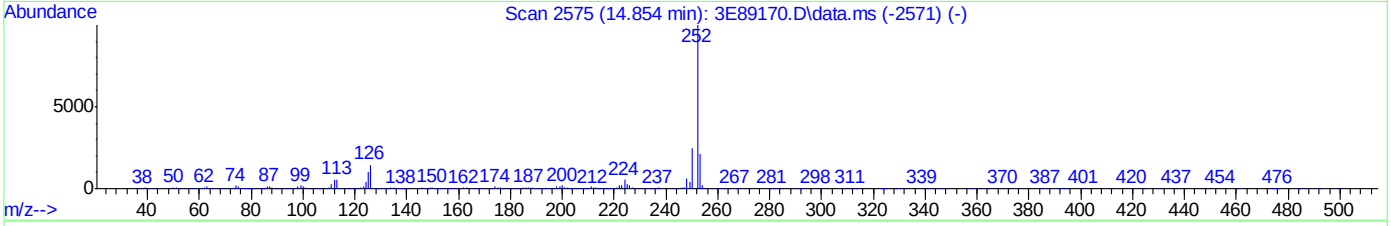
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89172.D
Acq On : 8 Dec 2016 12:41 pm
Operator : ashleyn
Sample : ic3946-10
Misc : op99040,e3e3946
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 14:28:53 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 12:56:48 2016
QLast Update : Thu Dec 08 12:56:48 2016
Response via : Initial Calibration







TIC: 3E89172.D\data.ms

(94) Benzo[k]fluoranthene (t)

14.838min (-0.016) 8.25ppm m

response 312029

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	22.67
125.00	10.20	10.97
0.00	0.00	0.00

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89173.D
Acq On : 8 Dec 2016 1:07 pm
Operator : ashleyn
Sample : ic3946-5
Misc : op99040,e3e3946
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 14:36:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:31:16 2016
QLast Update : Thu Dec 08 14:31:16 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.146	152	423505	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	1574683	40.00	ppm	0.00
47) Acenaphthene-d10	7.018	164	883778	40.00	ppm	0.00
69) Phenanthrene-d10	9.104	188	1440144	40.00	ppm	0.00
83) Chrysene-d12	13.223	240	1397540	40.00	ppm	0.00
91) Perylene-d12	15.325	264	1224253	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.146	152	423505	40.00	ppm	0.00
103) Acenaphthene-d10a	7.018	164	883778	40.00	ppm	0.00
105) Phenanthrene-d10a	9.104	188	1440144	40.00	ppm	0.00
109) Chrysene-d12a	13.223	240	1397540	40.00	ppm	0.00
111) Naphthalene-d8a	5.136	136	1574683	40.00	ppm	0.00
113) Chrysene-d12b	13.223	240	1397540	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.232	112	62941	5.10	ppm	0.02
Spiked Amount 50.000			Recovery	=	10.20%	
8) Phenol-d5	3.996	99	78235	4.56	ppm	0.01
Spiked Amount 50.000			Recovery	=	9.12%	
25) Nitrobenzene-d5	4.574	82	101144	5.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.78%	
51) 2-Fluorobiphenyl	6.221	172	149083	4.73	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.46%	
73) 2,4,6-Tribromophenol	8.115	330	15353	4.90	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.80%	
85) Terphenyl-d14	11.624	244	134184	5.29	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.58%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds							Qvalue
2) 1,4-Dioxane	1.573	88	27921	6.51	ppm		91
3) Pyridine	1.916	79	61560	6.62	ppm		88
4) N-Nitrosodimethylamine	1.873	74	36068	5.36	ppm		96
6) Indene	4.339	116	123424	5.15	ppm		95
7) Cumene	3.531	105	201133	5.55	ppm		99
9) Phenol	4.007	94	89257	5.33	ppm		98
10) Aniline	3.932	93	95211	5.80	ppm		99
11) bis(2-Chloroethyl)ether	3.975	93	72317	5.39	ppm		95
12) 2-Chlorophenol	4.034	128	78247	4.76	ppm		98
13) Decane	4.028	43	27334	4.39	ppm		90
14) 1,3-Dichlorobenzene	4.103	146	82435	5.33	ppm		96
15) 1,4-Dichlorobenzene	4.162	146	83671	5.13	ppm		99
16) Benzyl alcohol	4.307	108	38074	4.60	ppm		89
17) 1,2-Dichlorobenzene	4.280	146	75288	5.12	ppm		98
18) Acetophenone	4.467	105	109884	5.38	ppm		98
19) 2-Methylphenol	4.419	108	64545	5.54	ppm		91
20) 2,2'-oxybis(1-Chloropr...	4.365	121	25283	5.38	ppm	#	99
21) 3&4-Methylphenol	4.537	108	61912	5.04	ppm		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89173.D
Acq On : 8 Dec 2016 1:07 pm
Operator : ashleyn
Sample : ic3946-5
Misc : op99040,e3e3946
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 14:36:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:31:16 2016
QLast Update : Thu Dec 08 14:31:16 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.467	70	62486	5.28	ppm		99
23) Hexachloroethane	4.515	201	28634	5.13	ppm		90
26) Nitrobenzene	4.590	77	106054	5.72	ppm		96
27) Quinoline	5.478	129	131660	5.21	ppm		96
28) Isophorone	4.767	82	155512	5.28	ppm		96
29) 2-Nitrophenol	4.841	139	37557	4.69	ppm		93
30) 2,4-Dimethylphenol	4.922	107	67435	4.70	ppm		95
31) Benzoic acid	5.066	105	36961	3.58	ppm		91
32) bis(2-Chloroethoxy)met...	4.954	93	77749	4.98	ppm		99
33) 2,4-Dichlorophenol	5.082	162	54370	4.90	ppm		92
34) 2,6-Dichlorophenol	5.243	162	53488	4.52	ppm		88
35) 1,3,5-Trichlorobenzene	4.831	180	66140	4.66	ppm		92
36) 1,2,4-Trichlorobenzene	5.093	180	62155	4.79	ppm		99
37) 1,2,3-Trichlorobenzene	5.291	180	61201	4.99	ppm		95
38) Naphthalene	5.157	128	214834	5.07	ppm		99
39) 4-Chloroaniline	5.243	127	83534	4.88	ppm		97
40) 2,3-Dichloroaniline	6.147	161	65516	5.05	ppm		93
41) Caprolactam	5.569	55	11511	5.00	ppm		91
42) Hexachlorobutadiene	5.264	225	40601	4.69	ppm		95
43) 4-Chloro-3-methylphenol	5.772	107	65150	5.11	ppm		89
44) 2-Methylnaphthalene	5.815	141	128007	5.13	ppm		96
45) 1-Methylnaphthalene	5.917	141	128368	5.04	ppm		99
46) Dimethylnaphthalene	6.510	156	119412	4.94	ppm		93
48) Hexachlorocyclopentadiene	5.981	237	47527	7.09	ppm		98
49) 2,4,6-Trichlorophenol	6.168	196	36962	4.60	ppm		98
50) 2,4,5-Trichlorophenol	6.248	196	36179	4.52	ppm		98
52) 2-Chloronaphthalene	6.344	162	114224	4.61	ppm		93
53) Biphenyl	6.334	154	159573	4.64	ppm		97
54) 2-Nitroaniline	6.526	65	48703	5.11	ppm	#	81
55) Dimethylphthalate	6.735	163	146926	5.07	ppm		99
56) Acenaphthylene	6.842	152	192113	4.88	ppm		98
57) 2,6-Dinitrotoluene	6.815	165	29791	4.87	ppm		94
58) 3-Nitroaniline	7.056	138	35779	4.79	ppm		94
59) Acenaphthene	7.061	153	129784	4.66	ppm		97
60) 2,4-Dinitrophenol	7.206	184	17696	6.64	ppm		97
61) 4-Nitrophenol	7.521	109	29719	5.89	ppm		76
62) Dibenzofuran	7.291	168	173407	5.04	ppm		96
63) 2,4-Dinitrotoluene	7.350	165	40951	5.22	ppm		97
64) 2,3,4,6-Tetrachlorophenol	7.526	232	28050	4.58	ppm		92
65) Diethylphthalate	7.676	149	158488	5.11	ppm		97
66) Fluorene	7.756	166	137031	4.87	ppm		92
67) 4-Chlorophenyl-phenyle...	7.778	204	66461	4.92	ppm		94
68) 4-Nitroaniline	7.901	138	32177	5.05	ppm		91
70) 4,6-Dinitro-2-methylph...	7.922	198	18933	4.41	ppm		85
71) n-Nitrosodiphenylamine	7.970	169	99557	4.84	ppm		98
72) 1,2-Diphenylhydrazine	8.002	77	188051	5.20	ppm		99
74) 4-Bromophenyl-phenylether	8.473	248	35158	4.80	ppm		90
75) Hexachlorobenzene	8.543	284	35716	4.97	ppm		91
76) Pentachlorophenol	8.906	266	34617	8.09	ppm		92
77) Phenanthrene	9.136	178	189076	5.02	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89173.D
Acq On : 8 Dec 2016 1:07 pm
Operator : ashleyn
Sample : ic3946-5
Misc : op99040,e3e3946
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 14:36:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:31:16 2016
QLast Update : Thu Dec 08 14:31:16 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.217	178	188369	5.02 ppm	98
79) Carbazole	9.532	167	177613	4.89 ppm	99
80) Di-n-butylphthalate	10.131	149	249004	4.97 ppm	99
81) Fluoranthene	10.960	202	208884	4.86 ppm	96
82) Octadecane	9.067	57	46149	4.98 ppm	95
84) Pyrene	11.303	202	219509	5.39 ppm	97
86) Butylbenzylphthalate	12.463	149	111303	5.33 ppm	97
87) Benzo[a]anthracene	13.207	228	209725	5.29 ppm	96
88) 3,3'-Dichlorobenzidine	13.255	252	67083	4.91 ppm	99
89) Chrysene	13.260	228	184938	5.03 ppm	96
90) bis(2-Ethylhexyl)phtha...	13.415	149	152195	5.51 ppm	99
92) Di-n-octylphthalate	14.389	149	259040	4.65 ppm	97
93) Benzo[b]fluoranthene	14.801	252	189269	4.33 ppm	98
94) Benzo[k]fluoranthene	14.838	252	177593	4.79 ppm	100
95) Benzo[a]pyrene	15.239	252	166126	4.91 ppm	95
96) Indeno[1,2,3-cd]pyrene	16.646	276	182073	5.03 ppm	93
97) Dibenz(a,h)acridine	16.378	279	136617	4.86 ppm	95
98) Dibenz[a,h]anthracene	16.667	278	149730	4.70 ppm	94
99) 7,12-Dimethylbenz(a)an...	14.790	256	72184	3.97 ppm	97
100) Benzo[g,h,i]perylene	16.972	276	141959	5.14 ppm	95

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

9.6.8

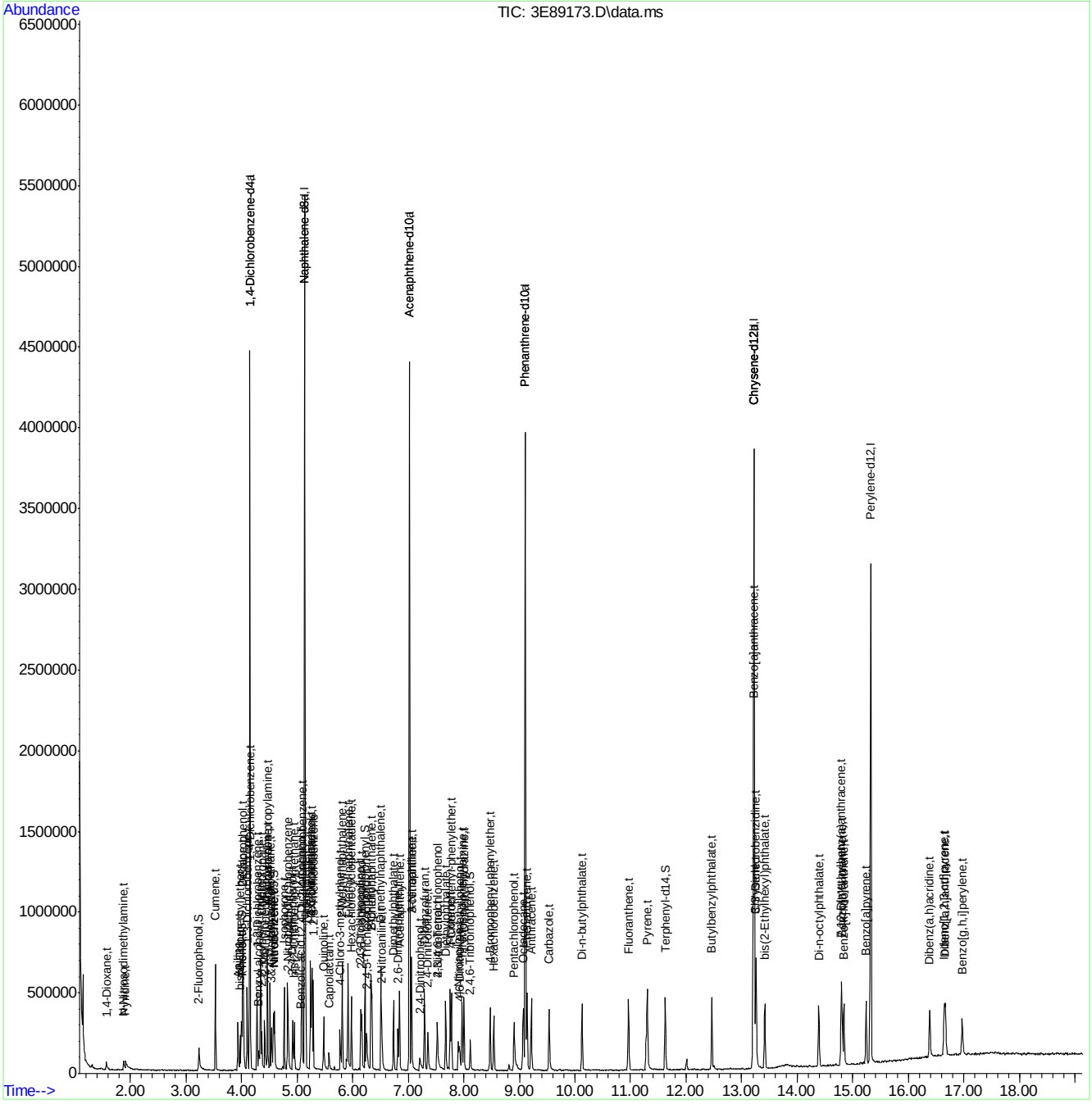
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89173.D
Acq On : 8 Dec 2016 1:07 pm
Operator : ashleyn
Sample : ic3946-5
Misc : op99040,e3e3946
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 14:36:11 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:31:16 2016
QLast Update : Thu Dec 08 14:31:16 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89174.D
Acq On : 8 Dec 2016 1:33 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 14:53:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.152	152	487327	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	1711799	40.00	ppm	0.00
47) Acenaphthene-d10	7.018	164	930684	40.00	ppm	0.00
69) Phenanthrene-d10	9.104	188	1516339	40.00	ppm	0.00
83) Chrysene-d12	13.223	240	1289820	40.00	ppm	0.00
91) Perylene-d12	15.320	264	1122640	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.152	152	487327	40.00	ppm	0.00
103) Acenaphthene-d10a	7.018	164	930684	40.00	ppm	0.00
105) Phenanthrene-d10a	9.104	188	1516339	40.00	ppm	0.00
109) Chrysene-d12a	13.223	240	1289820	40.00	ppm	0.00
111) Naphthalene-d8a	5.136	136	1711799	40.00	ppm	0.00
113) Chrysene-d12b	13.223	240	1289820	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
9) Phenol	3.991	94	869261	44.74	ppm	94
12) 2-Chlorophenol	4.029	128	714861	38.03	ppm	99
19) 2-Methylphenol	4.408	108	658841	48.52	ppm	98
21) 3&4-Methylphenol	4.526	108	712750	50.34	ppm	98
29) 2-Nitrophenol	4.836	139	419623	48.56	ppm	90
30) 2,4-Dimethylphenol	4.916	107	862254	55.71	ppm	95
31) Benzoic acid	5.098	105	556780	47.03	ppm	96
33) 2,4-Dichlorophenol	5.066	162	573222	47.65	ppm	95
34) 2,6-Dichlorophenol	5.243	162	590301	46.42	ppm	97
43) 4-Chloro-3-methylphenol	5.762	107	660471	47.56	ppm	97
49) 2,4,6-Trichlorophenol	6.157	196	414703	49.47	ppm	97
50) 2,4,5-Trichlorophenol	6.232	196	384212	46.11	ppm	97
60) 2,4-Dinitrophenol	7.190	184	142383	46.85	ppm	96
61) 4-Nitrophenol	7.457	109	217909	40.13	ppm	99
64) 2,3,4,6-Tetrachlorophenol	7.516	232	301165	47.15	ppm	97
70) 4,6-Dinitro-2-methylph...	7.912	198	234331	42.98	ppm	97
76) Pentachlorophenol	8.901	266	217133	53.29	ppm	98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89174.D
Acq On : 8 Dec 2016 1:33 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 14:53:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration

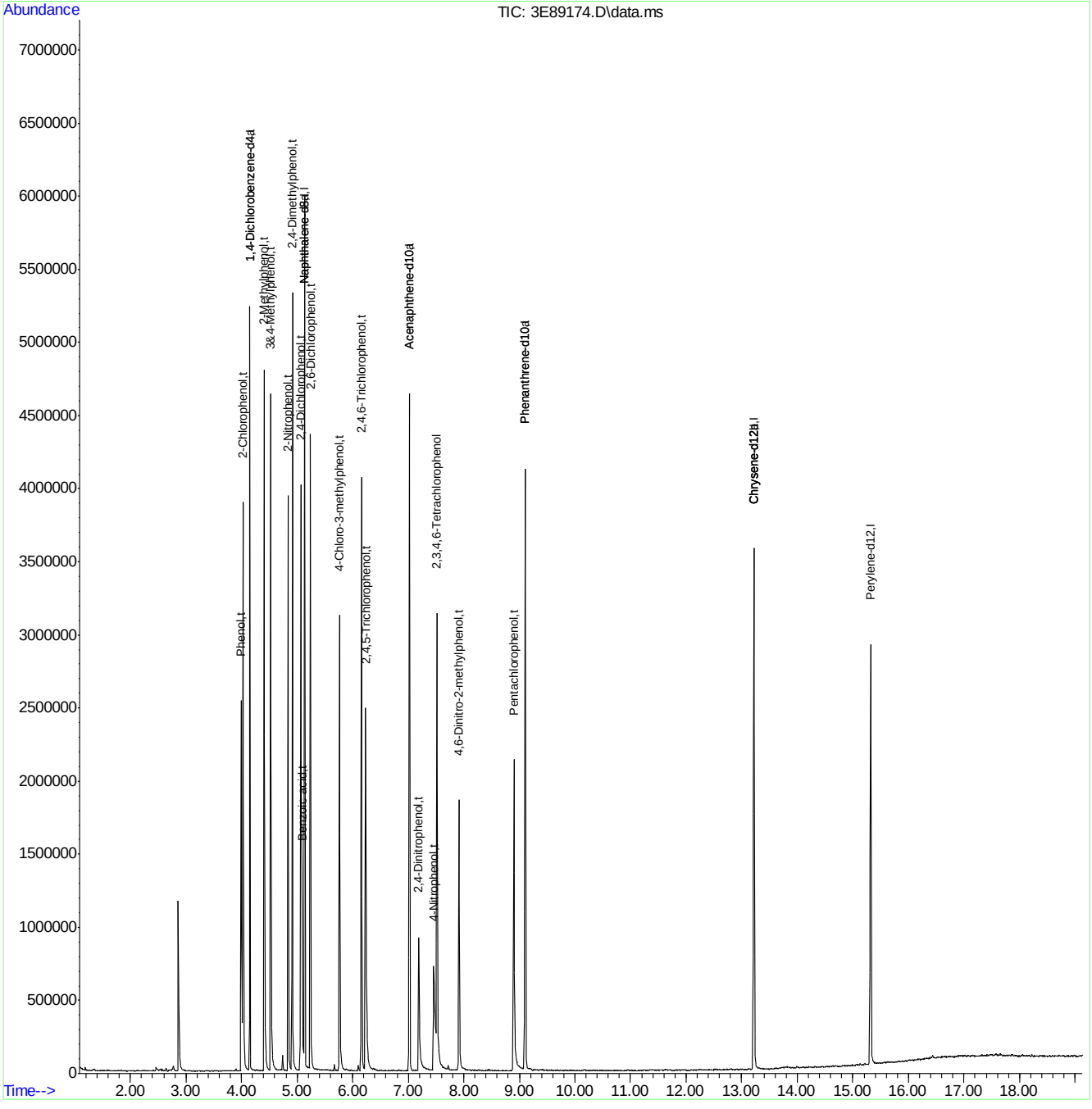
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89174.D
Acq On : 8 Dec 2016 1:33 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 14:53:27 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration



M3E3946.M Thu Dec 08 14:53:42 2016 MS3E

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89175.D
Acq On : 8 Dec 2016 1:59 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 14:54:55 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.152	152	447553	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	1604147	40.00	ppm	0.00
47) Acenaphthene-d10	7.018	164	945906	40.00	ppm	0.00
69) Phenanthrene-d10	9.104	188	1587759	40.00	ppm	0.00
83) Chrysene-d12	13.223	240	1360098	40.00	ppm	0.00
91) Perylene-d12	15.320	264	1154849	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.152	152	447553	40.00	ppm	0.00
103) Acenaphthene-d10a	7.018	164	945906	40.00	ppm	0.00
105) Phenanthrene-d10a	9.104	188	1587759	40.00	ppm	0.00
109) Chrysene-d12a	13.223	240	1360098	40.00	ppm	0.00
111) Naphthalene-d8a	5.136	136	1604147	40.00	ppm	0.00
113) Chrysene-d12b	13.223	240	1360098	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
3) Pyridine	2.103	79	513487	50.19	ppm	95
10) Aniline	3.938	93	972275	54.93	ppm	100
16) Benzyl alcohol	4.296	108	422397	48.78	ppm	94
39) 4-Chloroaniline	5.243	127	766146	44.05	ppm	96
44) 2-Methylnaphthalene	5.815	141	1275292	50.01	ppm	98
54) 2-Nitroaniline	6.526	65	432523	42.31	ppm	97
58) 3-Nitroaniline	7.056	138	320183	40.24	ppm	95
62) Dibenzofuran	7.297	168	1836962	49.80	ppm	99
68) 4-Nitroaniline	7.901	138	303523	44.46	ppm	96
79) Carbazole	9.538	167	1851089	46.38	ppm	99

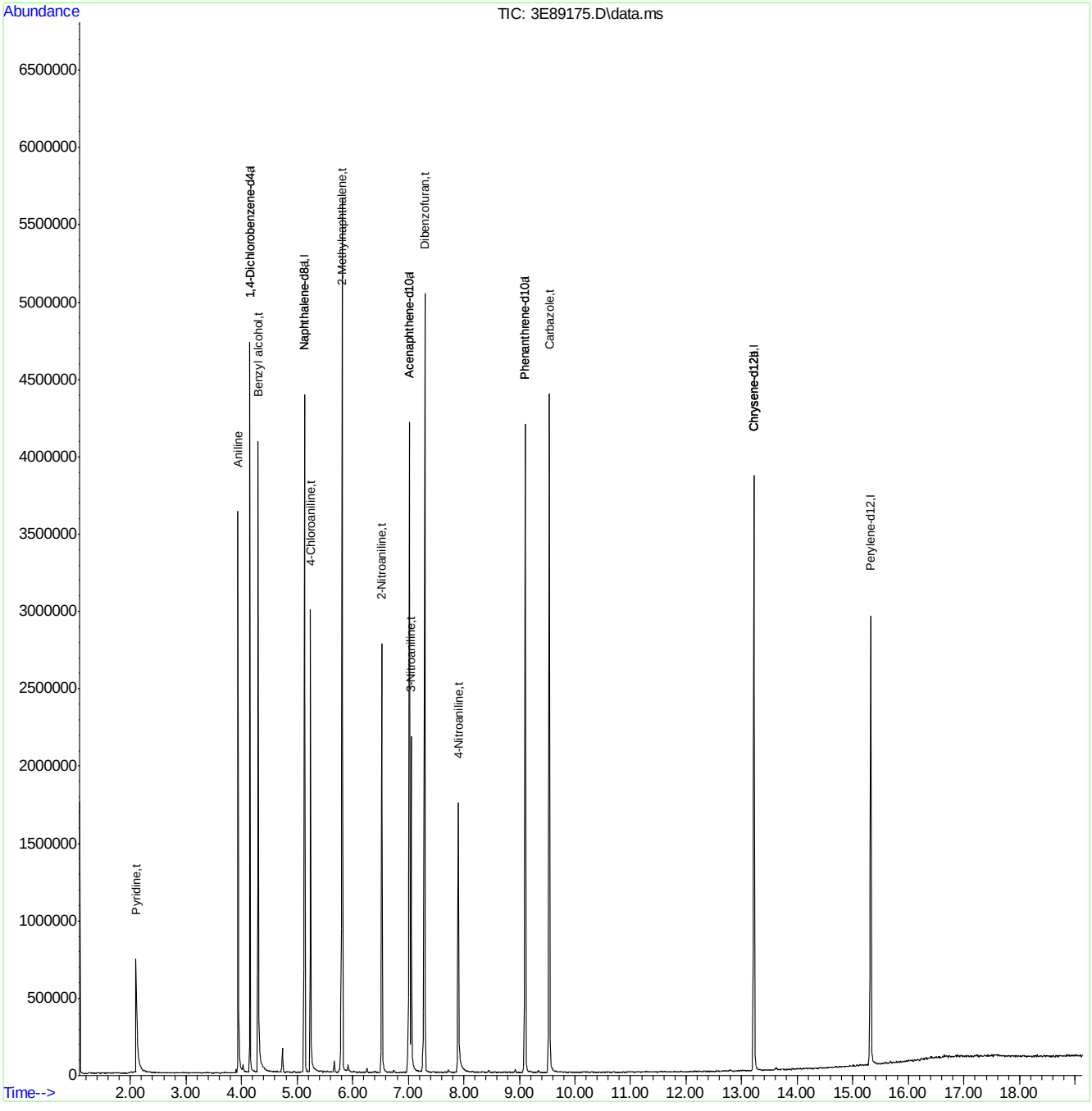
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89175.D
Acq On : 8 Dec 2016 1:59 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 14:54:55 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89178.D
Acq On : 8 Dec 2016 3:18 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 08 17:28:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.152	152	535634	40.00 ppm	0.00
24) Naphthalene-d8	5.136	136	1881641	40.00 ppm	0.00
47) Acenaphthene-d10	7.018	164	974437	40.00 ppm	0.00
69) Phenanthrene-d10	9.104	188	1521234	40.00 ppm	0.00
83) Chrysene-d12	13.223	240	1323314	40.00 ppm	0.00
91) Perylene-d12	15.319	264	1105146	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.152	152	535634	40.00 ppm	0.00
103) Acenaphthene-d10a	7.018	164	974437	40.00 ppm	0.00
105) Phenanthrene-d10a	9.104	188	1521234	40.00 ppm	0.00
109) Chrysene-d12a	13.223	240	1323314	40.00 ppm	0.00
111) Naphthalene-d8a	5.136	136	1881641	40.00 ppm	0.00
113) Chrysene-d12b	13.223	240	1323314	40.00 ppm	0.00

System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
85) Terphenyl-d14	0.000	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	=	0.00%

Target Compounds					Qvalue
2) 1,4-Dioxane	1.595	88	220201	39.13 ppm	97
6) Indene	4.339	116	1528781	50.23 ppm	99
7) Cumene	3.536	105	2181934	46.92 ppm	97
13) Decane	4.034	43	305632	42.05 ppm	88
18) Acetophenone	4.462	105	1154797	44.32 ppm	95
27) Quinoline	5.473	129	1469684	48.43 ppm	99
40) 2,3-Dichloroaniline	6.147	161	647921	41.76 ppm	97
41) Caprolactam	5.569	55	100816	36.68 ppm	92
45) 1-Methylnaphthalene	5.917	141	1370852	45.01 ppm	98
46) Dimethylnaphthalene	6.516	156	1354952	46.97 ppm	99
48) Hexachlorocyclopentadiene	5.981	237	368666	49.98 ppm	98
53) Biphenyl	6.334	154	1833531	48.84 ppm	99
82) Octadecane	9.072	57	487835	49.89 ppm	95
99) 7,12-Dimethylbenz(a)an...	14.795	256	726229	44.96 ppm	97

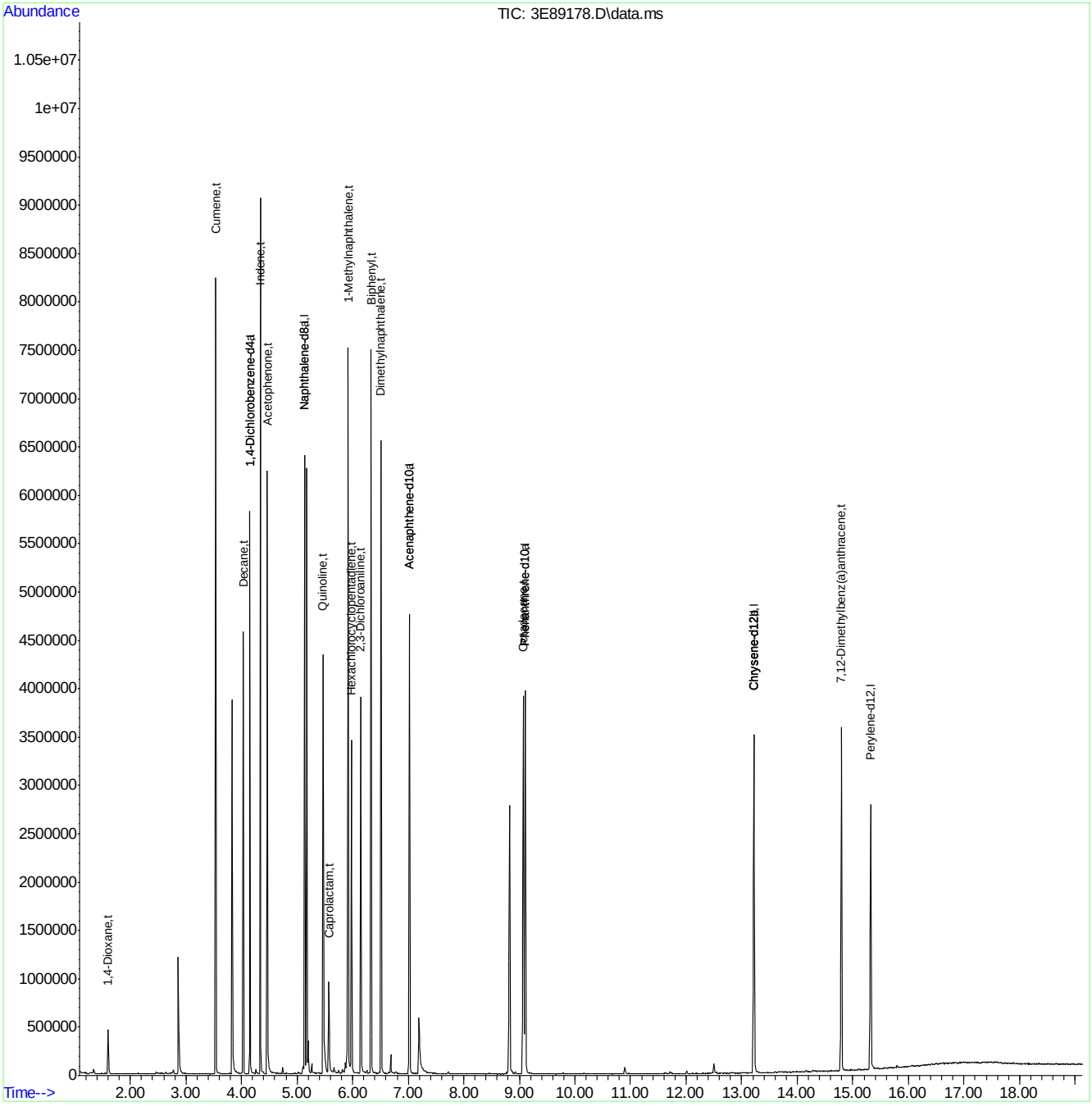
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89178.D
Acq On : 8 Dec 2016 3:18 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 08 17:28:00 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration



M3E3946.M Thu Dec 08 17:28:08 2016 MS3E Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89179.D
Acq On : 8 Dec 2016 3:44 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 08 17:26:12 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.151	152	609114	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	2287853	40.00	ppm	0.00
47) Acenaphthene-d10	7.024	164	1291770	40.00	ppm	0.00
69) Phenanthrene-d10	9.104	188	2120214	40.00	ppm	0.00
83) Chrysene-d12	13.223	240	1903327	40.00	ppm	0.00
91) Perylene-d12	15.325	264	1756595	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.151	152	609114	40.00	ppm	0.00
103) Acenaphthene-d10a	7.024	164	1291770	40.00	ppm	0.00
105) Phenanthrene-d10a	9.104	188	2120214	40.00	ppm	0.00
109) Chrysene-d12a	13.223	240	1903327	40.00	ppm	0.00
111) Naphthalene-d8a	5.136	136	2287853	40.00	ppm	0.00
113) Chrysene-d12b	13.223	240	1903327	40.00	ppm	0.00

System Monitoring Compounds

5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	13.255	252	1004220	54.11	ppm	98

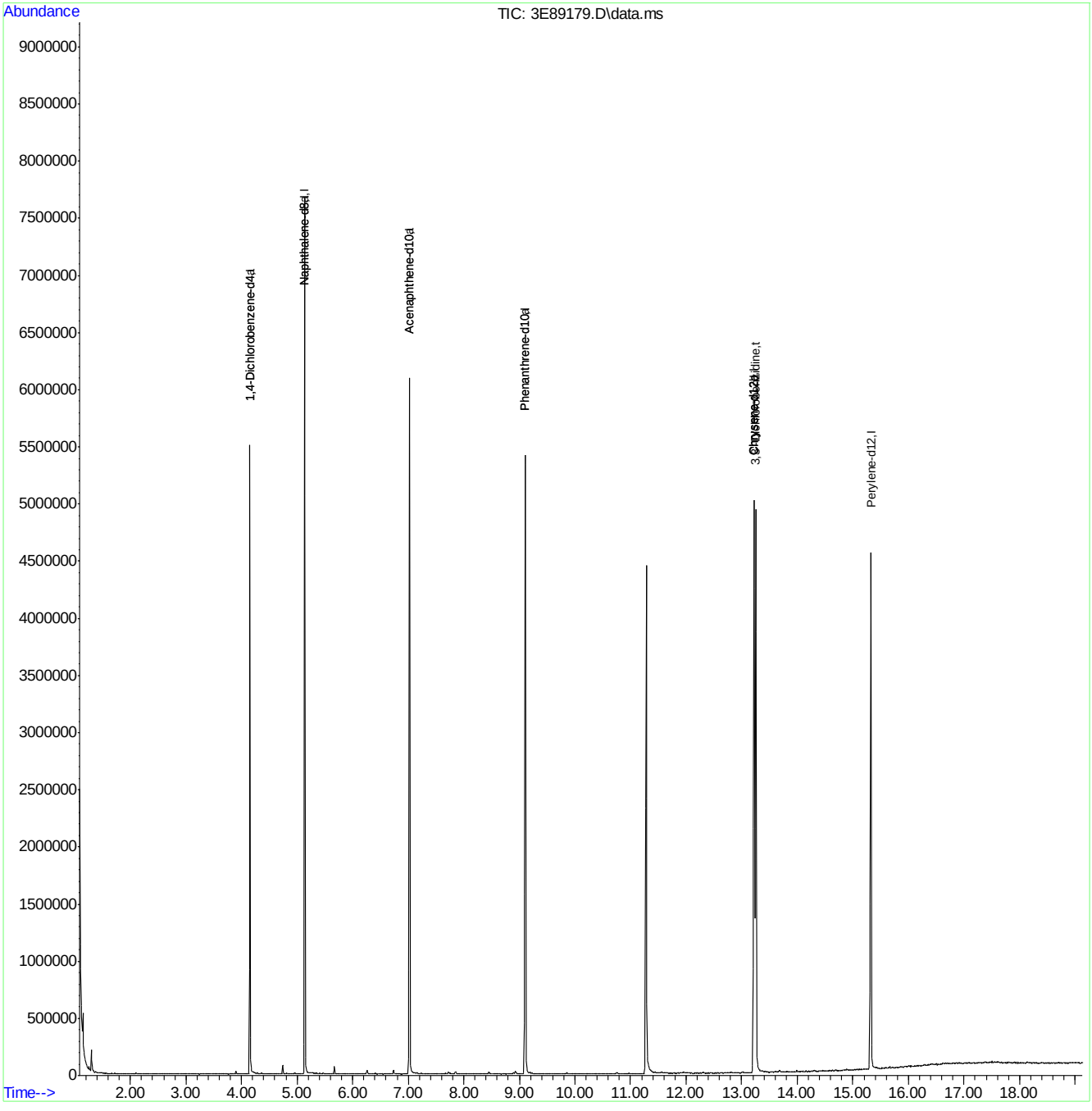
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3946\
Data File : 3E89179.D
Acq On : 8 Dec 2016 3:44 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3946
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 08 17:26:12 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MThu Dec 08 14:48:49 2016
QLast Update : Thu Dec 08 14:48:49 2016
Response via : Initial Calibration



M3E3946.M Thu Dec 08 17:26:23 2016 MS3E

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89195a.D
Acq On : 8 Dec 2016 9:14 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3947
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 09 09:30:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
QLast Update : Fri Dec 09 09:27:30 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.151	152	629333	40.00	ppm	0.00
24) Naphthalene-d8	5.136	136	2062480	40.00	ppm	0.00
47) Acenaphthene-d10	7.024	164	1134084	40.00	ppm	0.00
69) Phenanthrene-d10	9.104	188	1823123	40.00	ppm	0.00
83) Chrysene-d12	13.228	240	1850113	40.00	ppm	0.00
91) Perylene-d12	15.319	264	1354457	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.151	152	629333	40.00	ppm	0.00
103) Acenaphthene-d10a	7.024	164	1134084	40.00	ppm	0.00
105) Phenanthrene-d10a	9.104	188	1823123	40.00	ppm	0.00
109) Chrysene-d12a	13.228	240	1850113	40.00	ppm	0.00
111) Naphthalene-d8a	5.136	136	2062480	40.00	ppm	0.00
113) Chrysene-d12b	13.228	240	1850113	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
4) N-Nitrosodimethylamine	1.884	74	406836	40.32	ppm		97
11) bis(2-Chloroethyl)ether	3.970	93	983430	48.88	ppm		89
14) 1,3-Dichlorobenzene	4.109	146	1212283	52.35	ppm		99
15) 1,4-Dichlorobenzene	4.162	146	1244134	51.19	ppm		99
17) 1,2-Dichlorobenzene	4.280	146	1139748	52.03	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.365	121	355917	50.48	ppm	#	86
22) n-Nitroso-di-n-propyla...	4.467	70	725767	41.01	ppm		94
23) Hexachloroethane	4.515	201	456354	54.85	ppm		94
26) Nitrobenzene	4.590	77	1091522	44.15	ppm		91
28) Isophorone	4.767	82	1802111	46.38	ppm		95
32) bis(2-Chloroethoxy)met...	4.954	93	1114942	54.56	ppm		98
36) 1,2,4-Trichlorobenzene	5.093	180	942673	55.75	ppm		99
38) Naphthalene	5.157	128	2732707	49.18	ppm		99
42) Hexachlorobutadiene	5.269	225	635663	56.50	ppm		96
52) 2-Chloronaphthalene	6.350	162	1722089	54.69	ppm		93
55) Dimethylphthalate	6.746	163	1864946	50.05	ppm		98
56) Acenaphthylene	6.842	152	2588375	51.37	ppm		99
57) 2,6-Dinitrotoluene	6.820	165	413682	52.86	ppm		79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89195a.D
Acq On : 8 Dec 2016 9:14 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3947
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 09 09:30:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
QLast Update : Fri Dec 09 09:27:30 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
59) Acenaphthene	7.066	153	1730290	48.83 ppm	97
63) 2,4-Dinitrotoluene	7.355	165	517399	51.08 ppm	85
65) Diethylphthalate	7.682	149	1866433	46.74 ppm	96
66) Fluorene	7.762	166	1890990	52.57 ppm	100
67) 4-Chlorophenyl-phenyle...	7.783	204	981114	56.73 ppm	88
71) n-Nitrosodiphenylamine	7.976	169	1278166	49.31 ppm	97
72) 1,2-Diphenylhydrazine	8.008	77	1968881	42.77 ppm	90
74) 4-Bromophenyl-phenylether	8.479	248	534229	57.87 ppm	89
75) Hexachlorobenzene	8.548	284	523782	57.59 ppm	87
77) Phenanthrene	9.142	178	2445228	51.23 ppm	99
78) Anthracene	9.217	178	2456788	51.70 ppm	99
80) Di-n-butylphthalate	10.137	149	2895611	45.71 ppm	98
81) Fluoranthene	10.966	202	2681198	49.43 ppm	99
84) Pyrene	11.308	202	2815534	51.69 ppm	100
86) Butylbenzylphthalate	12.469	149	1308584	46.97 ppm	91
87) Benzo[a]anthracene	13.212	228	2541601	48.06 ppm	99
89) Chrysene	13.266	228	2660515	54.63 ppm	99
90) bis(2-Ethylhexyl)phtha...	13.421	149	1732821	46.77 ppm	96
92) Di-n-octylphthalate	14.389	149	2838146	46.47 ppm	99
93) Benzo[b]fluoranthene	14.806	252	2241484	49.28 ppm	99
94) Benzo[k]fluoranthene	14.849	252	2146613	52.64 ppm	100
95) Benzo[a]pyrene	15.245	252	2025164	54.26 ppm	99
96) Indeno[1,2,3-cd]pyrene	16.651	276	2275990	56.81 ppm	99
98) Dibenz[a,h]anthracene	16.673	278	1887910	53.96 ppm	99
100) Benzo[g,h,i]perylene	16.972	276	1671842	54.49 ppm	93

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

9.6.13

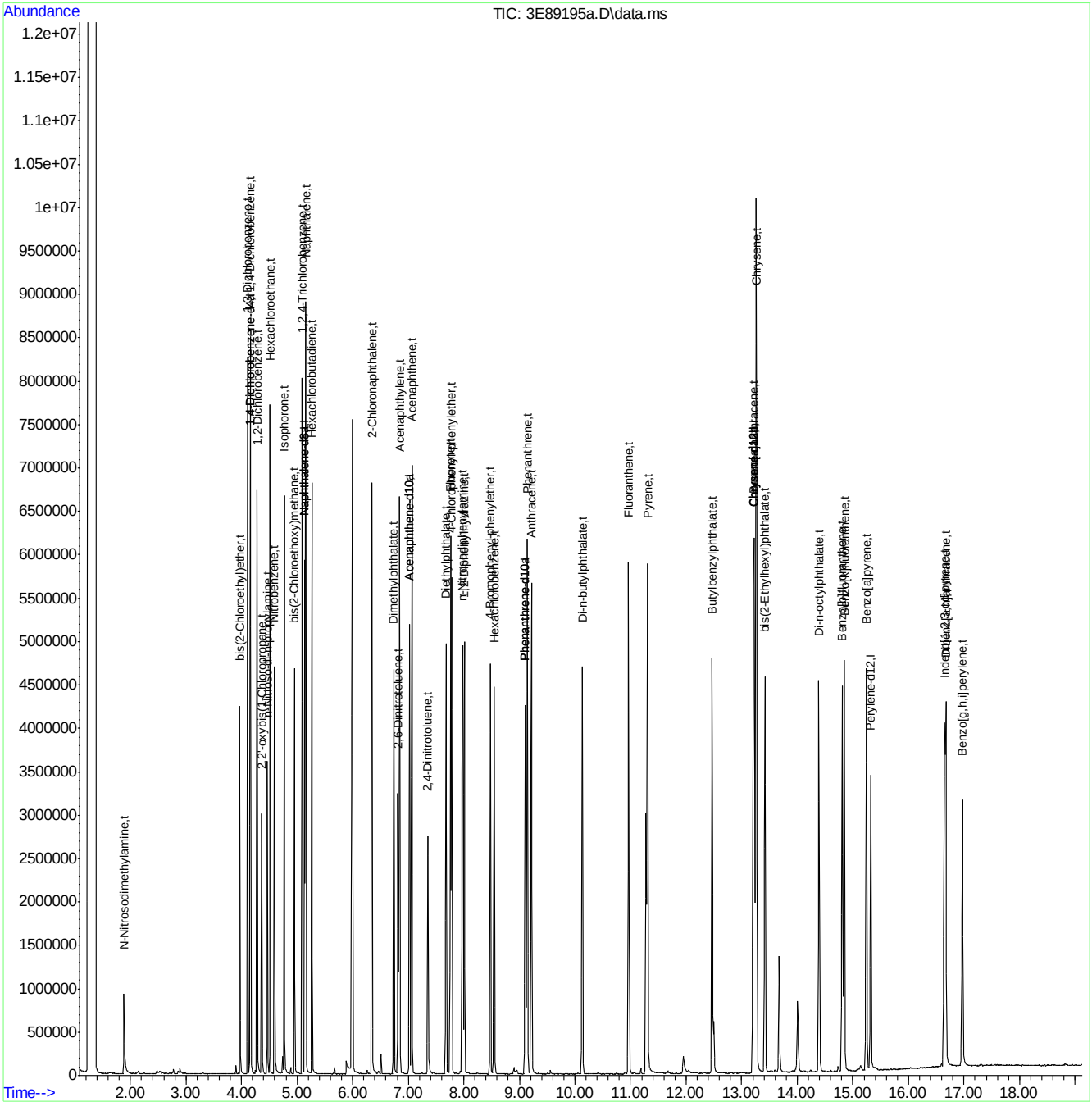
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3947\
Data File : 3E89195a.D
Acq On : 8 Dec 2016 9:14 pm
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3947
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 09 09:30:34 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
QLast Update : Fri Dec 09 09:27:30 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3948\
Data File : 3E89207.D
Acq On : 9 Dec 2016 11:05 am
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3948
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 09 11:32:15 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
QLast Update : Fri Dec 09 09:27:30 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.141	152	637094	40.00	ppm	-0.01
24) Naphthalene-d8	5.125	136	2180629	40.00	ppm	-0.02
47) Acenaphthene-d10	7.008	164	1250856	40.00	ppm	-0.02
69) Phenanthrene-d10	9.094	188	1959210	40.00	ppm	-0.02
83) Chrysene-d12	13.207	240	1754366	40.00	ppm	-0.02
91) Perylene-d12	15.309	264	1538798	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.141	152	637094	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.008	164	1250856	40.00	ppm	-0.01
105) Phenanthrene-d10a	9.094	188	1959210	40.00	ppm	-0.01
109) Chrysene-d12a	13.207	240	1754366	40.00	ppm	-0.02
111) Naphthalene-d8a	5.125	136	2180629	40.00	ppm	-0.01
113) Chrysene-d12b	13.207	240	1754366	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	3.205	112	941478	50.59	ppm	-0.01
Spiked Amount 50.000			Recovery = 101.18%			
8) Phenol-d5	3.970	99	1145245	44.88	ppm	-0.02
Spiked Amount 50.000			Recovery = 89.76%			
25) Nitrobenzene-d5	4.563	82	1176191	44.84	ppm	-0.02
Spiked Amount 50.000			Recovery = 89.68%			
51) 2-Fluorobiphenyl	6.216	172	2275709	51.34	ppm	-0.01
Spiked Amount 50.000			Recovery = 102.68%			
73) 2,4,6-Tribromophenol	8.104	330	200271	47.12	ppm	-0.02
Spiked Amount 50.000			Recovery = 94.24%			
85) Terphenyl-d14	11.618	244	2044719	63.75	ppm	-0.01
Spiked Amount 50.000			Recovery = 127.50%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds	Qvalue

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

9.6.14

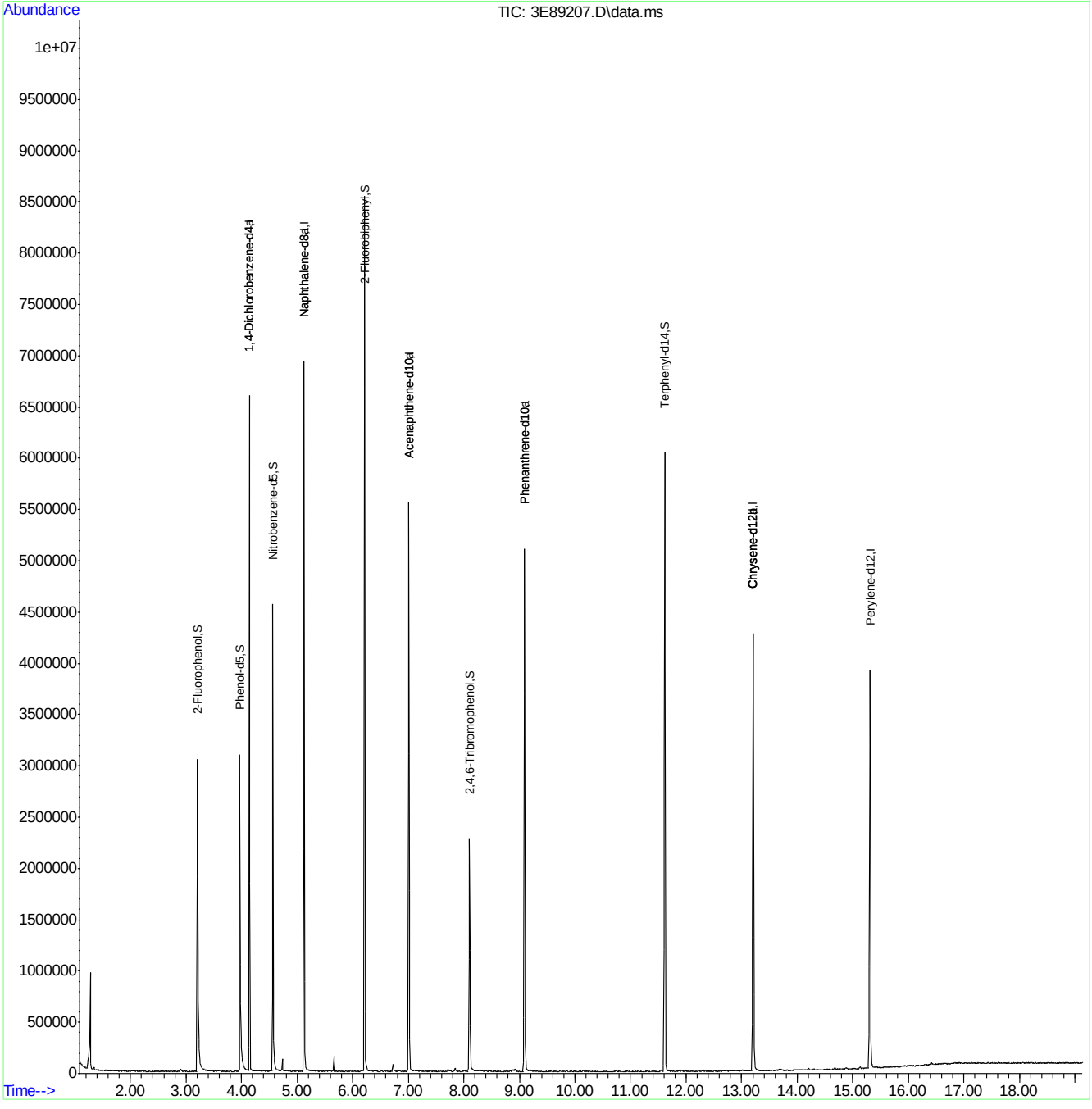
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3948\
Data File : 3E89207.D
Acq On : 9 Dec 2016 11:05 am
Operator : ashleyn
Sample : icv3946-50
Misc : op99040,e3e3948
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 09 11:32:15 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MFri Dec 09 09:27:30 2016
QLast Update : Fri Dec 09 09:27:30 2016
Response via : Initial Calibration



M3E3946.M Fri Dec 09 11:44:51 2016 MS3E

Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89387.D
Acq On : 15 Dec 2016 10:14 am
Operator : ashleyn
Sample : cc3946-25
Misc : op99136,e3e3956
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 12:52:07 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.103	152	531125	40.00	ppm	0.02
24) Naphthalene-d8	5.093	136	1871858	40.00	ppm	0.02
47) Acenaphthene-d10	6.965	164	983258	40.00	ppm	0.03
69) Phenanthrene-d10	9.046	188	1565343	40.00	ppm	0.03
83) Chrysene-d12	13.175	240	1421535	40.00	ppm	0.03
91) Perylene-d12	15.277	264	839725	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.103	152	531125	40.00	ppm	0.02
103) Acenaphthene-d10a	6.965	164	983258	40.00	ppm	0.03
105) Phenanthrene-d10a	9.046	188	1565343	40.00	ppm	0.03
109) Chrysene-d12a	13.175	240	1421535	40.00	ppm	0.03
111) Naphthalene-d8a	5.093	136	1871858	40.00	ppm	0.02
113) Chrysene-d12b	13.175	240	1421535	40.00	ppm	0.03

System Monitoring Compounds						
5) 2-Fluorophenol	3.167	112	391600	25.24	ppm	0.00
Spiked Amount 50.000			Recovery = 50.48%			
8) Phenol-d5	3.948	99	505117	23.75	ppm	0.02
Spiked Amount 50.000			Recovery = 47.50%			
25) Nitrobenzene-d5	4.531	82	519278	23.06	ppm	0.01
Spiked Amount 50.000			Recovery = 46.12%			
51) 2-Fluorobiphenyl	6.168	172	885695	25.42	ppm	0.02
Spiked Amount 50.000			Recovery = 50.84%			
73) 2,4,6-Tribromophenol	8.061	330	88571	26.08	ppm	0.02
Spiked Amount 50.000			Recovery = 52.16%			
85) Terphenyl-d14	11.570	244	792618	30.50	ppm	0.02
Spiked Amount 50.000			Recovery = 61.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds							Qvalue
2) 1,4-Dioxane	1.509	88	120731	21.63	ppm		93
3) Pyridine	1.809	79	345724	28.48	ppm		80
4) N-Nitrosodimethylamine	1.787	74	194257	22.81	ppm		99
6) Indene	4.296	116	760812	25.21	ppm		99
7) Cumene	3.478	105	1086929	23.57	ppm		97
9) Phenol	3.954	94	544961	25.74	ppm		90
10) Aniline	3.884	93	474213	22.58	ppm		98
11) bis(2-Chloroethyl)ether	3.927	93	419802	24.73	ppm		95
12) 2-Chlorophenol	3.986	128	491730	24.00	ppm		98
13) Decane	3.986	43	203321	28.21	ppm		93
14) 1,3-Dichlorobenzene	4.061	146	487173	24.93	ppm		95
15) 1,4-Dichlorobenzene	4.119	146	506320	24.69	ppm		99
16) Benzyl alcohol	4.253	108	256056	24.92	ppm		89
17) 1,2-Dichlorobenzene	4.232	146	474455	25.67	ppm		99
18) Acetophenone	4.419	105	627377	24.28	ppm		93
19) 2-Methylphenol	4.376	108	380064	25.68	ppm		100
20) 2,2'-oxybis(1-Chloropr...	4.323	121	145592	24.47	ppm	#	70
21) 3&4-Methylphenol	4.499	108	398226	25.81	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89387.D
Acq On : 15 Dec 2016 10:14 am
Operator : ashleyn
Sample : cc3946-25
Misc : op99136,e3e3956
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 12:52:07 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
22) n-Nitroso-di-n-propyla...	4.424	70	349761	23.42	ppm		94
23) Hexachloroethane	4.472	201	174399	24.84	ppm		85
26) Nitrobenzene	4.547	77	526781	23.48	ppm		91
27) Quinoline	5.430	129	763201	25.28	ppm		98
28) Isophorone	4.724	82	845050	23.97	ppm		99
29) 2-Nitrophenol	4.793	139	252358	26.71	ppm		77
30) 2,4-Dimethylphenol	4.879	107	381048	22.51	ppm		93
31) Benzoic acid	5.039	105	329620	25.46	ppm		93
32) bis(2-Chloroethoxy)met...	4.906	93	464955	25.07	ppm		99
33) 2,4-Dichlorophenol	5.029	162	350854	26.67	ppm		98
34) 2,6-Dichlorophenol	5.200	162	361216	25.97	ppm		95
35) 1,3,5-Trichlorobenzene	4.783	180	418257	25.00	ppm		100
36) 1,2,4-Trichlorobenzene	5.045	180	395570	25.78	ppm		99
37) 1,2,3-Trichlorobenzene	5.243	180	388848	26.67	ppm		95
38) Naphthalene	5.109	128	1258286	24.95	ppm		98
39) 4-Chloroaniline	5.195	127	497618	24.52	ppm		97
40) 2,3-Dichloroaniline	6.093	161	386593	25.05	ppm		97
41) Caprolactam	5.532	55	79576	29.10	ppm		93
42) Hexachlorobutadiene	5.216	225	247458	24.23	ppm		97
43) 4-Chloro-3-methylphenol	5.724	107	347163	22.86	ppm		99
44) 2-Methylnaphthalene	5.761	141	700875	23.55	ppm		94
45) 1-Methylnaphthalene	5.863	141	724964	23.93	ppm		95
46) Dimethylnaphthalene	6.457	156	703959	24.53	ppm		97
48) Hexachlorocyclopentadiene	5.927	237	315653	44.00	ppm		99
49) 2,4,6-Trichlorophenol	6.114	196	219573	24.79	ppm		98
50) 2,4,5-Trichlorophenol	6.189	196	242181	27.51	ppm		100
52) 2-Chloronaphthalene	6.291	162	689549	25.26	ppm		95
53) Biphenyl	6.275	154	959573	25.33	ppm		99
54) 2-Nitroaniline	6.473	65	251343	23.65	ppm		94
55) Dimethylphthalate	6.681	163	807700	25.00	ppm		99
56) Acenaphthylene	6.783	152	1125566	25.77	ppm		98
57) 2,6-Dinitrotoluene	6.762	165	186167	27.44	ppm		79
58) 3-Nitroaniline	6.997	138	209866	25.37	ppm		93
59) Acenaphthene	7.002	153	745560	24.27	ppm		97
60) 2,4-Dinitrophenol	7.147	184	205433	60.40	ppm		99
61) 4-Nitrophenol	7.420	109	118668	20.69	ppm		82
62) Dibenzofuran	7.238	168	983023	25.64	ppm		92
63) 2,4-Dinitrotoluene	7.302	165	245287	27.93	ppm		84
64) 2,3,4,6-Tetrachlorophenol	7.468	232	162017	24.01	ppm		85
65) Diethylphthalate	7.617	149	849434	24.54	ppm		98
66) Fluorene	7.698	166	805559	25.83	ppm		98
67) 4-Chlorophenyl-phenyle...	7.719	204	397240	26.49	ppm		89
68) 4-Nitroaniline	7.842	138	193147	27.22	ppm	#	72
70) 4,6-Dinitro-2-methylph...	7.874	198	142993	27.28	ppm		82
71) n-Nitrosodiphenylamine	7.917	169	580668	26.09	ppm		98
72) 1,2-Diphenylhydrazine	7.944	77	852427	21.57	ppm		93
74) 4-Bromophenyl-phenylether	8.414	248	218209	27.53	ppm		84
75) Hexachlorobenzene	8.489	284	215937	27.65	ppm		85
76) Pentachlorophenol	8.853	266	187990	46.10	ppm		98
77) Phenanthrene	9.083	178	1037219	25.31	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89387.D
Acq On : 15 Dec 2016 10:14 am
Operator : ashleyn
Sample : cc3946-25
Misc : op99136,e3e3956
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 12:52:07 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
78) Anthracene	9.158	178	1041581	25.53 ppm	98
79) Carbazole	9.473	167	1005467	25.55 ppm	95
80) Di-n-butylphthalate	10.067	149	1332670	24.50 ppm	98
81) Fluoranthene	10.907	202	1227525	26.36 ppm	99
82) Octadecane	9.008	57	258091	25.65 ppm	88
84) Pyrene	11.244	202	1259081	30.09 ppm	98
86) Butylbenzylphthalate	12.405	149	583325	27.25 ppm	93
87) Benzo[a]anthracene	13.153	228	1012778	24.93 ppm	98
88) 3,3'-Dichlorobenzidine	13.196	252	351751	25.38 ppm	99
89) Chrysene	13.212	228	939939	25.12 ppm	99
90) bis(2-Ethylhexyl)phtha...	13.357	149	697872	24.52 ppm	99
92) Di-n-octylphthalate	14.330	149	919393	24.28 ppm	99
93) Benzo[b]fluoranthene	14.763	252	679364	24.09 ppm	98
94) Benzo[k]fluoranthene	14.795	252	643747	25.46 ppm	100
95) Benzo[a]pyrene	15.196	252	570962	24.67 ppm	97
96) Indeno[1,2,3-cd]pyrene	16.603	276	719096	28.95 ppm	97
97) Dibenz(a,h)acridine	16.341	279	528609	27.51 ppm	100
98) Dibenz[a,h]anthracene	16.625	278	630320	29.06 ppm	94
99) 7,12-Dimethylbenz(a)an...	14.747	256	280297	22.84 ppm	99
100) Benzo[g,h,i]perylene	16.924	276	570436	29.99 ppm	99

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

9.6.15

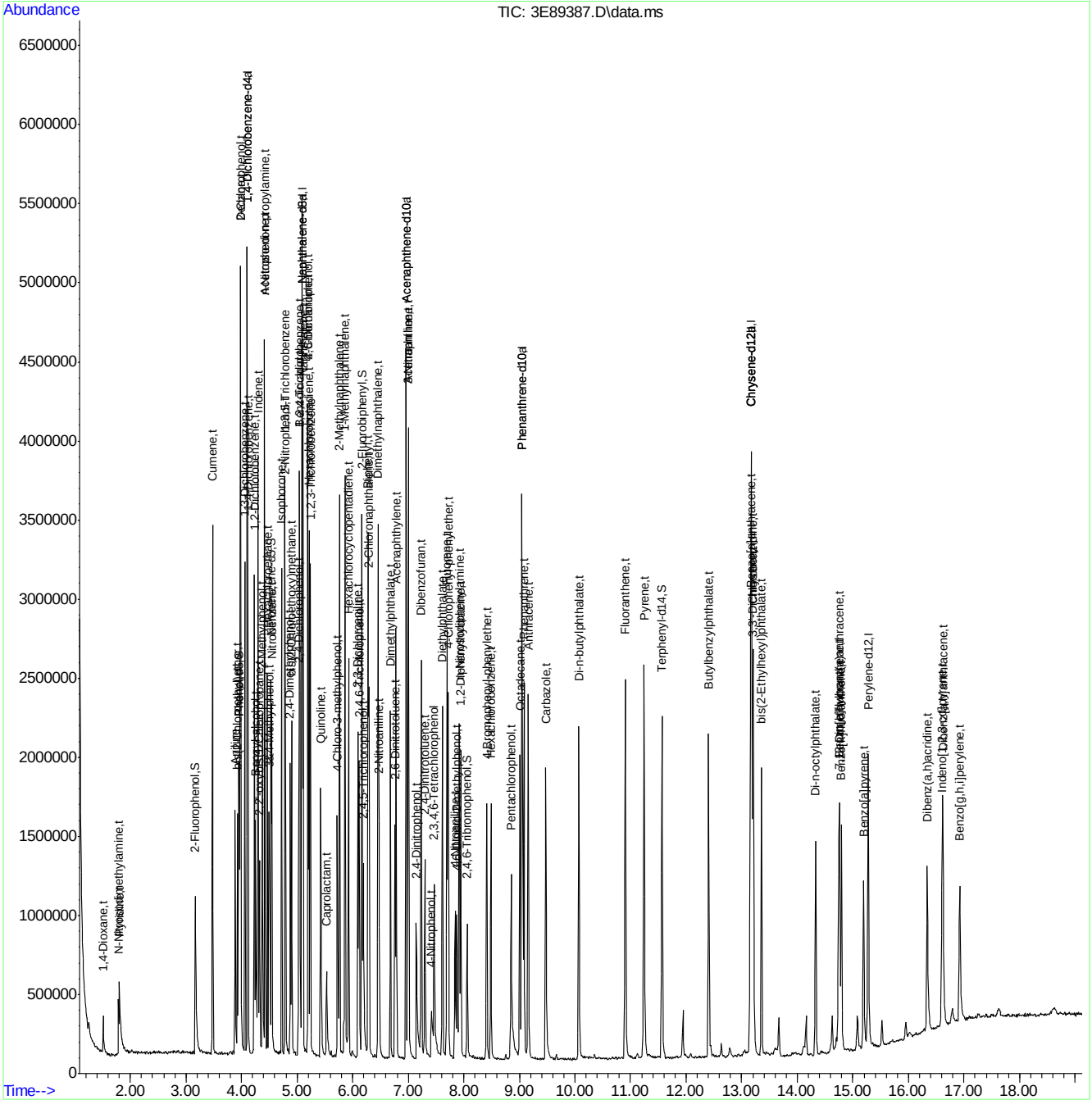
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89387.D
Acq On : 15 Dec 2016 10:14 am
Operator : ashleyn
Sample : cc3946-25
Misc : op99136,e3e3956
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 12:52:07 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration



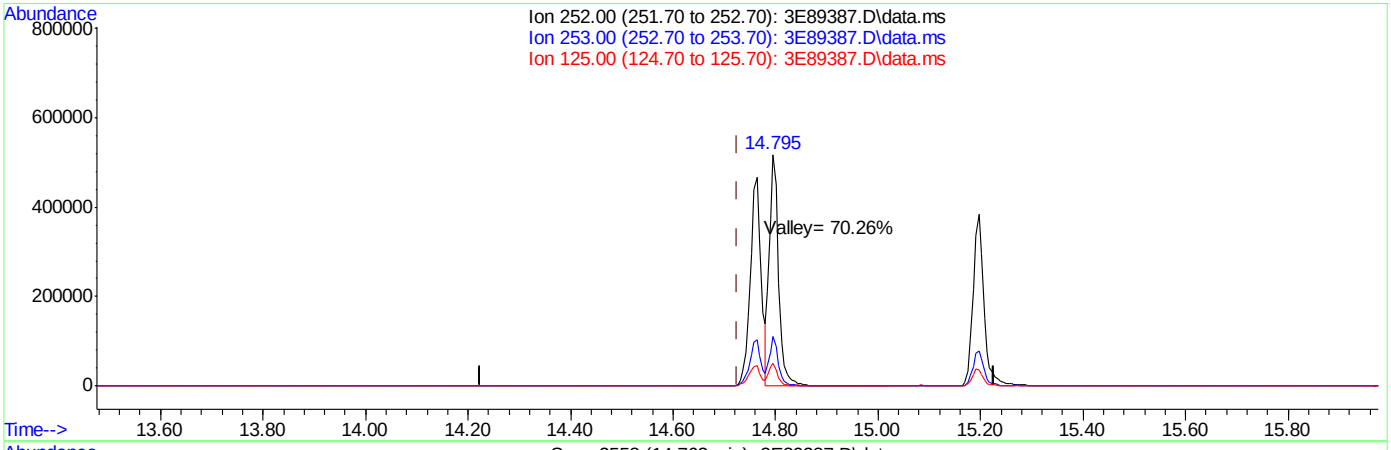
M3E3946.M Mon Dec 19 12:52:13 2016 MS3E

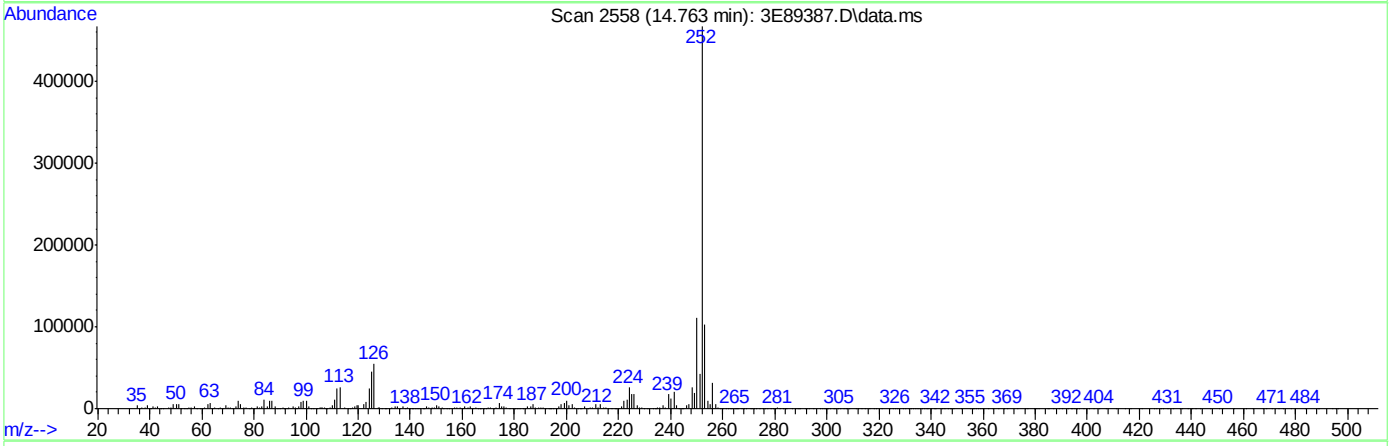
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89387.D
Acq On : 15 Dec 2016 10:14 am
Operator : ashleyn
Sample : cc3946-25
Misc : op99136,e3e3956
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 12:51:29 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration





TIC: 3E89387.D\data.ms

(93) Benzo[b]fluoranthene (t)

14.763min (+0.037) 24.09ppm

response 679364

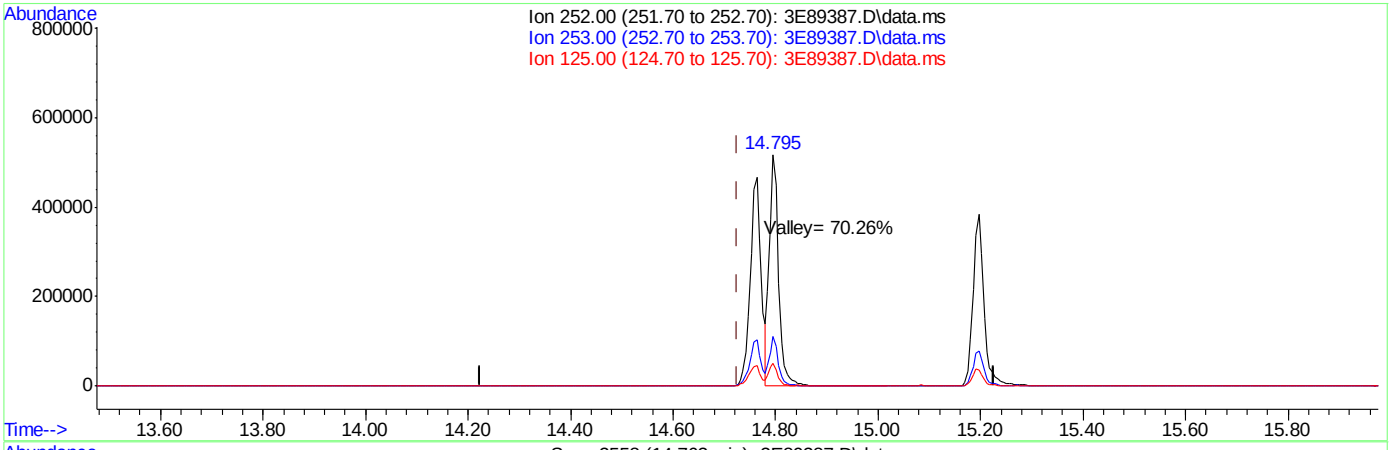
Ion	Exp%	Act%
252.00	100	100
253.00	21.60	22.27
125.00	10.90	9.50
0.00	0.00	0.00

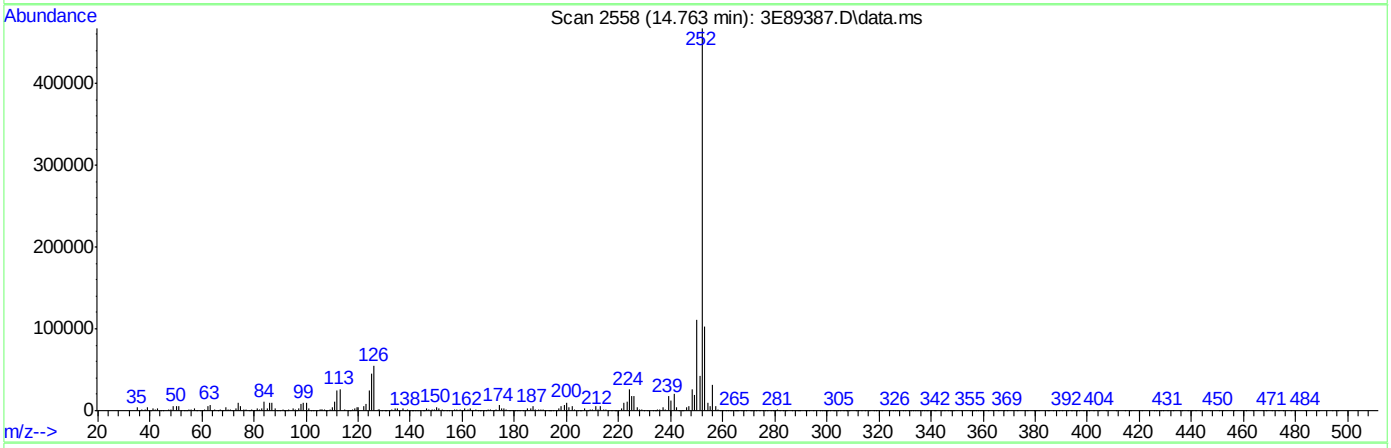
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\E3E3956\
Data File : 3E89387.D
Acq On    : 15 Dec 2016  10:14 am
Operator  : ashleyn
Sample    : cc3946-25
Misc      : op99136,e3e3956
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Dec 19 12:51:29 2016
Quant Method : C:\msdchem\1\METHODS\M3E3946.M
Quant Title  : Semi Volatile  GC/MS,zb-5msplus 30m x .25mm x .25MMon Dec 19 12:51:25 2016
QLast Update : Mon Dec 19 12:51:25 2016
Response via : Initial Calibration
```





TIC: 3E89387.D\data.ms

(93) Benzo[b]fluoranthene (t)

14.763min (+0.037) 24.09ppm

response 679364

Ion	Exp%	Act%
252.00	100	100
253.00	21.60	22.27
125.00	10.90	9.50
0.00	0.00	0.00

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56036a.D
Acq On : 18 Oct 2016 12:39 pm
Operator : shaniceg
Sample : icc2579-1.0
Misc : op97203a,e3p2579
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 08:42:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:42:44 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.029	150	27700	4.00	ppm	# 0.00
14) Fluorene-d10	13.998	176	32461	4.00	ppm	0.00
21) Fluoranthene-d10	18.165	212	44983	4.00	ppm	# 0.00
31) Benzo(a)pyrene-d12	22.739	264	33275	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.966	112	103551	19.84	ppm	0.00
Spiked Amount 50.000			Recovery = 39.68%			
4) Phenol-d5	6.526	99	130759	19.81	ppm	0.00
Spiked Amount 50.000			Recovery = 39.62%			
7) Nitrobenzene-d5	8.138	82	111119	19.84	ppm	0.00
Spiked Amount 50.000			Recovery = 39.68%			
15) 2-Fluorobiphenyl	11.676	172	175504	19.99	ppm	0.00
Spiked Amount 50.000			Recovery = 39.98%			
20) 2,4,6-Tribromophenol	14.550	330	24137	19.99	ppm	0.00
Spiked Amount 50.000			Recovery = 39.98%			
28) Terphenyl-d14	18.938	244	131149	20.00	ppm	0.00
Spiked Amount 50.000			Recovery = 40.00%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.677	88	3415	0.96	ppm	87
5) Phenol	6.550	94	29961	4.91	ppm	95
6) bis(2-Chloroethyl)ether	6.695	93	4977	0.92	ppm	92
8) Nitrobenzene	8.176	77	5074	0.82	ppm #	36
9) Naphthalene	9.532	128	16619	1.00	ppm	93
10) Hexachlorobutadiene	9.852	225	1809	1.00	ppm	82
11) 2-Methylnaphthalene	10.899	141	8895	1.00	ppm	74
12) 1-Methylnaphthalene	11.084	141	7991	1.00	ppm	99
16) Acenaphthylene	12.675	152	14906	1.00	ppm	96
17) Acenaphthene	13.026	153	9347	1.00	ppm	82
18) 4,6-dinitro-2-methylph...	14.197	198	3446	5.17	ppm	97
19) Fluorene	14.059	166	9428	1.00	ppm	98
22) Hexachlorobenzene	15.167	284	2606	0.87	ppm	91
23) Pentachlorophenol	15.569	266	8193	4.99	ppm	85
24) Phenanthrene	15.955	178	13837	0.98	ppm	99
25) Anthracene	16.063	178	12690	0.97	ppm	99
26) Fluoranthene	18.181	202	12422	1.00	ppm	90
27) Pyrene	18.583	202	12491	1.00	ppm	96
29) Benzo[a]anthracene	20.638	228	9550	1.00	ppm	96
30) Chrysene	20.699	228	10063	1.00	ppm	94
32) Benzo[b]fluoranthene	22.306	252	10478	1.00	ppm	91
33) Benzo[k]fluoranthene	22.353	252	10019	1.00	ppm	91
34) Benzo[a]pyrene	22.754	252	9042	1.00	ppm	94
35) Indeno[1,2,3-cd]pyrene	24.334	276	10380	1.00	ppm	98
36) Dibenz[a,h]anthracene	24.367	278	8592	1.00	ppm	79
37) Benzo[g,h,i]perylene	24.737	276	9351	1.01	ppm	99

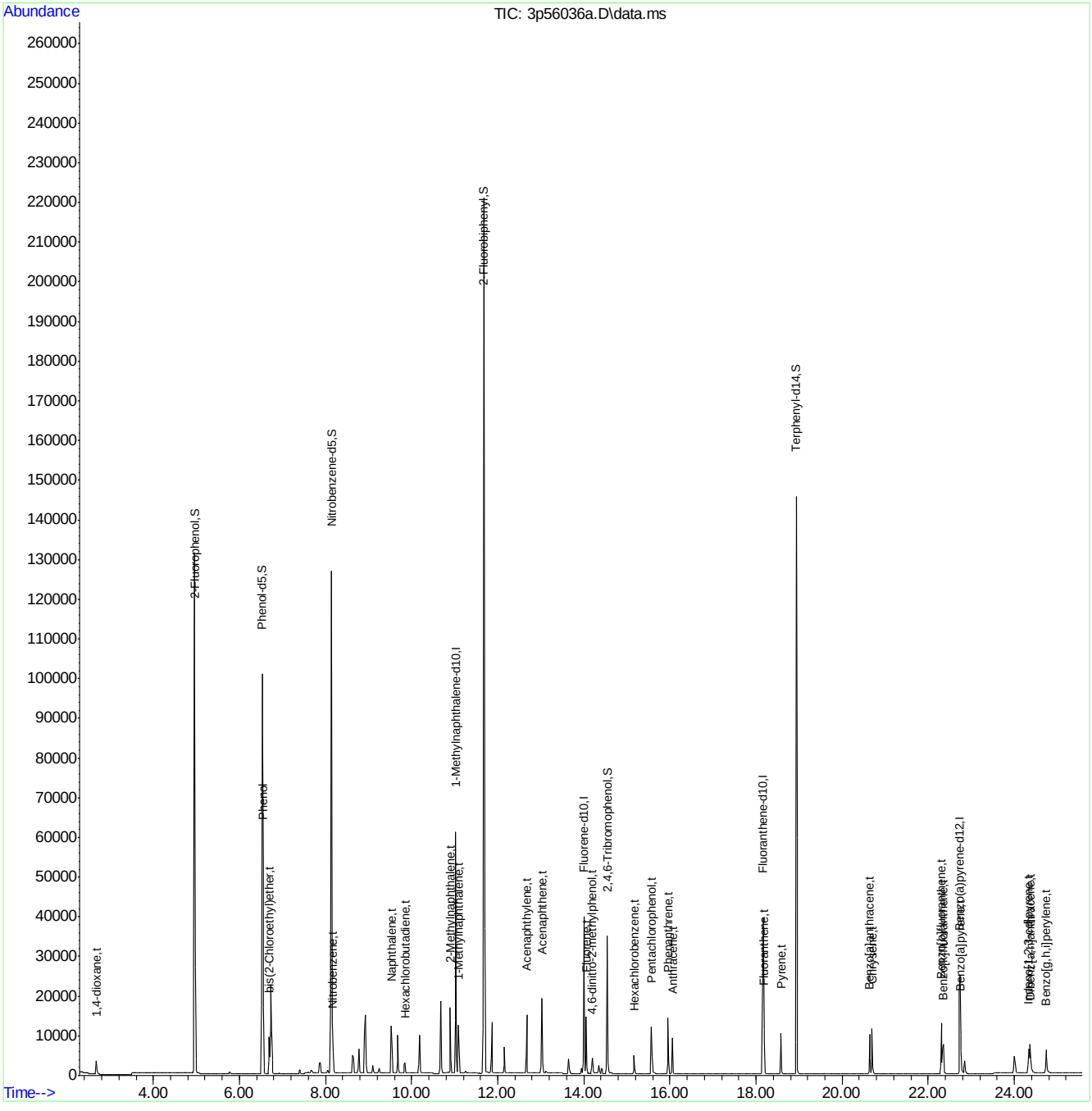
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56036a.D
Acq On : 18 Oct 2016 12:39 pm
Operator : shaniceg
Sample : icc2579-1.0
Misc : op97203a,e3p2579
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 08:42:55 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:42:44 2016
Response via : Initial Calibration



M3P2579SIM.M Wed Oct 19 09:00:16 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56037.D
Acq On : 18 Oct 2016 1:10 pm
Operator : shaniceg
Sample : ic2579-0.5
Misc : op97203a,e3p2579
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 19 08:44:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:43:35 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.029	150	23097	4.00	ppm	# 0.00
14) Fluorene-d10	13.998	176	26808	4.00	ppm	0.00
21) Fluoranthene-d10	18.165	212	34689	4.00	ppm	# 0.00
31) Benzo(a)pyrene-d12	22.723	264	25091	4.00	ppm	-0.02
System Monitoring Compounds						
3) 2-Fluorophenol	4.966	112	47765	11.06	ppm	0.00
Spiked Amount 50.000			Recovery = 22.12%			
4) Phenol-d5	6.526	99	60265	11.05	ppm	0.00
Spiked Amount 50.000			Recovery = 22.10%			
7) Nitrobenzene-d5	8.139	82	51477	11.11	ppm	0.00
Spiked Amount 50.000			Recovery = 22.22%			
15) 2-Fluorobiphenyl	11.676	172	82509	11.39	ppm	0.00
Spiked Amount 50.000			Recovery = 22.78%			
20) 2,4,6-Tribromophenol	14.550	330	10331	10.37	ppm	0.00
Spiked Amount 50.000			Recovery = 20.74%			
28) Terphenyl-d14	18.938	244	56514	11.18	ppm	0.00
Spiked Amount 50.000			Recovery = 22.36%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.670	88	1328	0.47	ppm	80
5) Phenol	6.550	94	14828	2.97	ppm	95
6) bis(2-Chloroethyl)ether	6.695	93	2370	0.57	ppm	84
8) Nitrobenzene	8.176	77	2436	0.58	ppm #	39
9) Naphthalene	9.532	128	7404	0.53	ppm	92
10) Hexachlorobutadiene	9.852	225	826	0.55	ppm	83
11) 2-Methylnaphthalene	10.899	141	3920	0.53	ppm #	74
12) 1-Methylnaphthalene	11.084	141	3661	0.55	ppm	97
16) Acenaphthylene	12.675	152	6335	0.51	ppm	96
17) Acenaphthene	13.026	153	3942	0.51	ppm	83
18) 4,6-dinitro-2-methylph...	14.198	198	859	1.51	ppm	79
19) Fluorene	14.059	166	4079	0.52	ppm	97
22) Hexachlorobenzene	15.167	284	1178	0.59	ppm	92
23) Pentachlorophenol	15.569	266	2693	2.13	ppm	83
24) Phenanthrene	15.955	178	6134	0.57	ppm	98
25) Anthracene	16.048	178	5339	0.55	ppm	89
26) Fluoranthene	18.181	202	5258	0.55	ppm	90
27) Pyrene	18.583	202	5353	0.56	ppm	96
29) Benzo[a]anthracene	20.638	228	3648	0.50	ppm	96
30) Chrysene	20.699	228	4155	0.54	ppm	94
32) Benzo[b]fluoranthene	22.306	252	4285	0.54	ppm	93
33) Benzo[k]fluoranthene	22.337	252	4220	0.56	ppm	94
34) Benzo[a]pyrene	22.754	252	3623	0.53	ppm	97
35) Indeno[1,2,3-cd]pyrene	24.334	276	4072	0.52	ppm	98
36) Dibenz[a,h]anthracene	24.367	278	3195	0.49	ppm	92
37) Benzo[g,h,i]perylene	24.737	276	3747	0.53	ppm	100

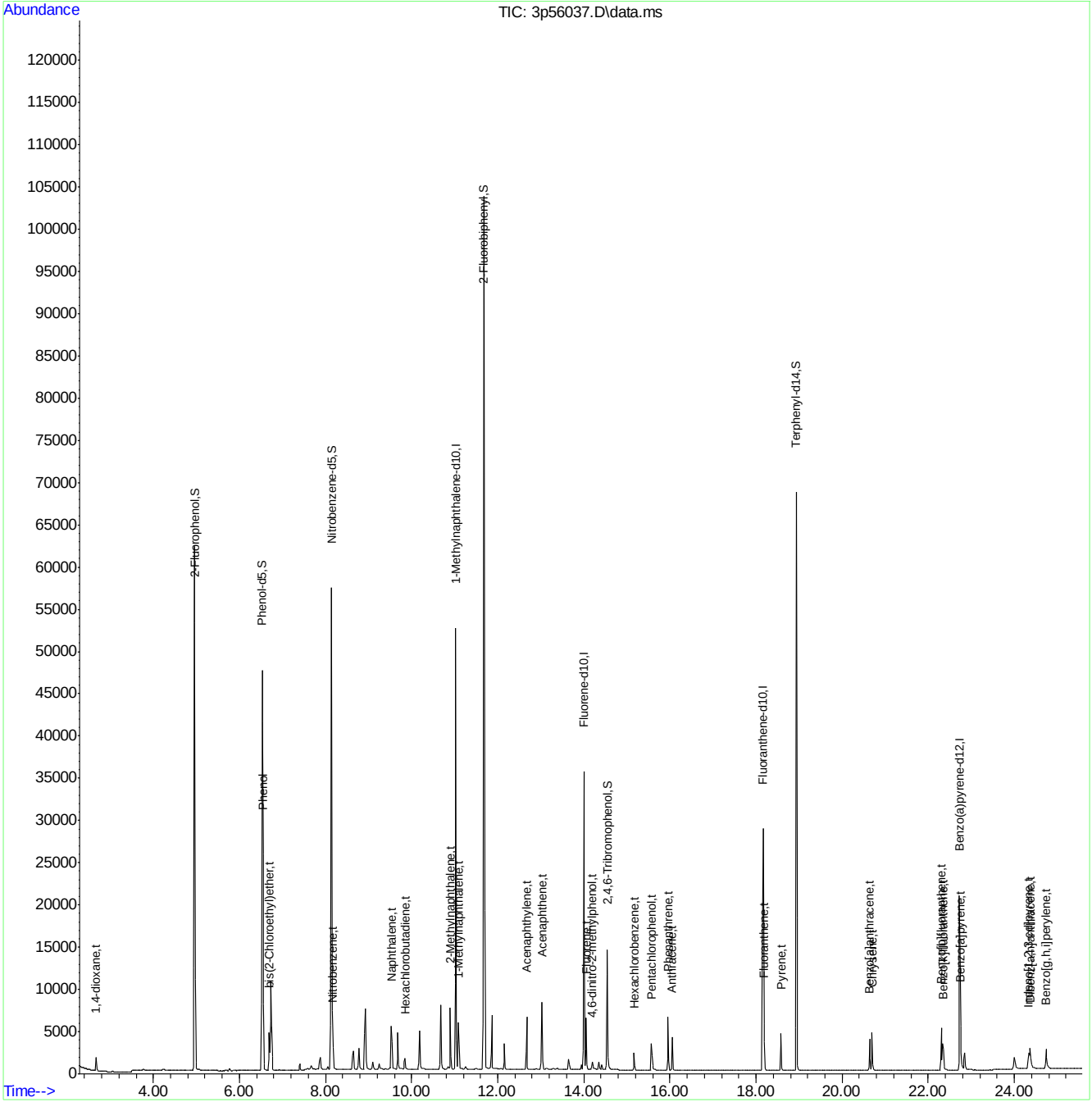
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56037.D
Acq On : 18 Oct 2016 1:10 pm
Operator : shaniceg
Sample : ic2579-0.5
Misc : op97203a,e3p2579
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 19 08:44:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:43:35 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56038.D
Acq On : 18 Oct 2016 1:41 pm
Operator : shaniceg
Sample : ic2579-0.2
Misc : op97203a,e3p2579
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 19 08:45:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:45:00 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.029	150	35989	4.00	ppm	# 0.00
14) Fluorene-d10	13.998	176	41446	4.00	ppm	0.00
21) Fluoranthene-d10	18.165	212	52186	4.00	ppm	# 0.00
31) Benzo(a)pyrene-d12	22.723	264	36130	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.966	112	30273	4.27	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.54%	
4) Phenol-d5	6.526	99	37669	4.21	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.42%	
7) Nitrobenzene-d5	8.138	82	31322	4.11	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.22%	
15) 2-Fluorobiphenyl	11.676	172	49014	4.09	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.18%	
20) 2,4,6-Tribromophenol	14.550	330	5531	3.53	ppm	0.00
Spiked Amount 50.000			Recovery	=	7.06%	
28) Terphenyl-d14	18.938	244	32432	4.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	8.06%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.677	88	961	0.22	ppm	88
5) Phenol	6.550	94	9599	1.13	ppm #	90
6) bis(2-Chloroethyl)ether	6.695	93	1515	0.22	ppm	75
8) Nitrobenzene	8.176	77	1572	0.22	ppm #	49
9) Naphthalene	9.532	128	4587	0.21	ppm	92
10) Hexachlorobutadiene	9.852	225	519	0.21	ppm	84
11) 2-Methylnaphthalene	10.899	141	2460	0.21	ppm #	73
12) 1-Methylnaphthalene	11.084	141	2103	0.19	ppm	96
16) Acenaphthylene	12.675	152	3839	0.20	ppm	96
17) Acenaphthene	13.026	153	2406	0.20	ppm	83
18) 4,6-dinitro-2-methylph...	14.197	198	289	0.41	ppm	73
19) Fluorene	14.059	166	2294	0.19	ppm	97
22) Hexachlorobenzene	15.167	284	710	0.22	ppm	91
23) Pentachlorophenol	15.569	266	1319	0.75	ppm	80
24) Phenanthrene	15.955	178	3388	0.20	ppm	98
25) Anthracene	16.048	178	3081	0.20	ppm	89
26) Fluoranthene	18.181	202	2923	0.19	ppm	91
27) Pyrene	18.583	202	2955	0.19	ppm	96
29) Benzo[a]anthracene	20.638	228	1980	0.18	ppm	96
30) Chrysene	20.699	228	2356	0.19	ppm	95
32) Benzo[b]fluoranthene	22.306	252	2065	0.17	ppm	91
33) Benzo[k]fluoranthene	22.353	252	2424	0.21	ppm	91
34) Benzo[a]pyrene	22.754	252	1999	0.20	ppm	96
35) Indeno[1,2,3-cd]pyrene	24.334	276	2140	0.19	ppm	98
36) Dibenz[a,h]anthracene	24.367	278	1775	0.19	ppm	72
37) Benzo[g,h,i]perylene	24.737	276	2021	0.19	ppm	100

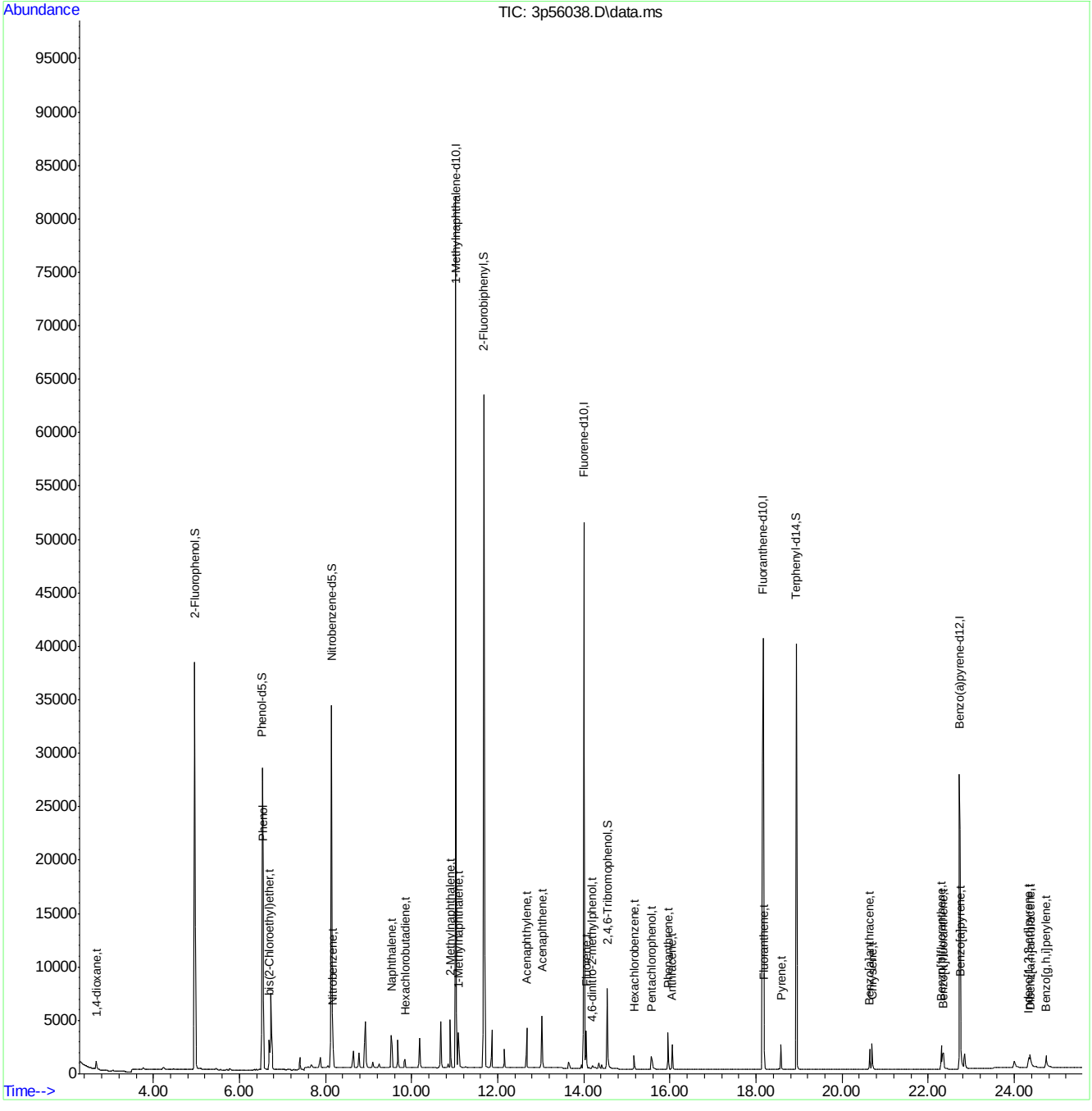
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56038.D
Acq On : 18 Oct 2016 1:41 pm
Operator : shaniceg
Sample : ic2579-0.2
Misc : op97203a,e3p2579
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 19 08:45:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:45:00 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56039.D
Acq On : 18 Oct 2016 2:11 pm
Operator : shaniceg
Sample : ic2579-0.1
Misc : op97203a,e3p2579
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 19 08:45:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:45:40 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	11.029	150	47321	4.00	ppm	#	0.00
14) Fluorene-d10	13.998	176	54351	4.00	ppm		0.00
21) Fluoranthene-d10	18.165	212	69241	4.00	ppm	#	0.00
31) Benzo(a)pyrene-d12	22.723	264	47907	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	4.966	112	19726	2.07	ppm		0.00
Spiked Amount 50.000			Recovery	=	4.14%		
4) Phenol-d5	6.526	99	24598	2.06	ppm		0.00
Spiked Amount 50.000			Recovery	=	4.12%		
7) Nitrobenzene-d5	8.138	82	20186	2.00	ppm		0.00
Spiked Amount 50.000			Recovery	=	4.00%		
15) 2-Fluorobiphenyl	11.676	172	31557	1.99	ppm		0.00
Spiked Amount 50.000			Recovery	=	3.98%		
20) 2,4,6-Tribromophenol	14.550	330	3368	1.70	ppm		0.00
Spiked Amount 50.000			Recovery	=	3.40%		
28) Terphenyl-d14	18.938	244	21122	1.97	ppm		0.00
Spiked Amount 50.000			Recovery	=	3.94%		
Target Compounds							Qvalue
2) 1,4-dioxane	2.677	88	548	0.09	ppm		88
5) Phenol	6.550	94	6480	0.56	ppm	#	91
6) bis(2-Chloroethyl)ether	6.695	93	1053	0.11	ppm		72
8) Nitrobenzene	8.176	77	1026	0.11	ppm	#	51
9) Naphthalene	9.532	128	3104	0.10	ppm		91
10) Hexachlorobutadiene	9.852	225	349	0.11	ppm		84
11) 2-Methylnaphthalene	10.899	141	1596	0.10	ppm	#	72
12) 1-Methylnaphthalene	11.084	141	1324	0.09	ppm		96
16) Acenaphthylene	12.675	152	2404	0.10	ppm		96
17) Acenaphthene	13.026	153	1579	0.10	ppm		82
18) 4,6-dinitro-2-methylph...	14.213	198	140	0.19	ppm		86
19) Fluorene	14.059	166	1451	0.09	ppm		98
22) Hexachlorobenzene	15.167	284	444	0.10	ppm		90
23) Pentachlorophenol	15.569	266	768	0.36	ppm		80
24) Phenanthrene	15.955	178	2208	0.10	ppm		99
25) Anthracene	16.048	178	1935	0.09	ppm		89
26) Fluoranthene	18.181	202	1828	0.09	ppm		89
27) Pyrene	18.583	202	1873	0.09	ppm		97
29) Benzo[a]anthracene	20.638	228	1254	0.09	ppm		95
30) Chrysene	20.699	228	1560	0.10	ppm		93
32) Benzo[b]fluoranthene	22.306	252	1286	0.09	ppm		90
33) Benzo[k]fluoranthene	22.353	252	1555	0.10	ppm		91
34) Benzo[a]pyrene	22.754	252	1285	0.10	ppm		96
35) Indeno[1,2,3-cd]pyrene	24.334	276	1323	0.09	ppm		98
36) Dibenz[a,h]anthracene	24.367	278	1069	0.09	ppm		71
37) Benzo[g,h,i]perylene	24.737	276	1281	0.09	ppm		100

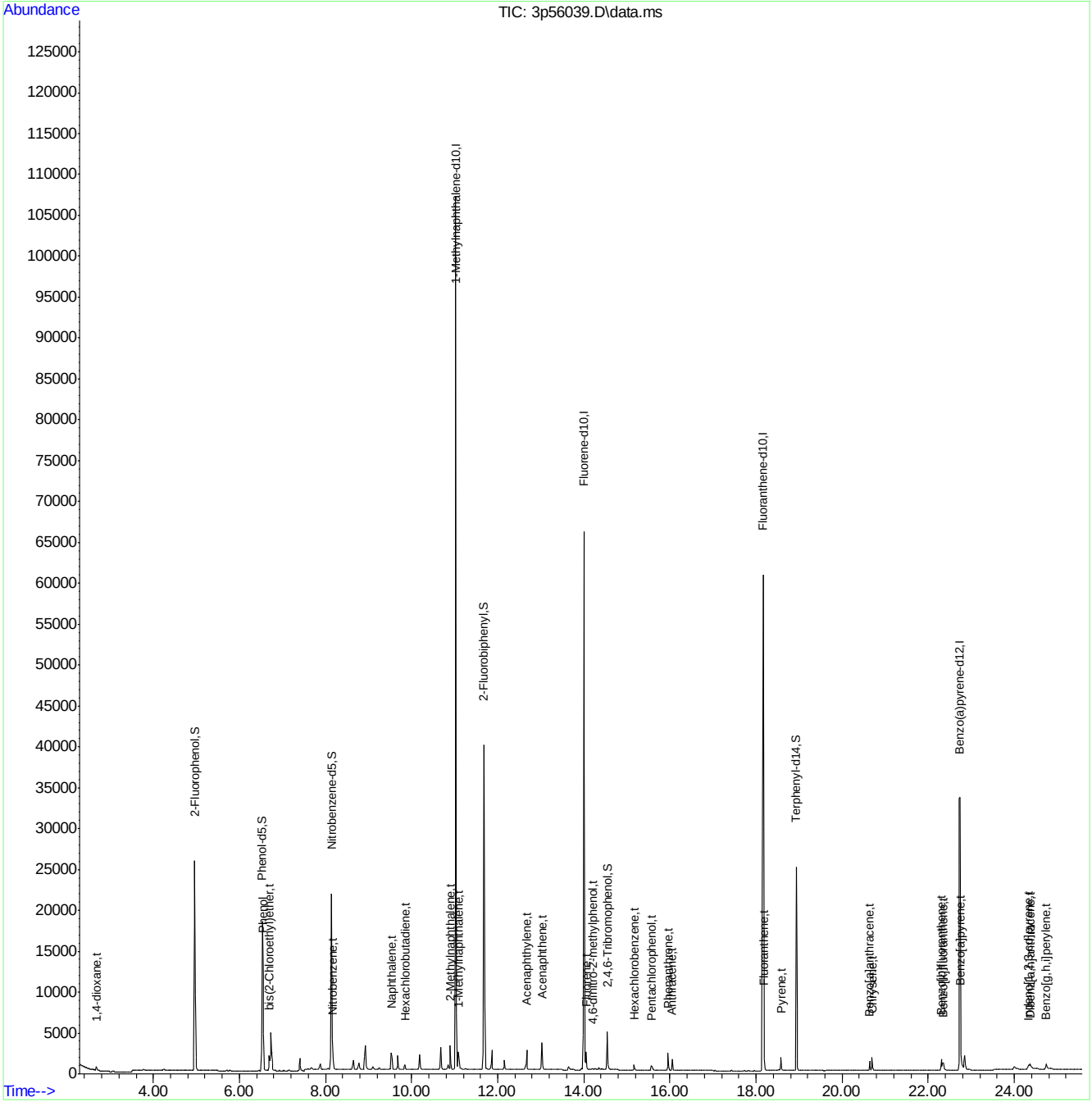
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56039.D
Acq On : 18 Oct 2016 2:11 pm
Operator : shaniceg
Sample : ic2579-0.1
Misc : op97203a,e3p2579
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 19 08:45:48 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:45:40 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56040.D
Acq On : 18 Oct 2016 2:42 pm
Operator : shaniceg
Sample : ic2579-0.05
Misc : op97203a,e3p2579
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 19 08:46:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:46:25 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.029	150	38995	4.00	ppm	# 0.00
14) Fluorene-d10	13.998	176	44390	4.00	ppm	0.00
21) Fluoranthene-d10	18.165	212	54859	4.00	ppm	# 0.00
31) Benzo(a)pyrene-d12	22.739	264	36457	4.00	ppm	0.02
System Monitoring Compounds						
3) 2-Fluorophenol	4.966	112	8195	1.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.06%	
4) Phenol-d5	6.526	99	10309	1.04	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.08%	
7) Nitrobenzene-d5	8.138	82	8292	1.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.00%	
15) 2-Fluorobiphenyl	11.676	172	13306	1.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.06%	
20) 2,4,6-Tribromophenol	14.550	330	1235	0.79	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.58%	
28) Terphenyl-d14	18.938	244	7728	0.91	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.82%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.677	88	391	0.08	ppm	98
5) Phenol	6.550	94	2806	0.28	ppm #	90
6) bis(2-Chloroethyl)ether	6.695	93	457	0.06	ppm	70
8) Nitrobenzene	8.176	77	422	0.05	ppm #	52
9) Naphthalene	9.532	128	1318	0.05	ppm	92
10) Hexachlorobutadiene	9.852	225	154	0.06	ppm	82
11) 2-Methylnaphthalene	10.899	141	678	0.05	ppm #	74
12) 1-Methylnaphthalene	11.084	141	555	0.05	ppm	97
16) Acenaphthylene	12.675	152	974	0.05	ppm	96
17) Acenaphthene	13.026	153	659	0.05	ppm	80
19) Fluorene	14.059	166	597	0.05	ppm	99
22) Hexachlorobenzene	15.167	284	189	0.05	ppm	91
23) Pentachlorophenol	15.584	266	218	0.14	ppm	96
24) Phenanthrene	15.955	178	907	0.05	ppm	98
25) Anthracene	16.063	178	768	0.05	ppm	99
26) Fluoranthene	18.181	202	733	0.05	ppm	87
27) Pyrene	18.583	202	714	0.05	ppm	98
29) Benzo[a]anthracene	20.638	228	485	0.04	ppm	94
30) Chrysene	20.699	228	606	0.05	ppm	91
32) Benzo[b]fluoranthene	22.306	252	418	0.04	ppm	85
33) Benzo[k]fluoranthene	22.353	252	591	0.05	ppm	95
34) Benzo[a]pyrene	22.754	252	626	0.06	ppm	93
35) Indeno[1,2,3-cd]pyrene	24.334	276	440	0.04	ppm	95
36) Dibenz[a,h]anthracene	24.367	278	360	0.04	ppm	62
37) Benzo[g,h,i]perylene	24.754	276	450	0.04	ppm	96

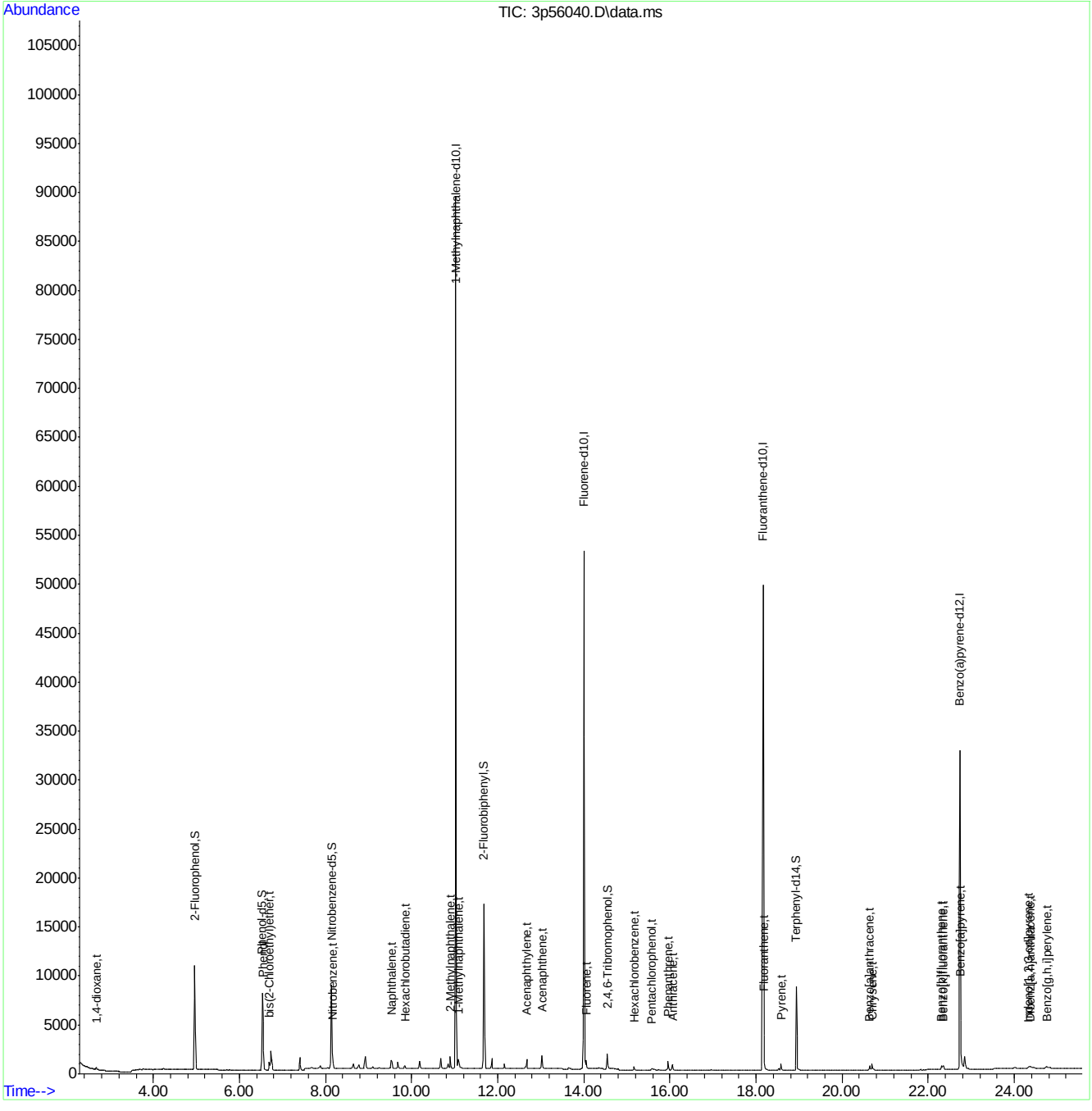
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56040.D
Acq On : 18 Oct 2016 2:42 pm
Operator : shaniceg
Sample : ic2579-0.05
Misc : op97203a,e3p2579
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 19 08:46:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:46:25 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

9.6.20 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56041.D
Acq On : 18 Oct 2016 3:13 pm
Operator : shaniceg
Sample : ic2579-0.02
Misc : op97203a,e3p2579
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 19 08:47:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:47:03 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1-Methylnaphthalene-d10	11.029	150	38847	4.00	ppm	#	0.00
14) Fluorene-d10	13.998	176	43889	4.00	ppm		0.00
21) Fluoranthene-d10	18.166	212	55359	4.00	ppm	#	0.00
31) Benzo(a)pyrene-d12	22.739	264	37001	4.00	ppm		0.00
System Monitoring Compounds							
3) 2-Fluorophenol	4.966	112	3145	0.40	ppm		0.00
Spiked Amount 50.000			Recovery	=	0.80%		
4) Phenol-d5	6.526	99	3930	0.39	ppm		0.00
Spiked Amount 50.000			Recovery	=	0.78%		
7) Nitrobenzene-d5	8.139	82	3136	0.38	ppm		0.00
Spiked Amount 50.000			Recovery	=	0.76%		
15) 2-Fluorobiphenyl	11.676	172	5122	0.40	ppm		0.00
Spiked Amount 50.000			Recovery	=	0.80%		
20) 2,4,6-Tribromophenol	14.550	330	530	0.36	ppm		0.00
Spiked Amount 50.000			Recovery	=	0.72%		
28) Terphenyl-d14	18.938	244	2995	0.36	ppm		0.00
Spiked Amount 50.000			Recovery	=	0.72%		
Target Compounds							Qvalue
5) Phenol	6.550	94	1093	0.11	ppm	#	89
6) bis(2-Chloroethyl)ether	6.695	93	186	0.02	ppm		67
8) Nitrobenzene	8.176	77	160	0.02	ppm	#	59
9) Naphthalene	9.532	128	534	0.02	ppm		93
10) Hexachlorobutadiene	9.852	225	61	0.02	ppm		85
11) 2-Methylnaphthalene	10.900	141	270	0.02	ppm	#	72
12) 1-Methylnaphthalene	11.084	141	232	0.02	ppm		94
16) Acenaphthylene	12.675	152	399	0.02	ppm		94
17) Acenaphthene	13.026	153	262	0.02	ppm		82
19) Fluorene	14.060	166	244	0.02	ppm		98
22) Hexachlorobenzene	15.167	284	74	0.02	ppm		91
23) Pentachlorophenol	15.584	266	71	0.05	ppm		85
24) Phenanthrene	15.955	178	372	0.02	ppm		98
25) Anthracene	16.048	178	302	0.02	ppm		89
26) Fluoranthene	18.196	202	357	0.02	ppm		98
27) Pyrene	18.583	202	300	0.02	ppm		96
29) Benzo[a]anthracene	20.653	228	189	0.02	ppm		97
30) Chrysene	20.699	228	261	0.02	ppm		92
32) Benzo[b]fluoranthene	22.306	252	158	0.01	ppm		84
33) Benzo[k]fluoranthene	22.353	252	238	0.02	ppm		92
34) Benzo[a]pyrene	22.770	252	310	0.03	ppm		93
35) Indeno[1,2,3-cd]pyrene	24.334	276	152	0.01	ppm		92
36) Dibenz[a,h]anthracene	24.367	278	116	0.01	ppm		72
37) Benzo[g,h,i]perylene	24.754	276	162	0.02	ppm		98

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

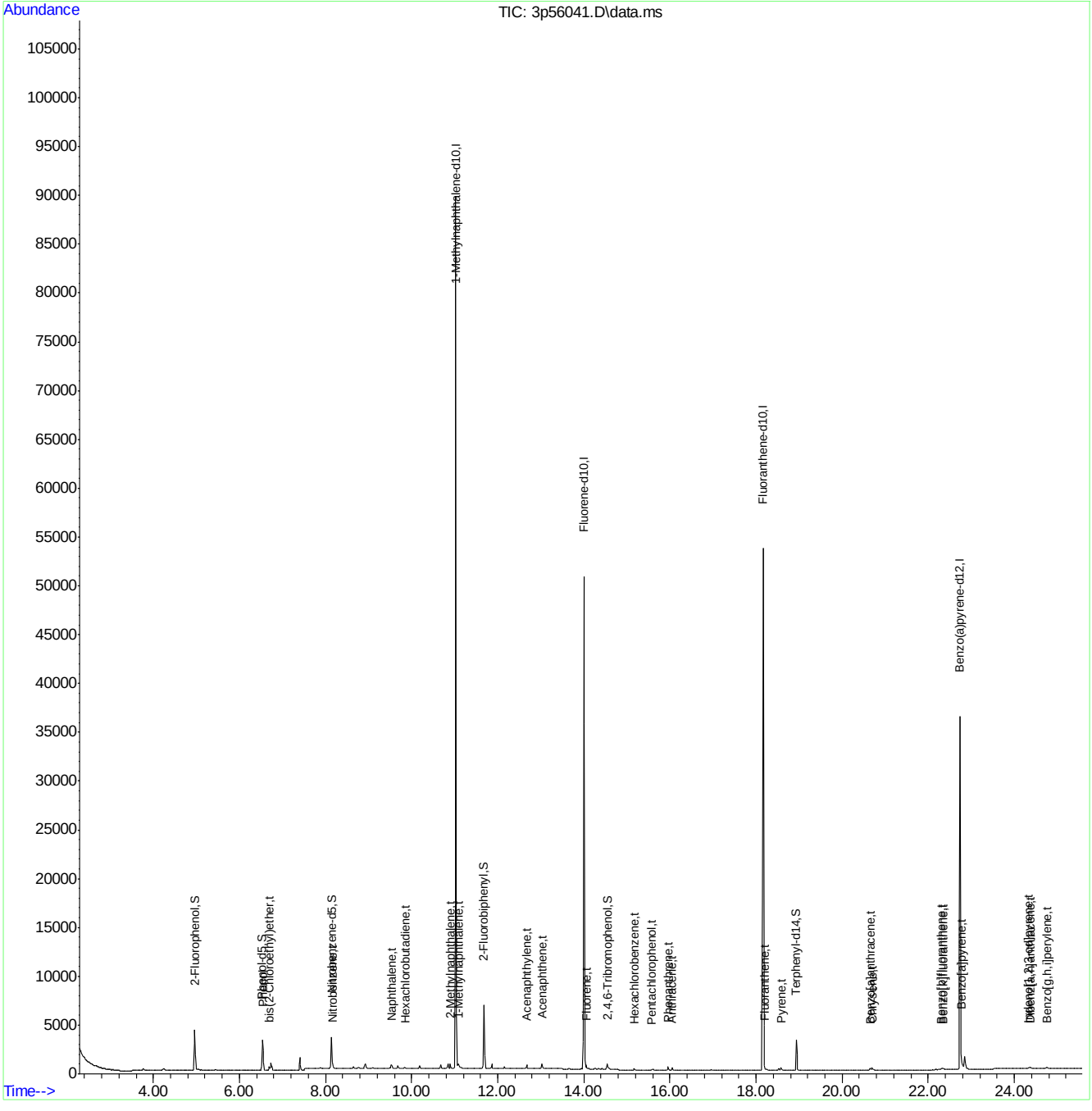
9.6.21

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56041.D
Acq On : 18 Oct 2016 3:13 pm
Operator : shaniceg
Sample : ic2579-0.02
Misc : op97203a,e3p2579
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 19 08:47:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:47:03 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56042.D
Acq On : 18 Oct 2016 3:43 pm
Operator : shaniceg
Sample : ic2579-0.01
Misc : op97203a,e3p2579
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 19 08:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:48:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	11.029	150	35374	4.00 ppm	# 0.00
14) Fluorene-d10	13.998	176	39274	4.00 ppm	0.00
21) Fluoranthene-d10	18.166	212	48870	4.00 ppm	# 0.00
31) Benzo(a)pyrene-d12	22.739	264	32476	4.00 ppm	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	4.966	112	1478	0.21 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.42%	
4) Phenol-d5	6.526	99	1814	0.20 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.40%	
7) Nitrobenzene-d5	8.139	82	1392	0.19 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.38%	
15) 2-Fluorobiphenyl	11.676	172	2358	0.21 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.42%	
20) 2,4,6-Tribromophenol	14.550	330	184	0.14 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.28%	
28) Terphenyl-d14	18.938	244	1233	0.17 ppm	0.00
Spiked Amount 50.000			Recovery	= 0.34%	
Target Compounds					Qvalue
5) Phenol	6.550	94	520	0.06 ppm	# 86
6) bis(2-Chloroethyl)ether	6.695	93	86	0.01 ppm	# 65
8) Nitrobenzene	8.176	77	81	0.01 ppm	62
9) Naphthalene	9.532	128	250	0.01 ppm	91
10) Hexachlorobutadiene	9.852	225	28	0.01 ppm	90
11) 2-Methylnaphthalene	10.900	141	128	0.01 ppm	# 69
12) 1-Methylnaphthalene	11.084	141	107	0.01 ppm	92
16) Acenaphthylene	12.675	152	180	0.01 ppm	93
17) Acenaphthene	13.026	153	122	0.01 ppm	79
19) Fluorene	14.060	166	113	0.01 ppm	96
22) Hexachlorobenzene	15.167	284	35	0.01 ppm	92
24) Phenanthrene	15.955	178	173	0.01 ppm	97
25) Anthracene	16.064	178	135	0.01 ppm	98
26) Fluoranthene	18.196	202	181	0.01 ppm	97
27) Pyrene	18.583	202	137	0.01 ppm	99
29) Benzo[a]anthracene	20.638	228	87	0.01 ppm	96
30) Chrysene	20.699	228	122	0.01 ppm	85
32) Benzo[b]fluoranthene	22.306	252	89	0.01 ppm	88
33) Benzo[k]fluoranthene	22.353	252	66	0.01 ppm	81
35) Indeno[1,2,3-cd]pyrene	24.334	276	65	0.01 ppm	94
36) Dibenz[a,h]anthracene	24.367	278	47	0.01 ppm	94
37) Benzo[g,h,i]perylene	24.754	276	68	0.01 ppm	99

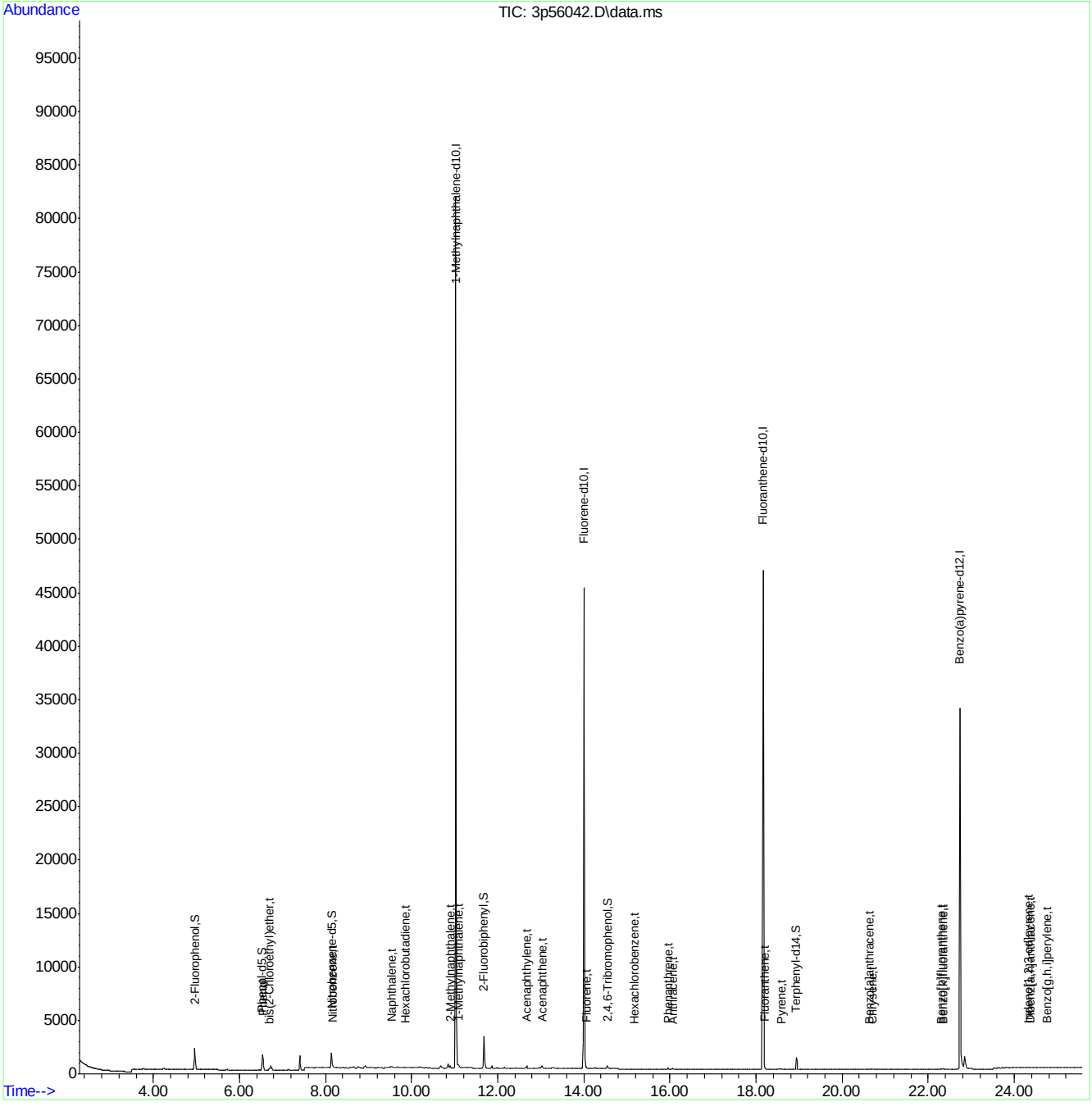
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56042.D
Acq On : 18 Oct 2016 3:43 pm
Operator : shaniceg
Sample : ic2579-0.01
Misc : op97203a,e3p2579
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 19 08:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:48:09 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56043.D
Acq On : 18 Oct 2016 4:14 pm
Operator : shaniceg
Sample : ic2579-5.0
Misc : op97203a,e3p2579
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 19 08:49:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:48:47 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.029	150	25362	4.00	ppm	# 0.00
14) Fluorene-d10	14.014	176	31668	4.00	ppm	0.02
21) Fluoranthene-d10	18.166	212	47578	4.00	ppm	# 0.00
31) Benzo(a)pyrene-d12	22.739	264	31983	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.966	112	423242	82.16	ppm	0.00
Spiked Amount 50.000			Recovery	=	164.32%	
4) Phenol-d5	6.550	99	546981	84.24	ppm	0.02
Spiked Amount 50.000			Recovery	=	168.48%	
7) Nitrobenzene-d5	8.139	82	447940	84.36	ppm	0.00
Spiked Amount 50.000			Recovery	=	168.72%	
15) 2-Fluorobiphenyl	11.695	172	983628	105.76	ppm	0.02
Spiked Amount 50.000			Recovery	=	211.52%	
20) 2,4,6-Tribromophenol	14.550	330	171359	163.91	ppm	0.00
Spiked Amount 50.000			Recovery	=	327.82%	
28) Terphenyl-d14	18.954	244	784937	113.35	ppm	0.02
Spiked Amount 50.000			Recovery	=	226.70%	
Target Compounds						Qvalue
2) 1,4-dioxane	2.674	88	14618	4.73	ppm	82
5) Phenol	6.562	94	113986	17.27	ppm #	77
6) bis(2-Chloroethyl)ether	6.707	93	20850	3.75	ppm #	71
8) Nitrobenzene	8.176	77	20885	3.95	ppm	66
9) Naphthalene	9.551	128	75368	4.52	ppm	95
10) Hexachlorobutadiene	9.852	225	8288	4.45	ppm	84
11) 2-Methylnaphthalene	10.900	141	40894	4.78	ppm #	72
12) 1-Methylnaphthalene	11.085	141	35643	4.77	ppm	94
16) Acenaphthylene	12.675	152	77201	5.35	ppm	97
17) Acenaphthene	13.026	153	45628	4.88	ppm	83
18) 4,6-dinitro-2-methylph...	14.213	198	24863	68.01	ppm #	49
19) Fluorene	14.060	166	46425	5.20	ppm	99
22) Hexachlorobenzene	15.167	284	12918	4.08	ppm	96
23) Pentachlorophenol	15.569	266	44698	35.90	ppm	81
24) Phenanthrene	15.955	178	66553	4.21	ppm	99
25) Anthracene	16.064	178	59355	4.38	ppm	99
26) Fluoranthene	18.196	202	66599	4.70	ppm	97
27) Pyrene	18.583	202	68938	5.20	ppm	97
29) Benzo[a]anthracene	20.653	228	54326	6.06	ppm	90
30) Chrysene	20.700	228	51631	4.69	ppm	88
32) Benzo[b]fluoranthene	22.306	252	65803	6.80	ppm	84
33) Benzo[k]fluoranthene	22.353	252	49963	5.09	ppm	93
34) Benzo[a]pyrene	22.770	252	44519	4.47	ppm	93
35) Indeno[1,2,3-cd]pyrene	24.334	276	58759	6.33	ppm	92
36) Dibenz[a,h]anthracene	24.384	278	45411	6.02	ppm	94
37) Benzo[g,h,i]perylene	24.754	276	51839	6.30	ppm	99

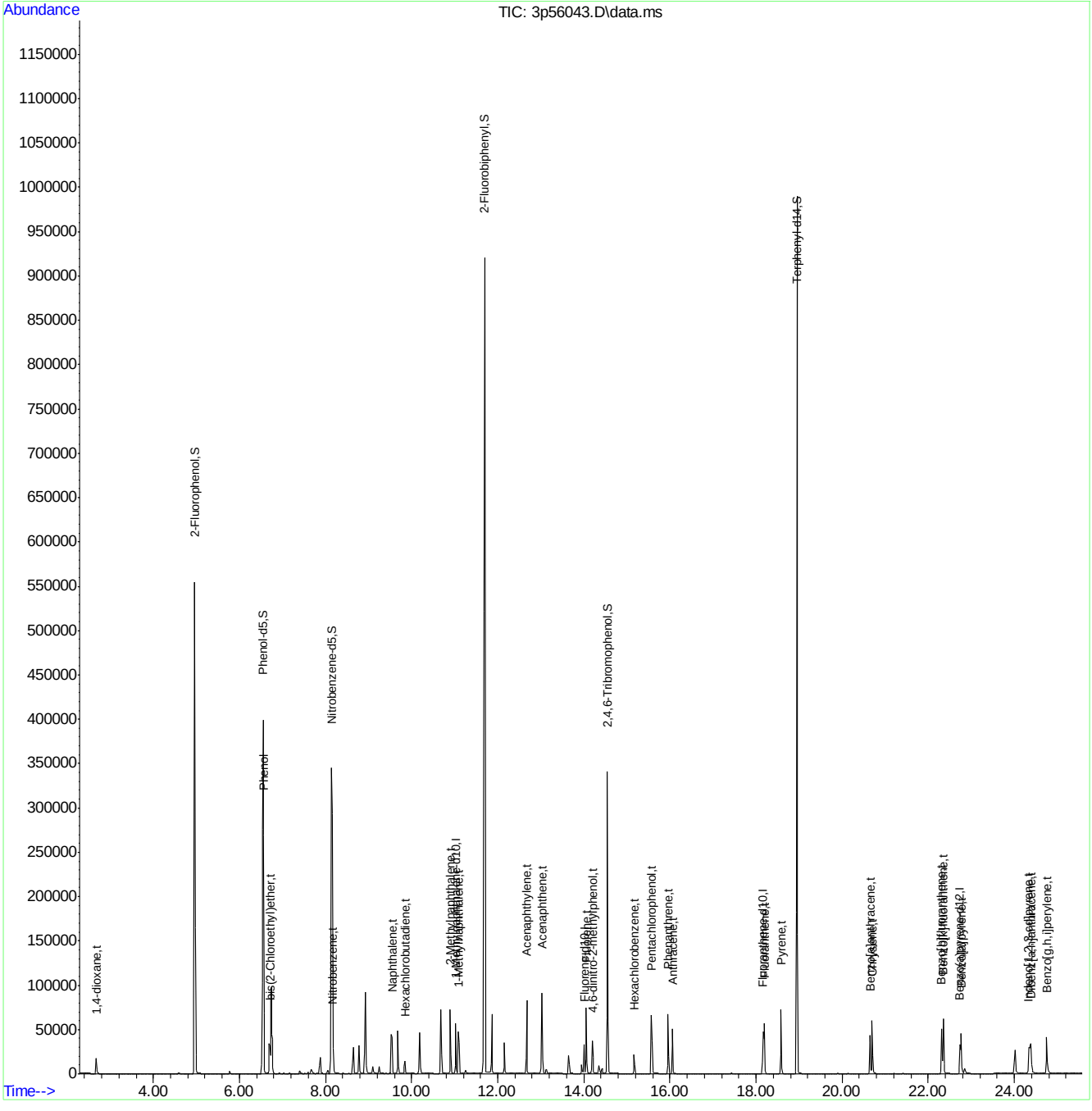
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56043.D
Acq On : 18 Oct 2016 4:14 pm
Operator : shaniceg
Sample : ic2579-5.0
Misc : op97203a,e3p2579
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 19 08:49:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:48:47 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56044.D
Acq On : 18 Oct 2016 4:45 pm
Operator : shaniceg
Sample : ic2579-2.5
Misc : op97203a,e3p2579
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 19 08:49:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:49:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.029	150	37195	4.00	ppm	# 0.00
14) Fluorene-d10	14.013	176	45624	4.00	ppm	0.00
21) Fluoranthene-d10	18.165	212	62877	4.00	ppm	# 0.00
31) Benzo(a)pyrene-d12	22.739	264	40716	4.00	ppm	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	4.966	112	301437	39.90	ppm	0.00
Spiked Amount 50.000			Recovery = 79.80%			
4) Phenol-d5	6.538	99	398208	41.82	ppm	-0.01
Spiked Amount 50.000			Recovery = 83.64%			
7) Nitrobenzene-d5	8.138	82	347295	45.49	ppm	0.00
Spiked Amount 50.000			Recovery = 90.98%			
15) 2-Fluorobiphenyl	11.676	172	541022	40.38	ppm	-0.02
Spiked Amount 50.000			Recovery = 80.76%			
20) 2,4,6-Tribromophenol	14.550	330	103872	63.20	ppm	0.00
Spiked Amount 50.000			Recovery = 126.40%			
28) Terphenyl-d14	18.953	244	547980	59.88	ppm	0.00
Spiked Amount 50.000			Recovery = 119.76%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.674	88	9696	2.16	ppm	80
5) Phenol	6.562	94	85478	8.83	ppm #	88
6) bis(2-Chloroethyl)ether	6.695	93	15830	1.94	ppm #	66
8) Nitrobenzene	8.176	77	15471	2.06	ppm #	52
9) Naphthalene	9.532	128	56276	2.33	ppm	92
10) Hexachlorobutadiene	9.852	225	6195	2.31	ppm	85
11) 2-Methylnaphthalene	10.899	141	29804	2.39	ppm #	72
12) 1-Methylnaphthalene	11.084	141	25558	2.34	ppm	93
16) Acenaphthylene	12.675	152	51991	2.48	ppm	96
17) Acenaphthene	13.026	153	32110	2.39	ppm	82
18) 4,6-dinitro-2-methylph...	14.197	198	14019	19.80	ppm #	49
19) Fluorene	14.059	166	32042	2.48	ppm	99
22) Hexachlorobenzene	15.167	284	9066	2.22	ppm	94
23) Pentachlorophenol	15.569	266	27875	15.79	ppm	82
24) Phenanthrene	15.955	178	46075	2.25	ppm	99
25) Anthracene	16.063	178	41493	2.35	ppm	99
26) Fluoranthene	18.196	202	42857	2.31	ppm	98
27) Pyrene	18.583	202	44134	2.51	ppm	99
29) Benzo[a]anthracene	20.653	228	32487	2.67	ppm	91
30) Chrysene	20.699	228	31626	2.19	ppm	87
32) Benzo[b]fluoranthene	22.306	252	37764	2.86	ppm	83
33) Benzo[k]fluoranthene	22.353	252	30803	2.46	ppm	94
34) Benzo[a]pyrene	22.770	252	29161	2.34	ppm	96
35) Indeno[1,2,3-cd]pyrene	24.334	276	33437	2.71	ppm	92
36) Dibenz[a,h]anthracene	24.384	278	25938	2.61	ppm	94
37) Benzo[g,h,i]perylene	24.754	276	29483	2.72	ppm	99

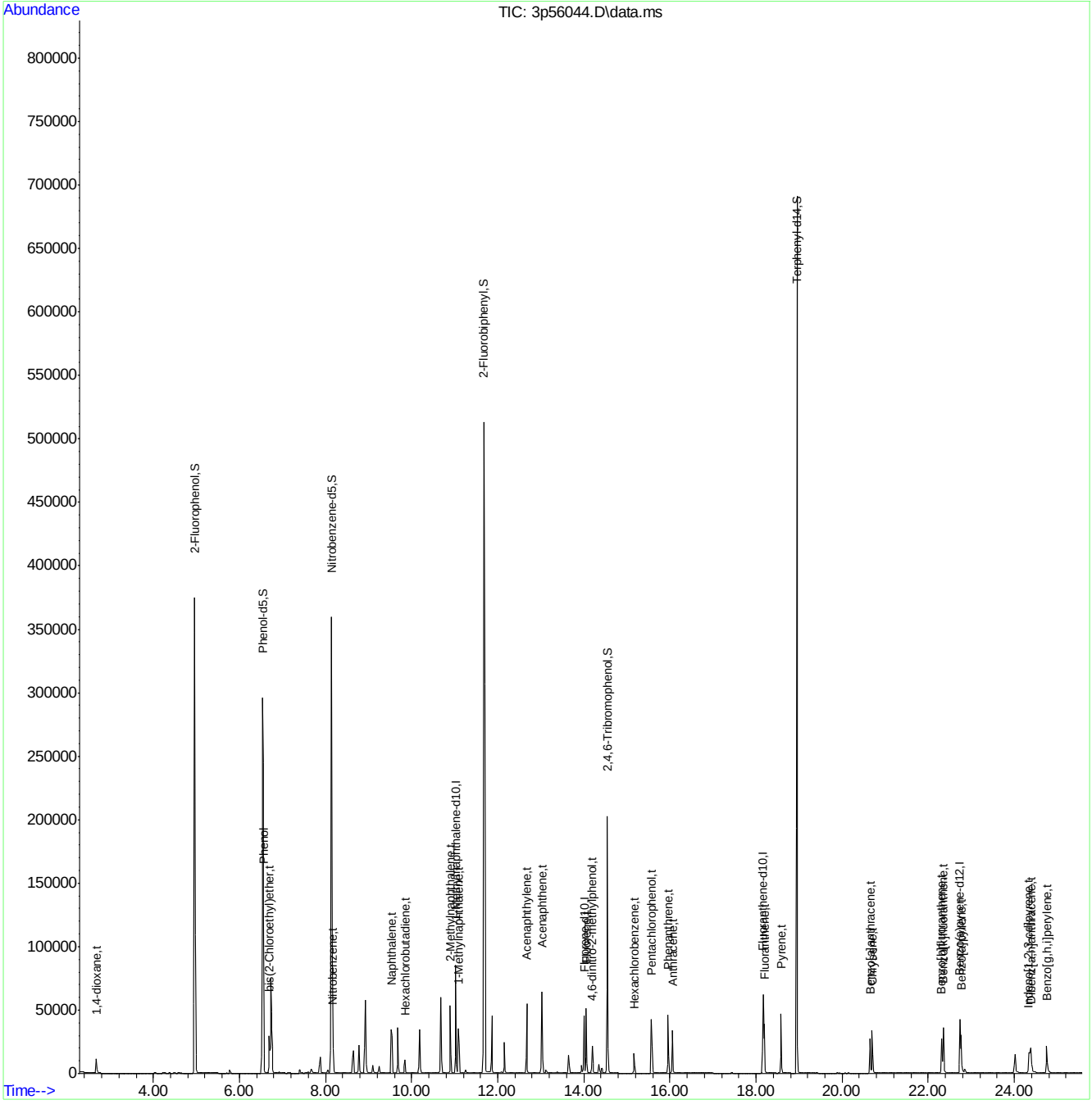
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2579\
Data File : 3p56044.D
Acq On : 18 Oct 2016 4:45 pm
Operator : shaniceg
Sample : ic2579-2.5
Misc : op97203a,e3p2579
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 19 08:49:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:49:22 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56050.D
Acq On : 19 Oct 2016 10:16 am
Operator : shaniceg
Sample : icv2579-1.0
Misc : op97203a,e3p2580
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 11:38:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:55:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	11.011	150	31980	4.00	ppm	#-0.02
14) Fluorene-d10	13.983	176	35056	4.00	ppm	-0.02
21) Fluoranthene-d10	18.150	212	42614	4.00	ppm	#-0.01
31) Benzo(a)pyrene-d12	22.708	264	28212	4.00	ppm	-0.03
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%	
15) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
20) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
28) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
6) bis(2-Chloroethyl)ether	6.683	93	7585	1.14	ppm	# 60
8) Nitrobenzene	8.157	77	7775	1.23	ppm	81
9) Naphthalene	9.532	128	21489	1.04	ppm	99
10) Hexachlorobutadiene	9.833	225	2499	1.09	ppm	98
11) 2-Methylnaphthalene	10.881	141	10503	0.99	ppm	# 61
16) Acenaphthylene	12.657	152	17981	1.12	ppm	93
17) Acenaphthene	13.008	153	10574	1.03	ppm	75
19) Fluorene	14.044	166	9964	1.00	ppm	99
22) Hexachlorobenzene	15.151	284	2957	1.08	ppm	90
24) Phenanthrene	15.940	178	14011	1.02	ppm	98
25) Anthracene	16.033	178	12293	1.04	ppm	90
26) Fluoranthene	18.166	202	11938	0.96	ppm	91
27) Pyrene	18.567	202	12420	1.04	ppm	97
29) Benzo[a]anthracene	20.622	228	9238	1.11	ppm	96
30) Chrysene	20.684	228	8831	0.91	ppm	95
32) Benzo[b]fluoranthene	22.291	252	8733	0.98	ppm	96
33) Benzo[k]fluoranthene	22.322	252	8012	0.93	ppm	98
34) Benzo[a]pyrene	22.739	252	7761	0.96	ppm	99
35) Indeno[1,2,3-cd]pyrene	24.300	276	8853	1.02	ppm	93
36) Dibenz[a,h]anthracene	24.351	278	6716	0.97	ppm	94
37) Benzo[g,h,i]perylene	24.720	276	7672	1.01	ppm	99

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

9.6.25

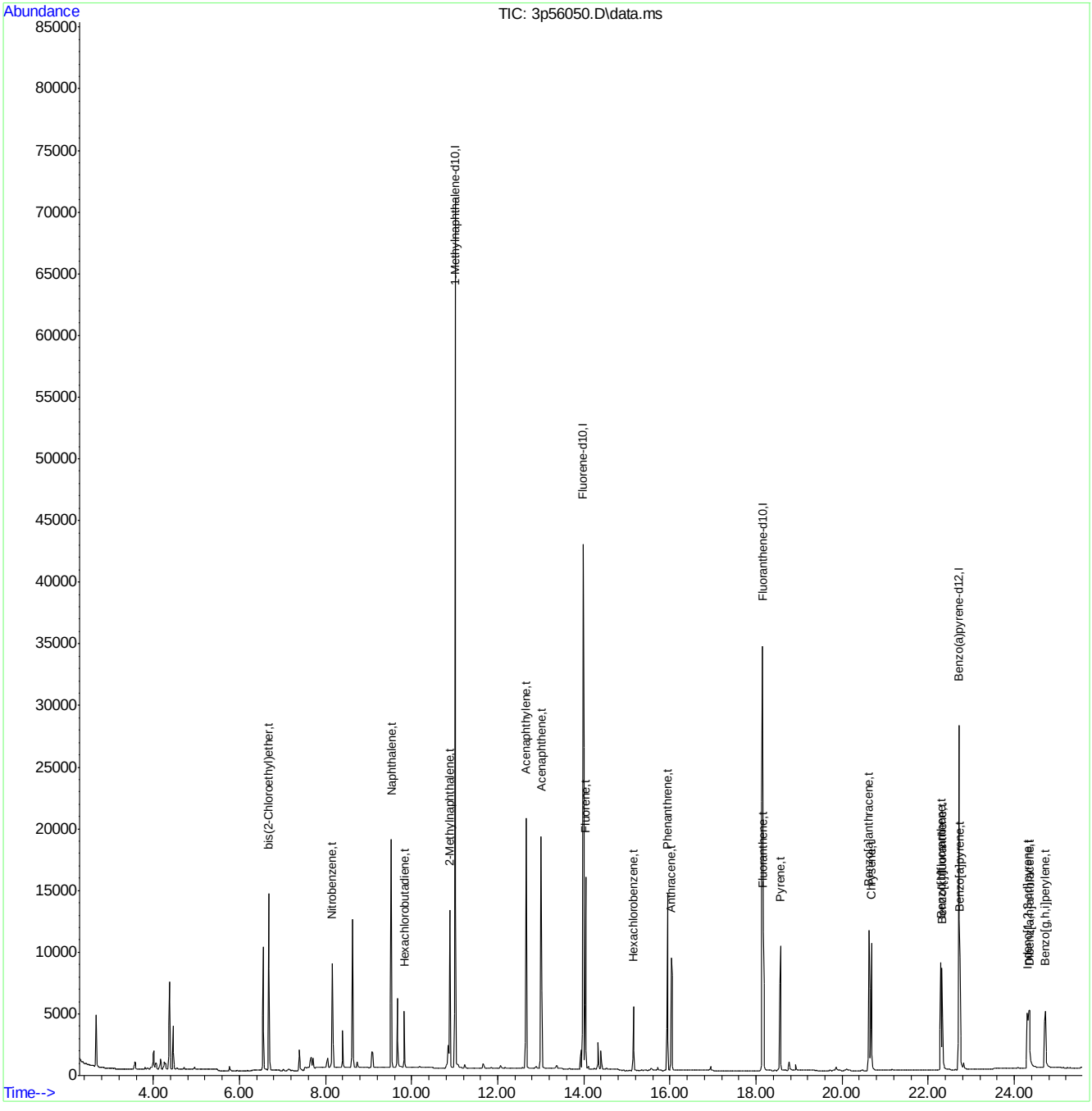
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56050.D
Acq On : 19 Oct 2016 10:16 am
Operator : shaniceg
Sample : icv2579-1.0
Misc : op97203a,e3p2580
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 11:38:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:55:23 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56051.D
Acq On : 19 Oct 2016 10:47 am
Operator : shaniceg
Sample : icv2579-1.0
Misc : op97203a,e3p2580
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 19 11:17:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:55:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	11.011	150	33143	4.00 ppm	#-0.02
14) Fluorene-d10	13.983	176	37142	4.00 ppm	-0.02
21) Fluoranthene-d10	18.150	212	43569	4.00 ppm	#-0.01
31) Benzo(a)pyrene-d12	22.708	264	31444	4.00 ppm	-0.03
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%	
15) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
20) 2,4,6-Tribromophenol	0.000	330	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
28) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
5) Phenol	6.538	94	51032	6.47 ppm	# 77
18) 4,6-dinitro-2-methylph...	14.182	198	2948	4.21 ppm	92
23) Pentachlorophenol	15.553	266	8103	5.41 ppm	83

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

9.6.26

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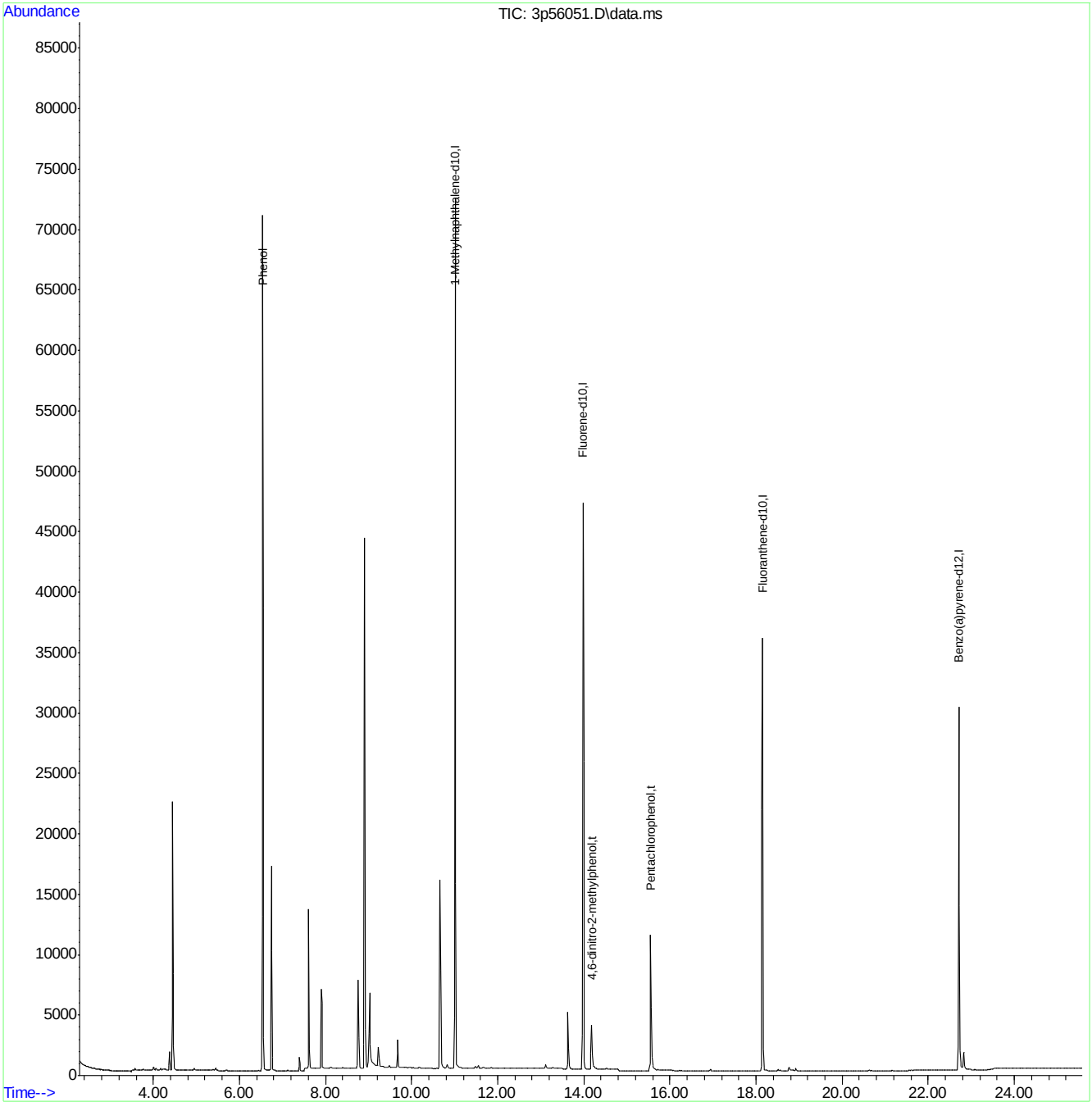
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56051.D
Acq On : 19 Oct 2016 10:47 am
Operator : shaniceg
Sample : icv2579-1.0
Misc : op97203a,e3p2580
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 19 11:17:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:55:23 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56052.D
Acq On : 19 Oct 2016 11:19 am
Operator : shaniceg
Sample : icv2579-1.0
Misc : op97203a,e3p2580
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 19 12:29:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:56:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Methylnaphthalene-d10	11.011	150	19193	4.00 ppm	#-0.02
14) Fluorene-d10	13.983	176	20486	4.00 ppm	-0.02
21) Fluoranthene-d10	18.150	212	22740	4.00 ppm	#-0.01
31) Benzo(a)pyrene-d12	22.708	264	14272	4.00 ppm	-0.03
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	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
15) 2-Fluorobiphenyl	0.000	172	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
20) 2,4,6-Tribromophenol	0.000	330	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
28) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
2) 1,4-dioxane	2.663	88	1739	0.77 ppm	80

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

9.6.27

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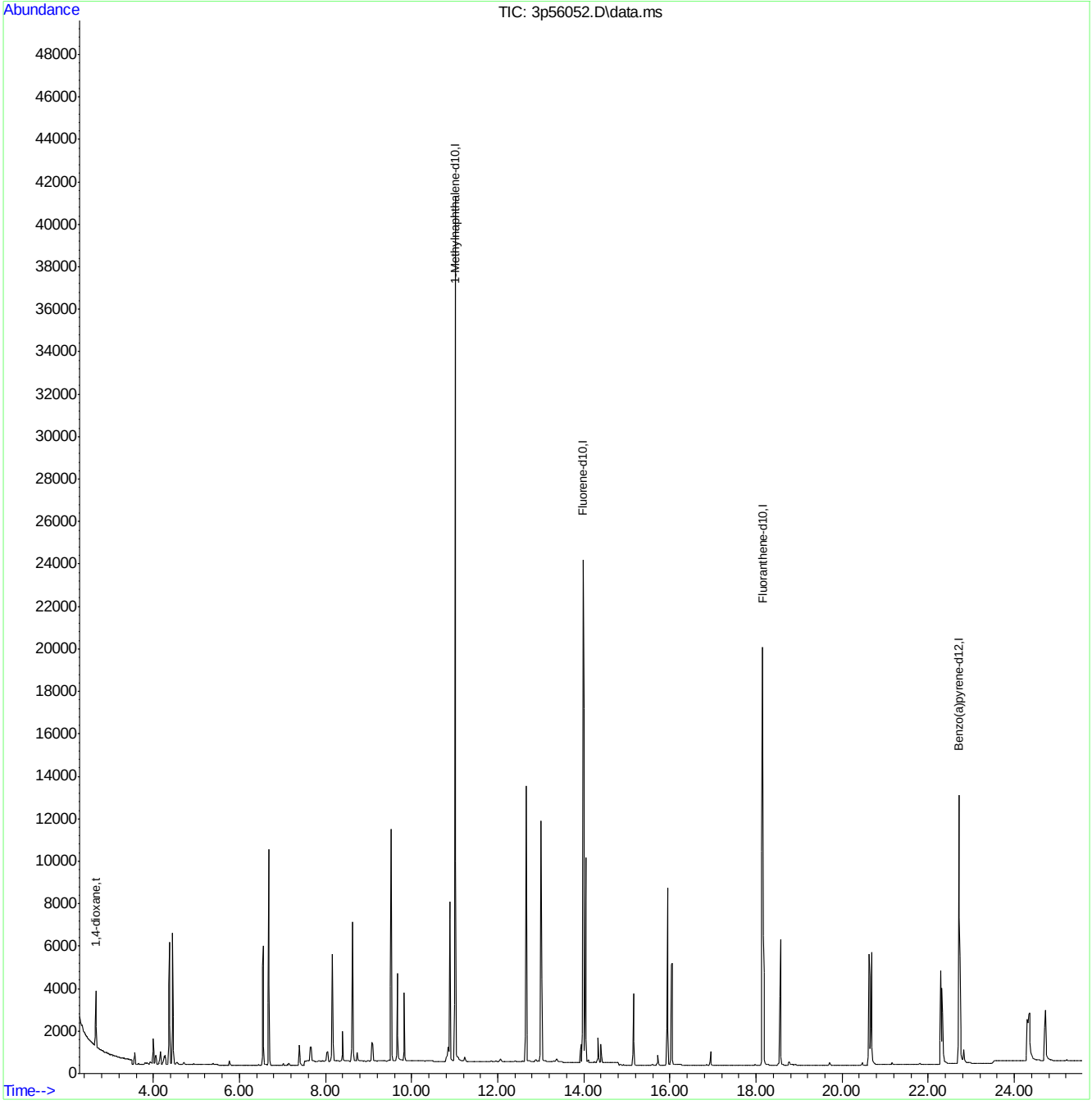
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2580\
Data File : 3p56052.D
Acq On : 19 Oct 2016 11:19 am
Operator : shaniceg
Sample : icv2579-1.0
Misc : op97203a,e3p2580
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 19 12:29:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Oct 19 08:56:20 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57216.D
Acq On : 14 Dec 2016 9:25 am
Operator : shaniceg
Sample : cc2579-0.5
Misc : op98910a,e3p2653
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 09:50:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1-Methylnaphthalene-d10	10.899	150	25843	4.00	ppm	-0.02
14) Fluorene-d10	13.875	176	32786	4.00	ppm	-0.03
21) Fluoranthene-d10	18.042	212	47040	4.00	ppm	#-0.03
31) Benzo(a)pyrene-d12	22.631	264	35656	4.00	ppm	-0.03
System Monitoring Compounds						
3) 2-Fluorophenol	4.906	112	49232	10.01	ppm	0.00
Spiked Amount 50.000			Recovery = 20.02%			
4) Phenol-d5	6.502	99	62435	9.79	ppm	0.00
Spiked Amount 50.000			Recovery = 19.58%			
7) Nitrobenzene-d5	8.025	82	52631	10.02	ppm	-0.03
Spiked Amount 50.000			Recovery = 20.04%			
15) 2-Fluorobiphenyl	11.565	172	98376	10.37	ppm	-0.03
Spiked Amount 50.000			Recovery = 20.74%			
20) 2,4,6-Tribromophenol	14.428	330	12779	10.50	ppm	-0.02
Spiked Amount 50.000			Recovery = 21.00%			
28) Terphenyl-d14	18.830	244	85733	12.22	ppm	-0.03
Spiked Amount 50.000			Recovery = 24.44%			
Target Compounds						Qvalue
2) 1,4-dioxane	2.600	88	1237	0.41	ppm	82
5) Phenol	6.514	94	15121	2.46	ppm #	85
6) bis(2-Chloroethyl)ether	6.598	93	2383	0.44	ppm	91
8) Nitrobenzene	8.063	77	2639	0.52	ppm	80
9) Naphthalene	9.419	128	8845	0.53	ppm	96
10) Hexachlorobutadiene	9.720	225	1069	0.58	ppm	90
11) 2-Methylnaphthalene	10.789	141	4968	0.58	ppm	95
12) 1-Methylnaphthalene	10.973	141	4444	0.59	ppm	91
16) Acenaphthylene	12.545	152	7359	0.49	ppm	99
17) Acenaphthene	12.897	153	4919	0.51	ppm	94
18) 4,6-dinitro-2-methylph...	14.121	198	2183	3.66	ppm	95
19) Fluorene	13.937	166	4972	0.54	ppm	85
22) Hexachlorobenzene	15.043	284	1460	0.48	ppm	93
23) Pentachlorophenol	15.476	266	2584	1.74	ppm	89
24) Phenanthrene	15.832	178	7646	0.50	ppm	93
25) Anthracene	15.940	178	6926	0.53	ppm	98
26) Fluoranthene	18.073	202	7136	0.52	ppm	99
27) Pyrene	18.474	202	7555	0.57	ppm	87
29) Benzo[a]anthracene	20.529	228	6525	0.71	ppm	97
30) Chrysene	20.591	228	6090	0.57	ppm	95
32) Benzo[b]fluoranthene	22.198	252	7667	0.68	ppm	94
33) Benzo[k]fluoranthene	22.244	252	4984	0.46	ppm	90
34) Benzo[a]pyrene	22.662	252	5055	0.49	ppm	91
35) Indeno[1,2,3-cd]pyrene	24.199	276	6105	0.56	ppm	96
36) Dibenz[a,h]anthracene	24.233	278	5103	0.58	ppm	93
37) Benzo[g,h,i]perylene	24.603	276	5205	0.54	ppm	86

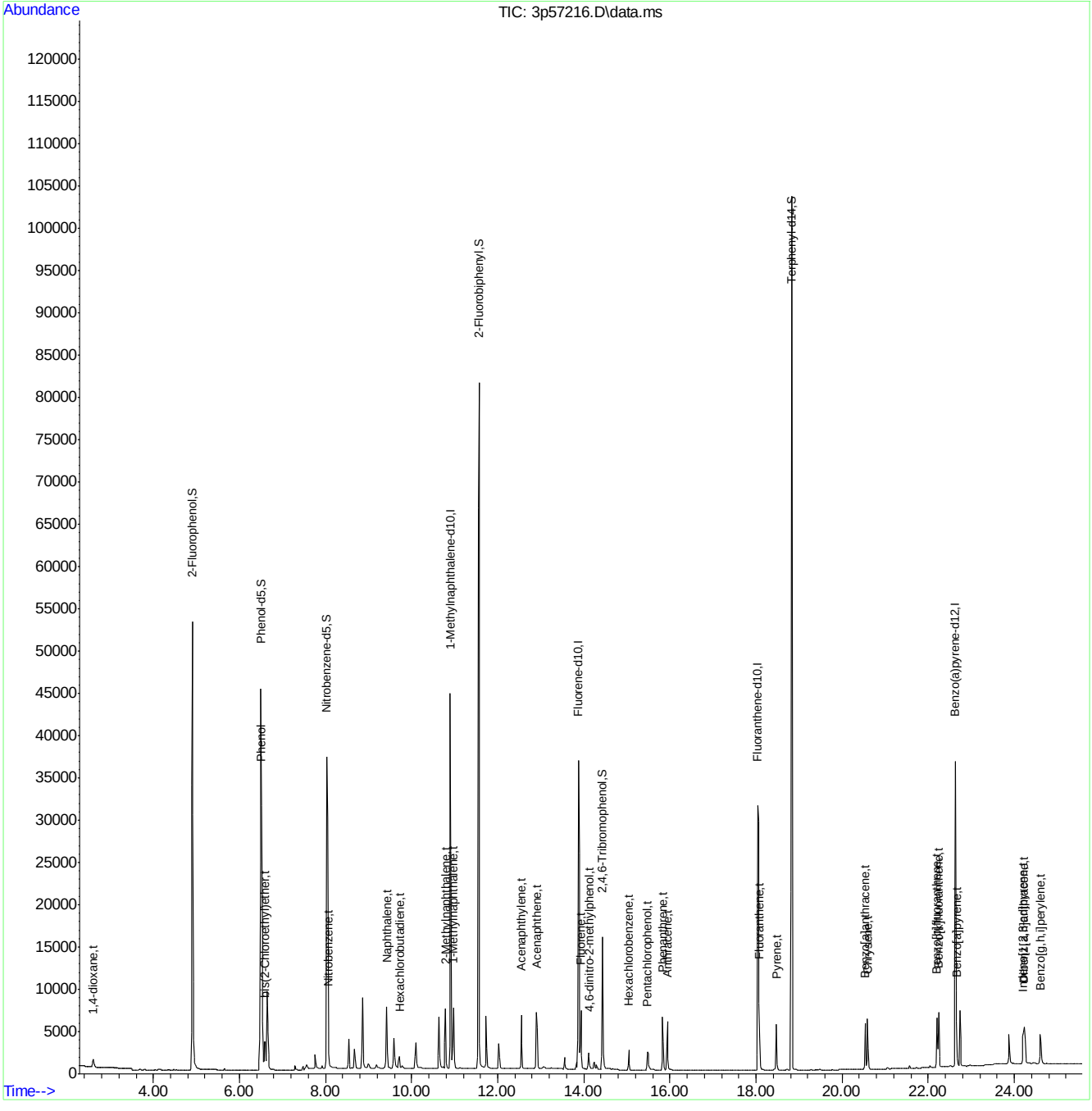
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\E3P2653\
Data File : 3p57216.D
Acq On : 14 Dec 2016 9:25 am
Operator : shaniceg
Sample : cc2579-0.5
Misc : op98910a,e3p2653
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 09:50:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M3P2579SIM.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Dec 13 15:25:57 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32134a.D
Acq On : 18 Nov 2016 11:32 am
Operator : ariellec
Sample : ic1488-2
Misc : op98528,e6p1488
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 18 12:21:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.625	152	522179	40.00	ppm	0.00
24) Naphthalene-d8	5.662	136	2206955	40.00	ppm	0.00
47) Acenaphthene-d10	7.417	164	1277059	40.00	ppm	0.00
69) Phenanthrene-d10	9.117	188	1986314	40.00	ppm	0.00
83) Chrysene-d12	12.300	240	1968348	40.00	ppm	0.00
91) Perylene-d12	13.904	264	1935902	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.625	152	522179	40.00	ppm	0.00
103) Acenaphthene-d10a	7.417	164	1277059	40.00	ppm	0.00
105) Phenanthrene-d10a	9.117	188	1986314	40.00	ppm	0.00
109) Chrysene-d12a	12.300	240	1968348	40.00	ppm	0.00
111) Naphthalene-d8a	5.662	136	2206955	40.00	ppm	0.00
113) Chrysene-d12b	12.300	240	1968348	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.640	112	45630	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
8) Phenol-d5	4.357	99	62674	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
25) Nitrobenzene-d5	5.052	82	53153	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
51) 2-Fluorobiphenyl	6.694	172	94364	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
73) 2,4,6-Tribromophenol	8.304	330	12844	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
85) Terphenyl-d14	11.048	244	86872	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.154	88	20113	2.00	ppm	82
3) Pyridine	2.501	79	48682	2.00	ppm	78
4) N-Nitrosodimethylamine	2.448	74	33204	2.00	ppm #	43
6) Indene	4.822	116	81471	2.00	ppm	91
7) Cumene	4.036	105	114475	2.00	ppm	85
9) Phenol	4.362	94	68488	2.00	ppm	77
10) Aniline	4.379	93	81449	2.00	ppm	72
11) bis(2-Chloroethyl)ether	4.427	93	46111	2.00	ppm	97
12) 2-Chlorophenol	4.469	128	48994	2.00	ppm	86
13) Decane	4.512	43	35668	2.00	ppm	87
14) 1,3-Dichlorobenzene	4.587	146	49306	2.00	ppm	99
15) 1,4-Dichlorobenzene	4.641	146	50931	2.00	ppm	95
16) Benzyl alcohol	4.726	108	32266	2.00	ppm #	70
17) 1,2-Dichlorobenzene	4.758	146	47701	2.00	ppm	95
18) Acetophenone	4.935	105	68086	2.00	ppm	96
19) 2-Methylphenol	4.817	108	43528	2.00	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.833	121	16303	2.00	ppm #	28

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32134a.D
Acq On : 18 Nov 2016 11:32 am
Operator : ariellec
Sample : ic1488-2
Misc : op98528,e6p1488
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 18 12:21:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.935	108	46915	2.00	ppm		99
22) n-Nitroso-di-n-propyla...	4.935	70	38110	2.00	ppm		86
23) Hexachloroethane	5.020	201	13377	2.00	ppm	#	76
26) Nitrobenzene	5.069	77	51776	2.00	ppm		78
27) Quinoline	5.983	129	95946	2.00	ppm		86
28) Isophorone	5.261	82	97432	2.00	ppm		85
29) 2-Nitrophenol	5.331	139	24965	2.00	ppm	#	30
30) 2,4-Dimethylphenol	5.363	107	40183	2.00	ppm		76
31) Benzoic acid	5.400	105	16353	2.00	ppm		92
32) bis(2-Chloroethoxy)met...	5.443	93	55606	2.00	ppm		96
33) 2,4-Dichlorophenol	5.534	162	34121	2.00	ppm		99
34) 2,6-Dichlorophenol	5.737	162	34286	2.00	ppm	#	54
35) 1,3,5-Trichlorobenzene	5.347	180	38315	2.00	ppm		98
36) 1,2,4-Trichlorobenzene	5.614	180	36419	2.00	ppm		93
37) 1,2,3-Trichlorobenzene	5.812	180	36512	2.00	ppm		92
38) Naphthalene	5.678	128	143683	2.00	ppm		95
39) 4-Chloroaniline	5.726	127	62764	2.00	ppm		82
40) 2,3-Dichloroaniline	6.609	161	45168	2.00	ppm		90
41) Caprolactam	6.015	55	18336	2.00	ppm	#	77
42) Hexachlorobutadiene	5.796	225	17493	2.00	ppm		95
43) 4-Chloro-3-methylphenol	6.176	107	39215	2.00	ppm	#	1
44) 2-Methylnaphthalene	6.325	141	77897	2.00	ppm	#	84
45) 1-Methylnaphthalene	6.427	141	80445	2.00	ppm	#	83
46) Dimethylnaphthalene	6.967	156	81721	2.00	ppm		95
48) Hexachlorocyclopentadiene	6.491	237	31449	4.00	ppm		90
49) 2,4,6-Trichlorophenol	6.609	196	22172	2.00	ppm		90
50) 2,4,5-Trichlorophenol	6.646	196	24198	2.00	ppm		92
52) 2-Chloronaphthalene	6.818	162	80762	2.00	ppm		91
53) Biphenyl	6.801	154	109870	2.00	ppm		95
54) 2-Nitroaniline	6.919	65	24213	2.00	ppm		100
55) Dimethylphthalate	7.122	163	93598	2.00	ppm		97
56) Acenaphthylene	7.256	152	135134	2.00	ppm		97
57) 2,6-Dinitrotoluene	7.181	165	18662	2.00	ppm	#	58
58) 3-Nitroaniline	7.363	138	25803	2.00	ppm	#	64
59) Acenaphthene	7.449	153	84424	2.00	ppm		95
60) 2,4-Dinitrophenol	7.481	184	4762	4.00	ppm	#	38
61) 4-Nitrophenol	7.556	109	10083	2.00	ppm	#	39
62) Dibenzofuran	7.641	168	114944	2.00	ppm		87
63) 2,4-Dinitrotoluene	7.625	165	23531	2.00	ppm	#	51
64) 2,3,4,6-Tetrachlorophenol	7.786	232	16807	2.00	ppm		89
65) Diethylphthalate	7.914	149	90601	2.00	ppm		99
66) Fluorene	8.026	166	95418	2.00	ppm		97
67) 4-Chlorophenyl-phenyle...	8.037	204	39376	2.00	ppm		90
68) 4-Nitroaniline	8.042	138	27086	2.00	ppm	#	22
70) 4,6-Dinitro-2-methylph...	8.091	198	6357	2.00	ppm		85
71) n-Nitrosodiphenylamine	8.171	169	69123	2.00	ppm		98
72) 1,2-Diphenylhydrazine	8.214	77	100754	2.00	ppm		92
74) 4-Bromophenyl-phenylether	8.599	248	22904	2.00	ppm		87
75) Hexachlorobenzene	8.674	284	26864	2.00	ppm		90
76) Pentachlorophenol	8.903	266	18007	4.00	ppm		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32134a.D
Acq On : 18 Nov 2016 11:32 am
Operator : ariellec
Sample : ic1488-2
Misc : op98528,e6p1488
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 18 12:21:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
77)	Phenanthrene	9.144	178	136776	2.00	ppm		100
78)	Anthracene	9.203	178	133652	2.00	ppm		98
79)	Carbazole	9.401	167	132961	2.00	ppm		94
80)	Di-n-butylphthalate	9.861	149	153550	2.00	ppm		92
81)	Fluoranthene	10.562	202	129984	2.00	ppm		90
82)	Octadecane	9.048	57	54887	2.00	ppm	#	77
84)	Pyrene	10.829	202	138350	2.00	ppm		96
86)	Butylbenzylphthalate	11.663	149	69584	2.00	ppm		79
87)	Benzo[a]anthracene	12.284	228	129651	2.00	ppm		97
88)	3,3'-Dichlorobenzidine	12.268	252	49679	2.00	ppm		98
89)	Chrysene	12.327	228	124530	2.00	ppm		97
90)	bis(2-Ethylhexyl)phtha...	12.385	149	96423	2.00	ppm		99
92)	Di-n-octylphthalate	13.124	149	171558	2.00	ppm		94
93)	Benzo[b]fluoranthene	13.498	252	138830	2.00	ppm		90
94)	Benzo[k]fluoranthene	13.525	252	122415	2.00	ppm		94
95)	Benzo[a]pyrene	13.835	252	121794	2.00	ppm		92
96)	Indeno[1,2,3-cd]pyrene	15.044	276	147982	2.00	ppm		77
97)	Dibenz(a,h)acridine	14.782	279	112401	2.00	ppm		96
98)	Dibenz[a,h]anthracene	15.070	278	125695	2.00	ppm		94
99)	7,12-Dimethylbenz(a)an...	13.498	256	56488	2.00	ppm		86
100)	Benzo[g,h,i]perylene	15.370	276	125100	2.00	ppm		85

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

9.6.29

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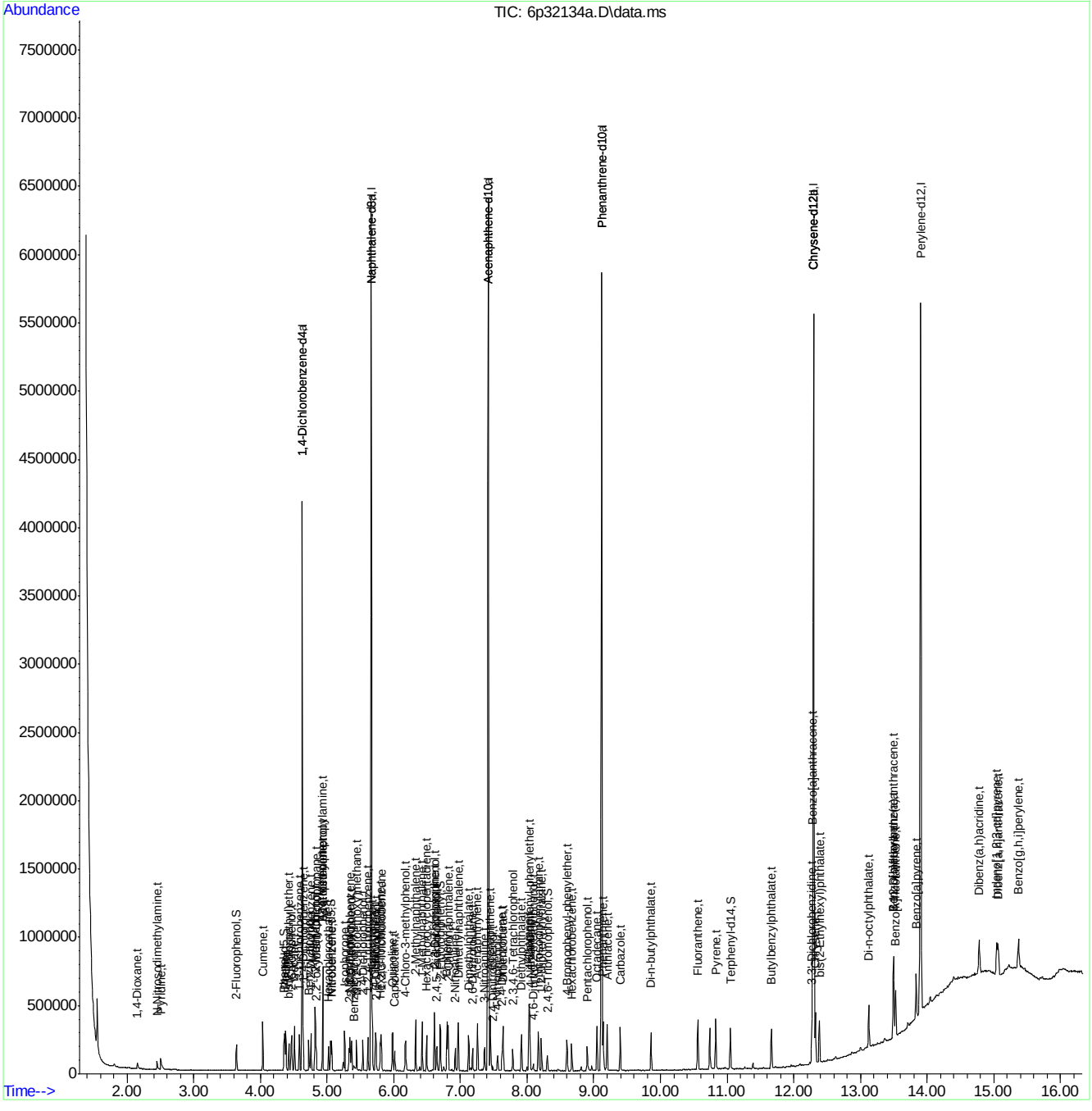
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32134a.D
Acq On : 18 Nov 2016 11:32 am
Operator : ariellec
Sample : ic1488-2
Misc : op98528,e6p1488
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 18 12:21:34 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration



SGS 503 of 1109 ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32135.D
Acq On : 18 Nov 2016 11:56 am
Operator : ariellec
Sample : ic1488-1
Misc : op98528,e6p1488
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 18 12:21:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.624	152	498380	40.00	ppm	0.00
24) Naphthalene-d8	5.662	136	2121658	40.00	ppm	0.00
47) Acenaphthene-d10	7.416	164	1223644	40.00	ppm	0.00
69) Phenanthrene-d10	9.117	188	1931284	40.00	ppm	0.00
83) Chrysene-d12	12.300	240	1903647	40.00	ppm	0.00
91) Perylene-d12	13.904	264	1871940	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.624	152	498380	40.00	ppm	0.00
103) Acenaphthene-d10a	7.416	164	1223644	40.00	ppm	0.00
105) Phenanthrene-d10a	9.117	188	1931284	40.00	ppm	0.00
109) Chrysene-d12a	12.300	240	1903647	40.00	ppm	0.00
111) Naphthalene-d8a	5.662	136	2121658	40.00	ppm	0.00
113) Chrysene-d12b	12.300	240	1903647	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.640	112	21598	0.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.98%	
8) Phenol-d5	4.351	99	29801	1.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.00%	
25) Nitrobenzene-d5	5.052	82	24766	0.97	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.94%	
51) 2-Fluorobiphenyl	6.694	172	45096	1.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.00%	
73) 2,4,6-Tribromophenol	8.304	330	5996	0.96	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.92%	
85) Terphenyl-d14	11.048	244	40430	0.96	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.92%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.159	88	9228	0.96	ppm	87
3) Pyridine	2.512	79	24314	1.05	ppm	78
4) N-Nitrosodimethylamine	2.453	74	15348	0.97	ppm #	45
6) Indene	4.822	116	39439	1.01	ppm	92
7) Cumene	4.036	105	54587	1.00	ppm	83
9) Phenol	4.362	94	32499	0.99	ppm	78
10) Aniline	4.378	93	38960	1.00	ppm	75
11) bis(2-Chloroethyl)ether	4.426	93	22484	1.02	ppm	95
12) 2-Chlorophenol	4.469	128	23889	1.02	ppm	86
13) Decane	4.512	43	17336	1.02	ppm	85
14) 1,3-Dichlorobenzene	4.587	146	23430	1.00	ppm	96
15) 1,4-Dichlorobenzene	4.640	146	23322	0.96	ppm	96
16) Benzyl alcohol	4.726	108	14829	0.96	ppm #	67
17) 1,2-Dichlorobenzene	4.758	146	22218	0.98	ppm	98
18) Acetophenone	4.934	105	32805	1.01	ppm	97
19) 2-Methylphenol	4.817	108	21251	1.02	ppm	93
20) 2,2'-oxybis(1-Chloropr...	4.833	121	8140	1.05	ppm #	11

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32135.D
Acq On : 18 Nov 2016 11:56 am
Operator : ariellec
Sample : ic1488-1
Misc : op98528,e6p1488
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 18 12:21:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.934	108	22405	1.00	ppm		98
22) n-Nitroso-di-n-propyla...	4.934	70	18562	1.02	ppm		85
23) Hexachloroethane	5.020	201	6607	1.03	ppm	#	79
26) Nitrobenzene	5.068	77	24959	1.00	ppm		80
27) Quinoline	5.983	129	46077	1.00	ppm		84
28) Isophorone	5.261	82	46837	1.00	ppm		87
29) 2-Nitrophenol	5.330	139	11655	0.97	ppm	#	29
30) 2,4-Dimethylphenol	5.362	107	18773	0.97	ppm		84
31) Benzoic acid	5.400	105	6335	0.81	ppm		83
32) bis(2-Chloroethoxy)met...	5.443	93	26893	1.01	ppm		92
33) 2,4-Dichlorophenol	5.534	162	16663	1.02	ppm		93
34) 2,6-Dichlorophenol	5.731	162	15917	0.97	ppm	#	60
35) 1,3,5-Trichlorobenzene	5.346	180	18152	0.99	ppm		95
36) 1,2,4-Trichlorobenzene	5.614	180	16793	0.96	ppm		96
37) 1,2,3-Trichlorobenzene	5.812	180	17176	0.98	ppm		98
38) Naphthalene	5.678	128	67751	0.98	ppm		94
39) 4-Chloroaniline	5.721	127	29761	0.99	ppm		85
40) 2,3-Dichloroaniline	6.609	161	21281	0.98	ppm		86
41) Caprolactam	6.010	55	8127	0.92	ppm		86
42) Hexachlorobutadiene	5.796	225	8546	1.02	ppm		95
43) 4-Chloro-3-methylphenol	6.170	107	19100	1.01	ppm	#	1
44) 2-Methylnaphthalene	6.325	141	37337	1.00	ppm	#	86
45) 1-Methylnaphthalene	6.427	141	37962	0.98	ppm	#	80
46) Dimethylnaphthalene	6.962	156	37659	0.96	ppm		99
48) Hexachlorocyclopentadiene	6.491	237	13575	1.80	ppm		92
49) 2,4,6-Trichlorophenol	6.609	196	10638	1.00	ppm		91
50) 2,4,5-Trichlorophenol	6.646	196	11088	0.96	ppm		95
52) 2-Chloronaphthalene	6.817	162	38119	0.99	ppm		96
53) Biphenyl	6.796	154	52009	0.99	ppm		92
54) 2-Nitroaniline	6.919	65	11116	0.96	ppm		96
55) Dimethylphthalate	7.122	163	44645	1.00	ppm		96
56) Acenaphthylene	7.256	152	62270	0.96	ppm		98
57) 2,6-Dinitrotoluene	7.181	165	8343	0.93	ppm	#	64
58) 3-Nitroaniline	7.363	138	11886	0.96	ppm	#	64
59) Acenaphthene	7.448	153	39841	0.99	ppm		95
61) 4-Nitrophenol	7.555	109	4575	0.95	ppm	#	34
62) Dibenzofuran	7.641	168	53126	0.96	ppm		86
63) 2,4-Dinitrotoluene	7.625	165	10092	0.90	ppm	#	55
64) 2,3,4,6-Tetrachlorophenol	7.785	232	7436	0.92	ppm		92
65) Diethylphthalate	7.914	149	43186	0.99	ppm		99
66) Fluorene	8.026	166	44499	0.97	ppm		99
67) 4-Chlorophenyl-phenyle...	8.037	204	18937	1.00	ppm		87
68) 4-Nitroaniline	8.042	138	12849	0.99	ppm	#	19
70) 4,6-Dinitro-2-methylph...	8.090	198	2041	0.66	ppm		81
71) n-Nitrosodiphenylamine	8.170	169	32733	0.97	ppm		97
72) 1,2-Diphenylhydrazine	8.213	77	47896	0.98	ppm		92
74) 4-Bromophenyl-phenylether	8.598	248	10708	0.96	ppm	#	76
75) Hexachlorobenzene	8.673	284	13037	1.00	ppm		86
76) Pentachlorophenol	8.903	266	6837	1.56	ppm		89
77) Phenanthrene	9.139	178	64155	0.96	ppm		98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32135.D
Acq On : 18 Nov 2016 11:56 am
Operator : ariellec
Sample : ic1488-1
Misc : op98528,e6p1488
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 18 12:21:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Anthracene	9.203	178	61558	0.95	ppm	99
79)	Carbazole	9.395	167	61104	0.95	ppm	95
80)	Di-n-butylphthalate	9.861	149	70013	0.94	ppm	92
81)	Fluoranthene	10.561	202	58478	0.93	ppm	91
82)	Octadecane	9.048	57	23740	0.89	ppm	83
84)	Pyrene	10.829	202	63776	0.95	ppm	98
86)	Butylbenzylphthalate	11.663	149	29839	0.89	ppm	78
87)	Benzo[a]anthracene	12.284	228	63767	1.02	ppm	97
88)	3,3'-Dichlorobenzidine	12.267	252	22855	0.95	ppm	92
89)	Chrysene	12.326	228	58037	0.96	ppm	95
90)	bis(2-Ethylhexyl)phtha...	12.385	149	44195	0.95	ppm	98
92)	Di-n-octylphthalate	13.123	149	80002	0.96	ppm	94
93)	Benzo[b]fluoranthene	13.498	252	65998	0.98	ppm	93
94)	Benzo[k]fluoranthene	13.524	252	59595	1.01	ppm	92
95)	Benzo[a]pyrene	13.835	252	58090	0.99	ppm	92
96)	Indeno[1,2,3-cd]pyrene	15.043	276	72776	1.02	ppm	82
97)	Dibenz(a,h)acridine	14.781	279	52401	0.96	ppm	99
98)	Dibenz[a,h]anthracene	15.070	278	59725	0.98	ppm	91
99)	7,12-Dimethylbenz(a)an...	13.498	256	25522	0.93	ppm	87
100)	Benzo[g,h,i]perylene	15.370	276	60025	0.99	ppm	86

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

9.6.30

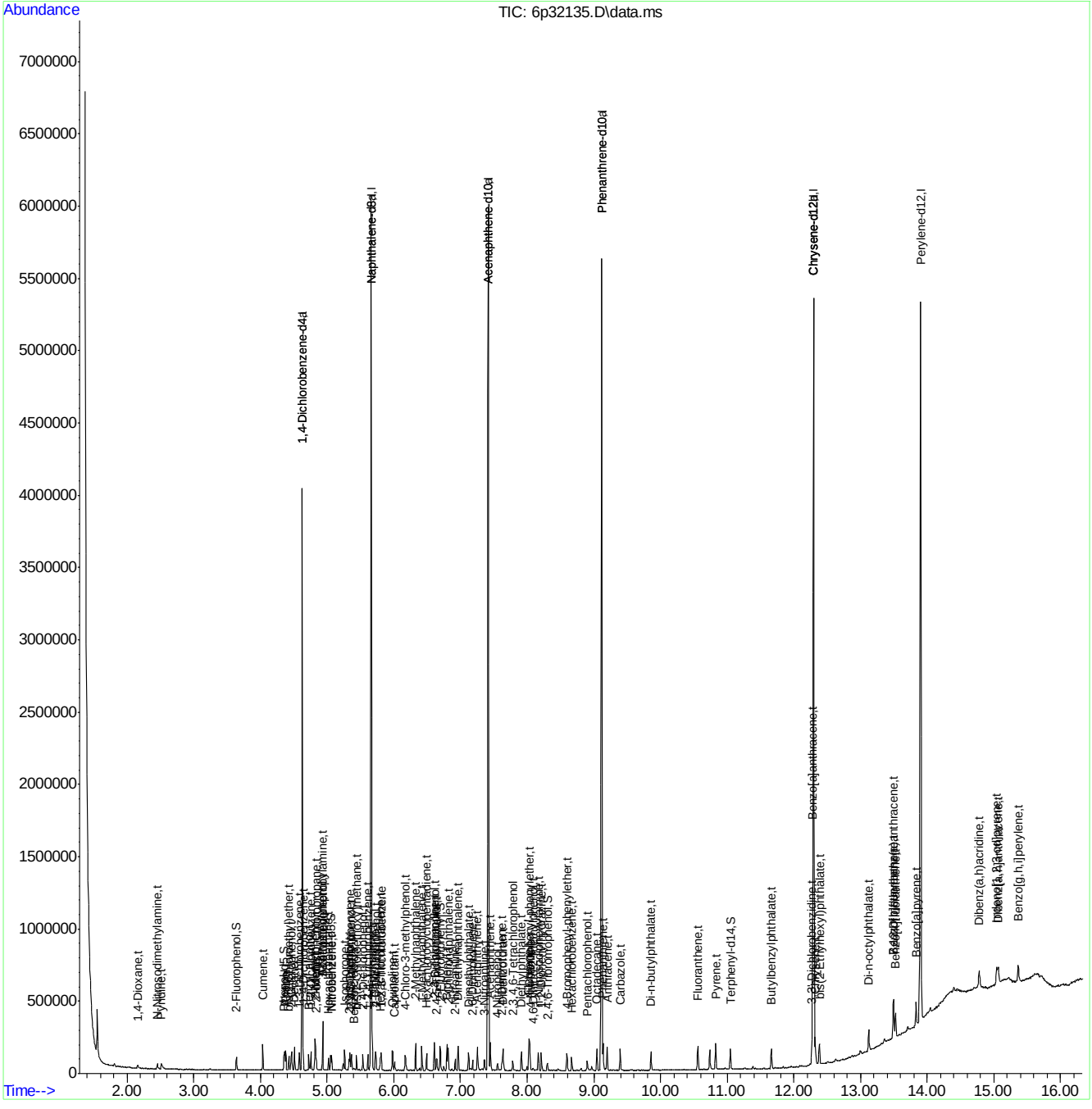
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32135.D
Acq On : 18 Nov 2016 11:56 am
Operator : ariellec
Sample : ic1488-1
Misc : op98528,e6p1488
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 18 12:21:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 11:54:36 2016
QLast Update : Fri Nov 18 11:54:36 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 11/21/16 09:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32136.D
Acq On : 18 Nov 2016 12:20 pm
Operator : ariellec
Sample : ic1488-100
Misc : op98528,e6p1488
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 18 12:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.630	152	483729	40.00	ppm	0.00
24) Naphthalene-d8	5.667	136	2018094	40.00	ppm	0.00
47) Acenaphthene-d10	7.422	164	1165102	40.00	ppm	0.00
69) Phenanthrene-d10	9.123	188	1798430	40.00	ppm	0.00
83) Chrysene-d12	12.305	240	1681884	40.00	ppm	0.00
91) Perylene-d12	13.904	264	1662074	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.630	152	483729	40.00	ppm	0.00
103) Acenaphthene-d10a	7.422	164	1165102	40.00	ppm	0.00
105) Phenanthrene-d10a	9.123	188	1798430	40.00	ppm	0.00
109) Chrysene-d12a	12.305	240	1681884	40.00	ppm	0.00
111) Naphthalene-d8a	5.667	136	2018094	40.00	ppm	0.00
113) Chrysene-d12b	12.305	240	1681884	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.640	112	1712758	81.37	ppm	0.00
Spiked Amount 50.000			Recovery	=	162.74%	
8) Phenol-d5	4.368	99	2288960	78.99	ppm	0.02
Spiked Amount 50.000			Recovery	=	157.98%	
25) Nitrobenzene-d5	5.063	82	1935942	80.90	ppm	0.01
Spiked Amount 50.000			Recovery	=	161.80%	
51) 2-Fluorobiphenyl	6.705	172	3361848	78.20	ppm	0.01
Spiked Amount 50.000			Recovery	=	156.40%	
73) 2,4,6-Tribromophenol	8.315	330	575100	100.91	ppm	0.01
Spiked Amount 50.000			Recovery	=	201.82%	
85) Terphenyl-d14	11.053	244	3141489	86.26	ppm	0.00
Spiked Amount 50.000			Recovery	=	172.52%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.143	88	735290	80.48	ppm	83
3) Pyridine	2.474	79	2009100	87.07	ppm	78
4) N-Nitrosodimethylamine	2.442	74	1208040	79.80	ppm #	43
6) Indene	4.828	116	2580258	67.89	ppm	92
7) Cumene	4.036	105	3814441	71.97	ppm	84
9) Phenol	4.378	94	2261038	71.48	ppm	95
10) Aniline	4.384	93	2372130	62.80	ppm	65
11) bis(2-Chloroethyl)ether	4.437	93	1664292	77.08	ppm	90
12) 2-Chlorophenol	4.475	128	1751115	76.33	ppm	86
13) Decane	4.512	43	1115927	66.93	ppm	88
14) 1,3-Dichlorobenzene	4.587	146	1738993	76.31	ppm	99
15) 1,4-Dichlorobenzene	4.640	146	1772402	76.68	ppm	95
16) Benzyl alcohol	4.737	108	1206799	82.27	ppm #	65
17) 1,2-Dichlorobenzene	4.758	146	1684137	77.15	ppm	98
18) Acetophenone	4.940	105	2039211	64.35	ppm	98
19) 2-Methylphenol	4.828	108	1471564	72.16	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.838	121	584003	75.59	ppm #	48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32136.D
Acq On : 18 Nov 2016 12:20 pm
Operator : ariellec
Sample : ic1488-100
Misc : op98528,e6p1488
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 18 12:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.945	108	1466175	67.45	ppm		98
22) n-Nitroso-di-n-propyla...	4.951	70	1142335	64.05	ppm		81
23) Hexachloroethane	5.026	201	500784	79.43	ppm		89
26) Nitrobenzene	5.079	77	1805927	76.18	ppm		73
27) Quinoline	5.999	129	3584573	81.75	ppm		88
28) Isophorone	5.277	82	3411411	76.58	ppm		82
29) 2-Nitrophenol	5.336	139	975231	86.69	ppm	#	30
30) 2,4-Dimethylphenol	5.373	107	1682625	92.89	ppm		78
31) Benzoic acid	5.502	105	1467656m	217.39	ppm		
32) bis(2-Chloroethoxy)met...	5.448	93	1996518	78.29	ppm		96
33) 2,4-Dichlorophenol	5.544	162	1332408	84.73	ppm		98
34) 2,6-Dichlorophenol	5.742	162	1262863	81.96	ppm	#	55
35) 1,3,5-Trichlorobenzene	5.352	180	1341071	77.11	ppm		95
36) 1,2,4-Trichlorobenzene	5.614	180	1300366	79.72	ppm		95
37) 1,2,3-Trichlorobenzene	5.817	180	1301112	78.78	ppm		91
38) Naphthalene	5.683	128	4847657	74.50	ppm		96
39) 4-Chloroaniline	5.732	127	2132513	74.82	ppm		84
40) 2,3-Dichloroaniline	6.614	161	1603081	78.40	ppm		88
41) Caprolactam	6.085	55	668691	83.00	ppm	#	76
42) Hexachlorobutadiene	5.801	225	634984	78.75	ppm		99
43) 4-Chloro-3-methylphenol	6.192	107	1547386	85.73	ppm		100
44) 2-Methylnaphthalene	6.331	141	2724986	76.62	ppm		85
45) 1-Methylnaphthalene	6.432	141	2793582	76.65	ppm	#	84
46) Dimethylnaphthalene	6.972	156	2853791	77.99	ppm		98
48) Hexachlorocyclopentadiene	6.496	237	1431033	209.89	ppm		94
49) 2,4,6-Trichlorophenol	6.619	196	837848	82.78	ppm		90
50) 2,4,5-Trichlorophenol	6.657	196	956330	88.57	ppm		96
52) 2-Chloronaphthalene	6.828	162	2831683	77.44	ppm		95
53) Biphenyl	6.807	154	3829507	76.87	ppm		97
54) 2-Nitroaniline	6.935	65	989154	91.46	ppm		90
55) Dimethylphthalate	7.138	163	3355572	78.76	ppm		98
56) Acenaphthylene	7.267	152	4772852	78.93	ppm		99
57) 2,6-Dinitrotoluene	7.197	165	804547	97.78	ppm	#	51
58) 3-Nitroaniline	7.379	138	1053285	91.24	ppm	#	64
59) Acenaphthene	7.459	153	2975121	77.84	ppm		97
60) 2,4-Dinitrophenol	7.497	184	932808	858.84	ppm	#	31
61) 4-Nitrophenol	7.577	109	458959	102.50	ppm	#	35
62) Dibenzofuran	7.652	168	3970095	77.08	ppm		88
63) 2,4-Dinitrotoluene	7.641	165	1050366	103.26	ppm	#	53
64) 2,3,4,6-Tetrachlorophenol	7.791	232	739954	100.35	ppm		93
65) Diethylphthalate	7.930	149	3357917	81.45	ppm		97
66) Fluorene	8.037	166	3257123	75.84	ppm		99
67) 4-Chlorophenyl-phenyle...	8.042	204	1332509	74.04	ppm		93
68) 4-Nitroaniline	8.074	138	1118529	90.97	ppm	#	22
70) 4,6-Dinitro-2-methylph...	8.112	198	647392	270.96	ppm		80
71) n-Nitrosodiphenylamine	8.181	169	2539197	82.21	ppm		99
72) 1,2-Diphenylhydrazine	8.224	77	3607106	79.97	ppm		84
74) 4-Bromophenyl-phenylether	8.609	248	912046	89.68	ppm		100
75) Hexachlorobenzene	8.679	284	1024267	84.30	ppm		96
76) Pentachlorophenol	8.914	266	1245125	343.04	ppm		94

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32136.D
Acq On : 18 Nov 2016 12:20 pm
Operator : ariellec
Sample : ic1488-100
Misc : op98528,e6p1488
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 18 12:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
77) Phenanthrene	9.149	178	4631028	76.13 ppm	98
78) Anthracene	9.214	178	4733062	80.34 ppm	98
79) Carbazole	9.411	167	4645932	79.35 ppm	96
80) Di-n-butylphthalate	9.866	149	5593810	83.05 ppm	91
81) Fluoranthene	10.572	202	4568108	80.64 ppm	89
82) Octadecane	9.053	57	1875320	79.88 ppm	83
84) Pyrene	10.840	202	4796045	83.08 ppm	98
86) Butylbenzylphthalate	11.669	149	2590502	92.37 ppm	76
87) Benzo[a]anthracene	12.294	228	4310452	77.16 ppm	98
88) 3,3'-Dichlorobenzidine	12.284	252	1749622	84.49 ppm	97
89) Chrysene	12.342	228	4268661	81.71 ppm	97
90) bis(2-Ethylhexyl)phtha...	12.385	149	3533517	88.07 ppm	100
92) Di-n-octylphthalate	13.134	149	5980960	82.68 ppm	92
93) Benzo[b]fluoranthene	13.519	252	5035748	85.21 ppm	98
94) Benzo[k]fluoranthene	13.551	252	4128974	78.30 ppm	100
95) Benzo[a]pyrene	13.851	252	4155761	80.03 ppm	93
96) Indeno[1,2,3-cd]pyrene	15.076	276	5327848	83.16 ppm	68
97) Dibenz(a,h)acridine	14.803	279	4020465	84.84 ppm	99
98) Dibenz[a,h]anthracene	15.097	278	4547213	85.00 ppm	92
99) 7,12-Dimethylbenz(a)an...	13.519	256	2105510	89.77 ppm	87
100) Benzo[g,h,i]perylene	15.407	276	4501068	84.13 ppm	86

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

9.6.31

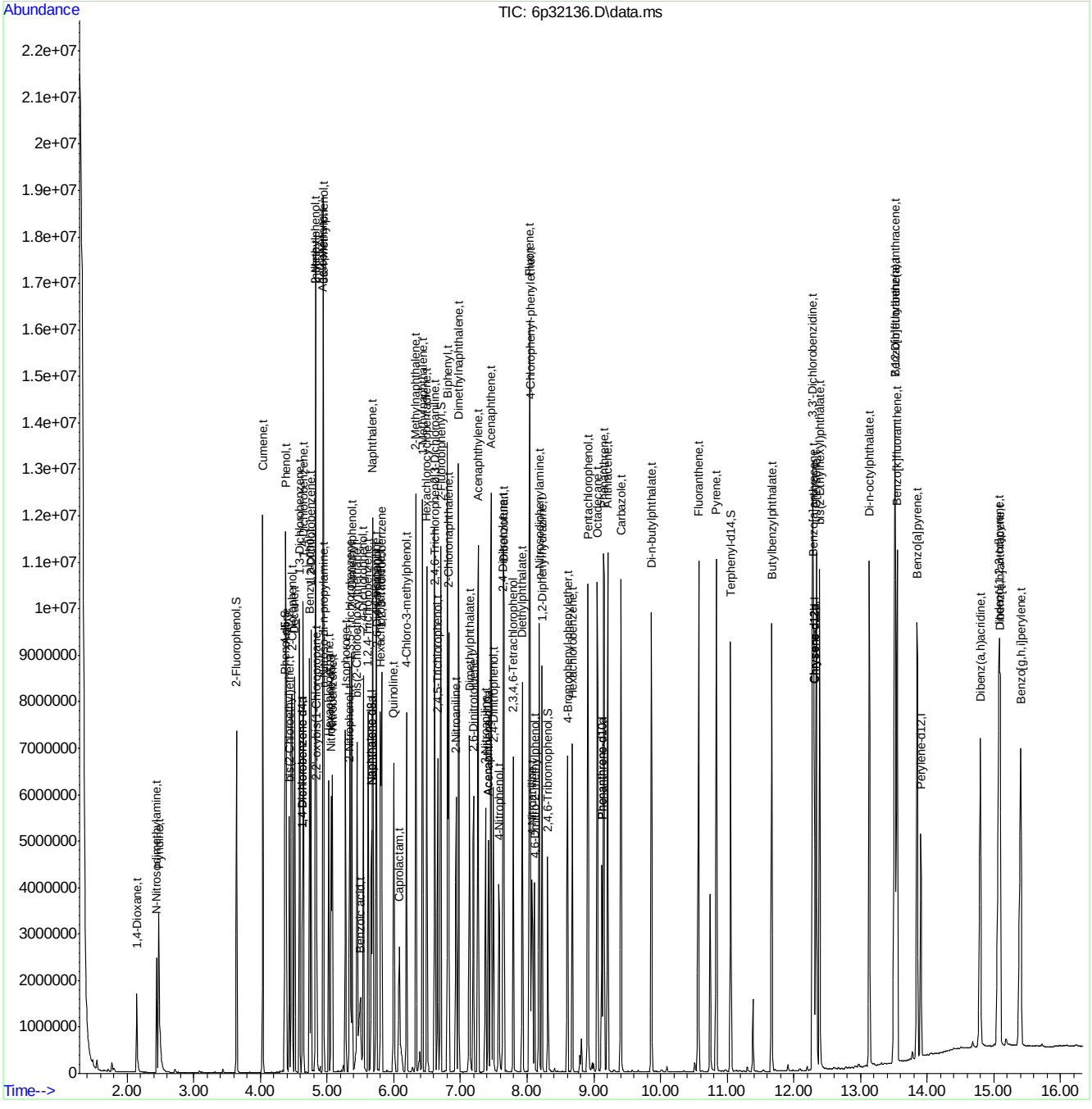
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32136.D
Acq On : 18 Nov 2016 12:20 pm
Operator : ariellec
Sample : ic1488-100
Misc : op98528,e6p1488
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 18 12:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration



Manual Integration Approval Summary

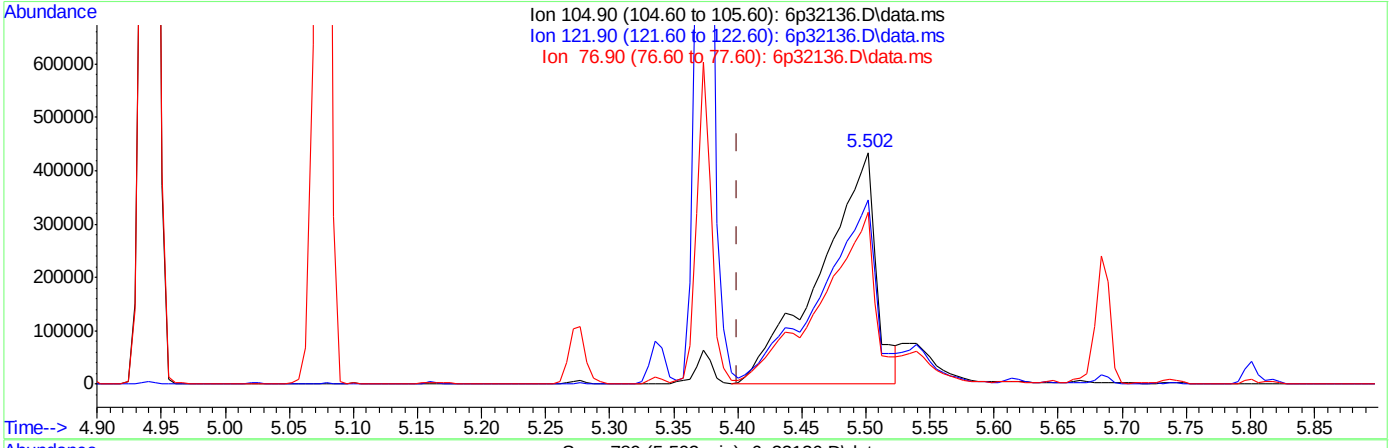
Sample Number:	E6P1488-IC1488	**Method:**	SW846 8270D
Lab FileID:	6P32136.D	**Analyst approved:**	11/21/16 07:20 Arielle Cocozza
Injection Time:	11/18/16 12:20	**Supervisor approved:**	11/21/16 09:25 Kristi Schollenberger

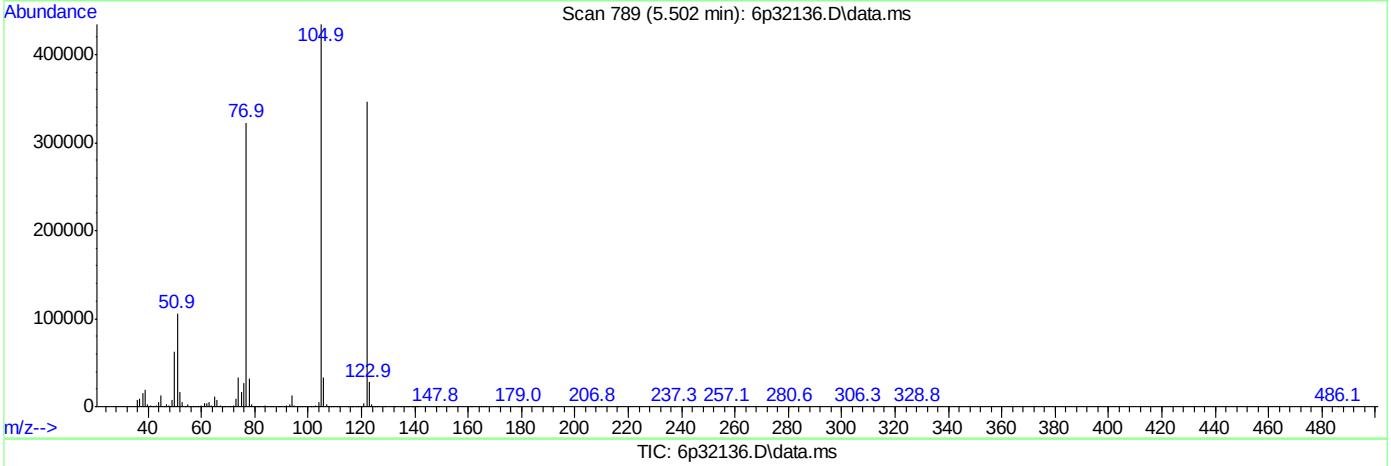
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.50	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32136.D
Acq On : 18 Nov 2016 12:20 pm
Operator : ariellec
Sample : ic1488-100
Misc : op98528,e6p1488
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 18 12:38:20 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:38:16 2016
QLast Update : Fri Nov 18 12:38:16 2016
Response via : Initial Calibration





TIC: 6p32136.D\data.ms

(31) Benzoic acid (t)

5.502min (+0.102) 193.01ppm

response 1303074

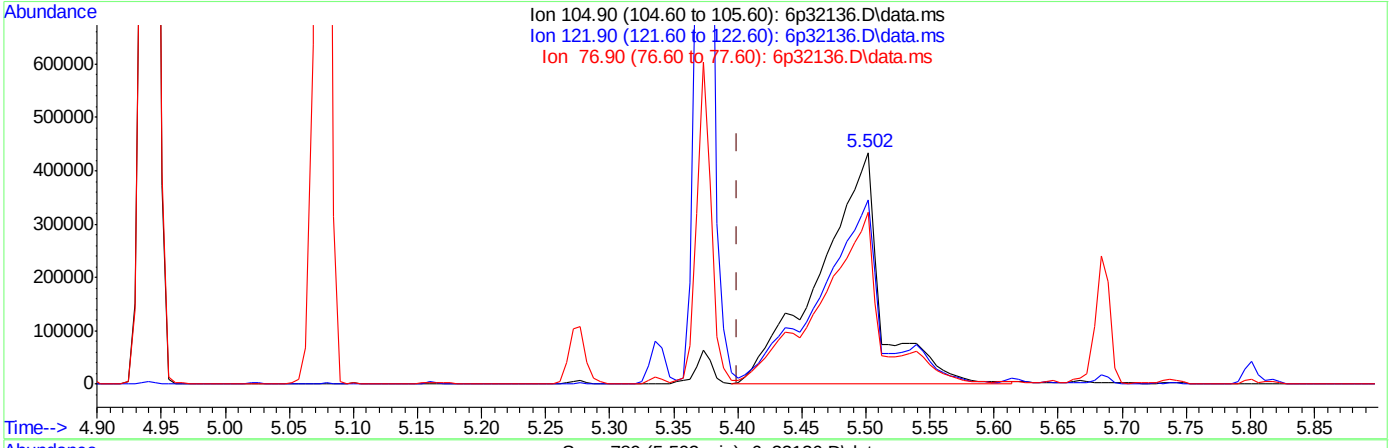
Ion	Exp%	Act%
104.90	100	100
121.90	75.40	77.15
76.90	69.60	73.56
0.00	0.00	0.00

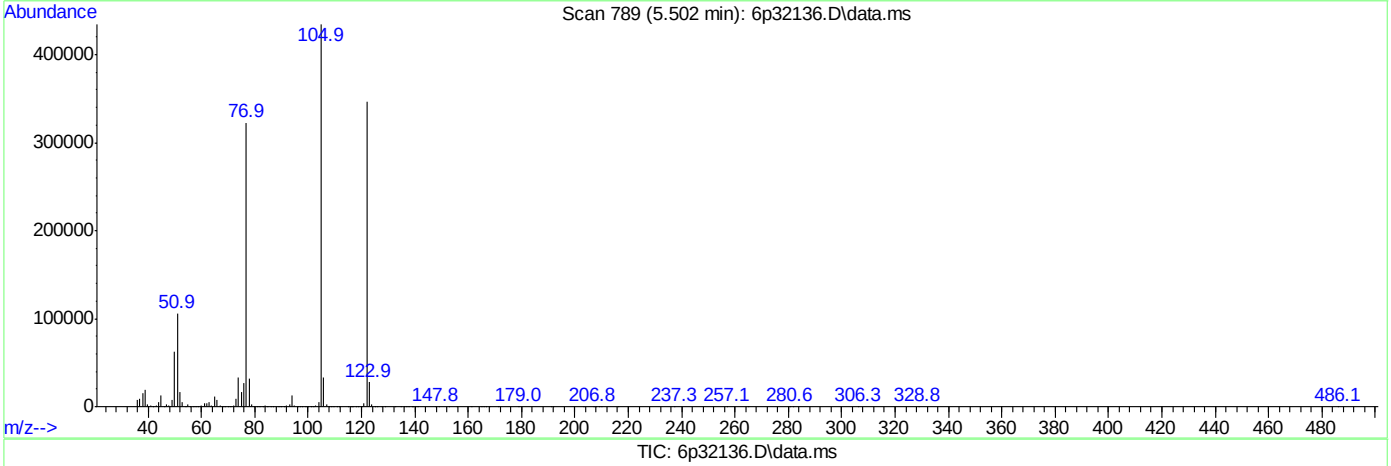
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32136.D
Acq On : 18 Nov 2016 12:20 pm
Operator : ariellec
Sample : ic1488-100
Misc : op98528,e6p1488
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 18 12:39:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration





TIC: 6p32136.D\data.ms

(31) Benzoic acid (t)

5.502min (+0.102) 217.39ppm m

response 1467656

Ion	Exp%	Act%
104.90	100	100
121.90	75.40	79.77
76.90	69.60	74.22
0.00	0.00	0.00

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 11/21/16 09:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32137.D
Acq On : 18 Nov 2016 12:44 pm
Operator : ariellec
Sample : ic1488-80
Misc : op98528,e6p1488
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 18 13:01:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.629	152	466105	40.00	ppm	0.00
24) Naphthalene-d8	5.666	136	1954574	40.00	ppm	0.00
47) Acenaphthene-d10	7.415	164	1123331	40.00	ppm	0.00
69) Phenanthrene-d10	9.121	188	1761084	40.00	ppm	0.00
83) Chrysene-d12	12.304	240	1664184	40.00	ppm	0.00
91) Perylene-d12	13.903	264	1635900	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.629	152	466105	40.00	ppm	0.00
103) Acenaphthene-d10a	7.415	164	1123331	40.00	ppm	0.00
105) Phenanthrene-d10a	9.121	188	1761084	40.00	ppm	0.00
109) Chrysene-d12a	12.304	240	1664184	40.00	ppm	0.00
111) Naphthalene-d8a	5.666	136	1954574	40.00	ppm	0.00
113) Chrysene-d12b	12.304	240	1664184	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.639	112	1327428	65.45	ppm	0.00
Spiked Amount 50.000			Recovery	=	130.90%	
8) Phenol-d5	4.361	99	1791920	64.18	ppm	0.00
Spiked Amount 50.000			Recovery	=	128.36%	
25) Nitrobenzene-d5	5.056	82	1516130	65.42	ppm	0.00
Spiked Amount 50.000			Recovery	=	130.84%	
51) 2-Fluorobiphenyl	6.699	172	2712863	65.45	ppm	0.00
Spiked Amount 50.000			Recovery	=	130.90%	
73) 2,4,6-Tribromophenol	8.308	330	451425	80.89	ppm	0.00
Spiked Amount 50.000			Recovery	=	161.78%	
85) Terphenyl-d14	11.052	244	2527022	70.13	ppm	0.00
Spiked Amount 50.000			Recovery	=	140.26%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.141	88	567636	64.48	ppm	83
3) Pyridine	2.473	79	1523325	68.52	ppm	78
4) N-Nitrosodimethylamine	2.441	74	921693	63.19	ppm #	45
6) Indene	4.826	116	2117935	57.83	ppm	92
7) Cumene	4.035	105	3071092	60.13	ppm	84
9) Phenol	4.372	94	1831442	60.09	ppm	83
10) Aniline	4.383	93	1908370	52.44	ppm	73
11) bis(2-Chloroethyl)ether	4.431	93	1294241	62.21	ppm	96
12) 2-Chlorophenol	4.473	128	1398906	63.29	ppm	85
13) Decane	4.516	43	889409	55.36	ppm	89
14) 1,3-Dichlorobenzene	4.586	146	1386821	63.15	ppm	98
15) 1,4-Dichlorobenzene	4.639	146	1418359	63.69	ppm	95
16) Benzyl alcohol	4.736	108	948600	67.11	ppm #	64
17) 1,2-Dichlorobenzene	4.757	146	1355328	64.43	ppm	98
18) Acetophenone	4.939	105	1654004	54.17	ppm	98
19) 2-Methylphenol	4.821	108	1197053	60.92	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.837	121	462990	62.19	ppm #	44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32137.D
Acq On : 18 Nov 2016 12:44 pm
Operator : ariellec
Sample : ic1488-80
Misc : op98528,e6p1488
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 18 13:01:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	4.944	108	1216653	58.08	ppm		98
22)	n-Nitroso-di-n-propyla...	4.944	70	912992	53.13	ppm		85
23)	Hexachloroethane	5.024	201	400844	65.99	ppm		89
26)	Nitrobenzene	5.073	77	1434213	62.46	ppm		79
27)	Quinoline	5.998	129	2828451	66.60	ppm		88
28)	Isophorone	5.270	82	2681129	62.14	ppm		84
29)	2-Nitrophenol	5.335	139	779224	71.51	ppm	#	30
30)	2,4-Dimethylphenol	5.372	107	1331407	75.89	ppm		78
31)	Benzoic acid	5.490	105	1155774m	176.76	ppm		
32)	bis(2-Chloroethoxy)met...	5.447	93	1583774	64.12	ppm		95
33)	2,4-Dichlorophenol	5.543	162	1063364	69.82	ppm		98
34)	2,6-Dichlorophenol	5.741	162	1011177	67.76	ppm	#	55
35)	1,3,5-Trichlorobenzene	5.345	180	1074607	63.80	ppm		99
36)	1,2,4-Trichlorobenzene	5.613	180	1033526	65.42	ppm		96
37)	1,2,3-Trichlorobenzene	5.816	180	1028009	64.27	ppm		93
38)	Naphthalene	5.682	128	3909762	62.04	ppm		95
39)	4-Chloroaniline	5.730	127	1710628	61.97	ppm		83
40)	2,3-Dichloroaniline	6.613	161	1292306	65.26	ppm		87
41)	Caprolactam	6.073	55	517124	66.27	ppm	#	77
42)	Hexachlorobutadiene	5.800	225	507623	65.00	ppm		99
43)	4-Chloro-3-methylphenol	6.185	107	1244641	71.20	ppm		98
44)	2-Methylnaphthalene	6.329	141	2207776	64.09	ppm		86
45)	1-Methylnaphthalene	6.426	141	2265653	64.19	ppm		84
46)	Dimethylnaphthalene	6.971	156	2319319	65.44	ppm		97
48)	Hexachlorocyclopentadiene	6.495	237	1144757	174.15	ppm		95
49)	2,4,6-Trichlorophenol	6.618	196	665865	68.23	ppm		91
50)	2,4,5-Trichlorophenol	6.656	196	758459	72.85	ppm		96
52)	2-Chloronaphthalene	6.822	162	2301073	65.27	ppm		96
53)	Biphenyl	6.805	154	3087178	64.27	ppm		96
54)	2-Nitroaniline	6.934	65	786633	75.44	ppm		83
55)	Dimethylphthalate	7.132	163	2693643	65.58	ppm		99
56)	Acenaphthylene	7.260	152	3867242	66.33	ppm		100
57)	2,6-Dinitrotoluene	7.191	165	640208	80.70	ppm	#	54
58)	3-Nitroaniline	7.378	138	827717	74.37	ppm	#	60
59)	Acenaphthene	7.453	153	2398230	65.08	ppm		95
60)	2,4-Dinitrophenol	7.490	184	733060	700.02	ppm	#	53
61)	4-Nitrophenol	7.576	109	367728	85.18	ppm	#	39
62)	Dibenzofuran	7.651	168	3231842	65.08	ppm		87
63)	2,4-Dinitrotoluene	7.640	165	838177	85.47	ppm	#	52
64)	2,3,4,6-Tetrachlorophenol	7.790	232	587983	82.71	ppm		92
65)	Diethylphthalate	7.929	149	2695873	67.83	ppm		96
66)	Fluorene	8.036	166	2661415	64.27	ppm		98
67)	4-Chlorophenyl-phenyle...	8.041	204	1076442	62.04	ppm		94
68)	4-Nitroaniline	8.068	138	877196	74.00	ppm	#	22
70)	4,6-Dinitro-2-methylph...	8.105	198	509907	217.95	ppm		84
71)	n-Nitrosodiphenylamine	8.180	169	2030656	67.14	ppm		99
72)	1,2-Diphenylhydrazine	8.223	77	2882275	65.25	ppm		82
74)	4-Bromophenyl-phenylether	8.603	248	726808	72.98	ppm		93
75)	Hexachlorobenzene	8.678	284	802898	67.48	ppm		95
76)	Pentachlorophenol	8.908	266	997059	280.52	ppm		94

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32137.D
Acq On : 18 Nov 2016 12:44 pm
Operator : ariellec
Sample : ic1488-80
Misc : op98528,e6p1488
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 18 13:01:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
77) Phenanthrene	9.148	178	3751581	62.98	ppm		98
78) Anthracene	9.207	178	3836651	66.50	ppm		98
79) Carbazole	9.405	167	3762928	65.64	ppm		96
80) Di-n-butylphthalate	9.865	149	4575614	69.37	ppm		91
81) Fluoranthene	10.571	202	3716797	67.00	ppm		91
82) Octadecane	9.052	57	1519223	66.08	ppm	#	82
84) Pyrene	10.838	202	3887243	68.05	ppm		99
86) Butylbenzylphthalate	11.667	149	2085517	75.15	ppm		75
87) Benzo[a]anthracene	12.293	228	3478462	62.93	ppm		98
88) 3,3'-Dichlorobenzidine	12.282	252	1422651	69.43	ppm		97
89) Chrysene	12.336	228	3425581	66.27	ppm		97
90) bis(2-Ethylhexyl)phtha...	12.384	149	2873175	72.37	ppm		98
92) Di-n-octylphthalate	13.133	149	4879459	68.53	ppm		93
93) Benzo[b]fluoranthene	13.513	252	3825249	65.76	ppm		99
94) Benzo[k]fluoranthene	13.545	252	3525791	67.93	ppm		99
95) Benzo[a]pyrene	13.850	252	3362433	65.78	ppm		94
96) Indeno[1,2,3-cd]pyrene	15.069	276	4277140	67.82	ppm		71
97) Dibenz(a,h)acridine	14.796	279	3241264	69.49	ppm		100
98) Dibenz[a,h]anthracene	15.091	278	3658764	69.49	ppm		92
99) 7,12-Dimethylbenz(a)an...	13.513	256	1697167	73.52	ppm		90
100) Benzo[g,h,i]perylene	15.401	276	3604553	68.45	ppm		86

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

9.6.32

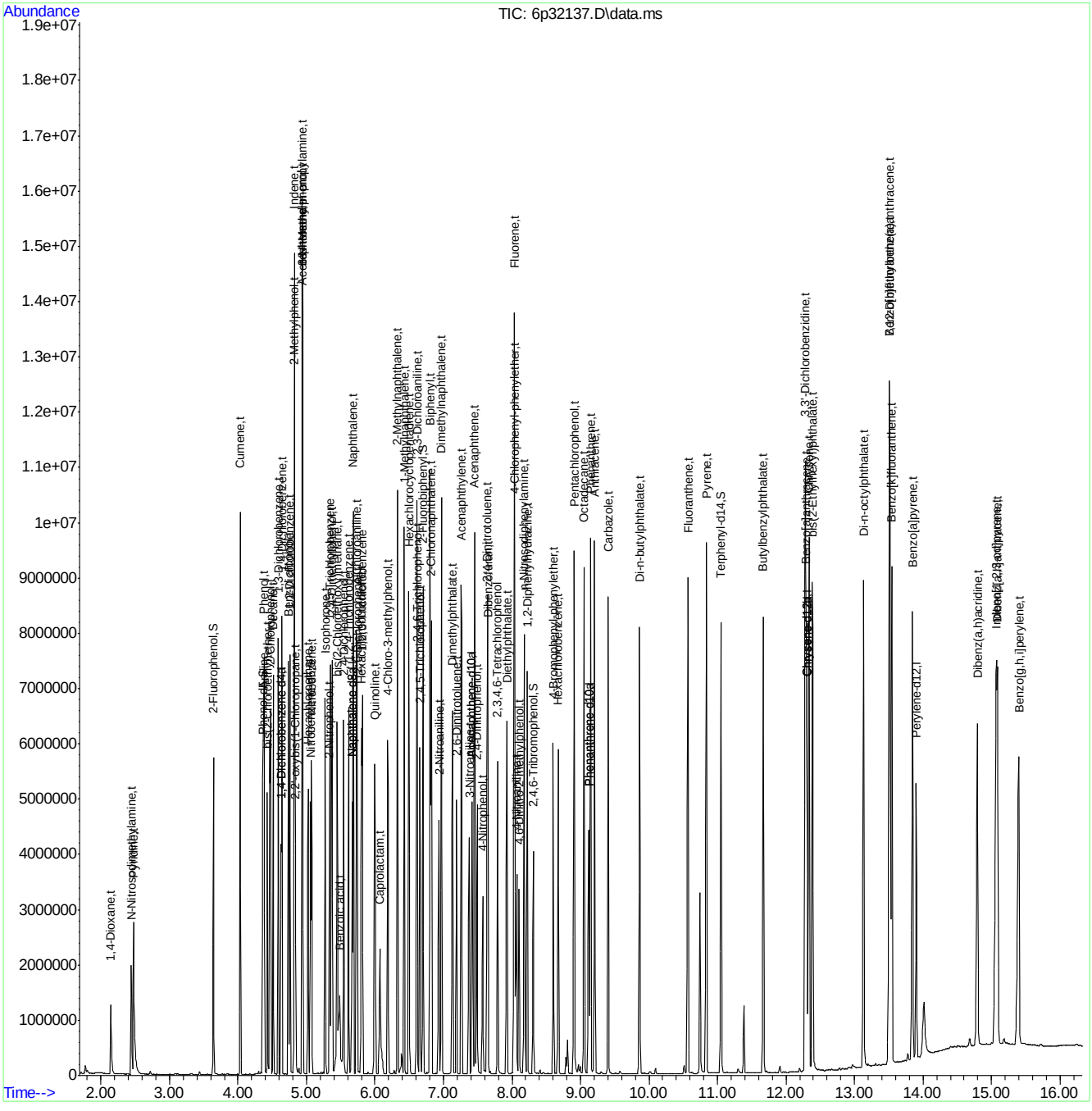
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32137.D
Acq On : 18 Nov 2016 12:44 pm
Operator : ariellec
Sample : ic1488-80
Misc : op98528,e6p1488
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 18 13:01:36 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integration Approval Summary

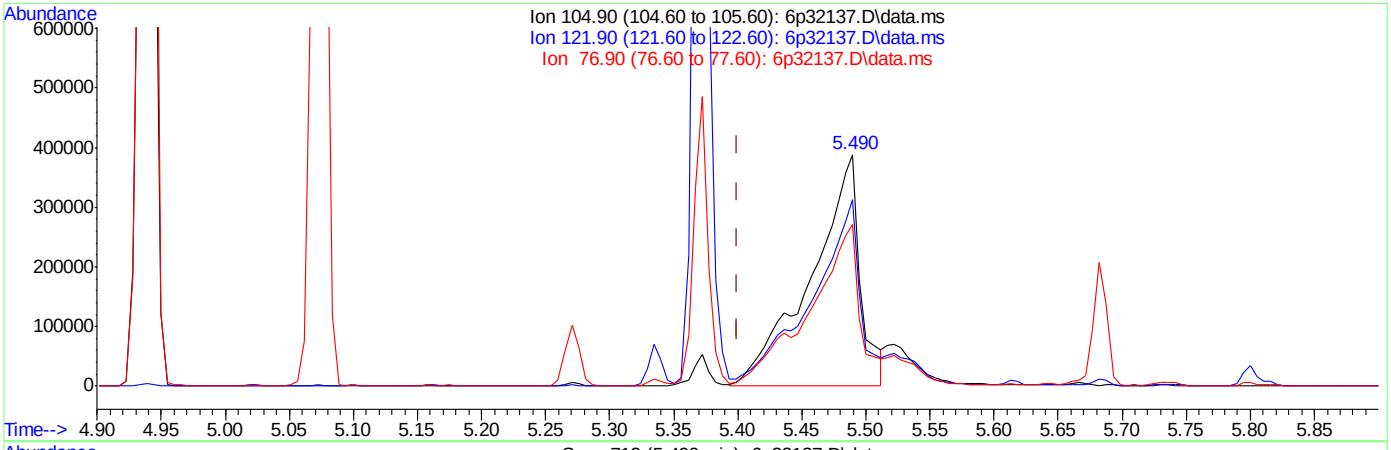
Sample Number:	E6P1488-IC1488	**Method:**	SW846 8270D
Lab FileID:	6P32137.D	**Analyst approved:**	11/21/16 07:20 Arielle Cocozza
Injection Time:	11/18/16 12:44	**Supervisor approved:**	11/21/16 09:25 Kristi Schollenberger

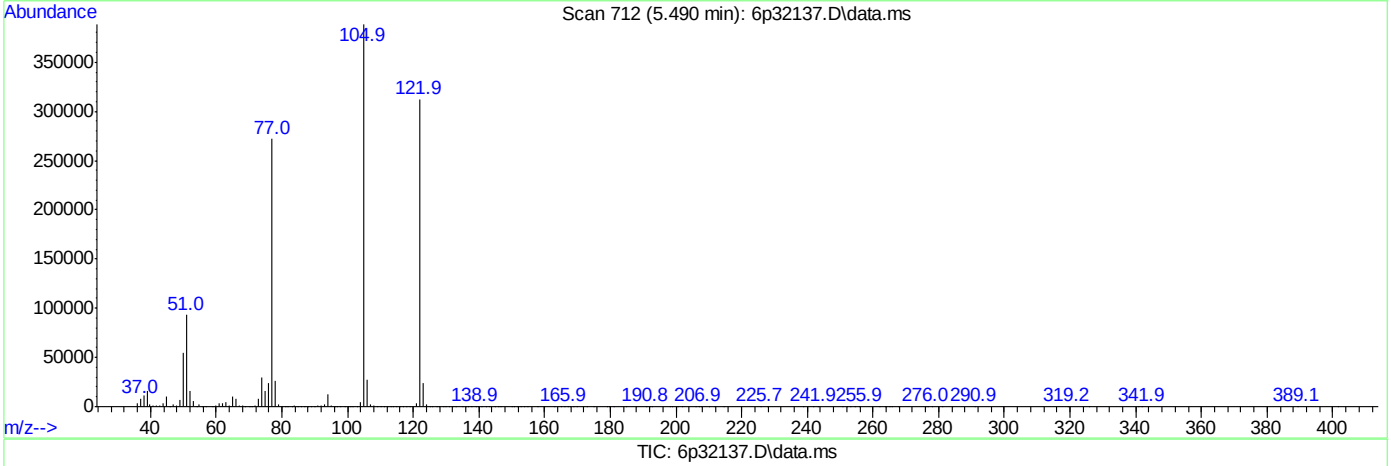
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.49	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32137.D
Acq On : 18 Nov 2016 12:44 pm
Operator : ariellec
Sample : ic1488-80
Misc : op98528,e6p1488
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 18 13:00:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration





TIC: 6p32137.D\data.ms

(31) Benzoic acid (t)

5.490min (+0.090) 157.86ppm

response 1032203

Ion	Exp%	Act%
104.90	100	100
121.90	75.40	79.01
76.90	69.60	69.00
0.00	0.00	0.00

9.6.32.2

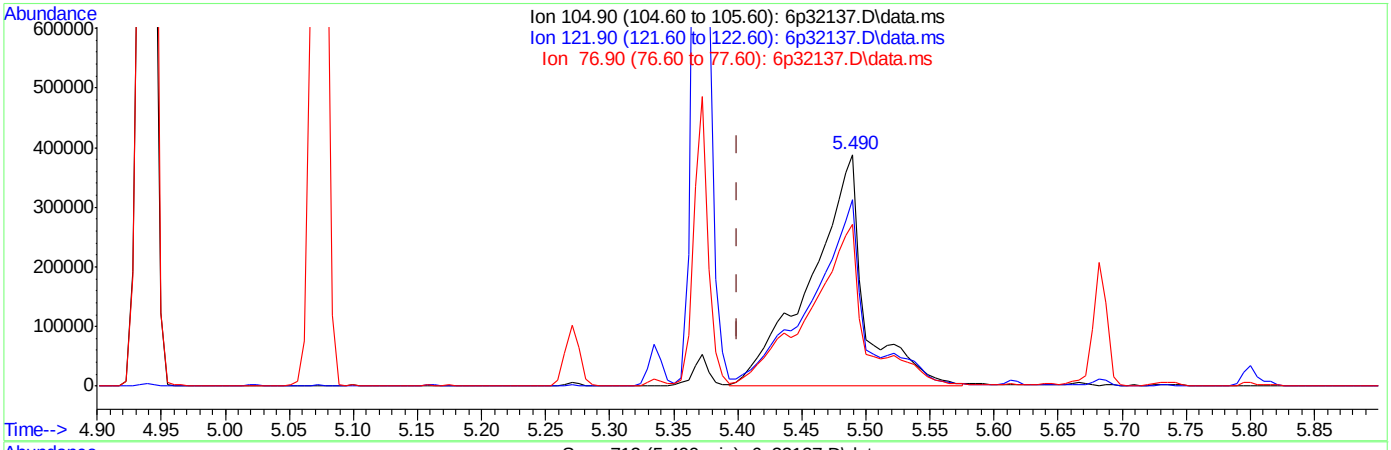
9

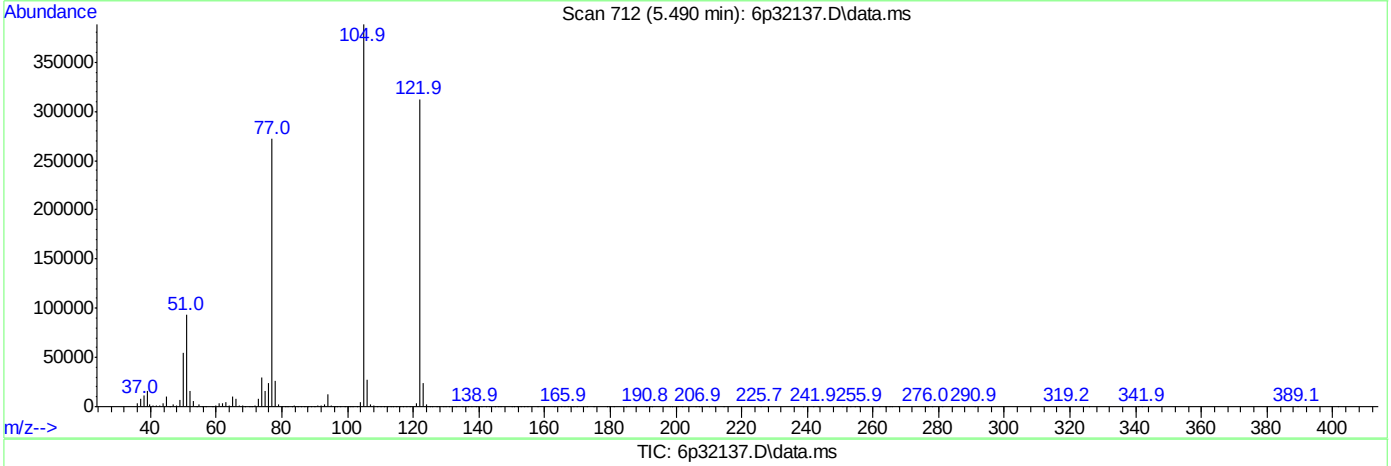
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32137.D
Acq On : 18 Nov 2016 12:44 pm
Operator : ariellec
Sample : ic1488-80
Misc : op98528,e6p1488
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 18 13:00:43 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 12:39:07 2016
QLast Update : Fri Nov 18 12:39:07 2016
Response via : Initial Calibration





TIC: 6p32137.D\data.ms

(31) Benzoic acid (t)

5.490min (+0.090) 176.76ppm m

response 1155774

Ion	Exp%	Act%
104.90	100	100
121.90	75.40	80.43
76.90	69.60	69.98
0.00	0.00	0.00

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32138.D
Acq On : 18 Nov 2016 1:08 pm
Operator : ariellec
Sample : icc1488-50
Misc : op98528,e6p1488
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 18 13:32:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:32:05 2016
QLast Update : Fri Nov 18 13:32:05 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.629	152	443293	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1836601	40.00	ppm	0.00
47) Acenaphthene-d10	7.415	164	1060471	40.00	ppm	0.00
69) Phenanthrene-d10	9.116	188	1659654	40.00	ppm	0.00
83) Chrysene-d12	12.299	240	1639295	40.00	ppm	0.00
91) Perylene-d12	13.903	264	1613400	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.629	152	443293	40.00	ppm	0.00
103) Acenaphthene-d10a	7.415	164	1060471	40.00	ppm	0.00
105) Phenanthrene-d10a	9.116	188	1659654	40.00	ppm	0.00
109) Chrysene-d12a	12.299	240	1639295	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1836601	40.00	ppm	0.00
113) Chrysene-d12b	12.299	240	1639295	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.639	112	823252	47.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	94.02%	
8) Phenol-d5	4.361	99	1119815	46.96	ppm	0.00
Spiked Amount 50.000			Recovery	=	93.92%	
25) Nitrobenzene-d5	5.057	82	944144	47.82	ppm	0.00
Spiked Amount 50.000			Recovery	=	95.64%	
51) 2-Fluorobiphenyl	6.699	172	1713251	48.65	ppm	0.00
Spiked Amount 50.000			Recovery	=	97.30%	
73) 2,4,6-Tribromophenol	8.309	330	277380	52.48	ppm	0.00
Spiked Amount 50.000			Recovery	=	104.96%	
85) Terphenyl-d14	11.052	244	1644276	49.55	ppm	0.00
Spiked Amount 50.000			Recovery	=	99.10%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.147	88	345599	45.73	ppm	83
3) Pyridine	2.473	79	930014	47.20	ppm	76
4) N-Nitrosodimethylamine	2.441	74	565474	45.44	ppm #	46
6) Indene	4.827	116	1403415	47.38	ppm	91
7) Cumene	4.035	105	1951195	46.29	ppm	84
9) Phenol	4.372	94	1163330	46.32	ppm	81
10) Aniline	4.383	93	1125855	39.62	ppm	76
11) bis(2-Chloroethyl)ether	4.431	93	821431	46.80	ppm	92
12) 2-Chlorophenol	4.474	128	869614	46.55	ppm	82
13) Decane	4.511	43	570398	44.42	ppm	87
14) 1,3-Dichlorobenzene	4.586	146	868878	46.84	ppm	99
15) 1,4-Dichlorobenzene	4.639	146	892991	47.33	ppm	96
16) Benzyl alcohol	4.730	108	587834	47.77	ppm #	67
17) 1,2-Dichlorobenzene	4.757	146	841455	47.04	ppm	97
18) Acetophenone	4.939	105	1094663	45.41	ppm	96
19) 2-Methylphenol	4.821	108	775284	47.64	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.837	121	291469	46.60	ppm #	45

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32138.D
Acq On : 18 Nov 2016 1:08 pm
Operator : ariellec
Sample : icc1488-50
Misc : op98528,e6p1488
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 18 13:32:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:32:05 2016
QLast Update : Fri Nov 18 13:32:05 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.939	108	800967	47.29	ppm		96
22) n-Nitroso-di-n-propyla...	4.939	70	606020	44.88	ppm		86
23) Hexachloroethane	5.024	201	248562	47.55	ppm		90
26) Nitrobenzene	5.073	77	904536	47.34	ppm		74
27) Quinoline	5.987	129	1773370	48.70	ppm		87
28) Isophorone	5.265	82	1670308	46.52	ppm		85
29) 2-Nitrophenol	5.335	139	481214	49.99	ppm	#	28
30) 2,4-Dimethylphenol	5.367	107	799753	50.05	ppm		77
31) Benzoic acid	5.468	105	688390	70.21	ppm		98
32) bis(2-Chloroethoxy)met...	5.447	93	988083	47.51	ppm		95
33) 2,4-Dichlorophenol	5.538	162	656327	49.31	ppm		97
34) 2,6-Dichlorophenol	5.736	162	638373	49.66	ppm	#	54
35) 1,3,5-Trichlorobenzene	5.345	180	683689	48.42	ppm		97
36) 1,2,4-Trichlorobenzene	5.613	180	652650	48.65	ppm		96
37) 1,2,3-Trichlorobenzene	5.811	180	652416	48.35	ppm		90
38) Naphthalene	5.682	128	2477798	47.54	ppm		96
39) 4-Chloroaniline	5.725	127	1058822	46.35	ppm		84
40) 2,3-Dichloroaniline	6.608	161	811635	48.47	ppm		89
41) Caprolactam	6.057	55	321147	47.89	ppm	#	77
42) Hexachlorobutadiene	5.800	225	324757	49.17	ppm		98
43) 4-Chloro-3-methylphenol	6.180	107	770262	50.06	ppm		97
44) 2-Methylnaphthalene	6.330	141	1401746	48.56	ppm		85
45) 1-Methylnaphthalene	6.426	141	1448917	48.96	ppm	#	85
46) Dimethylnaphthalene	6.966	156	1486939	49.64	ppm		97
48) Hexachlorocyclopentadiene	6.495	237	701929	109.34	ppm		95
49) 2,4,6-Trichlorophenol	6.613	196	424304	50.05	ppm		90
50) 2,4,5-Trichlorophenol	6.650	196	471432	50.54	ppm		97
52) 2-Chloronaphthalene	6.822	162	1462324	48.95	ppm		94
53) Biphenyl	6.800	154	1989187	49.12	ppm		96
54) 2-Nitroaniline	6.929	65	488528	51.46	ppm		86
55) Dimethylphthalate	7.132	163	1697284	48.53	ppm		98
56) Acenaphthylene	7.260	152	2489643	50.00	ppm		99
57) 2,6-Dinitrotoluene	7.191	165	396893	53.17	ppm	#	49
58) 3-Nitroaniline	7.373	138	521205	51.64	ppm	#	61
59) Acenaphthene	7.453	153	1528642	48.93	ppm		95
60) 2,4-Dinitrophenol	7.485	184	436164	136.89	ppm	#	61
61) 4-Nitrophenol	7.565	109	233802	56.11	ppm	#	34
62) Dibenzofuran	7.645	168	2073730	49.36	ppm		88
63) 2,4-Dinitrotoluene	7.635	165	540380	56.93	ppm	#	48
64) 2,3,4,6-Tetrachlorophenol	7.790	232	362054	53.45	ppm		89
65) Diethylphthalate	7.923	149	1727192	50.27	ppm		97
66) Fluorene	8.030	166	1726091	49.59	ppm		99
67) 4-Chlorophenyl-phenyle...	8.036	204	701171	48.70	ppm		98
68) 4-Nitroaniline	8.063	138	553075	51.55	ppm	#	20
70) 4,6-Dinitro-2-methylph...	8.100	198	314841	76.83	ppm		79
71) n-Nitrosodiphenylamine	8.175	169	1285616	49.28	ppm		98
72) 1,2-Diphenylhydrazine	8.218	77	1846084	49.07	ppm		87
74) 4-Bromophenyl-phenylether	8.603	248	452911	50.68	ppm		96
75) Hexachlorobenzene	8.678	284	507863	49.14	ppm		88
76) Pentachlorophenol	8.908	266	610081	133.23	ppm		94

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32138.D
Acq On : 18 Nov 2016 1:08 pm
Operator : ariellec
Sample : icc1488-50
Misc : op98528,e6p1488
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 18 13:32:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:32:05 2016
QLast Update : Fri Nov 18 13:32:05 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
77) Phenanthrene	9.148	178	2423722	48.67	ppm		99
78) Anthracene	9.207	178	2471084	50.02	ppm		99
79) Carbazole	9.405	167	2438509	49.95	ppm		96
80) Di-n-butylphthalate	9.860	149	2987638	52.00	ppm		91
81) Fluoranthene	10.566	202	2423681	50.89	ppm		89
82) Octadecane	9.052	57	983260	50.08	ppm	#	83
84) Pyrene	10.833	202	2548701	49.22	ppm		97
86) Butylbenzylphthalate	11.668	149	1350061	51.14	ppm		100
87) Benzo[a]anthracene	12.288	228	2297571	47.44	ppm		98
88) 3,3'-Dichlorobenzidine	12.277	252	950338	50.73	ppm		98
89) Chrysene	12.331	228	2296311	49.48	ppm		98
90) bis(2-Ethylhexyl)phtha...	12.384	149	1874145	50.64	ppm		99
92) Di-n-octylphthalate	13.128	149	3258641	50.39	ppm		93
93) Benzo[b]fluoranthene	13.507	252	2549437	48.38	ppm		99
94) Benzo[k]fluoranthene	13.540	252	2306293	49.62	ppm		99
95) Benzo[a]pyrene	13.844	252	2209252	48.39	ppm		94
96) Indeno[1,2,3-cd]pyrene	15.059	276	2796061	48.87	ppm		71
97) Dibenz(a,h)acridine	14.791	279	2114543	49.47	ppm		100
98) Dibenz[a,h]anthracene	15.080	278	2415504	50.04	ppm		91
99) 7,12-Dimethylbenz(a)an...	13.507	256	1089634	50.16	ppm		89
100) Benzo[g,h,i]perylene	15.390	276	2364871	49.27	ppm		87

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

9.6.33

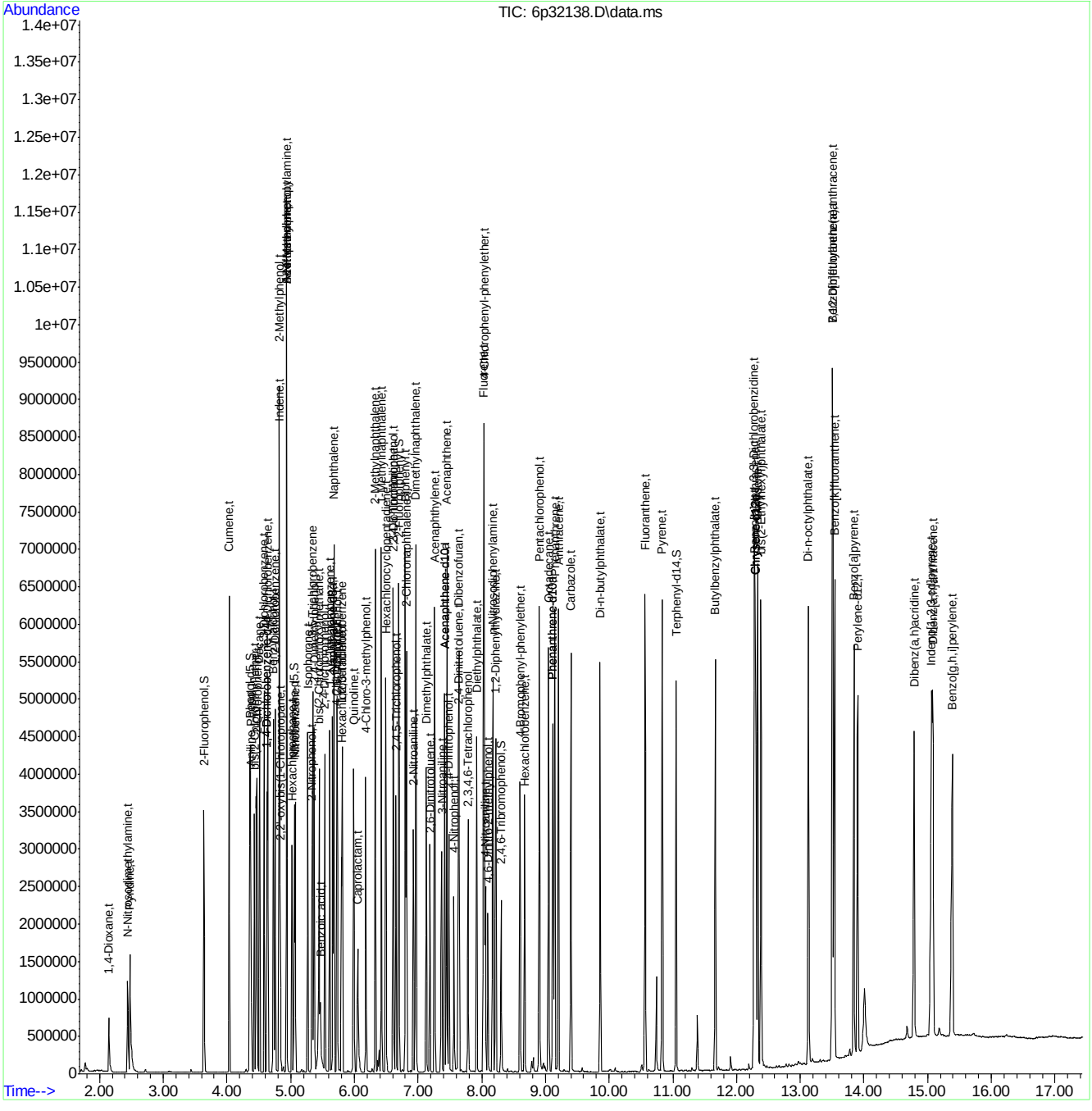
6

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32138.D
Acq On : 18 Nov 2016 1:08 pm
Operator : ariellec
Sample : icc1488-50
Misc : op98528,e6p1488
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 18 13:32:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:32:05 2016
QLast Update : Fri Nov 18 13:32:05 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (Qedit)

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Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32138.D
Acq On    : 18 Nov 2016   1:08 pm
Operator  : ariellec
Sample    : icc1488-50
Misc      : op98528,e6p1488
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Nov 18 13:32:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title  : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:32:05 2016
QLast Update : Fri Nov 18 13:32:05 2016
Response via : Initial Calibration
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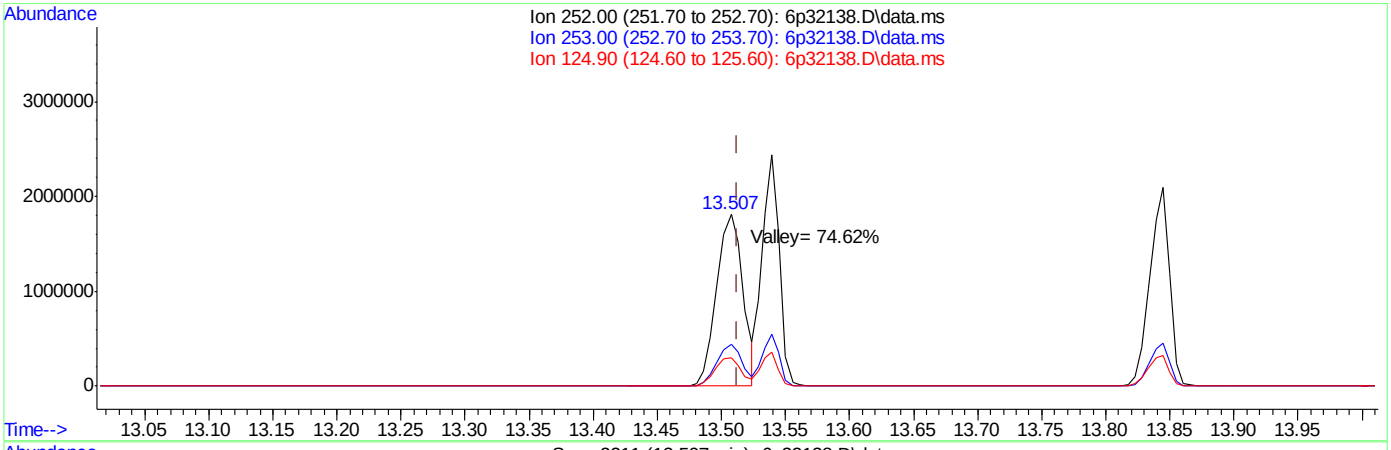
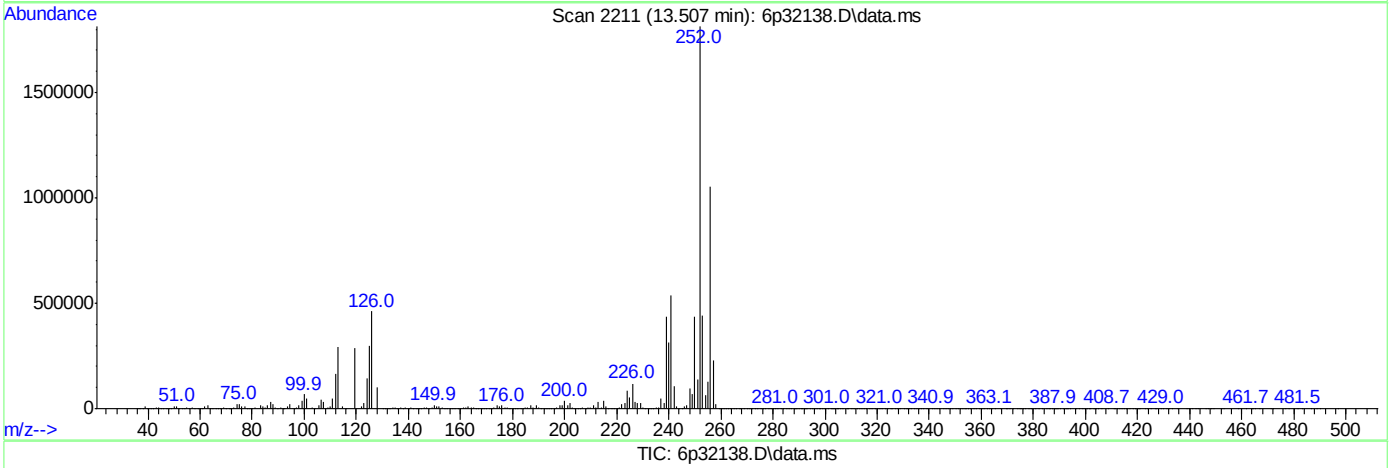




TIC: 6p32138.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.507min (-0.005) 48.38ppm

response 2549437

Ion	Exp%	Act%
252.00	100	100
253.00	24.70	24.68
124.90	17.50	16.42
0.00	0.00	0.00

9.6.33.1

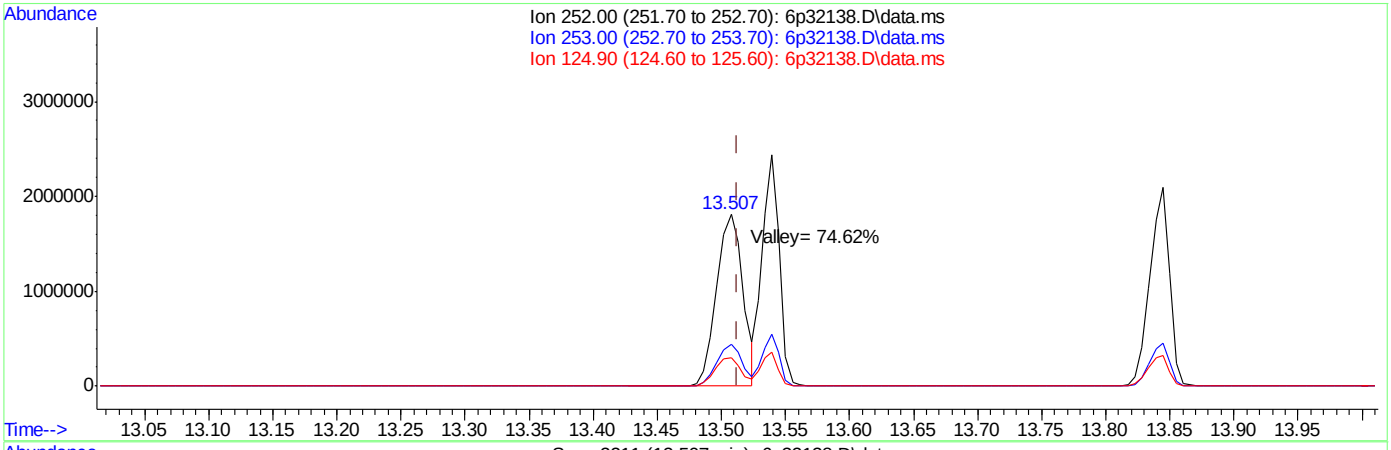
9

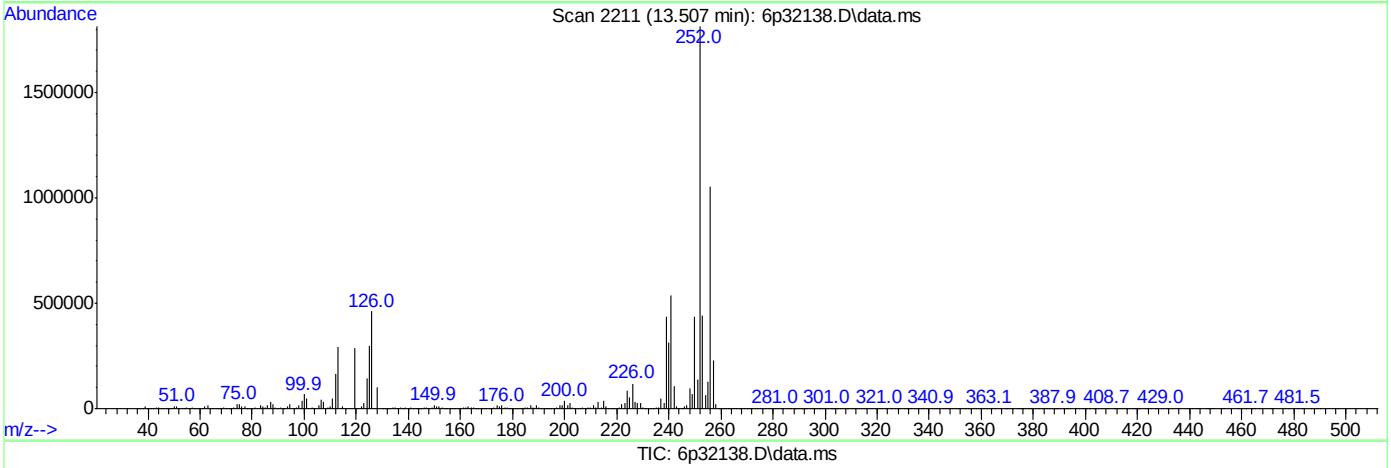
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32138.D
Acq On    : 18 Nov 2016   1:08 pm
Operator  : ariellec
Sample    : icc1488-50
Misc      : op98528,e6p1488
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Nov 18 13:32:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title  : Semi Volatile  GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:32:05 2016
QLast Update : Fri Nov 18 13:32:05 2016
Response via : Initial Calibration
```





TIC: 6p32138.D\data.ms

(93) Benzo[b]fluoranthene (t)

13.507min (-0.005) 48.38ppm

response 2549437

Ion	Exp%	Act%
252.00	100	100
253.00	24.70	24.68
124.90	17.50	16.42
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32139.D
Acq On : 18 Nov 2016 2:14 pm
Operator : ariellec
Sample : ic1488-25
Misc : op98528,e6p1488
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 18 14:48:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:33:03 2016
QLast Update : Fri Nov 18 13:33:03 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	442667	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1790310	40.00	ppm	0.00
47) Acenaphthene-d10	7.415	164	1024641	40.00	ppm	0.00
69) Phenanthrene-d10	9.116	188	1609437	40.00	ppm	0.00
83) Chrysene-d12	12.299	240	1582437	40.00	ppm	0.00
91) Perylene-d12	13.898	264	1586074	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	442667	40.00	ppm	0.00
103) Acenaphthene-d10a	7.415	164	1024641	40.00	ppm	0.00
105) Phenanthrene-d10a	9.116	188	1609437	40.00	ppm	0.00
109) Chrysene-d12a	12.299	240	1582437	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1790310	40.00	ppm	0.00
113) Chrysene-d12b	12.299	240	1582437	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.639	112	420279	24.32	ppm	0.00
Spiked Amount 50.000			Recovery = 48.64%			
8) Phenol-d5	4.356	99	562557	23.91	ppm	0.00
Spiked Amount 50.000			Recovery = 47.82%			
25) Nitrobenzene-d5	5.051	82	479327	25.12	ppm	0.00
Spiked Amount 50.000			Recovery = 50.24%			
51) 2-Fluorobiphenyl	6.699	172	868102	25.65	ppm	0.00
Spiked Amount 50.000			Recovery = 51.30%			
73) 2,4,6-Tribromophenol	8.303	330	130445	25.20	ppm	0.00
Spiked Amount 50.000			Recovery = 50.40%			
85) Terphenyl-d14	11.047	244	826495	25.85	ppm	0.00
Spiked Amount 50.000			Recovery = 51.70%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.147	88	177312	23.90	ppm	99
3) Pyridine	2.478	79	460017	23.65	ppm	98
4) N-Nitrosodimethylamine	2.441	74	288118	23.62	ppm	100
6) Indene	4.821	116	740206	25.29	ppm	99
7) Cumene	4.035	105	1030909	24.86	ppm	99
9) Phenol	4.367	94	598439	24.22	ppm	93
10) Aniline	4.377	93	608078	22.36	ppm	96
11) bis(2-Chloroethyl)ether	4.425	93	417609	24.13	ppm	96
12) 2-Chlorophenol	4.468	128	441625	24.01	ppm	94
13) Decane	4.511	43	305155	24.34	ppm	99
14) 1,3-Dichlorobenzene	4.586	146	454742	24.87	ppm	99
15) 1,4-Dichlorobenzene	4.639	146	462100	24.79	ppm	99
16) Benzyl alcohol	4.730	108	292257	24.00	ppm	91
17) 1,2-Dichlorobenzene	4.757	146	436437	24.72	ppm	99
18) Acetophenone	4.934	105	580077	24.55	ppm	99
19) 2-Methylphenol	4.816	108	400584	24.89	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.832	121	150263	24.39	ppm	98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32139.D
Acq On : 18 Nov 2016 2:14 pm
Operator : ariellec
Sample : ic1488-25
Misc : op98528,e6p1488
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 18 14:48:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:33:03 2016
QLast Update : Fri Nov 18 13:33:03 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.934	108	419049	25.05	ppm		98
22) n-Nitroso-di-n-propyla...	4.934	70	320903	24.30	ppm		97
23) Hexachloroethane	5.019	201	128018	24.77	ppm		82
26) Nitrobenzene	5.067	77	460649	25.00	ppm		95
27) Quinoline	5.982	129	866439	24.54	ppm		100
28) Isophorone	5.260	82	849117	24.60	ppm		99
29) 2-Nitrophenol	5.329	139	240381	25.62	ppm		95
30) 2,4-Dimethylphenol	5.367	107	374798	24.06	ppm		99
31) Benzoic acid	5.442	105	289630	28.04	ppm		98
32) bis(2-Chloroethoxy)met...	5.442	93	493512	24.59	ppm		99
33) 2,4-Dichlorophenol	5.538	162	327110	25.28	ppm		98
34) 2,6-Dichlorophenol	5.736	162	318402	25.45	ppm		96
35) 1,3,5-Trichlorobenzene	5.345	180	351029	25.66	ppm		98
36) 1,2,4-Trichlorobenzene	5.613	180	333465	25.64	ppm		99
37) 1,2,3-Trichlorobenzene	5.811	180	334036	25.56	ppm		98
38) Naphthalene	5.677	128	1284488	25.53	ppm		99
39) 4-Chloroaniline	5.725	127	548256	24.98	ppm		97
40) 2,3-Dichloroaniline	6.608	161	408858	25.20	ppm		99
41) Caprolactam	6.035	55	158098	24.39	ppm		97
42) Hexachlorobutadiene	5.795	225	165829	25.84	ppm		98
43) 4-Chloro-3-methylphenol	6.174	107	386406	25.75	ppm		99
44) 2-Methylnaphthalene	6.324	141	708165	25.31	ppm		99
45) 1-Methylnaphthalene	6.426	141	727645	25.33	ppm		100
46) Dimethylnaphthalene	6.966	156	742180	25.45	ppm		98
48) Hexachlorocyclopentadiene	6.490	237	346288	54.81	ppm		97
49) 2,4,6-Trichlorophenol	6.613	196	210390	25.68	ppm		98
50) 2,4,5-Trichlorophenol	6.645	196	229822	25.44	ppm		97
52) 2-Chloronaphthalene	6.816	162	735946	25.60	ppm		100
53) Biphenyl	6.800	154	998463	25.61	ppm		98
54) 2-Nitroaniline	6.923	65	241212	26.14	ppm		97
55) Dimethylphthalate	7.126	163	849298	25.28	ppm		100
56) Acenaphthylene	7.255	152	1258355	26.16	ppm		99
57) 2,6-Dinitrotoluene	7.185	165	194541	26.64	ppm		98
58) 3-Nitroaniline	7.367	138	252822	25.76	ppm		99
59) Acenaphthene	7.447	153	767531	25.54	ppm		99
60) 2,4-Dinitrophenol	7.479	184	184884	54.98	ppm	#	62
61) 4-Nitrophenol	7.560	109	115457	27.99	ppm		96
62) Dibenzofuran	7.640	168	1040587	25.70	ppm		99
63) 2,4-Dinitrotoluene	7.629	165	262576	27.86	ppm		100
64) 2,3,4,6-Tetrachlorophenol	7.784	232	173944	26.21	ppm		99
65) Diethylphthalate	7.918	149	860678	25.90	ppm		99
66) Fluorene	8.025	166	871910	25.97	ppm		100
67) 4-Chlorophenyl-phenyle...	8.036	204	351661	25.41	ppm		97
68) 4-Nitroaniline	8.052	138	267410	25.64	ppm		98
70) 4,6-Dinitro-2-methylph...	8.089	198	142548	32.40	ppm		86
71) n-Nitrosodiphenylamine	8.169	169	643734	25.52	ppm		99
72) 1,2-Diphenylhydrazine	8.218	77	923675	25.41	ppm		95
74) 4-Bromophenyl-phenylether	8.597	248	225415	25.94	ppm		94
75) Hexachlorobenzene	8.672	284	248037	24.84	ppm		96
76) Pentachlorophenol	8.902	266	292080	61.67	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32139.D
Acq On : 18 Nov 2016 2:14 pm
Operator : ariellec
Sample : ic1488-25
Misc : op98528,e6p1488
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 18 14:48:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:33:03 2016
QLast Update : Fri Nov 18 13:33:03 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	9.143	178	1220888	25.42	ppm	100
78) Anthracene	9.202	178	1239508	25.87	ppm	99
79) Carbazole	9.400	167	1223894	25.86	ppm	99
80) Di-n-butylphthalate	9.860	149	1503421	26.77	ppm	99
81) Fluoranthene	10.560	202	1215962	26.24	ppm	99
82) Octadecane	9.047	57	496123	26.05	ppm	97
84) Pyrene	10.828	202	1264455	25.37	ppm	99
86) Butylbenzylphthalate	11.662	149	671519	26.23	ppm	96
87) Benzo[a]anthracene	12.283	228	1162745	25.13	ppm	99
88) 3,3'-Dichlorobenzidine	12.272	252	474891	26.18	ppm	99
89) Chrysene	12.325	228	1141659	25.54	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.384	149	948781	26.49	ppm	100
92) Di-n-octylphthalate	13.128	149	1634356	25.67	ppm	100
93) Benzo[b]fluoranthene	13.502	252	1326962	25.78	ppm	99
94) Benzo[k]fluoranthene	13.529	252	1155488	25.33	ppm	99
95) Benzo[a]pyrene	13.839	252	1113473	24.97	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.048	276	1410417	25.19	ppm	99
97) Dibenz(a,h)acridine	14.780	279	1060963	25.30	ppm	100
98) Dibenz[a,h]anthracene	15.069	278	1205183	25.39	ppm	99
99) 7,12-Dimethylbenz(a)an...	13.502	256	540545	25.29	ppm	98
100) Benzo[g,h,i]perylene	15.374	276	1177666	25.03	ppm	97

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

9.6.34

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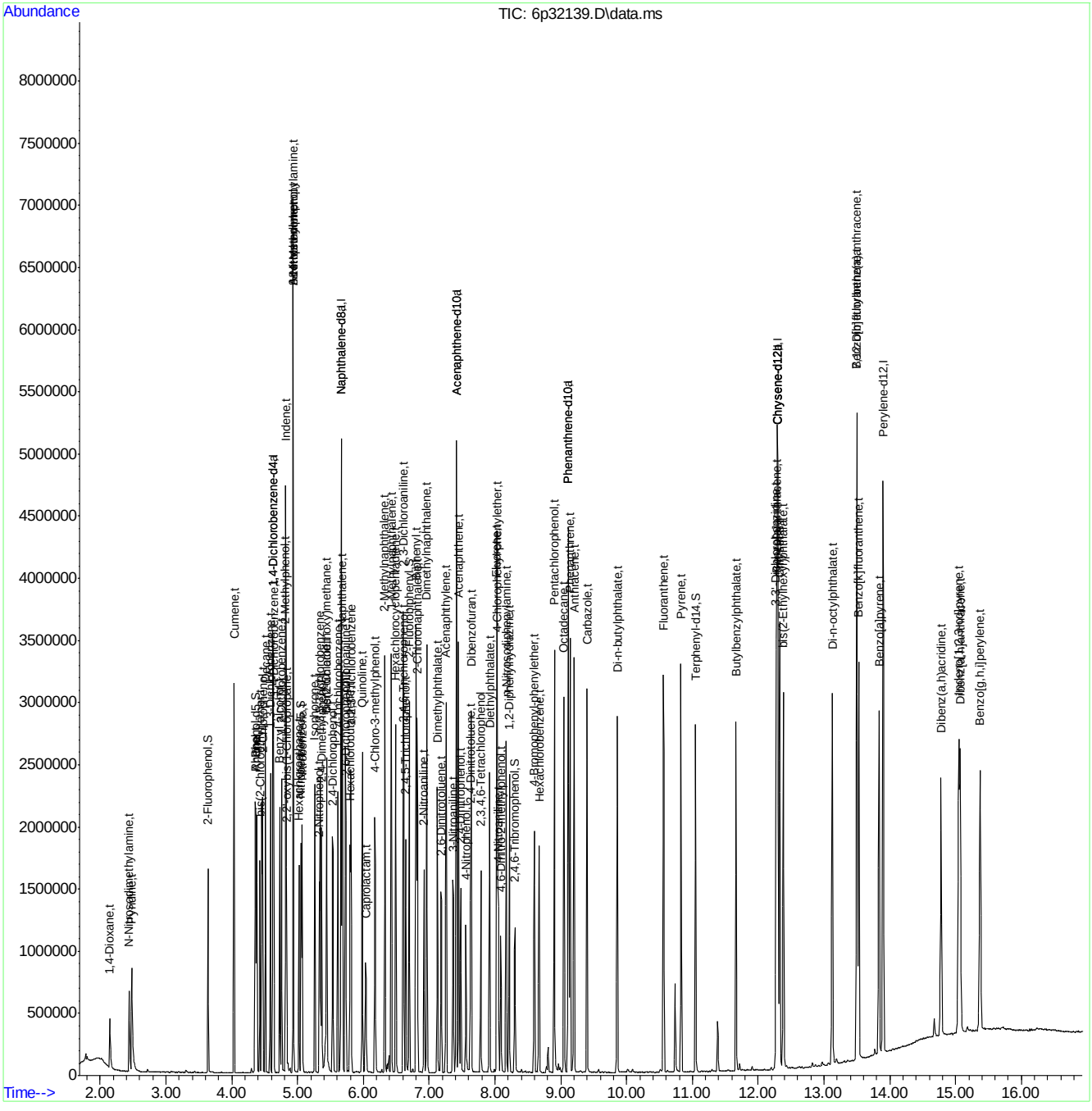
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32139.D
Acq On : 18 Nov 2016 2:14 pm
Operator : ariellec
Sample : ic1488-25
Misc : op98528,e6p1488
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 18 14:48:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 13:33:03 2016
QLast Update : Fri Nov 18 13:33:03 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32140.D
Acq On : 18 Nov 2016 2:38 pm
Operator : ariellec
Sample : ic1488-10
Misc : op98528,e6p1488
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 18 15:14:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 14:48:58 2016
QLast Update : Fri Nov 18 14:48:58 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	472370	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1930669	40.00	ppm	0.00
47) Acenaphthene-d10	7.415	164	1119489	40.00	ppm	0.00
69) Phenanthrene-d10	9.116	188	1762299	40.00	ppm	0.00
83) Chrysene-d12	12.293	240	1757742	40.00	ppm	0.00
91) Perylene-d12	13.898	264	1736816	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	472370	40.00	ppm	0.00
103) Acenaphthene-d10a	7.415	164	1119489	40.00	ppm	0.00
105) Phenanthrene-d10a	9.116	188	1762299	40.00	ppm	0.00
109) Chrysene-d12a	12.293	240	1757742	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1930669	40.00	ppm	0.00
113) Chrysene-d12b	12.293	240	1757742	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.639	112	175888	9.58	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.16%	
8) Phenol-d5	4.356	99	238888	9.59	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.18%	
25) Nitrobenzene-d5	5.051	82	199782	9.70	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.40%	
51) 2-Fluorobiphenyl	6.693	172	375536	10.11	ppm	0.00
Spiked Amount 50.000			Recovery	=	20.22%	
73) 2,4,6-Tribromophenol	8.298	330	54431	9.59	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.18%	
85) Terphenyl-d14	11.047	244	348365	9.75	ppm	0.00
Spiked Amount 50.000			Recovery	=	19.50%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.152	88	72861	9.27	ppm	98
3) Pyridine	2.484	79	194562	9.46	ppm	99
4) N-Nitrosodimethylamine	2.446	74	118988	9.23	ppm	97
6) Indene	4.821	116	316561	10.12	ppm	99
7) Cumene	4.035	105	437611	9.90	ppm	98
9) Phenol	4.361	94	254129	9.69	ppm	97
10) Aniline	4.377	93	290208	10.18	ppm	98
11) bis(2-Chloroethyl)ether	4.425	93	175146	9.54	ppm	97
12) 2-Chlorophenol	4.468	128	185265	9.50	ppm	97
13) Decane	4.511	43	131472	9.87	ppm	98
14) 1,3-Dichlorobenzene	4.586	146	191903	9.84	ppm	98
15) 1,4-Dichlorobenzene	4.639	146	194090	9.77	ppm	99
16) Benzyl alcohol	4.725	108	124542	9.65	ppm	99
17) 1,2-Dichlorobenzene	4.757	146	182463	9.70	ppm	99
18) Acetophenone	4.934	105	255213	10.15	ppm	98
19) 2-Methylphenol	4.816	108	173918	10.13	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.832	121	64075	9.79	ppm	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32140.D
Acq On : 18 Nov 2016 2:38 pm
Operator : ariellec
Sample : ic1488-10
Misc : op98528,e6p1488
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 18 15:14:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 14:48:58 2016
QLast Update : Fri Nov 18 14:48:58 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.934	108	184320	10.32	ppm		99
22) n-Nitroso-di-n-propyla...	4.934	70	140510	10.02	ppm		99
23) Hexachloroethane	5.019	201	53716	9.75	ppm	#	80
26) Nitrobenzene	5.067	77	191998	9.66	ppm		98
27) Quinoline	5.982	129	373582	9.84	ppm		99
28) Isophorone	5.260	82	363685	9.80	ppm		100
29) 2-Nitrophenol	5.329	139	100190	9.86	ppm		95
30) 2,4-Dimethylphenol	5.361	107	167019	10.00	ppm		98
31) Benzoic acid	5.420	105	94739	8.34	ppm		98
32) bis(2-Chloroethoxy)met...	5.442	93	213063	9.87	ppm		99
33) 2,4-Dichlorophenol	5.533	162	138312	9.89	ppm		96
34) 2,6-Dichlorophenol	5.730	162	133692	9.88	ppm		99
35) 1,3,5-Trichlorobenzene	5.345	180	146009	9.86	ppm		97
36) 1,2,4-Trichlorobenzene	5.613	180	139871	9.93	ppm		97
37) 1,2,3-Trichlorobenzene	5.811	180	140391	9.93	ppm		98
38) Naphthalene	5.677	128	548612	10.08	ppm		99
39) 4-Chloroaniline	5.725	127	242111	10.23	ppm		94
40) 2,3-Dichloroaniline	6.602	161	175757	10.03	ppm		97
41) Caprolactam	6.025	55	66882	9.61	ppm		97
42) Hexachlorobutadiene	5.795	225	69377	9.97	ppm		97
43) 4-Chloro-3-methylphenol	6.174	107	162259	9.98	ppm		96
44) 2-Methylnaphthalene	6.324	141	298354	9.87	ppm		97
45) 1-Methylnaphthalene	6.420	141	311265	10.03	ppm		100
46) Dimethylnaphthalene	6.961	156	316159	10.02	ppm		99
48) Hexachlorocyclopentadiene	6.490	237	142037	20.25	ppm		97
49) 2,4,6-Trichlorophenol	6.608	196	89233	9.92	ppm		98
50) 2,4,5-Trichlorophenol	6.645	196	98009	9.90	ppm		97
52) 2-Chloronaphthalene	6.816	162	316988	10.05	ppm		99
53) Biphenyl	6.795	154	432921	10.12	ppm		97
54) 2-Nitroaniline	6.918	65	101018	9.95	ppm		92
55) Dimethylphthalate	7.121	163	365807	9.95	ppm		98
56) Acenaphthylene	7.255	152	529410	10.00	ppm		99
57) 2,6-Dinitrotoluene	7.180	165	80223	9.95	ppm		93
58) 3-Nitroaniline	7.362	138	106263	9.86	ppm		97
59) Acenaphthene	7.447	153	330628	10.03	ppm		99
60) 2,4-Dinitrophenol	7.479	184	55099	14.70	ppm	#	45
61) 4-Nitrophenol	7.554	109	45323	9.86	ppm		96
62) Dibenzofuran	7.640	168	451202	10.15	ppm		98
63) 2,4-Dinitrotoluene	7.624	165	106920	10.19	ppm		100
64) 2,3,4,6-Tetrachlorophenol	7.784	232	72411	9.91	ppm		97
65) Diethylphthalate	7.913	149	369066	10.10	ppm		98
66) Fluorene	8.025	166	376376	10.19	ppm		98
67) 4-Chlorophenyl-phenyle...	8.036	204	154408	10.18	ppm		92
68) 4-Nitroaniline	8.041	138	114772	10.03	ppm		95
70) 4,6-Dinitro-2-methylph...	8.089	198	49570	9.80	ppm		99
71) n-Nitrosodiphenylamine	8.169	169	275908	9.95	ppm		99
72) 1,2-Diphenylhydrazine	8.212	77	389658	9.76	ppm		100
74) 4-Bromophenyl-phenylether	8.597	248	93941	9.81	ppm		96
75) Hexachlorobenzene	8.667	284	106772	9.77	ppm		86
76) Pentachlorophenol	8.897	266	110250	20.46	ppm		99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32140.D
Acq On : 18 Nov 2016 2:38 pm
Operator : ariellec
Sample : ic1488-10
Misc : op98528,e6p1488
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 18 15:14:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 14:48:58 2016
QLast Update : Fri Nov 18 14:48:58 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	9.138	178	535862	10.16	ppm	99
78)	Anthracene	9.196	178	540154	10.24	ppm	100
79)	Carbazole	9.394	167	521665	10.01	ppm	99
80)	Di-n-butylphthalate	9.854	149	636055	10.22	ppm	100
81)	Fluoranthene	10.560	202	507457	9.92	ppm	99
82)	Octadecane	9.047	57	214289	10.20	ppm	97
84)	Pyrene	10.828	202	547658	9.87	ppm	99
86)	Butylbenzylphthalate	11.662	149	285765	9.97	ppm	99
87)	Benzo[a]anthracene	12.283	228	493941	9.60	ppm	99
88)	3,3'-Dichlorobenzidine	12.267	252	202075	9.95	ppm	96
89)	Chrysene	12.320	228	494086	9.91	ppm	100
90)	bis(2-Ethylhexyl)phtha...	12.379	149	387386	9.64	ppm	99
92)	Di-n-octylphthalate	13.122	149	684406	9.77	ppm	99
93)	Benzo[b]fluoranthene	13.497	252	532295	9.40	ppm	98
94)	Benzo[k]fluoranthene	13.523	252	514610	10.28	ppm	99
95)	Benzo[a]pyrene	13.834	252	475882	9.75	ppm	100
96)	Indeno[1,2,3-cd]pyrene	15.042	276	589721	9.61	ppm	95
97)	Dibenz(a,h)acridine	14.775	279	444881	9.67	ppm	99
98)	Dibenz[a,h]anthracene	15.064	278	500906	9.61	ppm	99
99)	7,12-Dimethylbenz(a)an...	13.497	256	232090	9.90	ppm	98
100)	Benzo[g,h,i]perylene	15.363	276	495295	9.61	ppm	99

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

9.6.35

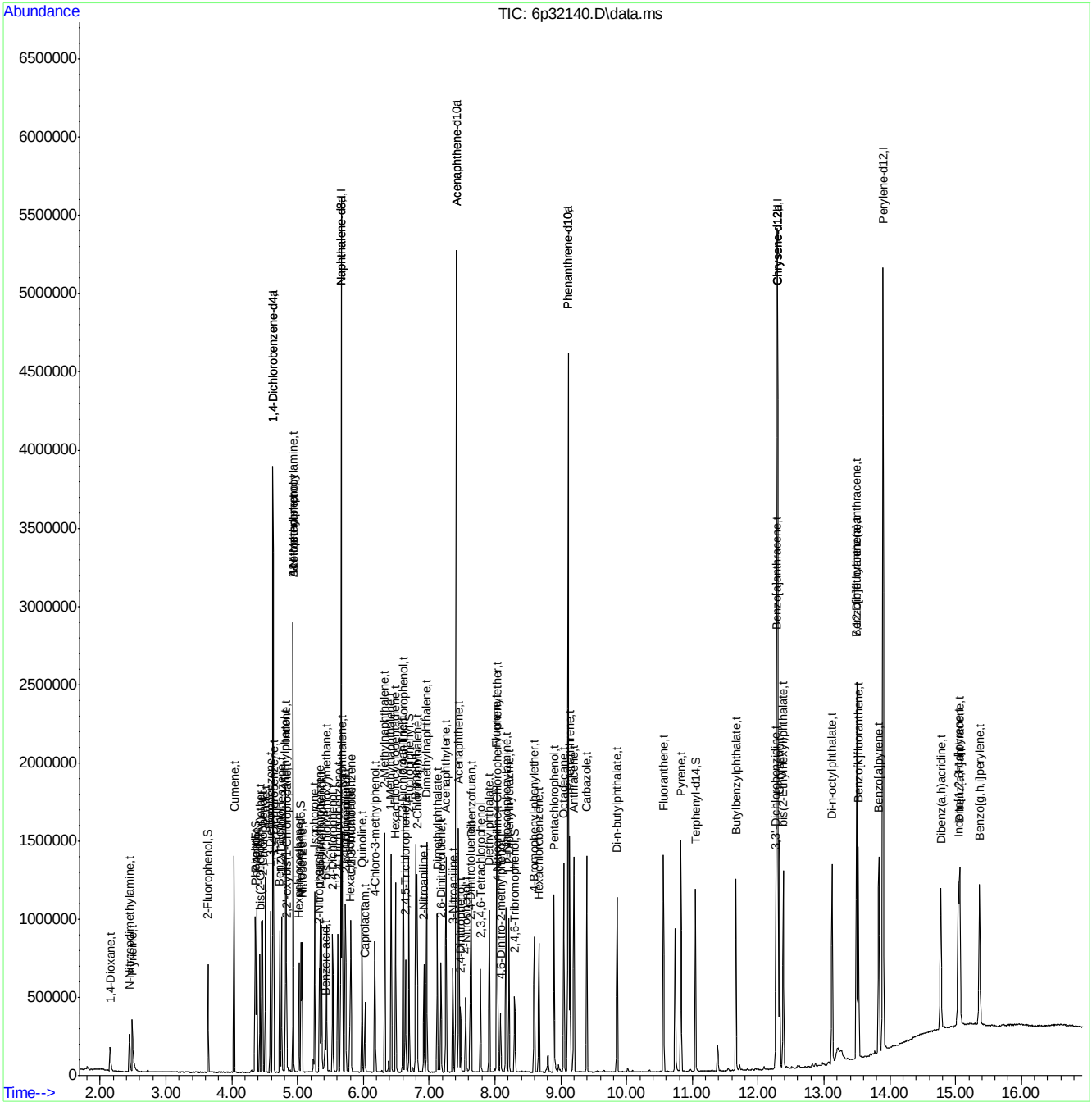
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32140.D
Acq On : 18 Nov 2016 2:38 pm
Operator : ariellec
Sample : ic1488-10
Misc : op98528,e6p1488
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 18 15:14:23 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 14:48:58 2016
QLast Update : Fri Nov 18 14:48:58 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32141.D
Acq On : 18 Nov 2016 3:03 pm
Operator : ariellec
Sample : ic1488-5
Misc : op98528,e6p1488
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 18 15:21:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:14:34 2016
QLast Update : Fri Nov 18 15:14:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	461589	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1912677	40.00	ppm	0.00
47) Acenaphthene-d10	7.415	164	1108532	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1731206	40.00	ppm	0.00
83) Chrysene-d12	12.293	240	1714287	40.00	ppm	0.00
91) Perylene-d12	13.898	264	1714047	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	461589	40.00	ppm	0.00
103) Acenaphthene-d10a	7.415	164	1108532	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1731206	40.00	ppm	0.00
109) Chrysene-d12a	12.293	240	1714287	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1912677	40.00	ppm	0.00
113) Chrysene-d12b	12.293	240	1714287	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.639	112	98982	5.55	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.10%	
8) Phenol-d5	4.350	99	134000	5.54	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.08%	
25) Nitrobenzene-d5	5.051	82	111356	5.48	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.96%	
51) 2-Fluorobiphenyl	6.693	172	205891	5.59	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.18%	
73) 2,4,6-Tribromophenol	8.298	330	27792	5.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.02%	
85) Terphenyl-d14	11.047	244	188356	5.43	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.86%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.147	88	40862	5.38	ppm	98
3) Pyridine	2.489	79	103340	5.18	ppm	97
4) N-Nitrosodimethylamine	2.446	74	68070	5.46	ppm	97
6) Indene	4.821	116	177133	5.78	ppm	99
7) Cumene	4.035	105	247969	5.75	ppm	99
9) Phenol	4.361	94	143384	5.62	ppm	94
10) Aniline	4.377	93	171201	6.13	ppm	98
11) bis(2-Chloroethyl)ether	4.425	93	98692	5.54	ppm	97
12) 2-Chlorophenol	4.468	128	102782	5.43	ppm	98
13) Decane	4.511	43	73020	5.62	ppm	99
14) 1,3-Dichlorobenzene	4.586	146	106707	5.61	ppm	99
15) 1,4-Dichlorobenzene	4.639	146	109246	5.65	ppm	99
16) Benzyl alcohol	4.725	108	65622	5.23	ppm	99
17) 1,2-Dichlorobenzene	4.757	146	103506	5.66	ppm	99
18) Acetophenone	4.928	105	143908	5.85	ppm	95
19) 2-Methylphenol	4.816	108	96860	5.76	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.832	121	36030	5.65	ppm	95

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32141.D
Acq On : 18 Nov 2016 3:03 pm
Operator : ariellec
Sample : ic1488-5
Misc : op98528,e6p1488
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 18 15:21:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:14:34 2016
QLast Update : Fri Nov 18 15:14:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.928	108	101483	5.79	ppm		98
22) n-Nitroso-di-n-propyla...	4.933	70	79628	5.81	ppm		98
23) Hexachloroethane	5.019	201	29641	5.53	ppm		85
26) Nitrobenzene	5.067	77	105463	5.38	ppm		99
27) Quinoline	5.976	129	203449	5.42	ppm		99
28) Isophorone	5.260	82	200766	5.48	ppm		98
29) 2-Nitrophenol	5.329	139	53837	5.36	ppm		97
30) 2,4-Dimethylphenol	5.361	107	88974	5.38	ppm		97
31) Benzoic acid	5.409	105	42009	3.82	ppm		94
32) bis(2-Chloroethoxy)met...	5.442	93	118746	5.56	ppm		98
33) 2,4-Dichlorophenol	5.532	162	75217	5.44	ppm		99
34) 2,6-Dichlorophenol	5.730	162	75244	5.62	ppm		99
35) 1,3,5-Trichlorobenzene	5.340	180	82170	5.61	ppm		99
36) 1,2,4-Trichlorobenzene	5.607	180	77629	5.57	ppm		99
37) 1,2,3-Trichlorobenzene	5.811	180	78288	5.59	ppm		98
38) Naphthalene	5.677	128	304722	5.64	ppm		99
39) 4-Chloroaniline	5.720	127	133958	5.70	ppm		99
40) 2,3-Dichloroaniline	6.602	161	96333	5.55	ppm		97
41) Caprolactam	6.014	55	36685	5.35	ppm		97
42) Hexachlorobutadiene	5.795	225	39353	5.71	ppm		98
43) 4-Chloro-3-methylphenol	6.169	107	85643	5.32	ppm		100
44) 2-Methylnaphthalene	6.324	141	166340	5.56	ppm		99
45) 1-Methylnaphthalene	6.420	141	173360	5.63	ppm		98
46) Dimethylnaphthalene	6.961	156	175140	5.60	ppm		99
48) Hexachlorocyclopentadiene	6.490	237	76786	11.04	ppm		97
49) 2,4,6-Trichlorophenol	6.608	196	48844	5.49	ppm		99
50) 2,4,5-Trichlorophenol	6.640	196	52782	5.39	ppm		99
52) 2-Chloronaphthalene	6.816	162	175769	5.63	ppm		97
53) Biphenyl	6.795	154	235290	5.55	ppm		98
54) 2-Nitroaniline	6.918	65	54524	5.43	ppm		93
55) Dimethylphthalate	7.121	163	198194	5.45	ppm		99
56) Acenaphthylene	7.255	152	288605	5.50	ppm		99
57) 2,6-Dinitrotoluene	7.180	165	41164	5.16	ppm		95
58) 3-Nitroaniline	7.362	138	56719	5.33	ppm		98
59) Acenaphthene	7.447	153	181185	5.55	ppm		98
60) 2,4-Dinitrophenol	7.474	184	21828	6.15	ppm	#	52
61) 4-Nitrophenol	7.554	109	24141	5.31	ppm		97
62) Dibenzofuran	7.640	168	246040	5.58	ppm		98
63) 2,4-Dinitrotoluene	7.624	165	56189	5.39	ppm		98
64) 2,3,4,6-Tetrachlorophenol	7.779	232	37631	5.21	ppm		94
65) Diethylphthalate	7.913	149	200714	5.54	ppm		99
66) Fluorene	8.025	166	204561	5.58	ppm		100
67) 4-Chlorophenyl-phenyle...	8.030	204	84742	5.63	ppm		99
68) 4-Nitroaniline	8.041	138	59792	5.27	ppm		92
70) 4,6-Dinitro-2-methylph...	8.084	198	22201	4.48	ppm		85
71) n-Nitrosodiphenylamine	8.164	169	150438	5.53	ppm		97
72) 1,2-Diphenylhydrazine	8.212	77	211148	5.40	ppm		98
74) 4-Bromophenyl-phenylether	8.597	248	50063	5.34	ppm		94
75) Hexachlorobenzene	8.667	284	56983	5.33	ppm		91
76) Pentachlorophenol	8.897	266	52921	9.97	ppm		99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32141.D
Acq On : 18 Nov 2016 3:03 pm
Operator : ariellec
Sample : ic1488-5
Misc : op98528,e6p1488
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 18 15:21:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:14:34 2016
QLast Update : Fri Nov 18 15:14:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
77) Phenanthrene	9.137	178	284988	5.49 ppm	100
78) Anthracene	9.196	178	292032	5.61 ppm	100
79) Carbazole	9.394	167	285258	5.57 ppm	98
80) Di-n-butylphthalate	9.854	149	340293	5.55 ppm	100
81) Fluoranthene	10.560	202	276949	5.52 ppm	97
82) Octadecane	9.047	57	118570	5.73 ppm	96
84) Pyrene	10.828	202	296426	5.49 ppm	99
86) Butylbenzylphthalate	11.662	149	149362	5.34 ppm	99
87) Benzo[a]anthracene	12.277	228	276158	5.54 ppm	99
88) 3,3'-Dichlorobenzidine	12.266	252	105765	5.34 ppm	99
89) Chrysene	12.320	228	266547	5.49 ppm	99
90) bis(2-Ethylhexyl)phtha...	12.379	149	211806	5.43 ppm	97
92) Di-n-octylphthalate	13.122	149	357519	5.19 ppm	99
93) Benzo[b]fluoranthene	13.491	252	291224	5.25 ppm	99
94) Benzo[k]fluoranthene	13.523	252	272687	5.50 ppm	99
95) Benzo[a]pyrene	13.834	252	258989	5.39 ppm	98
96) Indeno[1,2,3-cd]pyrene	15.037	276	315408	5.24 ppm	96
97) Dibenz(a,h)acridine	14.775	279	240156	5.31 ppm	98
98) Dibenz[a,h]anthracene	15.064	278	274801	5.37 ppm	97
99) 7,12-Dimethylbenz(a)an...	13.491	256	122579	5.31 ppm	98
100) Benzo[g,h,i]perylene	15.363	276	268836	5.32 ppm	99

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

9.6.36

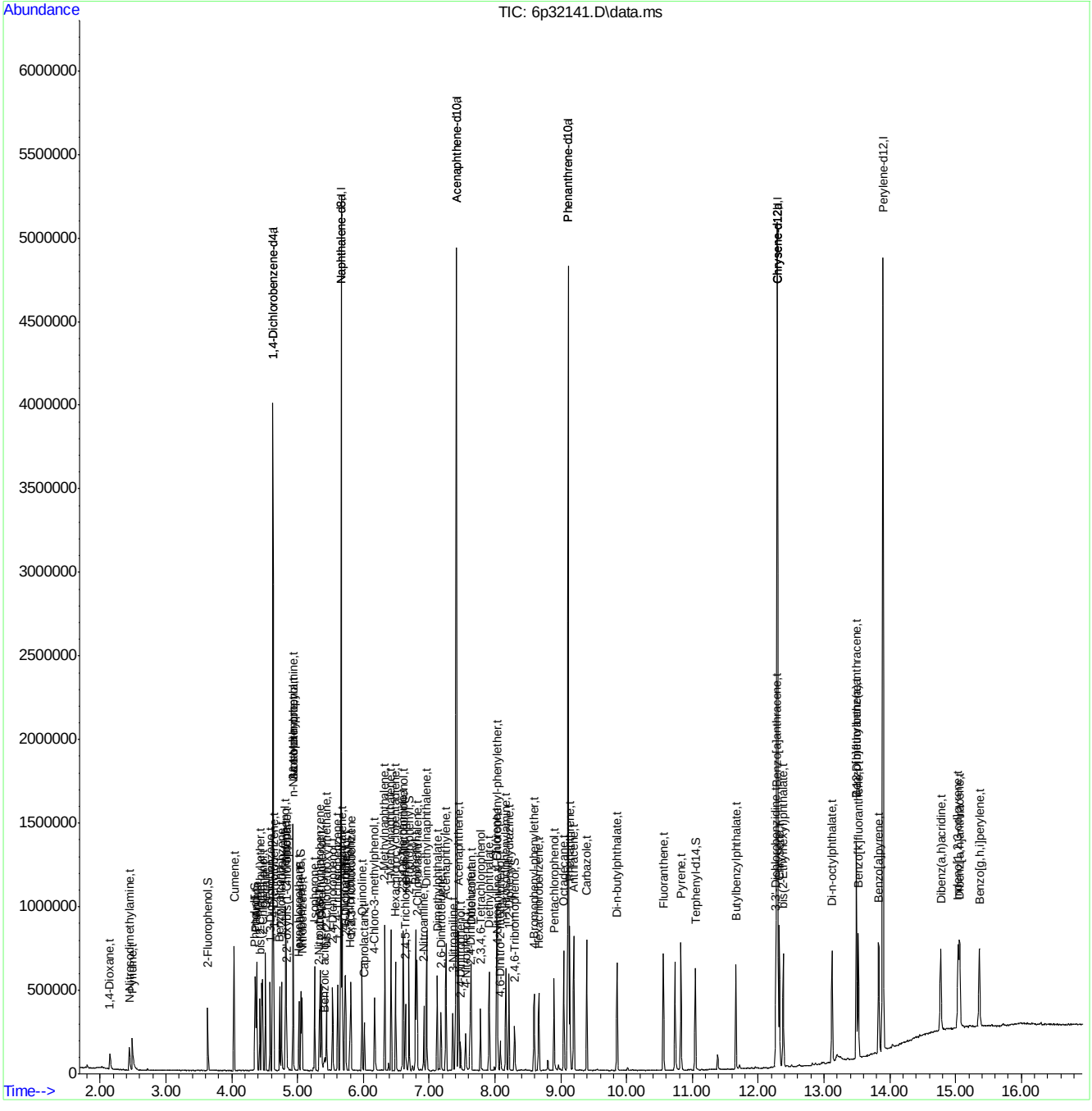
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32141.D
Acq On : 18 Nov 2016 3:03 pm
Operator : ariellec
Sample : ic1488-5
Misc : op98528,e6p1488
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 18 15:21:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:14:34 2016
QLast Update : Fri Nov 18 15:14:34 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32142.D
Acq On : 18 Nov 2016 3:28 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:17:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	447197	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1825564	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1045891	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1597910	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1561339	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1519675	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	447197	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1045891	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1597910	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1561339	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1825564	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1561339	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
9) Phenol	4.366	94	1090885	43.45	ppm	95
12) 2-Chlorophenol	4.468	128	897796	48.46	ppm	95
19) 2-Methylphenol	4.816	108	823238	49.62	ppm	98
21) 3&4-Methylphenol	4.933	108	880421	50.84	ppm	99
29) 2-Nitrophenol	5.329	139	474829	49.08	ppm	93
30) 2,4-Dimethylphenol	5.367	107	871227	54.66	ppm	99
31) Benzoic acid	5.463	105	550829	44.98	ppm	99
33) 2,4-Dichlorophenol	5.532	162	669262	50.16	ppm	96
34) 2,6-Dichlorophenol	5.730	162	661505	50.99	ppm	99
43) 4-Chloro-3-methylphenol	6.174	107	764707	49.36	ppm	95
49) 2,4,6-Trichlorophenol	6.608	196	437661	51.52	ppm	100
50) 2,4,5-Trichlorophenol	6.645	196	440692	47.26	ppm	99
60) 2,4-Dinitrophenol	7.479	184	172961	43.89	ppm	91
61) 4-Nitrophenol	7.560	109	230518	53.37	ppm	95
64) 2,3,4,6-Tetrachlorophenol	7.784	232	347247	50.66	ppm	97
70) 4,6-Dinitro-2-methylph...	8.089	198	283058	53.32	ppm	95
76) Pentachlorophenol	8.897	266	288273	55.49	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32142.D
Acq On : 18 Nov 2016 3:28 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:17:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration

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

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

9.6.37

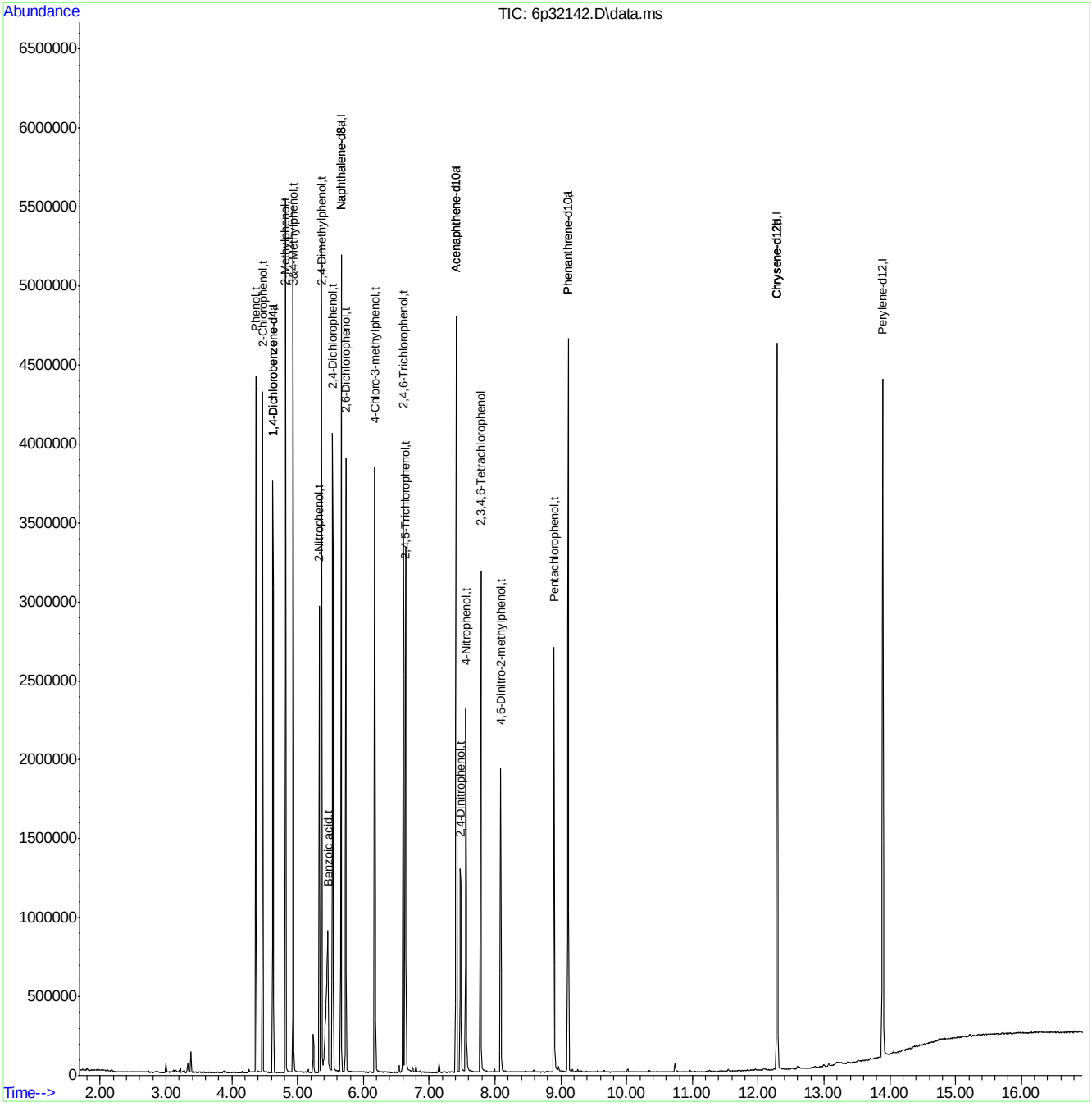
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32142.D
Acq On : 18 Nov 2016 3:28 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:17:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32143.D
Acq On : 18 Nov 2016 3:53 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 07:18:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration

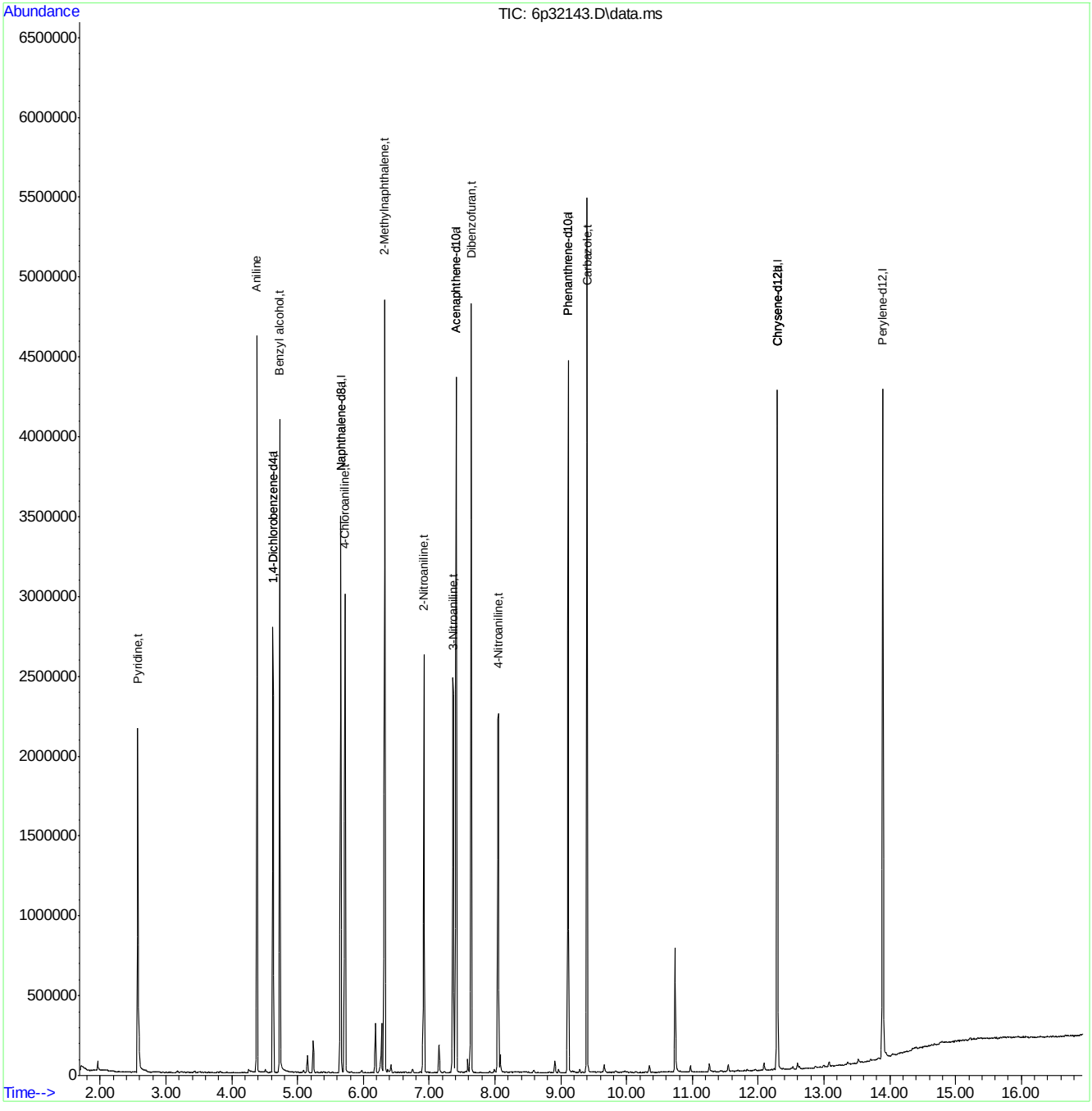
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	400395	40.00	ppm	0.00
24) Naphthalene-d8	5.655	136	1738788	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	993084	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1557998	40.00	ppm	0.00
83) Chrysene-d12	12.293	240	1509838	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1480983	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	400395	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	993084	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1557998	40.00	ppm	0.00
109) Chrysene-d12a	12.293	240	1509838	40.00	ppm	0.00
111) Naphthalene-d8a	5.655	136	1738788	40.00	ppm	0.00
113) Chrysene-d12b	12.293	240	1509838	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
3) Pyridine	2.569	79	869057	50.00	ppm	97
10) Aniline	4.382	93	1279616	49.86	ppm	100
16) Benzyl alcohol	4.730	108	562869	51.41	ppm	99
39) 4-Chloroaniline	5.720	127	981263	45.11	ppm	99
44) 2-Methylnaphthalene	6.324	141	1255115	45.54	ppm	100
54) 2-Nitroaniline	6.923	65	432590	47.54	ppm	100
58) 3-Nitroaniline	7.367	138	439706	45.71	ppm	98
62) Dibenzofuran	7.640	168	1902262	47.46	ppm	99
68) 4-Nitroaniline	8.052	138	467672	45.73	ppm	95
79) Carbazole	9.399	167	2199063	47.05	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32143.D
Acq On : 18 Nov 2016 3:53 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 21 07:18:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32144.D
Acq On : 18 Nov 2016 4:18 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 21 07:19:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	477829	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1981481	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1124496	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1785552	40.00	ppm	0.00
83) Chrysene-d12	12.293	240	1696573	40.00	ppm	0.00
91) Perylene-d12	13.898	264	1629222	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	477829	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1124496	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1785552	40.00	ppm	0.00
109) Chrysene-d12a	12.293	240	1696573	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1981481	40.00	ppm	0.00
113) Chrysene-d12b	12.293	240	1696573	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.639	112	800455	42.78	ppm	0.00
Spiked Amount 50.000			Recovery	=	85.56%	
8) Phenol-d5	4.356	99	1067249	42.03	ppm	0.00
Spiked Amount 50.000			Recovery	=	84.06%	
25) Nitrobenzene-d5	5.051	82	910895	42.77	ppm	0.00
Spiked Amount 50.000			Recovery	=	85.54%	
51) 2-Fluorobiphenyl	6.693	172	1659240	43.76	ppm	0.00
Spiked Amount 50.000			Recovery	=	87.52%	
73) 2,4,6-Tribromophenol	8.298	330	236570	41.37	ppm	0.00
Spiked Amount 50.000			Recovery	=	82.74%	
85) Terphenyl-d14	11.047	244	1603162	46.18	ppm	0.00
Spiked Amount 50.000			Recovery	=	92.36%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds Qvalue

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

9.6.39

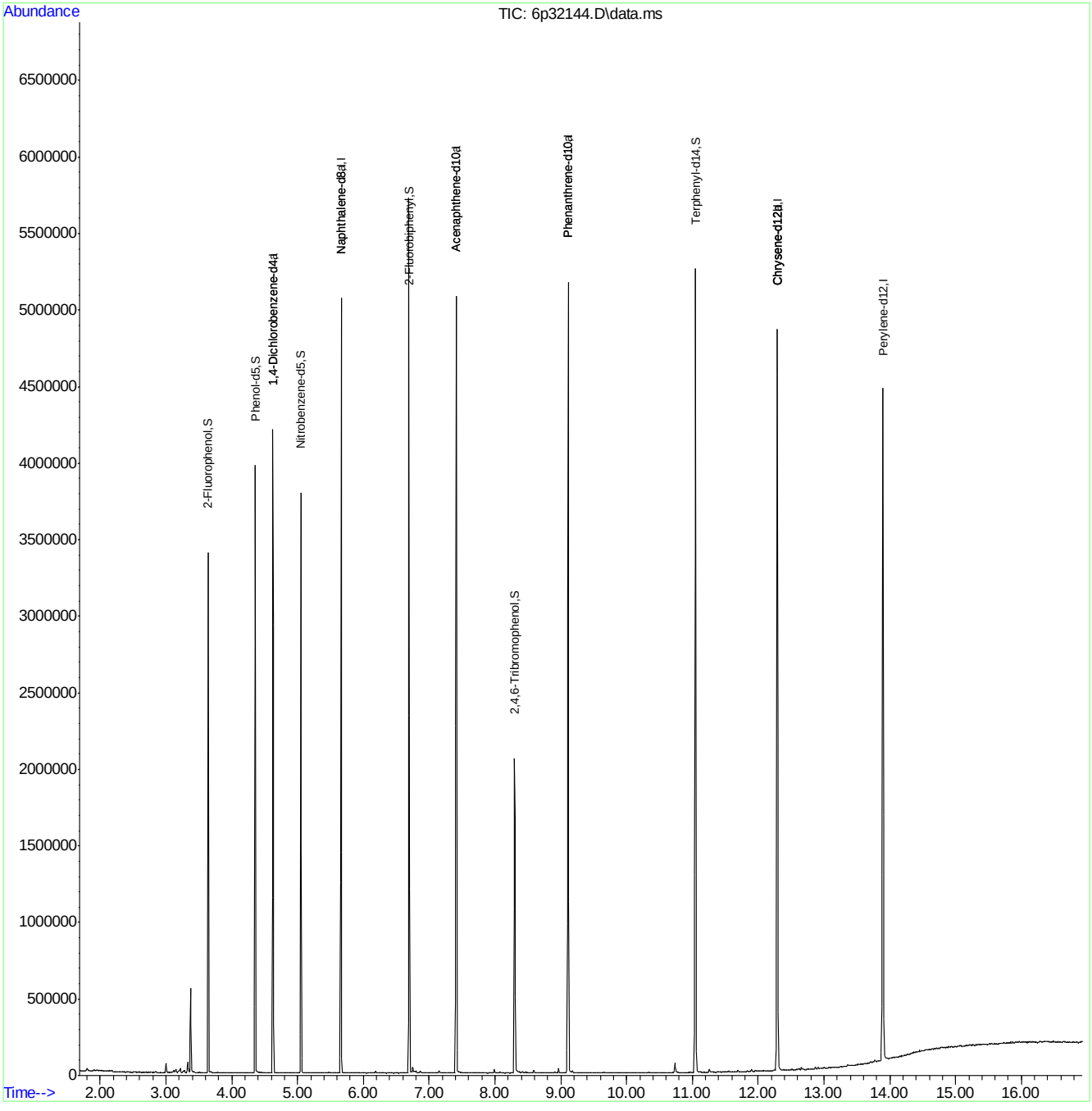
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1488\
Data File : 6p32144.D
Acq On : 18 Nov 2016 4:18 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1488
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 21 07:19:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuFri Nov 18 15:22:46 2016
QLast Update : Fri Nov 18 15:22:46 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32151a.D
Acq On : 18 Nov 2016 5:11 pm
Operator : ariellec
Sample : ic1489-100
Misc : op98528,e6p1489
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 07:38:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:24:31 2016
QLast Update : Mon Nov 21 07:24:31 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	406899	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1693771	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	971670	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1503921	40.00	ppm	0.00
83) Chrysene-d12	12.293	240	1441738	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1403474	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	406899	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	971670	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1503921	40.00	ppm	0.00
109) Chrysene-d12a	12.293	240	1441738	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1693771	40.00	ppm	0.00
113) Chrysene-d12b	12.293	240	1441738	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.597	230	1860131	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
108) 1-Chlorooctadecane	10.491	57	1053066	100.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	200.00%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	1137007	100.00	ppm	91
104) 1,2,4,5-Tetrachloroben...	6.495	216	988572	100.00	ppm	97
106) Atrazine	8.822	215	394333	100.00	ppm #	83
110) benzidine	10.747	184	2241314	100.00	ppm	100
112) Hydroquinone	6.035	110	1629167	100.00	ppm	81

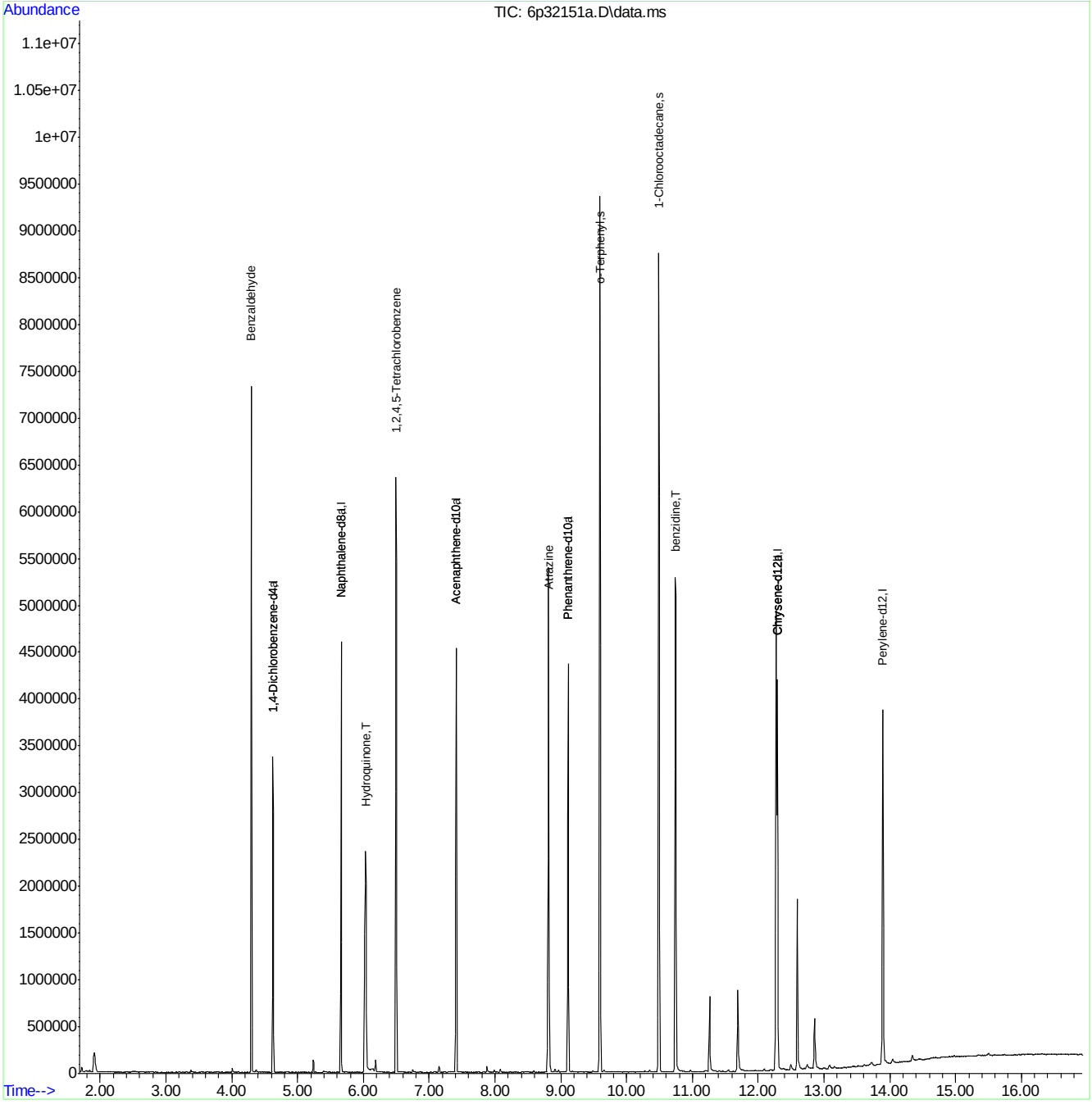
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32151a.D
Acq On : 18 Nov 2016 5:11 pm
Operator : ariellec
Sample : ic1489-100
Misc : op98528,e6p1489
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 07:38:05 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:24:31 2016
QLast Update : Mon Nov 21 07:24:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32152.D
Acq On : 18 Nov 2016 5:35 pm
Operator : ariellec
Sample : ic1489-80
Misc : op98528,e6p1489
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 07:39:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:24:31 2016
QLast Update : Mon Nov 21 07:24:31 2016
Response via : Initial Calibration

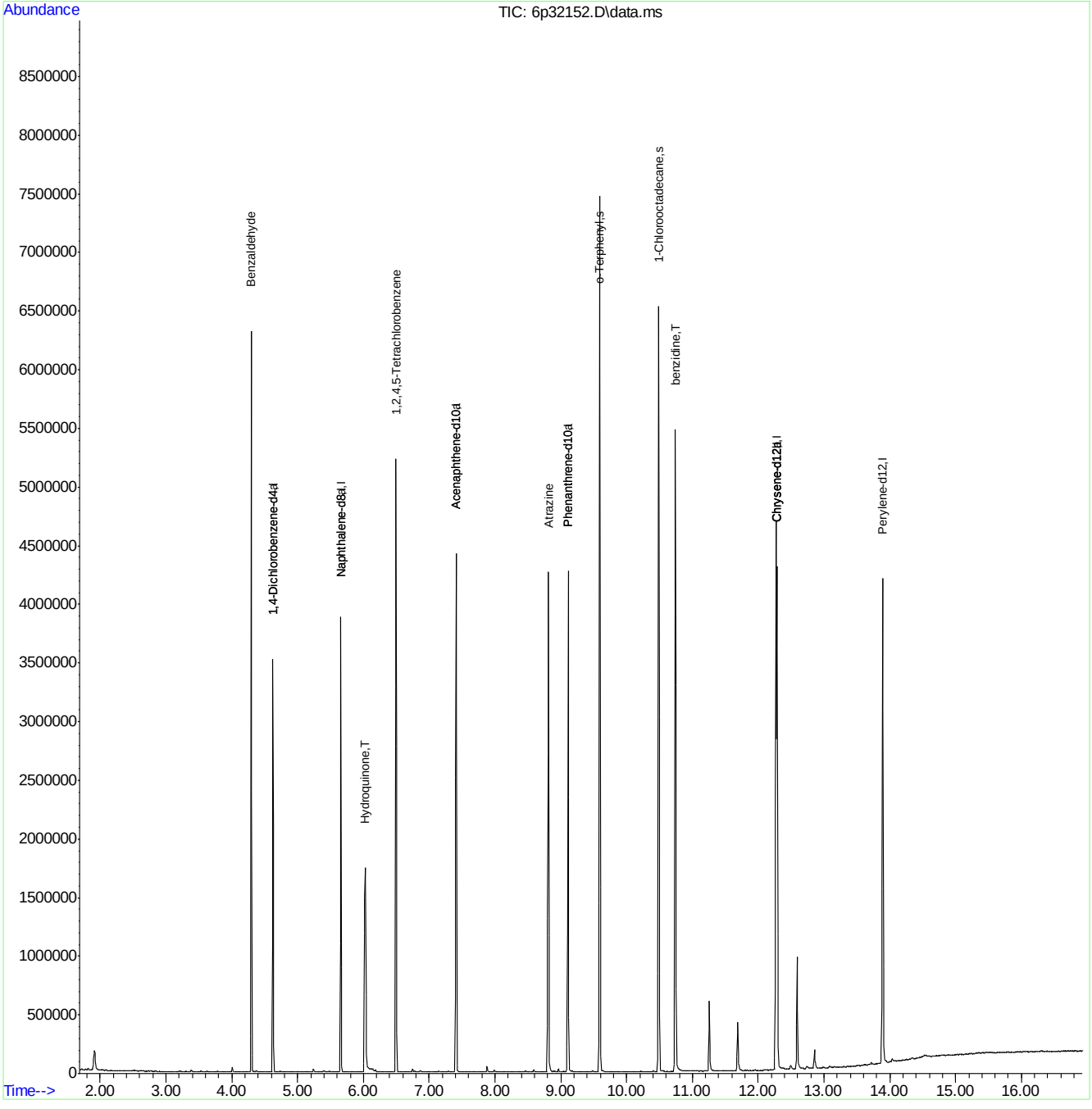
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	386711	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1571837	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	901139	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1426613	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1442047	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1431924	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	386711	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	901139	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1426613	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1442047	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1571837	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1442047	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.592	230	1446848	82.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	164.00%	
108) 1-Chlorooctadecane	10.491	57	838347	83.92	ppm	0.00
Spiked Amount 50.000			Recovery	=	167.84%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	879457	81.39	ppm	91
104) 1,2,4,5-Tetrachloroben...	6.495	216	740947	80.82	ppm	97
106) Atrazine	8.817	215	304637	81.44	ppm #	86
110) benzidine	10.742	184	2072646	92.45	ppm	99
112) Hydroquinone	6.030	110	1262605	83.51	ppm	83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32152.D
Acq On : 18 Nov 2016 5:35 pm
Operator : ariellec
Sample : ic1489-80
Misc : op98528,e6p1489
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 07:39:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:24:31 2016
QLast Update : Mon Nov 21 07:24:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32153.D
Acq On : 18 Nov 2016 6:00 pm
Operator : ariellec
Sample : icc1489-50
Misc : op98528,e6p1489
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 07:40:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:24:31 2016
QLast Update : Mon Nov 21 07:24:31 2016
Response via : Initial Calibration

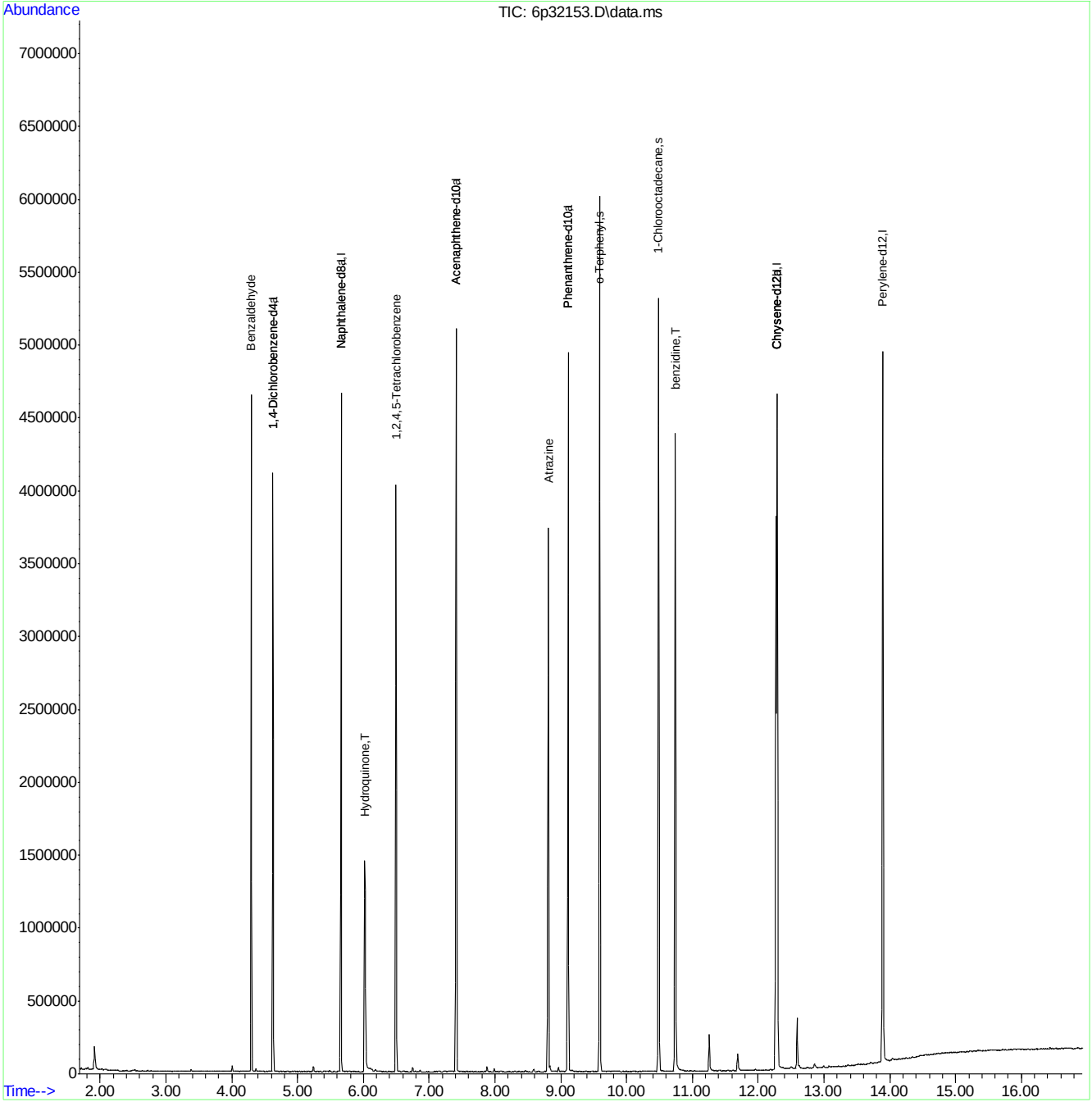
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	445941	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1836943	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1058226	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1670985	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1685538	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1702577	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	445941	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1058226	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1670985	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1685538	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1836943	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1685538	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.592	230	1085805	52.54	ppm	0.00
Spiked Amount 50.000			Recovery	=	105.08%	
108) 1-Chlorooctadecane	10.485	57	635136	54.28	ppm	0.00
Spiked Amount 50.000			Recovery	=	108.56%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	666115	53.46	ppm	89
104) 1,2,4,5-Tetrachloroben...	6.495	216	564656	52.45	ppm	96
106) Atrazine	8.811	215	227029	51.82	ppm	92
110) benzidine	10.742	184	1729078	65.99	ppm	99
112) Hydroquinone	6.019	110	947547	53.63	ppm	81

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32153.D
Acq On : 18 Nov 2016 6:00 pm
Operator : ariellec
Sample : icc1489-50
Misc : op98528,e6p1489
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 07:40:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:24:31 2016
QLast Update : Mon Nov 21 07:24:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32154.D
Acq On : 18 Nov 2016 6:25 pm
Operator : ariellec
Sample : ic1489-25
Misc : op98528,e6p1489
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 07:28:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:27:12 2016
QLast Update : Mon Nov 21 07:28:03 2016
Response via : Initial Calibration

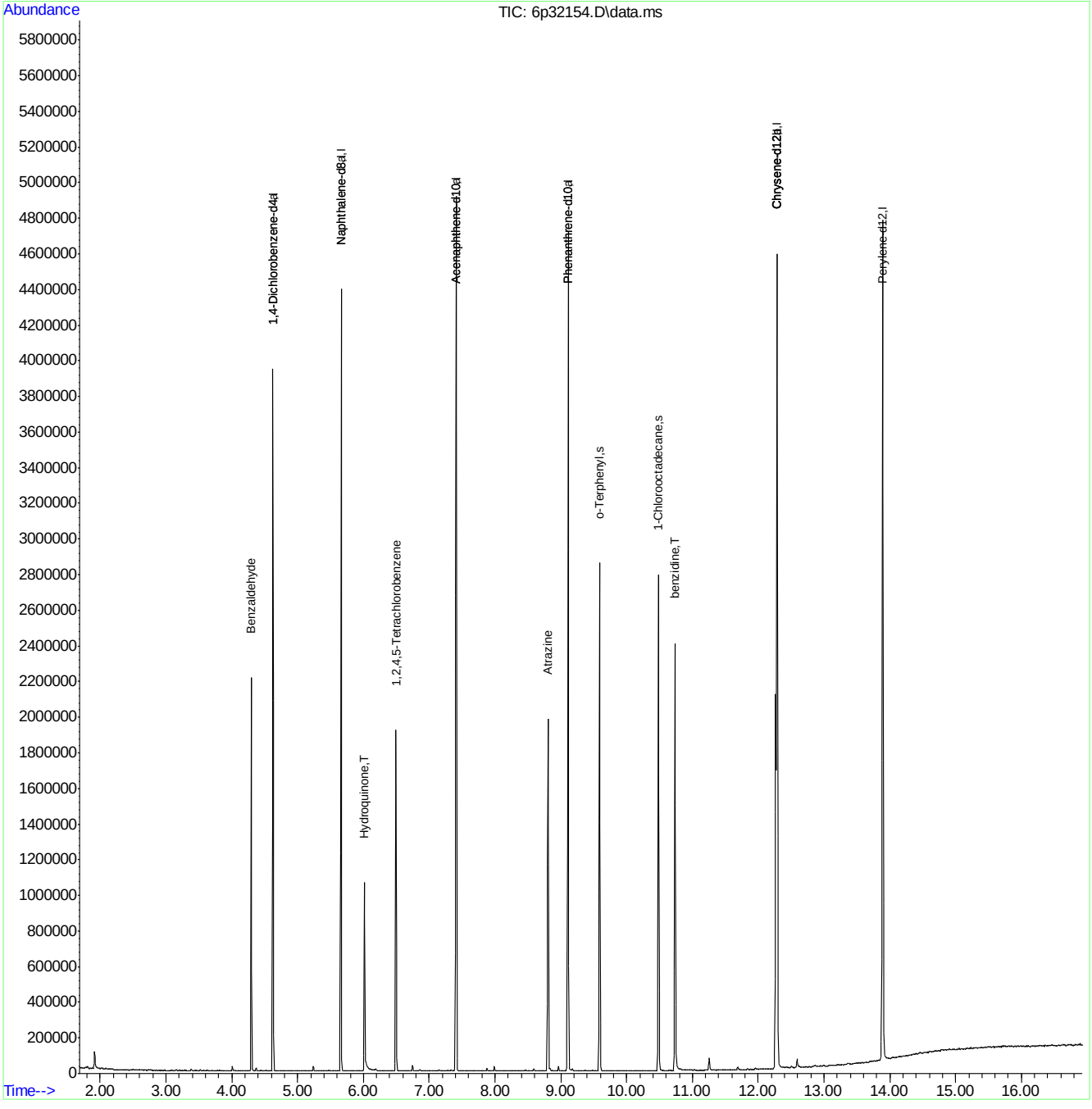
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	428298	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1765732	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1019895	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1600828	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1602440	40.00	ppm	0.00
91) Perylene-d12	13.893	264	1600561	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	428298	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1019895	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1600828	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1602440	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1765732	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1602440	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.592	230	549488	26.52	ppm	0.00
Spiked Amount 50.000			Recovery	=	53.04%	
108) 1-Chlorooctadecane	10.485	57	319587	26.68	ppm	0.00
Spiked Amount 50.000			Recovery	=	53.36%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	334403	26.58	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.495	216	282143	26.23	ppm	100
106) Atrazine	8.806	215	113155	26.09	ppm	98
110) benzidine	10.737	184	887298	29.08	ppm	99
112) Hydroquinone	6.014	110	456186	25.64	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32154.D
Acq On : 18 Nov 2016 6:25 pm
Operator : ariellec
Sample : ic1489-25
Misc : op98528,e6p1489
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 07:28:29 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:27:12 2016
QLast Update : Mon Nov 21 07:28:03 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32155.D
Acq On : 18 Nov 2016 6:49 pm
Operator : ariellec
Sample : ic1489-10
Misc : op98528,e6p1489
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 07:35:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:28:03 2016
QLast Update : Mon Nov 21 07:28:03 2016
Response via : Initial Calibration

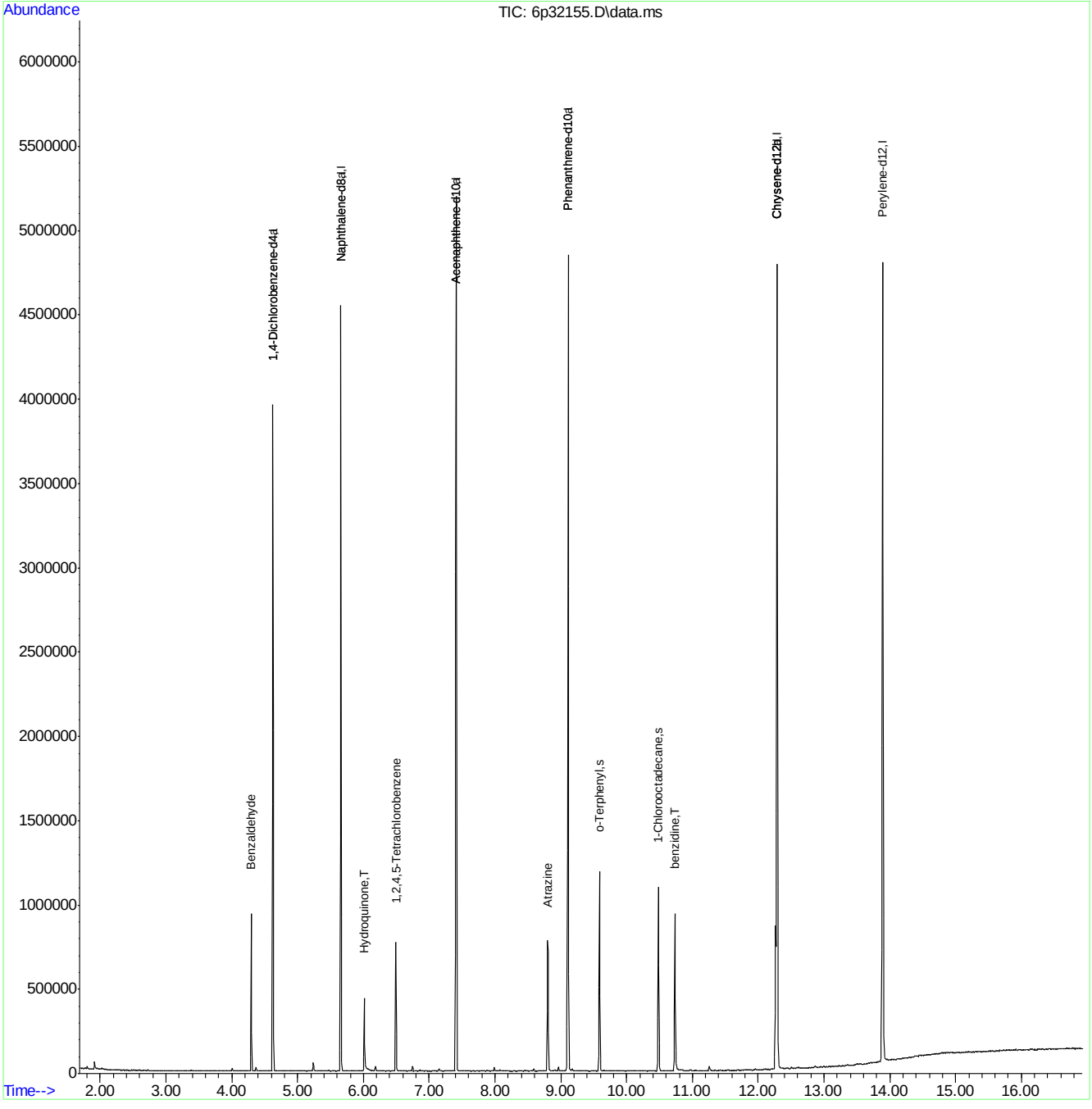
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	436842	40.00	ppm	0.00
24) Naphthalene-d8	5.656	136	1795636	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1042305	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1633590	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1642295	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1629302	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	436842	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1042305	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1633590	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1642295	40.00	ppm	0.00
111) Naphthalene-d8a	5.656	136	1795636	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1642295	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.592	230	232096	10.98	ppm	0.00
Spiked Amount 50.000			Recovery	=	21.96%	
108) 1-Chlorooctadecane	10.485	57	132938	10.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	21.74%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	141194	11.01	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.495	216	119266	10.85	ppm	99
106) Atrazine	8.806	215	45452	10.27	ppm	92
110) benzidine	10.737	184	368376	11.78	ppm	99
112) Hydroquinone	6.014	110	178956	9.89	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32155.D
Acq On : 18 Nov 2016 6:49 pm
Operator : ariellec
Sample : ic1489-10
Misc : op98528,e6p1489
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 07:35:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:28:03 2016
QLast Update : Mon Nov 21 07:28:03 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32156.D
Acq On : 18 Nov 2016 7:14 pm
Operator : ariellec
Sample : ic1489-5
Misc : op98528,e6p1489
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 07:34:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:28:03 2016
QLast Update : Mon Nov 21 07:28:03 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	435057	40.00	ppm	0.00
24) Naphthalene-d8	5.656	136	1806462	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1050987	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1637056	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1634929	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1649269	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	435057	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1050987	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1637056	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1634929	40.00	ppm	0.00
111) Naphthalene-d8a	5.656	136	1806462	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1634929	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.592	230	124439	5.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.74%	
108) 1-Chlorooctadecane	10.485	57	70167	5.73	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.46%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	77295	6.05	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.495	216	64391	5.81	ppm	99
106) Atrazine	8.801	215	23787	5.36	ppm	91
110) benzidine	10.731	184	190816	6.13	ppm	98
112) Hydroquinone	6.014	110	94828	5.21	ppm	97

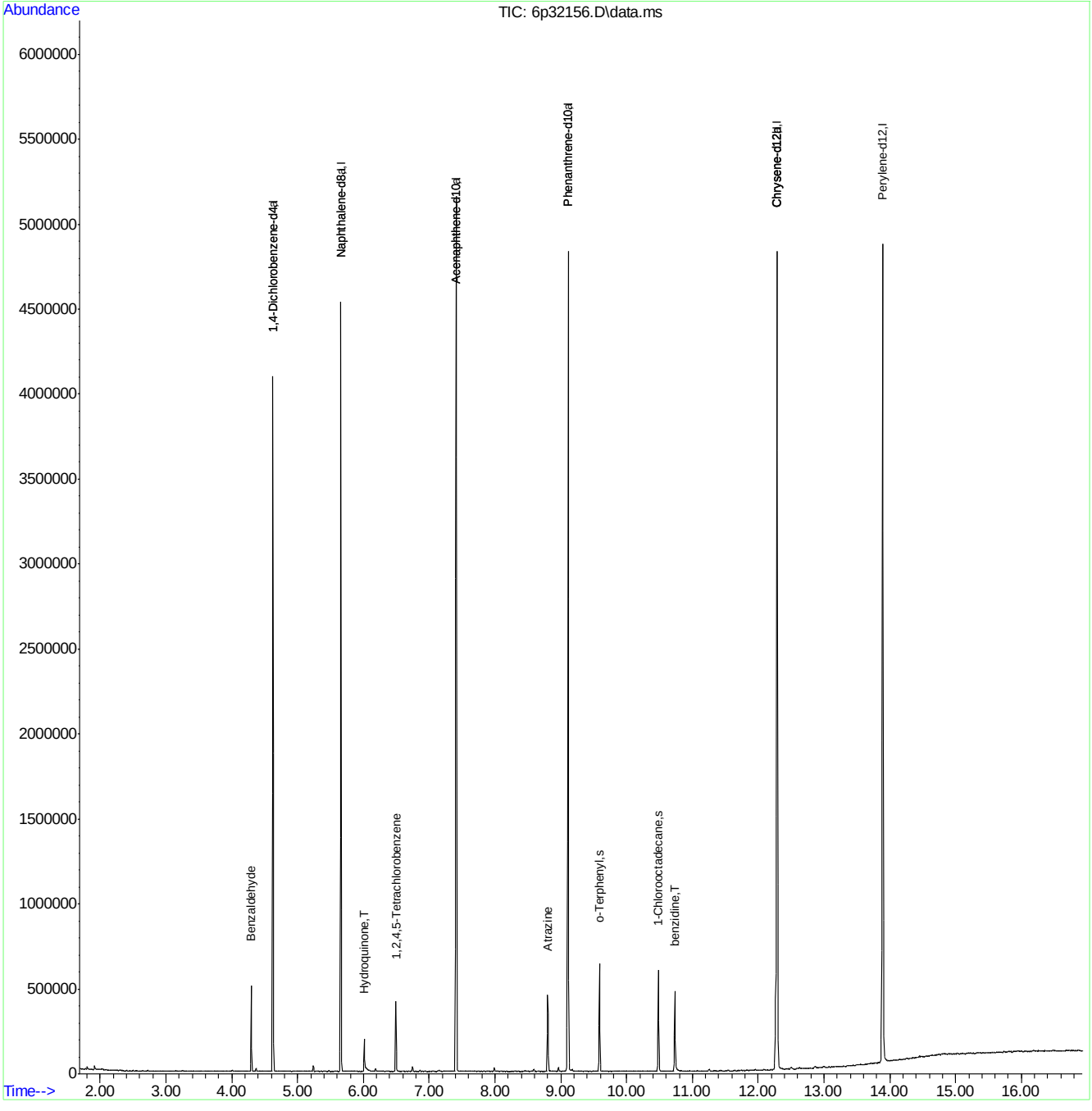
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32156.D
Acq On : 18 Nov 2016 7:14 pm
Operator : ariellec
Sample : ic1489-5
Misc : op98528,e6p1489
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 21 07:34:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:28:03 2016
QLast Update : Mon Nov 21 07:28:03 2016
Response via : Initial Calibration



M6P1488.M Mon Nov 21 07:34:51 2016 ACLIMS Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32157.D
Acq On : 18 Nov 2016 7:39 pm
Operator : ariellec
Sample : ic1489-2
Misc : op98528,e6p1489
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 07:34:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:31:39 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

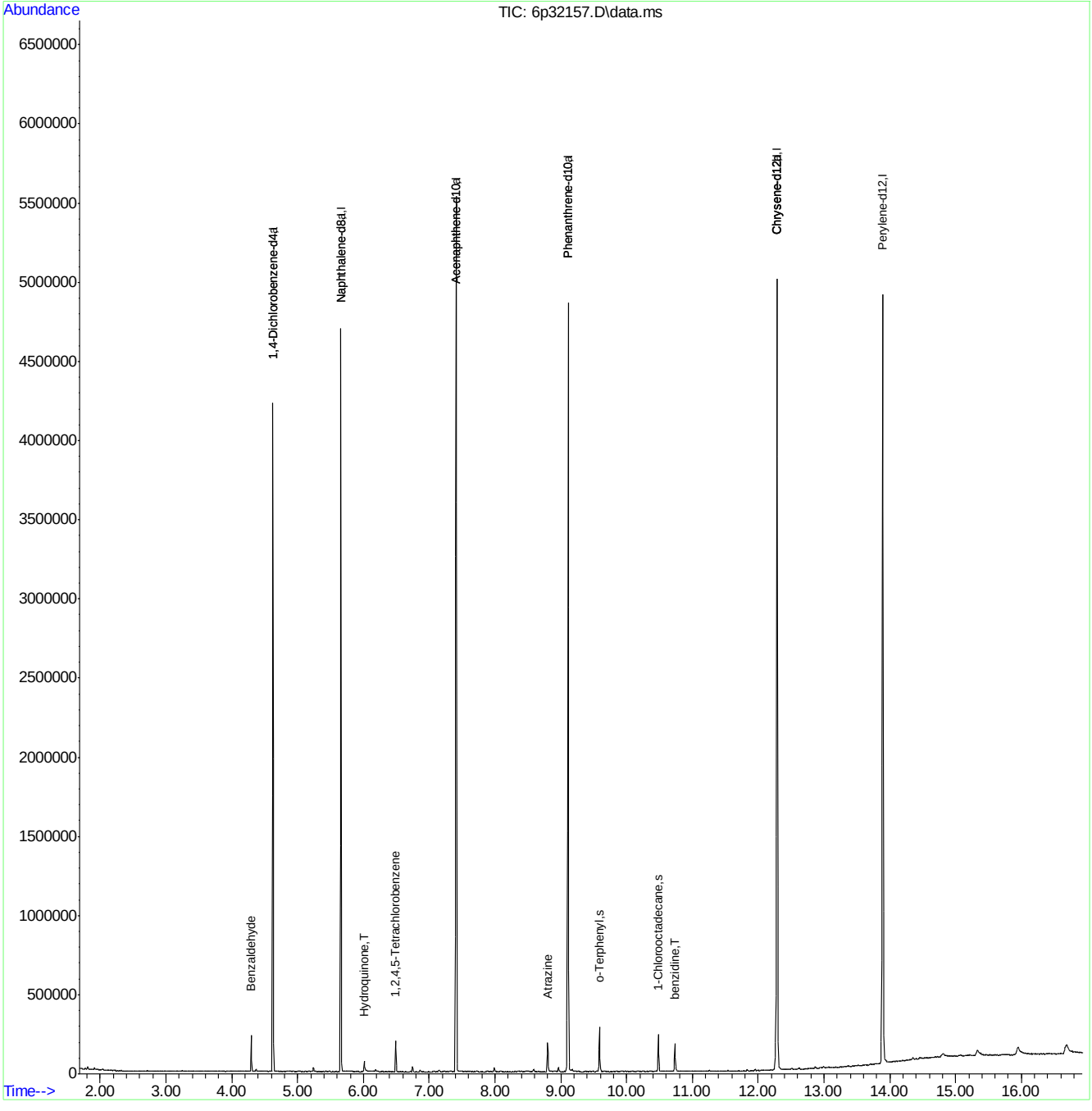
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	457444	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1896508	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1105551	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1729308	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1707755	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1711382	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	457444	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1105551	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1729308	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1707755	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1896508	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1707755	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.587	230	53244	2.14	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.28%	
108) 1-Chlorooctadecane	10.485	57	28162	2.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	4.00%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	32600	2.20	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.490	216	27250	2.15	ppm	99
106) Atrazine	8.801	215	10279	2.13	ppm	98
110) benzidine	10.737	184	76136	2.12	ppm	97
112) Hydroquinone	6.014	110	32620	1.78	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32157.D
Acq On : 18 Nov 2016 7:39 pm
Operator : ariellec
Sample : ic1489-2
Misc : op98528,e6p1489
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 07:34:21 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:31:39 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



M6P1488.M Mon Nov 21 07:34:23 2016 ACLIMS Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32158.D
Acq On : 18 Nov 2016 8:04 pm
Operator : ariellec
Sample : ic1489-1
Misc : op98528,e6p1489
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 21 07:32:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:30:59 2016
QLast Update : Mon Nov 21 07:31:39 2016
Response via : Initial Calibration

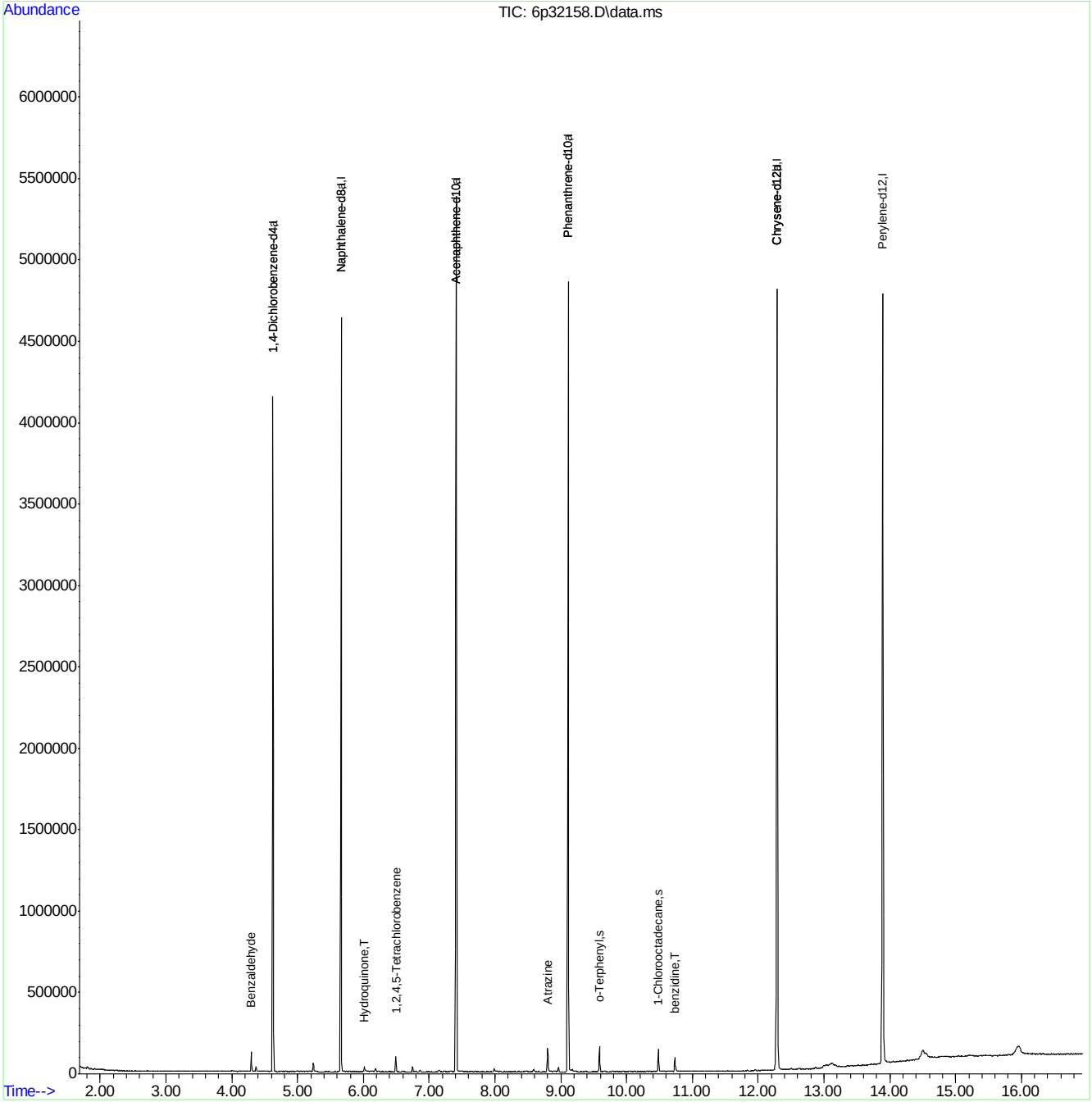
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	457216	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1869508	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	1073987	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1657435	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1624481	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1632526	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	457216	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	1073987	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1657435	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1624481	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1869508	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1624481	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	9.587	230	30357	1.28	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.56%	
108) 1-Chlorooctadecane	10.485	57	17168	1.27	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.54%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	17209	1.16	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.495	216	14424	1.17	ppm	97
106) Atrazine	8.800	215	7507	1.51	ppm	81
110) benzidine	10.737	184	39036	1.14	ppm	98
112) Hydroquinone	6.014	110	15211	0.84	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32158.D
Acq On : 18 Nov 2016 8:04 pm
Operator : ariellec
Sample : ic1489-1
Misc : op98528,e6p1489
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 21 07:32:58 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:30:59 2016
QLast Update : Mon Nov 21 07:31:39 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32159.D
Acq On : 18 Nov 2016 8:29 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1489
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:44:08 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	429866	40.00	ppm	0.00
24) Naphthalene-d8	5.661	136	1733894	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	984889	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1518470	40.00	ppm	0.00
83) Chrysene-d12	12.293	240	1421083	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1328799	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	429866	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	984889	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1518470	40.00	ppm	0.00
109) Chrysene-d12a	12.293	240	1421083	40.00	ppm	0.00
111) Naphthalene-d8a	5.661	136	1733894	40.00	ppm	0.00
113) Chrysene-d12b	12.293	240	1421083	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.452	74	450372	38.36	ppm	100
11) bis(2-Chloroethyl)ether	4.425	93	851865	50.65	ppm	99
14) 1,3-Dichlorobenzene	4.586	146	880890	49.01	ppm	99
15) 1,4-Dichlorobenzene	4.639	146	897472	49.02	ppm	99
17) 1,2-Dichlorobenzene	4.757	146	853767	49.30	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.832	121	295763	49.00	ppm	98
22) n-Nitroso-di-n-propyla...	4.933	70	585830	44.97	ppm	97
23) Hexachloroethane	5.019	201	247836	48.98	ppm	89
26) Nitrobenzene	5.067	77	813145	45.35	ppm	98
28) Isophorone	5.260	82	1509699	44.88	ppm	97
32) bis(2-Chloroethoxy)met...	5.441	93	1007181	51.33	ppm	99
36) 1,2,4-Trichlorobenzene	5.613	180	649617	50.68	ppm	98
38) Naphthalene	5.677	128	2336064	46.97	ppm	100
42) Hexachlorobutadiene	5.794	225	322205	50.68	ppm	97
48) Hexachlorocyclopentadiene	6.490	237	313964	50.14	ppm	99
52) 2-Chloronaphthalene	6.816	162	1418578	50.31	ppm	99
55) Dimethylphthalate	7.126	163	1546535	47.31	ppm	100

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32159.D
Acq On : 18 Nov 2016 8:29 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1489
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:44:08 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56)	Acenaphthylene	7.255	152	2274078	48.20	ppm	100
57)	2,6-Dinitrotoluene	7.185	165	344808	48.43	ppm	97
59)	Acenaphthene	7.447	153	1419615	48.28	ppm	99
63)	2,4-Dinitrotoluene	7.624	165	449996	48.14	ppm	97
65)	Diethylphthalate	7.913	149	1545545	47.38	ppm	98
66)	Fluorene	8.025	166	1596875	48.32	ppm	99
67)	4-Chlorophenyl-phenyle...	8.036	204	676505	49.80	ppm	96
71)	n-Nitrosodiphenylamine	8.169	169	1125762	46.55	ppm	99
72)	1,2-Diphenylhydrazine	8.212	77	1645377	47.53	ppm	98
74)	4-Bromophenyl-phenylether	8.597	248	434705	52.39	ppm	94
75)	Hexachlorobenzene	8.672	284	488013	51.59	ppm	97
77)	Phenanthrene	9.137	178	2185089	47.39	ppm	99
78)	Anthracene	9.202	178	2225992	48.06	ppm	100
80)	Di-n-butylphthalate	9.859	149	2589169	47.49	ppm	99
81)	Fluoranthene	10.560	202	2129954	47.75	ppm	99
84)	Pyrene	10.828	202	2219287	48.96	ppm	99
86)	Butylbenzylphthalate	11.662	149	1151409	49.27	ppm	99
87)	Benzo[a]anthracene	12.282	228	1949821	46.52	ppm	100
89)	Chrysene	12.325	228	1876303	46.06	ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.379	149	1559279	47.73	ppm	99
92)	Di-n-octylphthalate	13.122	149	2646176	49.31	ppm	100
93)	Benzo[b]fluoranthene	13.496	252	1977348	45.73	ppm	96
94)	Benzo[k]fluoranthene	13.529	252	1956834	50.26	ppm	100
95)	Benzo[a]pyrene	13.833	252	1849690	49.22	ppm	98
96)	Indeno[1,2,3-cd]pyrene	15.048	276	2241380	47.71	ppm	97
98)	Dibenz[a,h]anthracene	15.069	278	1906729	47.65	ppm	99
100)	Benzo[g,h,i]perylene	15.374	276	1882372	47.64	ppm	99

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

9.6.48

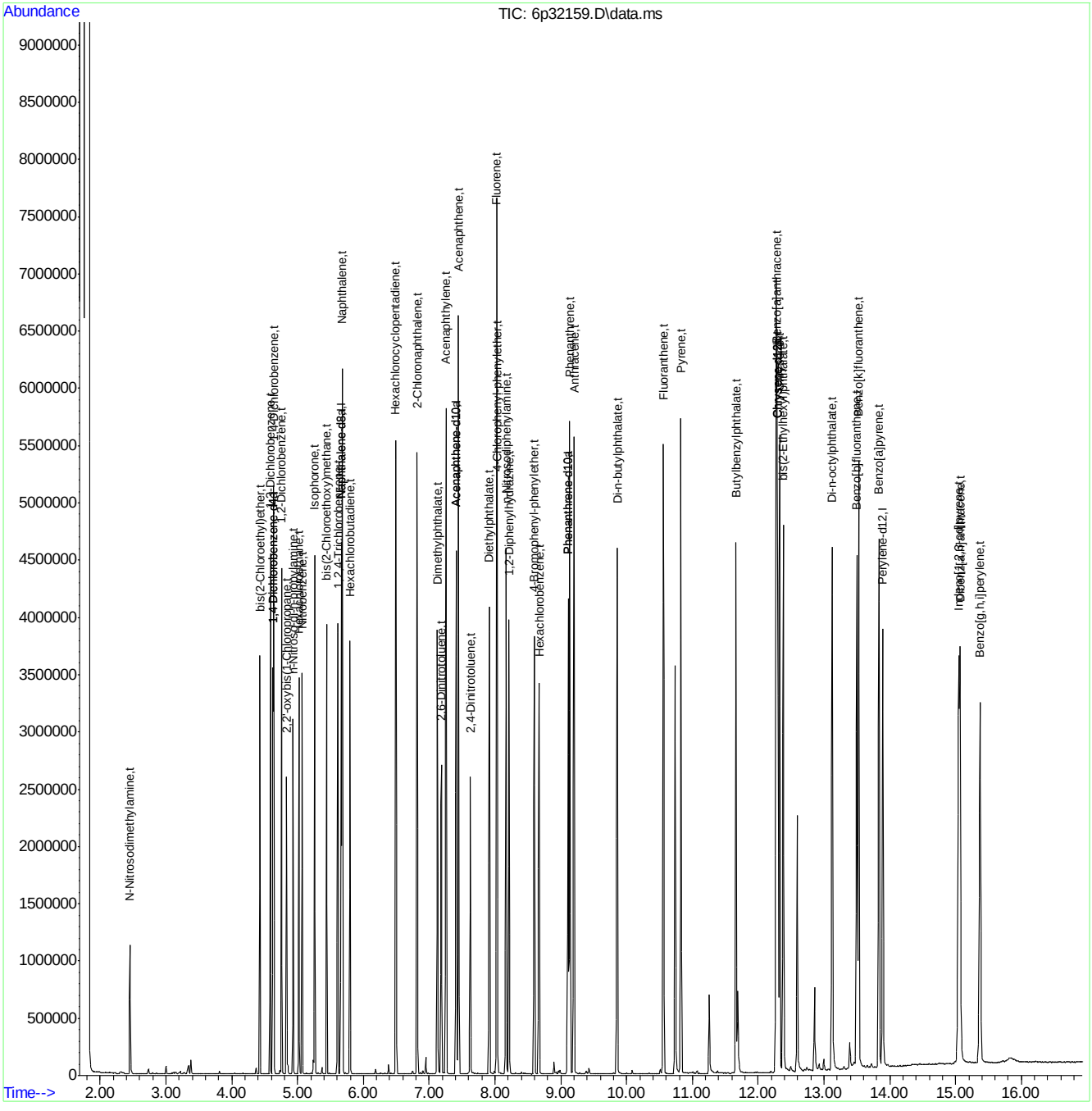
6

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32159.D
Acq On : 18 Nov 2016 8:29 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1489
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:44:08 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32159a.D
Acq On : 18 Nov 2016 8:29 pm
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1489
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:49:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.623	152	429866	40.00 ppm	0.00
24) Naphthalene-d8	5.661	136	1733894	40.00 ppm	0.00
47) Acenaphthene-d10	7.410	164	984889	40.00 ppm	0.00
69) Phenanthrene-d10	9.111	188	1518470	40.00 ppm	0.00
83) Chrysene-d12	12.293	240	1421083	40.00 ppm	0.00
91) Perylene-d12	13.892	264	1328799	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	429866	40.00 ppm	0.00
103) Acenaphthene-d10a	7.410	164	984889	40.00 ppm	0.00
105) Phenanthrene-d10a	9.111	188	1518470	40.00 ppm	0.00
109) Chrysene-d12a	12.293	240	1421083	40.00 ppm	0.00
111) Naphthalene-d8a	5.661	136	1733894	40.00 ppm	0.00
113) Chrysene-d12b	12.293	240	1421083	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
104) 1,2,4,5-Tetrachloroben...	6.495	216	595480	52.78 ppm	100

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

9.6.49

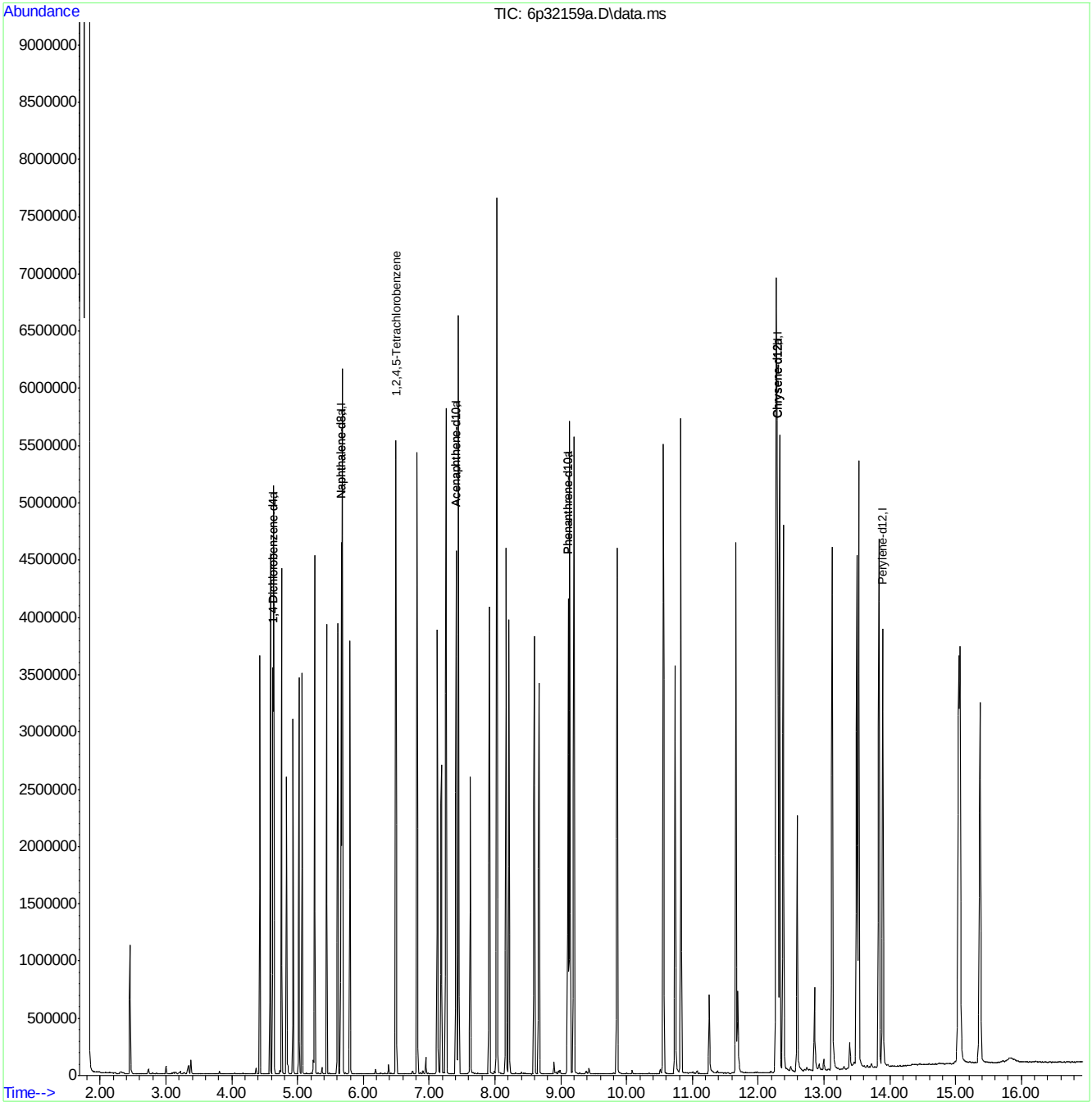
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32159a.D
Acq On : 18 Nov 2016 8:29 pm
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1489
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 21 07:49:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32161.D
Acq On : 18 Nov 2016 9:18 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1489
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 21 07:45:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

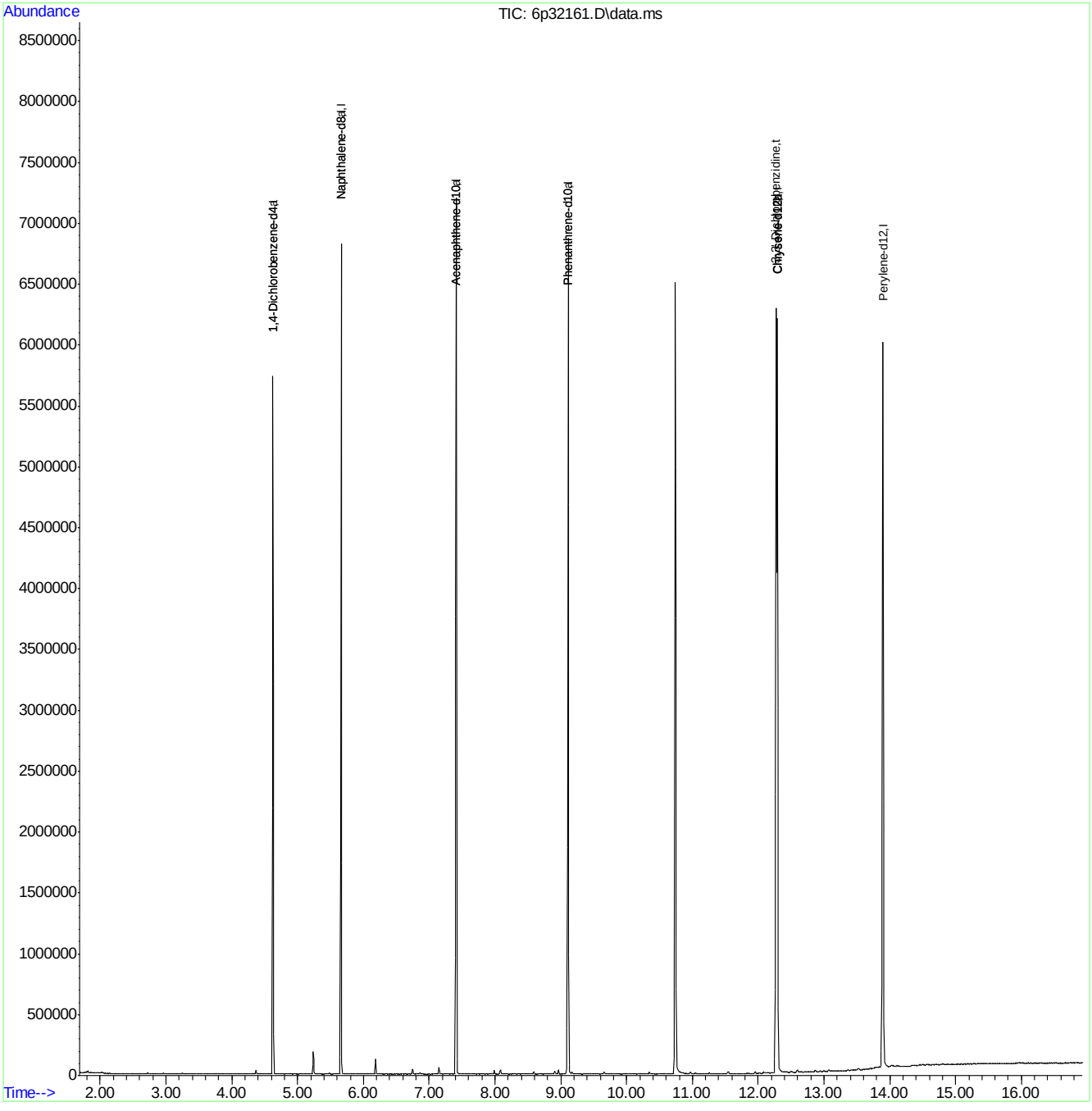
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.623	152	642138	40.00 ppm	0.00
24) Naphthalene-d8	5.661	136	2640837	40.00 ppm	0.00
47) Acenaphthene-d10	7.410	164	1554768	40.00 ppm	0.00
69) Phenanthrene-d10	9.111	188	2408390	40.00 ppm	0.00
83) Chrysene-d12	12.293	240	2308196	40.00 ppm	0.00
91) Perylene-d12	13.898	264	2278596	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	642138	40.00 ppm	0.00
103) Acenaphthene-d10a	7.410	164	1554768	40.00 ppm	0.00
105) Phenanthrene-d10a	9.111	188	2408390	40.00 ppm	0.00
109) Chrysene-d12a	12.293	240	2308196	40.00 ppm	0.00
111) Naphthalene-d8a	5.661	136	2640837	40.00 ppm	0.00
113) Chrysene-d12b	12.293	240	2308196	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
88) 3,3'-Dichlorobenzidine	12.272	252	1291202	48.04 ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32161.D
Acq On : 18 Nov 2016 9:18 pm
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1489
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 21 07:45:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32161a.D
Acq On : 18 Nov 2016 9:18 pm
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1489
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 21 07:44:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.623	152	642138	40.00 ppm	0.00
24) Naphthalene-d8	5.661	136	2640837	40.00 ppm	0.00
47) Acenaphthene-d10	7.410	164	1554768	40.00 ppm	0.00
69) Phenanthrene-d10	9.111	188	2408390	40.00 ppm	0.00
83) Chrysene-d12	12.293	240	2308196	40.00 ppm	0.00
91) Perylene-d12	13.898	264	2278596	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	642138	40.00 ppm	0.00
103) Acenaphthene-d10a	7.410	164	1554768	40.00 ppm	0.00
105) Phenanthrene-d10a	9.111	188	2408390	40.00 ppm	0.00
109) Chrysene-d12a	12.293	240	2308196	40.00 ppm	0.00
111) Naphthalene-d8a	5.661	136	2640837	40.00 ppm	0.00
113) Chrysene-d12b	12.293	240	2308196	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
110) benzidine	10.742	184	2544738	52.41 ppm	99

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

9.6.51

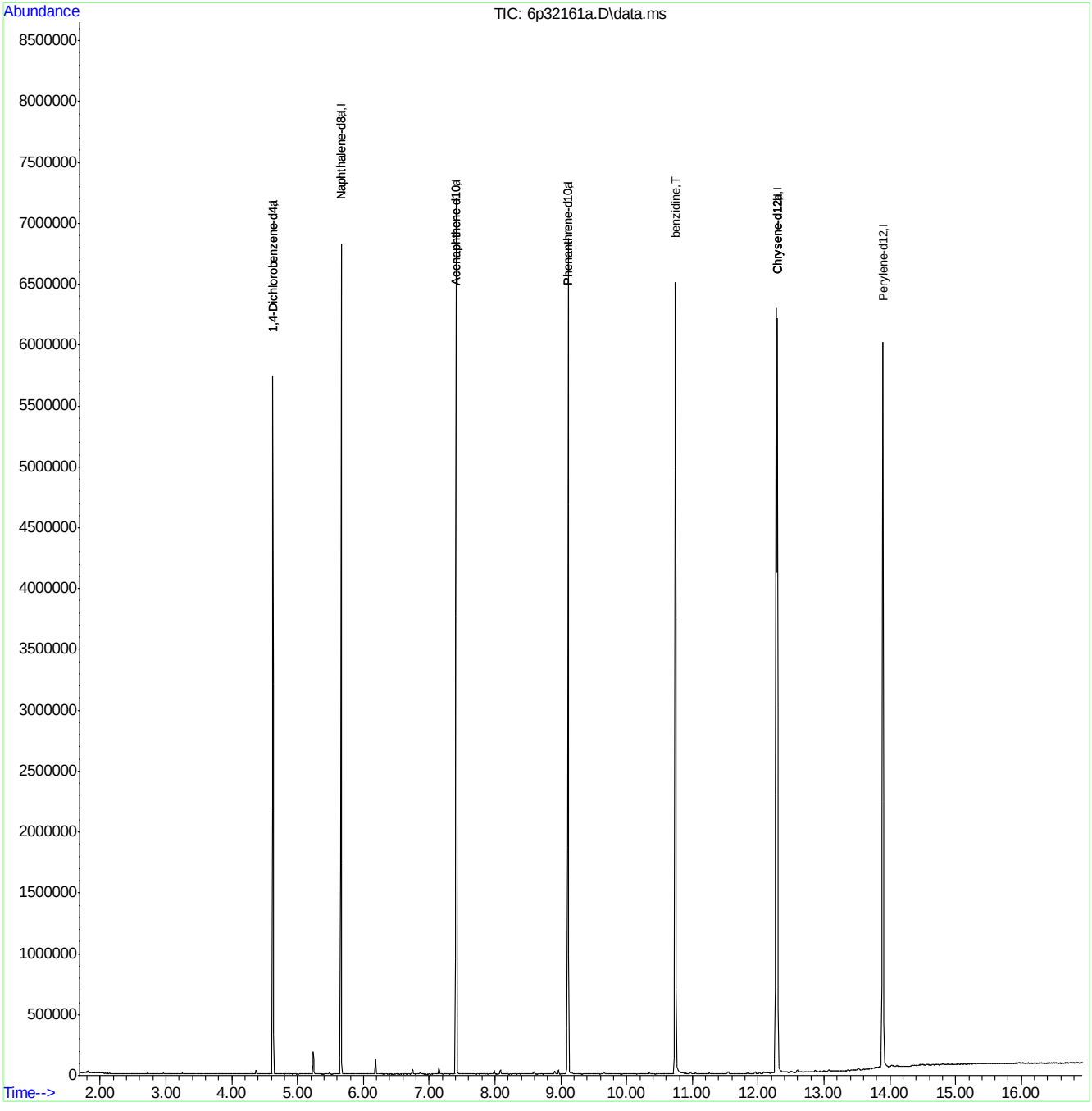
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32161a.D
Acq On : 18 Nov 2016 9:18 pm
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1489
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 21 07:44:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32162.D
Acq On : 18 Nov 2016 9:43 pm
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1489
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 21 07:46:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.623	152	415480	40.00 ppm	0.00
24) Naphthalene-d8	5.656	136	1672307	40.00 ppm	0.00
47) Acenaphthene-d10	7.410	164	925549	40.00 ppm	0.00
69) Phenanthrene-d10	9.111	188	1434302	40.00 ppm	0.00
83) Chrysene-d12	12.288	240	1420580	40.00 ppm	0.00
91) Perylene-d12	13.892	264	1428120	40.00 ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	415480	40.00 ppm	0.00
103) Acenaphthene-d10a	7.410	164	925549	40.00 ppm	0.00
105) Phenanthrene-d10a	9.111	188	1434302	40.00 ppm	0.00
109) Chrysene-d12a	12.288	240	1420580	40.00 ppm	0.00
111) Naphthalene-d8a	5.656	136	1672307	40.00 ppm	0.00
113) Chrysene-d12b	12.288	240	1420580	40.00 ppm	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	0.000	112	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
8) Phenol-d5	0.000	99	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
107) o-Terphenyl	0.000	230	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00 ppm	
Spiked Amount 50.000			Recovery	= 0.00%	
Target Compounds					Qvalue
112) Hydroquinone	6.025	110	990140	61.11 ppm	99

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

9.6.52

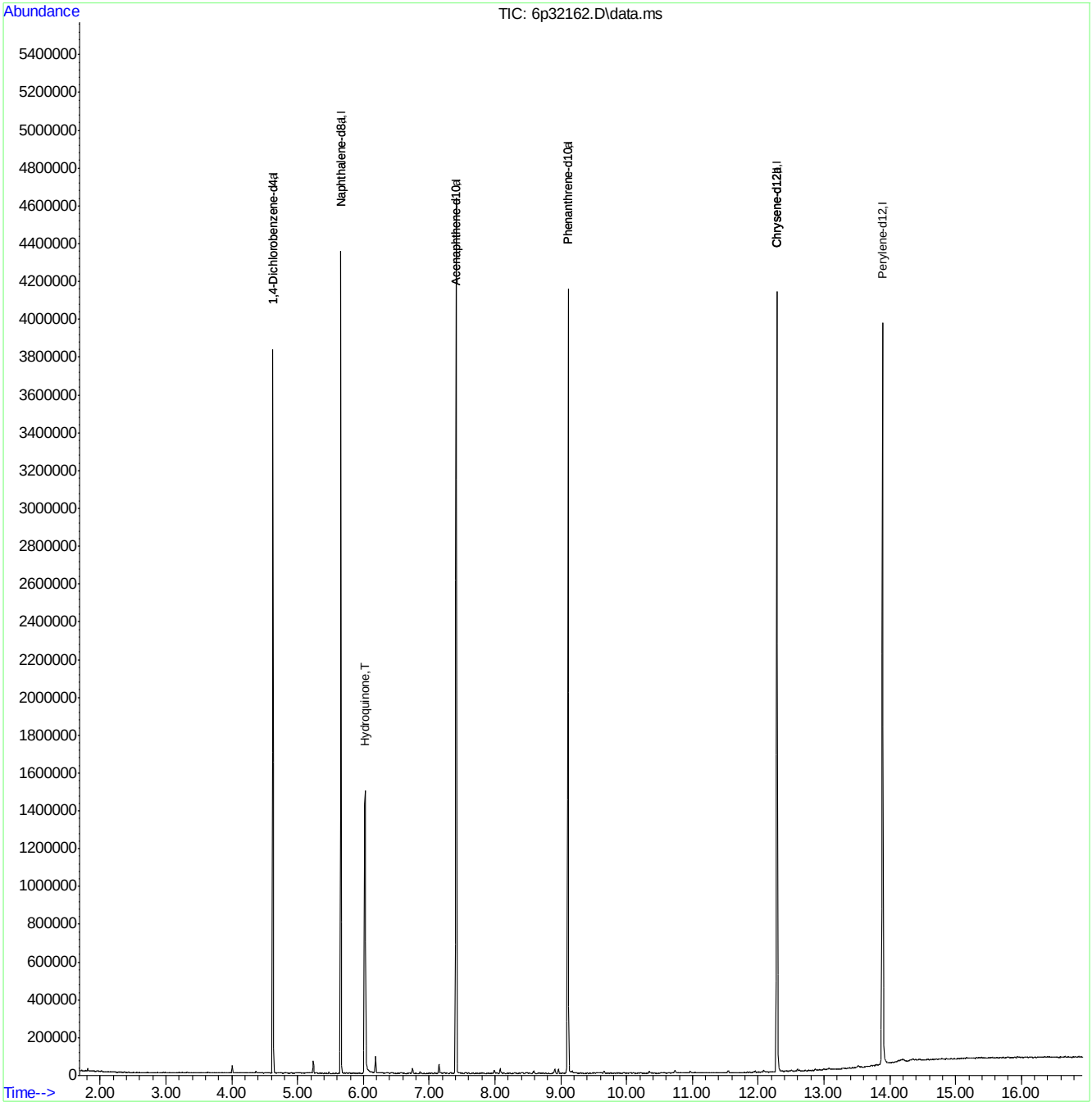
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1489\
Data File : 6p32162.D
Acq On : 18 Nov 2016 9:43 pm
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1489
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 21 07:46:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



M6P1488.M Mon Nov 21 07:46:47 2016 ACLIMS Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32164a.D
Acq On : 21 Nov 2016 8:24 am
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1490
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 08:45:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	423290	40.00	ppm	0.00
24) Naphthalene-d8	5.656	136	1713531	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	976419	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1509767	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1442644	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1419180	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	423290	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	976419	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1509767	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1442644	40.00	ppm	0.00
111) Naphthalene-d8a	5.656	136	1713531	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1442644	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
102) Benzaldehyde	4.297	105	560117	40.94	ppm	100
106) Atrazine	8.811	215	208947	49.69	ppm	97

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

9.6.53

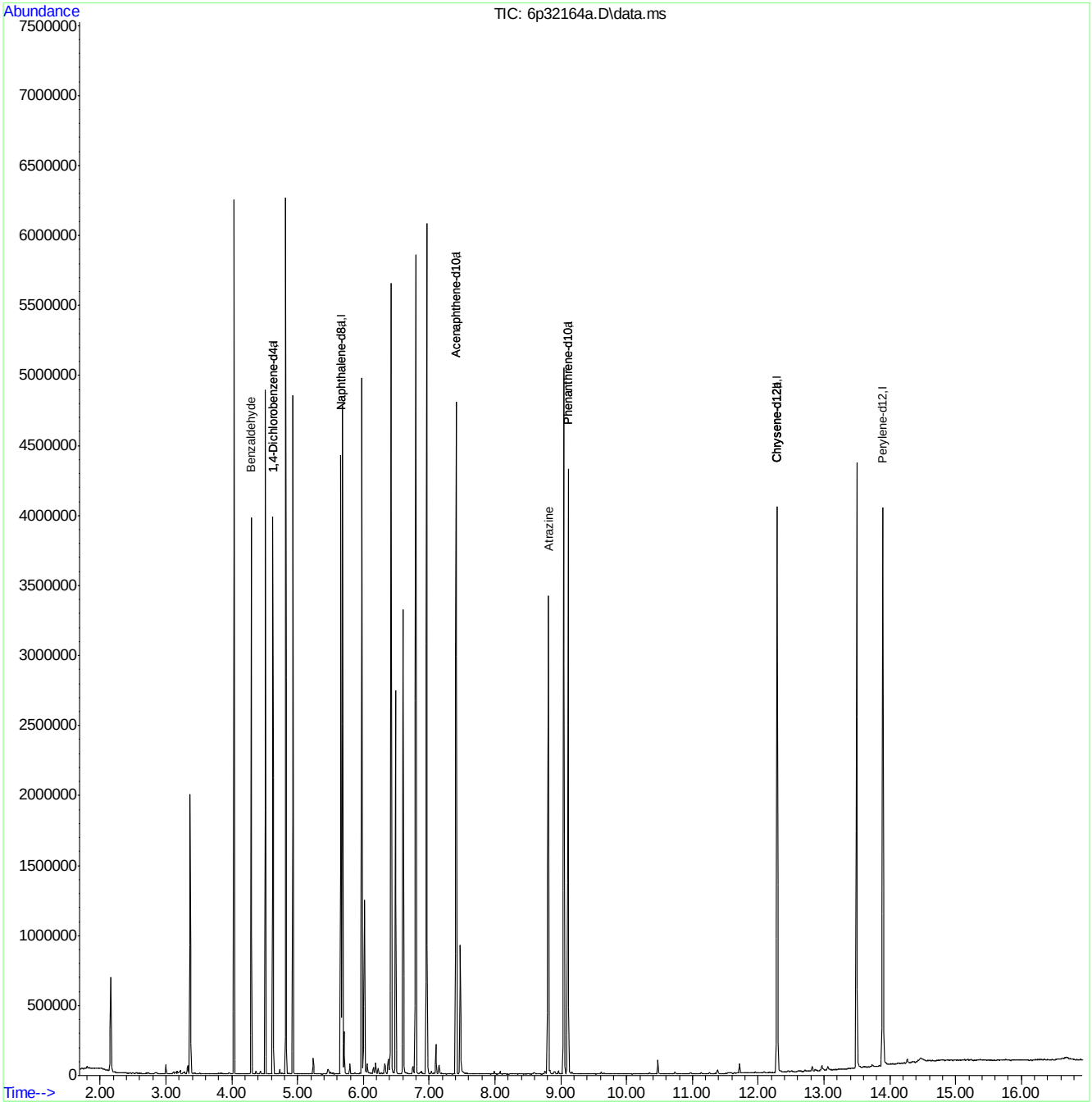
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32164a.D
Acq On : 21 Nov 2016 8:24 am
Operator : ariellec
Sample : icv1489-50
Misc : op98528,e6p1490
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 08:45:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



M6P1488.M Mon Nov 21 08:45:06 2016 ACLIMS Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32164.D
Acq On : 21 Nov 2016 8:24 am
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1490
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 08:45:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.623	152	423290	40.00	ppm	0.00
24) Naphthalene-d8	5.656	136	1713531	40.00	ppm	0.00
47) Acenaphthene-d10	7.410	164	976419	40.00	ppm	0.00
69) Phenanthrene-d10	9.111	188	1509767	40.00	ppm	0.00
83) Chrysene-d12	12.288	240	1442644	40.00	ppm	0.00
91) Perylene-d12	13.892	264	1419180	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.623	152	423290	40.00	ppm	0.00
103) Acenaphthene-d10a	7.410	164	976419	40.00	ppm	0.00
105) Phenanthrene-d10a	9.111	188	1509767	40.00	ppm	0.00
109) Chrysene-d12a	12.288	240	1442644	40.00	ppm	0.00
111) Naphthalene-d8a	5.656	136	1713531	40.00	ppm	0.00
113) Chrysene-d12b	12.288	240	1442644	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
107) o-Terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.158	88	302858	43.06	ppm	98
6) Indene	4.821	116	1364606	47.65	ppm	99
7) Cumene	4.035	105	1778482	44.13	ppm	100
13) Decane	4.511	43	507539	41.95	ppm	99
18) Acetophenone	4.928	105	1044920	45.32	ppm	85
27) Quinoline	5.976	129	1515903	44.62	ppm	100
40) 2,3-Dichloroaniline	6.602	161	675495	42.84	ppm	98
41) Caprolactam	6.019	55	219191	35.37	ppm	99
45) 1-Methylnaphthalene	6.420	141	1204288	43.01	ppm	99
46) Dimethylnaphthalene	6.961	156	1286839	45.27	ppm	98
53) Biphenyl	6.795	154	1724661	45.53	ppm	99
82) Octadecane	9.047	57	818479	44.55	ppm	98
99) 7,12-Dimethylbenz(a)an...	13.497	256	910637	47.24	ppm	99

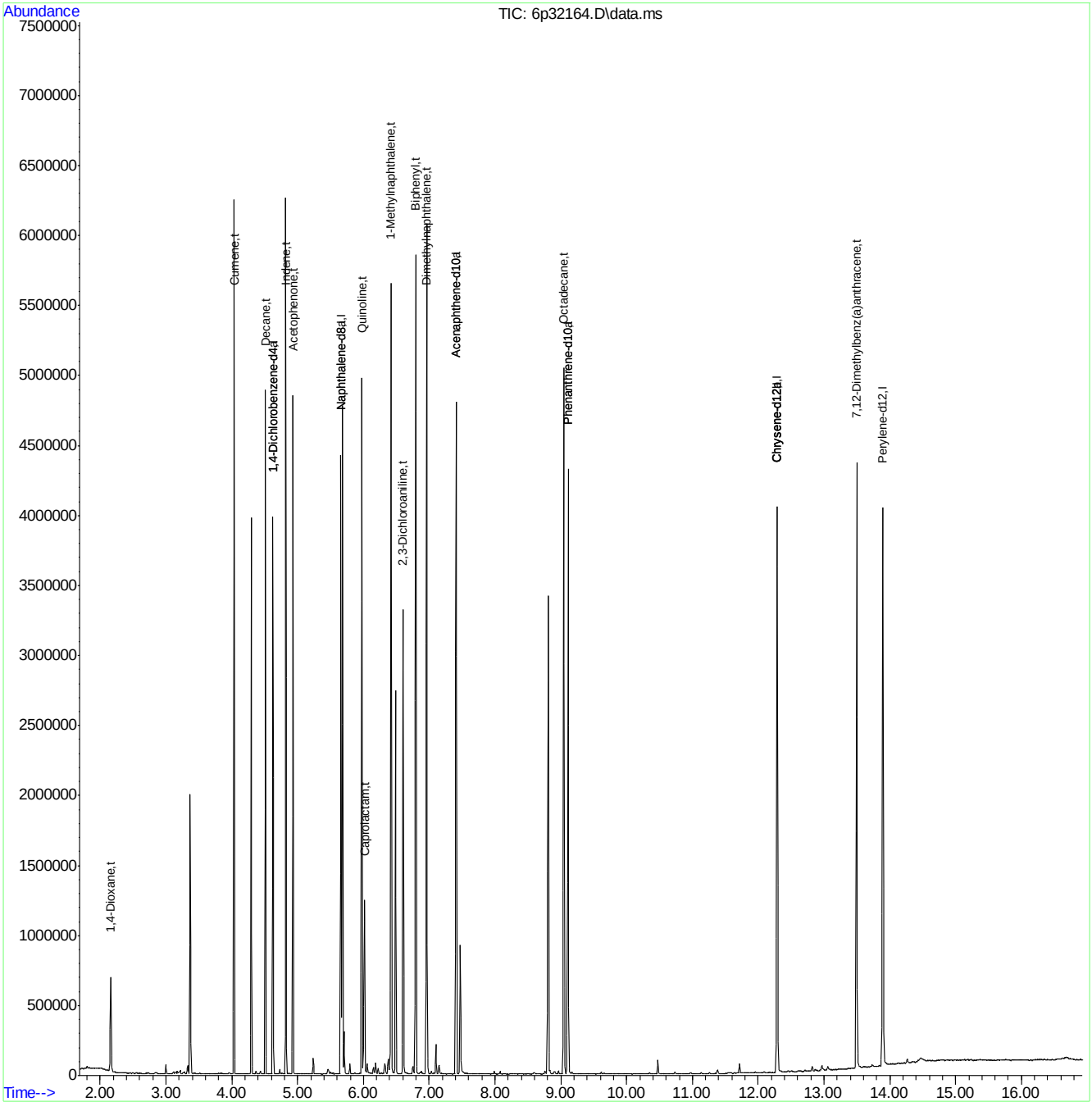
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\e6p1490\
Data File : 6p32164.D
Acq On : 21 Nov 2016 8:24 am
Operator : ariellec
Sample : icv1488-50
Misc : op98528,e6p1490
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 21 08:45:47 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Nov 21 07:32:11 2016
QLast Update : Mon Nov 21 07:32:11 2016
Response via : Initial Calibration



M6P1488.M Mon Nov 21 08:45:49 2016 ACLIMS Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33008.D
Acq On : 14 Dec 2016 10:42 pm
Operator : chriss2
Sample : cc1488-50
Misc : op99188,e6p1523
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 06:56:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	472242	40.00	ppm	-0.03
24) Naphthalene-d8	5.500	136	1916364	40.00	ppm	-0.03
47) Acenaphthene-d10	7.228	164	1119617	40.00	ppm	-0.03
69) Phenanthrene-d10	8.918	188	1833770	40.00	ppm	-0.03
83) Chrysene-d12	12.085	240	1916845	40.00	ppm	-0.03
91) Perylene-d12	13.678	264	1884629	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.484	152	472242	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.228	164	1119617	40.00	ppm	-0.03
105) Phenanthrene-d10a	8.918	188	1833770	40.00	ppm	-0.03
107) Chrysene-d12a	12.085	240	1916845	40.00	ppm	-0.03
109) Naphthalene-d8a	5.500	136	1916364	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.521	112	910142	49.22	ppm	-0.03
Spiked Amount 50.000			Recovery = 98.44%			
8) Phenol-d5	4.260	99	1217374	48.50	ppm	0.03
Spiked Amount 50.000			Recovery = 97.00%			
25) Nitrobenzene-d5	4.912	82	1155666	56.11	ppm	-0.03
Spiked Amount 50.000			Recovery = 112.22%			
51) 2-Fluorobiphenyl	6.522	172	1829571	48.47	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.94%			
73) 2,4,6-Tribromophenol	8.116	330	301915	51.40	ppm	-0.04
Spiked Amount 50.000			Recovery = 102.80%			
85) Terphenyl-d14	10.844	244	1802773	45.96	ppm	-0.04
Spiked Amount 50.000			Recovery = 91.92%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.965	88	417553	53.21	ppm	96
3) Pyridine	2.313	79	1074460	52.41	ppm	97
4) N-Nitrosodimethylamine	2.281	74	680749	52.78	ppm	97
6) Indene	4.677	116	1554413	48.65	ppm	99
7) Cumene	3.890	105	2283673	50.79	ppm	96
9) Phenol	4.270	94	1354511	51.09	ppm	100
10) Aniline	4.249	93	1309848	43.27	ppm	99
11) bis(2-Chloroethyl)ether	4.292	93	928640	50.26	ppm	93
12) 2-Chlorophenol	4.345	128	893115	45.65	ppm	93
13) Decane	4.372	43	713526	52.87	ppm	99
14) 1,3-Dichlorobenzene	4.441	146	884380	44.79	ppm	96
15) 1,4-Dichlorobenzene	4.500	146	897902	44.64	ppm	98
16) Benzyl alcohol	4.602	108	621658	48.14	ppm	89
17) 1,2-Dichlorobenzene	4.612	146	858722	45.14	ppm	99
18) Acetophenone	4.789	105	1293601	50.29	ppm	92
19) 2-Methylphenol	4.703	108	831022	47.43	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.693	121	321011	48.41	ppm #	84
21) 3&4-Methylphenol	4.821	108	909485	49.73	ppm	98
22) n-Nitroso-di-n-propyla...	4.800	70	803388	56.14	ppm	96
23) Hexachloroethane	4.869	201	282317	50.79	ppm	91
26) Nitrobenzene	4.923	77	1101314	55.57	ppm	83
27) Quinoline	5.821	129	1751854	46.11	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33008.D
Acq On : 14 Dec 2016 10:42 pm
Operator : chriss2
Sample : cc1488-50
Misc : op99188,e6p1523
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 06:56:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Isophorone	5.115	82	1977724	53.20	ppm		95
29) 2-Nitrophenol	5.185	139	473666	46.64	ppm	#	60
30) 2,4-Dimethylphenol	5.233	107	892702	53.36	ppm		92
31) Benzoic acid	5.356	105	789743	61.44	ppm		94
32) bis(2-Chloroethoxy)met...	5.292	93	1111904	51.27	ppm		97
33) 2,4-Dichlorophenol	5.399	162	661008	47.19	ppm		97
34) 2,6-Dichlorophenol	5.586	162	657081	48.25	ppm		97
35) 1,3,5-Trichlorobenzene	5.190	180	733216	49.21	ppm		99
36) 1,2,4-Trichlorobenzene	5.452	180	679990	48.00	ppm		100
37) 1,2,3-Trichlorobenzene	5.650	180	688695	48.39	ppm		98
38) Naphthalene	5.522	128	2588188	47.08	ppm		98
39) 4-Chloroaniline	5.575	127	1057164	44.10	ppm		95
40) 2,3-Dichloroaniline	6.442	161	828373	46.97	ppm		97
41) Caprolactam	5.907	55	368640	53.19	ppm		95
42) Hexachlorobutadiene	5.634	225	391643	55.74	ppm		99
43) 4-Chloro-3-methylphenol	6.046	107	857252	52.71	ppm		92
44) 2-Methylnaphthalene	6.153	141	1410423	46.43	ppm		96
45) 1-Methylnaphthalene	6.249	141	1446482	46.19	ppm		93
46) Dimethylnaphthalene	6.784	156	1529724	48.12	ppm		98
48) Hexachlorocyclopentadiene	6.313	237	853962	119.97	ppm		99
49) 2,4,6-Trichlorophenol	6.447	196	466264	51.28	ppm		97
50) 2,4,5-Trichlorophenol	6.495	196	496649	49.75	ppm		98
52) 2-Chloronaphthalene	6.640	162	1493157	46.59	ppm		97
53) Biphenyl	6.624	154	2071757	47.70	ppm		98
54) 2-Nitroaniline	6.757	65	630246	61.44	ppm	#	76
55) Dimethylphthalate	6.955	163	1770082	47.64	ppm		100
56) Acenaphthylene	7.073	152	2499823	46.61	ppm		99
57) 2,6-Dinitrotoluene	7.014	165	396577	49.00	ppm		77
58) 3-Nitroaniline	7.201	138	482881	44.53	ppm		77
59) Acenaphthene	7.265	153	1567099	46.88	ppm		99
60) 2,4-Dinitrophenol	7.314	184	497574	109.98	ppm		81
61) 4-Nitrophenol	7.442	109	325180	70.33	ppm		91
62) Dibenzofuran	7.453	168	2196172	48.60	ppm		88
63) 2,4-Dinitrotoluene	7.453	165	560878	52.78	ppm		82
64) 2,3,4,6-Tetrachlorophenol	7.608	232	382106	52.08	ppm		93
65) Diethylphthalate	7.736	149	1894285	51.09	ppm		98
66) Fluorene	7.838	166	1821312	48.48	ppm		99
67) 4-Chlorophenyl-phenyle...	7.848	204	809394	52.41	ppm		95
68) 4-Nitroaniline	7.886	138	488658	42.39	ppm		93
70) 4,6-Dinitro-2-methylph...	7.918	198	336252	55.19	ppm		85
71) n-Nitrosodiphenylamine	7.987	169	1323684	45.32	ppm		100
72) 1,2-Diphenylhydrazine	8.025	77	2265305	54.19	ppm		92
74) 4-Bromophenyl-phenylether	8.405	248	492464	49.15	ppm		92
75) Hexachlorobenzene	8.474	284	550820	48.22	ppm		89
76) Pentachlorophenol	8.720	266	622444	104.41	ppm		100
77) Phenanthrene	8.945	178	2497643	44.86	ppm		99
78) Anthracene	9.004	178	2555206	45.68	ppm		99
79) Carbazole	9.212	167	2515951	45.73	ppm		98
80) Di-n-butylphthalate	9.662	149	3179421	48.29	ppm		99
81) Fluoranthene	10.357	202	2675363	49.67	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33008.D
Acq On : 14 Dec 2016 10:42 pm
Operator : chriss2
Sample : cc1488-50
Misc : op99188,e6p1523
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 06:56:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
82) Octadecane	8.854	57	1219799	54.66 ppm	96
84) Pyrene	10.624	202	2782614	45.51 ppm	99
86) Butylbenzylphthalate	11.459	149	1479058	46.93 ppm	91
87) Benzo[a]anthracene	12.069	228	2639414	46.69 ppm	99
88) 3,3'-Dichlorobenzidine	12.069	252	1058884	47.44 ppm	98
89) Chrysene	12.117	228	2510480	45.69 ppm	99
90) bis(2-Ethylhexyl)phtha...	12.175	149	2079807	47.20 ppm	99
92) Di-n-octylphthalate	12.914	149	3576144	46.99 ppm	98
93) Benzo[b]fluoranthene	13.288	252	2895756	47.22 ppm	96
94) Benzo[k]fluoranthene	13.320	252	2671642	48.38 ppm	96
95) Benzo[a]pyrene	13.620	252	2507169	47.03 ppm	95
96) Indeno[1,2,3-cd]pyrene	14.770	276	3397336	50.99 ppm	91
97) Dibenz(a,h)acridine	14.518	279	2508576	50.09 ppm	99
98) Dibenz[a,h]anthracene	14.791	278	2933299	51.68 ppm	95
99) 7,12-Dimethylbenz(a)an...	13.283	256	1337062	52.23 ppm	99
100) Benzo[g,h,i]perylene	15.074	276	2797119	49.91 ppm	93

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

9.6.55

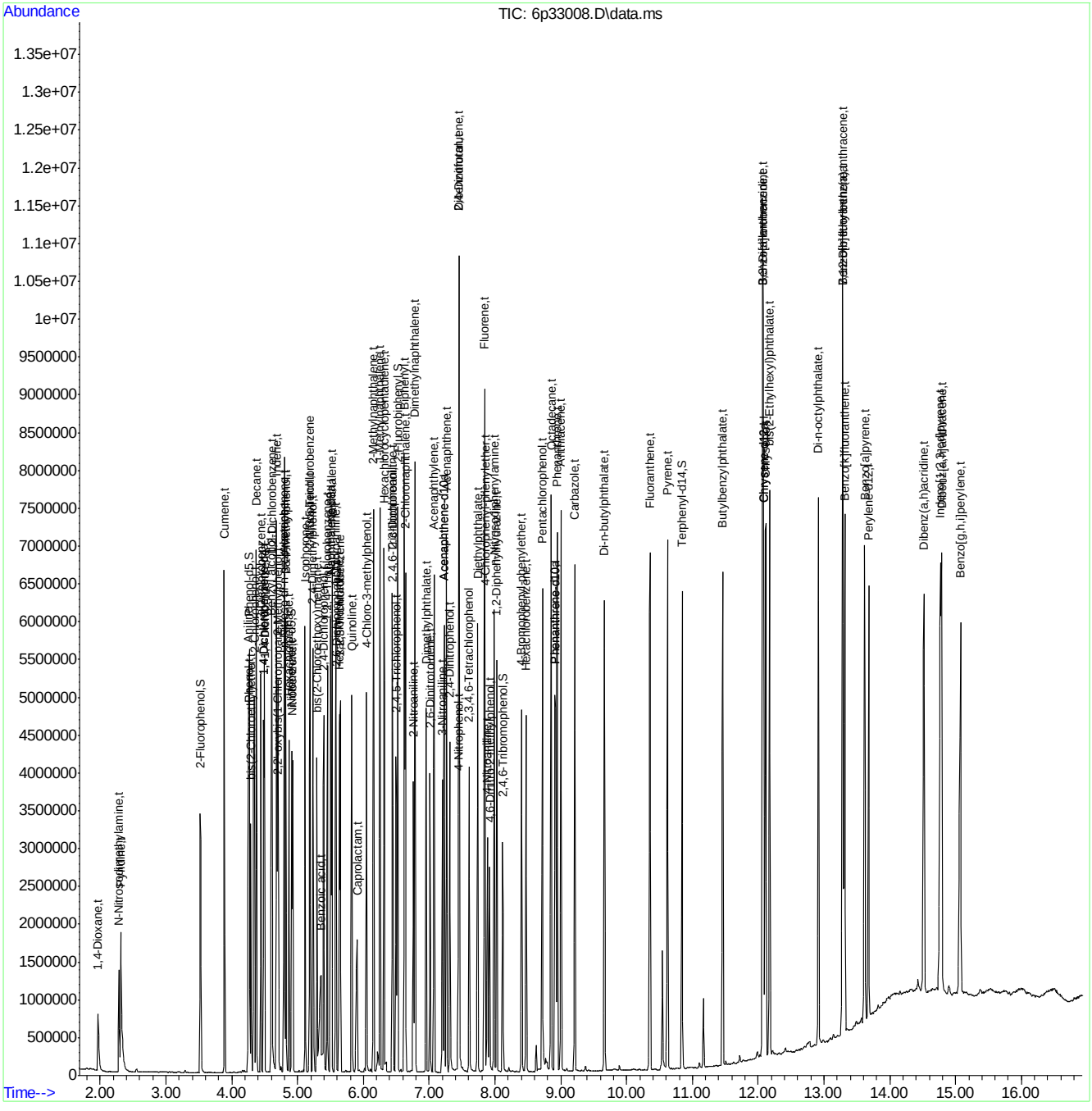
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33008.D
Acq On : 14 Dec 2016 10:42 pm
Operator : chriss2
Sample : cc1488-50
Misc : op99188,e6p1523
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 15 06:56:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



SGS 581 of 1109 ACCUTEST JC33175

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33009.D
Acq On : 14 Dec 2016 11:07 pm
Operator : chriss2
Sample : cc1489-50
Misc : op99188,e6p1523
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 15 07:55:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration

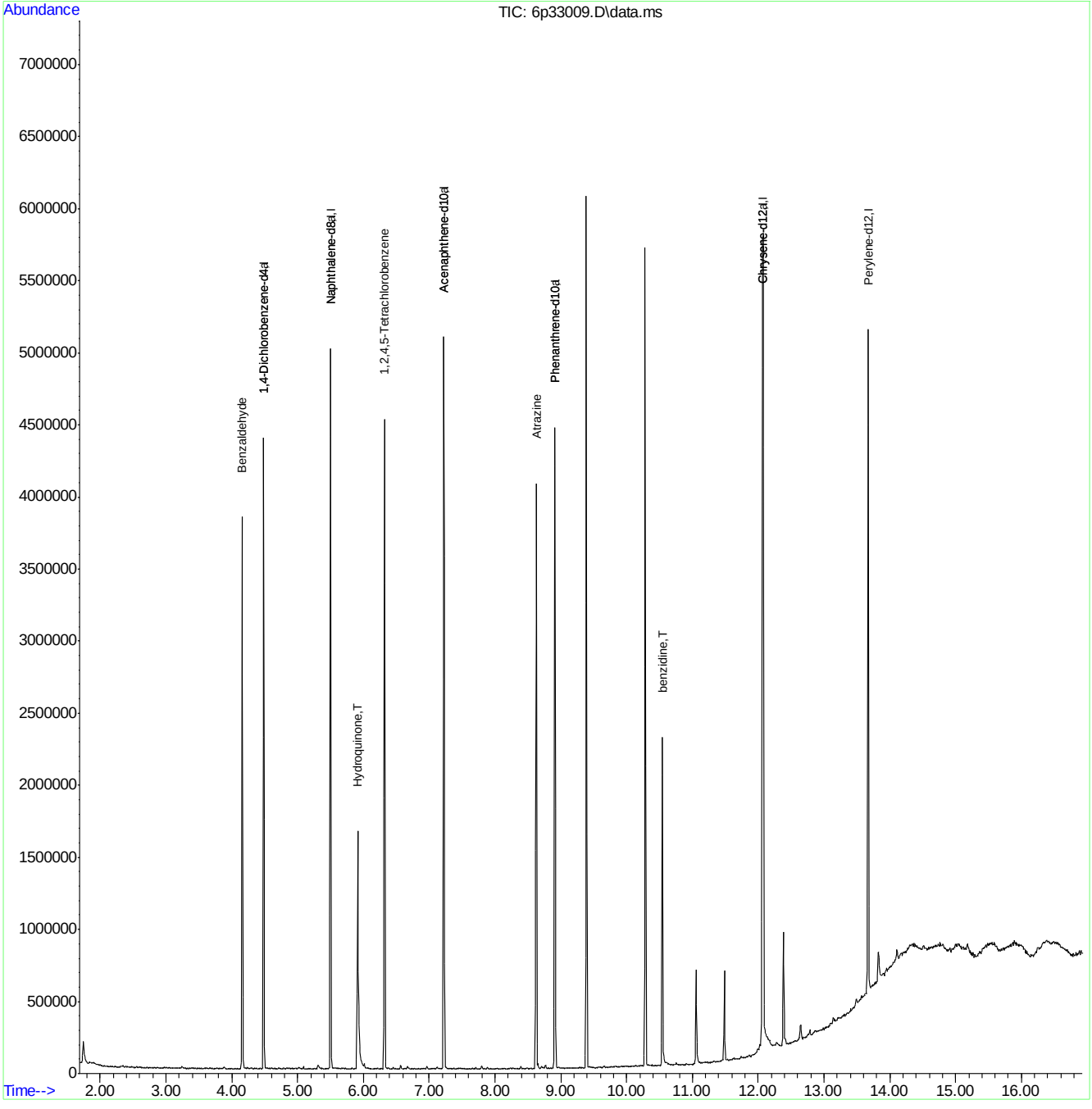
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	437266	40.00	ppm	-0.03
24) Naphthalene-d8	5.500	136	1735736	40.00	ppm	-0.03
47) Acenaphthene-d10	7.223	164	944767	40.00	ppm	-0.04
69) Phenanthrene-d10	8.913	188	1533316	40.00	ppm	-0.04
83) Chrysene-d12	12.074	240	1590006	40.00	ppm	-0.04
91) Perylene-d12	13.673	264	1601334	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.484	152	437266	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.223	164	944767	40.00	ppm	-0.04
105) Phenanthrene-d10a	8.913	188	1533316	40.00	ppm	-0.04
107) Chrysene-d12a	12.074	240	1590006	40.00	ppm	-0.04
109) Naphthalene-d8a	5.500	136	1735736	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
102) Benzaldehyde	4.158	105	543832	38.47	ppm	89
104) 1,2,4,5-Tetrachloroben...	6.319	216	598449	55.30	ppm	100
106) Atrazine	8.629	215	221984	51.98	ppm	91
108) benzidine	10.544	184	864006	25.83	ppm	99
110) Hydroquinone	5.912	110	854514	50.81	ppm	89

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E6P1523\
Data File : 6p33009.D
Acq On : 14 Dec 2016 11:07 pm
Operator : chriss2
Sample : cc1489-50
Misc : op99188,e6p1523
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 15 07:55:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M6P1488.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue Dec 13 08:19:32 2016
QLast Update : Tue Dec 13 08:19:32 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
12/01/16 09:56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129449.D
Acq On : 22 Nov 2016 9:46 am
Operator : ashleyd
Sample : ic5525-1
Misc : op98591,em5525
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 14:59:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:59:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.678	152	321516	40.00	ppm	-0.14
24) Naphthalene-d8	5.816	136	1296521	40.00	ppm	-0.16
47) Acenaphthene-d10	8.156	164	730758	40.00	ppm	-0.21
69) Phenanthrene-d10	10.779	188	1168960	40.00	ppm	-0.23
83) Chrysene-d12	15.956	240	1049000	40.00	ppm	-0.24
91) Perylene-d12	18.578	264	834901	40.00	ppm	-0.24
101) 1,4-Dichlorobenzene-d4a	4.678	152	321516	40.00	ppm	-0.14
103) Acenaphthene-d10a	8.156	164	730758	40.00	ppm	-0.21
106) Chrysene-d12a	15.956	240	1049000	40.00	ppm	-0.24
109) Phenanthrene-d10a	10.779	188	1168960	40.00	ppm	-0.23
111) Naphthalene-d8a	5.816	136	1296521	40.00	ppm	-0.16
113) Chrysene-d12b	15.956	240	1049000	40.00	ppm	-0.24
System Monitoring Compounds						
5) 2-Fluorophenol	3.717	112	9133	0.84	ppm	-0.12
Spiked Amount 50.000			Recovery	=	1.68%	
8) Phenol-d5	4.438	99	11879	0.87	ppm	-0.09
Spiked Amount 50.000			Recovery	=	1.74%	
25) Nitrobenzene-d5	5.127	82	12411	1.03	ppm	-0.15
Spiked Amount 50.000			Recovery	=	2.06%	
51) 2-Fluorobiphenyl	7.141	172	23715	1.03	ppm	-0.21
Spiked Amount 50.000			Recovery	=	2.06%	
73) 2,4,6-Tribromophenol	9.513	330	3289	1.01	ppm	-0.24
Spiked Amount 50.000			Recovery	=	2.02%	
85) Terphenyl-d14	13.952	244	22111	1.02	ppm	-0.26
Spiked Amount 50.000			Recovery	=	2.04%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.216	88	4315	1.27	ppm	99
3) Pyridine	2.584	79	5698	0.64	ppm	77
4) N-Nitrosodimethylamine	2.525	42	5211	1.06	ppm #	59
6) Indene	4.881	116	16402	0.81	ppm	99
7) Cumene	4.075	105	26986	0.93	ppm	89
9) Phenol	4.449	94	12669	0.89	ppm	89
10) Aniline	4.433	93	15024	1.18	ppm	72
11) bis(2-Chloroethyl)ether	4.475	93	8778	1.03	ppm	88
12) 2-Chlorophenol	4.534	128	11597	0.99	ppm	95
13) Decane	4.550	43	4766	0.83	ppm #	70
14) 1,3-Dichlorobenzene	4.636	146	10856	0.85	ppm	82
15) 1,4-Dichlorobenzene	4.689	146	11626	0.93	ppm	88
16) Benzyl alcohol	4.790	108	6881	0.95	ppm	75
17) 1,2-Dichlorobenzene	4.812	146	11931	0.98	ppm	89
18) Acetophenone	4.999	105	16272	0.99	ppm	96
19) 2-Methylphenol	4.903	108	9452	1.02	ppm	93
20) 2,2'-oxybis(1-Chloropr...	4.892	121	3622	1.00	ppm #	76

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129449.D
Acq On : 22 Nov 2016 9:46 am
Operator : ashleyd
Sample : ic5525-1
Misc : op98591,em5525
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 14:59:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:59:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.026	108	10240	0.98	ppm	#	76
22) n-Nitroso-di-n-propyla...	4.999	70	7978	0.98	ppm		93
23) Hexachloroethane	5.090	201	3655	0.99	ppm	#	72
26) Nitrobenzene	5.148	77	11842	1.05	ppm		92
27) Quinoline	6.206	129	23544	1.03	ppm		96
28) Isophorone	5.357	82	22744	1.12	ppm		95
29) 2-Nitrophenol	5.437	139	6182	0.89	ppm		78
30) 2,4-Dimethylphenol	5.490	107	9070	0.83	ppm		87
31) Benzoic acid	5.576	105	4498	0.53	ppm	#	62
32) bis(2-Chloroethoxy)met...	5.560	93	10916	1.02	ppm		92
33) 2,4-Dichlorophenol	5.693	162	9384	1.05	ppm		93
34) 2,6-Dichlorophenol	5.912	162	8746	1.01	ppm		75
35) 1,3,5-Trichlorobenzene	5.448	180	9362	0.99	ppm		91
36) 1,2,4-Trichlorobenzene	5.757	180	8979	1.01	ppm		96
37) 1,2,3-Trichlorobenzene	5.998	180	8901	1.05	ppm		77
38) Naphthalene	5.838	128	30194	0.93	ppm		99
39) 4-Chloroaniline	5.896	127	13239	1.02	ppm		80
40) 2,3-Dichloroaniline	7.029	161	11919	1.03	ppm		87
41) Caprolactam	6.260	55	4108	1.17	ppm	#	68
42) Hexachlorobutadiene	5.971	225	4751	1.05	ppm		80
43) 4-Chloro-3-methylphenol	6.489	107	10097	0.96	ppm		74
44) 2-Methylnaphthalene	6.644	141	18711	0.94	ppm		90
45) 1-Methylnaphthalene	6.767	142	23182	1.01	ppm		93
46) Dimethylnaphthalene	7.515	156	20397	1.02	ppm		79
48) Hexachlorocyclopentadiene	6.858	237	4860	0.98	ppm		76
49) 2,4,6-Trichlorophenol	7.040	196	6473	1.15	ppm		99
50) 2,4,5-Trichlorophenol	7.109	196	6807	1.07	ppm		93
52) 2-Chloronaphthalene	7.307	162	20497	1.05	ppm		90
53) Biphenyl	7.280	154	24751	0.85	ppm		94
54) 2-Nitroaniline	7.472	65	5951	0.85	ppm		90
55) Dimethylphthalate	7.761	163	25028	0.99	ppm		95
56) Acenaphthylene	7.926	152	35722	1.02	ppm		99
57) 2,6-Dinitrotoluene	7.846	165	5992	1.08	ppm		70
58) 3-Nitroaniline	8.119	138	6813	0.95	ppm	#	62
59) Acenaphthene	8.204	153	20078	0.88	ppm		96
61) 4-Nitrophenol	8.519	109	4444	0.99	ppm	#	52
62) Dibenzofuran	8.493	168	28703	0.96	ppm		85
63) 2,4-Dinitrotoluene	8.514	165	6134	0.83	ppm		96
64) 2,3,4,6-Tetrachlorophenol	8.744	232	2976	0.65	ppm	#	21
65) Diethylphthalate	8.947	149	29084	1.05	ppm		93
66) Fluorene	9.080	166	23880	0.92	ppm		86
67) 4-Chlorophenyl-phenyle...	9.107	204	9680	1.07	ppm		83
68) 4-Nitroaniline	9.150	138	5127	0.75	ppm		88
70) 4,6-Dinitro-2-methylph...	9.230	198	1235	0.30	ppm	#	50
71) n-Nitrosodiphenylamine	9.326	169	17776	1.04	ppm		96
72) 1,2-Diphenylhydrazine	9.385	77	24468	1.01	ppm		93
74) 4-Bromophenyl-phenylether	9.983	248	5581	0.96	ppm		85
75) Hexachlorobenzene	10.079	284	5990	0.94	ppm		77
76) Pentachlorophenol	10.491	266	2982	0.86	ppm		75
77) Phenanthrene	10.822	178	31306	0.96	ppm		91

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129449.D
Acq On : 22 Nov 2016 9:46 am
Operator : ashleyd
Sample : ic5525-1
Misc : op98591,em5525
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 14:59:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:59:09 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	Anthracene	10.913	178	33783	1.01	ppm		89
79)	Carbazole	11.265	167	31902	0.91	ppm		92
80)	Di-n-butylphthalate	12.061	149	48650	0.98	ppm		94
81)	Fluoranthene	13.114	202	33582	0.94	ppm		97
82)	Octadecane	10.763	57	13577	1.08	ppm		97
84)	Pyrene	13.541	202	35599	1.06	ppm		95
86)	Butylbenzylphthalate	14.999	149	23746	1.08	ppm		89
87)	Benzo[a]anthracene	15.934	228	33255	1.12	ppm		95
88)	3,3'-Dichlorobenzidine	15.956	252	10996	0.96	ppm	#	82
89)	Chrysene	15.998	228	28605	1.06	ppm		95
90)	bis(2-Ethylhexyl)phtha...	16.217	149	29938	1.01	ppm		89
92)	Di-n-octylphthalate	17.446	149	47864	1.05	ppm		96
93)	Benzo[b]fluoranthene	17.927	252	28724	1.02	ppm		94
94)	Benzo[k]fluoranthene	17.975	252	26473	1.17	ppm		89
95)	Benzo[a]pyrene	18.472	252	27367	1.21	ppm		88
96)	Indeno[1,2,3-cd]pyrene	20.288	276	21838m	1.02	ppm		
97)	Dibenz(a,h)acridine	19.925	279	18760	0.97	ppm		80
98)	Dibenz[a,h]anthracene	20.336	278	20829	0.99	ppm		88
99)	7,12-Dimethylbenz(a)an...	17.927	256	10238	0.85	ppm		71
100)	Benzo[g,h,i]perylene	20.742	276	20051	0.96	ppm		86

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

9.6.57

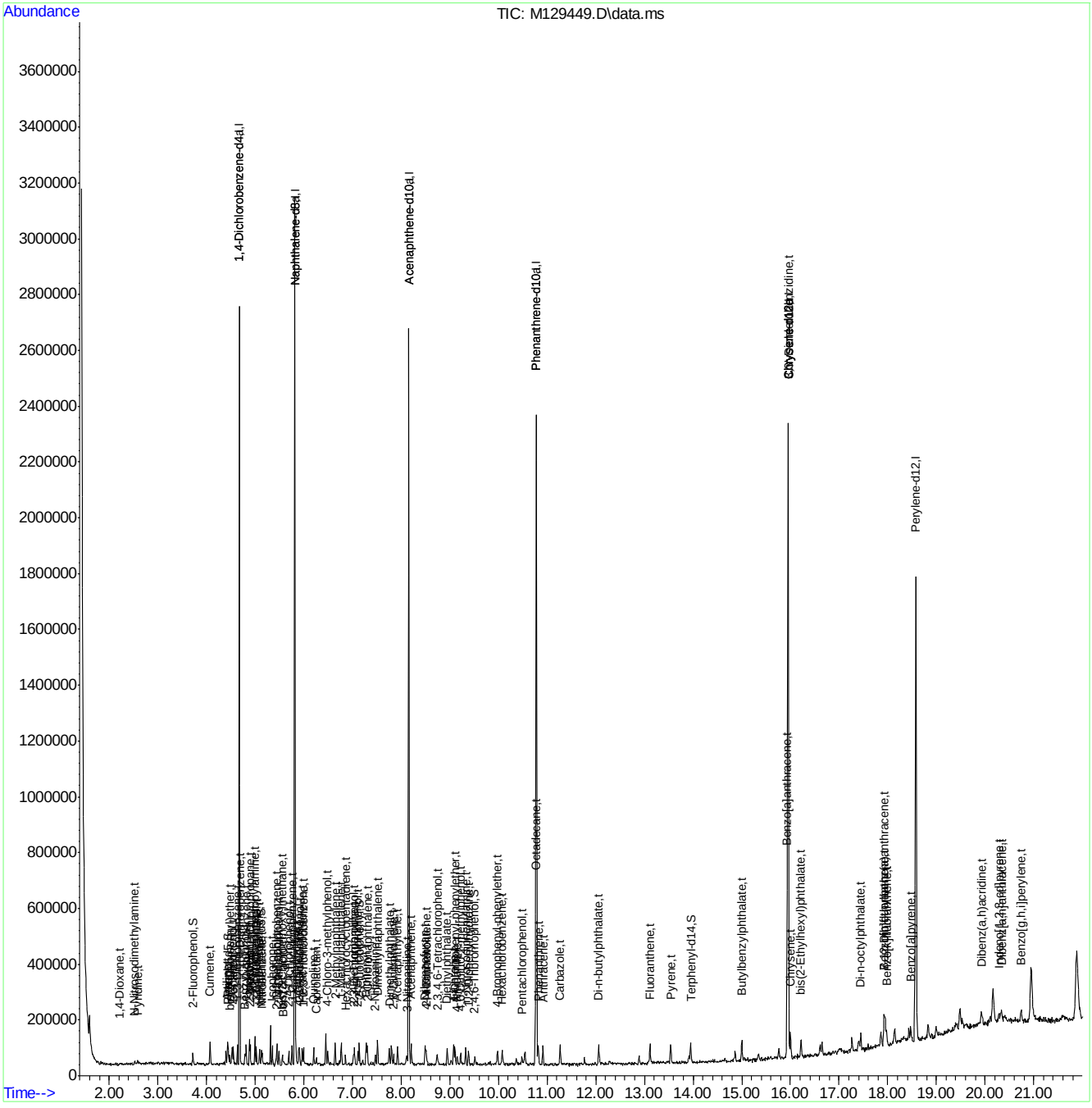
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129449.D
Acq On : 22 Nov 2016 9:46 am
Operator : ashleyd
Sample : ic5525-1
Misc : op98591,em5525
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 14:59:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:59:09 2016
Response via : Initial Calibration



MM5525.M Tue Nov 22 15:00:02 2016 MSM

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SGS ACCUTEST JC33175

Manual Integration Approval Summary

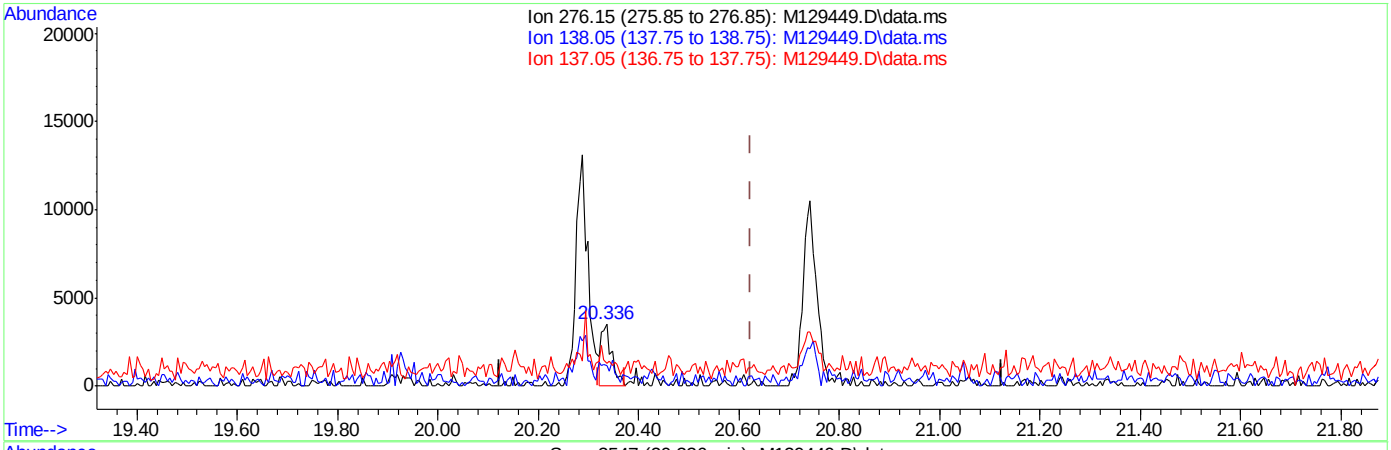
Sample Number:	EM5525-IC5525	**Method:**	SW846 8270D
Lab FileID:	M129449.D	**Analyst approved:**	11/22/16 16:00 Ashley Noble
Injection Time:	11/22/16 09:46	**Supervisor approved:**	12/01/16 09:56 Nina Pandya

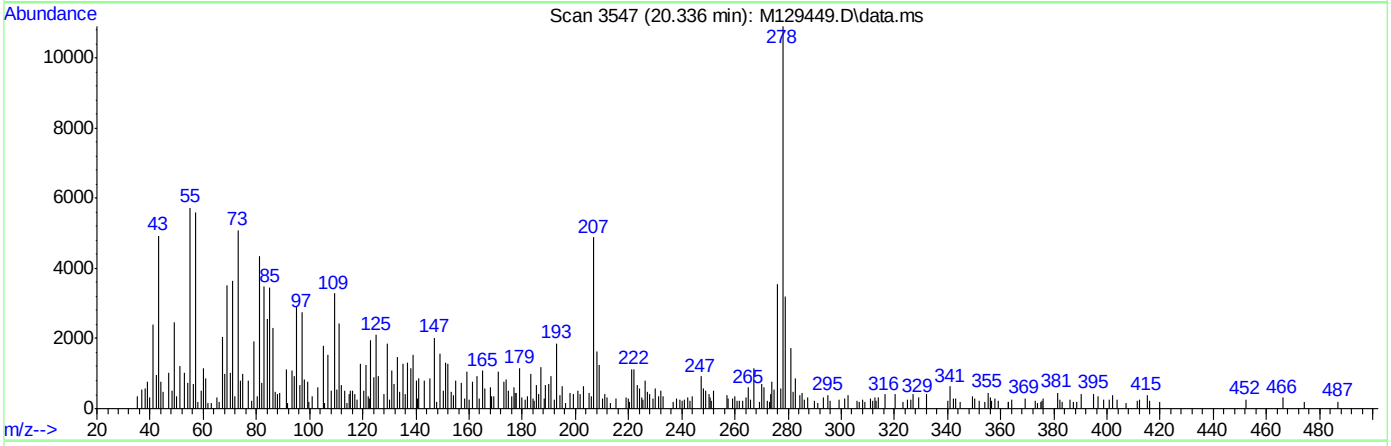
Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		20.29	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129449.D
Acq On : 22 Nov 2016 9:46 am
Operator : ashleyd
Sample : ic5525-1
Misc : op98591,em5525
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 14:59:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:59:09 2016
Response via : Initial Calibration





TIC: M129449.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

20.336min (-0.288) 0.24ppm

response 5115

Ion	Exp%	Act%
276.15	100	100
138.05	19.70	6.16
137.05	14.00	4.46
0.00	0.00	0.00

9.6.57.2

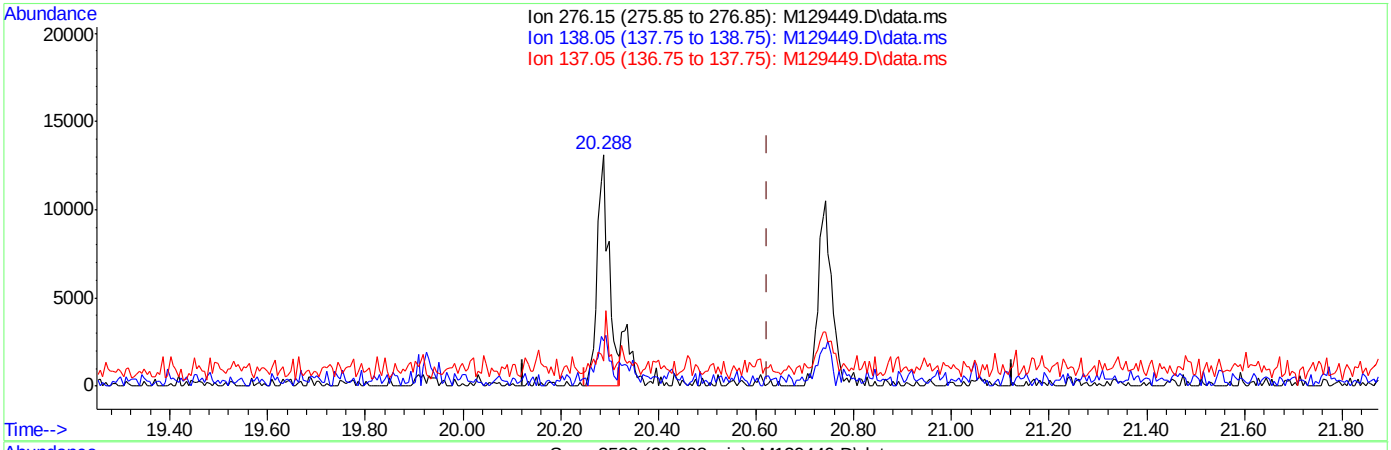
9

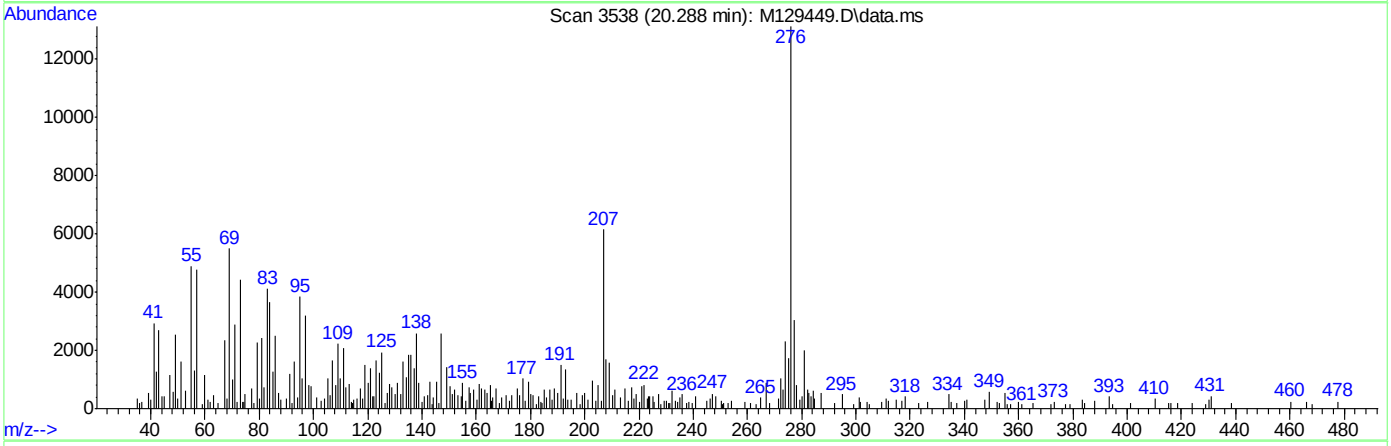
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129449.D
Acq On : 22 Nov 2016 9:46 am
Operator : ashleyd
Sample : ic5525-1
Misc : op98591,em5525
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 14:59:14 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:59:09 2016
Response via : Initial Calibration





(96) Indeno[1,2,3-cd]pyrene (t)

20.288min (-0.336) 1.02ppm m

response 21838

Ion	Exp%	Act%
276.15	100	100
138.05	19.70	19.70
137.05	14.00	10.62
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129450.D
Acq On : 22 Nov 2016 10:15 am
Operator : ashleyd
Sample : ic5525-2
Misc : op98591,em5525
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 15:06:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:06:33 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.680	152	346197	40.00	ppm	-0.13
24) Naphthalene-d8	5.817	136	1391757	40.00	ppm	-0.16
47) Acenaphthene-d10	8.157	164	786666	40.00	ppm	-0.21
69) Phenanthrene-d10	10.780	188	1275221	40.00	ppm	-0.23
83) Chrysene-d12	15.957	240	1155541	40.00	ppm	-0.24
91) Perylene-d12	18.585	264	947426	40.00	ppm	-0.24
101) 1,4-Dichlorobenzene-d4a	4.680	152	346197	40.00	ppm	-0.13
103) Acenaphthene-d10a	8.157	164	786666	40.00	ppm	-0.21
106) Chrysene-d12a	15.957	240	1155541	40.00	ppm	-0.24
109) Phenanthrene-d10a	10.780	188	1275221	40.00	ppm	-0.23
111) Naphthalene-d8a	5.817	136	1391757	40.00	ppm	-0.16
113) Chrysene-d12b	15.957	240	1155541	40.00	ppm	-0.24
System Monitoring Compounds						
5) 2-Fluorophenol	3.718	112	17516	1.62	ppm	-0.12
Spiked Amount 50.000			Recovery	=	3.24%	
8) Phenol-d5	4.439	99	21626	1.57	ppm	-0.08
Spiked Amount 50.000			Recovery	=	3.14%	
25) Nitrobenzene-d5	5.128	82	25059	1.91	ppm	-0.15
Spiked Amount 50.000			Recovery	=	3.82%	
51) 2-Fluorobiphenyl	7.142	172	48114	1.92	ppm	-0.21
Spiked Amount 50.000			Recovery	=	3.84%	
73) 2,4,6-Tribromophenol	9.519	330	5511	1.54	ppm	-0.23
Spiked Amount 50.000			Recovery	=	3.08%	
85) Terphenyl-d14	13.948	244	44873	1.86	ppm	-0.27
Spiked Amount 50.000			Recovery	=	3.72%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.217	88	3720	0.90	ppm	72
3) Pyridine	2.575	79	14827	1.89	ppm	96
4) N-Nitrosodimethylamine	2.521	42	9816	1.86	ppm #	60
6) Indene	4.883	116	36564	1.85	ppm	95
7) Cumene	4.076	105	53619	1.77	ppm	87
9) Phenol	4.450	94	27088	1.87	ppm	95
10) Aniline	4.434	93	29034	1.95	ppm	89
11) bis(2-Chloroethyl)ether	4.477	93	17661	1.90	ppm	97
12) 2-Chlorophenol	4.530	128	23776	1.89	ppm	87
13) Decane	4.551	43	12306	2.17	ppm	93
14) 1,3-Dichlorobenzene	4.637	146	24080	1.90	ppm	92
15) 1,4-Dichlorobenzene	4.690	146	23502	1.81	ppm	97
16) Benzyl alcohol	4.792	108	11786	1.55	ppm #	46
17) 1,2-Dichlorobenzene	4.813	146	23913	1.84	ppm	97
18) Acetophenone	5.000	105	31631	1.80	ppm	96
19) 2-Methylphenol	4.899	108	19527	1.94	ppm	79
20) 2,2'-oxybis(1-Chloropr...	4.888	121	7576	1.94	ppm #	67

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129450.D
Acq On : 22 Nov 2016 10:15 am
Operator : ashleyd
Sample : ic5525-2
Misc : op98591,em5525
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 15:06:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:06:33 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.027	108	21011	1.89	ppm	#	84
22)	n-Nitroso-di-n-propyla...	4.995	70	15679	1.81	ppm		88
23)	Hexachloroethane	5.091	201	6700	1.69	ppm	#	60
26)	Nitrobenzene	5.144	77	25688	2.07	ppm		84
27)	Quinoline	6.202	129	46795	1.88	ppm		92
28)	Isophorone	5.353	82	43055	1.86	ppm		84
29)	2-Nitrophenol	5.438	139	12147	1.72	ppm	#	47
30)	2,4-Dimethylphenol	5.492	107	19572	1.83	ppm		86
31)	Benzoic acid	5.582	105	9062	0.99	ppm		83
32)	bis(2-Chloroethoxy)met...	5.556	93	22061	1.90	ppm		91
33)	2,4-Dichlorophenol	5.689	162	18668	1.90	ppm		86
34)	2,6-Dichlorophenol	5.914	162	18748	2.01	ppm		97
35)	1,3,5-Trichlorobenzene	5.449	180	19975	1.97	ppm		97
36)	1,2,4-Trichlorobenzene	5.759	180	18739	1.96	ppm		95
37)	1,2,3-Trichlorobenzene	5.994	180	17697	1.89	ppm		84
38)	Naphthalene	5.839	128	63916	1.91	ppm		95
39)	4-Chloroaniline	5.898	127	26225	1.87	ppm		92
40)	2,3-Dichloroaniline	7.025	161	23769	1.89	ppm		88
41)	Caprolactam	6.261	55	9147	2.42	ppm		94
42)	Hexachlorobutadiene	5.967	225	10746	2.15	ppm		86
43)	4-Chloro-3-methylphenol	6.490	107	21152	1.91	ppm		82
44)	2-Methylnaphthalene	6.645	141	40676	1.96	ppm		95
45)	1-Methylnaphthalene	6.774	142	45359	1.83	ppm		76
46)	Dimethylnaphthalene	7.516	156	38814	1.79	ppm		86
48)	Hexachlorocyclopentadiene	6.859	237	10547	2.66	ppm		77
49)	2,4,6-Trichlorophenol	7.041	196	12381	1.90	ppm		90
50)	2,4,5-Trichlorophenol	7.110	196	13019	1.84	ppm		99
52)	2-Chloronaphthalene	7.308	162	40765	1.89	ppm		94
53)	Biphenyl	7.281	154	56202	1.94	ppm		99
54)	2-Nitroaniline	7.468	65	13161	1.89	ppm	#	55
55)	Dimethylphthalate	7.757	163	50329	1.86	ppm		93
56)	Acenaphthylene	7.928	152	71704	1.89	ppm		98
57)	2,6-Dinitrotoluene	7.847	165	10503	1.69	ppm		88
58)	3-Nitroaniline	8.114	138	14346	1.91	ppm		89
59)	Acenaphthene	8.205	153	46488	2.02	ppm		97
60)	2,4-Dinitrophenol	8.318	184	1539	0.43	ppm	#	62
61)	4-Nitrophenol	8.515	109	9024	1.88	ppm	#	53
62)	Dibenzofuran	8.494	168	58398	1.85	ppm		85
63)	2,4-Dinitrotoluene	8.515	165	14356	1.98	ppm	#	17
64)	2,3,4,6-Tetrachlorophenol	8.740	232	9401	2.30	ppm	#	45
65)	Diethylphthalate	8.948	149	56067	1.84	ppm		92
66)	Fluorene	9.076	166	52916	1.97	ppm		93
67)	4-Chlorophenyl-phenyle...	9.108	204	20022	1.98	ppm		79
68)	4-Nitroaniline	9.146	138	12888	2.00	ppm		87
70)	4,6-Dinitro-2-methylph...	9.226	198	3635	0.80	ppm		89
71)	n-Nitrosodiphenylamine	9.327	169	35174	1.85	ppm		96
72)	1,2-Diphenylhydrazine	9.386	77	51286	1.93	ppm		93
74)	4-Bromophenyl-phenylether	9.984	248	12528	2.02	ppm	#	73
75)	Hexachlorobenzene	10.080	284	13540	2.00	ppm		82
76)	Pentachlorophenol	10.486	266	6423	1.70	ppm		82

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129450.D
Acq On : 22 Nov 2016 10:15 am
Operator : ashleyd
Sample : ic5525-2
Misc : op98591,em5525
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 15:06:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:06:33 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.818	178	64708	1.86	ppm	99
78) Anthracene	10.914	178	67405	1.84	ppm	91
79) Carbazole	11.266	167	70277	1.93	ppm	95
80) Di-n-butylphthalate	12.062	149	97857	1.82	ppm	99
81) Fluoranthene	13.115	202	72314	1.92	ppm	92
82) Octadecane	10.764	57	26885	1.89	ppm	86
84) Pyrene	13.537	202	76378	2.00	ppm	95
86) Butylbenzylphthalate	15.001	149	47692	1.89	ppm	80
87) Benzo[a]anthracene	15.941	228	65473	1.89	ppm	95
88) 3,3'-Dichlorobenzidine	15.957	252	24365	1.97	ppm	85
89) Chrysene	15.999	228	59766	1.95	ppm	91
90) bis(2-Ethylhexyl)phtha...	16.224	149	61903	1.89	ppm	83
92) Di-n-octylphthalate	17.447	149	105512	1.99	ppm	97
93) Benzo[b]fluoranthene	17.923	252	59282	1.84	ppm	97
94) Benzo[k]fluoranthene	17.976	252	55930	2.01	ppm	97
95) Benzo[a]pyrene	18.473	252	52377	1.85	ppm	98
96) Indeno[1,2,3-cd]pyrene	20.289	276	40004	1.63	ppm	91
97) Dibenz(a,h)acridine	19.926	279	43788	2.03	ppm	97
98) Dibenz[a,h]anthracene	20.337	278	43546	1.83	ppm	92
99) 7,12-Dimethylbenz(a)an...	17.933	256	21482	1.69	ppm	96
100) Benzo[g,h,i]perylene	20.743	276	43591	1.88	ppm	86

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

9.6.58

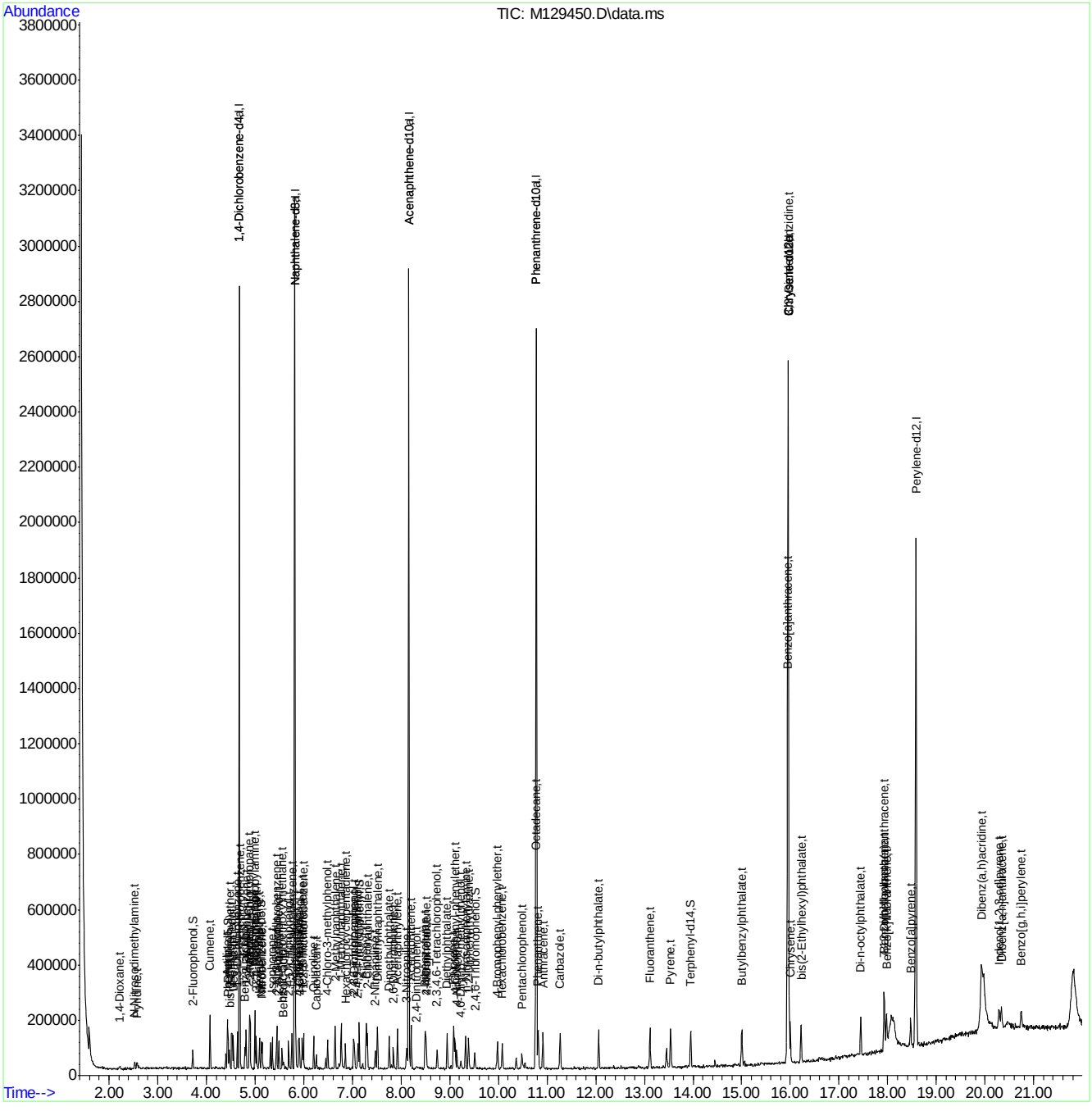
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129450.D
Acq On : 22 Nov 2016 10:15 am
Operator : ashleyd
Sample : ic5525-2
Misc : op98591,em5525
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 15:06:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:06:33 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129451.D
Acq On : 22 Nov 2016 10:45 am
Operator : ashleyd
Sample : ic5525-5
Misc : op98591,em5525
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 22 15:10:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:10:29 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	363565	40.00	ppm	-0.13
24) Naphthalene-d8	5.817	136	1462260	40.00	ppm	-0.16
47) Acenaphthene-d10	8.162	164	802461	40.00	ppm	-0.20
69) Phenanthrene-d10	10.780	188	1304644	40.00	ppm	-0.23
83) Chrysene-d12	15.957	240	1177746	40.00	ppm	-0.24
91) Perylene-d12	18.585	264	985745	40.00	ppm	-0.24
101) 1,4-Dichlorobenzene-d4a	4.679	152	363565	40.00	ppm	-0.13
103) Acenaphthene-d10a	8.162	164	802461	40.00	ppm	-0.20
106) Chrysene-d12a	15.957	240	1177746	40.00	ppm	-0.24
109) Phenanthrene-d10a	10.780	188	1304644	40.00	ppm	-0.23
111) Naphthalene-d8a	5.817	136	1462260	40.00	ppm	-0.16
113) Chrysene-d12b	15.957	240	1177746	40.00	ppm	-0.24
System Monitoring Compounds						
5) 2-Fluorophenol	3.718	112	48113	4.53	ppm	-0.12
Spiked Amount 50.000			Recovery	=	9.06%	
8) Phenol-d5	4.439	99	65233	4.86	ppm	-0.09
Spiked Amount 50.000			Recovery	=	9.72%	
25) Nitrobenzene-d5	5.128	82	67786	4.99	ppm	-0.15
Spiked Amount 50.000			Recovery	=	9.98%	
51) 2-Fluorobiphenyl	7.142	172	129394	5.12	ppm	-0.21
Spiked Amount 50.000			Recovery	=	10.24%	
73) 2,4,6-Tribromophenol	9.519	330	16744	4.96	ppm	-0.23
Spiked Amount 50.000			Recovery	=	9.92%	
85) Terphenyl-d14	13.948	244	115246	4.80	ppm	-0.27
Spiked Amount 50.000			Recovery	=	9.60%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.217	88	16327	4.59	ppm	86
3) Pyridine	2.558	79	43225	5.35	ppm	93
4) N-Nitrosodimethylamine	2.516	42	23729	4.44	ppm #	68
6) Indene	4.882	116	97822	4.83	ppm	93
7) Cumene	4.076	105	144184	4.72	ppm	91
9) Phenol	4.444	94	73634	4.95	ppm	78
10) Aniline	4.434	93	84925	5.47	ppm	81
11) bis(2-Chloroethyl)ether	4.476	93	43263	4.50	ppm	92
12) 2-Chlorophenol	4.530	128	59796	4.62	ppm	91
13) Decane	4.551	43	31226	5.10	ppm	95
14) 1,3-Dichlorobenzene	4.637	146	68578	5.24	ppm	93
15) 1,4-Dichlorobenzene	4.690	146	65897	4.98	ppm	88
16) Benzyl alcohol	4.791	108	36462	4.93	ppm #	60
17) 1,2-Dichlorobenzene	4.813	146	65549	4.94	ppm	86
18) Acetophenone	5.000	105	83976	4.70	ppm	91
19) 2-Methylphenol	4.898	108	50015	4.78	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.893	121	20089	4.95	ppm #	75

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129451.D
Acq On : 22 Nov 2016 10:45 am
Operator : ashleyd
Sample : ic5525-5
Misc : op98591,em5525
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 22 15:10:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:10:29 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.027	108	51677	4.50	ppm		87
22) n-Nitroso-di-n-propyla...	5.000	70	44173	5.01	ppm		93
23) Hexachloroethane	5.091	201	19541	4.95	ppm	#	65
26) Nitrobenzene	5.144	77	66201	5.01	ppm		81
27) Quinoline	6.202	129	124150	4.84	ppm		95
28) Isophorone	5.358	82	110896	4.67	ppm		95
29) 2-Nitrophenol	5.438	139	35902	5.08	ppm		70
30) 2,4-Dimethylphenol	5.491	107	49570	4.53	ppm		87
31) Benzoic acid	5.593	105	29030	3.02	ppm		83
32) bis(2-Chloroethoxy)met...	5.555	93	57424	4.79	ppm		91
33) 2,4-Dichlorophenol	5.694	162	48271	4.76	ppm		96
34) 2,6-Dichlorophenol	5.913	162	46645	4.75	ppm		90
35) 1,3,5-Trichlorobenzene	5.449	180	51852	4.90	ppm		93
36) 1,2,4-Trichlorobenzene	5.758	180	51252	5.13	ppm		93
37) 1,2,3-Trichlorobenzene	5.993	180	48456	5.03	ppm		89
38) Naphthalene	5.839	128	169313	4.88	ppm		97
39) 4-Chloroaniline	5.897	127	74708	5.18	ppm		93
40) 2,3-Dichloroaniline	7.024	161	64477	4.96	ppm		90
41) Caprolactam	6.266	55	20529	4.68	ppm		91
42) Hexachlorobutadiene	5.972	225	26298	4.89	ppm		93
43) 4-Chloro-3-methylphenol	6.490	107	55270	4.83	ppm		85
44) 2-Methylnaphthalene	6.645	141	111241	5.13	ppm		89
45) 1-Methylnaphthalene	6.773	142	123449	4.89	ppm		83
46) Dimethylnaphthalene	7.516	156	113631	5.16	ppm		83
48) Hexachlorocyclopentadiene	6.859	237	33978	9.45	ppm		98
49) 2,4,6-Trichlorophenol	7.046	196	29141	4.45	ppm	#	69
50) 2,4,5-Trichlorophenol	7.110	196	30960	4.40	ppm		99
52) 2-Chloronaphthalene	7.308	162	109676	5.09	ppm		90
53) Biphenyl	7.281	154	150522	5.14	ppm		99
54) 2-Nitroaniline	7.468	65	35223	5.05	ppm	#	76
55) Dimethylphthalate	7.756	163	132705	4.92	ppm		98
56) Acenaphthylene	7.927	152	185607	4.88	ppm		97
57) 2,6-Dinitrotoluene	7.847	165	26043	4.33	ppm		70
58) 3-Nitroaniline	8.114	138	36456	4.83	ppm		99
59) Acenaphthene	8.205	153	119493	5.07	ppm		93
60) 2,4-Dinitrophenol	8.307	184	9365	4.66	ppm	#	10
61) 4-Nitrophenol	8.510	109	22767	4.79	ppm	#	66
62) Dibenzofuran	8.494	168	153805	4.90	ppm		78
63) 2,4-Dinitrotoluene	8.510	165	38703	5.24	ppm	#	32
64) 2,3,4,6-Tetrachlorophenol	8.745	232	22657	5.18	ppm	#	51
65) Diethylphthalate	8.953	149	149253	4.93	ppm		92
66) Fluorene	9.081	166	137445	5.04	ppm		90
67) 4-Chlorophenyl-phenyle...	9.108	204	53445	5.20	ppm	#	64
68) 4-Nitroaniline	9.145	138	35330	5.37	ppm		92
70) 4,6-Dinitro-2-methylph...	9.225	198	14416	3.11	ppm		71
71) n-Nitrosodiphenylamine	9.327	169	93522	4.92	ppm		91
72) 1,2-Diphenylhydrazine	9.386	77	139273	5.18	ppm		92
74) 4-Bromophenyl-phenylether	9.984	248	30526	4.79	ppm	#	77
75) Hexachlorobenzene	10.080	284	36942	5.34	ppm		76
76) Pentachlorophenol	10.486	266	20833	7.56	ppm		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129451.D
Acq On : 22 Nov 2016 10:45 am
Operator : ashleyd
Sample : ic5525-5
Misc : op98591,em5525
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 22 15:10:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:10:29 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.823	178	171481	4.93	ppm	98
78) Anthracene	10.914	178	180964	4.96	ppm	95
79) Carbazole	11.271	167	184401	5.00	ppm	97
80) Di-n-butylphthalate	12.062	149	257178	4.83	ppm	96
81) Fluoranthene	13.115	202	178106	4.68	ppm	98
82) Octadecane	10.764	57	64054	4.48	ppm	95
84) Pyrene	13.542	202	193464	4.98	ppm	93
86) Butylbenzylphthalate	15.000	149	118194	4.69	ppm	81
87) Benzo[a]anthracene	15.935	228	171189	4.93	ppm	98
88) 3,3'-Dichlorobenzidine	15.957	252	61779	4.93	ppm	92
89) Chrysene	15.999	228	151663	4.90	ppm	98
90) bis(2-Ethylhexyl)phtha...	16.218	149	160630	4.90	ppm	81
92) Di-n-octylphthalate	17.447	149	265490	4.82	ppm	98
93) Benzo[b]fluoranthene	17.928	252	163316	5.00	ppm	100
94) Benzo[k]fluoranthene	17.976	252	146951	5.06	ppm	100
95) Benzo[a]pyrene	18.473	252	135210	4.71	ppm	97
96) Indeno[1,2,3-cd]pyrene	20.289	276	109443	4.58	ppm	89
97) Dibenz(a,h)acridine	19.926	279	99993	4.43	ppm	100
98) Dibenz[a,h]anthracene	20.337	278	113821	4.73	ppm	96
99) 7,12-Dimethylbenz(a)an...	17.933	256	61474	4.91	ppm	92
100) Benzo[g,h,i]perylene	20.748	276	109676	4.64	ppm	91

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

9.6.59

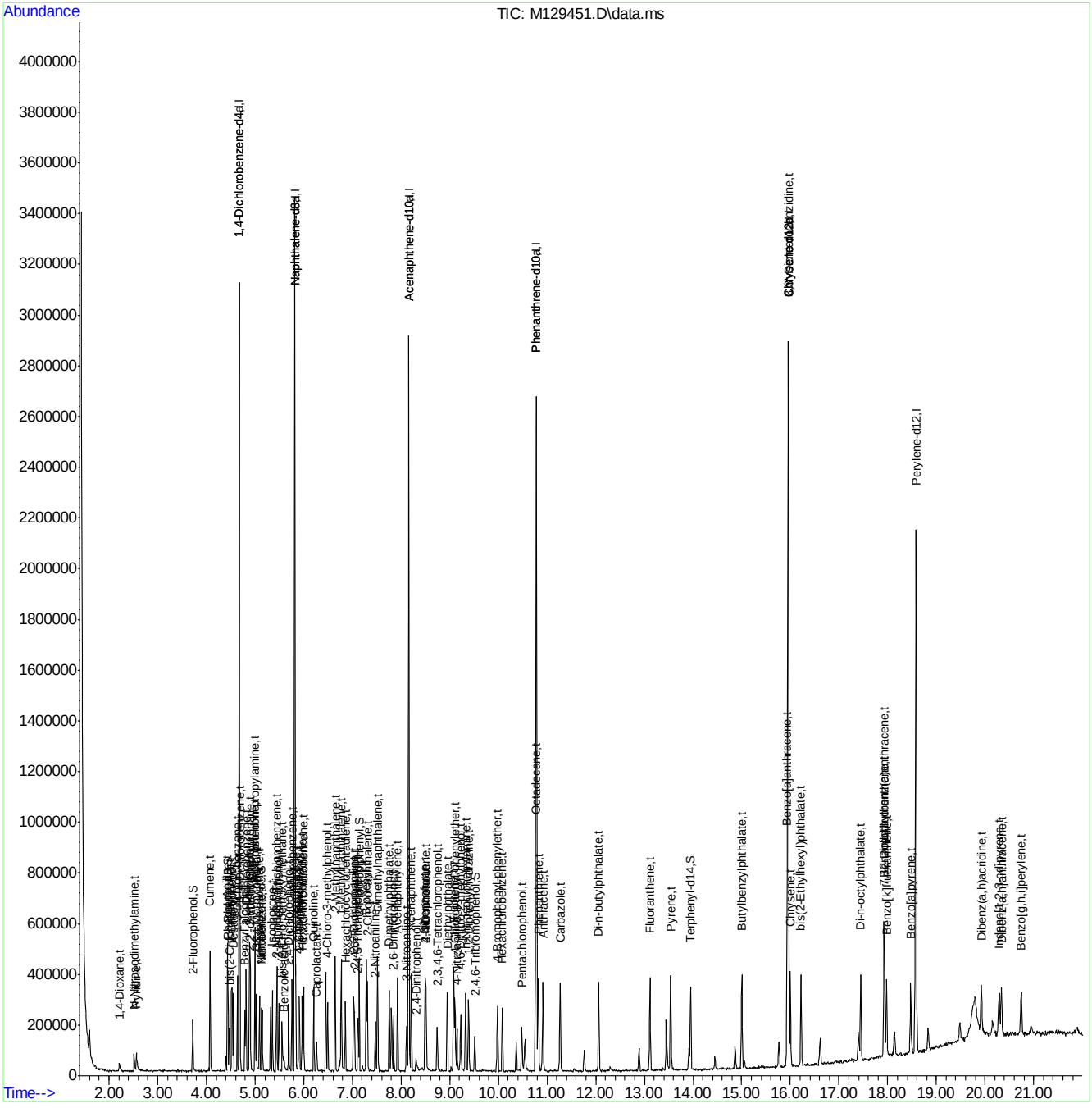
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129451.D
Acq On : 22 Nov 2016 10:45 am
Operator : ashleyd
Sample : ic5525-5
Misc : op98591,em5525
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 22 15:10:46 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:10:29 2016
Response via : Initial Calibration



MM5525.M Tue Nov 22 15:10:56 2016 MSM Page: 4

SGS 598 of 1109 ACCUTEST JC33175

9.6.59 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129452.D
Acq On : 22 Nov 2016 11:14 am
Operator : ashleyd
Sample : ic5525-10
Misc : op98591,em5525
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 22 15:14:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:14:04 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	446356	40.00	ppm	-0.13
24) Naphthalene-d8	5.817	136	1811503	40.00	ppm	-0.16
47) Acenaphthene-d10	8.162	164	1007139	40.00	ppm	-0.20
69) Phenanthrene-d10	10.785	188	1616606	40.00	ppm	-0.23
83) Chrysene-d12	15.962	240	1463540	40.00	ppm	-0.23
91) Perylene-d12	18.590	264	1194290	40.00	ppm	-0.23
101) 1,4-Dichlorobenzene-d4a	4.679	152	446356	40.00	ppm	-0.13
103) Acenaphthene-d10a	8.162	164	1007139	40.00	ppm	-0.20
106) Chrysene-d12a	15.962	240	1463540	40.00	ppm	-0.23
109) Phenanthrene-d10a	10.785	188	1616606	40.00	ppm	-0.23
111) Naphthalene-d8a	5.817	136	1811503	40.00	ppm	-0.16
113) Chrysene-d12b	15.962	240	1463540	40.00	ppm	-0.23
System Monitoring Compounds						
5) 2-Fluorophenol	3.718	112	131079	10.29	ppm	-0.12
Spiked Amount 50.000			Recovery	=	20.58%	
8) Phenol-d5	4.433	99	174487	10.66	ppm	-0.09
Spiked Amount 50.000			Recovery	=	21.32%	
25) Nitrobenzene-d5	5.128	82	176136	10.48	ppm	-0.15
Spiked Amount 50.000			Recovery	=	20.96%	
51) 2-Fluorobiphenyl	7.142	172	319678	10.02	ppm	-0.21
Spiked Amount 50.000			Recovery	=	20.04%	
73) 2,4,6-Tribromophenol	9.519	330	40695	9.75	ppm	-0.23
Spiked Amount 50.000			Recovery	=	19.50%	
85) Terphenyl-d14	13.953	244	310305	10.51	ppm	-0.26
Spiked Amount 50.000			Recovery	=	21.02%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.211	88	38752	9.06	ppm	97
3) Pyridine	2.542	79	113614	11.25	ppm	96
4) N-Nitrosodimethylamine	2.510	42	64876	10.27	ppm #	75
6) Indene	4.882	116	258622	10.50	ppm	91
7) Cumene	4.075	105	382669	10.35	ppm	91
9) Phenol	4.444	94	190265	10.45	ppm	85
10) Aniline	4.433	93	203471	10.43	ppm	78
11) bis(2-Chloroethyl)ether	4.476	93	119813	10.42	ppm	98
12) 2-Chlorophenol	4.530	128	160384	10.29	ppm	95
13) Decane	4.551	43	74331	9.84	ppm	88
14) 1,3-Dichlorobenzene	4.636	146	177831	10.93	ppm	91
15) 1,4-Dichlorobenzene	4.690	146	161908	9.98	ppm	92
16) Benzyl alcohol	4.791	108	94764	10.48	ppm #	67
17) 1,2-Dichlorobenzene	4.813	146	162173	9.98	ppm	92
18) Acetophenone	5.000	105	222235	10.28	ppm	87
19) 2-Methylphenol	4.898	108	127242	10.02	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.893	121	46320	9.32	ppm #	82

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129452.D
Acq On : 22 Nov 2016 11:14 am
Operator : ashleyd
Sample : ic5525-10
Misc : op98591,em5525
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 22 15:14:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:14:04 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.026	108	138407	10.07	ppm		94
22) n-Nitroso-di-n-propyla...	5.000	70	115524	10.66	ppm		90
23) Hexachloroethane	5.090	201	54747	11.33	ppm		82
26) Nitrobenzene	5.144	77	167878	10.26	ppm		81
27) Quinoline	6.207	129	331133	10.51	ppm		94
28) Isophorone	5.358	82	297727	10.29	ppm		92
29) 2-Nitrophenol	5.438	139	92578	10.54	ppm		58
30) 2,4-Dimethylphenol	5.491	107	131236	9.92	ppm		93
31) Benzoic acid	5.593	105	91416	9.57	ppm		91
32) bis(2-Chloroethoxy)met...	5.561	93	146793	9.99	ppm		97
33) 2,4-Dichlorophenol	5.689	162	130977	10.55	ppm		96
34) 2,6-Dichlorophenol	5.913	162	118787	9.89	ppm		96
35) 1,3,5-Trichlorobenzene	5.448	180	134986	10.35	ppm		93
36) 1,2,4-Trichlorobenzene	5.758	180	126943	10.19	ppm		95
37) 1,2,3-Trichlorobenzene	5.993	180	127087	10.63	ppm		91
38) Naphthalene	5.838	128	428913	10.04	ppm		98
39) 4-Chloroaniline	5.897	127	187505	10.40	ppm		93
40) 2,3-Dichloroaniline	7.024	161	164051	10.21	ppm		92
41) Caprolactam	6.276	55	48241	9.07	ppm		90
42) Hexachlorobutadiene	5.972	225	66562	10.05	ppm		98
43) 4-Chloro-3-methylphenol	6.490	107	134801	9.59	ppm		89
44) 2-Methylnaphthalene	6.645	141	285980	10.58	ppm		87
45) 1-Methylnaphthalene	6.773	142	318936	10.25	ppm		82
46) Dimethylnaphthalene	7.516	156	288361	10.49	ppm		81
48) Hexachlorocyclopentadiene	6.859	237	112239	25.21	ppm		97
49) 2,4,6-Trichlorophenol	7.046	196	80390	10.06	ppm	#	67
50) 2,4,5-Trichlorophenol	7.110	196	87499	10.21	ppm		94
52) 2-Chloronaphthalene	7.307	162	278210	10.24	ppm		93
53) Biphenyl	7.286	154	398601	10.77	ppm		97
54) 2-Nitroaniline	7.473	65	91038	10.38	ppm		95
55) Dimethylphthalate	7.762	163	351158	10.42	ppm		97
56) Acenaphthylene	7.927	152	476523	10.04	ppm		98
57) 2,6-Dinitrotoluene	7.847	165	68890	9.44	ppm		100
58) 3-Nitroaniline	8.114	138	93256	9.92	ppm		93
59) Acenaphthene	8.210	153	300852	10.13	ppm		95
60) 2,4-Dinitrophenol	8.306	184	52357	25.25	ppm		62
61) 4-Nitrophenol	8.504	109	58653	9.97	ppm	#	39
62) Dibenzofuran	8.499	168	399837	10.20	ppm		68
63) 2,4-Dinitrotoluene	8.515	165	99328	10.59	ppm	#	46
64) 2,3,4,6-Tetrachlorophenol	8.745	232	56182	10.14	ppm	#	57
65) Diethylphthalate	8.953	149	393820	10.39	ppm		89
66) Fluorene	9.081	166	350003	10.21	ppm		99
67) 4-Chlorophenyl-phenyle...	9.108	204	130991	10.06	ppm	#	66
68) 4-Nitroaniline	9.156	138	91058	10.83	ppm		97
70) 4,6-Dinitro-2-methylph...	9.231	198	44739	9.60	ppm		74
71) n-Nitrosodiphenylamine	9.327	169	235962	10.06	ppm		94
72) 1,2-Diphenylhydrazine	9.391	77	351121	10.44	ppm		92
74) 4-Bromophenyl-phenylether	9.984	248	80816	10.34	ppm	#	77
75) Hexachlorobenzene	10.085	284	90087	10.34	ppm		78
76) Pentachlorophenol	10.481	266	71241	22.71	ppm		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129452.D
Acq On : 22 Nov 2016 11:14 am
Operator : ashleyd
Sample : ic5525-10
Misc : op98591,em5525
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 22 15:14:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:14:04 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	10.823	178	437961	10.20	ppm	98
78)	Anthracene	10.919	178	465773	10.32	ppm	98
79)	Carbazole	11.271	167	476843	10.44	ppm	89
80)	Di-n-butylphthalate	12.062	149	683932	10.45	ppm	97
81)	Fluoranthene	13.114	202	494124	10.65	ppm	96
82)	Octadecane	10.764	57	169386	9.82	ppm	94
84)	Pyrene	13.542	202	511553	10.60	ppm	94
86)	Butylbenzylphthalate	15.000	149	311848	10.11	ppm	78
87)	Benzo[a]anthracene	15.935	228	423963	9.87	ppm	94
88)	3,3'-Dichlorobenzidine	15.962	252	162158	10.45	ppm	90
89)	Chrysene	16.004	228	391292	10.22	ppm	97
90)	bis(2-Ethylhexyl)phtha...	16.218	149	404026	9.97	ppm	81
92)	Di-n-octylphthalate	17.447	149	633009	9.57	ppm	99
93)	Benzo[b]fluoranthene	17.933	252	394610	9.97	ppm	97
94)	Benzo[k]fluoranthene	17.981	252	361471	10.25	ppm	97
95)	Benzo[a]pyrene	18.478	252	333987	9.74	ppm	100
96)	Indeno[1,2,3-cd]pyrene	20.294	276	293742	10.36	ppm	88
97)	Dibenz(a,h)acridine	19.931	279	280160	10.55	ppm	99
98)	Dibenz[a,h]anthracene	20.342	278	309172	10.75	ppm	100
99)	7,12-Dimethylbenz(a)an...	17.938	256	156411	10.36	ppm	90
100)	Benzo[g,h,i]perylene	20.754	276	303422	10.79	ppm	97

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

9.6.60

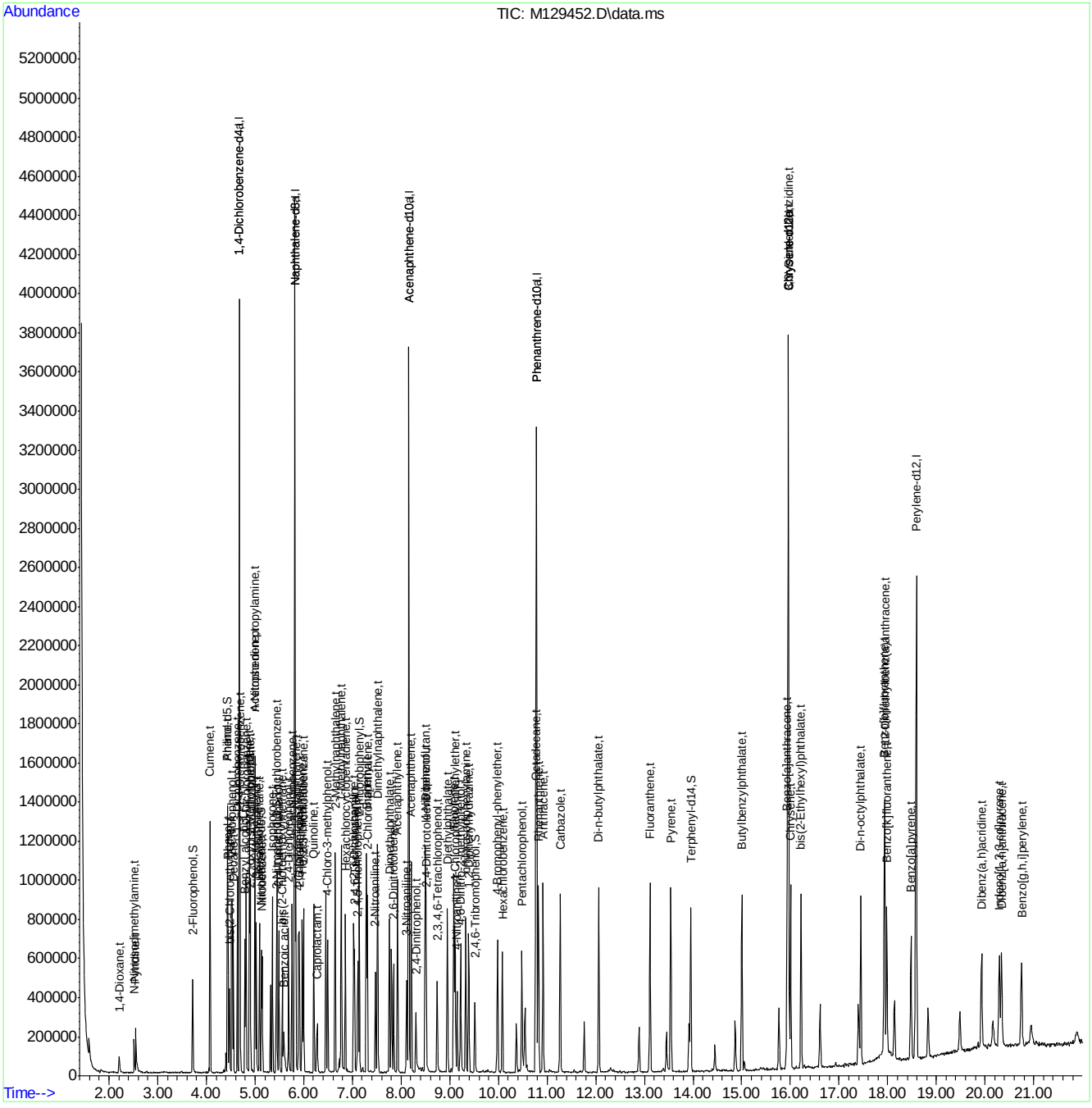
6

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129452.D
Acq On : 22 Nov 2016 11:14 am
Operator : ashleyd
Sample : ic5525-10
Misc : op98591,em5525
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 22 15:14:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:14:04 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129453.D
Acq On : 22 Nov 2016 11:43 am
Operator : ashleyd
Sample : ic5525-25
Misc : op98591,em5525
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 22 15:32:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:28:04 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.677	152	214904	40.00	ppm	0.00
24) Naphthalene-d8	5.814	136	891568	40.00	ppm	0.00
47) Acenaphthene-d10	8.160	164	516501	40.00	ppm	0.00
69) Phenanthrene-d10	10.783	188	831439	40.00	ppm	0.00
83) Chrysene-d12	15.954	240	772264	40.00	ppm	0.00
91) Perylene-d12	18.582	264	669742	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.677	152	214904	40.00	ppm	0.00
103) Acenaphthene-d10a	8.160	164	516501	40.00	ppm	0.00
106) Chrysene-d12a	15.954	240	772264	40.00	ppm	0.00
109) Phenanthrene-d10a	10.783	188	831439	40.00	ppm	0.00
111) Naphthalene-d8a	5.814	136	891568	40.00	ppm	0.00
113) Chrysene-d12b	15.954	240	772264	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.715	112	170214	27.59	ppm	-0.02
Spiked Amount 50.000			Recovery	=	55.18%	
8) Phenol-d5	4.436	99	215889	27.03	ppm	0.04
Spiked Amount 50.000			Recovery	=	54.06%	
25) Nitrobenzene-d5	5.131	82	211139	25.28	ppm	0.00
Spiked Amount 50.000			Recovery	=	50.56%	
51) 2-Fluorobiphenyl	7.145	172	400158	24.45	ppm	-0.02
Spiked Amount 50.000			Recovery	=	48.90%	
73) 2,4,6-Tribromophenol	9.517	330	55206	25.85	ppm	-0.03
Spiked Amount 50.000			Recovery	=	51.70%	
85) Terphenyl-d14	13.950	244	378851	24.07	ppm	-0.05
Spiked Amount 50.000			Recovery	=	48.14%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.208	88	49862	24.68	ppm	97
3) Pyridine	2.545	79	139996	28.09	ppm	97
4) N-Nitrosodimethylamine	2.508	42	79617	25.99	ppm #	68
6) Indene	4.885	116	307448	25.66	ppm	88
7) Cumene	4.078	105	471548	26.31	ppm	90
9) Phenol	4.447	94	227473	25.71	ppm	87
10) Aniline	4.431	93	228426	24.11	ppm	76
11) bis(2-Chloroethyl)ether	4.474	93	148871	26.66	ppm	98
12) 2-Chlorophenol	4.532	128	193298	25.60	ppm	96
13) Decane	4.554	43	92250	25.46	ppm	88
14) 1,3-Dichlorobenzene	4.634	146	211917	26.56	ppm	92
15) 1,4-Dichlorobenzene	4.693	146	206600	26.46	ppm	97
16) Benzyl alcohol	4.794	108	115233	26.21	ppm #	64
17) 1,2-Dichlorobenzene	4.815	146	198700	25.41	ppm	99
18) Acetophenone	5.002	105	264798	25.31	ppm	90
19) 2-Methylphenol	4.901	108	149050	24.36	ppm	91
20) 2,2'-oxybis(1-Chloropr...	4.890	121	58448	24.76	ppm	86

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129453.D
Acq On : 22 Nov 2016 11:43 am
Operator : ashleyd
Sample : ic5525-25
Misc : op98591,em5525
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 22 15:32:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:28:04 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.024	108	168604	25.45	ppm		90
22) n-Nitroso-di-n-propyla...	5.002	70	137890	26.09	ppm		91
23) Hexachloroethane	5.088	201	61566	25.78	ppm	#	58
26) Nitrobenzene	5.147	77	207230	25.59	ppm		81
27) Quinoline	6.204	129	392435	25.05	ppm		96
28) Isophorone	5.355	82	359800	25.12	ppm		90
29) 2-Nitrophenol	5.435	139	115242	26.36	ppm		63
30) 2,4-Dimethylphenol	5.489	107	167769	25.80	ppm		86
31) Benzoic acid	5.595	105	124320	26.82	ppm		87
32) bis(2-Chloroethoxy)met...	5.558	93	189620	26.23	ppm		95
33) 2,4-Dichlorophenol	5.692	162	154604	25.02	ppm		95
34) 2,6-Dichlorophenol	5.911	162	143643	24.36	ppm		94
35) 1,3,5-Trichlorobenzene	5.451	180	159416	24.65	ppm		95
36) 1,2,4-Trichlorobenzene	5.756	180	152052	24.71	ppm		93
37) 1,2,3-Trichlorobenzene	5.996	180	149160	25.03	ppm		93
38) Naphthalene	5.836	128	542906	25.80	ppm		99
39) 4-Chloroaniline	5.900	127	229391	25.64	ppm		94
40) 2,3-Dichloroaniline	7.027	161	193988	24.43	ppm		95
41) Caprolactam	6.279	55	61420	24.01	ppm		85
42) Hexachlorobutadiene	5.969	225	79470	24.35	ppm		97
43) 4-Chloro-3-methylphenol	6.493	107	180822	26.35	ppm		85
44) 2-Methylnaphthalene	6.642	141	354461	26.34	ppm		92
45) 1-Methylnaphthalene	6.771	142	386861	25.13	ppm		80
46) Dimethylnaphthalene	7.519	156	336434	24.62	ppm		89
48) Hexachlorocyclopentadiene	6.856	237	142348	59.26	ppm		97
49) 2,4,6-Trichlorophenol	7.043	196	99965	24.37	ppm		74
50) 2,4,5-Trichlorophenol	7.107	196	105007	23.80	ppm		100
52) 2-Chloronaphthalene	7.305	162	331594	23.68	ppm		92
53) Biphenyl	7.284	154	467553	24.26	ppm		96
54) 2-Nitroaniline	7.470	65	114780	25.33	ppm		83
55) Dimethylphthalate	7.759	163	427776	24.54	ppm		98
56) Acenaphthylene	7.930	152	590749	24.26	ppm		97
57) 2,6-Dinitrotoluene	7.850	165	91841	24.83	ppm		89
58) 3-Nitroaniline	8.117	138	119245	24.78	ppm		83
59) Acenaphthene	8.208	153	377798	24.75	ppm		95
60) 2,4-Dinitrophenol	8.304	184	63129	55.72	ppm	#	46
61) 4-Nitrophenol	8.507	109	71139	23.59	ppm	#	61
62) Dibenzofuran	8.496	168	503428	24.94	ppm		78
63) 2,4-Dinitrotoluene	8.512	165	128744	26.46	ppm	#	41
64) 2,3,4,6-Tetrachlorophenol	8.742	232	71998	25.27	ppm	#	58
65) Diethylphthalate	8.950	149	482310	24.63	ppm		89
66) Fluorene	9.084	166	424184	24.02	ppm		90
67) 4-Chlorophenyl-phenyle...	9.111	204	155096	23.20	ppm	#	65
68) 4-Nitroaniline	9.153	138	113674	25.93	ppm		97
70) 4,6-Dinitro-2-methylph...	9.228	198	57546	24.33	ppm		63
71) n-Nitrosodiphenylamine	9.330	169	299691	24.82	ppm		92
72) 1,2-Diphenylhydrazine	9.388	77	436455	25.02	ppm		90
74) 4-Bromophenyl-phenylether	9.987	248	97798	24.16	ppm	#	74
75) Hexachlorobenzene	10.083	284	112258	24.88	ppm		73
76) Pentachlorophenol	10.483	266	86432	51.82	ppm		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129453.D
Acq On : 22 Nov 2016 11:43 am
Operator : ashleyd
Sample : ic5525-25
Misc : op98591,em5525
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 22 15:32:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:28:04 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	10.825	178	545594	24.62	ppm	99
78)	Anthracene	10.916	178	568144	24.32	ppm	97
79)	Carbazole	11.269	167	585007	24.68	ppm	88
80)	Di-n-butylphthalate	12.059	149	862239	25.39	ppm	98
81)	Fluoranthene	13.117	202	605729	25.05	ppm	95
82)	Octadecane	10.767	57	202488	22.90	ppm	97
84)	Pyrene	13.544	202	619517	24.04	ppm	96
86)	Butylbenzylphthalate	15.003	149	403565	24.74	ppm	84
87)	Benzo[a]anthracene	15.938	228	533574	23.59	ppm	97
88)	3,3'-Dichlorobenzidine	15.959	252	201731	24.43	ppm	91
89)	Chrysene	16.002	228	474204	23.37	ppm	97
90)	bis(2-Ethylhexyl)phtha...	16.221	149	525867	24.60	ppm	82
92)	Di-n-octylphthalate	17.450	149	940218	25.56	ppm	98
93)	Benzo[b]fluoranthene	17.936	252	528938	23.85	ppm	98
94)	Benzo[k]fluoranthene	17.984	252	480479	24.17	ppm	97
95)	Benzo[a]pyrene	18.475	252	448771	23.46	ppm	96
96)	Indeno[1,2,3-cd]pyrene	20.297	276	371008	23.16	ppm	95
97)	Dibenz(a,h)acridine	19.928	279	360455	23.93	ppm	85
98)	Dibenz[a,h]anthracene	20.345	278	400027	24.44	ppm	100
99)	7,12-Dimethylbenz(a)an...	17.936	256	220202	25.82	ppm	80
100)	Benzo[g,h,i]perylene	20.756	276	382007	23.85	ppm	96

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

9.6.61

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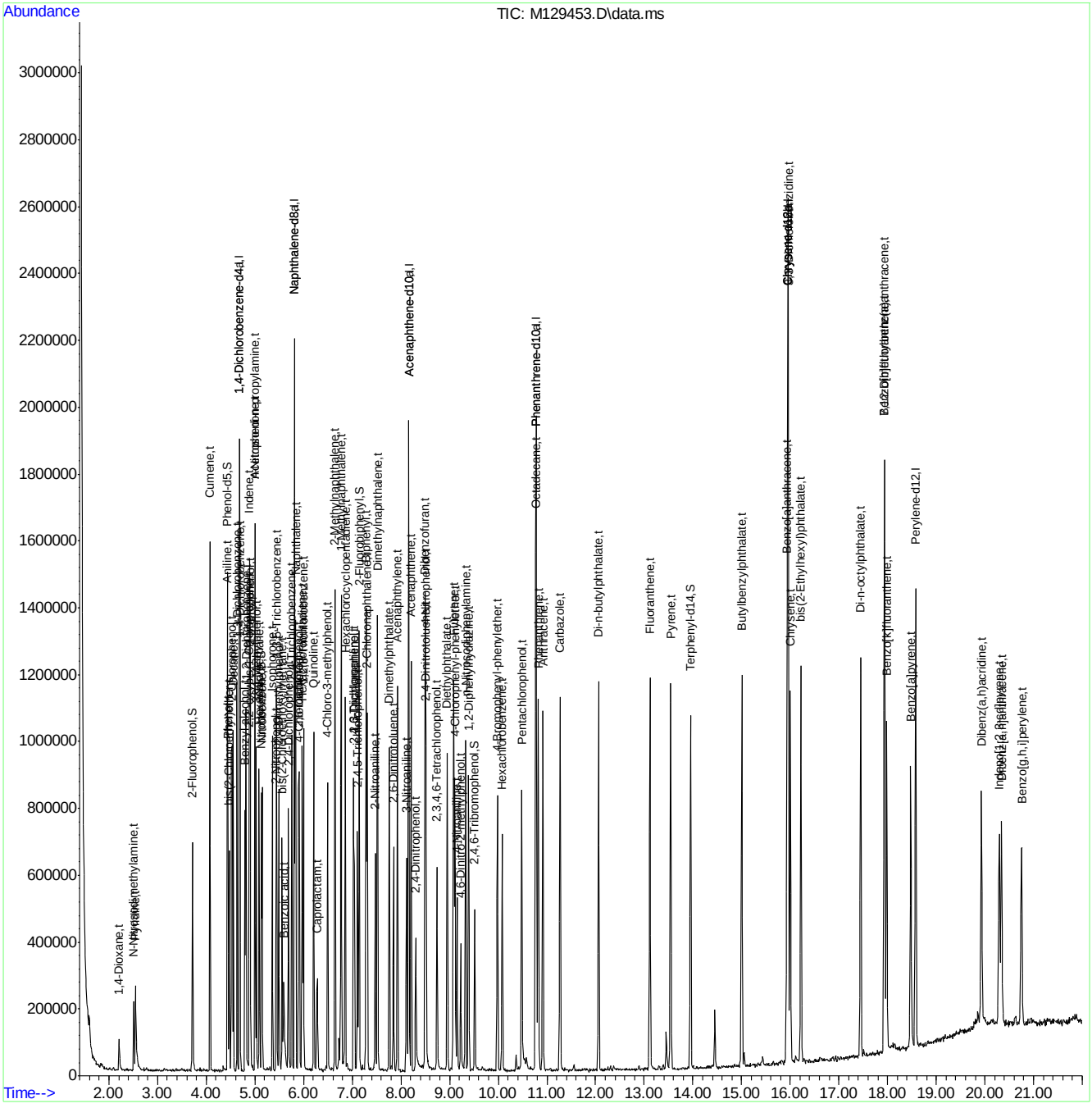
SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129453.D
Acq On : 22 Nov 2016 11:43 am
Operator : ashleyd
Sample : ic5525-25
Misc : op98591,em5525
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 22 15:32:45 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:28:04 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129454.D
Acq On : 22 Nov 2016 12:13 pm
Operator : ashleyd
Sample : icc5525-50
Misc : op98591,em5525
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 22 15:35:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:35:48 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.677	152	222997	40.00	ppm	0.00
24) Naphthalene-d8	5.815	136	913899	40.00	ppm	0.00
47) Acenaphthene-d10	8.160	164	512747	40.00	ppm	0.00
69) Phenanthrene-d10	10.783	188	847980	40.00	ppm	0.00
83) Chrysene-d12	15.959	240	805766	40.00	ppm	0.00
91) Perylene-d12	18.582	264	669554	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.677	152	222997	40.00	ppm	0.00
103) Acenaphthene-d10a	8.160	164	512747	40.00	ppm	0.00
106) Chrysene-d12a	15.959	240	805766	40.00	ppm	0.00
109) Phenanthrene-d10a	10.783	188	847980	40.00	ppm	0.00
111) Naphthalene-d8a	5.815	136	913899	40.00	ppm	0.00
113) Chrysene-d12b	15.959	240	805766	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.715	112	367910	55.04	ppm	-0.02
Spiked Amount 50.000			Recovery	=	110.08%	
8) Phenol-d5	4.436	99	476676	55.50	ppm	0.04
Spiked Amount 50.000			Recovery	=	111.00%	
25) Nitrobenzene-d5	5.131	82	439272	51.00	ppm	0.00
Spiked Amount 50.000			Recovery	=	102.00%	
51) 2-Fluorobiphenyl	7.145	172	818129	50.43	ppm	-0.02
Spiked Amount 50.000			Recovery	=	100.86%	
73) 2,4,6-Tribromophenol	9.522	330	113106	50.88	ppm	-0.03
Spiked Amount 50.000			Recovery	=	101.76%	
85) Terphenyl-d14	13.956	244	776081	47.32	ppm	-0.05
Spiked Amount 50.000			Recovery	=	94.64%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.209	88	107357	50.61	ppm	98
3) Pyridine	2.540	79	296739	55.12	ppm	98
4) N-Nitrosodimethylamine	2.508	42	174168	53.84	ppm #	66
6) Indene	4.885	116	665126	52.25	ppm	94
7) Cumene	4.078	105	1001972	52.84	ppm	91
9) Phenol	4.447	94	478187	51.23	ppm	91
10) Aniline	4.431	93	454541	47.15	ppm	74
11) bis(2-Chloroethyl)ether	4.474	93	295330	50.28	ppm	95
12) 2-Chlorophenol	4.533	128	399619	50.56	ppm	97
13) Decane	4.554	43	189977	50.09	ppm	90
14) 1,3-Dichlorobenzene	4.634	146	429515	50.92	ppm	92
15) 1,4-Dichlorobenzene	4.693	146	421230	51.00	ppm	95
16) Benzyl alcohol	4.794	108	245485	52.58	ppm #	65
17) 1,2-Dichlorobenzene	4.816	146	412134	50.41	ppm	95
18) Acetophenone	5.003	105	569607	51.96	ppm	88
19) 2-Methylphenol	4.906	108	309182	48.70	ppm	93
20) 2,2'-oxybis(1-Chloropr...	4.890	121	121957	49.45	ppm	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129454.D
Acq On : 22 Nov 2016 12:13 pm
Operator : ashleyd
Sample : icc5525-50
Misc : op98591,em5525
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 22 15:35:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:35:48 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.024	108	337080	48.50	ppm		98
22)	n-Nitroso-di-n-propyla...	5.003	70	295919	53.23	ppm		88
23)	Hexachloroethane	5.088	201	128799	51.53	ppm	#	70
26)	Nitrobenzene	5.147	77	412241	49.53	ppm		84
27)	Quinoline	6.215	129	823483	50.89	ppm		93
28)	Isophorone	5.361	82	742402	50.36	ppm		91
29)	2-Nitrophenol	5.441	139	234715	51.04	ppm		64
30)	2,4-Dimethylphenol	5.494	107	374416	54.37	ppm		89
31)	Benzoic acid	5.628	105	287839	56.30	ppm		91
32)	bis(2-Chloroethoxy)met...	5.558	93	374353	49.79	ppm		97
33)	2,4-Dichlorophenol	5.692	162	311737	49.03	ppm		97
34)	2,6-Dichlorophenol	5.916	162	297664	49.08	ppm		99
35)	1,3,5-Trichlorobenzene	5.451	180	332277	49.87	ppm		93
36)	1,2,4-Trichlorobenzene	5.761	180	318948	50.46	ppm		97
37)	1,2,3-Trichlorobenzene	5.996	180	303096	49.41	ppm		93
38)	Naphthalene	5.841	128	1141991	51.96	ppm		98
39)	4-Chloroaniline	5.900	127	456732	49.39	ppm		93
40)	2,3-Dichloroaniline	7.027	161	400661	49.09	ppm		93
41)	Caprolactam	6.301	55	123440	47.36	ppm		87
42)	Hexachlorobutadiene	5.970	225	166743	49.98	ppm		97
43)	4-Chloro-3-methylphenol	6.498	107	369903	51.52	ppm		88
44)	2-Methylnaphthalene	6.648	141	721270	51.37	ppm		92
45)	1-Methylnaphthalene	6.771	142	807883	50.73	ppm		87
46)	Dimethylnaphthalene	7.519	156	713530	50.79	ppm		87
48)	Hexachlorocyclopentadiene	6.856	237	314503	120.28	ppm		94
49)	2,4,6-Trichlorophenol	7.049	196	191135	47.18	ppm	#	68
50)	2,4,5-Trichlorophenol	7.113	196	214084	48.89	ppm		96
52)	2-Chloronaphthalene	7.310	162	672913	48.82	ppm		90
53)	Biphenyl	7.289	154	975531	50.58	ppm		99
54)	2-Nitroaniline	7.476	65	238314	52.25	ppm	#	81
55)	Dimethylphthalate	7.765	163	887377	51.12	ppm		97
56)	Acenaphthylene	7.930	152	1200249	49.63	ppm		97
57)	2,6-Dinitrotoluene	7.855	165	190942	51.34	ppm		92
58)	3-Nitroaniline	8.122	138	245504	51.01	ppm		80
59)	Acenaphthene	8.213	153	782667	51.26	ppm		95
60)	2,4-Dinitrophenol	8.309	184	177411	133.31	ppm		100
61)	4-Nitrophenol	8.507	109	152489	50.88	ppm	#	33
62)	Dibenzofuran	8.502	168	1034051	51.22	ppm		73
63)	2,4-Dinitrotoluene	8.518	165	258980	52.56	ppm	#	50
64)	2,3,4,6-Tetrachlorophenol	8.742	232	144864	50.05	ppm	#	63
65)	Diethylphthalate	8.961	149	979440	50.31	ppm		90
66)	Fluorene	9.084	166	880787	50.22	ppm		93
67)	4-Chlorophenyl-phenyle...	9.111	204	319166	48.78	ppm	#	69
68)	4-Nitroaniline	9.169	138	238000	53.39	ppm		96
70)	4,6-Dinitro-2-methylph...	9.234	198	134781	53.55	ppm		64
71)	n-Nitrosodiphenylamine	9.335	169	612698	49.71	ppm		96
72)	1,2-Diphenylhydrazine	9.394	77	874396	49.09	ppm		92
74)	4-Bromophenyl-phenylether	9.987	248	204257	49.56	ppm	#	72
75)	Hexachlorobenzene	10.088	284	228462	49.49	ppm		80
76)	Pentachlorophenol	10.489	266	212277	114.66	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129454.D
Acq On : 22 Nov 2016 12:13 pm
Operator : ashleyd
Sample : icc5525-50
Misc : op98591,em5525
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 22 15:35:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:35:48 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	10.826	178	1121498	49.31	ppm	99
78)	Anthracene	10.922	178	1165660	48.93	ppm	99
79)	Carbazole	11.274	167	1223607	50.28	ppm	88
80)	Di-n-butylphthalate	12.065	149	1800117	51.48	ppm	98
81)	Fluoranthene	13.123	202	1249678	50.22	ppm	98
82)	Octadecane	10.767	57	424383	47.49	ppm	97
84)	Pyrene	13.550	202	1283368	48.13	ppm	97
86)	Butylbenzylphthalate	15.003	149	840084	49.42	ppm	82
87)	Benzo[a]anthracene	15.938	228	1108882	47.44	ppm	97
88)	3,3'-Dichlorobenzidine	15.965	252	422440	48.95	ppm	94
89)	Chrysene	16.013	228	1004498	47.89	ppm	99
90)	bis(2-Ethylhexyl)phtha...	16.221	149	1113473	49.82	ppm	81
92)	Di-n-octylphthalate	17.450	149	1896958	51.03	ppm	100
93)	Benzo[b]fluoranthene	17.941	252	1092964	49.21	ppm	97
94)	Benzo[k]fluoranthene	17.995	252	958160	48.78	ppm	96
95)	Benzo[a]pyrene	18.486	252	896672	47.42	ppm	94
96)	Indeno[1,2,3-cd]pyrene	20.308	276	821444	51.17	ppm	99
97)	Dibenz(a,h)acridine	19.939	279	750639	49.74	ppm	98
98)	Dibenz[a,h]anthracene	20.356	278	827217	50.35	ppm	99
99)	7,12-Dimethylbenz(a)an...	17.947	256	458916	52.26	ppm	81
100)	Benzo[g,h,i]perylene	20.773	276	822510	51.27	ppm	94

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

9.6.62

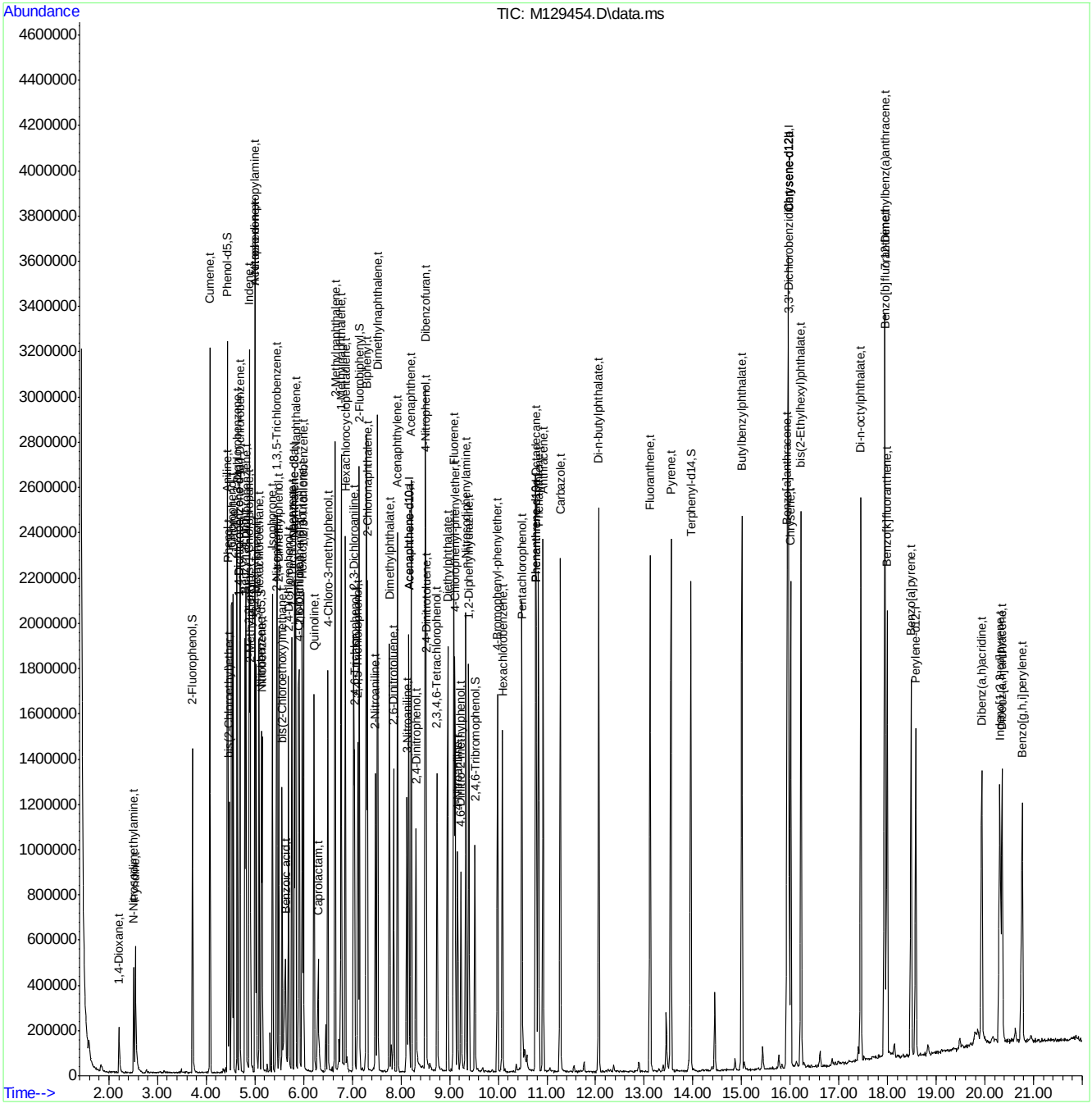
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129454.D
Acq On : 22 Nov 2016 12:13 pm
Operator : ashleyd
Sample : icc5525-50
Misc : op98591,em5525
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 22 15:35:59 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:35:48 2016
Response via : Initial Calibration

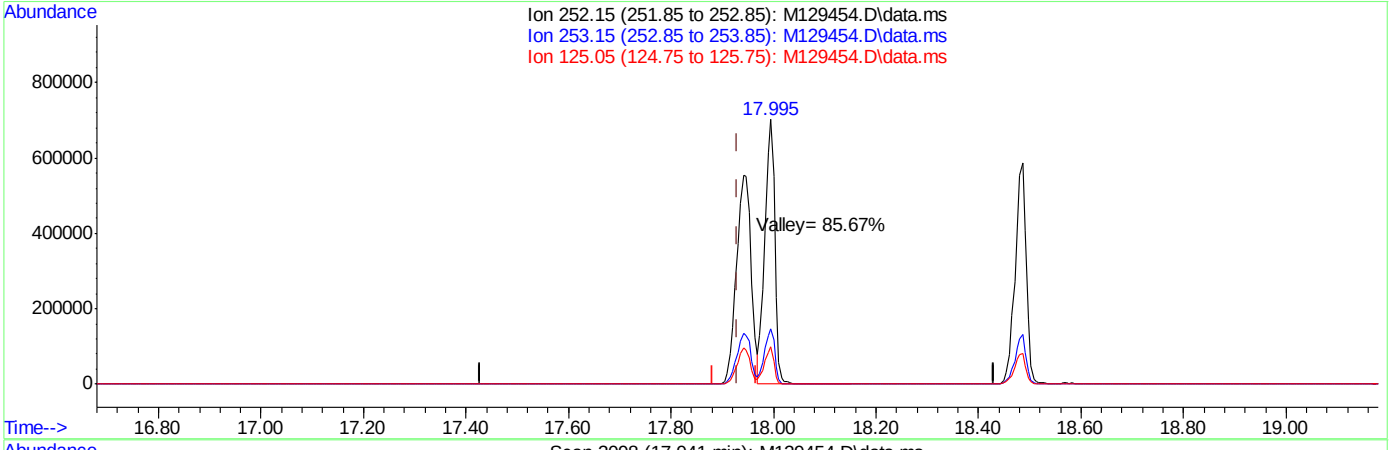


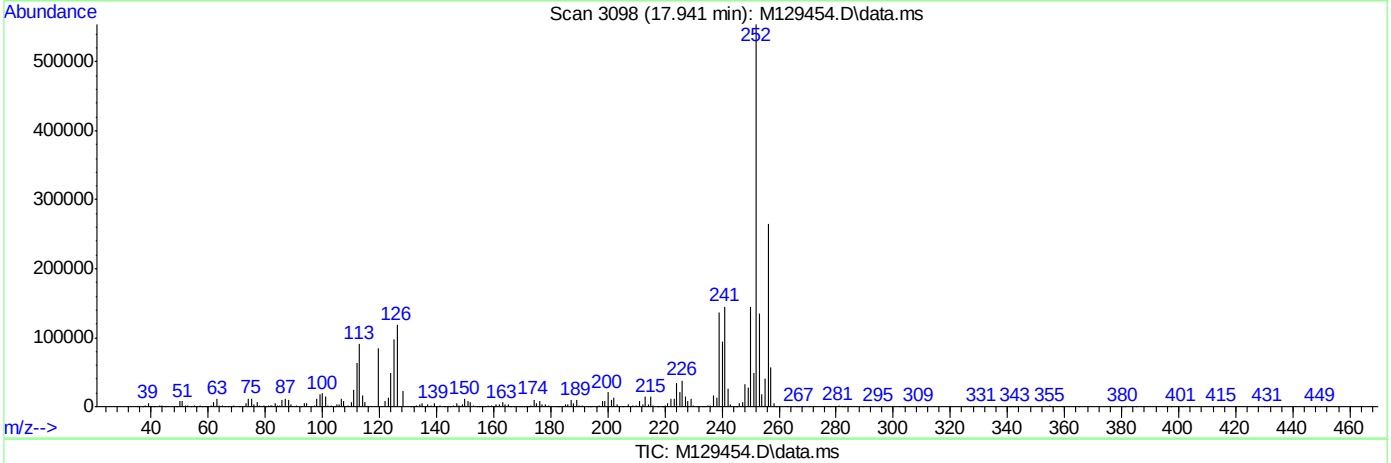
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129454.D
Acq On : 22 Nov 2016 12:13 pm
Operator : ashleyd
Sample : icc5525-50
Misc : op98591,em5525
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 22 15:35:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:35:05 2016
Response via : Initial Calibration





TIC: M129454.D\data.ms

(93) Benzo[b]fluoranthene (t)

17.941min (+0.011) 49.21ppm

response 1092964

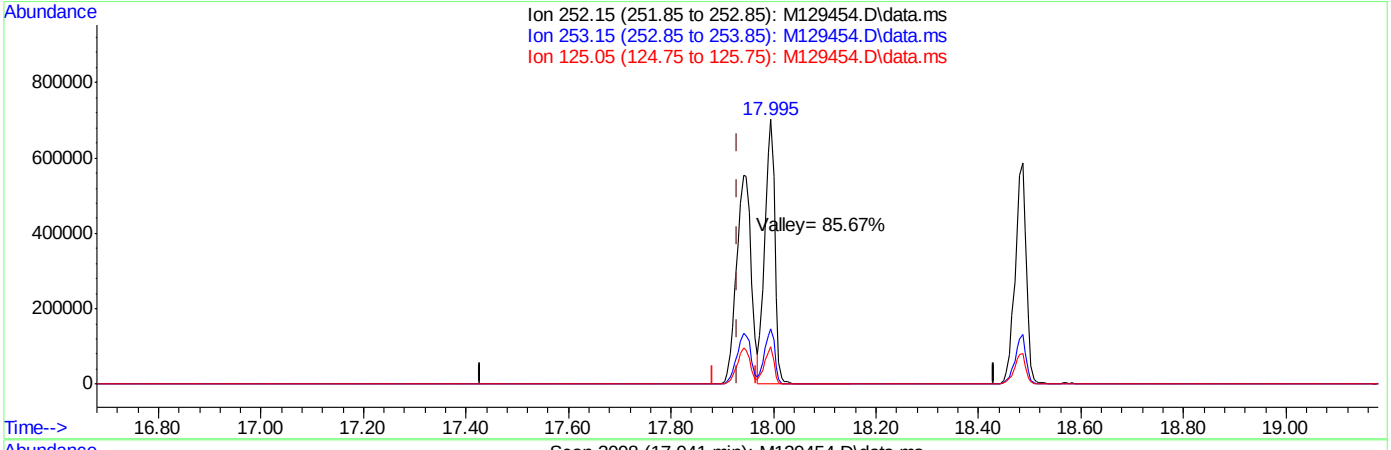
Ion	Exp%	Act%
252.15	100	100
253.15	23.30	24.27
125.05	15.90	17.81
0.00	0.00	0.00

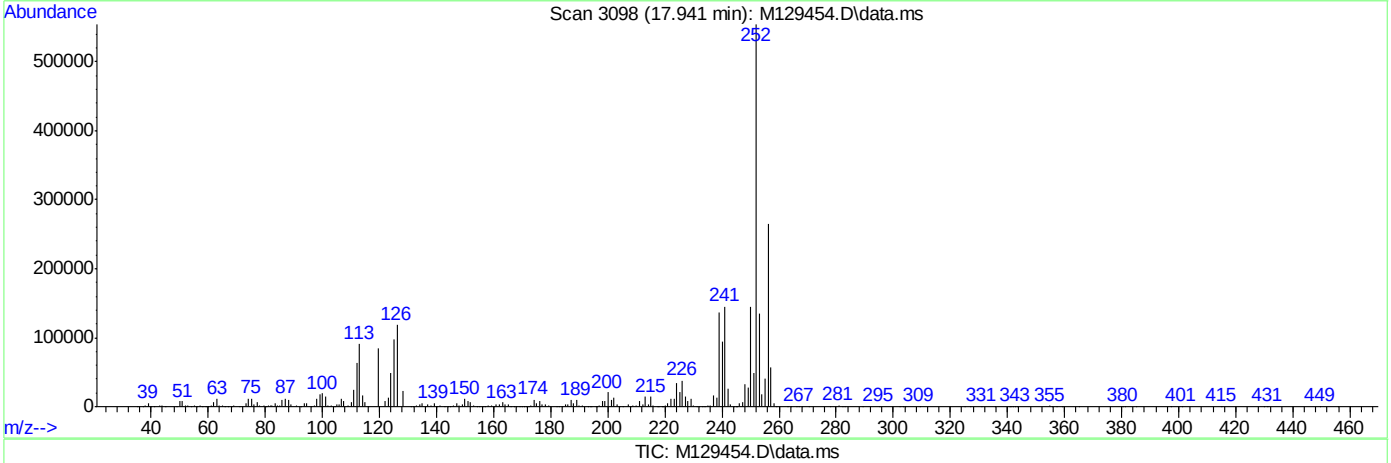
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129454.D
Acq On : 22 Nov 2016 12:13 pm
Operator : ashleyd
Sample : icc5525-50
Misc : op98591,em5525
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 22 15:35:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:35:05 2016
Response via : Initial Calibration





TIC: M129454.D\data.ms

(93) Benzo[b]fluoranthene (t)

17.941min (+0.011) 49.21ppm

response 1092964

Ion	Exp%	Act%
252.15	100	100
253.15	23.30	24.27
125.05	15.90	17.81
0.00	0.00	0.00

SGS ACCUTEST JC33175

M129455.D

Manual Integrations APPROVED (compounds with "m" flag)

Nina Pandya
12/01/16 09:56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:34:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.678	152	331244	40.00	ppm	0.00
24) Naphthalene-d8	5.822	136	1330412	40.00	ppm	0.00
47) Acenaphthene-d10	8.167	164	737511	40.00	ppm	0.00
69) Phenanthrene-d10	10.790	188	1205582	40.00	ppm	0.00
83) Chrysene-d12	15.972	240	1146151	40.00	ppm	0.02
91) Perylene-d12	18.595	264	989940	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.678	152	331244	40.00	ppm	0.00
103) Acenaphthene-d10a	8.167	164	737511	40.00	ppm	0.00
106) Chrysene-d12a	15.972	240	1146151	40.00	ppm	0.02
109) Phenanthrene-d10a	10.790	188	1205582	40.00	ppm	0.00
111) Naphthalene-d8a	5.822	136	1330412	40.00	ppm	0.00
113) Chrysene-d12b	15.972	240	1146151	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.717	112	916814	94.77	ppm	-0.01
Spiked Amount 50.000			Recovery	=	189.54%	
8) Phenol-d5	4.443	99	1156548	92.70	ppm	0.05
Spiked Amount 50.000			Recovery	=	185.40%	
25) Nitrobenzene-d5	5.138	82	1028057	82.33	ppm	0.00
Spiked Amount 50.000			Recovery	=	164.66%	
51) 2-Fluorobiphenyl	7.152	172	1892032	81.27	ppm	-0.02
Spiked Amount 50.000			Recovery	=	162.54%	
73) 2,4,6-Tribromophenol	9.534	330	274951	88.29	ppm	-0.02
Spiked Amount 50.000			Recovery	=	176.58%	
85) Terphenyl-d14	13.963	244	1920412	82.73	ppm	-0.04
Spiked Amount 50.000			Recovery	=	165.46%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.205	88	272830	87.80	ppm	94
3) Pyridine	2.536	79	714992	91.20	ppm	98
4) N-Nitrosodimethylamine	2.504	42	403172	84.72	ppm #	71
6) Indene	4.887	116	1686349	90.91	ppm	98
7) Cumene	4.080	105	2398252	86.06	ppm	94
9) Phenol	4.454	94	1187972	86.70	ppm	97
10) Aniline	4.433	93	1050114	72.34	ppm #	40
11) bis(2-Chloroethyl)ether	4.481	93	708438	81.40	ppm	89
12) 2-Chlorophenol	4.534	128	966785	82.74	ppm	95
13) Decane	4.555	43	465808	83.14	ppm	85
14) 1,3-Dichlorobenzene	4.641	146	1052056	84.66	ppm	96
15) 1,4-Dichlorobenzene	4.694	146	1038884	85.50	ppm	97
16) Benzyl alcohol	4.801	108	605269	88.62	ppm	71
17) 1,2-Dichlorobenzene	4.817	146	999141	82.66	ppm	96
18) Acetophenone	5.010	105	1361135	84.22	ppm	91
19) 2-Methylphenol	4.908	108	774126	82.44	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.897	121	308167	84.84	ppm #	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:34:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21)	3&4-Methylphenol	5.031	108	865225	84.47	ppm		99
22)	n-Nitroso-di-n-propyla...	5.015	70	685249	83.51	ppm		93
23)	Hexachloroethane	5.090	201	303178	81.93	ppm	#	67
26)	Nitrobenzene	5.154	77	962025	79.31	ppm		84
27)	Quinoline	6.244	129	1965186	84.03	ppm		95
28)	Isophorone	5.373	82	1752978	81.96	ppm		93
29)	2-Nitrophenol	5.448	139	589678	89.59	ppm	#	56
30)	2,4-Dimethylphenol	5.501	107	931644	95.50	ppm		93
31)	Benzoic acid	5.672	105	723531m	102.75	ppm		
32)	bis(2-Chloroethoxy)met...	5.565	93	908931	83.58	ppm		98
33)	2,4-Dichlorophenol	5.693	162	756601	82.05	ppm		95
34)	2,6-Dichlorophenol	5.923	162	738320	84.25	ppm		98
35)	1,3,5-Trichlorobenzene	5.453	180	811046	84.25	ppm		92
36)	1,2,4-Trichlorobenzene	5.763	180	753730	82.25	ppm		96
37)	1,2,3-Trichlorobenzene	6.003	180	731573	82.24	ppm		94
38)	Naphthalene	5.843	128	2765369	87.60	ppm		98
39)	4-Chloroaniline	5.912	127	1103063	82.28	ppm		95
40)	2,3-Dichloroaniline	7.034	161	987944	83.71	ppm		95
41)	Caprolactam	6.334	55	306757m	81.01	ppm		
42)	Hexachlorobutadiene	5.976	225	392484	80.95	ppm		99
43)	4-Chloro-3-methylphenol	6.511	107	893421	86.47	ppm		86
44)	2-Methylnaphthalene	6.650	141	1720021	84.89	ppm		92
45)	1-Methylnaphthalene	6.778	142	1947005	84.68	ppm		90
46)	Dimethylnaphthalene	7.526	156	1690969	83.14	ppm		89
48)	Hexachlorocyclopentadiene	6.863	237	817715	231.26	ppm		96
49)	2,4,6-Trichlorophenol	7.056	196	463778	79.52	ppm	#	71
50)	2,4,5-Trichlorophenol	7.120	196	526969	84.32	ppm		99
52)	2-Chloronaphthalene	7.317	162	1587695	80.10	ppm		92
53)	Biphenyl	7.296	154	2390686	87.31	ppm		98
54)	2-Nitroaniline	7.488	65	560812	86.48	ppm		82
55)	Dimethylphthalate	7.777	163	2072585	83.52	ppm		97
56)	Acenaphthylene	7.937	152	2869588	82.93	ppm		98
57)	2,6-Dinitrotoluene	7.868	165	463281	87.81	ppm		88
58)	3-Nitroaniline	8.140	138	583994	85.12	ppm		88
59)	Acenaphthene	8.220	153	1854054	85.20	ppm		98
60)	2,4-Dinitrophenol	8.322	184	513700	310.42	ppm	#	45
61)	4-Nitrophenol	8.525	109	366555	86.11	ppm	#	68
62)	Dibenzofuran	8.509	168	2430862	84.37	ppm		78
63)	2,4-Dinitrotoluene	8.535	165	600883	85.64	ppm		65
64)	2,3,4,6-Tetrachlorophenol	8.754	232	375099	92.04	ppm	#	60
65)	Diethylphthalate	8.973	149	2291652	82.15	ppm		90
66)	Fluorene	9.096	166	2102237	83.91	ppm		97
67)	4-Chlorophenyl-phenyle...	9.118	204	743695	78.85	ppm	#	72
68)	4-Nitroaniline	9.198	138	567858	90.17	ppm		96
70)	4,6-Dinitro-2-methylph...	9.257	198	341116	100.13	ppm		65
71)	n-Nitrosodiphenylamine	9.347	169	1419830	81.19	ppm		97
72)	1,2-Diphenylhydrazine	9.406	77	2039914	80.64	ppm		93
74)	4-Bromophenyl-phenylether	9.999	248	480365	82.31	ppm	#	80
75)	Hexachlorobenzene	10.095	284	536922	82.12	ppm		75
76)	Pentachlorophenol	10.501	266	577951	237.25	ppm		98

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:34:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.838	178	2719142	84.83	ppm	98
78) Anthracene	10.934	178	2780390	82.44	ppm	99
79) Carbazole	11.287	167	2915332	85.01	ppm	93
80) Di-n-butylphthalate	12.072	149	4140105	83.86	ppm	98
81) Fluoranthene	13.130	202	2977872	84.91	ppm	96
82) Octadecane	10.774	57	1047471	82.87	ppm	98
84) Pyrene	13.557	202	2998812	78.91	ppm	97
86) Butylbenzylphthalate	15.015	149	1940135	80.27	ppm	85
87) Benzo[a]anthracene	15.950	228	2659799	79.99	ppm	97
88) 3,3'-Dichlorobenzidine	15.977	252	1013200	82.98	ppm	95
89) Chrysene	16.030	228	2409854	80.89	ppm	98
90) bis(2-Ethylhexyl)phtha...	16.228	149	2616547	82.69	ppm	84
92) Di-n-octylphthalate	17.457	149	4582980	83.97	ppm	99
93) Benzo[b]fluoranthene	17.975	252	2772213	85.21	ppm	96
94) Benzo[k]fluoranthene	18.018	252	2234806	76.47	ppm	96
95) Benzo[a]pyrene	18.504	252	2224629	79.50	ppm	93
96) Indeno[1,2,3-cd]pyrene	20.331	276	2064593	88.27	ppm	99
97) Dibenz(a,h)acridine	19.957	279	1887113	85.38	ppm	94
98) Dibenz[a,h]anthracene	20.379	278	2034449	84.42	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.970	256	1187935	93.73	ppm	85
100) Benzo[g,h,i]perylene	20.801	276	2004268	85.30	ppm	98

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

9.6.63

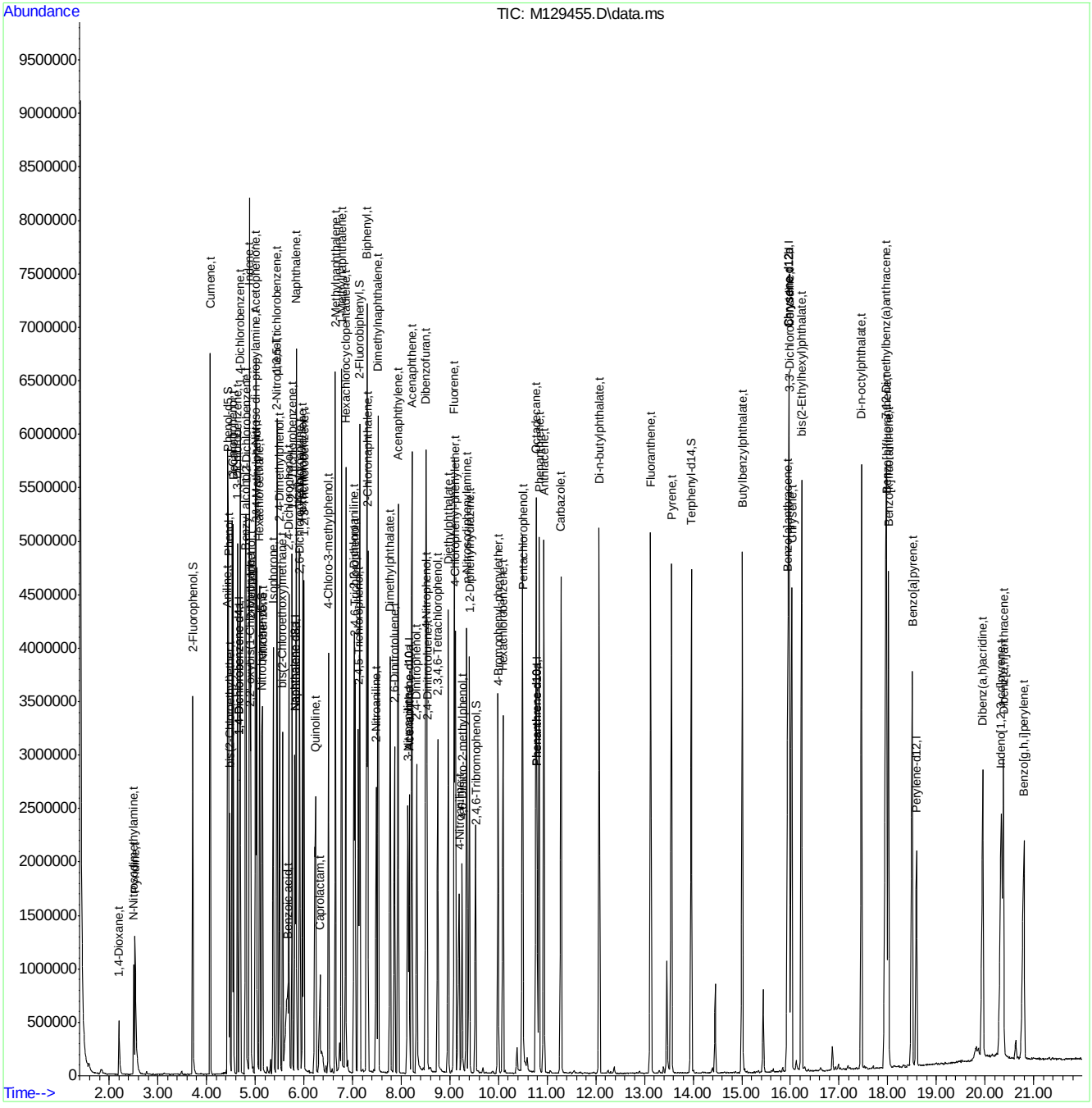
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:34:15 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration



Manual Integration Approval Summary

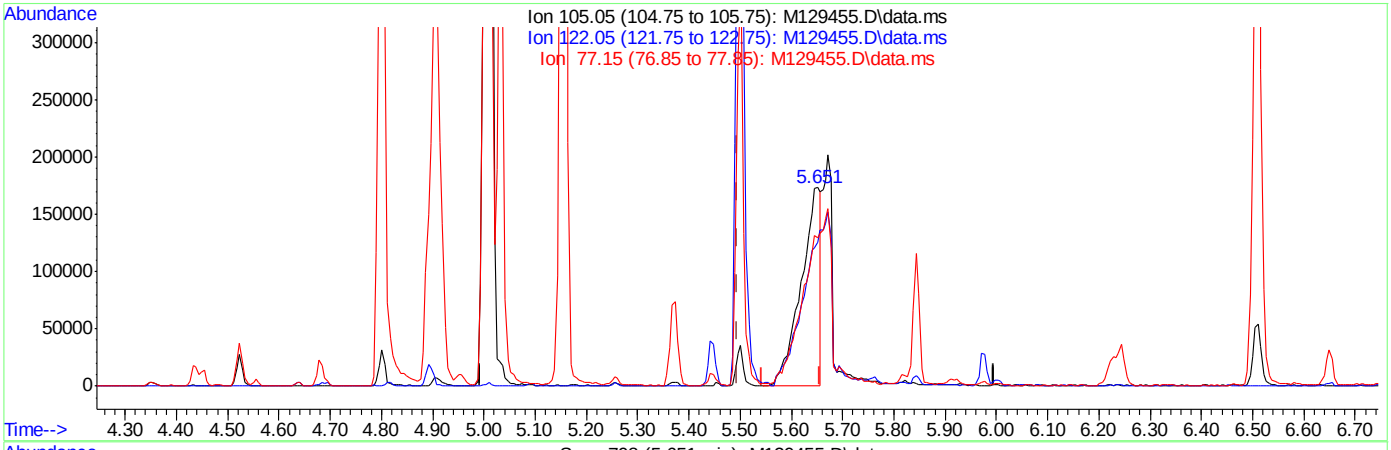
Sample Number:	EM5525-IC5525	**Method:**	SW846 8270D
Lab FileID:	M129455.D	**Analyst approved:**	11/22/16 16:00 Ashley Noble
Injection Time:	11/22/16 12:42	**Supervisor approved:**	12/01/16 09:56 Nina Pandya

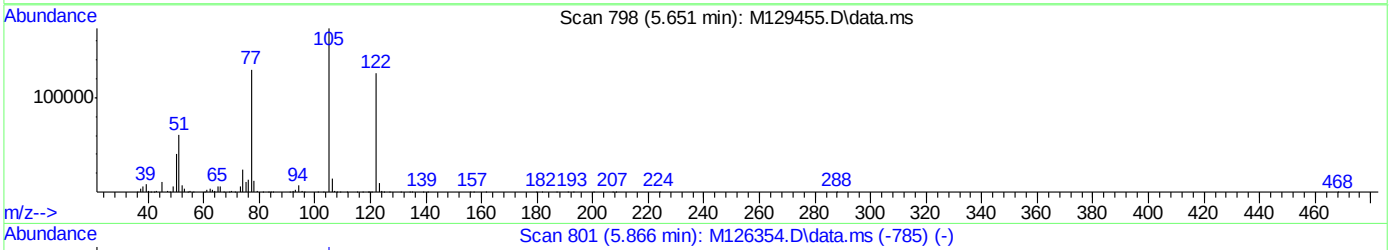
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.67	Split peak
Caprolactam	105-60-2		6.33	Split peak

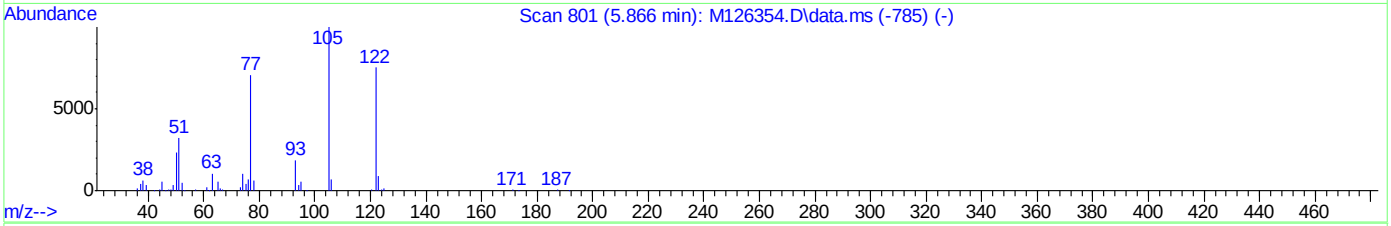
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:33:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration







TIC: M129455.D\data.ms

(31) Benzoic acid (t)

5.651min (+0.156) 64.81ppm

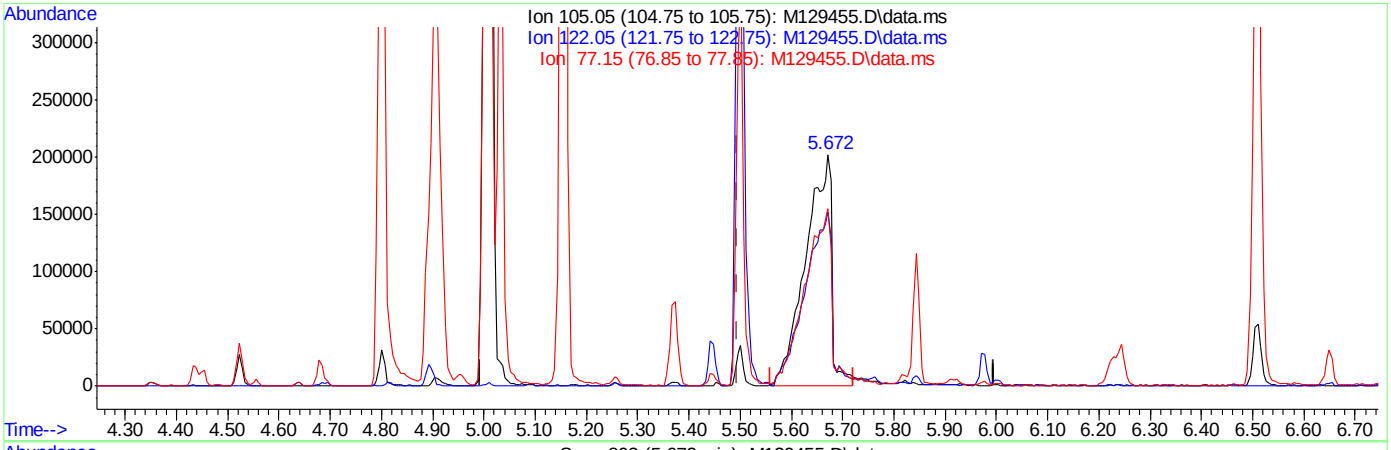
response 456377

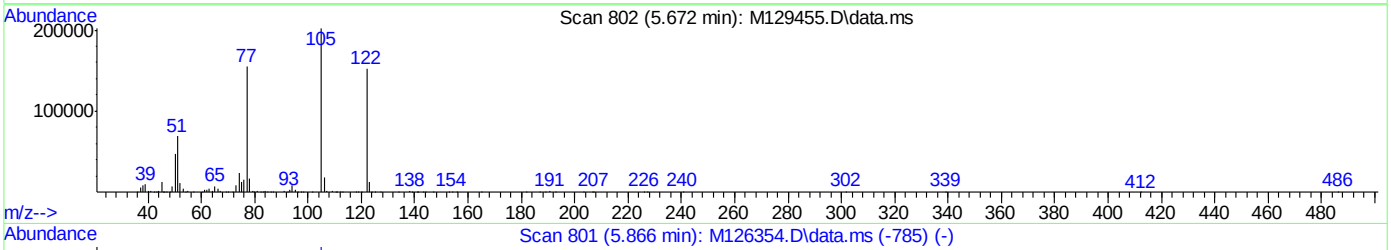
Ion	Exp%	Act%
105.05	100	100
122.05	86.20	63.75
77.15	68.30	69.80
0.00	0.00	0.00

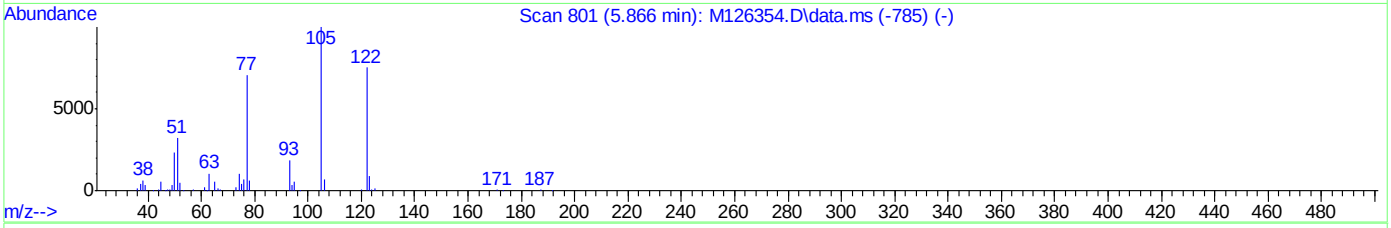
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:33:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration







TIC: M129455.D\data.ms

(31) Benzoic acid (t)

5.672min (+0.177) 102.75ppm m

response 723531

Ion	Exp%	Act%
105.05	100	100
122.05	86.20	75.24
77.15	68.30	76.63
0.00	0.00	0.00

9.6.63.3

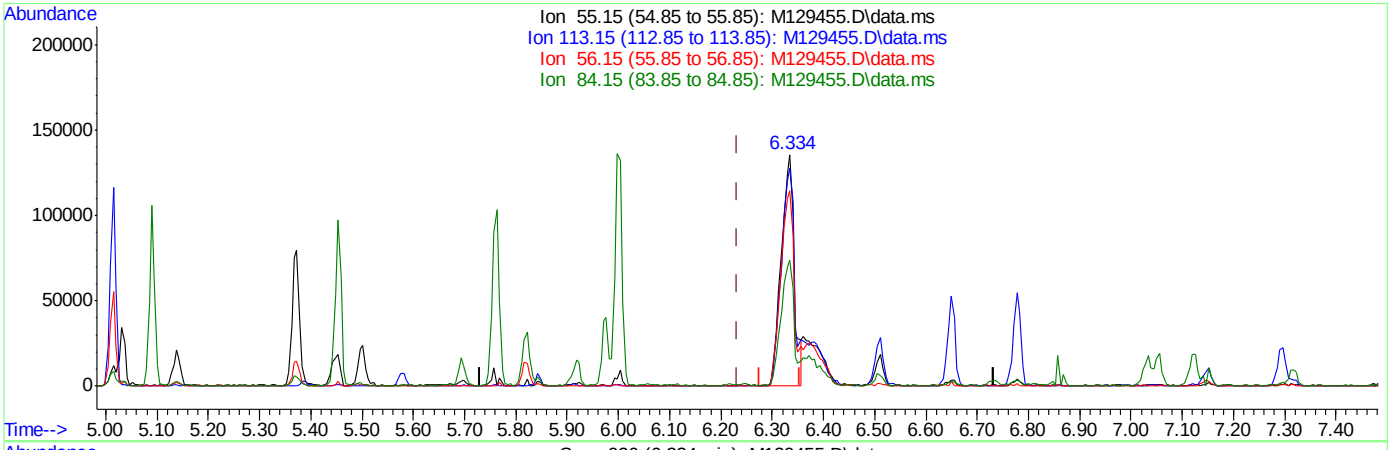
9

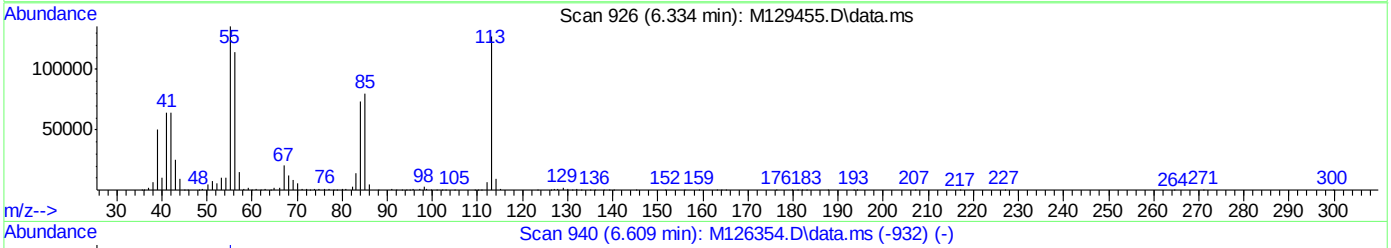
SGS ACCUTEST JC33175

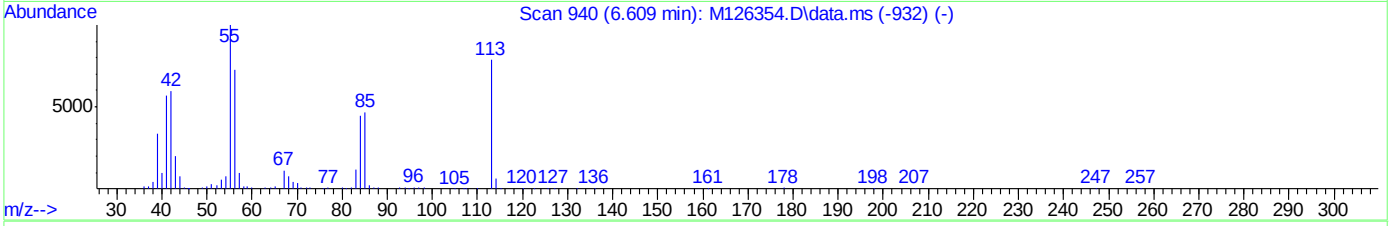
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:33:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration







TIC: M129455.D\data.ms

(41) Caprolactam (t)

6.334min (+0.102) 61.45ppm

response 232710

Ion	Exp%	Act%
55.15	100	100
113.15	93.40	93.25
56.15	75.10	84.37
84.15	52.10	54.58

9.6.63.4

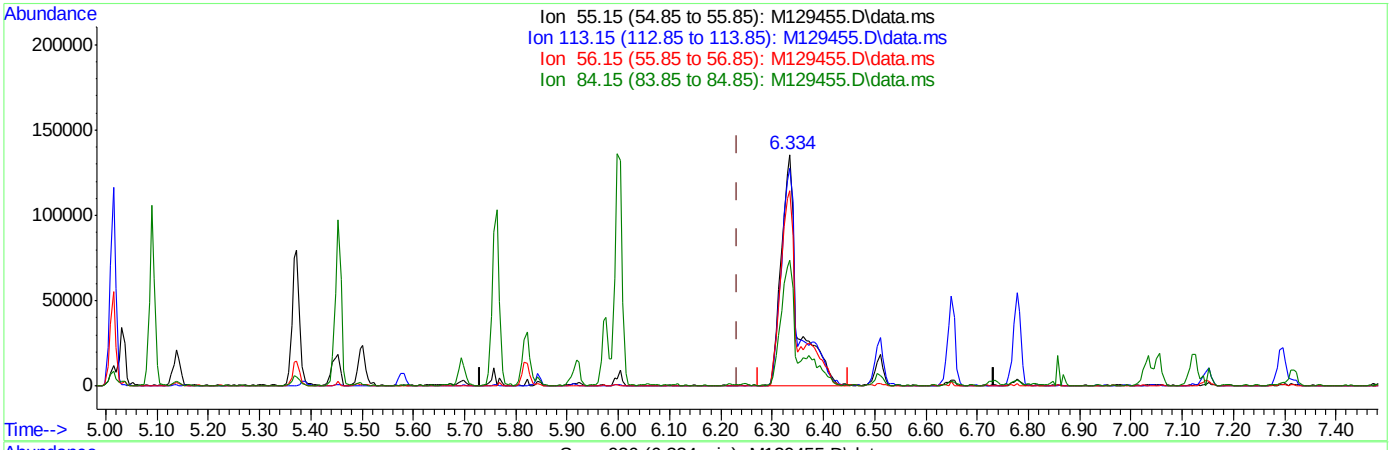
9

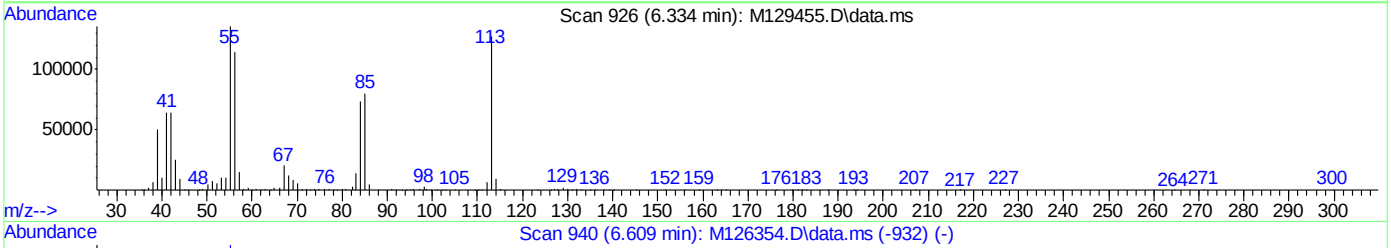
SGS ACCUTEST JC33175

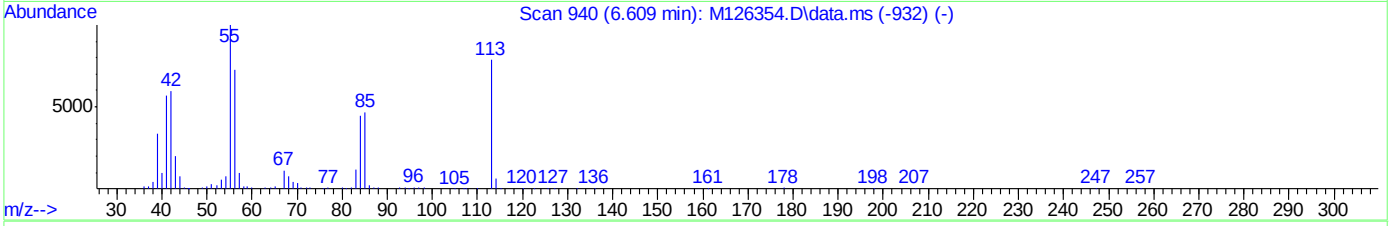
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129455.D
Acq On : 22 Nov 2016 12:42 pm
Operator : ashleyd
Sample : ic5525-80
Misc : op98591,em5525
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 22 15:33:19 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 15:32:56 2016
Response via : Initial Calibration







TIC: M129455.D\data.ms

(41) Caprolactam (t)

6.334min (+0.102) 81.01ppm m

response 306757

Ion	Exp%	Act%
55.15	100	100
113.15	93.40	93.88
56.15	75.10	84.60
84.15	52.10	54.49

9.6.63.5

9

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
12/01/16 09:56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129456.D
Acq On : 22 Nov 2016 1:12 pm
Operator : ashleyd
Sample : ic5525-100
Misc : op98591,em5525
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 22 14:57:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:56:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.681	152	283548	40.00	ppm	-0.13
24) Naphthalene-d8	5.819	136	1174025	40.00	ppm	-0.16
47) Acenaphthene-d10	8.164	164	635380	40.00	ppm	-0.20
69) Phenanthrene-d10	10.787	188	1036533	40.00	ppm	-0.22
83) Chrysene-d12	15.969	240	994733	40.00	ppm	-0.22
91) Perylene-d12	18.592	264	883400	40.00	ppm	-0.23
101) 1,4-Dichlorobenzene-d4a	4.681	152	283548	40.00	ppm	-0.13
103) Acenaphthene-d10a	8.164	164	635380	40.00	ppm	-0.20
106) Chrysene-d12a	15.969	240	994733	40.00	ppm	-0.22
109) Phenanthrene-d10a	10.787	188	1036533	40.00	ppm	-0.22
111) Naphthalene-d8a	5.819	136	1174025	40.00	ppm	-0.16
113) Chrysene-d12b	15.969	240	994733	40.00	ppm	-0.22
System Monitoring Compounds						
5) 2-Fluorophenol	3.714	112	964453	100.00	ppm	-0.13
Spiked Amount 50.000			Recovery	=	200.00%	
8) Phenol-d5	4.440	99	1209122	100.00	ppm	-0.08
Spiked Amount 50.000			Recovery	=	200.00%	
25) Nitrobenzene-d5	5.140	82	1088302	100.00	ppm	-0.13
Spiked Amount 50.000			Recovery	=	200.00%	
51) 2-Fluorobiphenyl	7.154	172	1994359	100.00	ppm	-0.19
Spiked Amount 50.000			Recovery	=	200.00%	
73) 2,4,6-Tribromophenol	9.531	330	288604	100.00	ppm	-0.22
Spiked Amount 50.000			Recovery	=	200.00%	
85) Terphenyl-d14	13.965	244	2052170	100.00	ppm	-0.25
Spiked Amount 50.000			Recovery	=	200.00%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.202	88	299172	100.00	ppm	96
3) Pyridine	2.533	79	782001	100.00	ppm	95
4) N-Nitrosodimethylamine	2.507	42	432342	100.00	ppm #	70
6) Indene	4.884	116	1791611	100.00	ppm	97
7) Cumene	4.077	105	2568835	100.00	ppm	94
9) Phenol	4.451	94	1253027	100.00	ppm	92
10) Aniline	4.435	93	1119322	100.00	ppm #	54
11) bis(2-Chloroethyl)ether	4.478	93	750843	100.00	ppm	95
12) 2-Chlorophenol	4.537	128	1033082	100.00	ppm	99
13) Decane	4.558	43	507204	100.00	ppm	84
14) 1,3-Dichlorobenzene	4.638	146	1121424	100.00	ppm	96
15) 1,4-Dichlorobenzene	4.691	146	1106051	100.00	ppm	95
16) Benzyl alcohol	4.804	108	639695	100.00	ppm	78
17) 1,2-Dichlorobenzene	4.814	146	1075100	100.00	ppm	94
18) Acetophenone	5.007	105	1450770	100.00	ppm	89
19) 2-Methylphenol	4.905	108	814368	100.00	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.894	121	319844	100.00	ppm	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129456.D
Acq On : 22 Nov 2016 1:12 pm
Operator : ashleyd
Sample : ic5525-100
Misc : op98591,em5525
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 22 14:57:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:56:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	5.033	108	922065	100.00	ppm		90
22) n-Nitroso-di-n-propyla...	5.017	70	718368	100.00	ppm		93
23) Hexachloroethane	5.092	201	326254	100.00	ppm	#	77
26) Nitrobenzene	5.156	77	1024369	100.00	ppm		87
27) Quinoline	6.246	129	2070006	100.00	ppm		96
28) Isophorone	5.370	82	1843279	100.00	ppm		91
29) 2-Nitrophenol	5.445	139	629340	100.00	ppm		60
30) 2,4-Dimethylphenol	5.498	107	987997	100.00	ppm		91
31) Benzoic acid	5.680	105	772220	100.00	ppm		93
32) bis(2-Chloroethoxy)met...	5.568	93	966794	100.00	ppm		97
33) 2,4-Dichlorophenol	5.696	162	806969	100.00	ppm		95
34) 2,6-Dichlorophenol	5.920	162	781604	100.00	ppm		97
35) 1,3,5-Trichlorobenzene	5.455	180	859747	100.00	ppm		94
36) 1,2,4-Trichlorobenzene	5.760	180	801957	100.00	ppm		96
37) 1,2,3-Trichlorobenzene	6.000	180	769977	100.00	ppm		95
38) Naphthalene	5.845	128	2925616	100.00	ppm		97
39) 4-Chloroaniline	5.910	127	1170112	100.00	ppm		92
40) 2,3-Dichloroaniline	7.031	161	1046874	100.00	ppm		93
41) Caprolactam	6.337	55	319192m	100.05	ppm		
42) Hexachlorobutadiene	5.974	225	411397	100.00	ppm		98
43) 4-Chloro-3-methylphenol	6.513	107	950789	100.00	ppm		86
44) 2-Methylnaphthalene	6.652	141	1810817	100.00	ppm		94
45) 1-Methylnaphthalene	6.780	142	2074350	100.00	ppm		89
46) Dimethylnaphthalene	7.528	156	1818622	100.00	ppm		91
48) Hexachlorocyclopentadiene	6.860	237	860329	200.00	ppm		98
49) 2,4,6-Trichlorophenol	7.058	196	491296	100.00	ppm		92
50) 2,4,5-Trichlorophenol	7.122	196	554017	100.00	ppm		98
52) 2-Chloronaphthalene	7.320	162	1693718	100.00	ppm		93
53) Biphenyl	7.298	154	2533751	100.00	ppm		98
54) 2-Nitroaniline	7.491	65	606264	100.00	ppm		83
55) Dimethylphthalate	7.774	163	2196295	100.00	ppm		98
56) Acenaphthylene	7.939	152	3033360	100.00	ppm		98
57) 2,6-Dinitrotoluene	7.870	165	483245	100.00	ppm		71
58) 3-Nitroaniline	8.143	138	622116	100.00	ppm		85
59) Acenaphthene	8.223	153	1976069	100.00	ppm		97
60) 2,4-Dinitrophenol	8.324	184	574294	200.00	ppm	#	49
61) 4-Nitrophenol	8.527	109	388591	100.00	ppm	#	64
62) Dibenzofuran	8.511	168	2603184	100.00	ppm		80
63) 2,4-Dinitrotoluene	8.538	165	640653	100.00	ppm		71
64) 2,3,4,6-Tetrachlorophenol	8.752	232	400702	100.00	ppm	#	61
65) Diethylphthalate	8.976	149	2405072	100.00	ppm		91
66) Fluorene	9.093	166	2264877	100.00	ppm		98
67) 4-Chlorophenyl-phenyle...	9.120	204	788979	100.00	ppm		75
68) 4-Nitroaniline	9.200	138	595950	100.00	ppm		100
70) 4,6-Dinitro-2-methylph...	9.259	198	368693	100.00	ppm		73
71) n-Nitrosodiphenylamine	9.350	169	1521756	100.00	ppm		98
72) 1,2-Diphenylhydrazine	9.403	77	2154749	100.00	ppm		90
74) 4-Bromophenyl-phenylether	9.996	248	515522	100.00	ppm	#	77
75) Hexachlorobenzene	10.098	284	566848	100.00	ppm		77
76) Pentachlorophenol	10.498	266	614597	200.00	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129456.D
Acq On : 22 Nov 2016 1:12 pm
Operator : ashleyd
Sample : ic5525-100
Misc : op98591,em5525
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 22 14:57:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:56:19 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77)	Phenanthrene	10.840	178	2877040	100.00	ppm	99
78)	Anthracene	10.936	178	2967340	100.00	ppm	97
79)	Carbazole	11.289	167	3101115	100.00	ppm	92
80)	Di-n-butylphthalate	12.074	149	4406225	100.00	ppm	98
81)	Fluoranthene	13.132	202	3156691	100.00	ppm	96
82)	Octadecane	10.776	57	1110451	100.00	ppm	97
84)	Pyrene	13.559	202	3188868	100.00	ppm	96
86)	Butylbenzylphthalate	15.012	149	2085861	100.00	ppm	85
87)	Benzo[a]anthracene	15.953	228	2820492	100.00	ppm	97
88)	3,3'-Dichlorobenzidine	15.979	252	1081767	100.00	ppm	95
89)	Chrysene	16.028	228	2563758	100.00	ppm	97
90)	bis(2-Ethylhexyl)phtha...	16.225	149	2804508	100.00	ppm	84
92)	Di-n-octylphthalate	17.459	149	4837360	100.00	ppm	99
93)	Benzo[b]fluoranthene	17.977	252	2980049	100.00	ppm	97
94)	Benzo[k]fluoranthene	18.020	252	2396035	100.00	ppm	96
95)	Benzo[a]pyrene	18.506	252	2383732	100.00	ppm	98
96)	Indeno[1,2,3-cd]pyrene	20.333	276	2255423	100.00	ppm	96
97)	Dibenz(a,h)acridine	19.959	279	2041352	100.00	ppm	99
98)	Dibenz[a,h]anthracene	20.381	278	2232115	100.00	ppm	98
99)	7,12-Dimethylbenz(a)an...	17.972	256	1280287	100.00	ppm	87
100)	Benzo[g,h,i]perylene	20.803	276	2201543	100.00	ppm	96

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

9.6.64

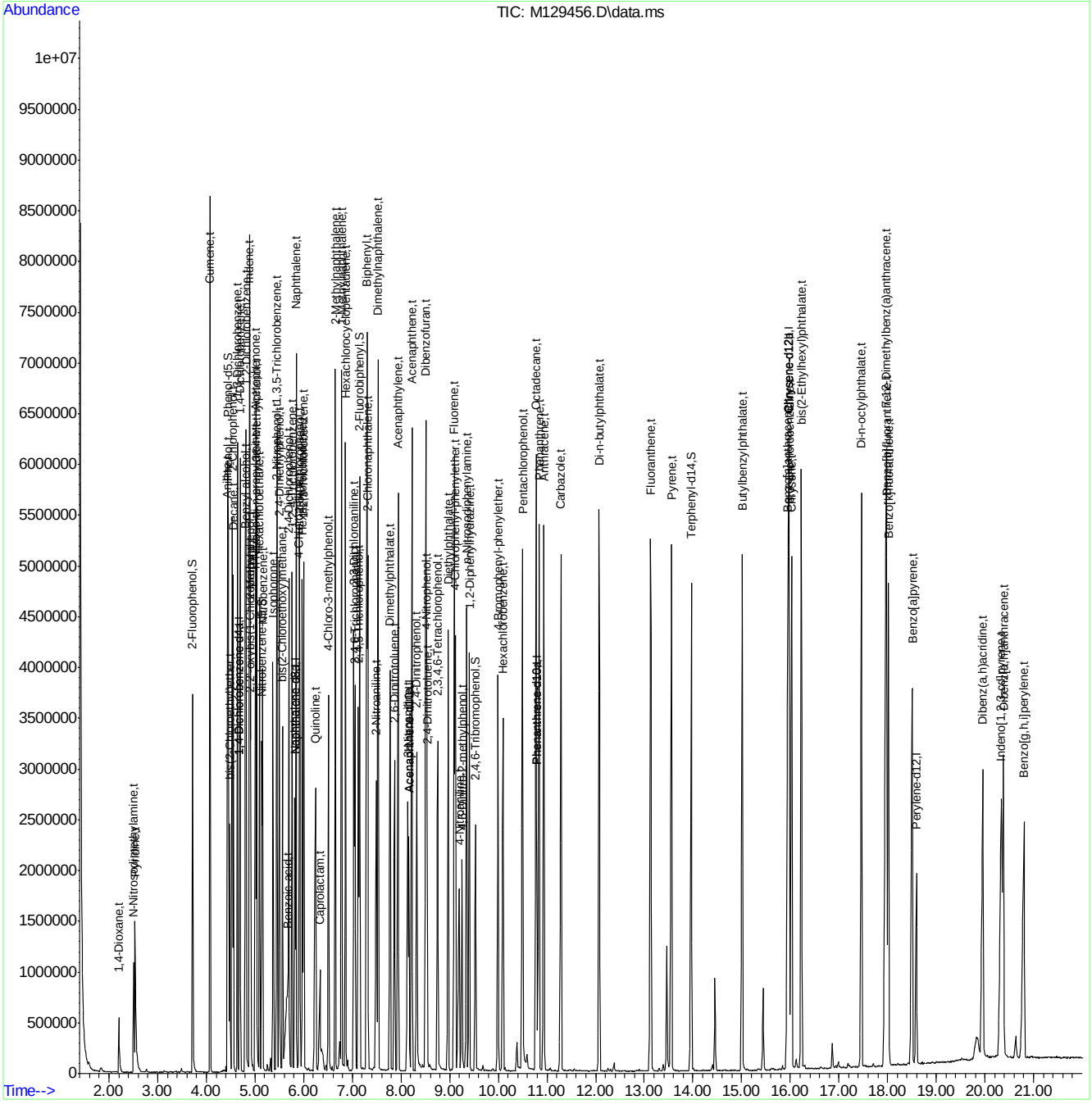
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129456.D
Acq On : 22 Nov 2016 1:12 pm
Operator : ashleyd
Sample : ic5525-100
Misc : op98591,em5525
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 22 14:57:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:56:19 2016
Response via : Initial Calibration



Manual Integration Approval Summary

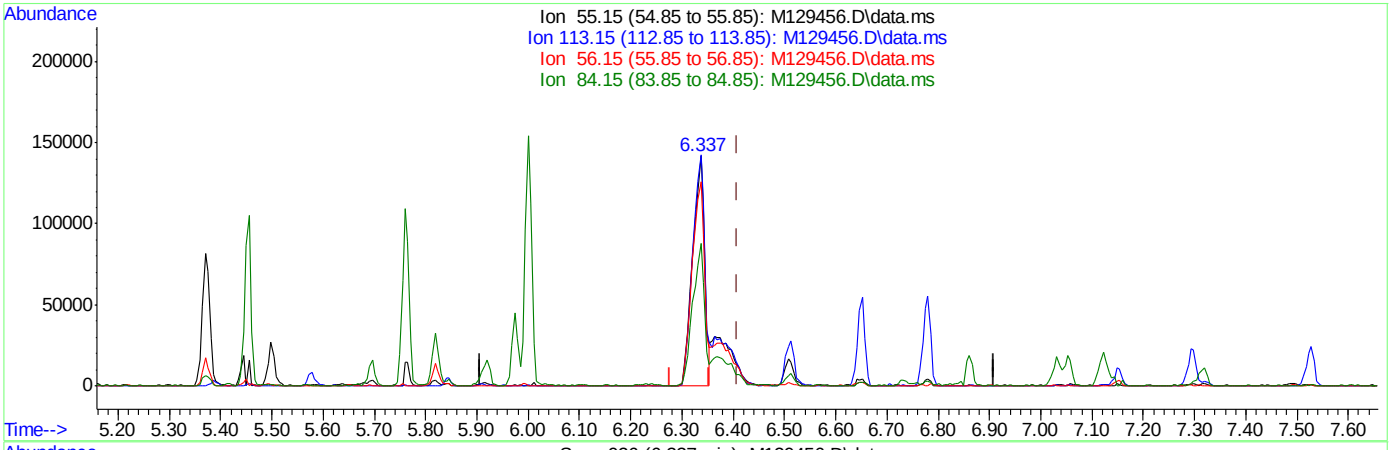
Sample Number:	EM5525-IC5525	**Method:**	SW846 8270D
Lab FileID:	M129456.D	**Analyst approved:**	11/22/16 16:00 Ashley Noble
Injection Time:	11/22/16 13:12	**Supervisor approved:**	12/01/16 09:56 Nina Pandya

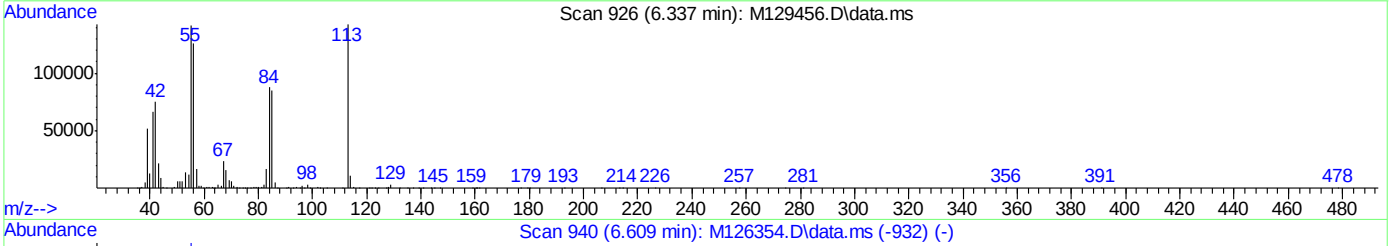
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.34	Split peak

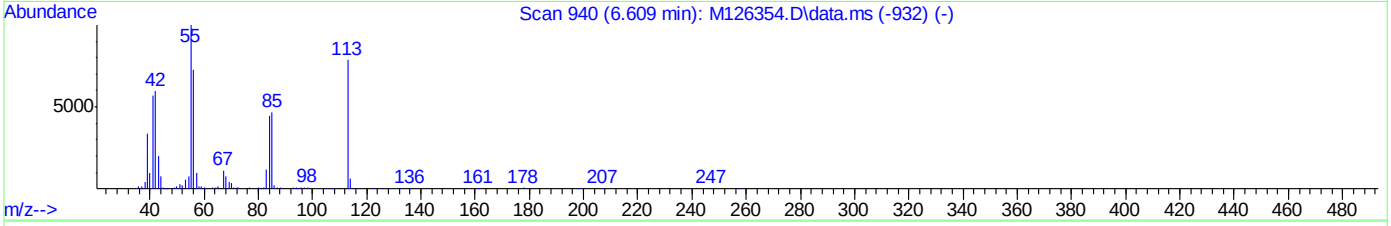
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129456.D
Acq On : 22 Nov 2016 1:12 pm
Operator : ashleyd
Sample : ic5525-100
Misc : op98591,em5525
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 22 14:56:22 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:56:19 2016
Response via : Initial Calibration







TIC: M129456.D\data.ms

(41) Caprolactam (t)

6.337min (-0.072) 72.27ppm

response 230562

Ion	Exp%	Act%
55.15	100	100
113.15	93.40	100.42
56.15	75.10	88.65
84.15	52.10	62.95

9.6.64.2

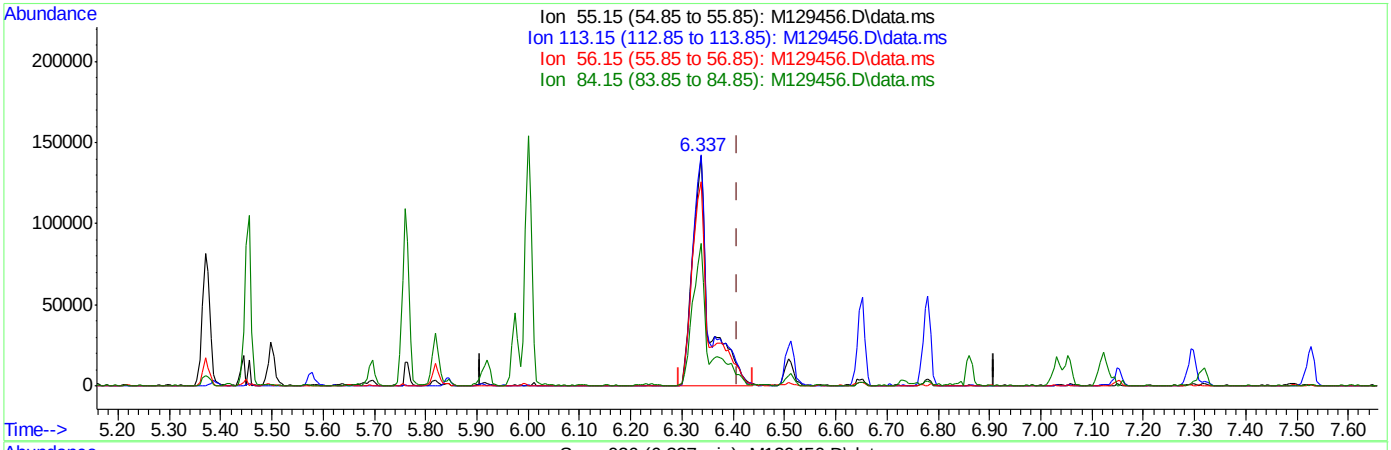
9

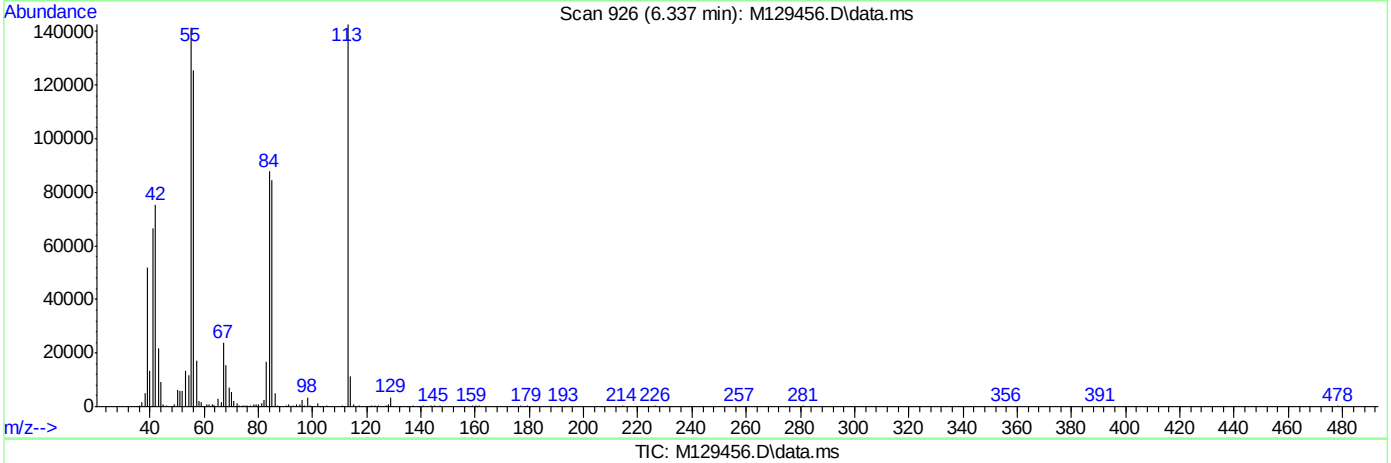
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM5525\
Data File : M129456.D
Acq On : 22 Nov 2016 1:12 pm
Operator : ashleyd
Sample : ic5525-100
Misc : op98591,em5525
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 22 14:57:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Tue Nov 22 14:56:19 2016
Response via : Initial Calibration





TIC: M129456.D\data.ms

(41) Caprolactam (t)

6.337min (-0.072) 100.05ppm m

response 319192

Ion	Exp%	Act%
55.15	100	100
113.15	93.40	100.77
56.15	75.10	88.79
84.15	52.10	61.94

9.6.64.3

9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129463.D
Acq On : 22 Nov 2016 5:03 pm
Operator : seanb1
Sample : ic5526-1
Misc : op98591,em5526
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 15:40:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.674	152	267276	40.00	ppm	0.00
24) Naphthalene-d8	5.812	136	1120379	40.00	ppm	0.00
47) Acenaphthene-d10	8.157	164	635406	40.00	ppm	0.00
69) Phenanthrene-d10	10.775	188	1029443	40.00	ppm	0.00
83) Chrysene-d12	15.951	240	940350	40.00	ppm	0.00
91) Perylene-d12	18.574	264	881259	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.674	152	267276	40.00	ppm	0.00
103) Acenaphthene-d10a	8.157	164	635406	40.00	ppm	0.00
106) Chrysene-d12a	15.951	240	940350	40.00	ppm	0.00
109) Phenanthrene-d10a	10.775	188	1029443	40.00	ppm	0.00
111) Naphthalene-d8a	5.812	136	1120379	40.00	ppm	0.00
113) Chrysene-d12b	15.951	240	940350	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	13.104	57	9474	1.45	ppm	-0.02
Spiked Amount 50.000			Recovery	=	2.90%	
110) o-terphenyl	11.576	230	16965	1.41	ppm	0.02
Spiked Amount 50.000			Recovery	=	2.82%	
Target Compounds						Qvalue
102) Benzaldehyde	4.348	105	9520	1.39	ppm	82
104) 1,2,4,5-Tetrachloroben...	6.870	216	7768	1.18	ppm	72
105) Atrazine	10.358	215	4708	2.00	ppm #	67
107) Benzidine	13.451	184	27556	2.00	ppm	86
112) Hydroquinone	6.325	110	1747	0.20	ppm	77

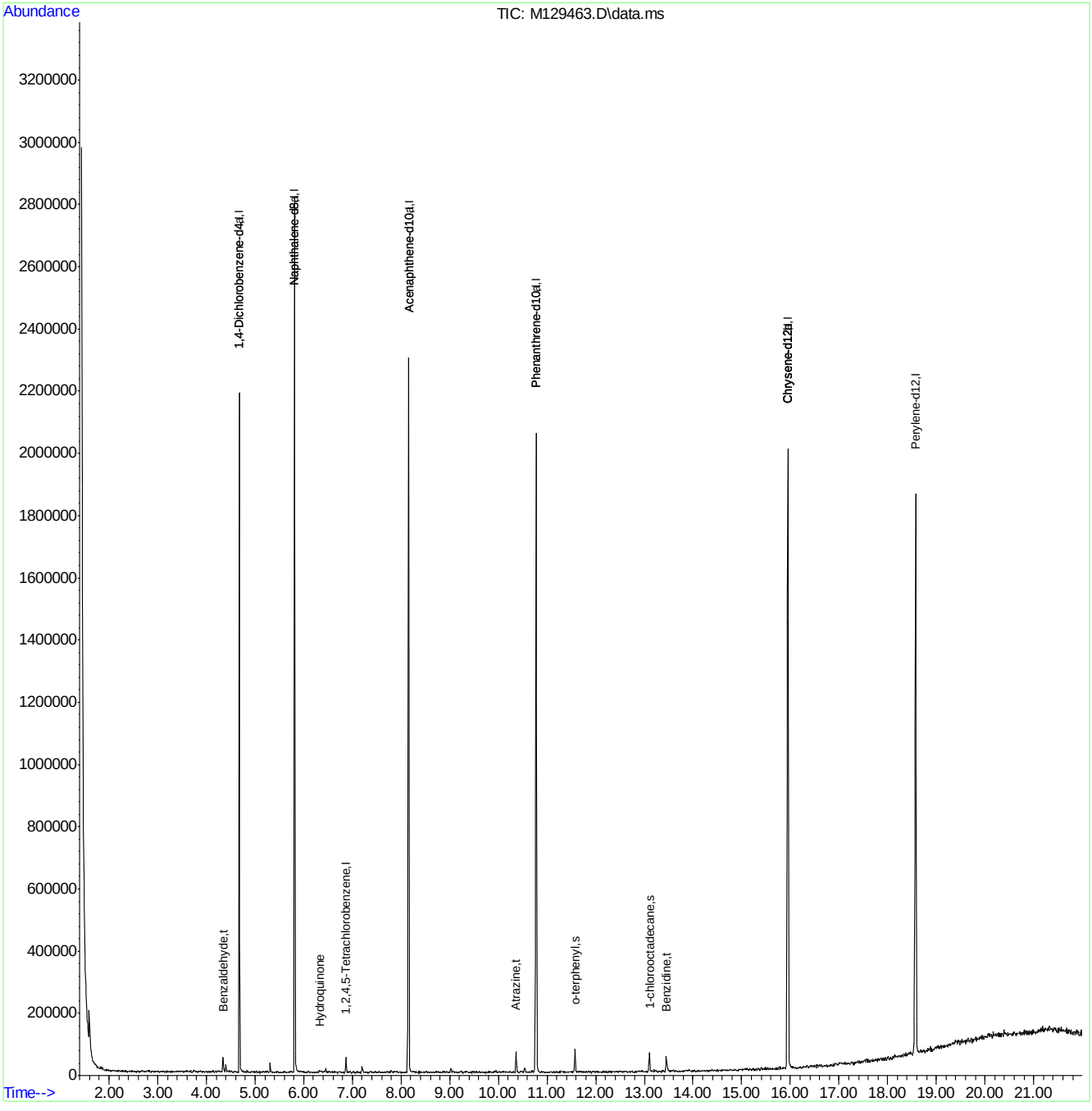
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129463.D
Acq On : 22 Nov 2016 5:03 pm
Operator : seanb1
Sample : ic5526-1
Misc : op98591,em5526
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 15:40:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:40:40 2016 MSM

Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129464.D
Acq On : 22 Nov 2016 5:33 pm
Operator : seanb1
Sample : ic5526-2
Misc : op98591,em5526
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 23 15:41:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

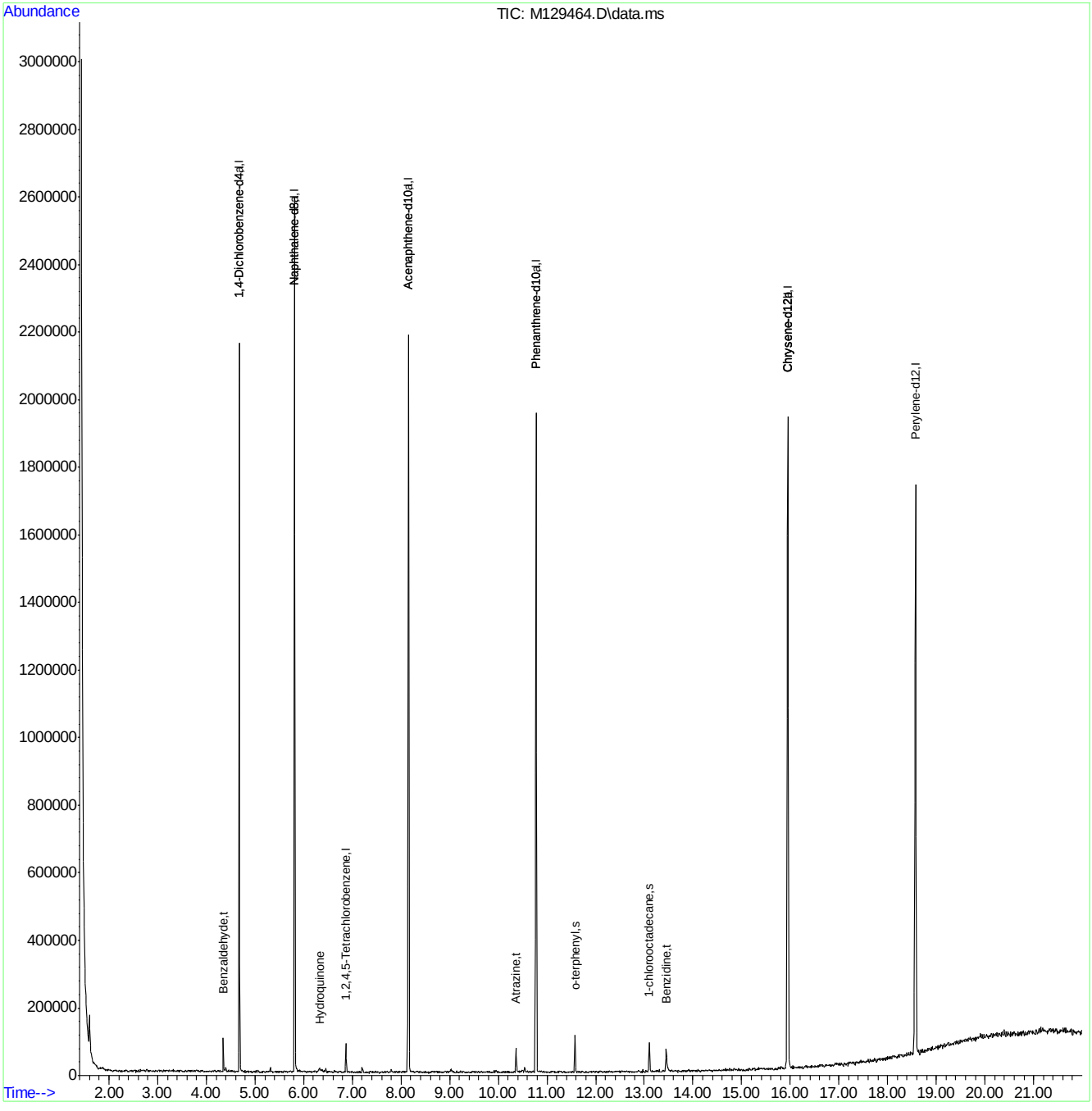
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.675	152	253492	40.00	ppm	0.00
24) Naphthalene-d8	5.813	136	1045471	40.00	ppm	0.00
47) Acenaphthene-d10	8.153	164	581982	40.00	ppm	0.00
69) Phenanthrene-d10	10.776	188	926047	40.00	ppm	0.00
83) Chrysene-d12	15.947	240	861906	40.00	ppm	-0.01
91) Perylene-d12	18.575	264	803447	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.675	152	253492	40.00	ppm	0.00
103) Acenaphthene-d10a	8.153	164	581982	40.00	ppm	0.00
106) Chrysene-d12a	15.947	240	861906	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.776	188	926047	40.00	ppm	0.00
111) Naphthalene-d8a	5.813	136	1045471	40.00	ppm	0.00
113) Chrysene-d12b	15.947	240	861906	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	13.100	57	11538	1.93	ppm	-0.03
Spiked Amount 50.000			Recovery	=	3.86%	
110) o-terphenyl	11.577	230	22324	2.06	ppm	0.02
Spiked Amount 50.000			Recovery	=	4.12%	
Target Compounds						Qvalue
102) Benzaldehyde	4.349	105	13647	2.10	ppm	80
104) 1,2,4,5-Tetrachloroben...	6.865	216	13673	2.27	ppm	94
105) Atrazine	10.364	215	5278	2.44	ppm #	73
107) Benzidine	13.452	184	38803	3.07	ppm	91
112) Hydroquinone	6.326	110	7428	0.90	ppm	80

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129464.D
Acq On : 22 Nov 2016 5:33 pm
Operator : seanb1
Sample : ic5526-2
Misc : op98591,em5526
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 23 15:41:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:41:17 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129465.D
Acq On : 22 Nov 2016 6:02 pm
Operator : seanb1
Sample : ic5526-5
Misc : op98591,em5526
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 23 15:41:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.674	152	250745	40.00	ppm	0.00
24) Naphthalene-d8	5.812	136	996656	40.00	ppm	0.00
47) Acenaphthene-d10	8.157	164	568853	40.00	ppm	0.00
69) Phenanthrene-d10	10.775	188	919338	40.00	ppm	0.00
83) Chrysene-d12	15.946	240	856607	40.00	ppm	-0.01
91) Perylene-d12	18.574	264	797946	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.674	152	250745	40.00	ppm	0.00
103) Acenaphthene-d10a	8.157	164	568853	40.00	ppm	0.00
106) Chrysene-d12a	15.946	240	856607	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.775	188	919338	40.00	ppm	0.00
111) Naphthalene-d8a	5.812	136	996656	40.00	ppm	0.00
113) Chrysene-d12b	15.946	240	856607	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	13.104	57	31795	5.35	ppm	-0.02
Spiked Amount 50.000			Recovery	=	10.70%	
110) o-terphenyl	11.576	230	60070	5.57	ppm	0.02
Spiked Amount 50.000			Recovery	=	11.14%	
Target Compounds						Qvalue
102) Benzaldehyde	4.348	105	33783	5.25	ppm	85
104) 1,2,4,5-Tetrachloroben...	6.870	216	33357	5.67	ppm	91
105) Atrazine	10.363	215	11995	5.68	ppm #	63
107) Benzidine	13.451	184	95745	7.62	ppm	98
112) Hydroquinone	6.309	110	29831	3.78	ppm	78

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

9.6.67

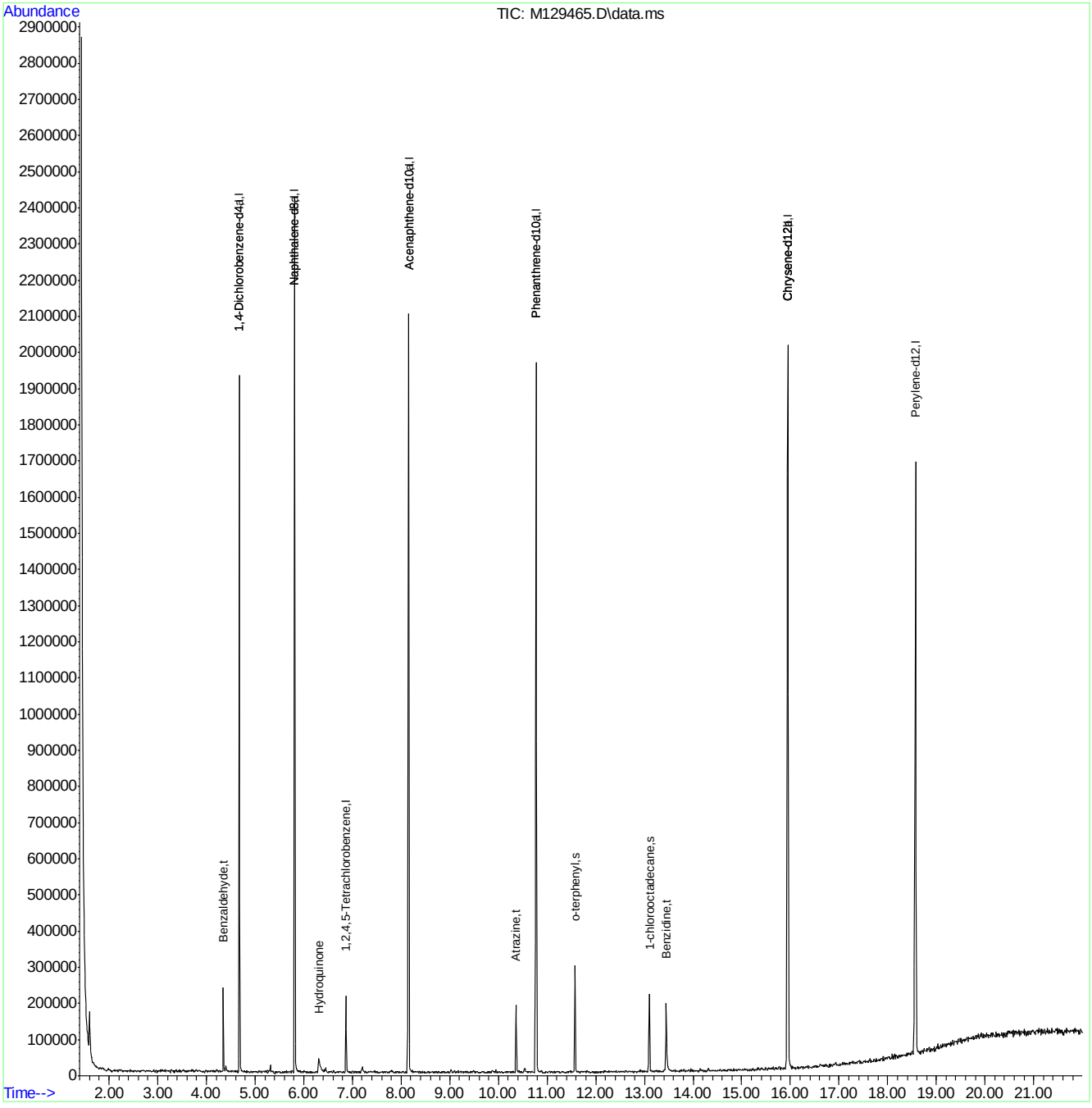
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129465.D
Acq On : 22 Nov 2016 6:02 pm
Operator : seanb1
Sample : ic5526-5
Misc : op98591,em5526
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 23 15:41:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:41:47 2016 MSM

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SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129466.D
Acq On : 22 Nov 2016 6:31 pm
Operator : seanb1
Sample : ic5526-10
Misc : op98591,em5526
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 15:42:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.674	152	240268	40.00	ppm	0.00
24) Naphthalene-d8	5.812	136	1012316	40.00	ppm	0.00
47) Acenaphthene-d10	8.157	164	560283	40.00	ppm	0.00
69) Phenanthrene-d10	10.775	188	901959	40.00	ppm	0.00
83) Chrysene-d12	15.946	240	842248	40.00	ppm	-0.01
91) Perylene-d12	18.569	264	801791	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.674	152	240268	40.00	ppm	0.00
103) Acenaphthene-d10a	8.157	164	560283	40.00	ppm	0.00
106) Chrysene-d12a	15.946	240	842248	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.775	188	901959	40.00	ppm	0.00
111) Naphthalene-d8a	5.812	136	1012316	40.00	ppm	0.00
113) Chrysene-d12b	15.946	240	842248	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	13.099	57	58012	9.93	ppm	-0.03
Spiked Amount 50.000			Recovery	=	19.86%	
110) o-terphenyl	11.576	230	107951	10.21	ppm	0.02
Spiked Amount 50.000			Recovery	=	20.42%	
Target Compounds						Qvalue
102) Benzaldehyde	4.348	105	64607	10.48	ppm	90
104) 1,2,4,5-Tetrachloroben...	6.870	216	63322	10.94	ppm	94
105) Atrazine	10.364	215	20146	9.68	ppm #	73
107) Benzidine	13.451	184	185513	15.02	ppm	97
112) Hydroquinone	6.298	110	58450	7.29	ppm	87

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

9.6.68

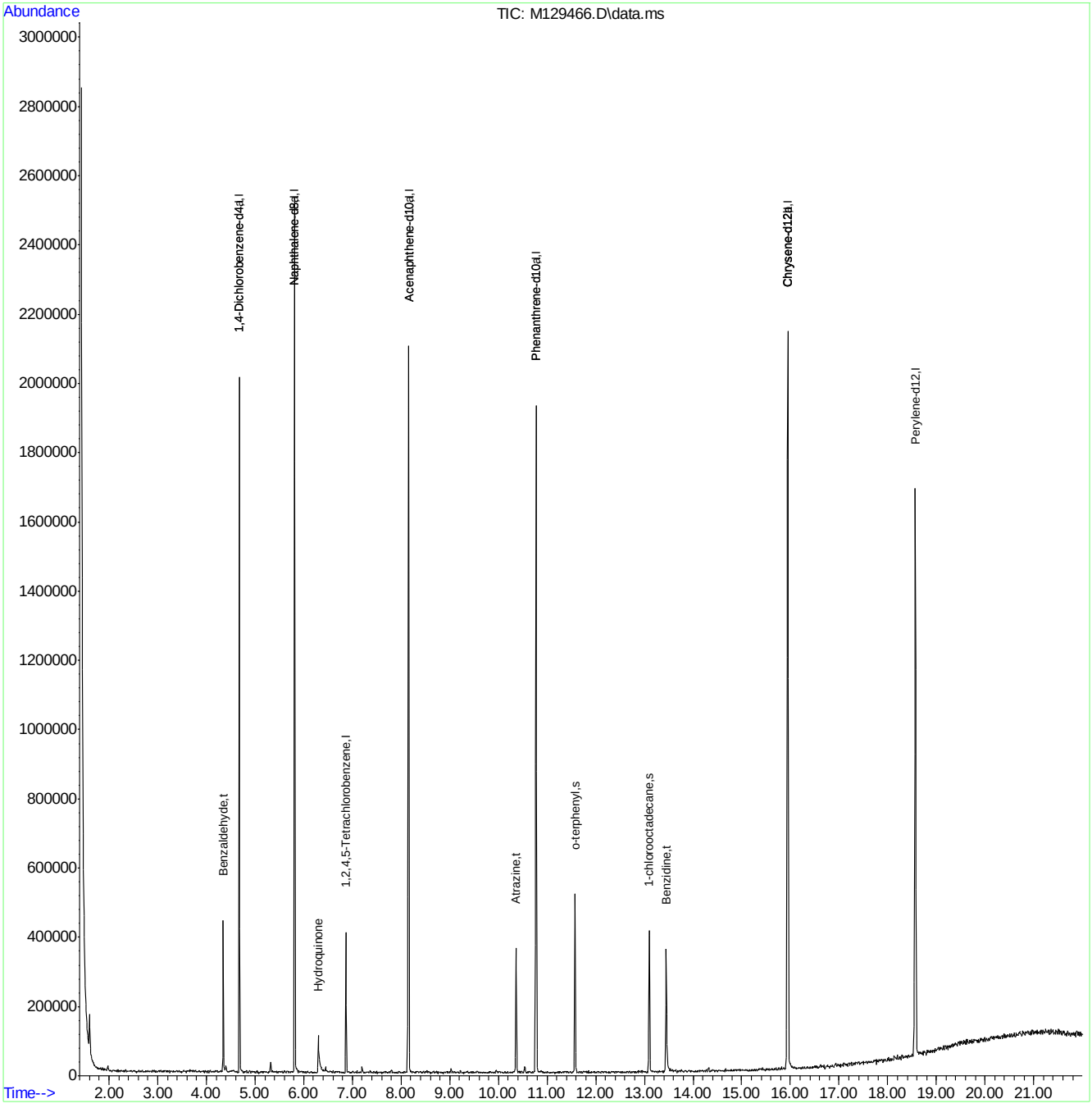
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129466.D
Acq On : 22 Nov 2016 6:31 pm
Operator : seanb1
Sample : ic5526-10
Misc : op98591,em5526
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 15:42:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:42:21 2016 MSM

SGS ACCUTEST JC33175

9.6.68 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129467.D
Acq On : 22 Nov 2016 7:01 pm
Operator : seanb1
Sample : ic5526-25
Misc : op98591,em5526
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 23 15:42:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	219798	40.00	ppm	0.00
24) Naphthalene-d8	5.812	136	912772	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	507914	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	812798	40.00	ppm	0.00
83) Chrysene-d12	15.946	240	758687	40.00	ppm	-0.01
91) Perylene-d12	18.569	264	720528	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.679	152	219798	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	507914	40.00	ppm	0.00
106) Chrysene-d12a	15.946	240	758687	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.774	188	812798	40.00	ppm	0.00
111) Naphthalene-d8a	5.812	136	912772	40.00	ppm	0.00
113) Chrysene-d12b	15.946	240	758687	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	13.104	57	130532	24.81	ppm	-0.02
Spiked Amount 50.000			Recovery = 49.62%			
110) o-terphenyl	11.576	230	242798	25.48	ppm	0.02
Spiked Amount 50.000			Recovery = 50.96%			
Target Compounds						Qvalue
102) Benzaldehyde	4.348	105	145815	25.85	ppm	90
104) 1,2,4,5-Tetrachloroben...	6.869	216	137384	26.17	ppm	95
105) Atrazine	10.368	215	47120	24.98	ppm #	60
107) Benzidine	13.451	184	394717	35.48	ppm	97
112) Hydroquinone	6.303	110	162967	22.54	ppm	82

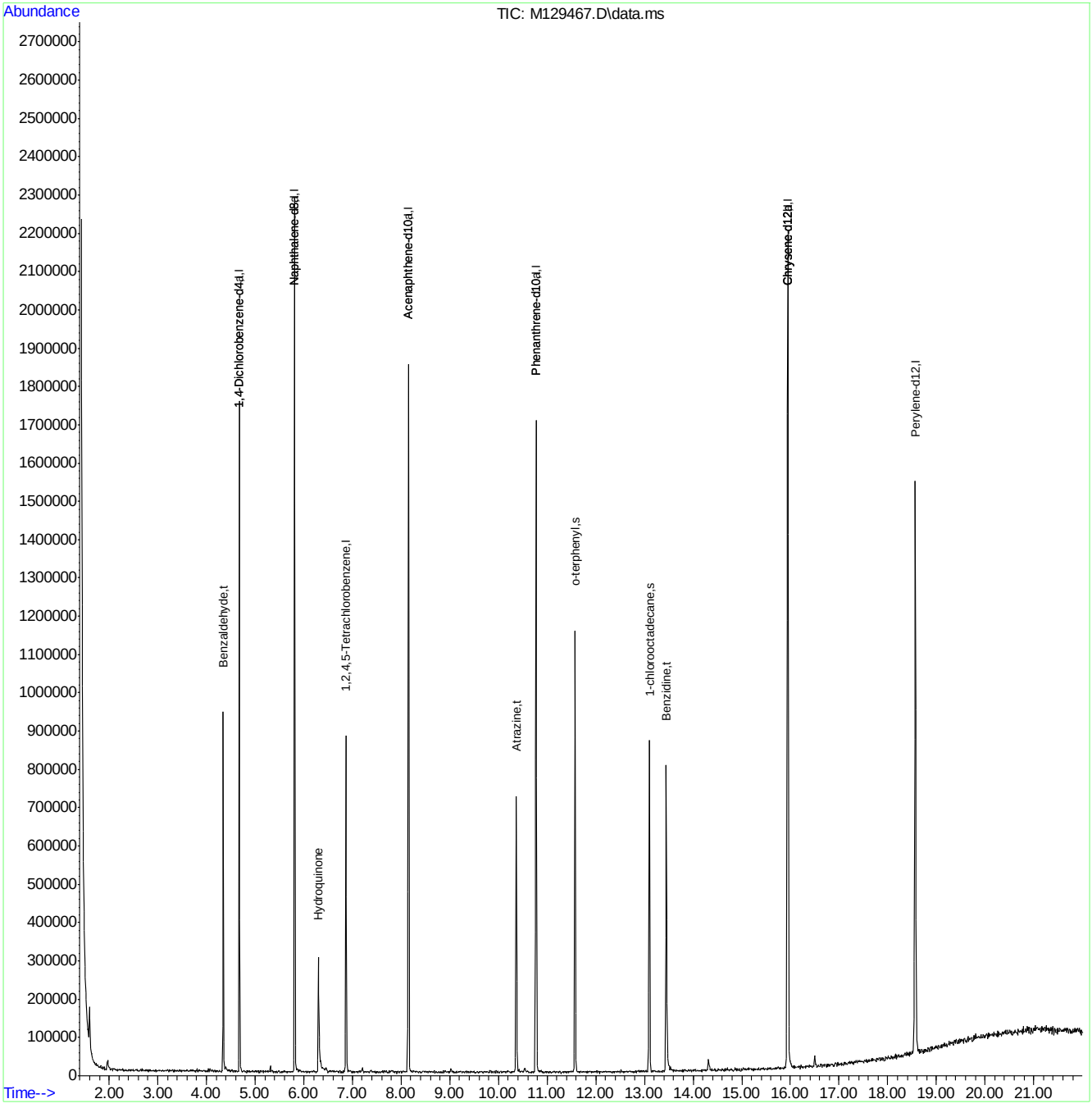
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129467.D
Acq On : 22 Nov 2016 7:01 pm
Operator : seanb1
Sample : ic5526-25
Misc : op98591,em5526
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 23 15:42:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:42:53 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129468.D
Acq On : 22 Nov 2016 7:30 pm
Operator : seanb1
Sample : icc5526-50
Misc : op98591,em5526
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 23 15:43:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.674	152	230386	40.00	ppm	0.00
24) Naphthalene-d8	5.812	136	965097	40.00	ppm	0.00
47) Acenaphthene-d10	8.152	164	530292	40.00	ppm	0.00
69) Phenanthrene-d10	10.775	188	849408	40.00	ppm	0.00
83) Chrysene-d12	15.946	240	792672	40.00	ppm	-0.01
91) Perylene-d12	18.569	264	746781	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.674	152	230386	40.00	ppm	0.00
103) Acenaphthene-d10a	8.152	164	530292	40.00	ppm	0.00
106) Chrysene-d12a	15.946	240	792672	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.775	188	849408	40.00	ppm	0.00
111) Naphthalene-d8a	5.812	136	965097	40.00	ppm	0.00
113) Chrysene-d12b	15.946	240	792672	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	13.104	57	285749	51.98	ppm	-0.02
Spiked Amount 50.000			Recovery	=	103.96%	
110) o-terphenyl	11.576	230	497416	49.95	ppm	0.02
Spiked Amount 50.000			Recovery	=	99.90%	
Target Compounds						Qvalue
102) Benzaldehyde	4.348	105	305535	51.67	ppm	93
104) 1,2,4,5-Tetrachloroben...	6.869	216	284658	51.94	ppm	93
105) Atrazine	10.374	215	99735	50.65	ppm #	60
107) Benzidine	13.456	184	755413	64.99	ppm	99
112) Hydroquinone	6.303	110	358903	46.95	ppm	80

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

9.6.70

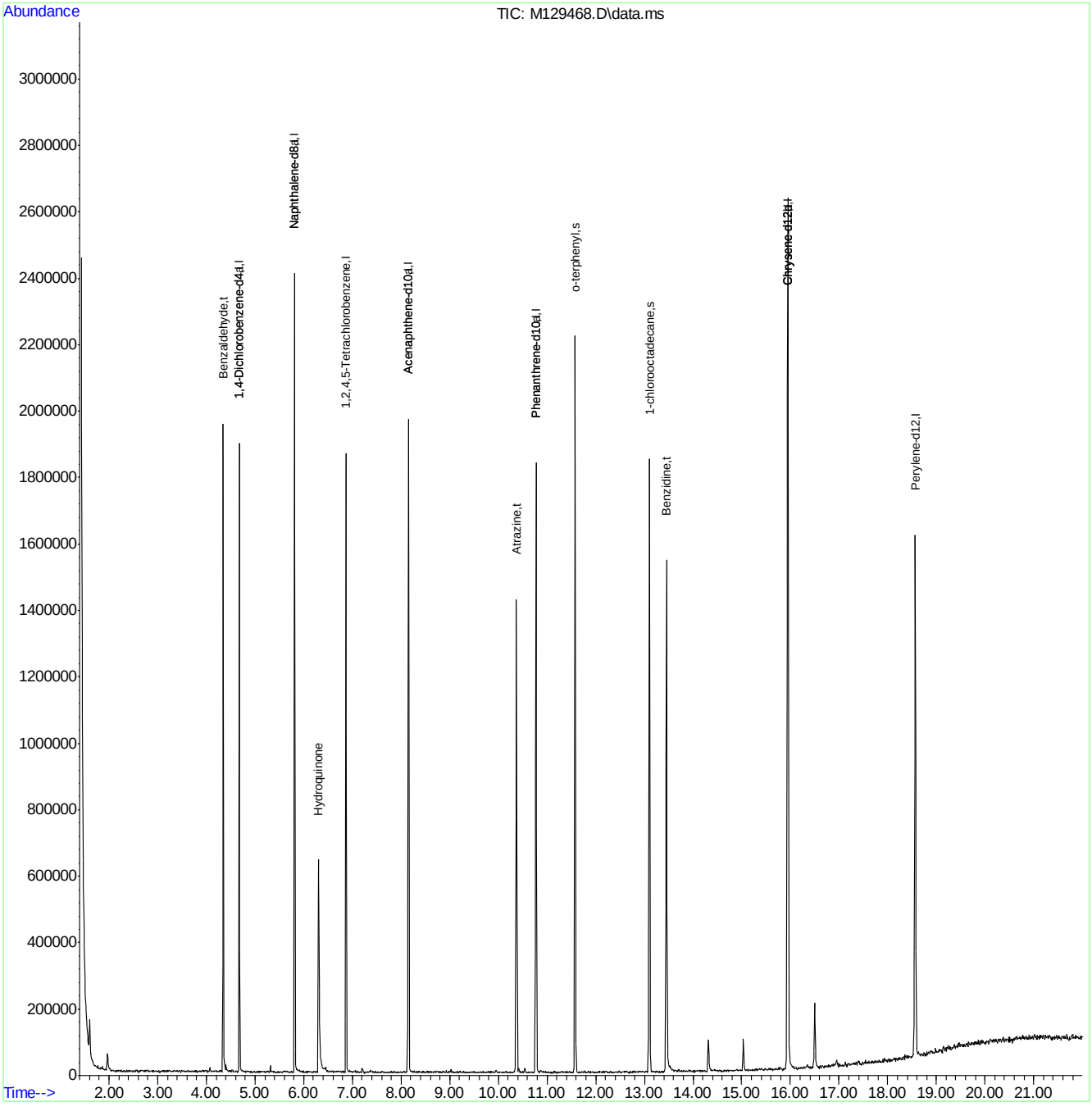
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129468.D
Acq On : 22 Nov 2016 7:30 pm
Operator : seanb1
Sample : icc5526-50
Misc : op98591,em5526
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 23 15:43:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:43:28 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129469.D
Acq On : 22 Nov 2016 7:59 pm
Operator : seanb1
Sample : ic5526-80
Misc : op98591,em5526
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 23 15:43:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.676	152	215166	40.00	ppm	0.00
24) Naphthalene-d8	5.814	136	902469	40.00	ppm	0.00
47) Acenaphthene-d10	8.154	164	500611	40.00	ppm	0.00
69) Phenanthrene-d10	10.777	188	779487	40.00	ppm	0.00
83) Chrysene-d12	15.943	240	750396	40.00	ppm	-0.02
91) Perylene-d12	18.571	264	702363	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.676	152	215166	40.00	ppm	0.00
103) Acenaphthene-d10a	8.154	164	500611	40.00	ppm	0.00
106) Chrysene-d12a	15.943	240	750396	40.00	ppm	-0.02
109) Phenanthrene-d10a	10.777	188	779487	40.00	ppm	0.00
111) Naphthalene-d8a	5.814	136	902469	40.00	ppm	0.00
113) Chrysene-d12b	15.943	240	750396	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	13.106	57	416035	79.94	ppm	-0.02
Spiked Amount 50.000			Recovery = 159.88%			
110) o-terphenyl	11.578	230	738041	80.76	ppm	0.02
Spiked Amount 50.000			Recovery = 161.52%			
Target Compounds						Qvalue
102) Benzaldehyde	4.345	105	453261	82.08	ppm	89
104) 1,2,4,5-Tetrachloroben...	6.872	216	414798	80.17	ppm	98
105) Atrazine	10.381	215	149946	80.67	ppm #	70
107) Benzidine	13.459	184	1065805	96.86	ppm	99
112) Hydroquinone	6.311	110	561104	78.50	ppm	89

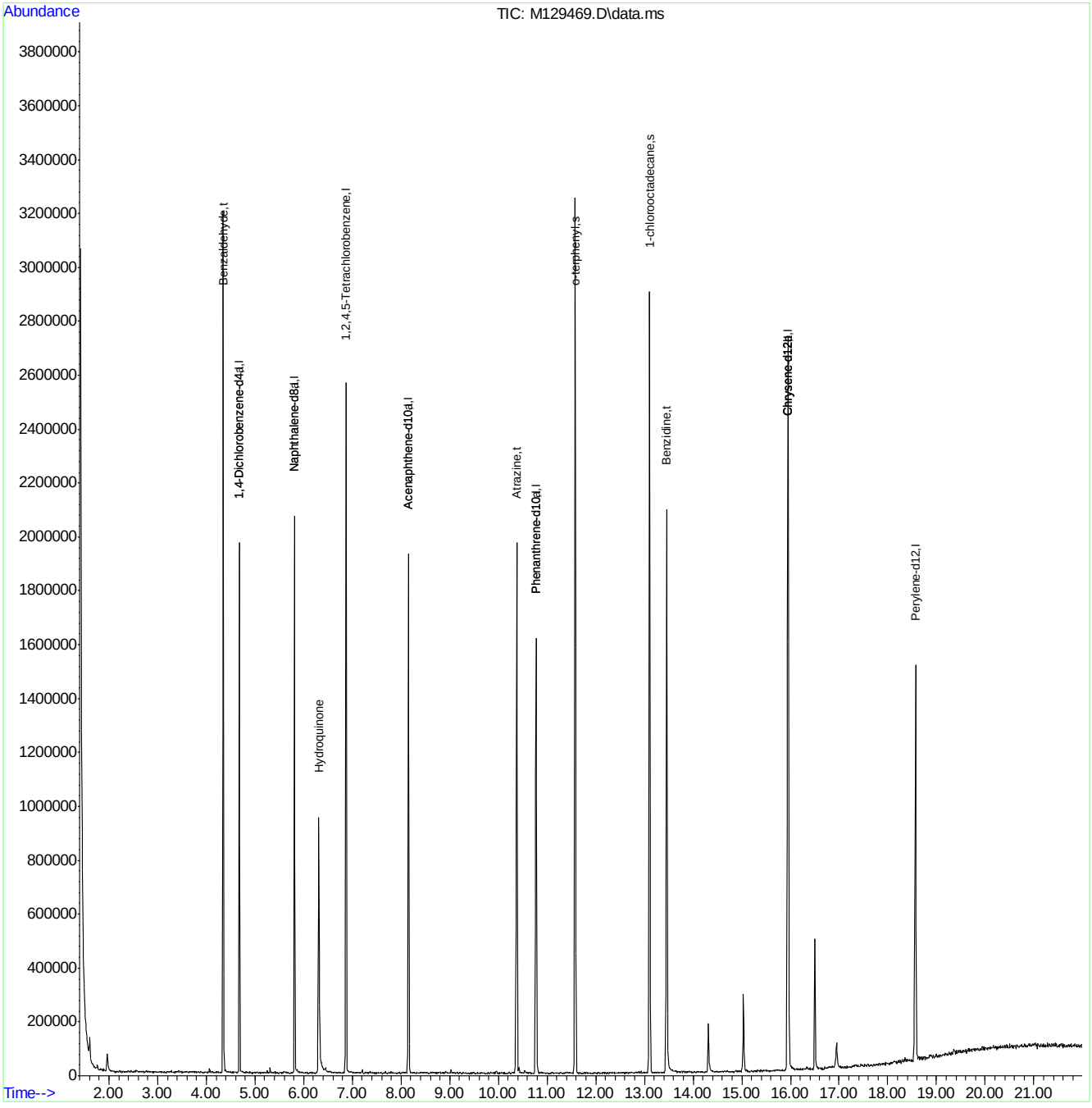
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129469.D
Acq On : 22 Nov 2016 7:59 pm
Operator : seanb1
Sample : ic5526-80
Misc : op98591,em5526
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 23 15:43:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:44:16 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129470.D
Acq On : 22 Nov 2016 8:29 pm
Operator : seanb1
Sample : ic5526-100
Misc : op98591,em5526
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 23 15:39:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.678	152	214315	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	880994	40.00	ppm	0.00
47) Acenaphthene-d10	8.156	164	494312	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	780817	40.00	ppm	0.00
83) Chrysene-d12	15.945	240	732841	40.00	ppm	-0.01
91) Perylene-d12	18.568	264	694136	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.678	152	214315	40.00	ppm	0.00
103) Acenaphthene-d10a	8.156	164	494312	40.00	ppm	0.00
106) Chrysene-d12a	15.945	240	732841	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.774	188	780817	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	880994	40.00	ppm	0.00
113) Chrysene-d12b	15.945	240	732841	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	13.108	57	508275	100.00	ppm	-0.02
Spiked Amount 50.000			Recovery	=	200.00%	
110) o-terphenyl	11.580	230	915379	100.00	ppm	0.03
Spiked Amount 50.000			Recovery	=	200.00%	
Target Compounds						Qvalue
102) Benzaldehyde	4.347	105	550049	100.00	ppm	91
104) 1,2,4,5-Tetrachloroben...	6.869	216	510886	100.00	ppm	94
105) Atrazine	10.384	215	183547	100.00	ppm #	67
107) Benzidine	13.461	184	1074576	100.00	ppm	100
112) Hydroquinone	6.313	110	697800	100.00	ppm	84

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

9.6.72

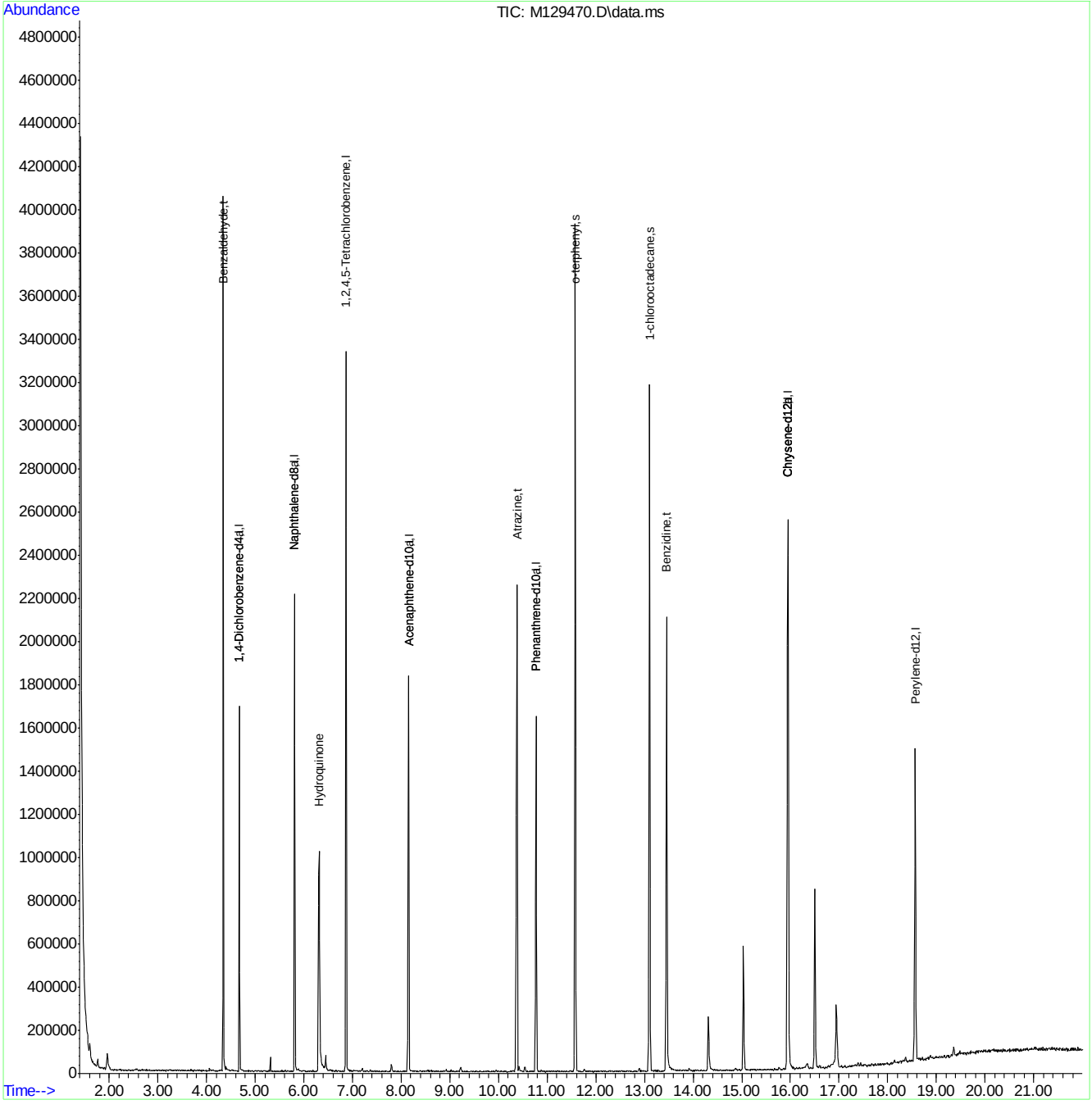
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129470.D
Acq On : 22 Nov 2016 8:29 pm
Operator : seanb1
Sample : ic5526-100
Misc : op98591,em5526
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 23 15:39:17 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:38:49 2016
Response via : Initial Calibration



MM5525.M Wed Nov 23 15:39:21 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129471.D
Acq On : 22 Nov 2016 8:58 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 11:42:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	225472	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	866192	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	478809	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	748889	40.00	ppm	0.00
83) Chrysene-d12	15.940	240	642369	40.00	ppm	-0.02
91) Perylene-d12	18.563	264	600129	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.679	152	225472	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	478809	40.00	ppm	0.00
106) Chrysene-d12a	15.940	240	642369	40.00	ppm	0.00
109) Phenanthrene-d10a	10.774	188	748889	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	866192	40.00	ppm	0.00
113) Chrysene-d12b	15.940	240	642369	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
9) Phenol	4.444	94	440468	46.53	ppm	99
12) 2-Chlorophenol	4.529	128	421937	52.72	ppm	99
19) 2-Methylphenol	4.898	108	349761	54.66	ppm	96
21) 3&4-Methylphenol	5.021	108	369828	52.82	ppm	93
29) 2-Nitrophenol	5.437	139	232221	53.14	ppm	94
30) 2,4-Dimethylphenol	5.485	107	421018	63.81	ppm	98
31) Benzoic acid	5.608	105	231269	44.06	ppm	92
33) 2,4-Dichlorophenol	5.683	162	315082	52.42	ppm	98
34) 2,6-Dichlorophenol	5.907	162	304309	53.06	ppm	98
43) 4-Chloro-3-methylphenol	6.484	107	352952	51.67	ppm	97
49) 2,4,6-Trichlorophenol	7.035	196	209724	55.83	ppm	90
50) 2,4,5-Trichlorophenol	7.099	196	194574	47.72	ppm	97
60) 2,4-Dinitrophenol	8.295	184	58579	44.15	ppm	92
61) 4-Nitrophenol	8.493	109	134582	47.74	ppm #	14
64) 2,3,4,6-Tetrachlorophenol	8.739	232	147276	54.48	ppm	92
70) 4,6-Dinitro-2-methylph...	9.219	198	110884	46.46	ppm	94
76) Pentachlorophenol	10.475	266	80164	46.84	ppm	94

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129471.D
Acq On : 22 Nov 2016 8:58 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 11:42:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

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

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

9.6.73

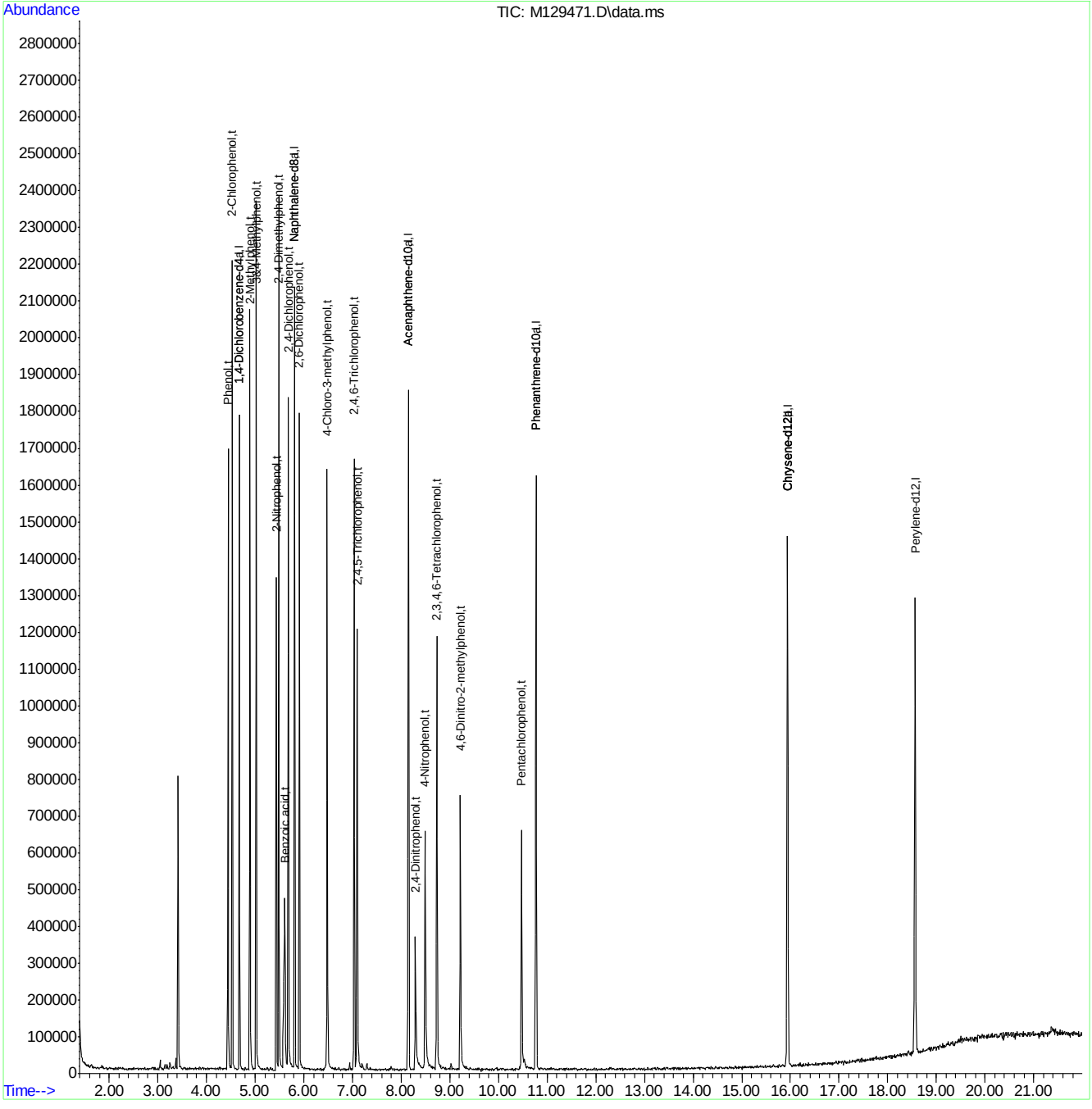
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129471.D
Acq On : 22 Nov 2016 8:58 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 11:42:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129472.D
Acq On : 22 Nov 2016 9:27 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 28 11:45:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	242960	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	1021627	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	556623	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	899406	40.00	ppm	0.00
83) Chrysene-d12	15.940	240	754118	40.00	ppm	-0.02
91) Perylene-d12	18.563	264	656846	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.679	152	242960	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	556623	40.00	ppm	0.00
106) Chrysene-d12a	15.940	240	754118	40.00	ppm	0.00
109) Phenanthrene-d10a	10.774	188	899406	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	1021627	40.00	ppm	0.00
113) Chrysene-d12b	15.940	240	754118	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
3) Pyridine	2.617	79	334362	56.29	ppm	96
10) Aniline	4.433	93	598025	57.35	ppm	98
16) Benzyl alcohol	4.791	108	257486	50.29	ppm	98
39) 4-Chloroaniline	5.897	127	512210	49.63	ppm	98
44) 2-Methylnaphthalene	6.640	141	729503	46.32	ppm	99
54) 2-Nitroaniline	7.468	65	236156	47.43	ppm	92
58) 3-Nitroaniline	8.114	138	251846	48.08	ppm	89
62) Dibenzofuran	8.493	168	1055782	48.03	ppm	89
68) 4-Nitroaniline	9.156	138	237110	48.58	ppm	100
79) Carbazole	11.266	167	1160454	44.92	ppm	94

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

9.6.74

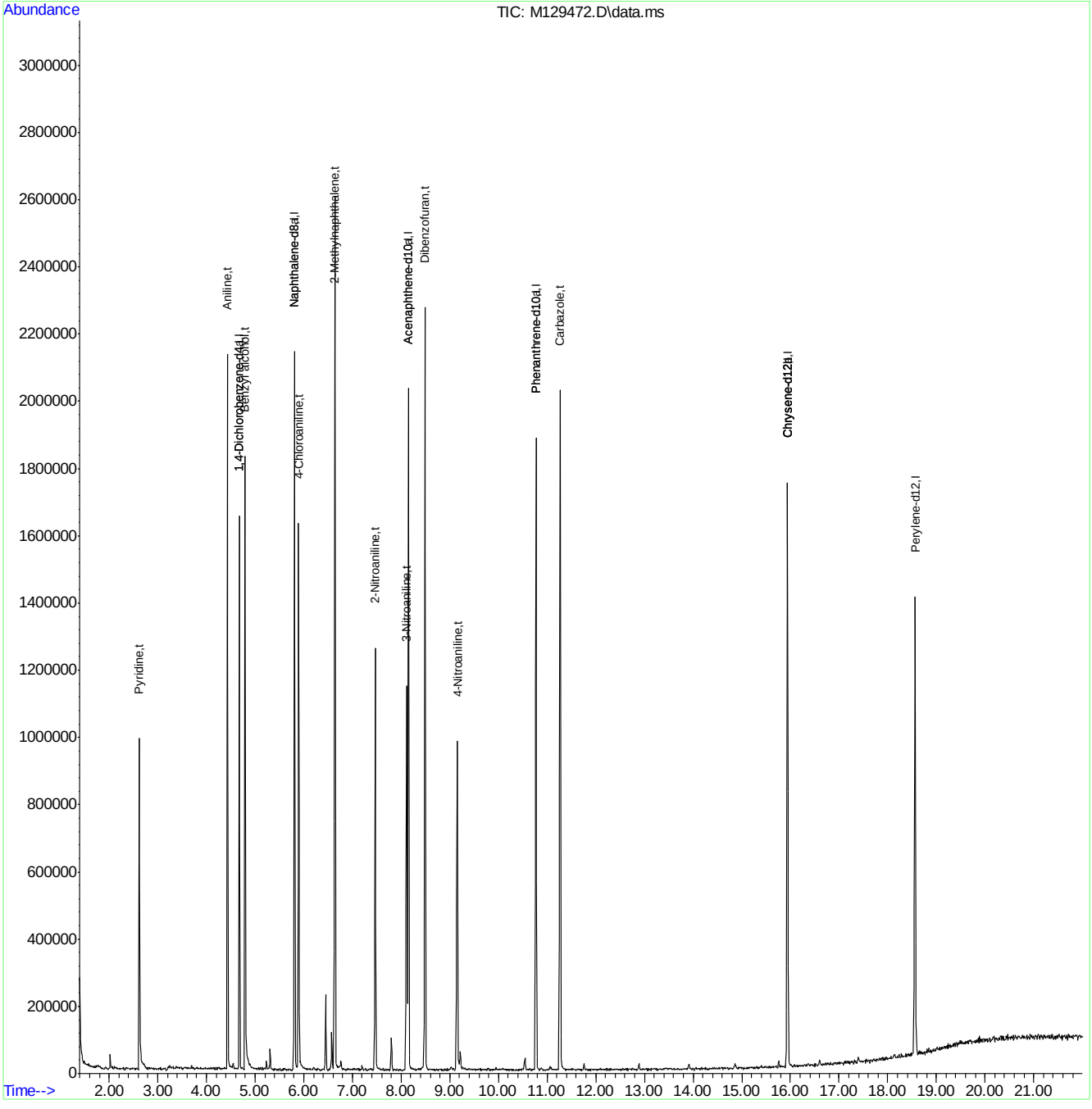
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129472.D
Acq On : 22 Nov 2016 9:27 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 28 11:45:57 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Mon Nov 28 11:46:06 2016 MSM

Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129473.D
Acq On : 22 Nov 2016 9:56 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 16:02:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.678	152	234444	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	919683	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	502312	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	795230	40.00	ppm	0.00
83) Chrysene-d12	15.945	240	663588	40.00	ppm	-0.01
91) Perylene-d12	18.568	264	611276	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.678	152	234444	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	502312	40.00	ppm	0.00
106) Chrysene-d12a	15.945	240	663588	40.00	ppm	0.00
109) Phenanthrene-d10a	10.774	188	795230	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	919683	40.00	ppm	0.00
113) Chrysene-d12b	15.945	240	663588	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.509	42	134429	38.59	ppm	99
11) bis(2-Chloroethyl)ether	4.470	93	357479	57.85	ppm	98
14) 1,3-Dichlorobenzene	4.636	146	486682	54.75	ppm	96
15) 1,4-Dichlorobenzene	4.689	146	453864	52.13	ppm	99
17) 1,2-Dichlorobenzene	4.812	146	439977	51.14	ppm	95
20) 2,2'-oxybis(1-Chloropr...	4.887	121	127753	49.34	ppm	96
22) n-Nitroso-di-n-propyla...	4.993	70	271579	46.10	ppm	93
23) Hexachloroethane	5.090	201	141454	53.62	ppm	85
26) Nitrobenzene	5.143	77	397043	47.46	ppm	98
28) Isophorone	5.351	82	694117	46.74	ppm	99
32) bis(2-Chloroethoxy)met...	5.554	93	426794	56.44	ppm	98
36) 1,2,4-Trichlorobenzene	5.757	180	329882	51.81	ppm	98
38) Naphthalene	5.832	128	1074588	48.35	ppm	99
42) Hexachlorobutadiene	5.966	225	174871	52.09	ppm	99
48) Hexachlorocyclopentadiene	6.853	237	146486	49.78	ppm	98
52) 2-Chloronaphthalene	7.301	162	732017	54.37	ppm	98
55) Dimethylphthalate	7.761	163	815325	47.81	ppm	99

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129473.D
Acq On : 22 Nov 2016 9:56 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 16:02:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56)	Acenaphthylene	7.926	152	1108843	46.85	ppm	100
57)	2,6-Dinitrotoluene	7.846	165	174484	47.73	ppm	94
59)	Acenaphthene	8.204	153	718677	47.89	ppm	99
63)	2,4-Dinitrotoluene	8.509	165	231243	47.60	ppm	86
65)	Diethylphthalate	8.947	149	875322	45.86	ppm	100
66)	Fluorene	9.080	166	786320	45.74	ppm	98
67)	4-Chlorophenyl-phenyle...	9.107	204	302924	47.40	ppm	97
71)	n-Nitrosodiphenylamine	9.326	169	497072	43.03	ppm	98
72)	1,2-Diphenylhydrazine	9.385	77	764004	45.84	ppm	99
74)	4-Bromophenyl-phenylether	9.983	248	190155	49.25	ppm	91
75)	Hexachlorobenzene	10.079	284	210551	48.70	ppm	95
77)	Phenanthrene	10.816	178	996199	46.79	ppm	98
78)	Anthracene	10.913	178	1002355	44.98	ppm	100
80)	Di-n-butylphthalate	12.061	149	1479145	44.94	ppm	99
81)	Fluoranthene	13.113	202	1016330	43.53	ppm	98
84)	Pyrene	13.541	202	1026108	46.95	ppm	97
86)	Butylbenzylphthalate	14.999	149	678649	48.55	ppm	97
87)	Benzo[a]anthracene	15.929	228	907318	47.44	ppm	96
89)	Chrysene	15.998	228	774752	45.08	ppm	98
90)	bis(2-Ethylhexyl)phtha...	16.217	149	891183	48.44	ppm	99
92)	Di-n-octylphthalate	17.441	149	1552632	45.63	ppm	99
93)	Benzo[b]fluoranthene	17.927	252	860426	42.52	ppm	93
94)	Benzo[k]fluoranthene	17.975	252	826361	46.22	ppm	99
95)	Benzo[a]pyrene	18.472	252	818988	47.75	ppm	98
96)	Indeno[1,2,3-cd]pyrene	20.288	276	734953	50.00	ppm	98
98)	Dibenz[a,h]anthracene	20.331	278	725730	48.34	ppm	96
100)	Benzo[g,h,i]perylene	20.747	276	729470	49.65	ppm	95

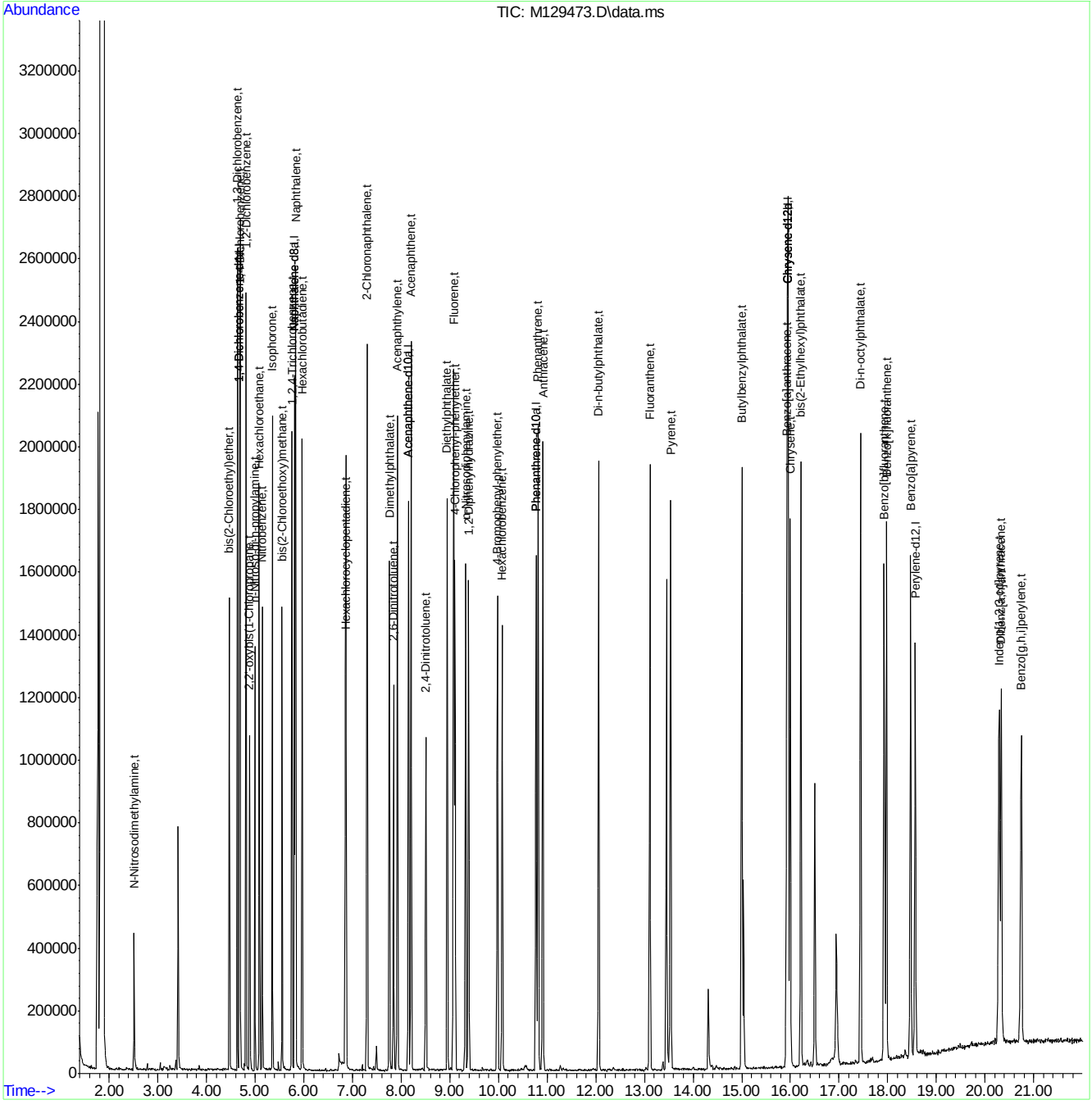
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129473.D
Acq On : 22 Nov 2016 9:56 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 16:02:50 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Mon Nov 28 16:02:53 2016 MSM

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129473a.D
Acq On : 22 Nov 2016 9:56 pm
Operator : seanb1
Sample : icv5526-50
Misc : op98591,em5526
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 16:03:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

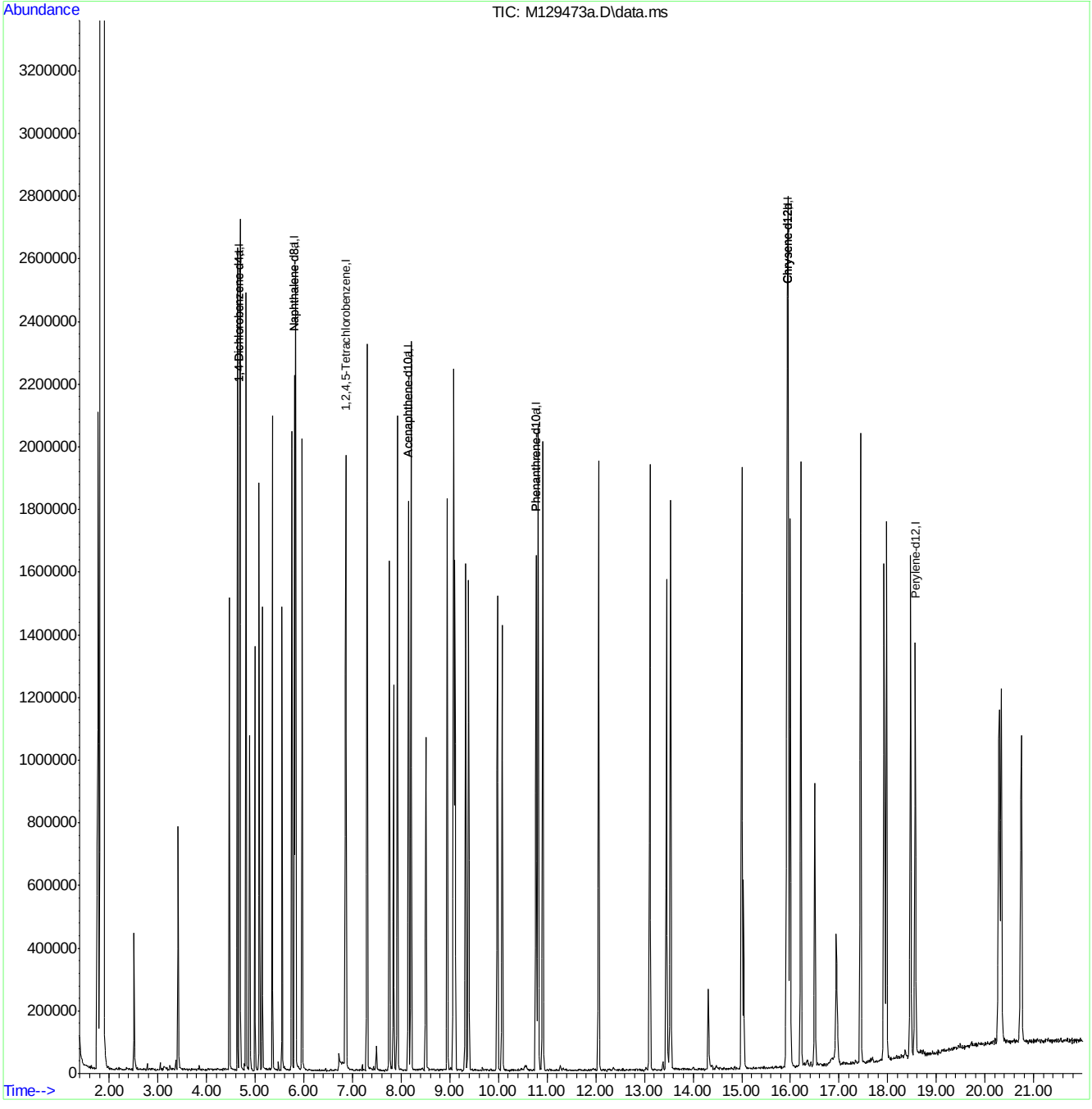
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.678	152	234444	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	919683	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	502312	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	795230	40.00	ppm	0.00
83) Chrysene-d12	15.945	240	663588	40.00	ppm	-0.01
91) Perylene-d12	18.568	264	611276	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.678	152	234444	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	502312	40.00	ppm	0.00
106) Chrysene-d12a	15.945	240	663588	40.00	ppm	0.00
109) Phenanthrene-d10a	10.774	188	795230	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	919683	40.00	ppm	0.00
113) Chrysene-d12b	15.945	240	663588	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
104) 1,2,4,5-Tetrachloroben...	6.869	216	296521	52.91	ppm	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129473a.D
Acq On : 22 Nov 2016 9:56 pm
Operator : seanb1
Sample : icv5526-50
Misc : op98591,em5526
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 28 16:03:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Mon Nov 28 16:03:38 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129475.D
Acq On : 22 Nov 2016 10:55 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 16:01:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	344650	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	1425173	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	778010	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	1214843	40.00	ppm	0.00
83) Chrysene-d12	15.945	240	1072885	40.00	ppm	-0.01
91) Perylene-d12	18.568	264	1013762	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.679	152	344650	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	778010	40.00	ppm	0.00
106) Chrysene-d12a	15.945	240	1072885	40.00	ppm	0.00
109) Phenanthrene-d10a	10.774	188	1214843	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	1425173	40.00	ppm	0.00
113) Chrysene-d12b	15.945	240	1072885	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	15.956	252	566837	49.46	ppm	97

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

9.6.77

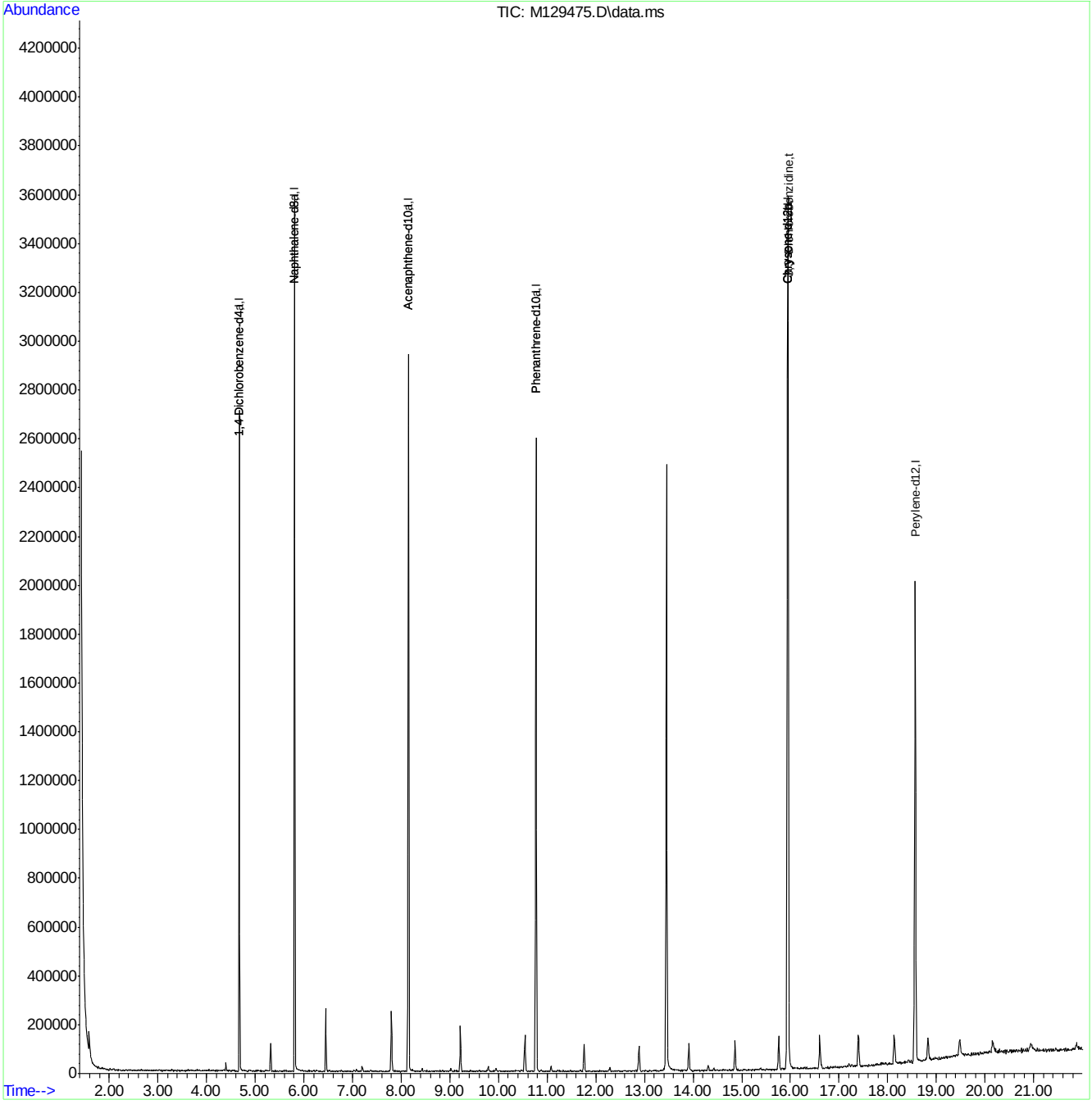
6

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129475.D
Acq On : 22 Nov 2016 10:55 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 16:01:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129475a.D
Acq On : 22 Nov 2016 10:55 pm
Operator : seanb1
Sample : icv5526-50
Misc : op98591,em5526
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 16:00:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.679	152	344650	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	1425173	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	778010	40.00	ppm	0.00
69) Phenanthrene-d10	10.774	188	1214843	40.00	ppm	0.00
83) Chrysene-d12	15.945	240	1072885	40.00	ppm	-0.01
91) Perylene-d12	18.568	264	1013762	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.679	152	344650	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	778010	40.00	ppm	0.00
106) Chrysene-d12a	15.945	240	1072885	40.00	ppm	0.00
109) Phenanthrene-d10a	10.774	188	1214843	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	1425173	40.00	ppm	0.00
113) Chrysene-d12b	15.945	240	1072885	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
107) Benzidine	13.456	184	1223356	57.35	ppm	98

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

9.6.78

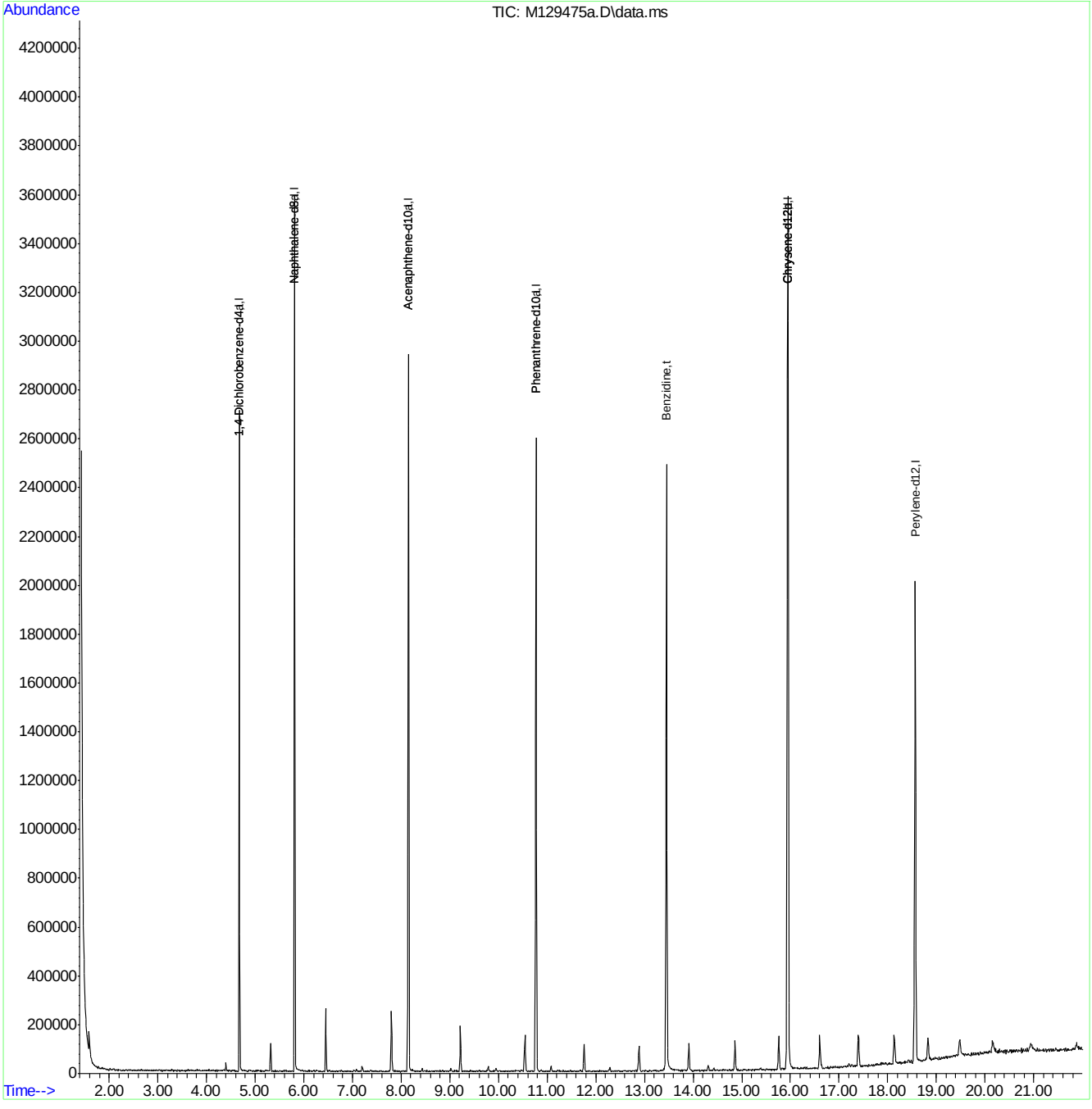
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129475a.D
Acq On : 22 Nov 2016 10:55 pm
Operator : seanb1
Sample : icv5526-50
Misc : op98591,em5526
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 16:00:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Mon Nov 28 16:00:56 2016 MSM

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129476.D
Acq On : 22 Nov 2016 11:25 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 28 11:54:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.674	152	222044	40.00	ppm	0.00
24) Naphthalene-d8	5.812	136	891023	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	479027	40.00	ppm	0.00
69) Phenanthrene-d10	10.769	188	725391	40.00	ppm	-0.01
83) Chrysene-d12	15.940	240	622900	40.00	ppm	-0.02
91) Perylene-d12	18.563	264	571803	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.674	152	222044	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	479027	40.00	ppm	0.00
106) Chrysene-d12a	15.940	240	622900	40.00	ppm	0.00
109) Phenanthrene-d10a	10.769	188	725391	40.00	ppm	0.00
111) Naphthalene-d8a	5.812	136	891023	40.00	ppm	0.00
113) Chrysene-d12b	15.940	240	622900	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.712	112	374814	55.61	ppm	0.00
Spiked Amount 50.000			Recovery = 111.22%			
8) Phenol-d5	4.433	99	446343	51.48	ppm	0.00
Spiked Amount 50.000			Recovery = 102.96%			
25) Nitrobenzene-d5	5.128	82	459796	54.62	ppm	0.00
Spiked Amount 50.000			Recovery = 109.24%			
51) 2-Fluorobiphenyl	7.136	172	841361	55.45	ppm	0.00
Spiked Amount 50.000			Recovery = 110.90%			
73) 2,4,6-Tribromophenol	9.508	330	101358	53.19	ppm	-0.01
Spiked Amount 50.000			Recovery = 106.38%			
85) Terphenyl-d14	13.948	244	710948	56.46	ppm	0.00
Spiked Amount 50.000			Recovery = 112.92%			
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			

Target Compounds Qvalue

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

9.6.79

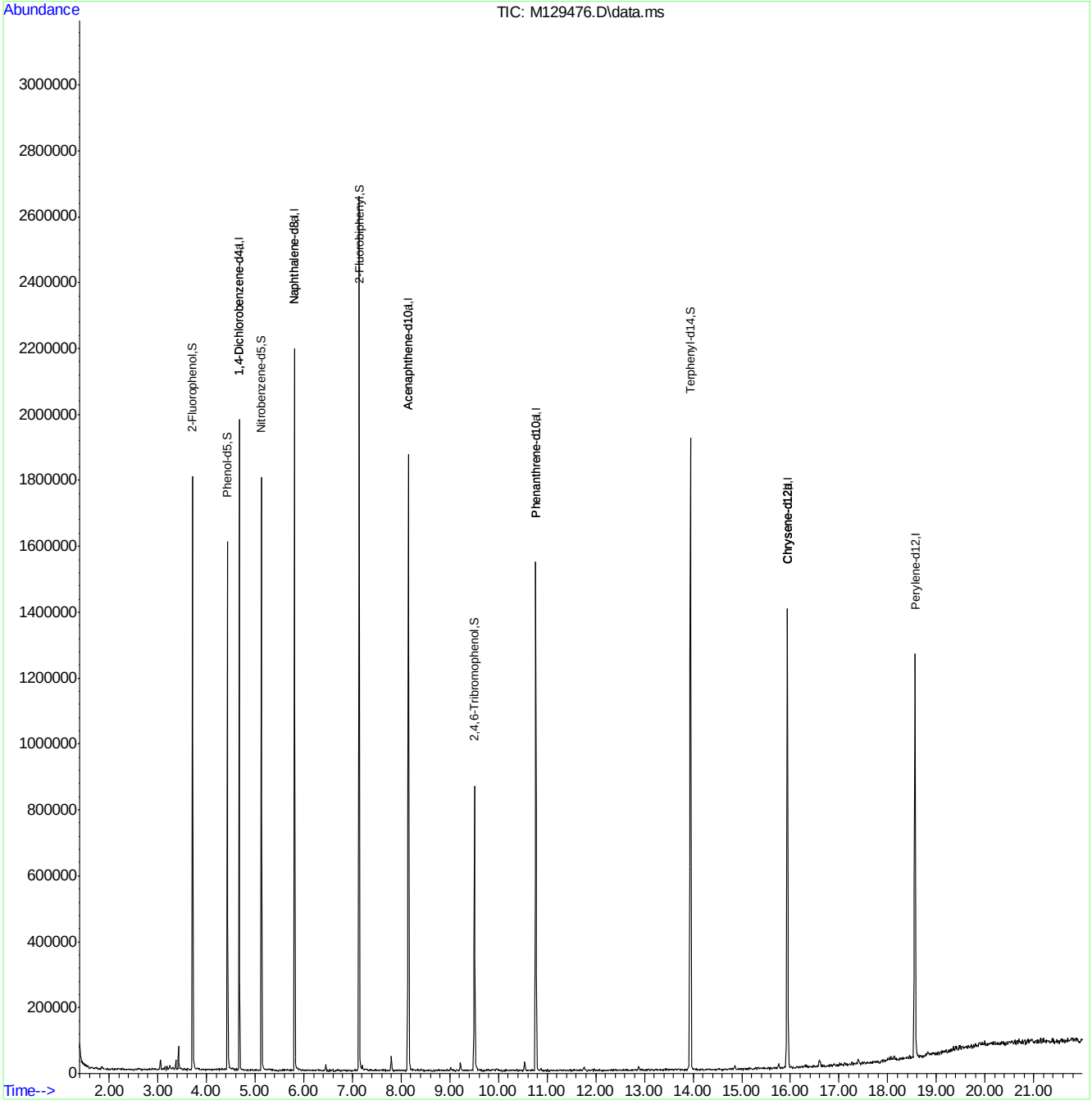
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129476.D
Acq On : 22 Nov 2016 11:25 pm
Operator : seanb1
Sample : icv5525-50
Misc : op98591,em5526
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 28 11:54:49 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129477.D
Acq On : 22 Nov 2016 11:54 pm
Operator : seanb1
Sample : icv5526-50
Misc : op98591,em5526
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 28 11:55:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.673	152	284555	40.00	ppm	0.00
24) Naphthalene-d8	5.811	136	1183463	40.00	ppm	0.00
47) Acenaphthene-d10	8.151	164	641311	40.00	ppm	0.00
69) Phenanthrene-d10	10.769	188	1021537	40.00	ppm	-0.01
83) Chrysene-d12	15.940	240	946939	40.00	ppm	-0.02
91) Perylene-d12	18.568	264	881864	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.673	152	284555	40.00	ppm	0.00
103) Acenaphthene-d10a	8.151	164	641311	40.00	ppm	0.00
106) Chrysene-d12a	15.940	240	946939	40.00	ppm	0.00
109) Phenanthrene-d10a	10.769	188	1021537	40.00	ppm	0.00
111) Naphthalene-d8a	5.811	136	1183463	40.00	ppm	0.00
113) Chrysene-d12b	15.940	240	946939	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
112) Hydroquinone	6.303	110	483928	58.37	ppm	98

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

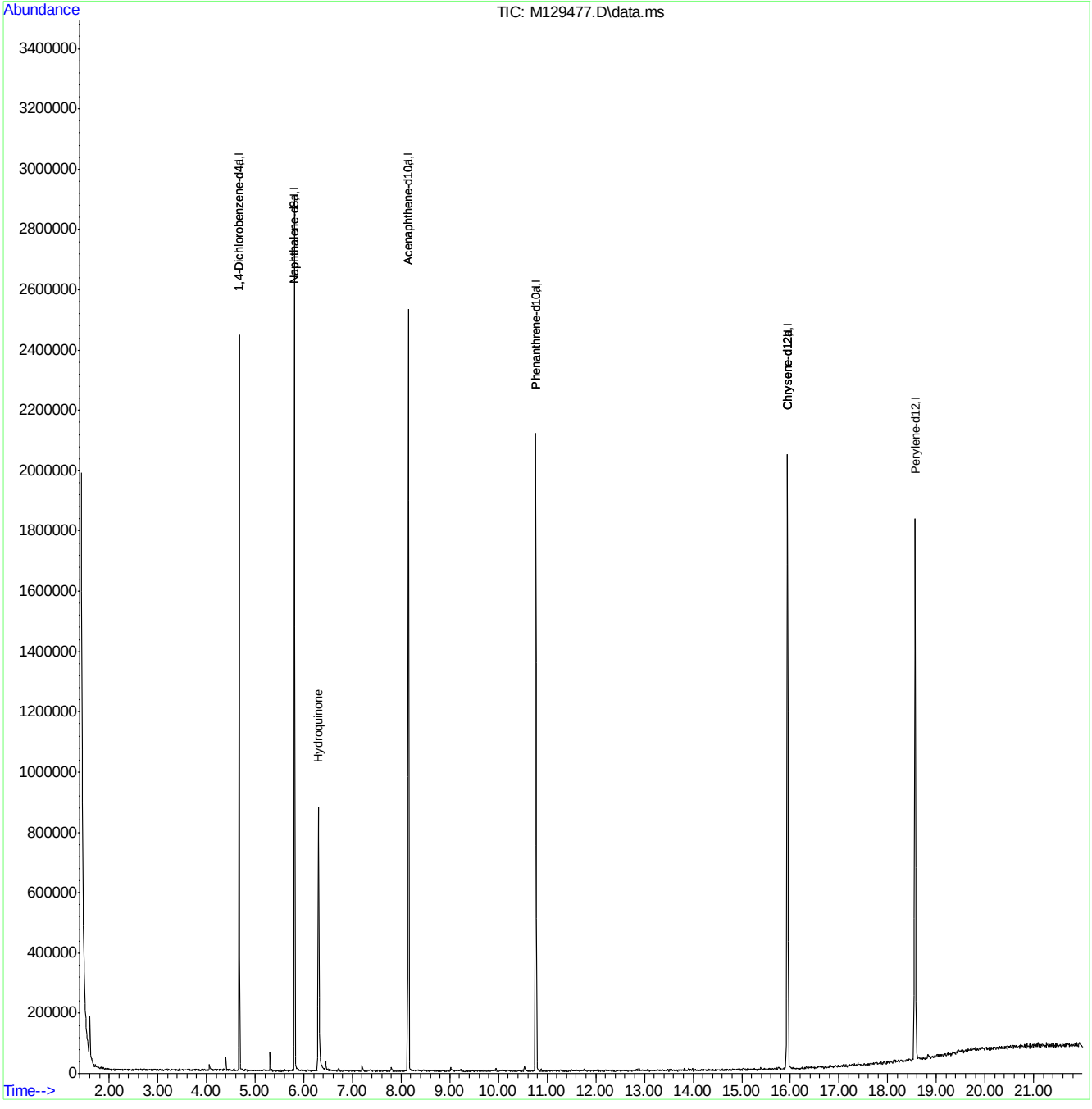
9.6.80

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5526\
Data File : M129477.D
Acq On : 22 Nov 2016 11:54 pm
Operator : seanb1
Sample : icv5526-50
Misc : op98591,em5526
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 28 11:55:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Mon Nov 28 11:55:41 2016 MSM

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9.6.80
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129482.D
Acq On : 28 Nov 2016 2:07 pm
Operator : kevinm2
Sample : icv5525-50
Misc : op98591,em5527
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 01 10:01:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.667	152	285578	40.00	ppm	0.00
24) Naphthalene-d8	5.800	136	1104561	40.00	ppm	-0.01
47) Acenaphthene-d10	8.140	164	659042	40.00	ppm	-0.02
69) Phenanthrene-d10	10.757	188	1030704	40.00	ppm	-0.03
83) Chrysene-d12	15.934	240	973630	40.00	ppm	-0.03
91) Perylene-d12	18.562	264	891830	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.667	152	285578	40.00	ppm	0.00
103) Acenaphthene-d10a	8.140	164	659042	40.00	ppm	-0.01
106) Chrysene-d12a	15.934	240	973630	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.757	188	1030704	40.00	ppm	-0.02
111) Naphthalene-d8a	5.800	136	1104561	40.00	ppm	-0.01
113) Chrysene-d12b	15.934	240	973630	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.199	88	136656	49.39	ppm	99
6) Indene	4.876	116	819319	49.97	ppm	99
7) Cumene	4.069	105	1146898	46.89	ppm	99
13) Decane	4.545	43	234579	48.28	ppm	95
18) Acetophenone	4.988	105	607120	43.04	ppm	98
27) Quinoline	6.190	129	925003	47.19	ppm	97
40) 2,3-Dichloroaniline	7.007	161	424462	43.13	ppm	99
45) 1-Methylnaphthalene	6.756	142	856573	44.42	ppm	98
46) Dimethylnaphthalene	7.499	156	780778	45.89	ppm	100
53) Biphenyl	7.269	154	1069767	43.09	ppm	99
82) Octadecane	10.752	57	442334	40.98	ppm	97
99) 7,12-Dimethylbenz(a)an...	17.921	256	567340	48.23	ppm	96

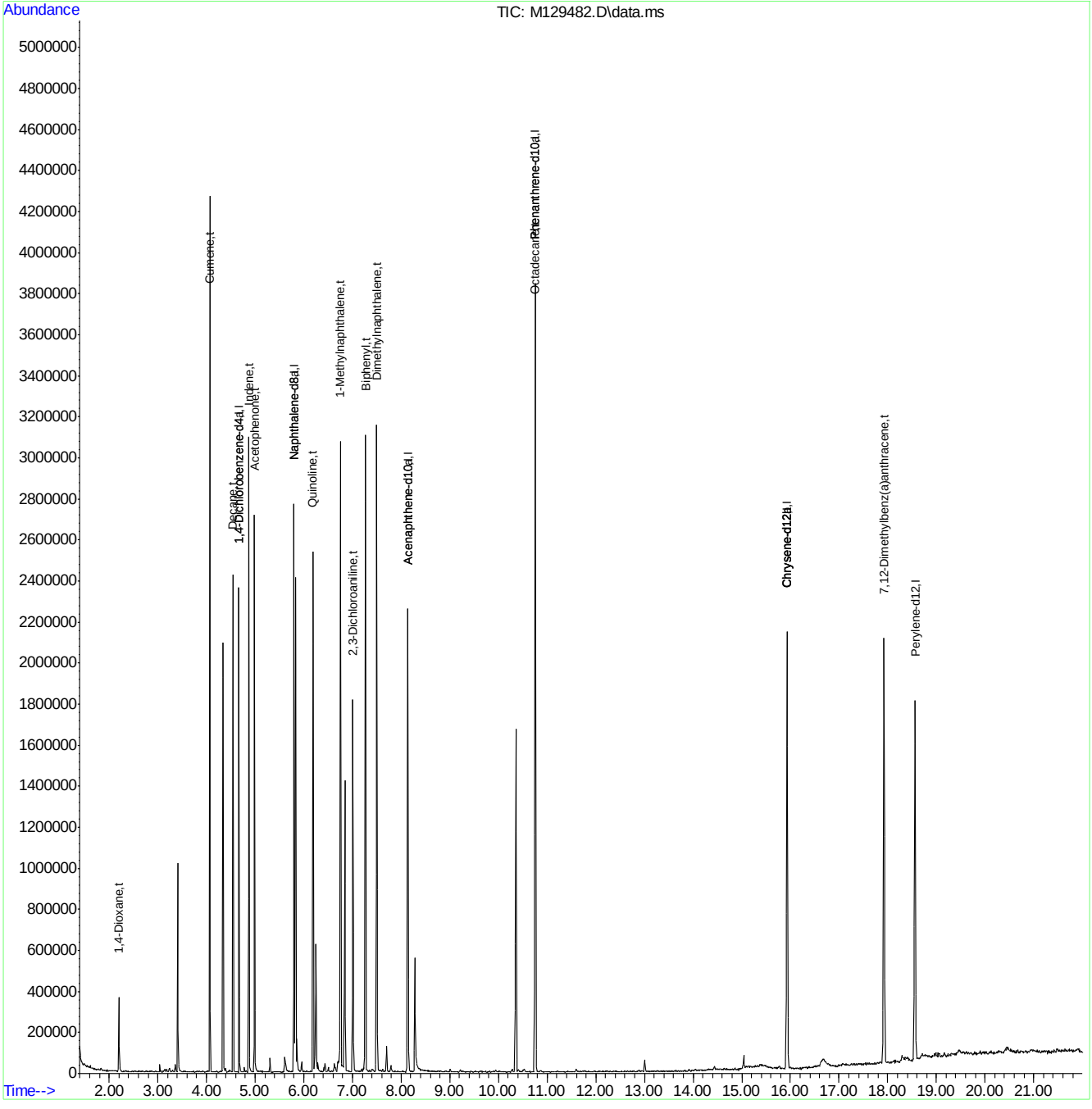
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129482.D
Acq On : 28 Nov 2016 2:07 pm
Operator : kevinm2
Sample : icv5525-50
Misc : op98591,em5527
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 01 10:01:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Thu Dec 01 10:02:00 2016 MSM

Page: 2

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129482a.D
Acq On : 28 Nov 2016 2:07 pm
Operator : kevinm2
Sample : icv5526-50
Misc : op98591,em5527
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 15:49:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.667	152	285578	40.00	ppm	0.00
24) Naphthalene-d8	5.800	136	1104561	40.00	ppm	-0.01
47) Acenaphthene-d10	8.140	164	659042	40.00	ppm	-0.02
69) Phenanthrene-d10	10.757	188	1030704	40.00	ppm	-0.03
83) Chrysene-d12	15.934	240	973630	40.00	ppm	-0.03
91) Perylene-d12	18.562	264	891830	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.667	152	285578	40.00	ppm	0.00
103) Acenaphthene-d10a	8.140	164	659042	40.00	ppm	-0.01
106) Chrysene-d12a	15.934	240	973630	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.757	188	1030704	40.00	ppm	-0.02
111) Naphthalene-d8a	5.800	136	1104561	40.00	ppm	-0.01
113) Chrysene-d12b	15.934	240	973630	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
102) Benzaldehyde	4.342	105	336098	42.52	ppm	97
105) Atrazine	10.362	215	130886	50.97	ppm	87

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

9.6.82

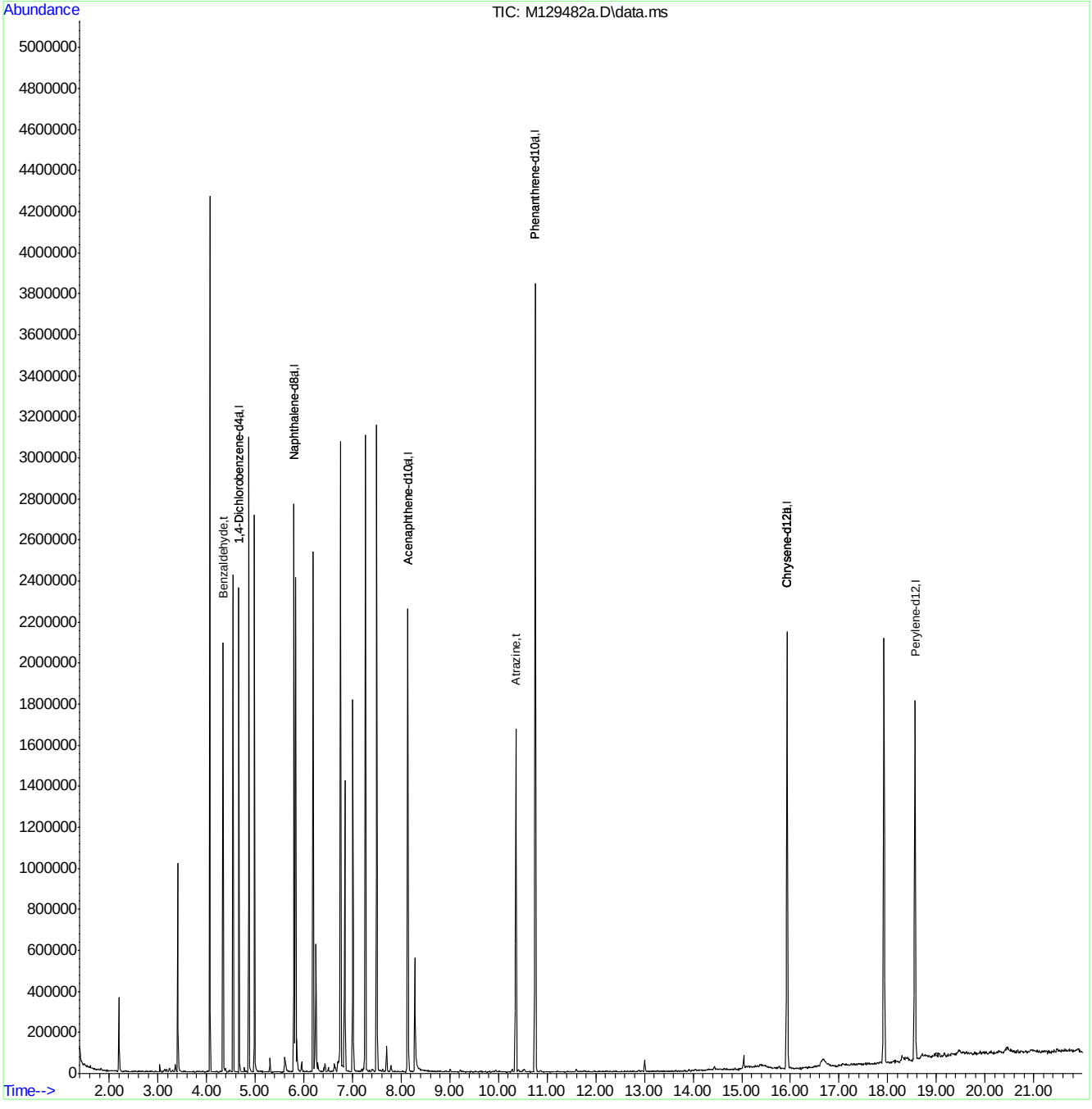
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129482a.D
Acq On : 28 Nov 2016 2:07 pm
Operator : kevinm2
Sample : icv5526-50
Misc : op98591,em5527
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 15:49:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



MM5525.M Mon Nov 28 15:50:01 2016 MSM

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129483.D
Acq On : 28 Nov 2016 3:26 pm
Operator : kevinm2
Sample : icv5525-50
Misc : op98591,em5527
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 15:51:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration

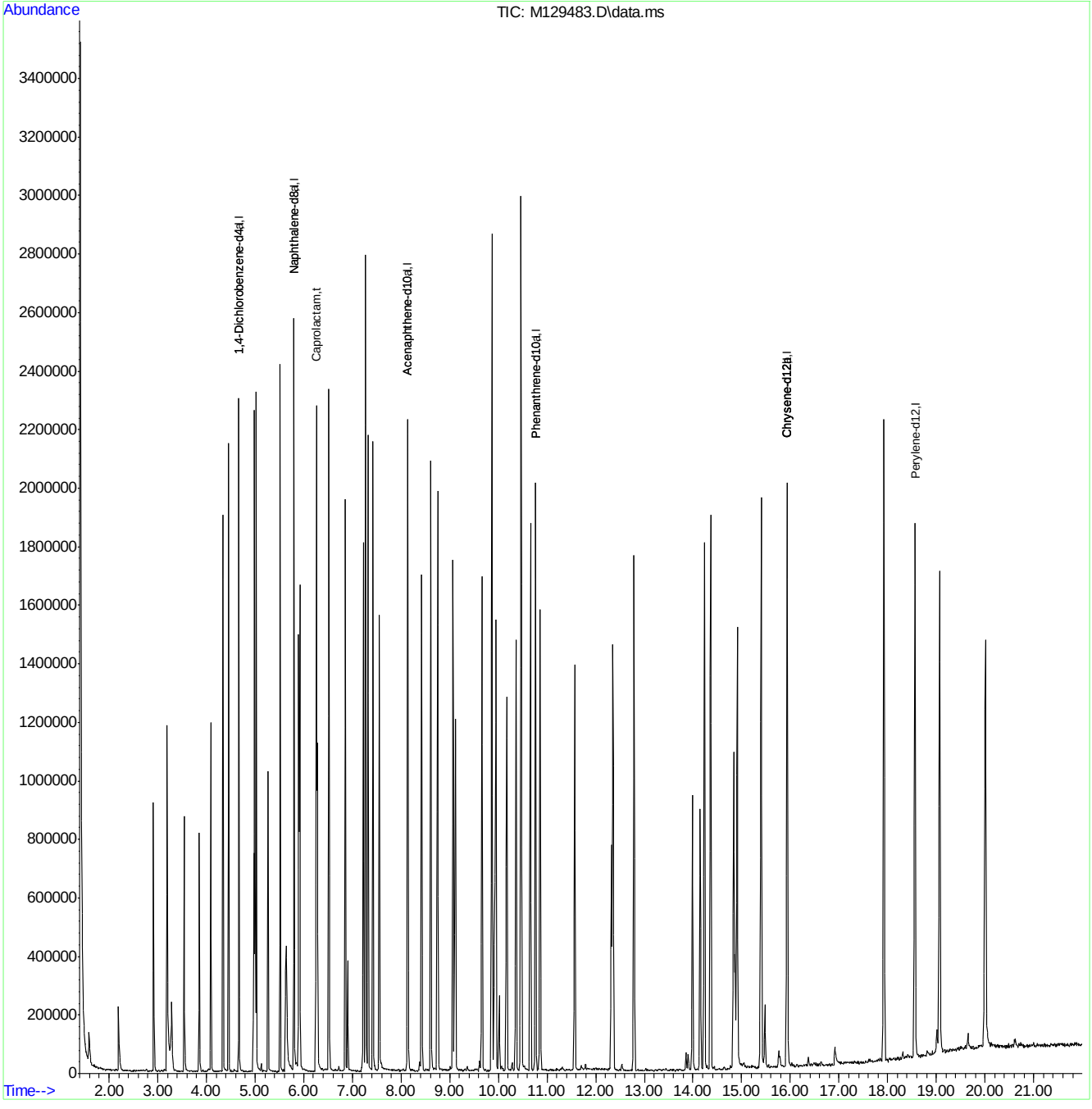
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.669	152	257014	40.00	ppm	0.00
24) Naphthalene-d8	5.801	136	1010241	40.00	ppm	-0.01
47) Acenaphthene-d10	8.136	164	606222	40.00	ppm	-0.02
69) Phenanthrene-d10	10.764	188	925617	40.00	ppm	-0.02
83) Chrysene-d12	15.935	240	939196	40.00	ppm	-0.02
91) Perylene-d12	18.564	264	870831	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.669	152	257014	40.00	ppm	0.00
103) Acenaphthene-d10a	8.136	164	606222	40.00	ppm	-0.02
106) Chrysene-d12a	15.935	240	939196	40.00	ppm	-0.01
109) Phenanthrene-d10a	10.764	188	925617	40.00	ppm	-0.01
111) Naphthalene-d8a	5.801	136	1010241	40.00	ppm	-0.01
113) Chrysene-d12b	15.935	240	939196	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
41) Caprolactam	6.261	55	163285	56.26	ppm	# 11

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5527\
Data File : M129483.D
Acq On : 28 Nov 2016 3:26 pm
Operator : kevinm2
Sample : icv5525-50
Misc : op98591,em5527
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 15:51:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Wed Nov 23 15:58:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130065.D
Acq On : 16 Dec 2016 10:10 pm
Operator : juliusj
Sample : cc5525-50
Misc : op99181,em5555
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 15:59:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Dec 19 15:57:39 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.572	152	160462	40.00	ppm	0.04
24) Naphthalene-d8	5.683	136	625318	40.00	ppm	0.05
47) Acenaphthene-d10	7.980	164	371008	40.00	ppm	0.06
69) Phenanthrene-d10	10.576	188	640468	40.00	ppm	0.07
83) Chrysene-d12	15.735	240	648362	40.00	ppm	0.08
91) Perylene-d12	18.347	264	512036	40.00	ppm	0.08
101) 1,4-Dichlorobenzene-d4a	4.572	152	160462	40.00	ppm	0.04
103) Acenaphthene-d10a	7.980	164	371008	40.00	ppm	0.06
106) Chrysene-d12a	15.735	240	648362	40.00	ppm	0.08
109) Phenanthrene-d10a	10.576	188	640468	40.00	ppm	0.07
111) Naphthalene-d8a	5.683	136	625318	40.00	ppm	0.05
113) Chrysene-d12b	15.735	240	648362	40.00	ppm	0.08
System Monitoring Compounds						
5) 2-Fluorophenol	3.616	112	284497	58.41	ppm	0.01
Spiked Amount 50.000			Recovery	=	116.82%	
8) Phenol-d5	4.342	99	375564	59.94	ppm	0.04
Spiked Amount 50.000			Recovery	=	119.88%	
25) Nitrobenzene-d5	5.021	82	320732	54.29	ppm	0.05
Spiked Amount 50.000			Recovery	=	108.58%	
51) 2-Fluorobiphenyl	6.986	172	594154	50.56	ppm	0.05
Spiked Amount 50.000			Recovery	=	101.12%	
73) 2,4,6-Tribromophenol	9.326	330	86757	51.56	ppm	0.04
Spiked Amount 50.000			Recovery	=	103.12%	
85) Terphenyl-d14	13.737	244	648000	49.44	ppm	0.04
Spiked Amount 50.000			Recovery	=	98.88%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) 1,4-Dioxane	2.083	88	106928	66.67	ppm	98
3) Pyridine	2.420	79	292959	74.67	ppm	94
4) N-Nitrosodimethylamine	2.393	42	139717	58.60	ppm	89
6) Indene	4.770	116	478504	51.94	ppm	97
7) Cumene	3.974	105	709382	51.62	ppm	99
9) Phenol	4.353	94	395883	58.76	ppm	90
10) Aniline	4.337	93	314730	45.70	ppm	98
11) bis(2-Chloroethyl)ether	4.380	93	258391	61.09	ppm	93
12) 2-Chlorophenol	4.433	128	294475	51.70	ppm	98
13) Decane	4.455	43	177229	64.92	ppm	90
14) 1,3-Dichlorobenzene	4.529	146	308649	50.73	ppm	98
15) 1,4-Dichlorobenzene	4.588	146	304752	51.15	ppm	96
16) Benzyl alcohol	4.690	108	181705	53.74	ppm	94
17) 1,2-Dichlorobenzene	4.706	146	291675	49.53	ppm	96
18) Acetophenone	4.893	105	404357	51.01	ppm	98
19) 2-Methylphenol	4.796	108	233799	51.34	ppm	93
20) 2,2'-oxybis(1-Chloropr...	4.786	121	92726	52.32	ppm #	75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130065.D
Acq On : 16 Dec 2016 10:10 pm
Operator : juliusj
Sample : cc5525-50
Misc : op99181,em5555
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 15:59:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Dec 19 15:57:39 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
21) 3&4-Methylphenol	4.919	108	259063	51.99	ppm		95
22) n-Nitroso-di-n-propyla...	4.893	70	215596	53.47	ppm		94
23) Hexachloroethane	4.973	201	96678	53.54	ppm	#	81
26) Nitrobenzene	5.037	77	306260	53.84	ppm		92
27) Quinoline	6.078	129	597889	53.88	ppm		97
28) Isophorone	5.240	82	569994	56.45	ppm		96
29) 2-Nitrophenol	5.320	139	170045	53.90	ppm		87
30) 2,4-Dimethylphenol	5.373	107	266943	56.04	ppm		95
31) Benzoic acid	5.523	105	234175	61.80	ppm		93
32) bis(2-Chloroethoxy)met...	5.437	93	311018	60.49	ppm		98
33) 2,4-Dichlorophenol	5.566	162	226276	52.14	ppm		97
34) 2,6-Dichlorophenol	5.779	162	220901	53.35	ppm		96
35) 1,3,5-Trichlorobenzene	5.325	180	253320	55.58	ppm		97
36) 1,2,4-Trichlorobenzene	5.630	180	236730	54.68	ppm		99
37) 1,2,3-Trichlorobenzene	5.859	180	226319	54.00	ppm		96
38) Naphthalene	5.704	128	817132	54.07	ppm		98
39) 4-Chloroaniline	5.769	127	313079	49.56	ppm		98
40) 2,3-Dichloroaniline	6.869	161	294392	52.84	ppm		96
41) Caprolactam	6.164	55	105437	58.69	ppm		87
42) Hexachlorobutadiene	5.833	225	128546	56.32	ppm		99
43) 4-Chloro-3-methylphenol	6.356	107	269473	54.65	ppm		95
44) 2-Methylnaphthalene	6.495	141	485860	50.40	ppm		97
45) 1-Methylnaphthalene	6.618	142	561954	51.48	ppm		96
46) Dimethylnaphthalene	7.349	156	495691	51.46	ppm		96
48) Hexachlorocyclopentadiene	6.698	237	204975	88.59	ppm		69
49) 2,4,6-Trichlorophenol	6.890	196	155657	53.48	ppm		99
50) 2,4,5-Trichlorophenol	6.954	196	167324	52.96	ppm		97
52) 2-Chloronaphthalene	7.147	162	496423	49.92	ppm		95
53) Biphenyl	7.120	154	694011	49.66	ppm		96
54) 2-Nitroaniline	7.317	65	189094	56.98	ppm		98
55) Dimethylphthalate	7.601	163	645142	51.22	ppm		98
56) Acenaphthylene	7.755	152	841738	48.15	ppm		97
57) 2,6-Dinitrotoluene	7.686	165	142268	52.69	ppm		89
58) 3-Nitroaniline	7.953	138	167196	47.89	ppm		96
59) Acenaphthene	8.028	153	518309	46.76	ppm		93
60) 2,4-Dinitrophenol	8.140	184	156465	114.51	ppm		89
61) 4-Nitrophenol	8.348	109	92544	42.37	ppm	#	19
62) Dibenzofuran	8.316	168	749846	51.18	ppm		80
63) 2,4-Dinitrotoluene	8.348	165	193834	54.02	ppm		89
64) 2,3,4,6-Tetrachlorophenol	8.562	232	133046	63.52	ppm		81
65) Diethylphthalate	8.781	149	662888	47.02	ppm		94
66) Fluorene	8.893	166	611376	48.15	ppm		97
67) 4-Chlorophenyl-phenyle...	8.925	204	256562	54.35	ppm		82
68) 4-Nitroaniline	8.989	138	158481	48.72	ppm		88
70) 4,6-Dinitro-2-methylph...	9.059	198	111948	53.78	ppm		81
71) n-Nitrosodiphenylamine	9.149	169	444601	47.79	ppm		92
72) 1,2-Diphenylhydrazine	9.203	77	641568	47.79	ppm		97
74) 4-Bromophenyl-phenylether	9.790	248	161985	52.09	ppm		93
75) Hexachlorobenzene	9.886	284	170666	49.01	ppm		92
76) Pentachlorophenol	10.287	266	204811	119.55	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130065.D
Acq On : 16 Dec 2016 10:10 pm
Operator : juliusj
Sample : cc5525-50
Misc : op99181,em5555
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 15:59:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Dec 19 15:57:39 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	10.618	178	845045	49.28	ppm	97
78) Anthracene	10.714	178	861038	47.98	ppm	99
79) Carbazole	11.072	167	882132	47.96	ppm	89
80) Di-n-butylphthalate	11.863	149	1173709	44.28	ppm	100
81) Fluoranthene	12.904	202	934379	49.69	ppm	97
82) Octadecane	10.570	57	321879	47.99	ppm	90
84) Pyrene	13.326	202	970441	45.44	ppm	99
86) Butylbenzylphthalate	14.790	149	541110	39.62	ppm	90
87) Benzo[a]anthracene	15.714	228	890491	47.65	ppm	96
88) 3,3'-Dichlorobenzidine	15.740	252	315045	45.49	ppm	98
89) Chrysene	15.783	228	805439	47.97	ppm	98
90) bis(2-Ethylhexyl)phtha...	16.007	149	743917	41.38	ppm	99
92) Di-n-octylphthalate	17.230	149	1259963	44.20	ppm	98
93) Benzo[b]fluoranthene	17.717	252	829419	48.93	ppm	91
94) Benzo[k]fluoranthene	17.765	252	722750	48.26	ppm	99
95) Benzo[a]pyrene	18.251	252	681304	47.42	ppm	92
96) Indeno[1,2,3-cd]pyrene	20.040	276	646394	52.50	ppm	94
97) Dibenz(a,h)acridine	19.687	279	603375	52.31	ppm	79
98) Dibenz[a,h]anthracene	20.077	278	660446	52.52	ppm	95
99) 7,12-Dimethylbenz(a)an...	17.711	256	352532	52.20	ppm	93
100) Benzo[g,h,i]perylene	20.473	276	670976	54.52	ppm	89

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

9.6.84

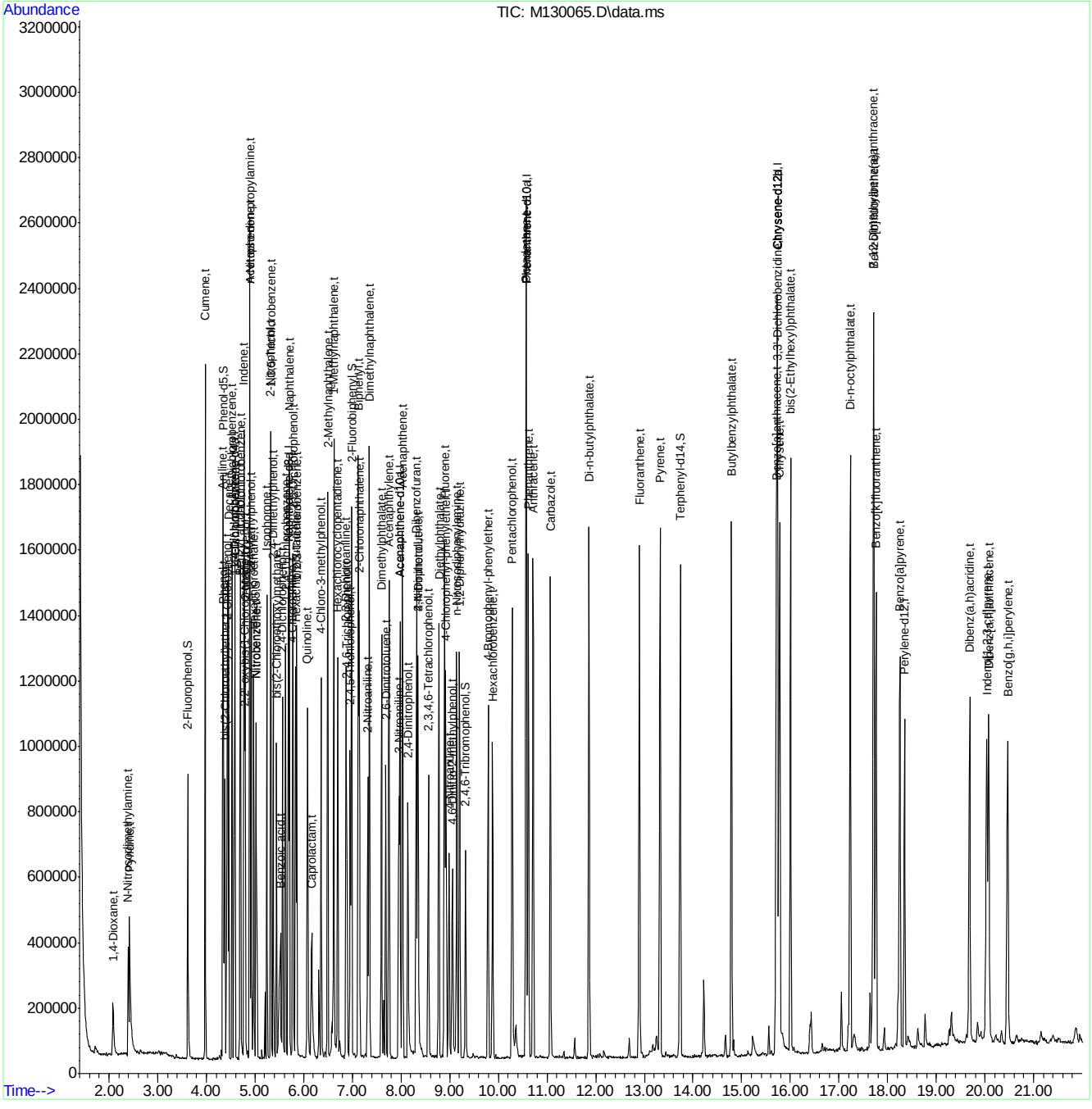
9

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130065.D
Acq On : 16 Dec 2016 10:10 pm
Operator : juliusj
Sample : cc5525-50
Misc : op99181,em5555
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 15:59:11 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Dec 19 15:57:39 2016
Response via : Initial Calibration



MM5525.M Mon Dec 19 15:59:18 2016 MSM

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SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130066.D
Acq On : 16 Dec 2016 10:40 pm
Operator : juliusj
Sample : cc5526-50
Misc : op99181,em5555
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 14:59:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Dec 16 16:33:58 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.572	152	189654	40.00	ppm	0.04
24) Naphthalene-d8	5.683	136	730538	40.00	ppm	0.05
47) Acenaphthene-d10	7.974	164	422246	40.00	ppm	0.05
69) Phenanthrene-d10	10.570	188	692240	40.00	ppm	0.06
83) Chrysene-d12	15.724	240	730869	40.00	ppm	0.07
91) Perylene-d12	18.347	264	675769	40.00	ppm	0.08
101) 1,4-Dichlorobenzene-d4a	4.572	152	189654	40.00	ppm	0.04
103) Acenaphthene-d10a	7.974	164	422246	40.00	ppm	0.05
106) Chrysene-d12a	15.724	240	730869	40.00	ppm	0.07
109) Phenanthrene-d10a	10.570	188	692240	40.00	ppm	0.06
111) Naphthalene-d8a	5.683	136	730538	40.00	ppm	0.05
113) Chrysene-d12b	15.724	240	730869	40.00	ppm	0.07
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
108) 1-chlorooctadecane	12.904	57	293018	57.32	ppm	0.04
Spiked Amount 50.000			Recovery	=	114.64%	
110) o-terphenyl	11.377	230	561073	64.33	ppm	0.08
Spiked Amount 50.000			Recovery	=	128.66%	
Target Compounds						Qvalue
102) Benzaldehyde	4.246	105	228458	43.52	ppm	94
104) 1,2,4,5-Tetrachloroben...	6.714	216	283309	60.14	ppm	97
105) Atrazine	10.191	215	106627	64.80	ppm #	80
107) Benzidine	13.251	184	470045	32.35	ppm	96
112) Hydroquinone	6.185	110	366817	71.68	ppm	96

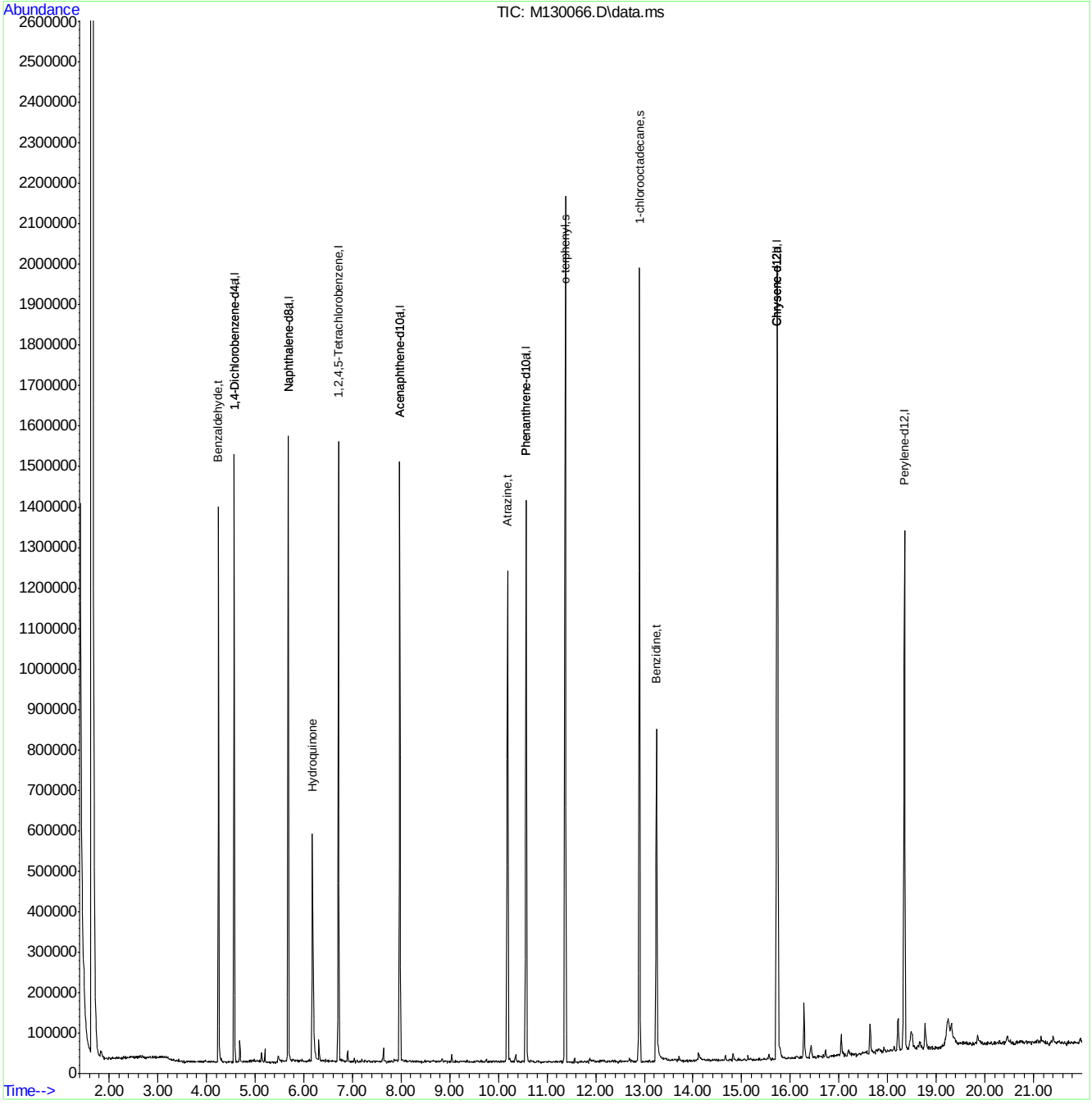
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM5555\
Data File : M130066.D
Acq On : 16 Dec 2016 10:40 pm
Operator : juliusj
Sample : cc5526-50
Misc : op99181,em5555
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 14:59:02 2016
Quant Method : C:\MSDCHEM\1\METHODS\MM5525.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Dec 16 16:33:58 2016
Response via : Initial Calibration



MM5525.M Thu Dec 22 14:47:04 2016 MSM

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SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109287.D Vial: 2
Acq On : 28 Nov 2016 4:24 pm Operator: robertl1
Sample : IC4851-100 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:22 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	28952	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	107052	40.00	ppm	0.00
47) Acenaphthene-d10	6.97	164	66018	40.00	ppm	0.00
69) Phenanthrene-d10	8.82	188	116796	40.00	ppm	0.00
83) Chrysene-d12	14.06	240	113937	40.00	ppm	0.00
91) Perylene-d12	17.09	264	77538	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.65	152	28952	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	107052	40.00	ppm	0.00
120) Acenaphthene-d10A	6.97	164	66018	40.00	ppm	0.00
131) Phenanthrene-d10A	8.82	188	116796	40.00	ppm	0.00
146) Chrysene-d12A	14.06	240	113937	40.00	ppm	0.00
154) Perylene-d12A	17.09	264	77538	40.00	ppm	0.00
158) 1,4-Dichlorobenzene-d4b	4.65	152	28952	40.00	ppm	0.00
160) Phenanthrene-d10b	8.82	188	116796	40.00	ppm	0.00
162) Chrysene-d12b	14.06	240	113937	40.00	ppm	0.00
164) Naphthalene-d8b	5.57	136	107052	40.00	ppm	0.00
166) Acenaphthene-d10b	6.97	164	66018	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	107052	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	28952	40.00	ppm	0.00
175) Chrysene-d12c	14.06	240	113937	40.00	ppm	0.00
177) Chrysene-d12d	14.06	240	113937	40.00	ppm	0.00
179) Naphthalene-d8d	5.57	136	107052	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	116290	100.52	ppm	0.00
Spiked Amount 50.000			Recovery = 201.04%			
8) Phenol-d5	4.41	99	137590	93.05	ppm	0.00
Spiked Amount 50.000			Recovery = 186.10%			
25) Nitrobenzene-d5	5.05	82	127189	92.56	ppm	0.00
Spiked Amount 50.000			Recovery = 185.12%			
51) 2-Fluorobiphenyl	6.36	172	199402	91.60	ppm	0.00
Spiked Amount 50.000			Recovery = 183.20%			
73) 2,4,6-Tribromophenol	7.85	330	28422	99.05	ppm	0.00
Spiked Amount 50.000			Recovery = 198.10%			
85) Terphenyl-d14	11.84	244	224012	98.67	ppm	0.00
Spiked Amount 50.000			Recovery = 197.34%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.22	88	47058	93.20	ppm		95
3) Pyridine	2.54	79	128021	103.75	ppm		91
4) N-Nitrosodimethylamine	2.51	42	52382	98.53	ppm	#	74
6) Indene	4.84	116	158355	90.88	ppm		96
7) Cumene	4.07	105	254573	94.26	ppm		96
9) Phenol	4.42	94	143964	90.02	ppm		89
10) Aniline	4.41	93	143777	85.97	ppm		50
11) bis(2-Chloroethyl)ether	4.46	93	101597	92.71	ppm		96
12) 2-Chlorophenol	4.51	128	93237	91.43	ppm		97
13) Decane	4.54	43	71193	86.42	ppm		79
14) 1,3-Dichlorobenzene	4.62	146	98346	89.67	ppm		98
15) 1,4-Dichlorobenzene	4.66	146	99947	92.57	ppm		96

(#) = qualifier out of range (m) = manual integration
P109287.D MP4851.M Tue Nov 29 09:16:25 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109287.D Vial: 2
Acq On : 28 Nov 2016 4:24 pm Operator: robertl1
Sample : IC4851-100 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:22 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.76	108	68327	99.70	ppm		96
17)	1,2-Dichlorobenzene	4.78	146	93906	92.38	ppm		99
18)	Acetophenone	4.95	105	138430	91.71	ppm		98
19)	2-Methylphenol	4.85	108	83547	88.28	ppm		99
20)	2,2'-oxybis(1-Chloropropan	4.85	121	31057	94.92	ppm	#	52
21)	3&4-Methylphenol	4.96	108	91680	90.84	ppm		97
22)	n-Nitroso-di-n-propylamine	4.95	70	81981	87.55	ppm		92
23)	Hexachloroethane	5.02	201	37049	97.51	ppm		93
26)	Nitrobenzene	5.07	77	123058	90.73	ppm		93
27)	Quinoline	5.83	129	188207	96.46	ppm		94
28)	Isophorone	5.24	82	218408	90.87	ppm		96
29)	2-Nitrophenol	5.30	139	53554	96.39	ppm		85
30)	2,4-Dimethylphenol	5.34	107	100307	98.37	ppm		92
31)	Benzoic acid	5.45	105	73461	106.59	ppm		94
32)	bis(2-Chloroethoxy)methane	5.39	93	118963	92.47	ppm		97
33)	2,4-Dichlorophenol	5.48	162	77482	95.83	ppm		96
34)	2,6-Dichlorophenol	5.64	162	73303	95.02	ppm		98
35)	1,3,5-Trichlorobenzene	5.31	180	88019	93.37	ppm		97
36)	1,2,4-Trichlorobenzene	5.53	180	84647	94.25	ppm		98
37)	1,2,3-Trichlorobenzene	5.69	180	81490	97.19	ppm		99
38)	Naphthalene	5.59	128	247717	91.37	ppm		99
39)	4-Chloroaniline	5.63	127	109576	94.92	ppm		97
40)	2,3-Dichloroaniline	6.30	161	94403	95.27	ppm		97
41)	Caprolactam	5.90	55	40794	95.00	ppm		94
42)	Hexachlorobutadiene	5.67	225	52647	95.65	ppm		99
43)	4-Chloro-3-methylphenol	5.98	107	94136	94.32	ppm		79
44)	2-Methylnaphthalene	6.08	141	147716	92.83	ppm		96
45)	1-Methylnaphthalene	6.16	142	174266	92.17	ppm		93
46)	Dimethylnaphthalene	6.58	156	159215	93.79	ppm		97
48)	Hexachlorocyclopentadiene	6.20	237	105810	225.69	ppm		99
49)	2,4,6-Trichlorophenol	6.30	196	58389	93.90	ppm		95
50)	2,4,5-Trichlorophenol	6.35	196	62858	97.85	ppm		92
52)	2-Chloronaphthalene	6.46	162	159695	90.37	ppm		98
53)	Biphenyl	6.44	154	216477	91.45	ppm		98
54)	2-Nitroaniline	6.56	65	70352	96.07	ppm		98
55)	Dimethylphthalate	6.70	163	196021	92.96	ppm		99
56)	Acenaphthylene	6.83	152	270310	92.20	ppm		99
57)	2,6-Dinitrotoluene	6.76	165	45508	101.25	ppm		79
58)	3-Nitroaniline	6.93	138	54601	98.21	ppm		100
59)	Acenaphthene	7.00	153	167414	92.34	ppm		97
60)	2,4-Dinitrophenol	7.03	184	55138	202.98	ppm	#	59
61)	4-Nitrophenol	7.12	109	41608	106.80	ppm		89
62)	Dibenzofuran	7.18	168	241321	91.34	ppm		90
63)	2,4-Dinitrotoluene	7.16	165	61627	97.02	ppm		89
64)	2,3,4,6-Tetrachlorophenol	7.31	232	53573	104.21	ppm		91
65)	Diethylphthalate	7.42	149	217817	94.35	ppm		96
66)	Fluorene	7.55	166	201383	94.22	ppm		96
67)	4-Chlorophenyl-phenylether	7.55	204	106631	95.80	ppm		97
68)	4-Nitroaniline	7.60	138	53435	98.22	ppm		90

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109287.D Vial: 2
Acq On : 28 Nov 2016 4:24 pm Operator: robertl1
Sample : IC4851-100 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:22 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.63	198	39912	126.55	ppm	66
71)	n-Nitrosodiphenylamine	7.69	169	149346	97.04	ppm	98
72)	1,2-Diphenylhydrazine	7.74	77	253978	93.62	ppm	92
74)	4-Bromophenyl-phenylether	8.17	248	64643	97.97	ppm	97
75)	Hexachlorobenzene	8.27	284	61323	96.20	ppm	96
76)	Pentachlorophenol	8.56	266	85345	228.85	ppm	97
77)	Phenanthrene	8.86	178	275586	93.26	ppm	99
78)	Anthracene	8.94	178	273576	93.29	ppm	98
79)	Carbazole	9.22	167	288747	95.70	ppm	98
80)	Di-n-butylphthalate	9.89	149	390680	97.82	ppm	98
81)	Fluoranthene	10.98	202	355467	96.86	ppm	99
82)	Octadecane	8.71	57	127266	93.01	ppm	88
84)	Pyrene	11.43	202	355581	97.99	ppm	99
86)	Butylbenzylphthalate	13.00	149	177172	100.20	ppm	98
87)	Benzo[a]anthracene	14.03	228	306544	93.91	ppm	98
88)	3,3'-Dichlorobenzidine	14.07	252	106163	96.61	ppm	99
89)	Chrysene	14.12	228	261853	92.80	ppm	97
90)	bis(2-Ethylhexyl)phthalate	14.40	149	212047	99.91	ppm	98
92)	Di-n-octylphthalate	15.84	149	357115	103.38	ppm	97
93)	Benzo[b]fluoranthene	16.35	252	244071	95.15	ppm	95
94)	Benzo[k]fluoranthene	16.42	252	202956	93.28	ppm	97
95)	Benzo[a]pyrene	16.98	252	220837	99.22	ppm	98
96)	Indeno[1,2,3-cd]pyrene	19.04	276	201003	102.58	ppm	96
97)	Dibenz(a,h)acridine	18.67	279	187026	102.53	ppm	98
98)	Dibenz[a,h]anthracene	19.09	278	199679	103.81	ppm	97
99)	7,12-Dimethylbenz(a)anthra	16.36	256	109077	100.39	ppm	93
100)	Benzo[g,h,i]perylene	19.47	276	204267	103.94	ppm	98

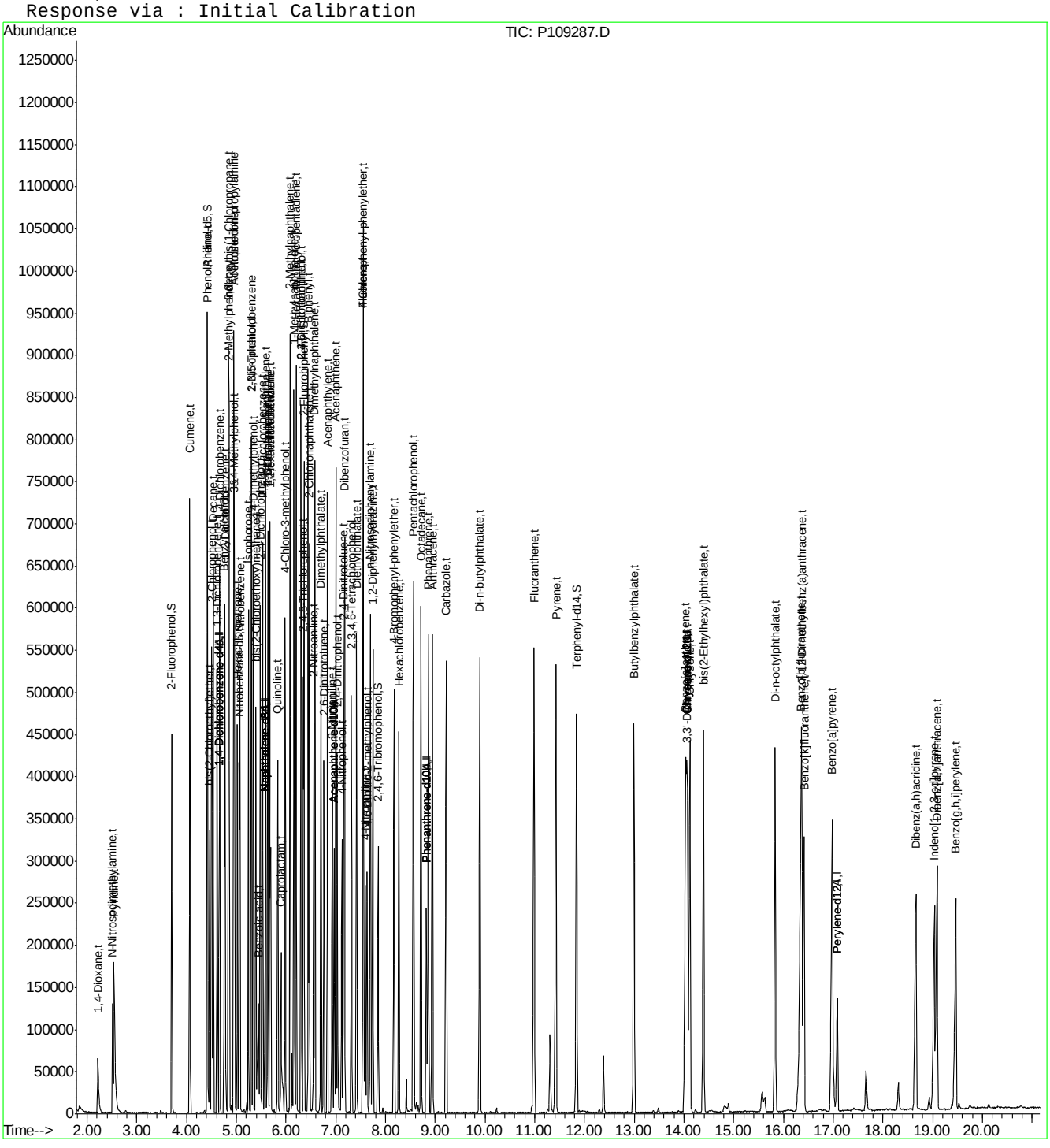
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109287.D Vial: 2
Acq On : 28 Nov 2016 4:24 pm Operator: robertl1
Sample : IC4851-100 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:16 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

9.6.86 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109288.D Vial: 3
Acq On : 28 Nov 2016 4:57 pm Operator: robertl1
Sample : IC4851-80 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:23 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	32058	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	119637	40.00	ppm	0.00
47) Acenaphthene-d10	6.97	164	72479	40.00	ppm	0.00
69) Phenanthrene-d10	8.82	188	130318	40.00	ppm	0.00
83) Chrysene-d12	14.05	240	131451	40.00	ppm	0.00
91) Perylene-d12	17.08	264	91907	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.65	152	32058	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	119637	40.00	ppm	0.00
120) Acenaphthene-d10A	6.97	164	72479	40.00	ppm	0.00
131) Phenanthrene-d10A	8.82	188	130318	40.00	ppm	0.00
146) Chrysene-d12A	14.05	240	131451	40.00	ppm	0.00
154) Perylene-d12A	17.08	264	91907	40.00	ppm	0.00
158) 1,4-Dichlorobenzene-d4b	4.65	152	32058	40.00	ppm	0.00
160) Phenanthrene-d10b	8.82	188	130318	40.00	ppm	0.00
162) Chrysene-d12b	14.05	240	131451	40.00	ppm	0.00
164) Naphthalene-d8b	5.57	136	119637	40.00	ppm	0.00
166) Acenaphthene-d10b	6.97	164	72479	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	119637	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	32058	40.00	ppm	0.00
175) Chrysene-d12c	14.05	240	131451	40.00	ppm	0.00
177) Chrysene-d12d	14.05	240	131451	40.00	ppm	0.00
179) Naphthalene-d8d	5.57	136	119637	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	105196	82.12	ppm	0.00
Spiked Amount 50.000			Recovery = 164.24%			
8) Phenol-d5	4.41	99	128949	78.76	ppm	0.00
Spiked Amount 50.000			Recovery = 157.52%			
25) Nitrobenzene-d5	5.05	82	119083	77.54	ppm	0.00
Spiked Amount 50.000			Recovery = 155.08%			
51) 2-Fluorobiphenyl	6.36	172	180517	75.53	ppm	0.00
Spiked Amount 50.000			Recovery = 151.06%			
73) 2,4,6-Tribromophenol	7.85	330	25260	78.90	ppm	0.00
Spiked Amount 50.000			Recovery = 157.80%			
85) Terphenyl-d14	11.84	244	203224	77.59	ppm	0.00
Spiked Amount 50.000			Recovery = 155.18%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.22	88	41550	74.32	ppm	96
3) Pyridine	2.54	79	113946	83.40	ppm	90
4) N-Nitrosodimethylamine	2.51	42	47267	80.30	ppm	81
6) Indene	4.84	116	147779	76.59	ppm	96
7) Cumene	4.07	105	233215	77.98	ppm	95
9) Phenol	4.42	94	136279	76.96	ppm	89
10) Aniline	4.41	93	135555	73.20	ppm	47
11) bis(2-Chloroethyl)ether	4.46	93	93517	77.07	ppm	97
12) 2-Chlorophenol	4.51	128	86296	76.43	ppm	97
13) Decane	4.54	43	64887	71.13	ppm	80
14) 1,3-Dichlorobenzene	4.62	146	91663	75.48	ppm	99
15) 1,4-Dichlorobenzene	4.66	146	91606	76.63	ppm	97

(#) = qualifier out of range (m) = manual integration
P109288.D MP4851.M Tue Nov 29 09:18:11 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109288.D Vial: 3
Acq On : 28 Nov 2016 4:57 pm Operator: robertl1
Sample : IC4851-80 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:23 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.76	108	62823	82.78	ppm		95
17)	1,2-Dichlorobenzene	4.78	146	86227	76.61	ppm		98
18)	Acetophenone	4.95	105	128027	76.60	ppm		98
19)	2-Methylphenol	4.85	108	78965	75.36	ppm		97
20)	2,2'-oxybis(1-Chloropropan	4.85	121	29200	80.60	ppm	#	55
21)	3&4-Methylphenol	4.96	108	85414	76.43	ppm		96
22)	n-Nitroso-di-n-propylamine	4.95	70	78103	75.33	ppm		92
23)	Hexachloroethane	5.02	201	33896	80.57	ppm		90
26)	Nitrobenzene	5.07	77	114968	75.85	ppm		93
27)	Quinoline	5.83	129	170086	78.01	ppm		95
28)	Isophorone	5.24	82	203387	75.72	ppm		96
29)	2-Nitrophenol	5.30	139	48925	78.79	ppm		85
30)	2,4-Dimethylphenol	5.34	107	90532	79.45	ppm		93
31)	Benzoic acid	5.45	105	73195	95.03	ppm		96
32)	bis(2-Chloroethoxy)methane	5.39	93	111151	77.31	ppm		99
33)	2,4-Dichlorophenol	5.48	162	71296	78.91	ppm		96
34)	2,6-Dichlorophenol	5.64	162	66785	77.46	ppm		97
35)	1,3,5-Trichlorobenzene	5.31	180	80411	76.33	ppm		98
36)	1,2,4-Trichlorobenzene	5.53	180	76534	76.25	ppm		96
37)	1,2,3-Trichlorobenzene	5.69	180	74020	78.99	ppm		99
38)	Naphthalene	5.59	128	230635	76.12	ppm		99
39)	4-Chloroaniline	5.63	127	100447	77.86	ppm		98
40)	2,3-Dichloroaniline	6.30	161	86978	78.54	ppm		99
41)	Caprolactam	5.90	55	36428	75.91	ppm		93
42)	Hexachlorobutadiene	5.67	225	48769	79.29	ppm		99
43)	4-Chloro-3-methylphenol	5.98	107	84949	76.16	ppm		78
44)	2-Methylnaphthalene	6.08	141	135437	76.16	ppm		94
45)	1-Methylnaphthalene	6.15	142	158902	75.20	ppm		91
46)	Dimethylnaphthalene	6.58	156	145126	76.50	ppm		96
48)	Hexachlorocyclopentadiene	6.20	237	96410	187.31	ppm		97
49)	2,4,6-Trichlorophenol	6.30	196	52520	76.93	ppm		97
50)	2,4,5-Trichlorophenol	6.34	196	56669	80.36	ppm		91
52)	2-Chloronaphthalene	6.46	162	145170	74.82	ppm		96
53)	Biphenyl	6.44	154	195319	75.16	ppm		99
54)	2-Nitroaniline	6.56	65	63960	79.56	ppm		96
55)	Dimethylphthalate	6.70	163	176523	76.25	ppm		98
56)	Acenaphthylene	6.83	152	246696	76.65	ppm		98
57)	2,6-Dinitrotoluene	6.76	165	40177	81.42	ppm		66
58)	3-Nitroaniline	6.92	138	49131	80.50	ppm		92
59)	Acenaphthene	7.00	153	152061	76.40	ppm		97
60)	2,4-Dinitrophenol	7.03	184	48547	162.78	ppm	#	60
61)	4-Nitrophenol	7.12	109	36276	84.81	ppm		89
62)	Dibenzofuran	7.18	168	218359	75.28	ppm		91
63)	2,4-Dinitrotoluene	7.16	165	56564	81.11	ppm		92
64)	2,3,4,6-Tetrachlorophenol	7.31	232	47296	83.80	ppm		96
65)	Diethylphthalate	7.42	149	196758	77.63	ppm		95
66)	Fluorene	7.55	166	183330	78.12	ppm		98
67)	4-Chlorophenyl-phenylether	7.54	204	96179	78.71	ppm		92
68)	4-Nitroaniline	7.59	138	48088	80.51	ppm		86

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109288.D Vial: 3
Acq On : 28 Nov 2016 4:57 pm Operator: robertl1
Sample : IC4851-80 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:23 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.62	198	34891	99.15	ppm	62
71)	n-Nitrosodiphenylamine	7.69	169	134400	78.27	ppm	98
72)	1,2-Diphenylhydrazine	7.74	77	228122	75.36	ppm	93
74)	4-Bromophenyl-phenylether	8.17	248	57647	78.30	ppm	94
75)	Hexachlorobenzene	8.27	284	55589	78.15	ppm	92
76)	Pentachlorophenol	8.56	266	74093	178.07	ppm	95
77)	Phenanthrene	8.86	178	249054	75.53	ppm	99
78)	Anthracene	8.94	178	251342	76.81	ppm	98
79)	Carbazole	9.22	167	260439	77.36	ppm	98
80)	Di-n-butylphthalate	9.89	149	353669	79.36	ppm	99
81)	Fluoranthene	10.98	202	325832	79.57	ppm	100
82)	Octadecane	8.71	57	115733	75.81	ppm	89
84)	Pyrene	11.42	202	324213	77.44	ppm	98
86)	Butylbenzylphthalate	12.99	149	164282	80.53	ppm	97
87)	Benzo[a]anthracene	14.03	228	285226	75.74	ppm	97
88)	3,3'-Dichlorobenzidine	14.07	252	99637	78.59	ppm	98
89)	Chrysene	14.11	228	245910	75.54	ppm	97
90)	bis(2-Ethylhexyl)phthalate	14.39	149	196255	80.15	ppm	99
92)	Di-n-octylphthalate	15.83	149	347275	84.81	ppm	98
93)	Benzo[b]fluoranthene	16.34	252	252452	83.03	ppm	97
94)	Benzo[k]fluoranthene	16.41	252	199947	77.53	ppm	100
95)	Benzo[a]pyrene	16.97	252	214122	81.16	ppm	98
96)	Indeno[1,2,3-cd]pyrene	19.03	276	184162	79.29	ppm	95
97)	Dibenz(a,h)acridine	18.66	279	176165	81.48	ppm	97
98)	Dibenz[a,h]anthracene	19.08	278	180798	79.30	ppm	96
99)	7,12-Dimethylbenz(a)anthra	16.36	256	109750	85.22	ppm	92
100)	Benzo[g,h,i]perylene	19.46	276	185473	79.62	ppm	97

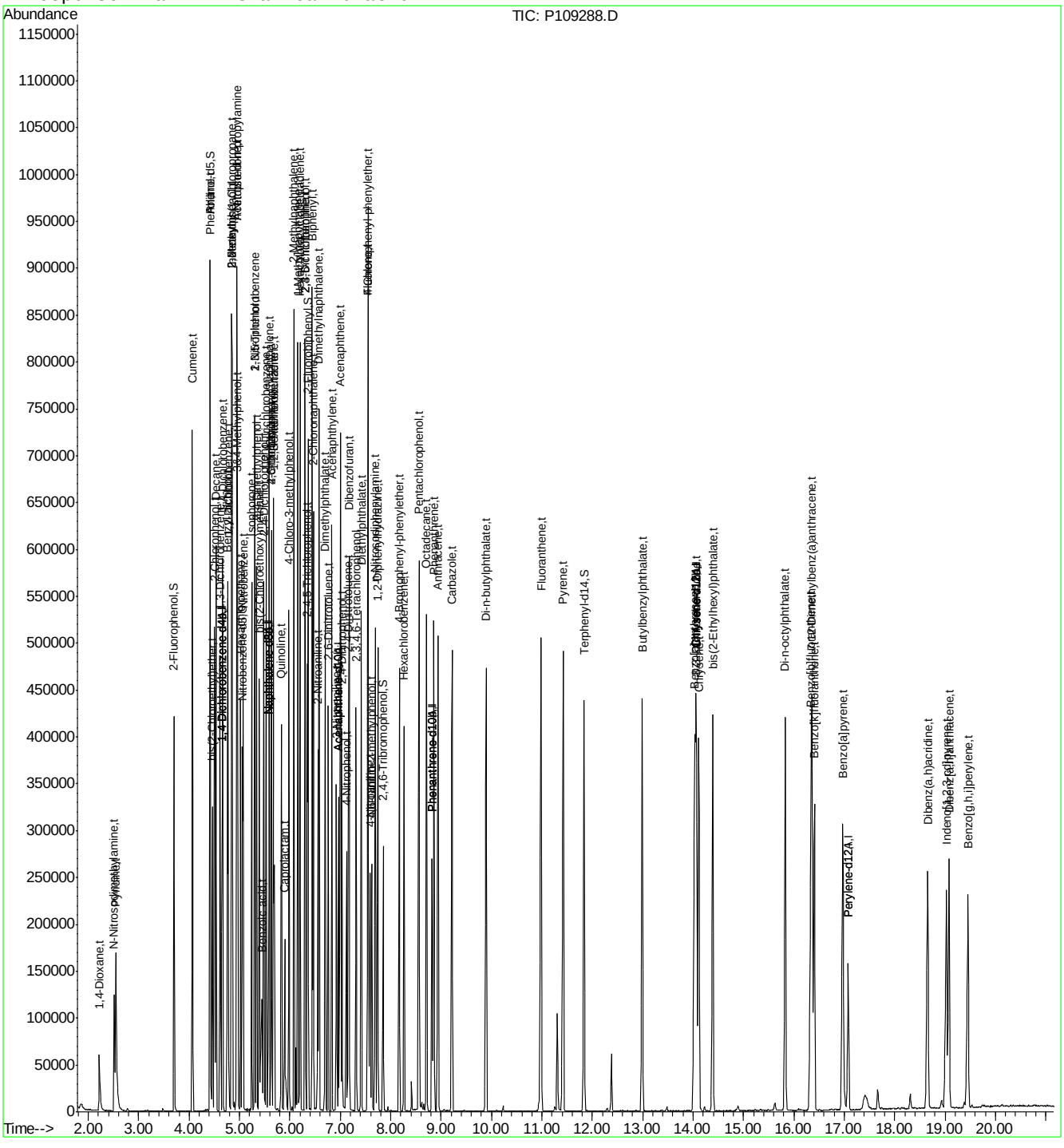
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109288.D Vial: 3
Acq On : 28 Nov 2016 4:57 pm Operator: robertl1
Sample : IC4851-80 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:18 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:16:54 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109289.D Vial: 4
Acq On : 28 Nov 2016 5:25 pm Operator: robertl1
Sample : ICC4851-50 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:25 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	33818	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	125405	40.00	ppm	0.00
47) Acenaphthene-d10	6.96	164	77539	40.00	ppm	0.00
69) Phenanthrene-d10	8.82	188	142147	40.00	ppm	0.00
83) Chrysene-d12	14.05	240	145593	40.00	ppm	-0.01
91) Perylene-d12	17.07	264	109805	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.65	152	33818	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	125405	40.00	ppm	0.00
120) Acenaphthene-d10A	6.96	164	77539	40.00	ppm	0.00
131) Phenanthrene-d10A	8.82	188	142147	40.00	ppm	0.00
146) Chrysene-d12A	14.05	240	145593	40.00	ppm	-0.01
154) Perylene-d12A	17.07	264	109805	40.00	ppm	-0.01
158) 1,4-Dichlorobenzene-d4b	4.65	152	33818	40.00	ppm	0.00
160) Phenanthrene-d10b	8.82	188	142147	40.00	ppm	0.00
162) Chrysene-d12b	14.05	240	145593	40.00	ppm	-0.01
164) Naphthalene-d8b	5.57	136	125405	40.00	ppm	0.00
166) Acenaphthene-d10b	6.96	164	77539	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	125405	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	33818	40.00	ppm	0.00
175) Chrysene-d12c	14.05	240	145593	40.00	ppm	-0.01
177) Chrysene-d12d	14.05	240	145593	40.00	ppm	-0.01
179) Naphthalene-d8d	5.57	136	125405	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	67702	50.10	ppm	0.00
Spiked Amount 50.000			Recovery = 100.20%			
8) Phenol-d5	4.41	99	85454	49.48	ppm	0.00
Spiked Amount 50.000			Recovery = 98.96%			
25) Nitrobenzene-d5	5.05	82	78535	48.79	ppm	0.00
Spiked Amount 50.000			Recovery = 97.58%			
51) 2-Fluorobiphenyl	6.36	172	124507	48.69	ppm	0.00
Spiked Amount 50.000			Recovery = 97.38%			
73) 2,4,6-Tribromophenol	7.84	330	17343	49.66	ppm	0.00
Spiked Amount 50.000			Recovery = 99.32%			
85) Terphenyl-d14	11.83	244	142804	49.22	ppm	0.00
Spiked Amount 50.000			Recovery = 98.44%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.22	88	25808	43.76	ppm		97
3) Pyridine	2.54	79	72797	50.51	ppm		91
4) N-Nitrosodimethylamine	2.51	42	29981	48.28	ppm		81
6) Indene	4.84	116	97225	47.77	ppm		96
7) Cumene	4.07	105	152757	48.42	ppm		97
9) Phenol	4.42	94	92381	49.46	ppm		77
10) Aniline	4.41	93	93266	47.74	ppm	#	23
11) bis(2-Chloroethyl)ether	4.46	93	61654	48.16	ppm		98
12) 2-Chlorophenol	4.51	128	57025	47.88	ppm		99
13) Decane	4.54	43	44760	46.51	ppm		82
14) 1,3-Dichlorobenzene	4.61	146	60322	47.09	ppm		97
15) 1,4-Dichlorobenzene	4.66	146	60335	47.84	ppm		97

(#) = qualifier out of range (m) = manual integration
P109289.D MP4851.M Tue Nov 29 09:19:34 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109289.D Vial: 4
Acq On : 28 Nov 2016 5:25 pm Operator: robertl1
Sample : ICC4851-50 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:25 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.76	108	41599	51.96	ppm		91
17)	1,2-Dichlorobenzene	4.78	146	57553	48.47	ppm		99
18)	Acetophenone	4.94	105	85419	48.45	ppm		96
19)	2-Methylphenol	4.85	108	52739	47.71	ppm		97
20)	2,2'-oxybis(1-Chloropropan	4.85	121	18859	49.35	ppm	#	45
21)	3&4-Methylphenol	4.96	108	57160	48.48	ppm		98
22)	n-Nitroso-di-n-propylamine	4.95	70	52434	47.94	ppm		91
23)	Hexachloroethane	5.02	201	22056	49.70	ppm		93
26)	Nitrobenzene	5.07	77	76960	48.44	ppm		88
27)	Quinoline	5.82	129	114603	50.14	ppm		96
28)	Isophorone	5.24	82	137778	48.93	ppm		95
29)	2-Nitrophenol	5.29	139	31915	49.04	ppm		74
30)	2,4-Dimethylphenol	5.33	107	60976	51.05	ppm		89
31)	Benzoic acid	5.43	105	48845	60.50	ppm		94
32)	bis(2-Chloroethoxy)methane	5.39	93	73305	48.64	ppm		99
33)	2,4-Dichlorophenol	5.48	162	47712	50.38	ppm		96
34)	2,6-Dichlorophenol	5.63	162	44602	49.35	ppm		96
35)	1,3,5-Trichlorobenzene	5.31	180	53246	48.22	ppm		98
36)	1,2,4-Trichlorobenzene	5.53	180	50667	48.16	ppm		96
37)	1,2,3-Trichlorobenzene	5.69	180	49296	50.19	ppm		97
38)	Naphthalene	5.58	128	153640	48.38	ppm		98
39)	4-Chloroaniline	5.63	127	67931	50.24	ppm		96
40)	2,3-Dichloroaniline	6.30	161	57772	49.77	ppm		98
41)	Caprolactam	5.88	55	24998	49.69	ppm		95
42)	Hexachlorobutadiene	5.67	225	31658	49.10	ppm		98
43)	4-Chloro-3-methylphenol	5.98	107	58485	50.02	ppm		80
44)	2-Methylnaphthalene	6.08	141	92089	49.40	ppm		95
45)	1-Methylnaphthalene	6.15	142	107502	48.54	ppm		93
46)	Dimethylnaphthalene	6.58	156	98098	49.33	ppm		97
48)	Hexachlorocyclopentadiene	6.20	237	61728	112.10	ppm		99
49)	2,4,6-Trichlorophenol	6.30	196	35218	48.22	ppm		98
50)	2,4,5-Trichlorophenol	6.34	196	38052	50.44	ppm		95
52)	2-Chloronaphthalene	6.46	162	98786	47.59	ppm		98
53)	Biphenyl	6.44	154	134536	48.39	ppm		97
54)	2-Nitroaniline	6.55	65	43117	50.13	ppm		99
55)	Dimethylphthalate	6.69	163	121199	48.94	ppm		97
56)	Acenaphthylene	6.83	152	171512	49.81	ppm		98
57)	2,6-Dinitrotoluene	6.76	165	27303	51.72	ppm		76
58)	3-Nitroaniline	6.92	138	34042	52.14	ppm		96
59)	Acenaphthene	6.99	153	104322	48.99	ppm		96
60)	2,4-Dinitrophenol	7.03	184	30875	96.77	ppm	#	66
61)	4-Nitrophenol	7.12	109	24249	52.99	ppm		92
62)	Dibenzofuran	7.17	168	153511	49.47	ppm		92
63)	2,4-Dinitrotoluene	7.15	165	38343	51.39	ppm		92
64)	2,3,4,6-Tetrachlorophenol	7.31	232	31302	51.84	ppm		91
65)	Diethylphthalate	7.41	149	136250	50.25	ppm		96
66)	Fluorene	7.55	166	124479	49.58	ppm		99
67)	4-Chlorophenyl-phenylether	7.54	204	64781	49.55	ppm		93
68)	4-Nitroaniline	7.58	138	34231	53.57	ppm		85

(#) = qualifier out of range (m) = manual integration
P109289.D MP4851.M Tue Nov 29 09:19:34 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109289.D Vial: 4
Acq On : 28 Nov 2016 5:25 pm Operator: robertl1
Sample : ICC4851-50 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:25 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.62	198	23117	60.23	ppm	65
71)	n-Nitrosodiphenylamine	7.69	169	91905	49.07	ppm	98
72)	1,2-Diphenylhydrazine	7.74	77	158754	48.08	ppm	91
74)	4-Bromophenyl-phenylether	8.17	248	38769	48.28	ppm	96
75)	Hexachlorobenzene	8.27	284	37972	48.94	ppm	98
76)	Pentachlorophenol	8.55	266	49009	107.98	ppm	96
77)	Phenanthrene	8.85	178	173354	48.20	ppm	99
78)	Anthracene	8.93	178	174145	48.79	ppm	99
79)	Carbazole	9.21	167	181212	49.35	ppm	99
80)	Di-n-butylphthalate	9.88	149	245606	50.53	ppm	99
81)	Fluoranthene	10.98	202	227829	51.01	ppm	98
82)	Octadecane	8.71	57	81330	48.84	ppm	89
84)	Pyrene	11.42	202	227702	49.10	ppm	99
86)	Butylbenzylphthalate	12.99	149	114558	50.70	ppm	98
87)	Benzo[a]anthracene	14.02	228	202667	48.59	ppm	98
88)	3,3'-Dichlorobenzidine	14.06	252	70908	50.50	ppm	99
89)	Chrysene	14.10	228	174134	48.30	ppm	98
90)	bis(2-Ethylhexyl)phthalate	14.39	149	139592	51.47	ppm	99
92)	Di-n-octylphthalate	15.82	149	249688	51.04	ppm	97
93)	Benzo[b]fluoranthene	16.33	252	183911	50.63	ppm	98
94)	Benzo[k]fluoranthene	16.40	252	149662	48.57	ppm	97
95)	Benzo[a]pyrene	16.96	252	154954	49.16	ppm	99
96)	Indeno[1,2,3-cd]pyrene	19.02	276	131600	47.43	ppm	94
97)	Dibenz(a,h)acridine	18.65	279	128829	49.87	ppm	97
98)	Dibenz[a,h]anthracene	19.07	278	129272	47.46	ppm	97
99)	7,12-Dimethylbenz(a)anthra	16.35	256	79512	51.68	ppm	90
100)	Benzo[g,h,i]perylene	19.45	276	131311	47.18	ppm	97

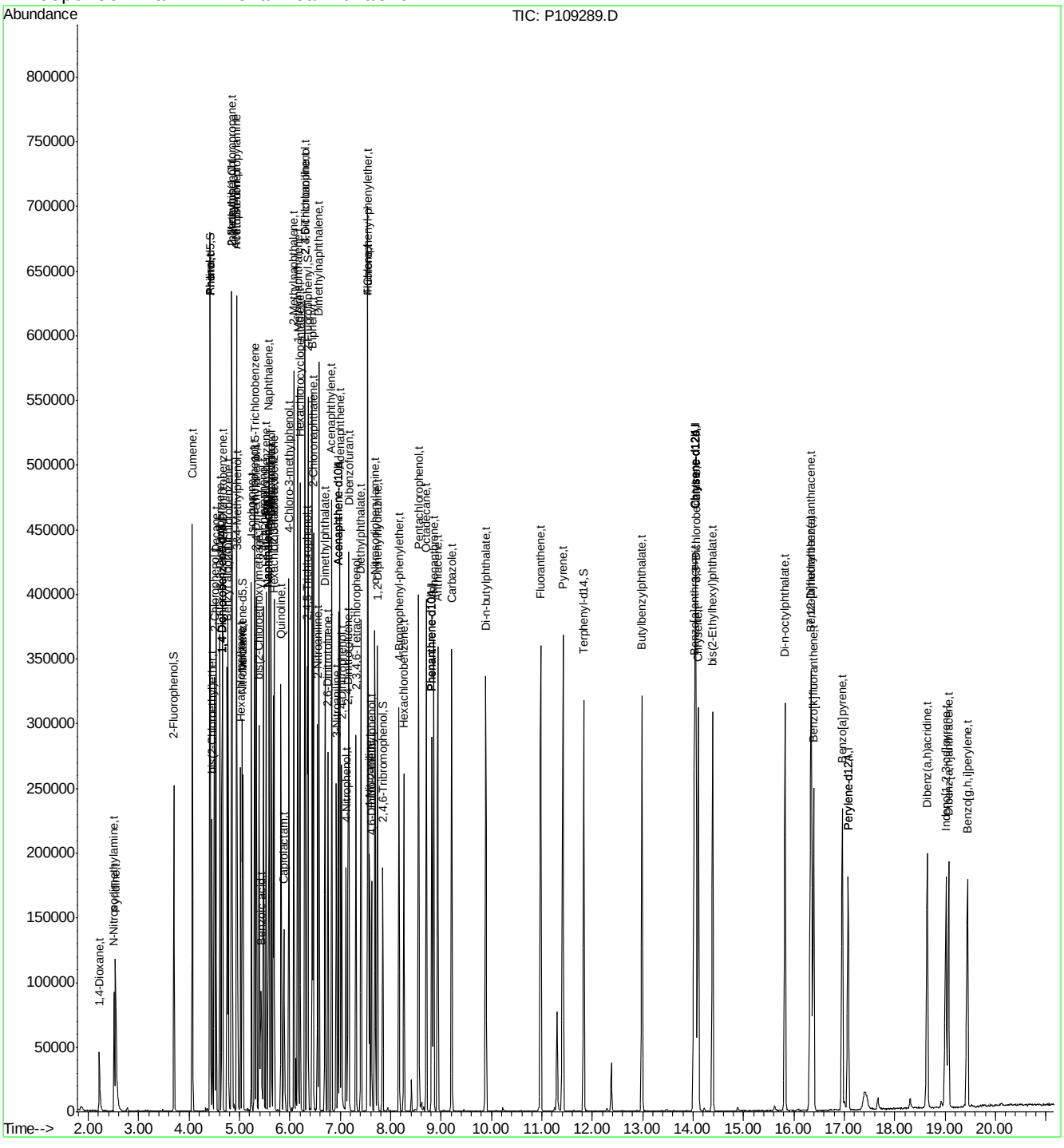
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109289.D Vial: 4
Acq On : 28 Nov 2016 5:25 pm Operator: robertl1
Sample : ICC4851-50 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:19 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:18:20 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

9.6.88 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109290.D Vial: 5
Acq On : 28 Nov 2016 5:54 pm Operator: robertl1
Sample : IC4851-25 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:26 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	33637	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	127064	40.00	ppm	0.00
47) Acenaphthene-d10	6.96	164	77458	40.00	ppm	0.00
69) Phenanthrene-d10	8.82	188	138534	40.00	ppm	0.00
83) Chrysene-d12	14.04	240	143691	40.00	ppm	-0.02
91) Perylene-d12	17.07	264	113339	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.65	152	33637	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	127064	40.00	ppm	0.00
120) Acenaphthene-d10A	6.96	164	77458	40.00	ppm	0.00
131) Phenanthrene-d10A	8.82	188	138534	40.00	ppm	0.00
146) Chrysene-d12A	14.04	240	143691	40.00	ppm	-0.02
154) Perylene-d12A	17.07	264	113339	40.00	ppm	-0.02
158) 1,4-Dichlorobenzene-d4b	4.65	152	33637	40.00	ppm	0.00
160) Phenanthrene-d10b	8.82	188	138534	40.00	ppm	0.00
162) Chrysene-d12b	14.04	240	143691	40.00	ppm	-0.02
164) Naphthalene-d8b	5.57	136	127064	40.00	ppm	0.00
166) Acenaphthene-d10b	6.96	164	77458	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	127064	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	33637	40.00	ppm	0.00
175) Chrysene-d12c	14.04	240	143691	40.00	ppm	-0.02
177) Chrysene-d12d	14.04	240	143691	40.00	ppm	-0.02
179) Naphthalene-d8d	5.57	136	127064	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	33514	24.93	ppm	0.00
Spiked Amount 50.000			Recovery = 49.86%			
8) Phenol-d5	4.41	99	43039	25.05	ppm	0.00
Spiked Amount 50.000			Recovery = 50.10%			
25) Nitrobenzene-d5	5.05	82	39751	24.37	ppm	0.00
Spiked Amount 50.000			Recovery = 48.74%			
51) 2-Fluorobiphenyl	6.36	172	64301	25.17	ppm	0.00
Spiked Amount 50.000			Recovery = 50.34%			
73) 2,4,6-Tribromophenol	7.84	330	8657	25.44	ppm	0.00
Spiked Amount 50.000			Recovery = 50.88%			
85) Terphenyl-d14	11.83	244	70440	24.60	ppm	-0.01
Spiked Amount 50.000			Recovery = 49.20%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.22	88	12931	22.04	ppm		99
3) Pyridine	2.54	79	36766	25.65	ppm		92
4) N-Nitrosodimethylamine	2.52	42	14841	24.03	ppm	#	73
6) Indene	4.84	116	50847	25.12	ppm		98
7) Cumene	4.07	105	78792	25.11	ppm		96
9) Phenol	4.41	94	48042	25.86	ppm	#	43
10) Aniline	4.41	93	51849	26.68	ppm	#	9
11) bis(2-Chloroethyl)ether	4.46	93	32698	25.68	ppm		96
12) 2-Chlorophenol	4.51	128	30410	25.67	ppm		97
13) Decane	4.54	43	24254	25.34	ppm		80
14) 1,3-Dichlorobenzene	4.61	146	31450	24.68	ppm		99
15) 1,4-Dichlorobenzene	4.66	146	31276	24.93	ppm		98

(#) = qualifier out of range (m) = manual integration
P109290.D MP4851.M Tue Nov 29 09:21:11 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109290.D Vial: 5
Acq On : 28 Nov 2016 5:54 pm Operator: robertl1
Sample : IC4851-25 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:26 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.76	108	21033	26.42	ppm		96
17)	1,2-Dichlorobenzene	4.78	146	29891	25.31	ppm		99
18)	Acetophenone	4.94	105	44114	25.16	ppm		99
19)	2-Methylphenol	4.85	108	27824	25.31	ppm		98
20)	2,2'-oxybis(1-Chloropropan	4.85	121	9897	26.04	ppm	#	42
21)	3&4-Methylphenol	4.95	108	29369	25.05	ppm		99
22)	n-Nitroso-di-n-propylamine	4.94	70	27044	24.86	ppm		92
23)	Hexachloroethane	5.02	201	11612	26.31	ppm		98
26)	Nitrobenzene	5.07	77	39597	24.60	ppm		93
27)	Quinoline	5.82	129	56840	24.54	ppm		95
28)	Isophorone	5.23	82	69464	24.35	ppm		94
29)	2-Nitrophenol	5.30	139	16205	24.57	ppm		76
30)	2,4-Dimethylphenol	5.33	107	29863	24.68	ppm		87
31)	Benzoic acid	5.41	105	21262	25.99	ppm		97
32)	bis(2-Chloroethoxy)methane	5.39	93	37675	24.67	ppm		98
33)	2,4-Dichlorophenol	5.48	162	24025	25.04	ppm		95
34)	2,6-Dichlorophenol	5.63	162	22261	24.31	ppm		100
35)	1,3,5-Trichlorobenzene	5.31	180	27689	24.75	ppm		97
36)	1,2,4-Trichlorobenzene	5.53	180	26313	24.68	ppm		99
37)	1,2,3-Trichlorobenzene	5.69	180	25337	25.46	ppm		100
38)	Naphthalene	5.58	128	80650	25.06	ppm		99
39)	4-Chloroaniline	5.62	127	35060	25.59	ppm		98
40)	2,3-Dichloroaniline	6.29	161	29468	25.05	ppm		98
41)	Caprolactam	5.87	55	12437	24.40	ppm		95
42)	Hexachlorobutadiene	5.67	225	15904	24.34	ppm		95
43)	4-Chloro-3-methylphenol	5.97	107	28732	24.25	ppm		79
44)	2-Methylnaphthalene	6.08	141	48154	25.49	ppm		96
45)	1-Methylnaphthalene	6.16	142	56516	25.18	ppm		94
46)	Dimethylnaphthalene	6.58	156	49948	24.79	ppm		97
48)	Hexachlorocyclopentadiene	6.20	237	29426	53.50	ppm		97
49)	2,4,6-Trichlorophenol	6.30	196	17881	24.51	ppm		94
50)	2,4,5-Trichlorophenol	6.34	196	19097	25.34	ppm		90
52)	2-Chloronaphthalene	6.46	162	51503	24.84	ppm		96
53)	Biphenyl	6.44	154	68996	24.84	ppm		97
54)	2-Nitroaniline	6.55	65	21359	24.86	ppm		98
55)	Dimethylphthalate	6.69	163	61351	24.80	ppm		97
56)	Acenaphthylene	6.83	152	87945	25.57	ppm		96
57)	2,6-Dinitrotoluene	6.75	165	13533	25.66	ppm		78
58)	3-Nitroaniline	6.92	138	16840	25.82	ppm		95
59)	Acenaphthene	6.99	153	52143	24.51	ppm		96
60)	2,4-Dinitrophenol	7.02	184	12021	37.72	ppm	#	60
61)	4-Nitrophenol	7.11	109	11644	25.47	ppm		88
62)	Dibenzofuran	7.17	168	78712	25.39	ppm		92
63)	2,4-Dinitrotoluene	7.15	165	19168	25.72	ppm		89
64)	2,3,4,6-Tetrachlorophenol	7.31	232	15226	25.24	ppm		96
65)	Diethylphthalate	7.41	149	67245	24.83	ppm		94
66)	Fluorene	7.54	166	63389	25.28	ppm		95
67)	4-Chlorophenyl-phenylether	7.54	204	31466	24.09	ppm		89
68)	4-Nitroaniline	7.57	138	17157	26.88	ppm		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109290.D Vial: 5
Acq On : 28 Nov 2016 5:54 pm Operator: robertl1
Sample : IC4851-25 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:26 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.61	198	10098	26.99	ppm	69
71)	n-Nitrosodiphenylamine	7.68	169	45842	25.11	ppm	99
72)	1,2-Diphenylhydrazine	7.73	77	80034	24.87	ppm	90
74)	4-Bromophenyl-phenylether	8.16	248	19196	24.53	ppm	91
75)	Hexachlorobenzene	8.26	284	18864	24.95	ppm	95
76)	Pentachlorophenol	8.55	266	21930	49.58	ppm	93
77)	Phenanthrene	8.85	178	87445	24.95	ppm	99
78)	Anthracene	8.93	178	88436	25.42	ppm	98
79)	Carbazole	9.21	167	90235	25.21	ppm	97
80)	Di-n-butylphthalate	9.88	149	119979	25.33	ppm	99
81)	Fluoranthene	10.97	202	110036	25.28	ppm	99
82)	Octadecane	8.70	57	41425	25.53	ppm	91
84)	Pyrene	11.41	202	113289	24.75	ppm	98
86)	Butylbenzylphthalate	12.98	149	55744	25.00	ppm	99
87)	Benzo[a]anthracene	14.02	228	98979	24.04	ppm	99
88)	3,3'-Dichlorobenzidine	14.05	252	34556	24.93	ppm	97
89)	Chrysene	14.09	228	88062	24.75	ppm	98
90)	bis(2-Ethylhexyl)phthalate	14.39	149	69594	26.00	ppm	99
92)	Di-n-octylphthalate	15.82	149	123824	24.52	ppm	98
93)	Benzo[b]fluoranthene	16.32	252	90926	24.25	ppm	98
94)	Benzo[k]fluoranthene	16.38	252	79780	25.08	ppm	98
95)	Benzo[a]pyrene	16.95	252	77432	23.80	ppm	97
96)	Indeno[1,2,3-cd]pyrene	19.00	276	66038	23.06	ppm	97
97)	Dibenz(a,h)acridine	18.63	279	62986	23.62	ppm	96
98)	Dibenz[a,h]anthracene	19.06	278	64333	22.88	ppm	98
99)	7,12-Dimethylbenz(a)anthra	16.34	256	39161	24.66	ppm	95
100)	Benzo[g,h,i]perylene	19.43	276	66270	23.07	ppm	97

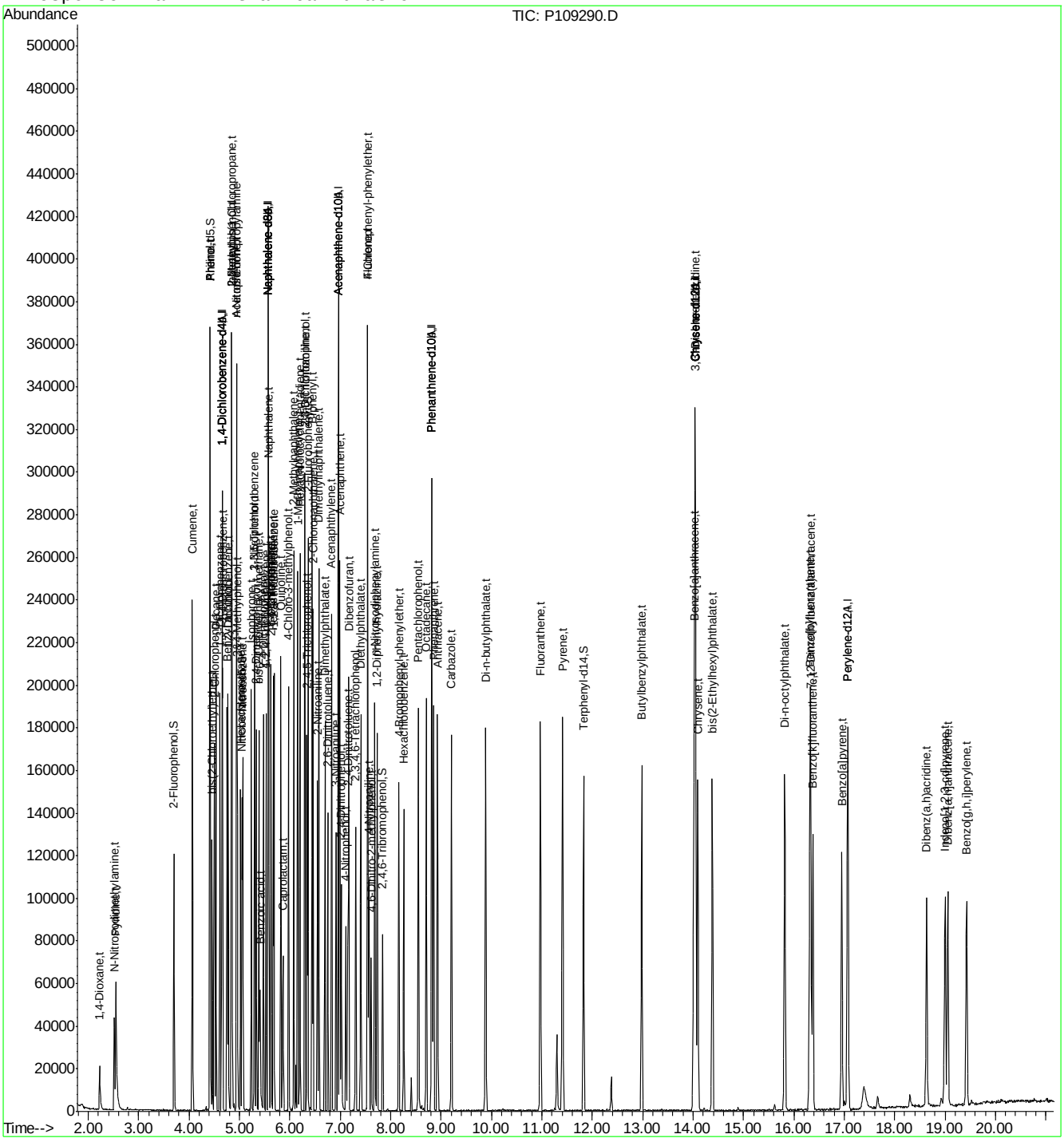
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109290.D Vial: 5
Acq On : 28 Nov 2016 5:54 pm Operator: robertl1
Sample : IC4851-25 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:21 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:19:46 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109291.D Vial: 6
Acq On : 28 Nov 2016 6:22 pm Operator: robertl1
Sample : IC4851-10 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:27 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	37154	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	136745	40.00	ppm	0.00
47) Acenaphthene-d10	6.96	164	81559	40.00	ppm	0.00
69) Phenanthrene-d10	8.82	188	148609	40.00	ppm	0.00
83) Chrysene-d12	14.03	240	154801	40.00	ppm	-0.02
91) Perylene-d12	17.07	264	126186	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.65	152	37154	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	136745	40.00	ppm	0.00
120) Acenaphthene-d10A	6.96	164	81559	40.00	ppm	0.00
131) Phenanthrene-d10A	8.82	188	148609	40.00	ppm	0.00
146) Chrysene-d12A	14.03	240	154801	40.00	ppm	-0.02
154) Perylene-d12A	17.07	264	126186	40.00	ppm	-0.02
158) 1,4-Dichlorobenzene-d4b	4.65	152	37154	40.00	ppm	0.00
160) Phenanthrene-d10b	8.82	188	148609	40.00	ppm	0.00
162) Chrysene-d12b	14.03	240	154801	40.00	ppm	-0.02
164) Naphthalene-d8b	5.57	136	136745	40.00	ppm	0.00
166) Acenaphthene-d10b	6.96	164	81559	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	136745	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	37154	40.00	ppm	0.00
175) Chrysene-d12c	14.03	240	154801	40.00	ppm	-0.02
177) Chrysene-d12d	14.03	240	154801	40.00	ppm	-0.02
179) Naphthalene-d8d	5.57	136	136745	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	13874	9.35	ppm	0.00
Spiked Amount 50.000			Recovery = 18.70%			
8) Phenol-d5	4.40	99	18279	9.63	ppm	-0.01
Spiked Amount 50.000			Recovery = 19.26%			
25) Nitrobenzene-d5	5.05	82	18325	10.44	ppm	0.00
Spiked Amount 50.000			Recovery = 20.88%			
51) 2-Fluorobiphenyl	6.36	172	28337	10.54	ppm	0.00
Spiked Amount 50.000			Recovery = 21.08%			
73) 2,4,6-Tribromophenol	7.84	330	3537	9.69	ppm	-0.01
Spiked Amount 50.000			Recovery = 19.38%			
85) Terphenyl-d14	11.82	244	30321	9.83	ppm	-0.02
Spiked Amount 50.000			Recovery = 19.66%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.22	88	5465	8.43	ppm		92
3) Pyridine	2.54	79	15885	10.03	ppm		95
4) N-Nitrosodimethylamine	2.51	42	6191	9.07	ppm		96
6) Indene	4.84	116	22069	9.87	ppm		97
7) Cumene	4.06	105	34213	9.87	ppm		97
9) Phenol	4.41	94	20881	10.17	ppm	#	49
10) Aniline	4.41	93	23118	10.77	ppm	#	4
11) bis(2-Chloroethyl)ether	4.46	93	14058	10.00	ppm		94
12) 2-Chlorophenol	4.50	128	13436	10.27	ppm		94
13) Decane	4.53	43	10944	10.35	ppm		93
14) 1,3-Dichlorobenzene	4.61	146	14214	10.10	ppm		98
15) 1,4-Dichlorobenzene	4.66	146	13641	9.85	ppm		99

(#) = qualifier out of range (m) = manual integration
P109291.D MP4851.M Tue Nov 29 09:24:17 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109291.D Vial: 6
Acq On : 28 Nov 2016 6:22 pm Operator: robertl1
Sample : IC4851-10 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:27 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16)	Benzyl alcohol	4.76	108	9191	10.45 ppm		92
17)	1,2-Dichlorobenzene	4.78	146	12939	9.92 ppm		99
18)	Acetophenone	4.94	105	20040	10.35 ppm		94
19)	2-Methylphenol	4.85	108	12534	10.32 ppm		98
20)	2,2'-oxybis(1-Chloropropan	4.85	121	4129	9.83 ppm	#	41
21)	3&4-Methylphenol	4.95	108	12941	9.99 ppm		98
22)	n-Nitroso-di-n-propylamine	4.94	70	11873	9.88 ppm		93
23)	Hexachloroethane	5.02	201	4872	9.99 ppm	#	80
26)	Nitrobenzene	5.07	77	17538	10.12 ppm		94
27)	Quinoline	5.82	129	25189	10.11 ppm		97
28)	Isophorone	5.23	82	30752	10.02 ppm		95
29)	2-Nitrophenol	5.29	139	7159	10.09 ppm		78
30)	2,4-Dimethylphenol	5.33	107	13106	10.06 ppm		85
31)	Benzoic acid	5.39	105	8255	9.38 ppm		91
32)	bis(2-Chloroethoxy)methane	5.39	93	16920	10.30 ppm		98
33)	2,4-Dichlorophenol	5.48	162	10193	9.87 ppm		93
34)	2,6-Dichlorophenol	5.63	162	9760	9.90 ppm		99
35)	1,3,5-Trichlorobenzene	5.30	180	12071	10.02 ppm		98
36)	1,2,4-Trichlorobenzene	5.52	180	11703	10.20 ppm		93
37)	1,2,3-Trichlorobenzene	5.68	180	11180	10.44 ppm		95
38)	Naphthalene	5.58	128	35732	10.32 ppm		99
39)	4-Chloroaniline	5.62	127	15836	10.74 ppm		94
40)	2,3-Dichloroaniline	6.29	161	12860	10.16 ppm		99
41)	Caprolactam	5.85	55	5310	9.68 ppm		93
42)	Hexachlorobutadiene	5.67	225	6783	9.65 ppm		95
43)	4-Chloro-3-methylphenol	5.97	107	12571	9.86 ppm		76
44)	2-Methylnaphthalene	6.07	141	19771	9.73 ppm		93
45)	1-Methylnaphthalene	6.15	142	24915	10.32 ppm		93
46)	Dimethylnaphthalene	6.57	156	21835	10.07 ppm		94
48)	Hexachlorocyclopentadiene	6.20	237	11164	19.28 ppm		99
49)	2,4,6-Trichlorophenol	6.30	196	7627	9.93 ppm		99
50)	2,4,5-Trichlorophenol	6.34	196	8137	10.25 ppm		92
52)	2-Chloronaphthalene	6.46	162	22627	10.36 ppm		96
53)	Biphenyl	6.44	154	30408	10.40 ppm		97
54)	2-Nitroaniline	6.55	65	9115	10.08 ppm		99
55)	Dimethylphthalate	6.69	163	27074	10.39 ppm		99
56)	Acenaphthylene	6.82	152	38832	10.72 ppm		96
57)	2,6-Dinitrotoluene	6.75	165	5907	10.64 ppm		67
58)	3-Nitroaniline	6.91	138	7168	10.44 ppm		98
59)	Acenaphthene	6.99	153	22767	10.16 ppm		95
60)	2,4-Dinitrophenol	7.02	184	3946	11.76 ppm	#	66
61)	4-Nitrophenol	7.11	109	4737	9.84 ppm		84
62)	Dibenzofuran	7.16	168	34373	10.53 ppm		94
63)	2,4-Dinitrotoluene	7.15	165	8202	10.45 ppm		79
64)	2,3,4,6-Tetrachlorophenol	7.30	232	6325	9.96 ppm		86
65)	Diethylphthalate	7.41	149	28735	10.08 ppm		92
66)	Fluorene	7.54	166	27563	10.44 ppm		93
67)	4-Chlorophenyl-phenylether	7.54	204	14001	10.18 ppm		91
68)	4-Nitroaniline	7.57	138	7151	10.64 ppm		82

(#) = qualifier out of range (m) = manual integration
P109291.D MP4851.M Tue Nov 29 09:24:17 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109291.D Vial: 6
Acq On : 28 Nov 2016 6:22 pm Operator: robertl1
Sample : IC4851-10 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:27 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

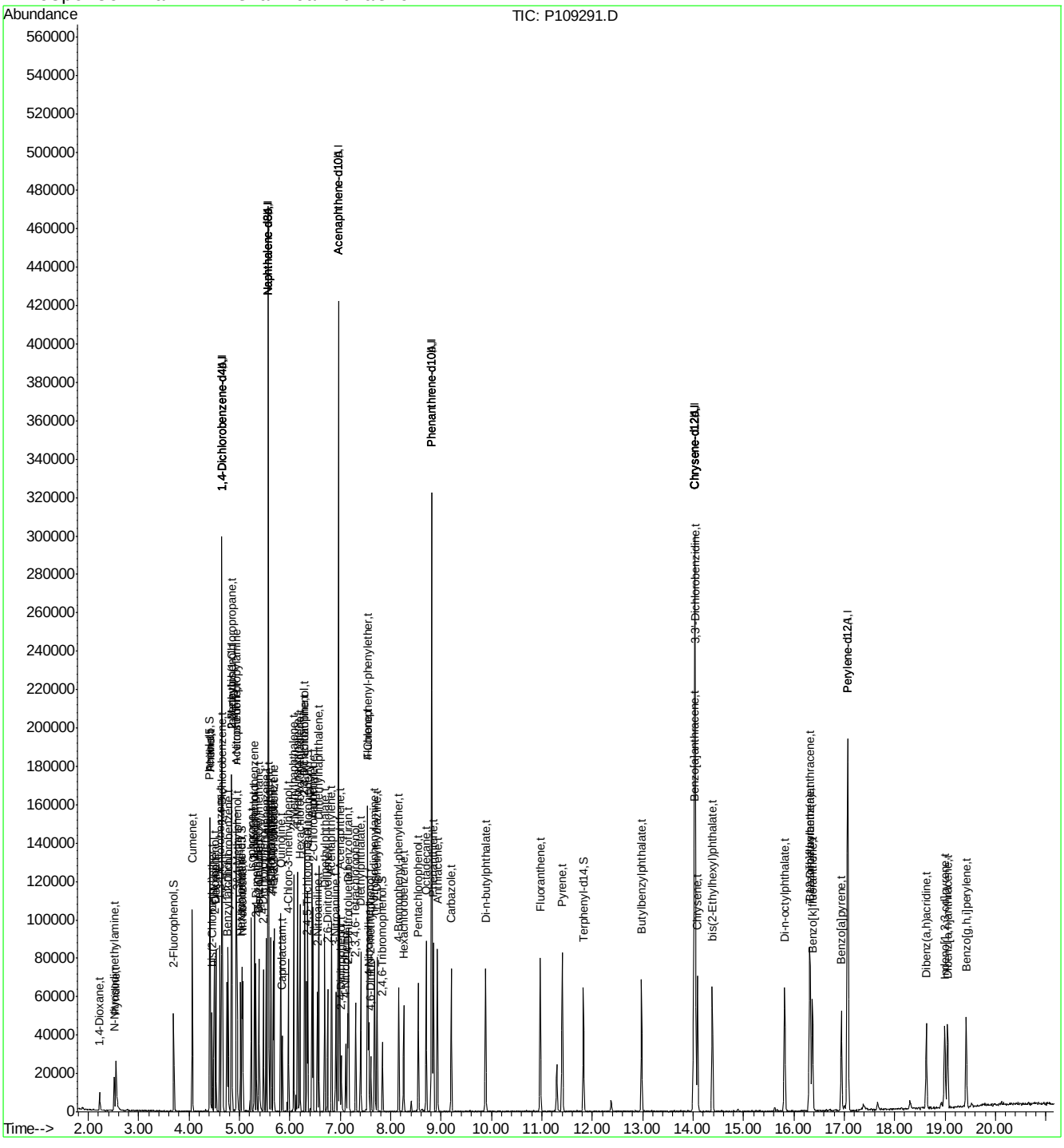
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.61	198	3860	9.62	ppm	76
71)	n-Nitrosodiphenylamine	7.68	169	19877	10.15	ppm	98
72)	1,2-Diphenylhydrazine	7.73	77	35165	10.19	ppm	90
74)	4-Bromophenyl-phenylether	8.16	248	8470	10.09	ppm	87
75)	Hexachlorobenzene	8.26	284	8304	10.24	ppm	99
76)	Pentachlorophenol	8.55	266	8346	17.59	ppm	96
77)	Phenanthrene	8.85	178	37900	10.08	ppm	99
78)	Anthracene	8.93	178	38820	10.40	ppm	97
79)	Carbazole	9.20	167	38632	10.06	ppm	97
80)	Di-n-butylphthalate	9.88	149	51100	10.06	ppm	99
81)	Fluoranthene	10.97	202	46942	10.05	ppm	98
82)	Octadecane	8.70	57	17947	10.31	ppm	94
84)	Pyrene	11.41	202	48761	9.89	ppm	97
86)	Butylbenzylphthalate	12.98	149	22888	9.53	ppm	94
87)	Benzo[a]anthracene	14.01	228	43281	9.76	ppm	98
88)	3,3'-Dichlorobenzidine	14.05	252	14586	9.77	ppm	93
89)	Chrysene	14.09	228	39090	10.20	ppm	100
90)	bis(2-Ethylhexyl)phthalate	14.38	149	29832	10.35	ppm	95
92)	Di-n-octylphthalate	15.81	149	52173	9.28	ppm	96
93)	Benzo[b]fluoranthene	16.31	252	40572	9.72	ppm	97
94)	Benzo[k]fluoranthene	16.37	252	35998	10.17	ppm	98
95)	Benzo[a]pyrene	16.94	252	34758	9.60	ppm	98
96)	Indeno[1,2,3-cd]pyrene	18.99	276	28337	8.89	ppm	98
97)	Dibenz(a,h)acridine	18.63	279	27632	9.31	ppm	98
98)	Dibenz[a,h]anthracene	19.05	278	29714	9.49	ppm	95
99)	7,12-Dimethylbenz(a)anthra	16.33	256	16306	9.22	ppm	95
100)	Benzo[g,h,i]perylene	19.42	276	29883	9.34	ppm	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109291.D Vial: 6
Acq On : 28 Nov 2016 6:22 pm Operator: robertl1
Sample : IC4851-10 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:24 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:21:22 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109292.D Vial: 7
Acq On : 28 Nov 2016 6:51 pm Operator: robertl1
Sample : IC4851-5 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:25:48 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:25:45 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	37366	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	137233	40.00	ppm	0.00
47) Acenaphthene-d10	6.96	164	83319	40.00	ppm	0.00
69) Phenanthrene-d10	8.82	188	149336	40.00	ppm	0.00
83) Chrysene-d12	14.03	240	153763	40.00	ppm	-0.02
91) Perylene-d12	17.07	264	125932	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.65	152	37366	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	137233	40.00	ppm	0.00
120) Acenaphthene-d10A	6.96	164	83319	40.00	ppm	0.00
131) Phenanthrene-d10A	8.82	188	149336	40.00	ppm	0.00
146) Chrysene-d12A	14.03	240	153763	40.00	ppm	-0.02
154) Perylene-d12A	17.07	264	125932	40.00	ppm	-0.02
158) 1,4-Dichlorobenzene-d4b	4.65	152	37366	40.00	ppm	0.00
160) Phenanthrene-d10b	8.82	188	149336	40.00	ppm	0.00
162) Chrysene-d12b	14.03	240	153763	40.00	ppm	-0.02
164) Naphthalene-d8b	5.57	136	137233	40.00	ppm	0.00
166) Acenaphthene-d10b	6.96	164	83319	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	137233	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	37366	40.00	ppm	0.00
175) Chrysene-d12c	14.03	240	153763	40.00	ppm	-0.02
177) Chrysene-d12d	14.03	240	153763	40.00	ppm	-0.02
179) Naphthalene-d8d	5.57	136	137233	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	7716	5.20	ppm	0.00
Spiked Amount 50.000			Recovery = 10.40%			
8) Phenol-d5	4.40	99	10253	5.52	ppm	-0.01
Spiked Amount 50.000			Recovery = 11.04%			
25) Nitrobenzene-d5	5.05	82	10004	5.81	ppm	0.00
Spiked Amount 50.000			Recovery = 11.62%			
51) 2-Fluorobiphenyl	6.35	172	16066	5.97	ppm	-0.01
Spiked Amount 50.000			Recovery = 11.94%			
73) 2,4,6-Tribromophenol	7.84	330	1948	5.36	ppm	-0.01
Spiked Amount 50.000			Recovery = 10.72%			
85) Terphenyl-d14	11.82	244	16934	5.63	ppm	-0.02
Spiked Amount 50.000			Recovery = 11.26%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.23	88	3116	5.36	ppm		91
3) Pyridine	2.55	79	8807	5.40	ppm		96
4) N-Nitrosodimethylamine	2.52	42	3432	5.19	ppm		86
6) Indene	4.84	116	13043	6.02	ppm		95
7) Cumene	4.07	105	19616	5.77	ppm		97
9) Phenol	4.41	94	12068	5.96	ppm	#	48
10) Aniline	4.41	93	13646	6.49	ppm	#	18
11) bis(2-Chloroethyl)ether	4.46	93	8341	6.04	ppm		95
12) 2-Chlorophenol	4.50	128	7571	5.89	ppm		93
13) Decane	4.53	43	6399	6.36	ppm		95
14) 1,3-Dichlorobenzene	4.61	146	7846	5.80	ppm		96
15) 1,4-Dichlorobenzene	4.66	146	8111	6.04	ppm		94

(#) = qualifier out of range (m) = manual integration
P109292.D MP4851.M Tue Nov 29 09:27:09 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109292.D Vial: 7
Acq On : 28 Nov 2016 6:51 pm Operator: robertl1
Sample : IC4851-5 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:25:48 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:25:45 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.76	108	4769	5.21	ppm		97
17)	1,2-Dichlorobenzene	4.78	146	7680	6.03	ppm		98
18)	Acetophenone	4.94	105	10728	5.64	ppm		94
19)	2-Methylphenol	4.85	108	7039	5.97	ppm		96
20)	2,2'-oxybis(1-Chloropropan	4.85	121	2407	5.74	ppm	#	49
21)	3&4-Methylphenol	4.95	108	7548	5.99	ppm		99
22)	n-Nitroso-di-n-propylamine	4.94	70	7005	6.09	ppm		93
23)	Hexachloroethane	5.02	201	2819	5.72	ppm	#	79
26)	Nitrobenzene	5.07	77	9759	5.82	ppm		93
27)	Quinoline	5.82	129	13769	5.58	ppm		96
28)	Isophorone	5.23	82	16819	5.67	ppm		94
29)	2-Nitrophenol	5.29	139	3896	5.56	ppm		81
30)	2,4-Dimethylphenol	5.33	107	6714	5.15	ppm		91
31)	Benzoic acid	5.39	105	3658	3.80	ppm		96
32)	bis(2-Chloroethoxy)methane	5.39	93	9385	5.83	ppm		97
33)	2,4-Dichlorophenol	5.48	162	5694	5.56	ppm		95
34)	2,6-Dichlorophenol	5.63	162	5510	5.72	ppm		92
35)	1,3,5-Trichlorobenzene	5.30	180	6810	5.82	ppm		98
36)	1,2,4-Trichlorobenzene	5.52	180	6595	5.89	ppm		96
37)	1,2,3-Trichlorobenzene	5.68	180	6027	5.58	ppm		95
38)	Naphthalene	5.58	128	20542	6.07	ppm		96
39)	4-Chloroaniline	5.62	127	8727	5.87	ppm		95
40)	2,3-Dichloroaniline	6.29	161	7280	5.79	ppm		95
41)	Caprolactam	5.85	55	2965	5.57	ppm		99
42)	Hexachlorobutadiene	5.67	225	4116	5.99	ppm		99
43)	4-Chloro-3-methylphenol	5.97	107	6840	5.51	ppm		77
44)	2-Methylnaphthalene	6.07	141	11987	6.04	ppm		93
45)	1-Methylnaphthalene	6.15	142	13708	5.80	ppm		88
46)	Dimethylnaphthalene	6.57	156	12401	5.84	ppm		94
48)	Hexachlorocyclopentadiene	6.20	237	5665	8.78	ppm		96
49)	2,4,6-Trichlorophenol	6.30	196	4418	5.82	ppm		92
50)	2,4,5-Trichlorophenol	6.34	196	4413	5.41	ppm		92
52)	2-Chloronaphthalene	6.46	162	12913	6.00	ppm		95
53)	Biphenyl	6.44	154	17190	5.93	ppm		98
54)	2-Nitroaniline	6.54	65	4955	5.40	ppm		95
55)	Dimethylphthalate	6.69	163	14945	5.74	ppm		98
56)	Acenaphthylene	6.82	152	21910	5.96	ppm		95
57)	2,6-Dinitrotoluene	6.75	165	3067	5.24	ppm		65
58)	3-Nitroaniline	6.91	138	3883	5.42	ppm		95
59)	Acenaphthene	6.99	153	12600	5.67	ppm		94
60)	2,4-Dinitrophenol	7.02	184	1425	4.79	ppm		71
61)	4-Nitrophenol	7.11	109	2557	5.01	ppm		82
62)	Dibenzofuran	7.16	168	19436	5.93	ppm		92
63)	2,4-Dinitrotoluene	7.15	165	4302	5.28	ppm		75
64)	2,3,4,6-Tetrachlorophenol	7.30	232	3322	4.99	ppm		84
65)	Diethylphthalate	7.41	149	16075	5.61	ppm		93
66)	Fluorene	7.54	166	15427	5.76	ppm		96
67)	4-Chlorophenyl-phenylether	7.54	204	7869	5.70	ppm		95
68)	4-Nitroaniline	7.56	138	3853	5.40	ppm		82

(#) = qualifier out of range (m) = manual integration
P109292.D MP4851.M Tue Nov 29 09:27:09 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109292.D Vial: 7
Acq On : 28 Nov 2016 6:51 pm Operator: robertl1
Sample : IC4851-5 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:25:48 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:25:45 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.61	198	1573	3.39	ppm	67
71)	n-Nitrosodiphenylamine	7.68	169	11117	5.71	ppm	97
72)	1,2-Diphenylhydrazine	7.73	77	19047	5.66	ppm	97
74)	4-Bromophenyl-phenylether	8.16	248	4330	5.22	ppm	93
75)	Hexachlorobenzene	8.26	284	4476	5.56	ppm	95
76)	Pentachlorophenol	8.55	266	3957	7.97	ppm	88
77)	Phenanthrene	8.85	178	20636	5.63	ppm	98
78)	Anthracene	8.93	178	21510	5.82	ppm	99
79)	Carbazole	9.20	167	21204	5.58	ppm	98
80)	Di-n-butylphthalate	9.88	149	27588	5.40	ppm	98
81)	Fluoranthene	10.96	202	25620	5.46	ppm	99
82)	Octadecane	8.70	57	9658	5.63	ppm	92
84)	Pyrene	11.41	202	26700	5.55	ppm	95
86)	Butylbenzylphthalate	12.98	149	12451	5.24	ppm	88
87)	Benzo[a]anthracene	14.01	228	23597	5.59	ppm	98
88)	3,3'-Dichlorobenzidine	14.05	252	7746	5.29	ppm	97
89)	Chrysene	14.08	228	21266	5.76	ppm	97
90)	bis(2-Ethylhexyl)phthalate	14.38	149	16020	5.48	ppm	96
92)	Di-n-octylphthalate	15.81	149	27910	4.95	ppm	98
93)	Benzo[b]fluoranthene	16.31	252	21599	5.24	ppm	98
94)	Benzo[k]fluoranthene	16.36	252	19423	5.62	ppm	96
95)	Benzo[a]pyrene	16.94	252	18905	5.33	ppm	94
96)	Indeno[1,2,3-cd]pyrene	18.99	276	15635	5.14	ppm	95
97)	Dibenz(a,h)acridine	18.63	279	14404	4.94	ppm	96
98)	Dibenz[a,h]anthracene	19.05	278	16013	5.29	ppm	96
99)	7,12-Dimethylbenz(a)anthra	16.32	256	8966	5.07	ppm	94
100)	Benzo[g,h,i]perylene	19.41	276	16310	5.28	ppm	99

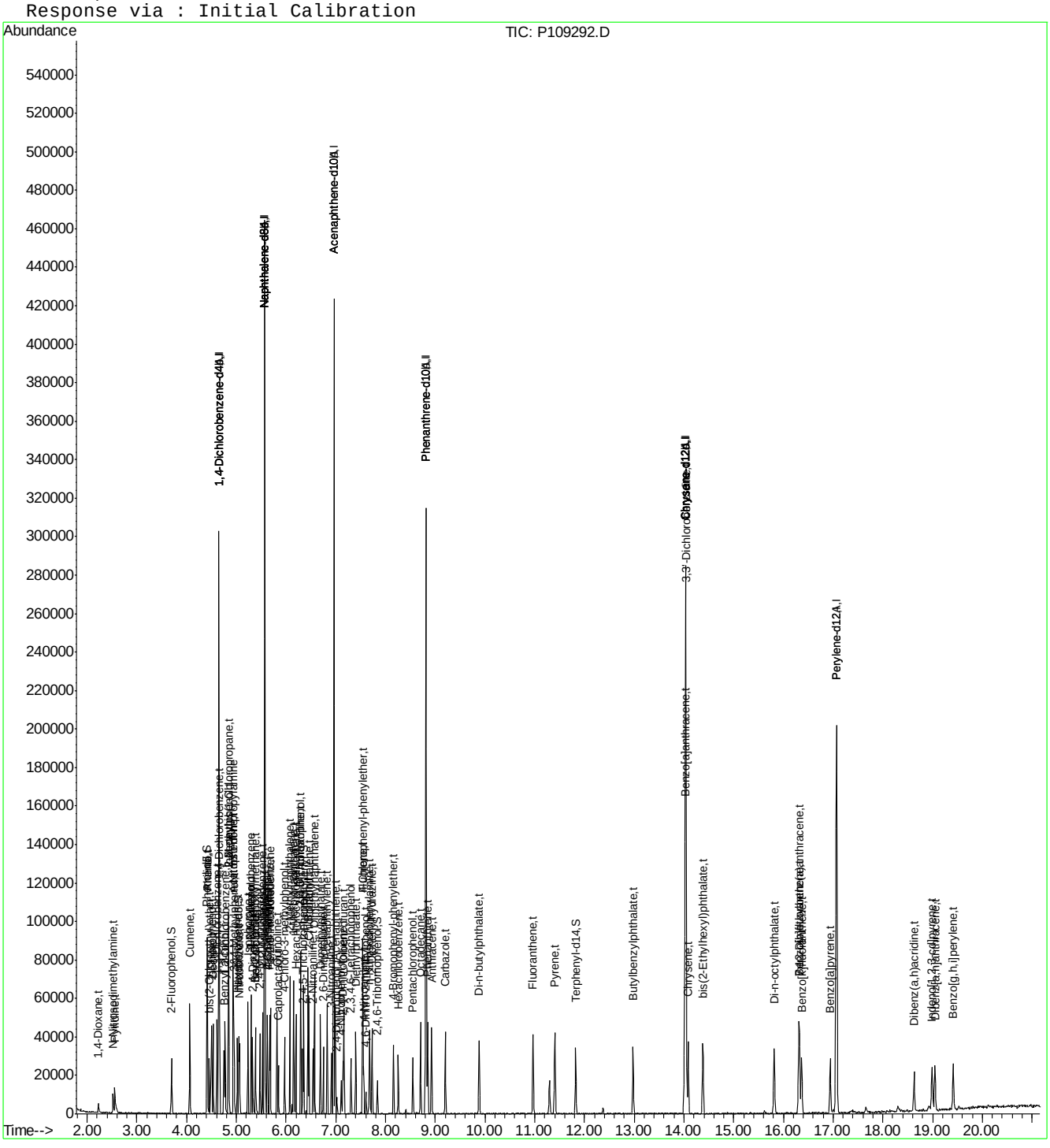
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109292.D Vial: 7
Acq On : 28 Nov 2016 6:51 pm Operator: robertl1
Sample : IC4851-5 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:27 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:24:31 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109293.D Vial: 8
Acq On : 28 Nov 2016 7:19 pm Operator: robertl1
Sample : IC4851-2 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:30 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	43048	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	159784	40.00	ppm	0.00
47) Acenaphthene-d10	6.96	164	93925	40.00	ppm	0.00
69) Phenanthrene-d10	8.81	188	166470	40.00	ppm	-0.01
83) Chrysene-d12	14.03	240	171786	40.00	ppm	-0.02
91) Perylene-d12	17.07	264	146340	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.65	152	43048	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	159784	40.00	ppm	0.00
120) Acenaphthene-d10A	6.96	164	93925	40.00	ppm	0.00
131) Phenanthrene-d10A	8.81	188	166470	40.00	ppm	-0.01
146) Chrysene-d12A	14.03	240	171786	40.00	ppm	-0.02
154) Perylene-d12A	17.07	264	146340	40.00	ppm	-0.02
158) 1,4-Dichlorobenzene-d4b	4.65	152	43048	40.00	ppm	0.00
160) Phenanthrene-d10b	8.81	188	166470	40.00	ppm	-0.01
162) Chrysene-d12b	14.03	240	171786	40.00	ppm	-0.02
164) Naphthalene-d8b	5.57	136	159784	40.00	ppm	0.00
166) Acenaphthene-d10b	6.96	164	93925	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	159784	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	43048	40.00	ppm	0.00
175) Chrysene-d12c	14.03	240	171786	40.00	ppm	-0.02
177) Chrysene-d12d	14.03	240	171786	40.00	ppm	-0.02
179) Naphthalene-d8d	5.57	136	159784	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	3636	2.11	ppm	0.00
Spiked Amount 50.000			Recovery = 4.22%			
8) Phenol-d5	4.41	99	4634	2.11	ppm	0.00
Spiked Amount 50.000			Recovery = 4.22%			
25) Nitrobenzene-d5	5.05	82	4851	2.37	ppm	0.00
Spiked Amount 50.000			Recovery = 4.74%			
51) 2-Fluorobiphenyl	6.35	172	7456	2.41	ppm	-0.01
Spiked Amount 50.000			Recovery = 4.82%			
73) 2,4,6-Tribromophenol	7.84	330	891	2.18	ppm	-0.01
Spiked Amount 50.000			Recovery = 4.36%			
85) Terphenyl-d14	11.82	244	7470	2.18	ppm	-0.02
Spiked Amount 50.000			Recovery = 4.36%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.22	88	1478	1.97	ppm		94
3) Pyridine	2.56	79	3856	2.10	ppm		90
4) N-Nitrosodimethylamine	2.52	42	1684	2.13	ppm		92
6) Indene	4.84	116	6349	2.45	ppm		99
7) Cumene	4.07	105	9288	2.31	ppm		96
9) Phenol	4.41	94	5470	2.30	ppm	#	41
10) Aniline	4.41	93	6443	2.59	ppm	#	18
11) bis(2-Chloroethyl)ether	4.46	93	3873	2.38	ppm		96
12) 2-Chlorophenol	4.51	128	3585	2.36	ppm		89
13) Decane	4.53	43	3114	2.54	ppm		89
14) 1,3-Dichlorobenzene	4.61	146	3941	2.42	ppm		98
15) 1,4-Dichlorobenzene	4.66	146	3783	2.36	ppm		99

(#) = qualifier out of range (m) = manual integration
P109293.D MP4851.M Tue Nov 29 09:29:04 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109293.D Vial: 8
Acq On : 28 Nov 2016 7:19 pm Operator: robertl1
Sample : IC4851-2 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:30 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
16)	Benzyl alcohol	4.76	108	2033	2.00	ppm		91
17)	1,2-Dichlorobenzene	4.78	146	3735	2.47	ppm		94
18)	Acetophenone	4.94	105	5357	2.39	ppm		94
19)	2-Methylphenol	4.85	108	3361	2.39	ppm		95
20)	2,2'-oxybis(1-Chloropropan	4.85	121	1078	2.22	ppm	#	50
21)	3&4-Methylphenol	4.95	108	3275	2.18	ppm		97
22)	n-Nitroso-di-n-propylamine	4.94	70	3331	2.39	ppm		91
23)	Hexachloroethane	5.02	201	1378	2.44	ppm	#	66
26)	Nitrobenzene	5.07	77	4882	2.41	ppm		90
27)	Quinoline	5.82	129	6314	2.17	ppm		90
28)	Isophorone	5.23	82	8263	2.30	ppm		95
29)	2-Nitrophenol	5.29	139	1847	2.23	ppm		85
30)	2,4-Dimethylphenol	5.33	107	3183	2.09	ppm		85
31)	Benzoic acid	5.39	105	1418	1.38	ppm		89
32)	bis(2-Chloroethoxy)methane	5.38	93	4501	2.34	ppm		92
33)	2,4-Dichlorophenol	5.48	162	2565	2.13	ppm		96
34)	2,6-Dichlorophenol	5.63	162	2643	2.30	ppm		84
35)	1,3,5-Trichlorobenzene	5.30	180	3391	2.41	ppm		95
36)	1,2,4-Trichlorobenzene	5.52	180	3138	2.34	ppm		95
37)	1,2,3-Trichlorobenzene	5.68	180	2955	2.36	ppm		98
38)	Naphthalene	5.58	128	9765	2.41	ppm		97
39)	4-Chloroaniline	5.62	127	4150	2.41	ppm		96
40)	2,3-Dichloroaniline	6.29	161	3416	2.31	ppm		98
41)	Caprolactam	5.84	55	1352	2.11	ppm		93
42)	Hexachlorobutadiene	5.67	225	1856	2.26	ppm		95
43)	4-Chloro-3-methylphenol	5.97	107	3146	2.11	ppm		78
44)	2-Methylnaphthalene	6.07	141	5377	2.26	ppm		95
45)	1-Methylnaphthalene	6.15	142	6451	2.29	ppm		92
46)	Dimethylnaphthalene	6.57	156	5812	2.29	ppm		92
48)	Hexachlorocyclopentadiene	6.20	237	2091	3.13	ppm		98
49)	2,4,6-Trichlorophenol	6.30	196	1980	2.24	ppm		94
50)	2,4,5-Trichlorophenol	6.34	196	2047	2.24	ppm		91
52)	2-Chloronaphthalene	6.46	162	6035	2.40	ppm		99
53)	Biphenyl	6.44	154	8112	2.41	ppm		95
54)	2-Nitroaniline	6.54	65	2206	2.12	ppm		98
55)	Dimethylphthalate	6.69	163	7000	2.33	ppm		99
56)	Acenaphthylene	6.82	152	9885	2.37	ppm		97
57)	2,6-Dinitrotoluene	6.75	165	1428	2.23	ppm		65
58)	3-Nitroaniline	6.91	138	1636	2.07	ppm		92
59)	Acenaphthene	6.99	153	5829	2.26	ppm		90
60)	2,4-Dinitrophenol	7.03	184	268	0.69	ppm		86
61)	4-Nitrophenol	7.11	109	976	1.76	ppm		85
62)	Dibenzofuran	7.16	168	8650	2.30	ppm		94
63)	2,4-Dinitrotoluene	7.14	165	1818	2.01	ppm		80
64)	2,3,4,6-Tetrachlorophenol	7.30	232	1481	2.02	ppm		90
65)	Diethylphthalate	7.40	149	7389	2.25	ppm		94
66)	Fluorene	7.54	166	6988	2.30	ppm		93
67)	4-Chlorophenyl-phenylether	7.54	204	3541	2.24	ppm		93
68)	4-Nitroaniline	7.56	138	1623	2.10	ppm		88

(#) = qualifier out of range (m) = manual integration
P109293.D MP4851.M Tue Nov 29 09:29:05 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109293.D Vial: 8
Acq On : 28 Nov 2016 7:19 pm Operator: robertl1
Sample : IC4851-2 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:30 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

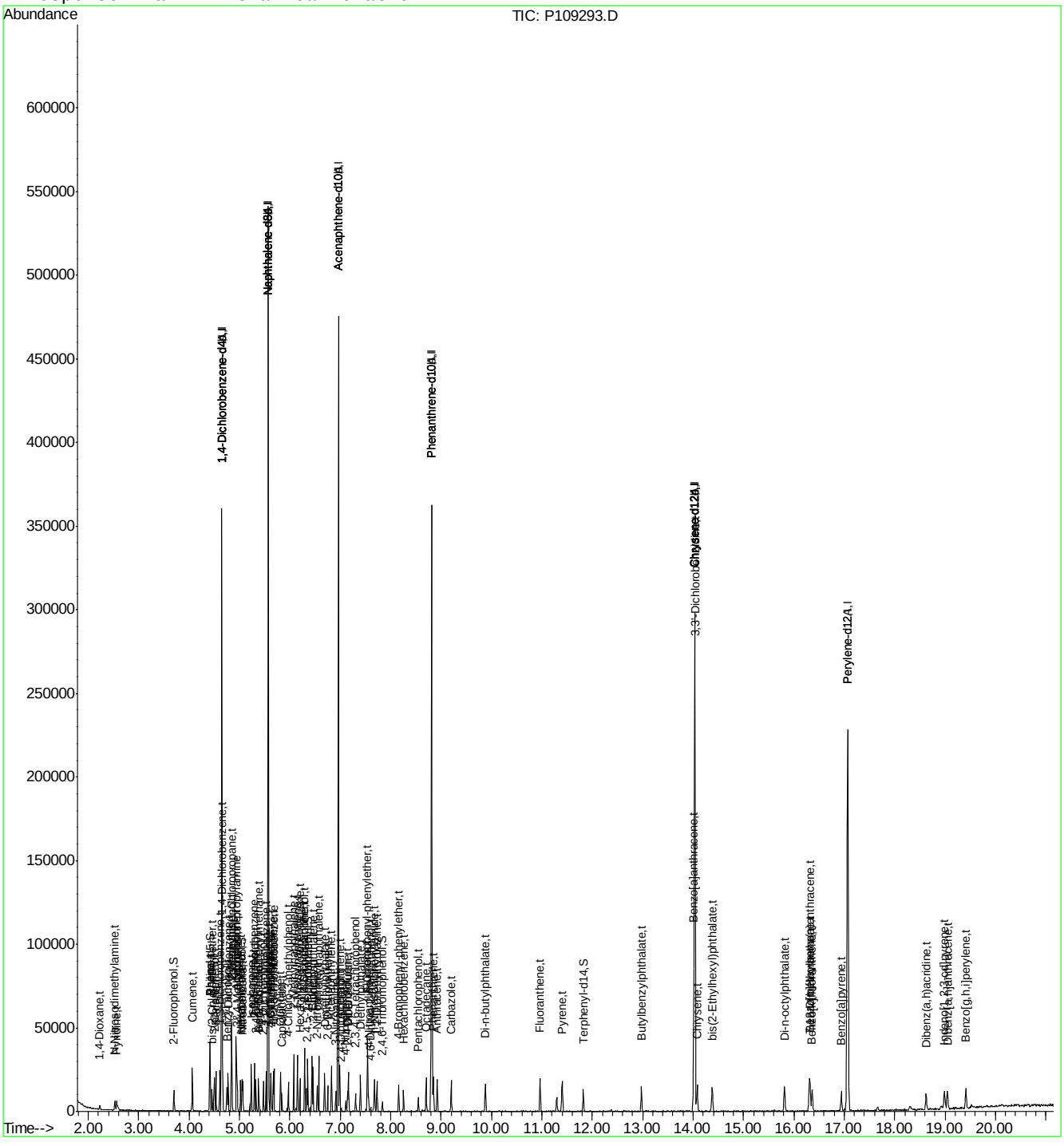
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
70)	4,6-Dinitro-2-methylphenol	7.61	198	527	1.17	ppm	63
71)	n-Nitrosodiphenylamine	7.68	169	5179	2.36	ppm	98
72)	1,2-Diphenylhydrazine	7.73	77	8758	2.26	ppm	93
74)	4-Bromophenyl-phenylether	8.16	248	2050	2.18	ppm	89
75)	Hexachlorobenzene	8.25	284	1981	2.18	ppm	94
76)	Pentachlorophenol	8.55	266	1498	2.82	ppm	95
77)	Phenanthrene	8.85	178	9595	2.28	ppm	98
78)	Anthracene	8.92	178	9645	2.31	ppm	99
79)	Carbazole	9.20	167	9524	2.21	ppm	98
80)	Di-n-butylphthalate	9.88	149	12025	2.11	ppm	98
81)	Fluoranthene	10.96	202	11464	2.19	ppm	97
82)	Octadecane	8.70	57	4275	2.19	ppm	88
84)	Pyrene	11.40	202	12131	2.22	ppm	97
86)	Butylbenzylphthalate	12.98	149	5430	2.04	ppm	98
87)	Benzo[a]anthracene	14.01	228	10750	2.18	ppm	96
88)	3,3'-Dichlorobenzidine	14.05	252	3576	2.16	ppm	96
89)	Chrysene	14.08	228	10024	2.36	ppm	99
90)	bis(2-Ethylhexyl)phthalate	14.38	149	6992	2.18	ppm	94
92)	Di-n-octylphthalate	15.81	149	12615	1.93	ppm	97
93)	Benzo[b]fluoranthene	16.31	252	9809	2.03	ppm	98
94)	Benzo[k]fluoranthene	16.36	252	9233	2.25	ppm	94
95)	Benzo[a]pyrene	16.94	252	8838	2.10	ppm	96
96)	Indeno[1,2,3-cd]pyrene	18.99	276	7617	2.06	ppm	97
97)	Dibenz(a,h)acridine	18.62	279	6943	2.02	ppm	99
98)	Dibenz[a,h]anthracene	19.05	278	7829	2.16	ppm	97
99)	7,12-Dimethylbenz(a)anthra	16.32	256	3938	1.92	ppm	96
100)	Benzo[g,h,i]perylene	19.41	276	7968	2.15	ppm	95

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4851\P109293.D Vial: 8
Acq On : 28 Nov 2016 7:19 pm Operator: robertl1
Sample : IC4851-2 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:29 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:27:29 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4851\P109294.D Vial: 9
Acq On : 28 Nov 2016 7:47 pm Operator: robertl1
Sample : IC4851-1 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:31 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.65	152	40792	40.00	ppm	0.00
24) Naphthalene-d8	5.57	136	153538	40.00	ppm	0.00
47) Acenaphthene-d10	6.96	164	92039	40.00	ppm	0.00
69) Phenanthrene-d10	8.81	188	163201	40.00	ppm	-0.01
83) Chrysene-d12	14.03	240	169120	40.00	ppm	-0.02
91) Perylene-d12	17.07	264	144178	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.65	152	40792	40.00	ppm	0.00
111) Naphthalene-d8A	5.57	136	153538	40.00	ppm	0.00
120) Acenaphthene-d10A	6.96	164	92039	40.00	ppm	0.00
131) Phenanthrene-d10A	8.81	188	163201	40.00	ppm	-0.01
146) Chrysene-d12A	14.03	240	169120	40.00	ppm	-0.02
154) Perylene-d12A	17.07	264	144178	40.00	ppm	-0.02
158) 1,4-Dichlorobenzene-d4b	4.65	152	40792	40.00	ppm	0.00
160) Phenanthrene-d10b	8.81	188	163201	40.00	ppm	-0.01
162) Chrysene-d12b	14.03	240	169120	40.00	ppm	-0.02
164) Naphthalene-d8b	5.57	136	153538	40.00	ppm	0.00
166) Acenaphthene-d10b	6.96	164	92039	40.00	ppm	0.00
168) Naphthalene-d8c	5.57	136	153538	40.00	ppm	0.00
173) 1,4-Dichlorobenzene-d4c	4.65	152	40792	40.00	ppm	0.00
175) Chrysene-d12c	14.03	240	169120	40.00	ppm	-0.02
177) Chrysene-d12d	14.03	240	169120	40.00	ppm	-0.02
179) Naphthalene-d8d	5.57	136	153538	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	3.70	112	1575	0.97	ppm	0.00
Spiked Amount 50.000			Recovery = 1.94%			
8) Phenol-d5	4.41	99	2282	1.10	ppm	0.00
Spiked Amount 50.000			Recovery = 2.20%			
25) Nitrobenzene-d5	5.05	82	2226	1.13	ppm	0.00
Spiked Amount 50.000			Recovery = 2.26%			
51) 2-Fluorobiphenyl	6.35	172	3539	1.17	ppm	-0.01
Spiked Amount 50.000			Recovery = 2.34%			
73) 2,4,6-Tribromophenol	7.84	330	413	1.03	ppm	-0.01
Spiked Amount 50.000			Recovery = 2.06%			
85) Terphenyl-d14	11.82	244	3569	1.06	ppm	-0.02
Spiked Amount 50.000			Recovery = 2.12%			

Target Compounds							Qvalue
2) 1,4-Dioxane	2.23	88	899	1.26	ppm		68
3) Pyridine	2.57	79	1582	0.91	ppm		85
4) N-Nitrosodimethylamine	2.53	42	783	1.05	ppm		83
6) Indene	4.84	116	2893	1.18	ppm		94
7) Cumene	4.07	105	4240	1.11	ppm		98
9) Phenol	4.41	94	2588	1.15	ppm	#	36
10) Aniline	4.41	93	2994	1.27	ppm	#	13
11) bis(2-Chloroethyl)ether	4.46	93	1770	1.15	ppm		92
12) 2-Chlorophenol	4.51	128	1685	1.17	ppm		93
13) Decane	4.53	43	1528	1.32	ppm		86
14) 1,3-Dichlorobenzene	4.61	146	1882	1.22	ppm		96
15) 1,4-Dichlorobenzene	4.66	146	1764	1.16	ppm		92

(#) = qualifier out of range (m) = manual integration
P109294.D MP4851.M Wed Nov 30 12:53:57 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4851\P109294.D Vial: 9
Acq On : 28 Nov 2016 7:47 pm Operator: robertl1
Sample : IC4851-1 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:31 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
16) Benzyl alcohol	4.76	108	897	0.93 ppm		86
17) 1,2-Dichlorobenzene	4.78	146	1646	1.15 ppm		94
18) Acetophenone	4.94	105	2459	1.16 ppm		83
19) 2-Methylphenol	4.85	108	1628	1.22 ppm		97
20) 2,2'-oxybis(1-Chloropropan	4.85	121	487	1.06 ppm	#	67
21) 3&4-Methylphenol	4.95	108	1659	1.17 ppm		98
22) n-Nitroso-di-n-propylamine	4.94	70	1615	1.22 ppm		94
23) Hexachloroethane	5.02	201	548	1.02 ppm	#	64
26) Nitrobenzene	5.07	77	2287	1.18 ppm		94
27) Quinoline	5.82	129	2959	1.06 ppm		94
28) Isophorone	5.23	82	4020	1.17 ppm		93
29) 2-Nitrophenol	5.29	139	853	1.07 ppm		82
30) 2,4-Dimethylphenol	5.33	107	1474	1.01 ppm		86
31) Benzoic acid	5.38	105	530	0.54 ppm		92
32) bis(2-Chloroethoxy)methane	5.38	93	2096	1.14 ppm		97
33) 2,4-Dichlorophenol	5.48	162	1215	1.05 ppm		88
34) 2,6-Dichlorophenol	5.63	162	1211	1.09 ppm		82
35) 1,3,5-Trichlorobenzene	5.30	180	1552	1.15 ppm		93
36) 1,2,4-Trichlorobenzene	5.52	180	1470	1.14 ppm		90
37) 1,2,3-Trichlorobenzene	5.68	180	1247	1.04 ppm		87
38) Naphthalene	5.58	128	4539	1.17 ppm		94
39) 4-Chloroaniline	5.62	127	1819	1.10 ppm		91
40) 2,3-Dichloroaniline	6.29	161	1521	1.07 ppm		88
41) Caprolactam	5.84	55	682	1.11 ppm		86
42) Hexachlorobutadiene	5.67	225	845	1.07 ppm		88
43) 4-Chloro-3-methylphenol	5.97	107	1581	1.10 ppm		80
44) 2-Methylnaphthalene	6.07	141	2583	1.13 ppm		89
45) 1-Methylnaphthalene	6.15	142	3175	1.17 ppm		98
46) Dimethylnaphthalene	6.57	156	2725	1.12 ppm		88
48) Hexachlorocyclopentadiene	6.20	237	758	1.16 ppm		95
49) 2,4,6-Trichlorophenol	6.30	196	984	1.14 ppm		92
50) 2,4,5-Trichlorophenol	6.34	196	903	1.01 ppm		90
52) 2-Chloronaphthalene	6.46	162	2979	1.21 ppm		91
53) Biphenyl	6.44	154	3888	1.18 ppm		94
54) 2-Nitroaniline	6.54	65	1064	1.04 ppm		80
55) Dimethylphthalate	6.69	163	3347	1.14 ppm		98
56) Acenaphthylene	6.82	152	4593	1.12 ppm		97
57) 2,6-Dinitrotoluene	6.75	165	586	0.94 ppm	#	42
58) 3-Nitroaniline	6.91	138	751	0.97 ppm		92
59) Acenaphthene	6.99	153	2886	1.14 ppm		97
61) 4-Nitrophenol	7.11	109	441	0.81 ppm		94
62) Dibenzofuran	7.16	168	4258	1.16 ppm		90
63) 2,4-Dinitrotoluene	7.14	165	875	0.99 ppm		79
64) 2,3,4,6-Tetrachlorophenol	7.30	232	626	0.87 ppm		86
65) Diethylphthalate	7.40	149	3479	1.08 ppm		97
66) Fluorene	7.54	166	3247	1.09 ppm		93
67) 4-Chlorophenyl-phenylether	7.54	204	1656	1.07 ppm		92
68) 4-Nitroaniline	7.57	138	713	0.94 ppm		90
70) 4,6-Dinitro-2-methylphenol	7.61	198	128	0.29 ppm	#	44

(#) = qualifier out of range (m) = manual integration

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4851\P109294.D Vial: 9
Acq On : 28 Nov 2016 7:47 pm Operator: robertl1
Sample : IC4851-1 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 09:11:31 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 09:10:19 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
71)	n-Nitrosodiphenylamine	7.68	169	2301	1.07	ppm		98
72)	1,2-Diphenylhydrazine	7.73	77	4426	1.17	ppm		88
74)	4-Bromophenyl-phenylether	8.16	248	992	1.08	ppm		83
75)	Hexachlorobenzene	8.25	284	964	1.08	ppm		78
76)	Pentachlorophenol	8.55	266	691	1.33	ppm	#	75
77)	Phenanthrene	8.84	178	4787	1.16	ppm		95
78)	Anthracene	8.92	178	4635	1.13	ppm		97
79)	Carbazole	9.19	167	4591	1.09	ppm		94
80)	Di-n-butylphthalate	9.88	149	5688	1.02	ppm		97
81)	Fluoranthene	10.96	202	5214	1.02	ppm		97
82)	Octadecane	8.70	57	2190	1.15	ppm		96
84)	Pyrene	11.40	202	5764	1.07	ppm		95
86)	Butylbenzylphthalate	12.98	149	2565	0.98	ppm		92
87)	Benzo[a]anthracene	14.01	228	5535	1.14	ppm		97
88)	3,3'-Dichlorobenzidine	14.05	252	1699	1.04	ppm		84
89)	Chrysene	14.08	228	4866	1.16	ppm		96
90)	bis(2-Ethylhexyl)phthalate	14.38	149	3055	0.97	ppm		87
92)	Di-n-octylphthalate	15.81	149	5686	0.89	ppm		99
93)	Benzo[b]fluoranthene	16.31	252	4761	1.00	ppm		93
94)	Benzo[k]fluoranthene	16.36	252	4575	1.13	ppm		89
95)	Benzo[a]pyrene	16.94	252	4181	1.01	ppm		97
96)	Indeno[1,2,3-cd]pyrene	18.99	276	3769	1.03	ppm		74
97)	Dibenz(a,h)acridine	18.62	279	3252	0.96	ppm		98
98)	Dibenz[a,h]anthracene	19.04	278	3653	1.02	ppm		97
99)	7,12-Dimethylbenz(a)anthra	16.32	256	1813	0.90	ppm		95
100)	Benzo[g,h,i]perylene	19.41	276	3734	1.02	ppm		99

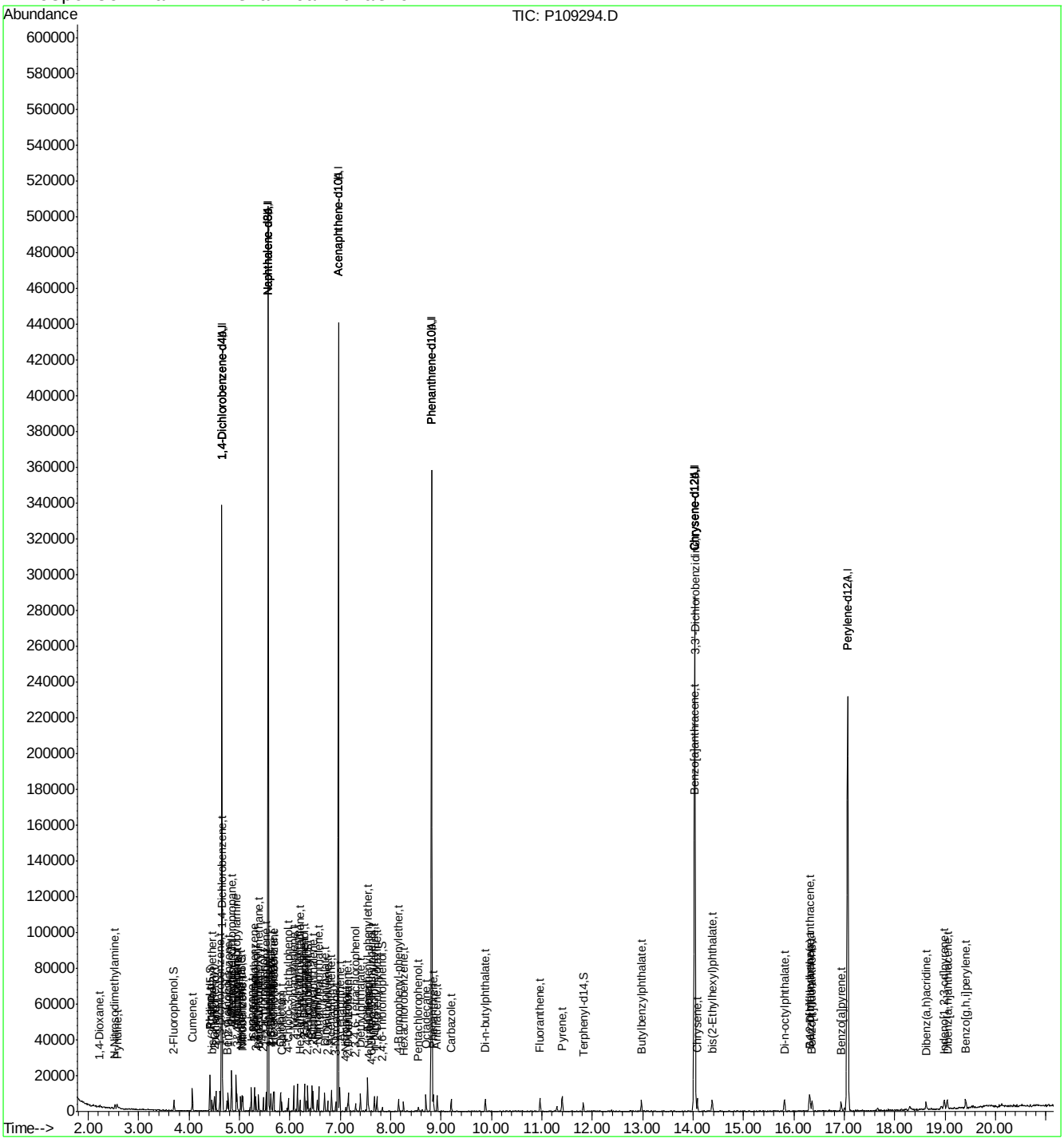
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4851\P109294.D Vial: 9
Acq On : 28 Nov 2016 7:47 pm Operator: robertl1
Sample : IC4851-1 Inst : MSP
Misc : OP98670,EP4851 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 9:30 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Nov 30 11:24:58 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109297.D Vial: 2
Acq On : 29 Nov 2016 9:49 am Operator: robertl1
Sample : IC4852-100 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:23 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	30525	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	117864	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	71539	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	132023	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	126960	40.00	ppm	-0.05
91) Perylene-d12	17.04	264	101247	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	30525	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	117864	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	71539	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	132023	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	126960	40.00	ppm	-0.05
154) Perylene-d12A	17.04	264	101247	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	30525	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	132023	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	126960	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	117864	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	71539	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	117864	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	30525	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	126960	40.00	ppm	-0.05
177) Chrysene-d12d	14.00	240	126960	40.00	ppm	-0.05
179) Naphthalene-d8d	5.55	136	117864	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	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
159) Benzaldehyde	4.31	105	83879	97.03	ppm	94
161) Atrazine	8.40	200	64774	99.00	ppm	92
163) Benzidine	11.28	184	160721	87.45	ppm	97
165) Hydroquinone	5.86	110	125387	101.50	ppm	95
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	86118	96.49	ppm	97

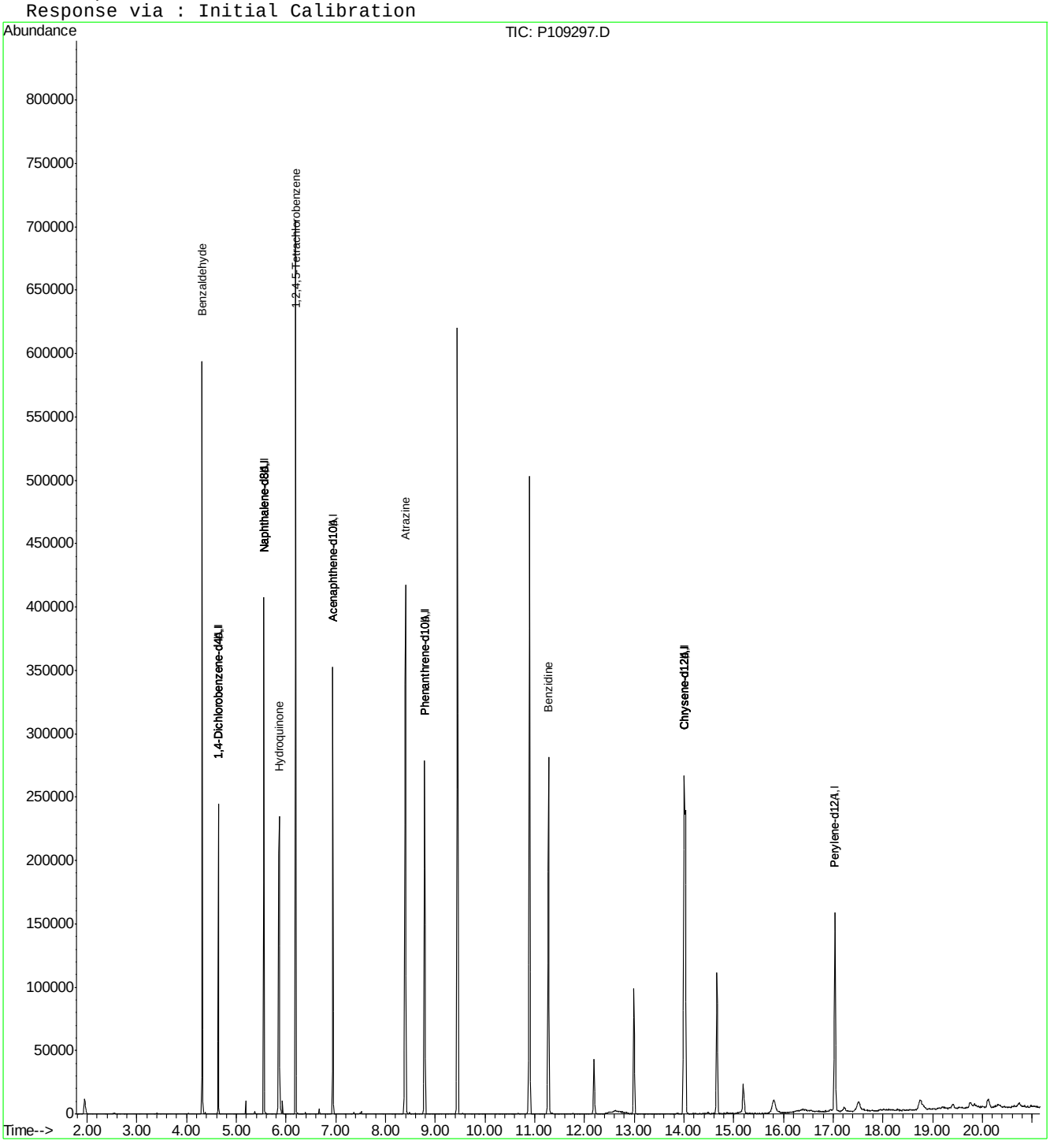
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109297.D Vial: 2
Acq On : 29 Nov 2016 9:49 am Operator: robertl1
Sample : IC4852-100 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 14:47 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109298.D Vial: 3
Acq On : 29 Nov 2016 10:17 am Operator: robertl1
Sample : IC4852-80 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:25 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	31730	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	122200	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	75405	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	135886	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	141903	40.00	ppm	-0.05
91) Perylene-d12	17.04	264	122763	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	31730	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	122200	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	75405	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	135886	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	141903	40.00	ppm	-0.05
154) Perylene-d12A	17.04	264	122763	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	31730	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	135886	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	141903	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	122200	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	75405	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	122200	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	31730	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	141903	40.00	ppm	-0.05
177) Chrysene-d12d	14.00	240	141903	40.00	ppm	-0.05
179) Naphthalene-d8d	5.55	136	122200	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	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
159) Benzaldehyde	4.31	105	71903	80.02	ppm	93
161) Atrazine	8.40	200	54596	81.07	ppm	94
163) Benzidine	11.28	184	167067	81.33	ppm	98
165) Hydroquinone	5.86	110	103149	80.53	ppm	95
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	74318	79.00	ppm	99

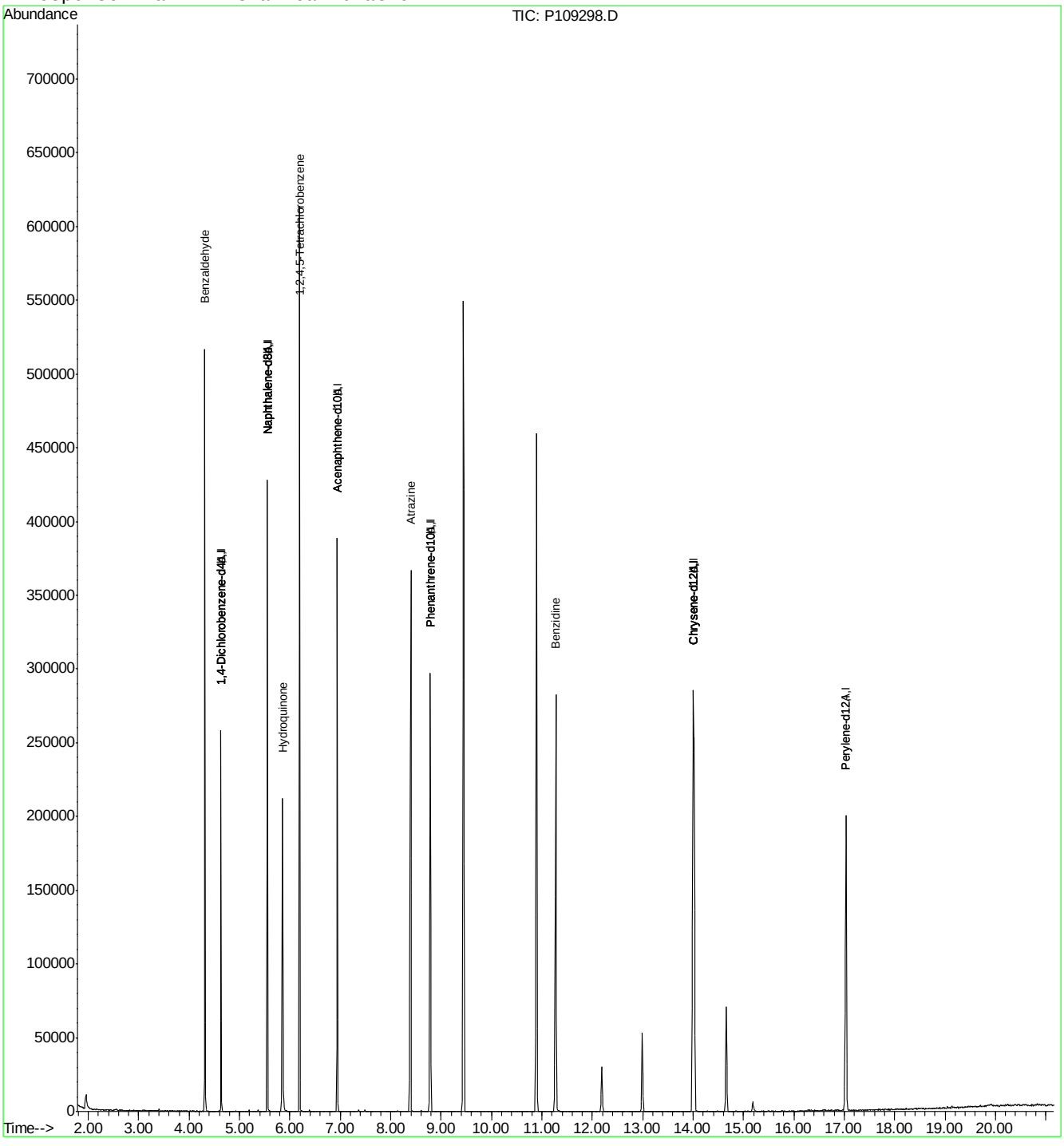
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109298.D Vial: 3
Acq On : 29 Nov 2016 10:17 am Operator: robertl1
Sample : IC4852-80 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 14:48 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109298.D MP4851.M Tue Nov 29 14:48:38 2016 Page 2

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SGS ACCUTEST
JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109299.D Vial: 4
Acq On : 29 Nov 2016 10:46 am Operator: robertl1
Sample : ICC4852-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:27 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.63	152	33865	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	127982	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	76690	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	138074	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	142139	40.00	ppm	-0.06
91) Perylene-d12	17.04	264	126382	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.63	152	33865	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	127982	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	76690	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	138074	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	142139	40.00	ppm	-0.06
154) Perylene-d12A	17.04	264	126382	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.63	152	33865	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	138074	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	142139	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	127982	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	76690	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	127982	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.63	152	33865	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	142139	40.00	ppm	-0.06
177) Chrysene-d12d	14.00	240	142139	40.00	ppm	-0.06
179) Naphthalene-d8d	5.55	136	127982	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	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%		

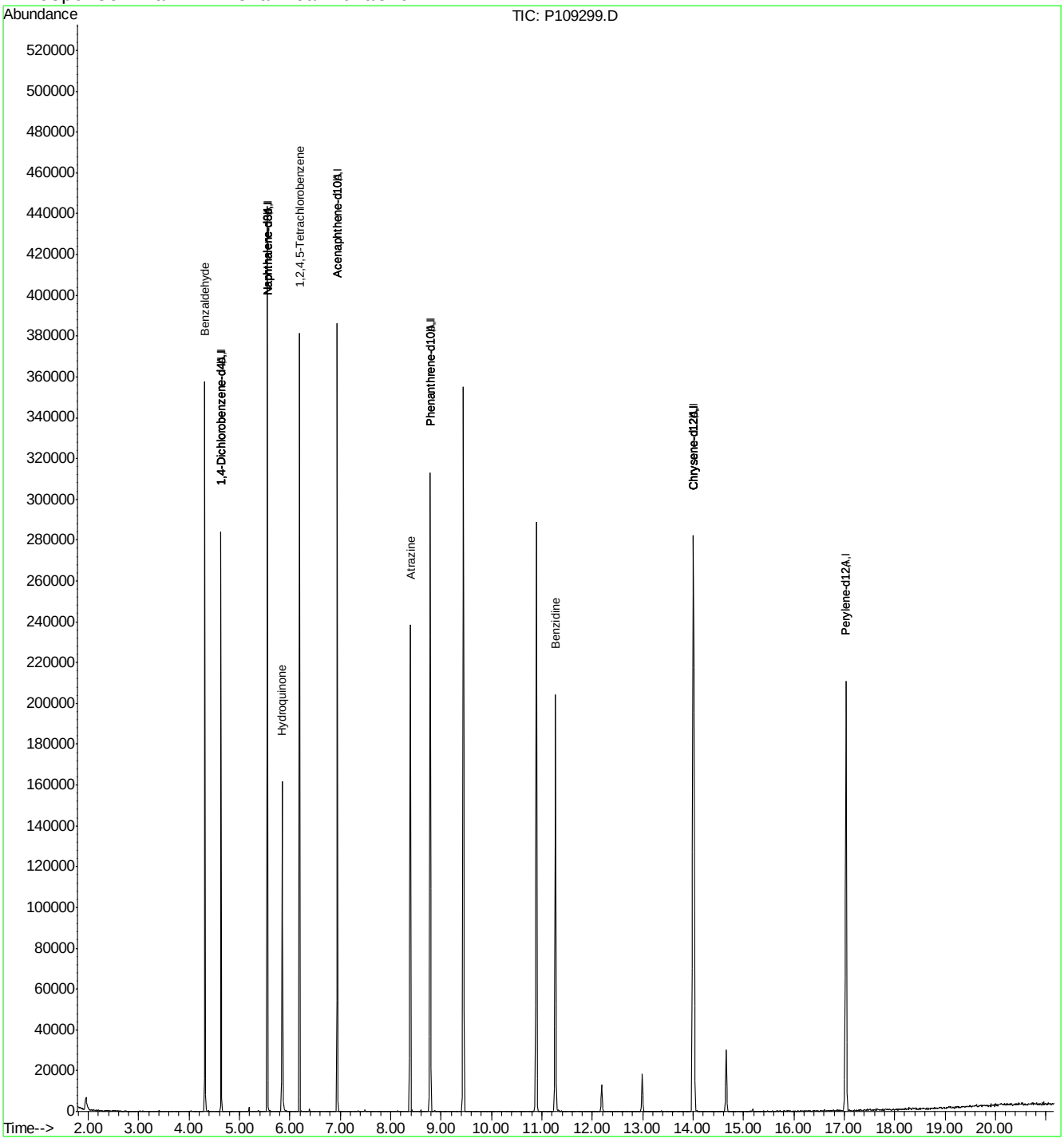
Target Compounds						Qvalue
159) Benzaldehyde	4.31	105	49379	51.49	ppm	93
161) Atrazine	8.39	200	34558	50.50	ppm	94
163) Benzidine	11.27	184	115795	56.28	ppm	97
165) Hydroquinone	5.85	110	66066	49.25	ppm	96
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	49516	51.75	ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109299.D Vial: 4
Acq On : 29 Nov 2016 10:46 am Operator: robertl1
Sample : ICC4852-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 14:49 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109300.D Vial: 5
Acq On : 29 Nov 2016 11:15 am Operator: robertl1
Sample : IC4852-25 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:29 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	32348	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	126593	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	76255	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	134868	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	142592	40.00	ppm	-0.05
91) Perylene-d12	17.04	264	126612	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	32348	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	126593	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	76255	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	134868	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	142592	40.00	ppm	-0.05
154) Perylene-d12A	17.04	264	126612	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	32348	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	134868	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	142592	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	126593	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	76255	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	126593	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	32348	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	142592	40.00	ppm	-0.05
177) Chrysene-d12d	14.00	240	142592	40.00	ppm	-0.05
179) Naphthalene-d8d	5.55	136	126593	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	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%			

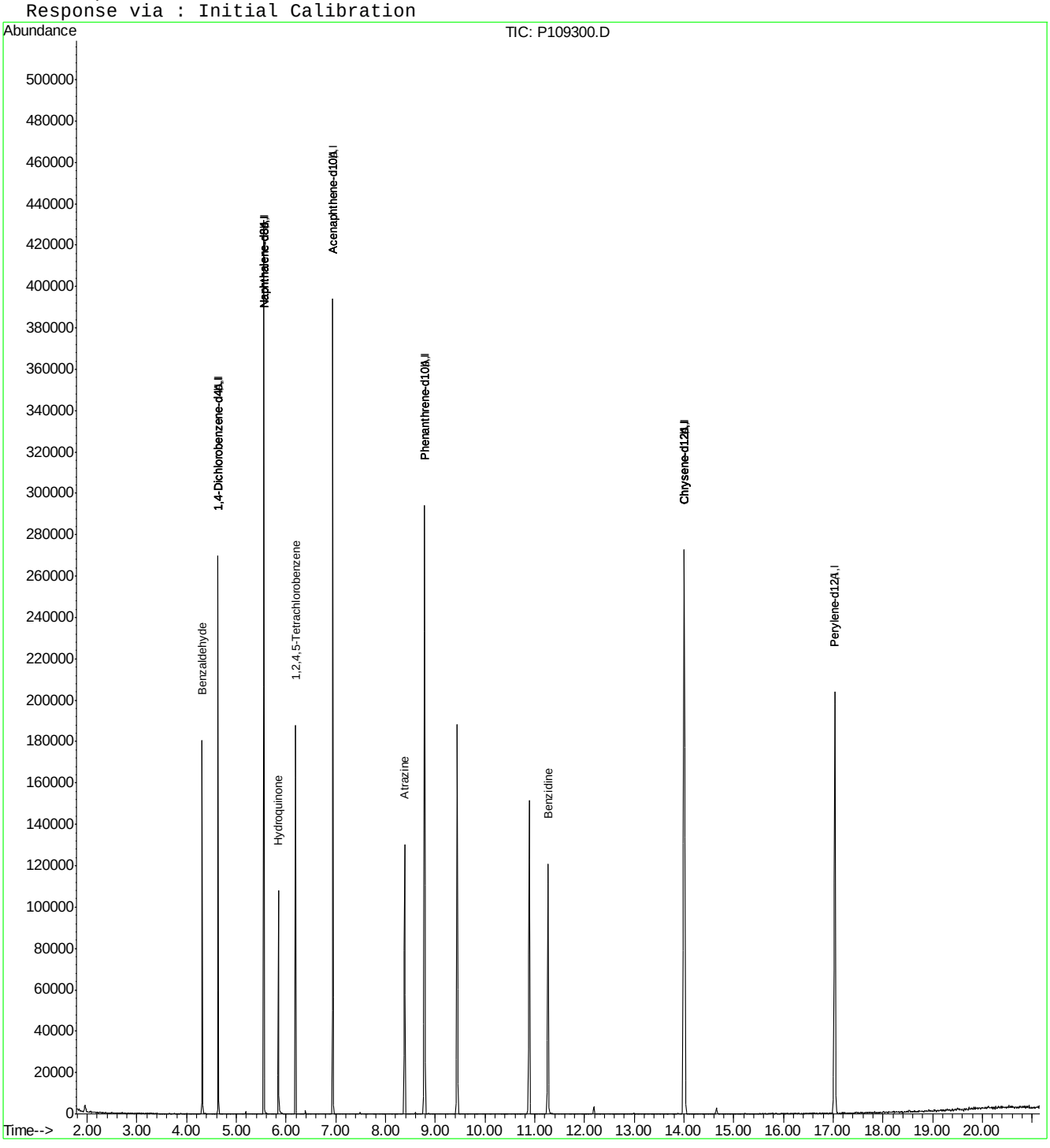
Target Compounds						Qvalue
159) Benzaldehyde	4.31	105	24613	26.87	ppm	93
161) Atrazine	8.39	200	17544	26.25	ppm	95
163) Benzidine	11.27	184	67456	32.68	ppm	97
165) Hydroquinone	5.85	110	32990	24.86	ppm	95
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	24573	25.83	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P109300.D MP4851.M Tue Nov 29 14:49:59 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109300.D Vial: 5
Acq On : 29 Nov 2016 11:15 am Operator: robertl1
Sample : IC4852-25 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 14:49 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109300.D MP4851.M Tue Nov 29 14:49:59 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109301.D Vial: 6
Acq On : 29 Nov 2016 11:45 am Operator: robertl1
Sample : IC4852-10 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:31 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	38012	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	142647	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	86797	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	156379	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	165185	40.00	ppm	-0.05
91) Perylene-d12	17.04	264	148706	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	38012	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	142647	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	86797	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	156379	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	165185	40.00	ppm	-0.05
154) Perylene-d12A	17.04	264	148706	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	38012	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	156379	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	165185	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	142647	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	86797	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	142647	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	38012	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	165185	40.00	ppm	-0.05
177) Chrysene-d12d	14.00	240	165185	40.00	ppm	-0.05
179) Naphthalene-d8d	5.55	136	142647	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	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
159) Benzaldehyde	4.31	105	12021	11.17	ppm	92
161) Atrazine	8.38	200	8212	10.60	ppm	84
163) Benzidine	11.26	184	33446	13.99	ppm	98
165) Hydroquinone	5.84	110	14480	9.68	ppm	94
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	11739	10.84	ppm	98

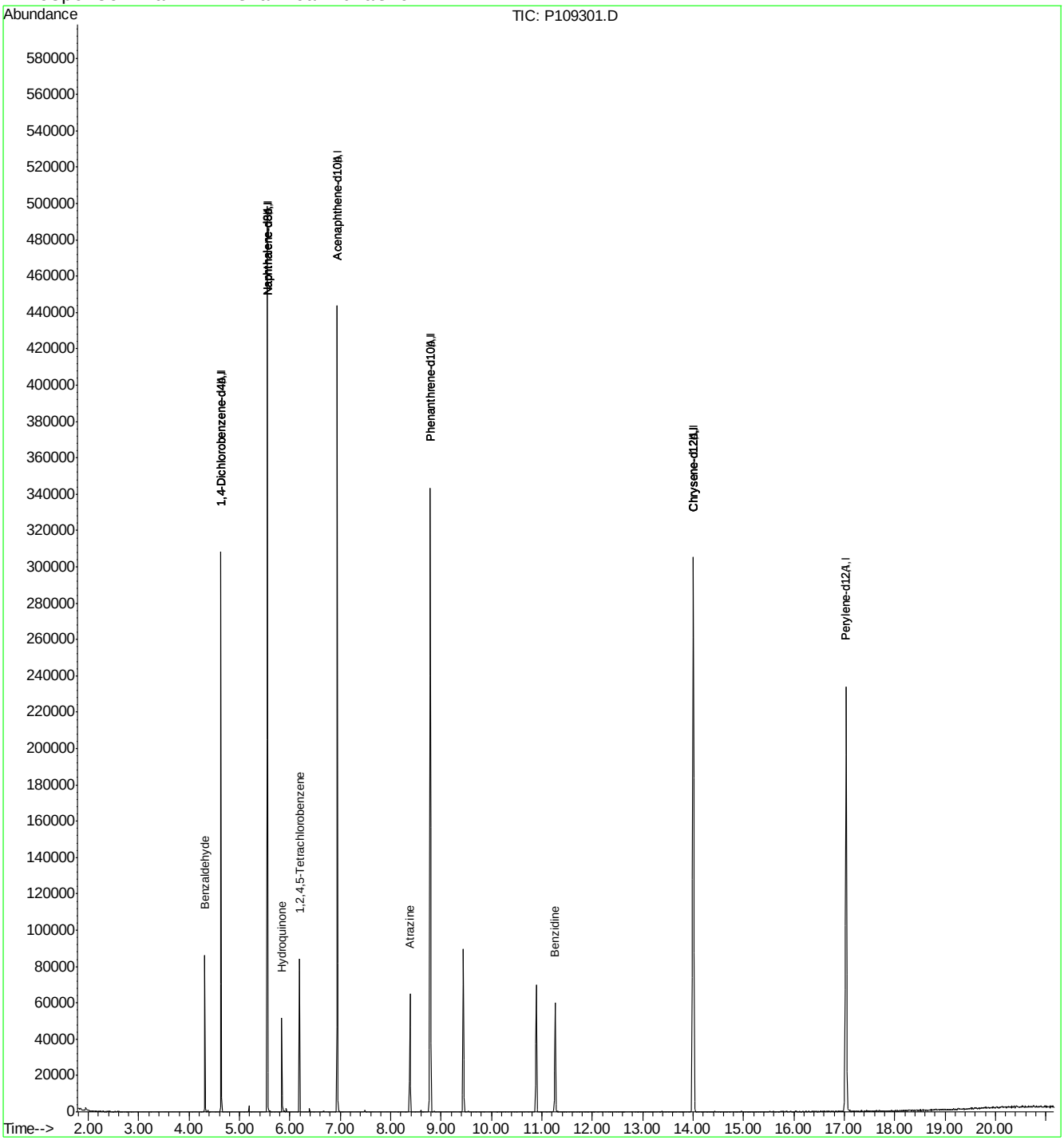
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109301.D Vial: 6
Acq On : 29 Nov 2016 11:45 am Operator: robertl1
Sample : IC4852-10 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 14:50 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109302.D Vial: 7
Acq On : 29 Nov 2016 12:13 pm Operator: robertl1
Sample : IC4852-5 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:33 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	34658	40.00 ppm	-0.02
24) Naphthalene-d8	5.55	136	132049	40.00 ppm	-0.02
47) Acenaphthene-d10	6.94	164	77027	40.00 ppm	-0.03
69) Phenanthrene-d10	8.78	188	138879	40.00 ppm	-0.04
83) Chrysene-d12	14.00	240	146855	40.00 ppm	-0.06
91) Perylene-d12	17.04	264	130199	40.00 ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	34658	40.00 ppm	-0.02
111) Naphthalene-d8A	5.55	136	132049	40.00 ppm	-0.02
120) Acenaphthene-d10A	6.94	164	77027	40.00 ppm	-0.03
131) Phenanthrene-d10A	8.78	188	138879	40.00 ppm	-0.04
146) Chrysene-d12A	14.00	240	146855	40.00 ppm	-0.06
154) Perylene-d12A	17.04	264	130199	40.00 ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	34658	40.00 ppm	0.00
160) Phenanthrene-d10b	8.78	188	138879	40.00 ppm	0.00
162) Chrysene-d12b	14.00	240	146855	40.00 ppm	0.00
164) Naphthalene-d8b	5.55	136	132049	40.00 ppm	0.00
166) Acenaphthene-d10b	6.94	164	77027	40.00 ppm	0.00
168) Naphthalene-d8c	5.55	136	132049	40.00 ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	34658	40.00 ppm	-0.02
175) Chrysene-d12c	14.00	240	146855	40.00 ppm	-0.06
177) Chrysene-d12d	14.00	240	146855	40.00 ppm	-0.06
179) Naphthalene-d8d	5.55	136	132049	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	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%		

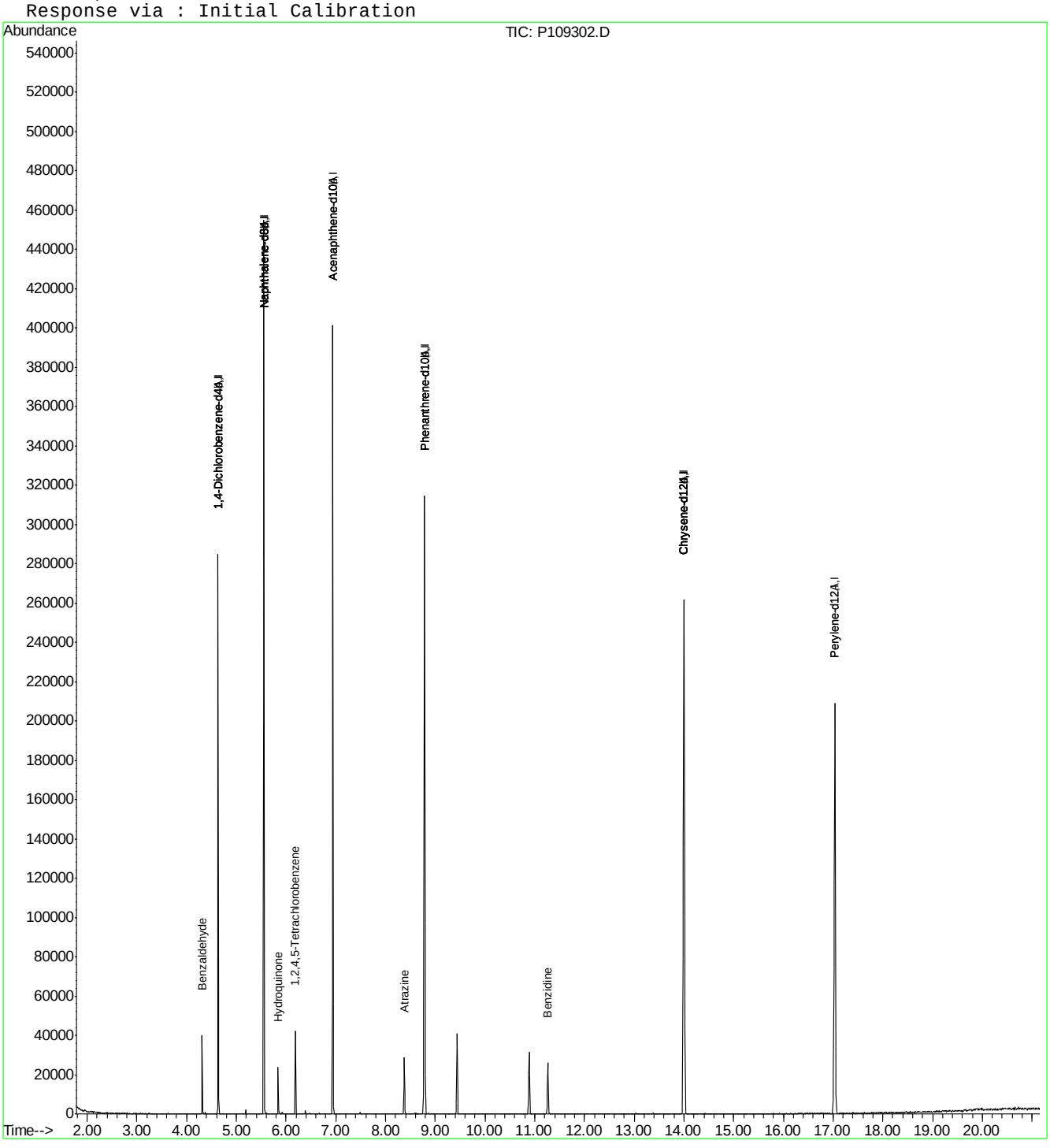
Target Compounds					Qvalue
159) Benzaldehyde	4.31	105	5848	5.96 ppm	92
161) Atrazine	8.38	200	3735	5.43 ppm	66
163) Benzidine	11.26	184	14896	7.01 ppm	96
165) Hydroquinone	5.84	110	6875	4.97 ppm	93
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	5803	6.04 ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P109302.D MP4851.M Tue Nov 29 15:03:49 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109302.D Vial: 7
Acq On : 29 Nov 2016 12:13 pm Operator: robertl1
Sample : IC4852-5 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:03 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109303.D Vial: 8
Acq On : 29 Nov 2016 12:42 pm Operator: robertl1
Sample : IC4852-2 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:31:35 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.63	152	34489	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	133694	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	80713	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	143318	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	149361	40.00	ppm	-0.06
91) Perylene-d12	17.04	264	132417	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.63	152	34489	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	133694	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	80713	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	143318	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	149361	40.00	ppm	-0.06
154) Perylene-d12A	17.04	264	132417	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.63	152	34489	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	143318	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	149361	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	133694	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	80713	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	133694	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.63	152	34489	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	149361	40.00	ppm	-0.06
177) Chrysene-d12d	14.00	240	149361	40.00	ppm	-0.06
179) Naphthalene-d8d	5.55	136	133694	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	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
159) Benzaldehyde	4.31	105	2470	2.53	ppm		90
161) Atrazine	8.38	200	1489	2.10	ppm		74
163) Benzidine	11.26	184	6062	2.80	ppm	#	67
165) Hydroquinone	5.84	110	2522	1.80	ppm		88
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	2271	2.26	ppm		99

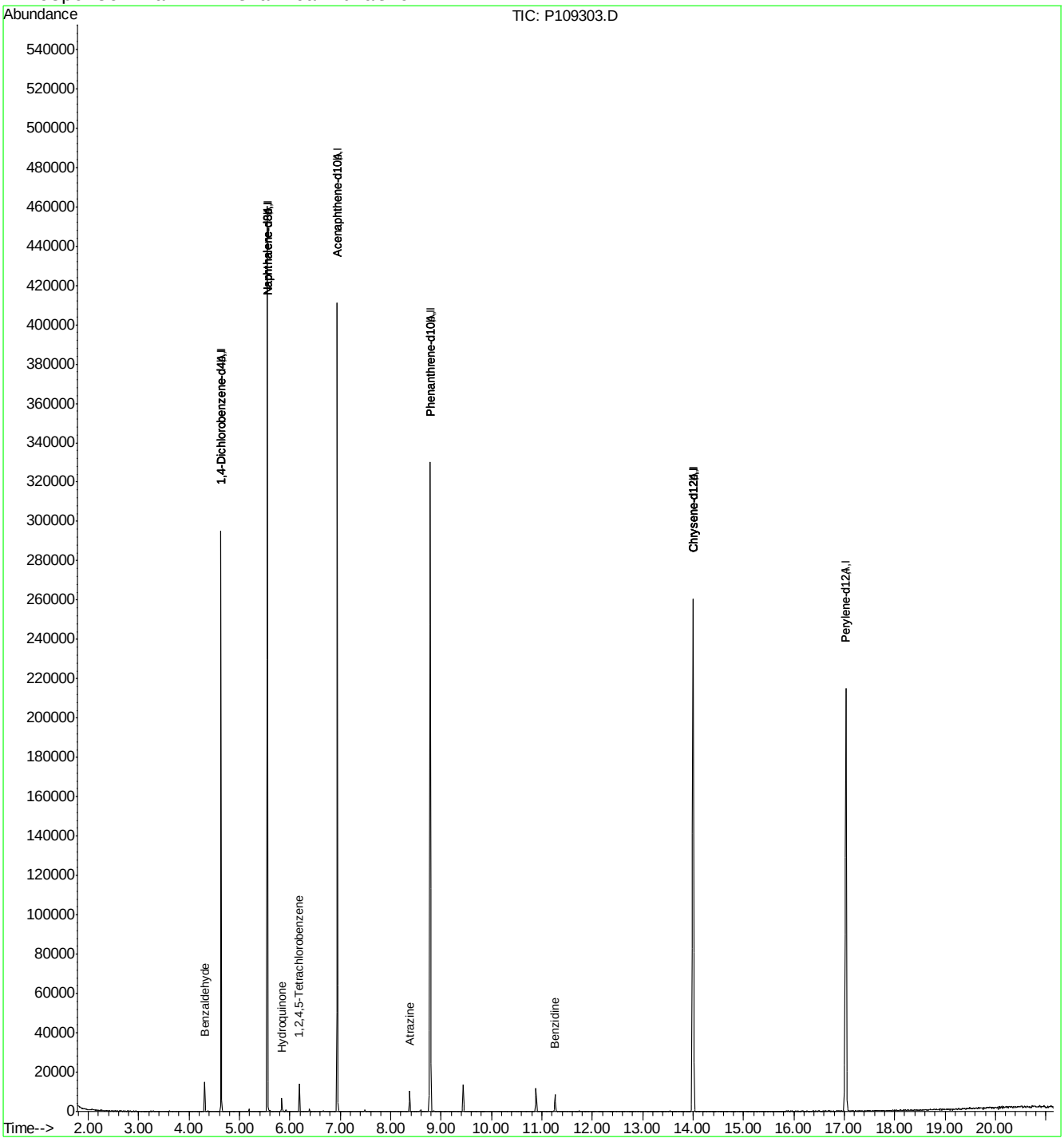
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109303.D Vial: 8
Acq On : 29 Nov 2016 12:42 pm Operator: robertl1
Sample : IC4852-2 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:04 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109304.D Vial: 9
Acq On : 29 Nov 2016 1:11 pm Operator: robertl1
Sample : IC4852-1 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 13:32:20 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 13:30:59 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.63	152	35455	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	134653	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	80969	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	145260	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	154322	40.00	ppm	-0.06
91) Perylene-d12	17.03	264	136345	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.63	152	35455	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	134653	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	80969	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	145260	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	154322	40.00	ppm	-0.06
154) Perylene-d12A	17.03	264	136345	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.63	152	35455	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	145260	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	154322	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	134653	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	80969	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	134653	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.63	152	35455	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	154322	40.00	ppm	-0.06
177) Chrysene-d12d	14.00	240	154322	40.00	ppm	-0.06
179) Naphthalene-d8d	5.55	136	134653	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	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%			

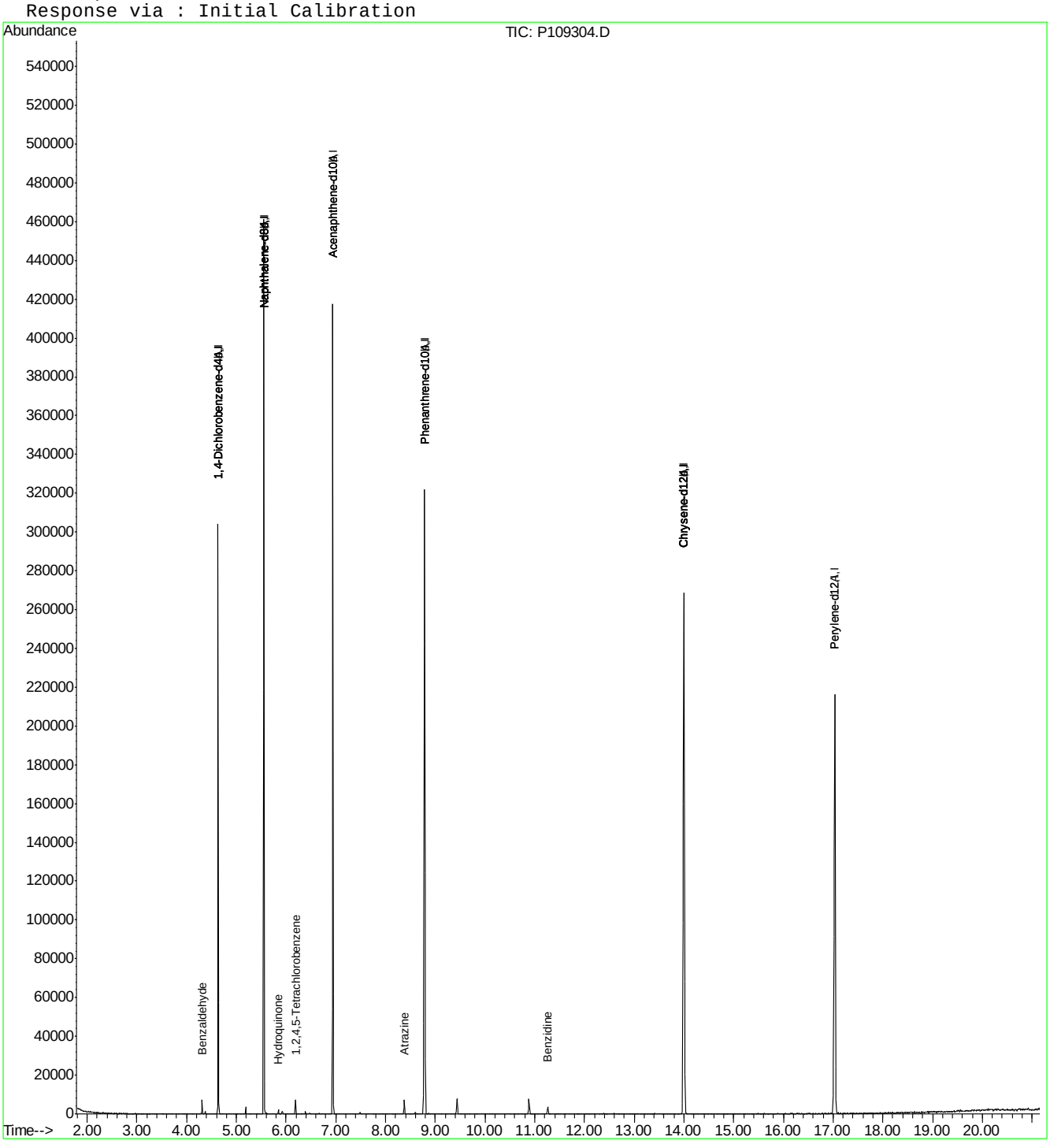
Target Compounds							Qvalue
159) Benzaldehyde	4.32	105	1190	1.19	ppm		93
161) Atrazine	8.38	200	1192	1.66	ppm		91
163) Benzidine	11.26	184	3263	1.46	ppm	#	67
165) Hydroquinone	5.85	110	1226	0.87	ppm		93
167) 1,2,4,5-Tetrachlorobenzene	6.19	216	1220	1.21	ppm		88

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P109304.D MP4851.M Tue Nov 29 15:04:59 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109304.D Vial: 9
Acq On : 29 Nov 2016 1:11 pm Operator: robertl1
Sample : IC4852-1 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:04 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109307.D Vial: 12
Acq On : 29 Nov 2016 2:37 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:05:20 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	30061	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	123384	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	73809	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	150954	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	159450	40.00	ppm	-0.06
91) Perylene-d12	17.04	264	133810	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	30061	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	123384	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	73809	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	150954	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	159450	40.00	ppm	-0.06
154) Perylene-d12A	17.04	264	133810	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	30061	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	150954	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	159450	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	123384	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	73809	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	123384	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	30061	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	159450	40.00	ppm	-0.06
177) Chrysene-d12d	14.00	240	159450	40.00	ppm	-0.06
179) Naphthalene-d8d	5.55	136	123384	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	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	2.60	79	68074	51.93	ppm	90
10) Aniline	4.40	93	101797	52.31	ppm	74
16) Benzyl alcohol	4.74	108	41218	56.67	ppm	96
39) 4-Chloroaniline	5.60	127	66851	47.25	ppm	98
44) 2-Methylnaphthalene	6.06	141	83544	43.91	ppm	96
54) 2-Nitroaniline	6.53	65	42281	50.80	ppm	99
58) 3-Nitroaniline	6.90	138	33823	52.98	ppm	96
62) Dibenzofuran	7.15	168	147858	47.76	ppm	90
68) 4-Nitroaniline	7.55	138	35728	56.55	ppm	88
79) Carbazole	9.18	167	184786	46.11	ppm	97

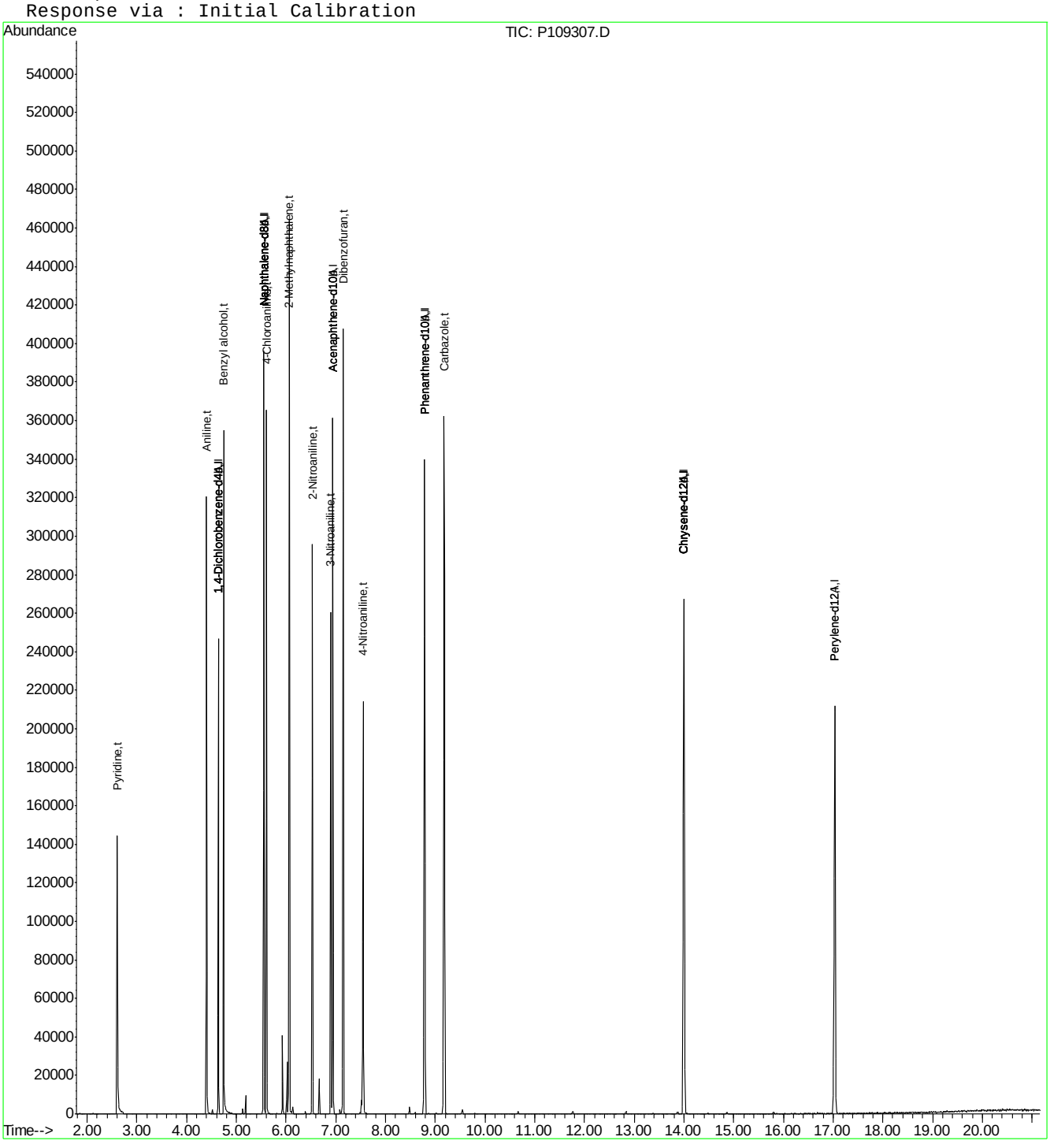
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109307.D Vial: 12
Acq On : 29 Nov 2016 2:37 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:28 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109308.D Vial: 13
Acq On : 29 Nov 2016 3:06 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:27:47 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	34089	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	117801	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	74965	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	137109	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	139976	40.00	ppm	-0.06
91) Perylene-d12	17.03	264	120411	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	34089	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	117801	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	74965	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	137109	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	139976	40.00	ppm	-0.06
154) Perylene-d12A	17.03	264	120411	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	34089	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	137109	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	139976	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	117801	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	74965	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	117801	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	34089	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	139976	40.00	ppm	-0.06
177) Chrysene-d12d	14.00	240	139976	40.00	ppm	-0.06
179) Naphthalene-d8d	5.55	136	117801	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	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
9) Phenol	4.40	94	90671	46.02	ppm		96
12) 2-Chlorophenol	4.49	128	62360	49.55	ppm		98
19) 2-Methylphenol	4.83	108	59160	50.62	ppm		96
21) 3&4-Methylphenol	4.94	108	62076	50.65	ppm		97
29) 2-Nitrophenol	5.28	139	32770	52.30	ppm	#	72
30) 2,4-Dimethylphenol	5.32	107	65573	57.92	ppm		94
31) Benzoic acid	5.41	105	41004	51.74	ppm		96
33) 2,4-Dichlorophenol	5.46	162	47722	52.65	ppm		95
34) 2,6-Dichlorophenol	5.62	162	45646	52.30	ppm		99
43) 4-Chloro-3-methylphenol	5.95	107	57156	51.52	ppm		82
49) 2,4,6-Trichlorophenol	6.28	196	37320	51.45	ppm		95
50) 2,4,5-Trichlorophenol	6.32	196	37050	49.27	ppm		90

(#) = qualifier out of range (m) = manual integration
P109308.D MP4851.M Tue Nov 29 15:30:26 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109308.D Vial: 13
Acq On : 29 Nov 2016 3:06 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:27:47 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

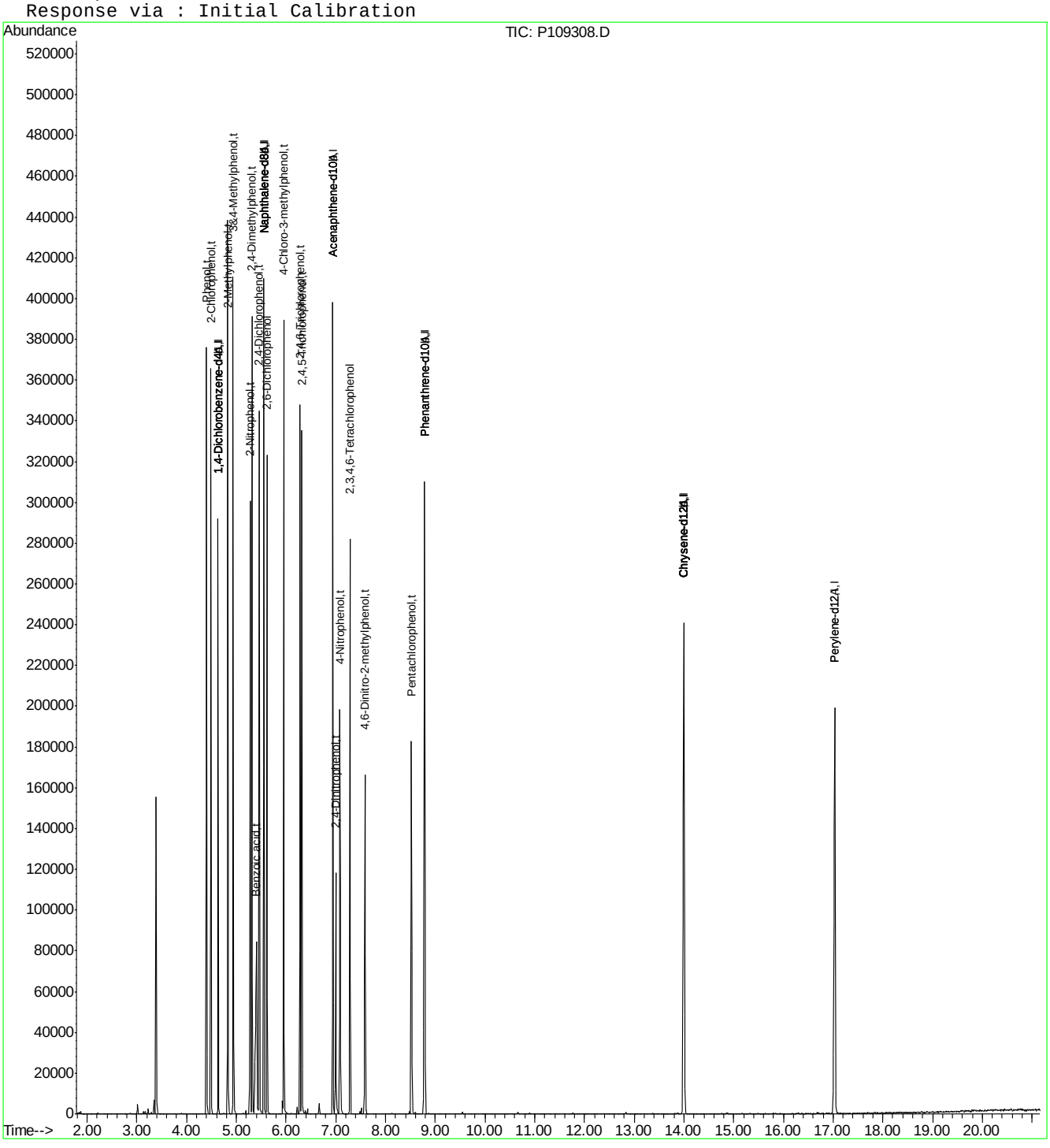
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
60) 2,4-Dinitrophenol	7.00	184	13345	50.26	ppm	84
61) 4-Nitrophenol	7.08	109	23312	53.20	ppm	92
64) 2,3,4,6-Tetrachlorophenol	7.28	232	30810	52.50	ppm	92
70) 4,6-Dinitro-2-methylphenol	7.59	198	23078	52.25	ppm	77
76) Pentachlorophenol	8.52	266	23154	52.08	ppm	97

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109308.D Vial: 13
Acq On : 29 Nov 2016 3:06 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:30 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109309.D Vial: 14
Acq On : 29 Nov 2016 3:34 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:56:12 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.64	152	37478	40.00	ppm	-0.02
24) Naphthalene-d8	5.55	136	139805	40.00	ppm	-0.02
47) Acenaphthene-d10	6.94	164	85135	40.00	ppm	-0.03
69) Phenanthrene-d10	8.78	188	151349	40.00	ppm	-0.04
83) Chrysene-d12	14.00	240	147617	40.00	ppm	-0.06
91) Perylene-d12	17.04	264	128915	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.64	152	37478	40.00	ppm	-0.02
111) Naphthalene-d8A	5.55	136	139805	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.94	164	85135	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.78	188	151349	40.00	ppm	-0.04
146) Chrysene-d12A	14.00	240	147617	40.00	ppm	-0.06
154) Perylene-d12A	17.04	264	128915	40.00	ppm	-0.05
158) 1,4-Dichlorobenzene-d4b	4.64	152	37478	40.00	ppm	0.00
160) Phenanthrene-d10b	8.78	188	151349	40.00	ppm	0.00
162) Chrysene-d12b	14.00	240	147617	40.00	ppm	0.00
164) Naphthalene-d8b	5.55	136	139805	40.00	ppm	0.00
166) Acenaphthene-d10b	6.94	164	85135	40.00	ppm	0.00
168) Naphthalene-d8c	5.55	136	139805	40.00	ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.64	152	37478	40.00	ppm	-0.02
175) Chrysene-d12c	14.00	240	147617	40.00	ppm	-0.06
177) Chrysene-d12d	14.00	240	147617	40.00	ppm	-0.06
179) Naphthalene-d8d	5.55	136	139805	40.00	ppm	-0.02

System Monitoring Compounds						
5) 2-Fluorophenol	3.68	112	71610	47.68	ppm	-0.02
Spiked Amount 50.000			Recovery = 95.36%			
8) Phenol-d5	4.39	99	90849	46.91	ppm	-0.03
Spiked Amount 50.000			Recovery = 93.82%			
25) Nitrobenzene-d5	5.03	82	91775	49.07	ppm	-0.02
Spiked Amount 50.000			Recovery = 98.14%			
51) 2-Fluorobiphenyl	6.34	172	143939	48.63	ppm	-0.02
Spiked Amount 50.000			Recovery = 97.26%			
73) 2,4,6-Tribromophenol	7.82	330	18288	48.35	ppm	-0.03
Spiked Amount 50.000			Recovery = 96.70%			
85) Terphenyl-d14	11.80	244	156638	52.18	ppm	-0.04
Spiked Amount 50.000			Recovery = 104.36%			

Target Compounds Qvalue

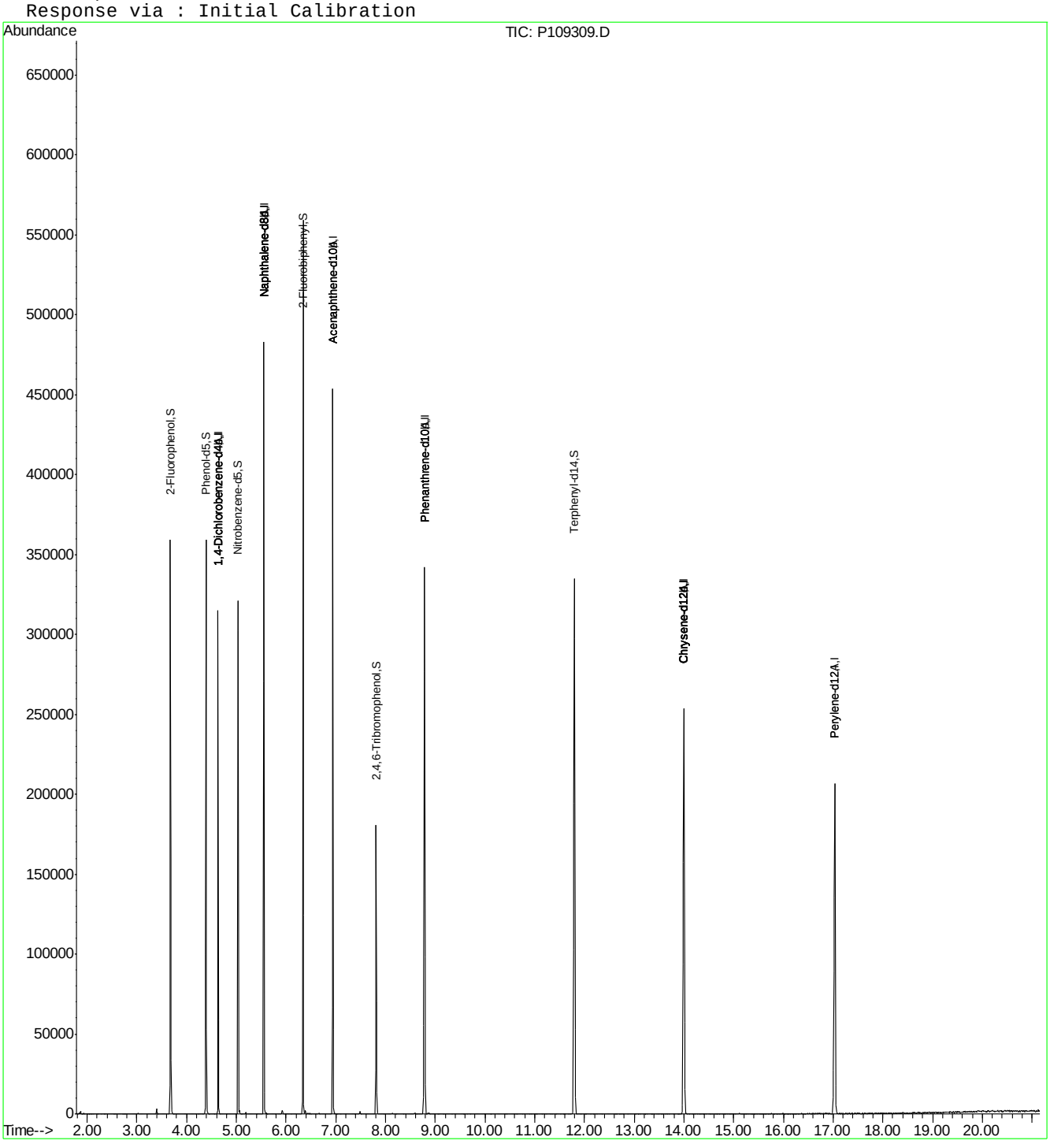
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109309.D Vial: 14
Acq On : 29 Nov 2016 3:34 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 15:58 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109309.D MP4851.M Tue Nov 29 15:58:06 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109311a.D Vial: 16
Acq On : 29 Nov 2016 4:32 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 16:53:49 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.63	152	54652	40.00 ppm	-0.02
24) Naphthalene-d8	5.55	136	203626	40.00 ppm	-0.02
47) Acenaphthene-d10	6.94	164	119122	40.00 ppm	-0.03
69) Phenanthrene-d10	8.78	188	211886	40.00 ppm	-0.04
83) Chrysene-d12	14.00	240	208137	40.00 ppm	-0.05
91) Perylene-d12	17.04	264	191502	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.63	152	54652	40.00 ppm	-0.02
111) Naphthalene-d8A	5.55	136	203626	40.00 ppm	-0.02
120) Acenaphthene-d10A	6.94	164	119122	40.00 ppm	-0.03
131) Phenanthrene-d10A	8.78	188	211886	40.00 ppm	-0.04
146) Chrysene-d12A	14.00	240	208137	40.00 ppm	-0.05
154) Perylene-d12A	17.04	264	191502	40.00 ppm	-0.04
158) 1,4-Dichlorobenzene-d4b	4.63	152	54652	40.00 ppm	0.00
160) Phenanthrene-d10b	8.78	188	211886	40.00 ppm	0.00
162) Chrysene-d12b	14.00	240	208137	40.00 ppm	0.00
164) Naphthalene-d8b	5.55	136	203626	40.00 ppm	0.00
166) Acenaphthene-d10b	6.94	164	119122	40.00 ppm	0.00
168) Naphthalene-d8c	5.55	136	203626	40.00 ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.63	152	54652	40.00 ppm	-0.02
175) Chrysene-d12c	14.00	240	208137	40.00 ppm	-0.05
177) Chrysene-d12d	14.00	240	208137	40.00 ppm	-0.05
179) Naphthalene-d8d	5.55	136	203626	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	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%		

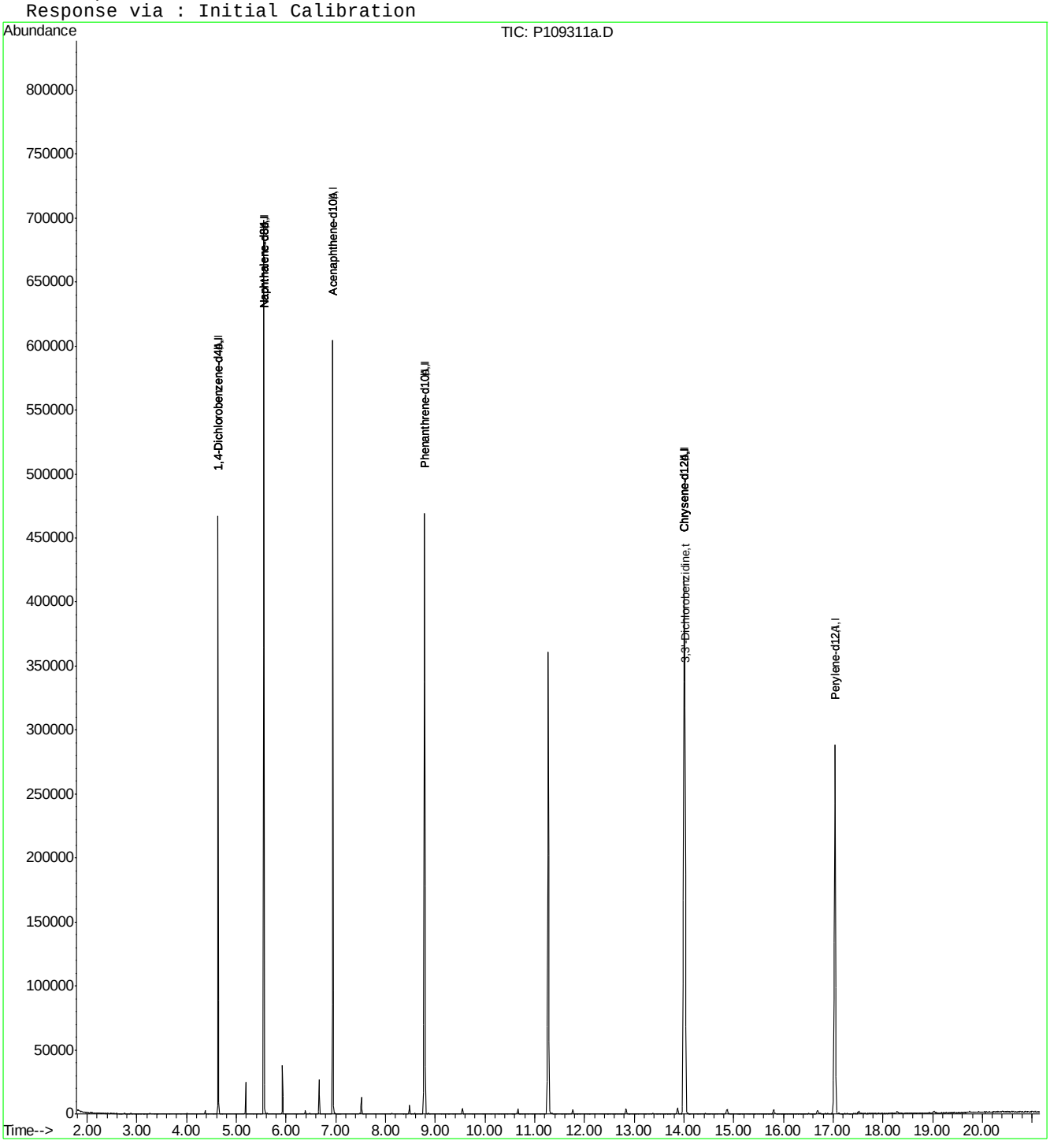
Target Compounds					Qvalue
88) 3,3'-Dichlorobenzidine	14.03	252	102050	50.22 ppm	99

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109311a.D Vial: 16
Acq On : 29 Nov 2016 4:32 pm Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 16:57 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109311.D Vial: 16
Acq On : 29 Nov 2016 4:32 pm Operator: robertl1
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 16:53:49 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.63	152	54652	40.00 ppm	-0.02
24) Naphthalene-d8	5.55	136	203626	40.00 ppm	-0.02
47) Acenaphthene-d10	6.94	164	119122	40.00 ppm	-0.03
69) Phenanthrene-d10	8.78	188	211886	40.00 ppm	-0.04
83) Chrysene-d12	14.00	240	208137	40.00 ppm	-0.05
91) Perylene-d12	17.04	264	191502	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.63	152	54652	40.00 ppm	-0.02
111) Naphthalene-d8A	5.55	136	203626	40.00 ppm	-0.02
120) Acenaphthene-d10A	6.94	164	119122	40.00 ppm	-0.03
131) Phenanthrene-d10A	8.78	188	211886	40.00 ppm	-0.04
146) Chrysene-d12A	14.00	240	208137	40.00 ppm	-0.05
154) Perylene-d12A	17.04	264	191502	40.00 ppm	-0.04
158) 1,4-Dichlorobenzene-d4b	4.63	152	54652	40.00 ppm	0.00
160) Phenanthrene-d10b	8.78	188	211886	40.00 ppm	0.00
162) Chrysene-d12b	14.00	240	208137	40.00 ppm	0.00
164) Naphthalene-d8b	5.55	136	203626	40.00 ppm	0.00
166) Acenaphthene-d10b	6.94	164	119122	40.00 ppm	0.00
168) Naphthalene-d8c	5.55	136	203626	40.00 ppm	-0.02
173) 1,4-Dichlorobenzene-d4c	4.63	152	54652	40.00 ppm	-0.02
175) Chrysene-d12c	14.00	240	208137	40.00 ppm	-0.05
177) Chrysene-d12d	14.00	240	208137	40.00 ppm	-0.05
179) Naphthalene-d8d	5.55	136	203626	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	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
163) Benzidine	11.27	184	215917	55.05 ppm	98

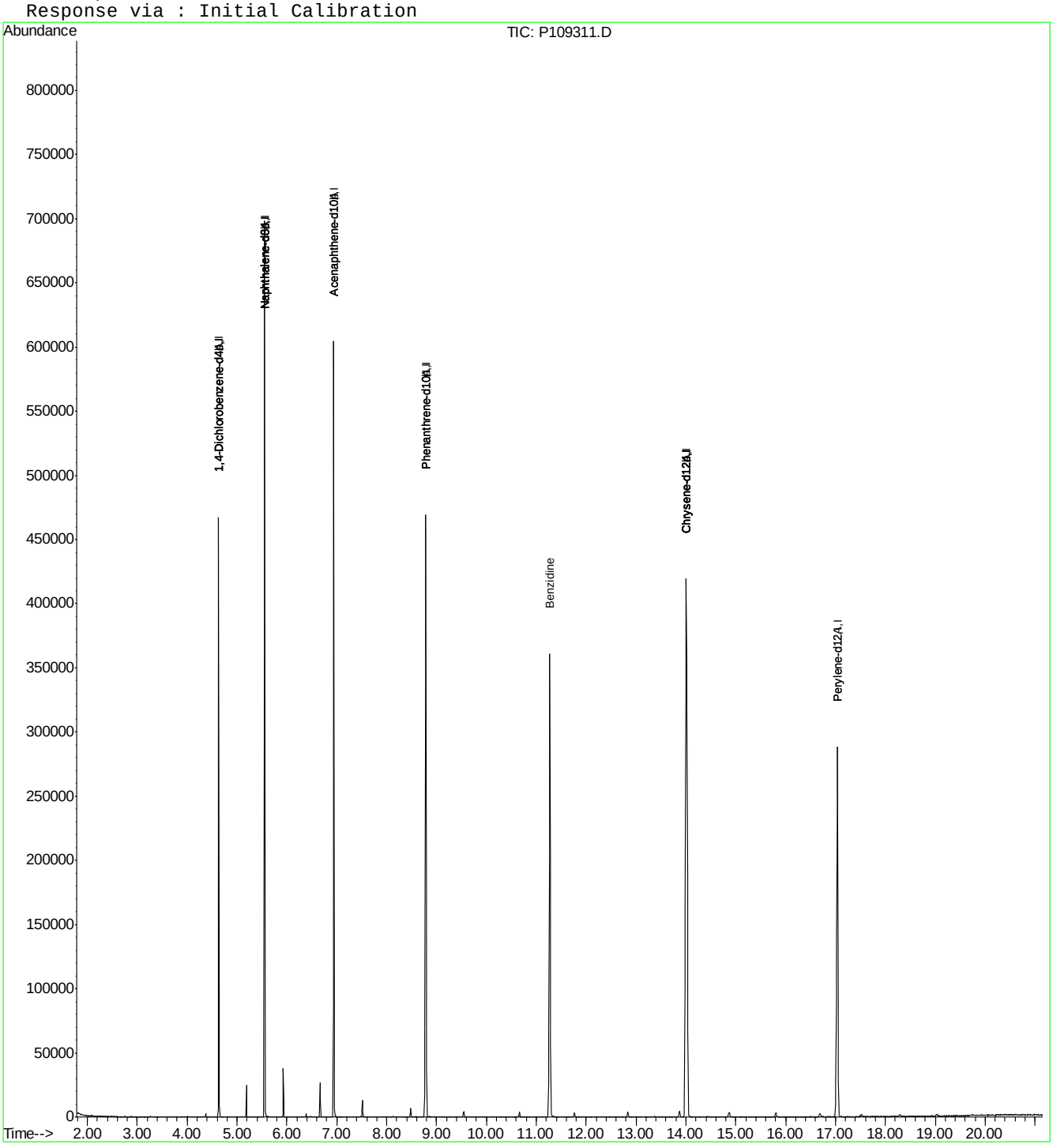
(#) = qualifier out of range (m) = manual integration (+) = signals summed
P109311.D MP4851.M Tue Nov 29 16:57:01 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4852\P109311.D Vial: 16
Acq On : 29 Nov 2016 4:32 pm Operator: robertl1
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4852 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 16:56 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109314.D Vial: 2
Acq On : 29 Nov 2016 8:37 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 20:59:06 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.62	152	37481	40.00 ppm	-0.04
24) Naphthalene-d8	5.54	136	135095	40.00 ppm	-0.04
47) Acenaphthene-d10	6.92	164	81219	40.00 ppm	-0.05
69) Phenanthrene-d10	8.75	188	145094	40.00 ppm	-0.07
83) Chrysene-d12	13.97	240	133454	40.00 ppm	-0.09
91) Perylene-d12	17.00	264	96714	40.00 ppm	-0.09
101) 1,4-Dichlorobenzene-d4A	4.62	152	37481	40.00 ppm	-0.04
111) Naphthalene-d8A	5.54	136	135095	40.00 ppm	-0.04
120) Acenaphthene-d10A	6.92	164	81219	40.00 ppm	-0.05
131) Phenanthrene-d10A	8.75	188	145094	40.00 ppm	-0.07
146) Chrysene-d12A	13.97	240	133454	40.00 ppm	-0.09
154) Perylene-d12A	17.00	264	96714	40.00 ppm	-0.09
158) 1,4-Dichlorobenzene-d4b	4.62	152	37481	40.00 ppm	-0.02
160) Phenanthrene-d10b	8.75	188	145094	40.00 ppm	-0.03
162) Chrysene-d12b	13.97	240	133454	40.00 ppm	-0.04
164) Naphthalene-d8b	5.54	136	135095	40.00 ppm	-0.02
166) Acenaphthene-d10b	6.92	164	81219	40.00 ppm	-0.02
168) Naphthalene-d8c	5.54	136	135095	40.00 ppm	-0.04
173) 1,4-Dichlorobenzene-d4c	4.62	152	37481	40.00 ppm	-0.04
175) Chrysene-d12c	13.97	240	133454	40.00 ppm	-0.09
177) Chrysene-d12d	13.97	240	133454	40.00 ppm	-0.09
179) Naphthalene-d8d	5.54	136	135095	40.00 ppm	-0.04

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
4) N-Nitrosodimethylamine	2.46	42	25437	37.27 ppm		84
11) bis(2-Chloroethyl)ether	4.42	93	76055	51.09 ppm		98
14) 1,3-Dichlorobenzene	4.57	146	69953	47.41 ppm		98
15) 1,4-Dichlorobenzene	4.63	146	67813	46.63 ppm		97
17) 1,2-Dichlorobenzene	4.74	146	65648	47.45 ppm		99
20) 2,2'-oxybis(1-Chloropropan	4.81	121	21751	49.66 ppm	#	78
22) n-Nitroso-di-n-propylamine	4.90	70	55703	44.09 ppm		91
23) Hexachloroethane	4.99	201	25018	48.32 ppm		88
26) Nitrobenzene	5.03	77	82165	46.13 ppm		89
28) Isophorone	5.20	82	139794	44.86 ppm		95
32) bis(2-Chloroethoxy)methane	5.35	93	88264	52.23 ppm		98
36) 1,2,4-Trichlorobenzene	5.49	180	56684	48.07 ppm		97

(#) = qualifier out of range (m) = manual integration
P109314.D MP4851.M Wed Nov 30 09:37:56 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109314.D Vial: 2
Acq On : 29 Nov 2016 8:37 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 20:59:06 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	Naphthalene	5.55	128	161817	44.92 ppm	98
42)	Hexachlorobutadiene	5.64	225	35169	49.19 ppm	98
48)	Hexachlorocyclopentadiene	6.17	237	35008	54.45 ppm	98
52)	2-Chloronaphthalene	6.42	162	117247	51.43 ppm	95
55)	Dimethylphthalate	6.66	163	126573	46.91 ppm	98
56)	Acenaphthylene	6.79	152	174187	45.65 ppm	97
57)	2,6-Dinitrotoluene	6.72	165	28539	49.82 ppm	76
59)	Acenaphthene	6.95	153	107817	47.00 ppm	94
63)	2,4-Dinitrotoluene	7.11	165	37175	46.68 ppm	96
65)	Diethylphthalate	7.36	149	132654	45.41 ppm	96
66)	Fluorene	7.50	166	123551	45.03 ppm	96
67)	4-Chlorophenyl-phenylether	7.50	204	66432	47.21 ppm	95
71)	n-Nitrosodiphenylamine	7.63	169	82038	41.21 ppm	98
72)	1,2-Diphenylhydrazine	7.68	77	155117	44.62 ppm	90
74)	4-Bromophenyl-phenylether	8.11	248	38670	46.56 ppm	90
75)	Hexachlorobenzene	8.21	284	37403	46.02 ppm	96
77)	Phenanthrene	8.79	178	171692	45.42 ppm	100
78)	Anthracene	8.87	178	170398	44.77 ppm	98
80)	Di-n-butylphthalate	9.83	149	226552	44.79 ppm	99
81)	Fluoranthene	10.90	202	205280	43.90 ppm	100
84)	Pyrene	11.34	202	204582	47.08 ppm	98
86)	Butylbenzylphthalate	12.92	149	104737	50.48 ppm	95
87)	Benzo[a]anthracene	13.94	228	180404	46.60 ppm	99
89)	Chrysene	14.02	228	152083	44.33 ppm	99
90)	bis(2-Ethylhexyl)phthalate	14.32	149	123607	48.01 ppm	98
92)	Di-n-octylphthalate	15.76	149	213087	50.26 ppm	98
93)	Benzo[b]fluoranthene	16.25	252	145525	45.53 ppm	97
94)	Benzo[k]fluoranthene	16.31	252	133393	47.68 ppm	99
95)	Benzo[a]pyrene	16.88	252	135717	48.83 ppm	99
96)	Indeno[1,2,3-cd]pyrene	18.93	276	121074	50.66 ppm	96
98)	Dibenz[a,h]anthracene	18.99	278	115719	48.43 ppm	98
100)	Benzo[g,h,i]perylene	19.37	276	120656	49.51 ppm	98

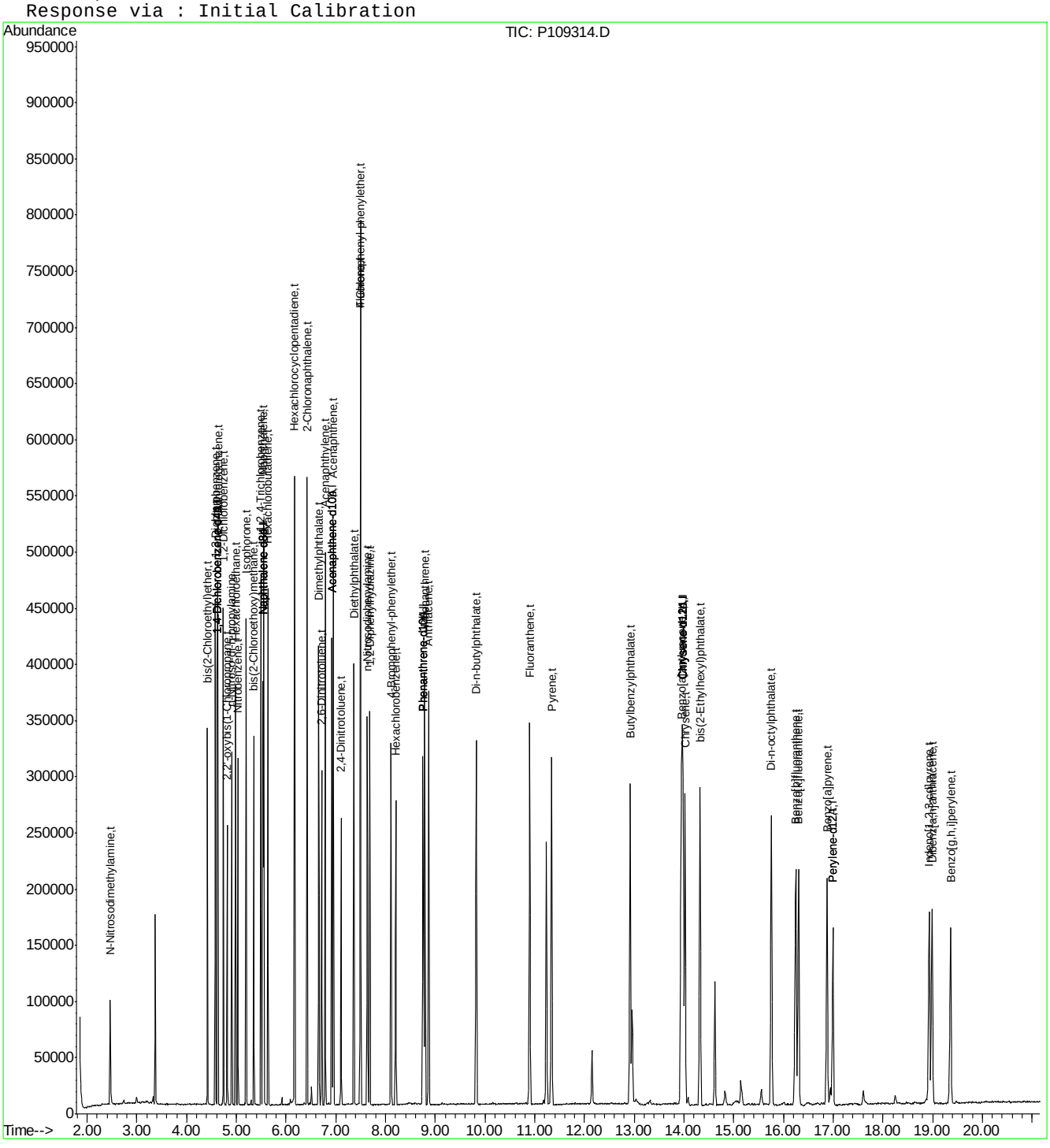
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109314.D Vial: 2
Acq On : 29 Nov 2016 8:37 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 9:36 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109314a.D Vial: 2
Acq On : 29 Nov 2016 8:37 pm Operator: juliusj
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 20:59:06 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.62	152	37481	40.00 ppm	-0.04
24) Naphthalene-d8	5.54	136	135095	40.00 ppm	-0.04
47) Acenaphthene-d10	6.92	164	81219	40.00 ppm	-0.05
69) Phenanthrene-d10	8.75	188	145094	40.00 ppm	-0.07
83) Chrysene-d12	13.97	240	133454	40.00 ppm	-0.09
91) Perylene-d12	17.00	264	96714	40.00 ppm	-0.09
101) 1,4-Dichlorobenzene-d4A	4.62	152	37481	40.00 ppm	-0.04
111) Naphthalene-d8A	5.54	136	135095	40.00 ppm	-0.04
120) Acenaphthene-d10A	6.92	164	81219	40.00 ppm	-0.05
131) Phenanthrene-d10A	8.75	188	145094	40.00 ppm	-0.07
146) Chrysene-d12A	13.97	240	133454	40.00 ppm	-0.09
154) Perylene-d12A	17.00	264	96714	40.00 ppm	-0.09
158) 1,4-Dichlorobenzene-d4b	4.62	152	37481	40.00 ppm	-0.02
160) Phenanthrene-d10b	8.75	188	145094	40.00 ppm	-0.03
162) Chrysene-d12b	13.97	240	133454	40.00 ppm	-0.04
164) Naphthalene-d8b	5.54	136	135095	40.00 ppm	-0.02
166) Acenaphthene-d10b	6.92	164	81219	40.00 ppm	-0.02
168) Naphthalene-d8c	5.54	136	135095	40.00 ppm	-0.04
173) 1,4-Dichlorobenzene-d4c	4.62	152	37481	40.00 ppm	-0.04
175) Chrysene-d12c	13.97	240	133454	40.00 ppm	-0.09
177) Chrysene-d12d	13.97	240	133454	40.00 ppm	-0.09
179) Naphthalene-d8d	5.54	136	135095	40.00 ppm	-0.04

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%		

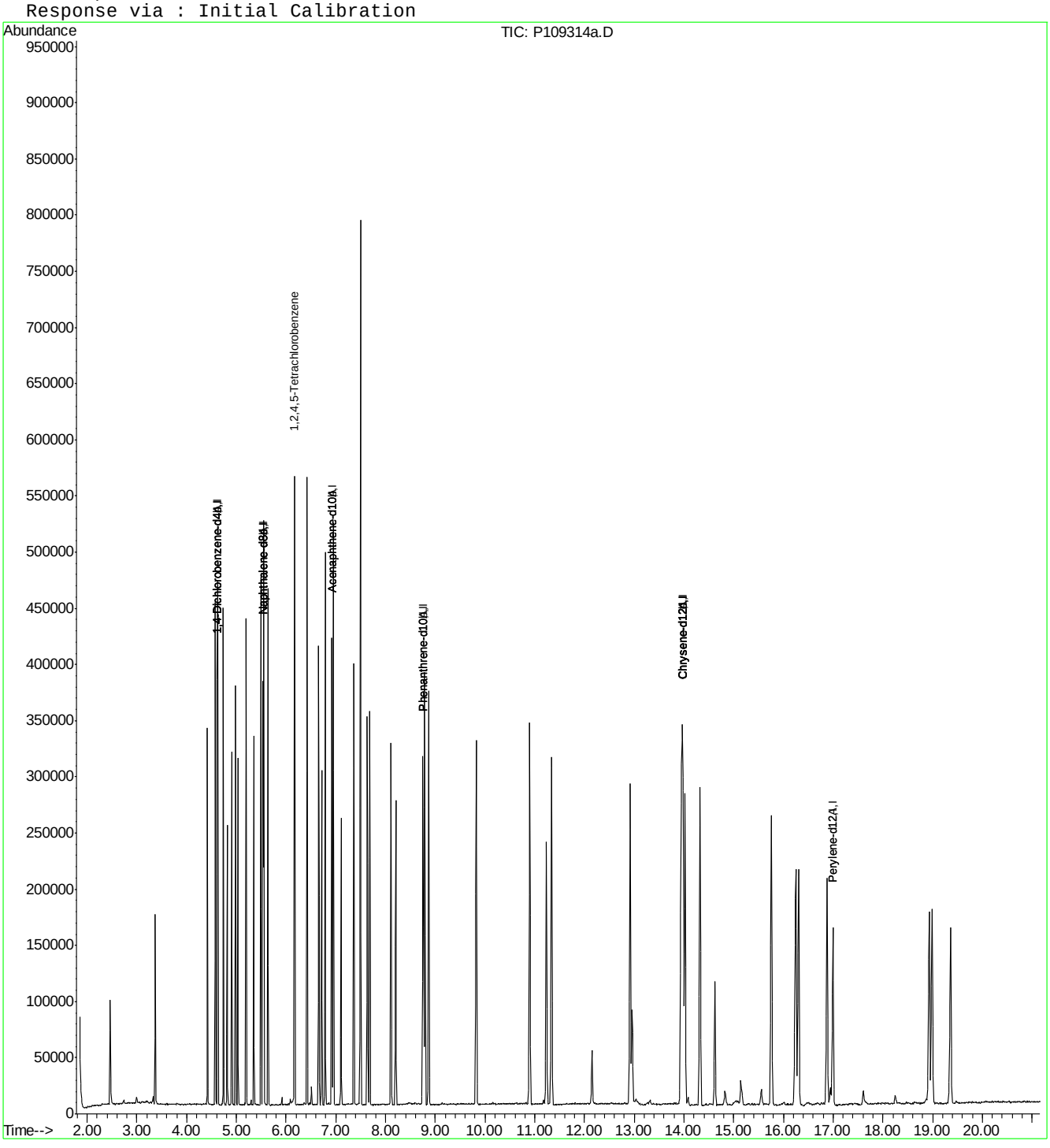
Target Compounds					Qvalue
167) 1,2,4,5-Tetrachlorobenzene	6.17	216	60308	55.06 ppm	98

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109314a.D Vial: 2
Acq On : 29 Nov 2016 8:37 pm Operator: juliusj
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 9:37 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109315a.D Vial: 3
Acq On : 29 Nov 2016 9:06 pm Operator: juliusj
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 21:27:38 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.62	152	35427	40.00 ppm	-0.04
24) Naphthalene-d8	5.53	136	152520	40.00 ppm	-0.04
47) Acenaphthene-d10	6.92	164	79222	40.00 ppm	-0.05
69) Phenanthrene-d10	8.75	188	139034	40.00 ppm	-0.07
83) Chrysene-d12	13.95	240	148028	40.00 ppm	-0.10
91) Perylene-d12	16.99	264	118064	40.00 ppm	-0.10
101) 1,4-Dichlorobenzene-d4A	4.62	152	35427	40.00 ppm	-0.04
111) Naphthalene-d8A	5.53	136	152520	40.00 ppm	-0.04
120) Acenaphthene-d10A	6.92	164	79222	40.00 ppm	-0.05
131) Phenanthrene-d10A	8.75	188	139034	40.00 ppm	-0.07
146) Chrysene-d12A	13.95	240	148028	40.00 ppm	-0.10
154) Perylene-d12A	16.99	264	118064	40.00 ppm	-0.10
158) 1,4-Dichlorobenzene-d4b	4.62	152	35427	40.00 ppm	-0.02
160) Phenanthrene-d10b	8.75	188	139034	40.00 ppm	-0.03
162) Chrysene-d12b	13.95	240	148028	40.00 ppm	-0.05
164) Naphthalene-d8b	5.53	136	152520	40.00 ppm	-0.02
166) Acenaphthene-d10b	6.92	164	79222	40.00 ppm	-0.02
168) Naphthalene-d8c	5.53	136	152520	40.00 ppm	-0.04
173) 1,4-Dichlorobenzene-d4c	4.62	152	35427	40.00 ppm	-0.04
175) Chrysene-d12c	13.95	240	148028	40.00 ppm	-0.10
177) Chrysene-d12d	13.95	240	148028	40.00 ppm	-0.10
179) Naphthalene-d8d	5.53	136	152520	40.00 ppm	-0.04

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
159) Benzaldehyde	4.29	105	46011	41.54 ppm	94
161) Atrazine	8.36	200	38916	54.48 ppm	94

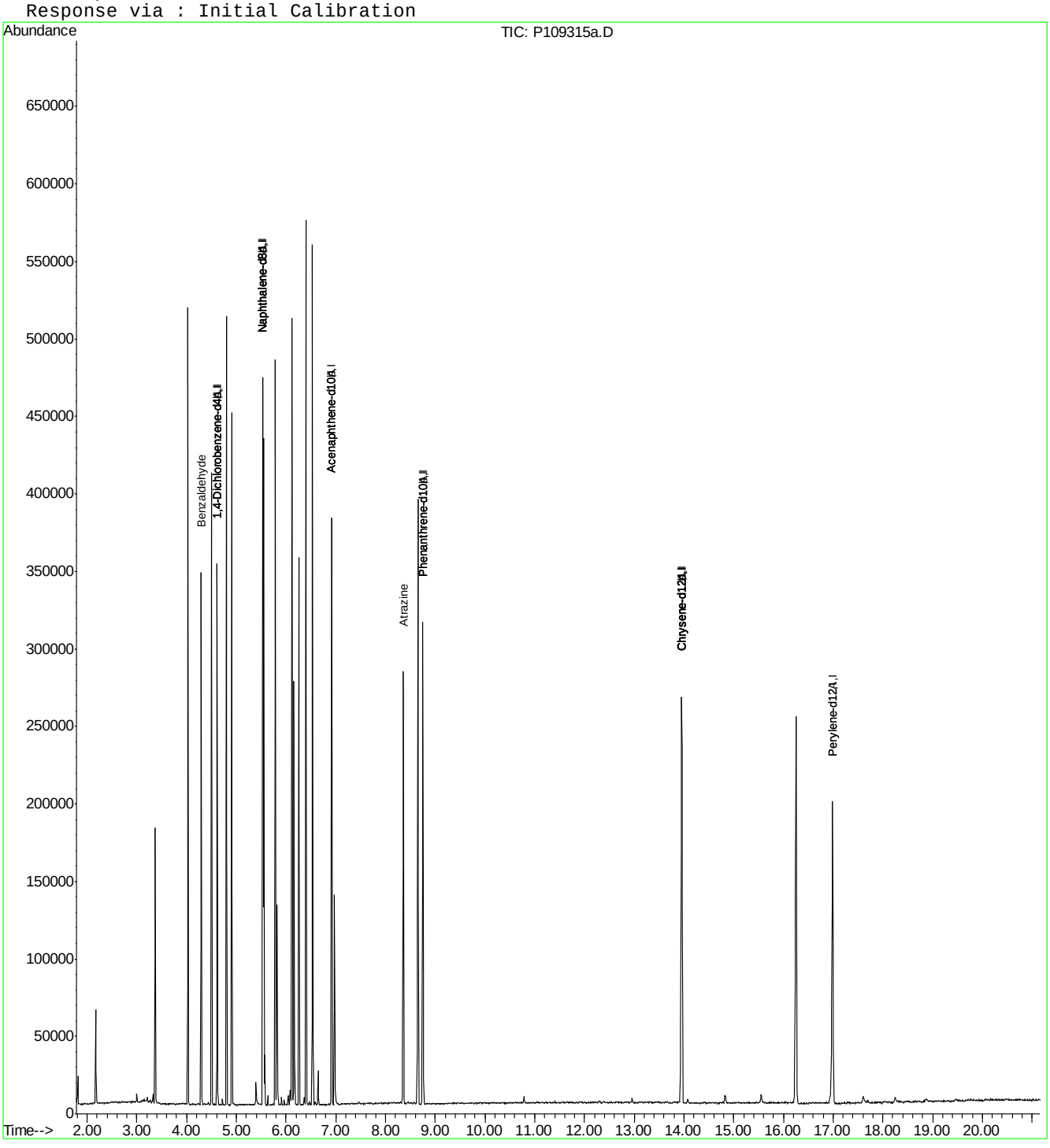
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109315a.D Vial: 3
Acq On : 29 Nov 2016 9:06 pm Operator: juliusj
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 9:38 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109315a.D MP4851.M Wed Nov 30 09:39:04 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109315.D Vial: 3
Acq On : 29 Nov 2016 9:06 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 21:27:38 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.62	152	35427	40.00	ppm	-0.04
24) Naphthalene-d8	5.53	136	152520	40.00	ppm	-0.04
47) Acenaphthene-d10	6.92	164	79222	40.00	ppm	-0.05
69) Phenanthrene-d10	8.75	188	139034	40.00	ppm	-0.07
83) Chrysene-d12	13.95	240	148028	40.00	ppm	-0.10
91) Perylene-d12	16.99	264	118064	40.00	ppm	-0.10
101) 1,4-Dichlorobenzene-d4A	4.62	152	35427	40.00	ppm	-0.04
111) Naphthalene-d8A	5.53	136	152520	40.00	ppm	-0.04
120) Acenaphthene-d10A	6.92	164	79222	40.00	ppm	-0.05
131) Phenanthrene-d10A	8.75	188	139034	40.00	ppm	-0.07
146) Chrysene-d12A	13.95	240	148028	40.00	ppm	-0.10
154) Perylene-d12A	16.99	264	118064	40.00	ppm	-0.10
158) 1,4-Dichlorobenzene-d4b	4.62	152	35427	40.00	ppm	-0.02
160) Phenanthrene-d10b	8.75	188	139034	40.00	ppm	-0.03
162) Chrysene-d12b	13.95	240	148028	40.00	ppm	-0.05
164) Naphthalene-d8b	5.53	136	152520	40.00	ppm	-0.02
166) Acenaphthene-d10b	6.92	164	79222	40.00	ppm	-0.02
168) Naphthalene-d8c	5.53	136	152520	40.00	ppm	-0.04
173) 1,4-Dichlorobenzene-d4c	4.62	152	35427	40.00	ppm	-0.04
175) Chrysene-d12c	13.95	240	148028	40.00	ppm	-0.10
177) Chrysene-d12d	13.95	240	148028	40.00	ppm	-0.10
179) Naphthalene-d8d	5.53	136	152520	40.00	ppm	-0.04

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
2) 1,4-Dioxane	2.17	88	23371	39.48	ppm		98
6) Indene	4.80	116	102890	46.09	ppm		96
7) Cumene	4.03	105	142955	41.83	ppm		97
13) Decane	4.50	43	45897	48.40	ppm		85
18) Acetophenone	4.91	105	84749	44.04	ppm		99
26) Nitrobenzene	4.91	77	80031	39.80	ppm	#	42
27) Quinoline	5.78	129	110083	38.74	ppm		96
40) 2,3-Dichloroaniline	6.26	161	51795	35.28	ppm		96
45) 1-Methylnaphthalene	6.12	142	101019	36.07	ppm		93
46) Dimethylnaphthalene	6.53	156	95834	38.26	ppm		96
53) Biphenyl	6.40	154	130400	43.78	ppm		99
82) Octadecane	8.65	57	79698	47.44	ppm		91

(#) = qualifier out of range (m) = manual integration
P109315.D MP4851.M Wed Nov 30 09:38:35 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109315.D Vial: 3
Acq On : 29 Nov 2016 9:06 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 21:27:38 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99) 7,12-Dimethylbenz(a)anthra	16.26	256	77974	47.82	ppm	95

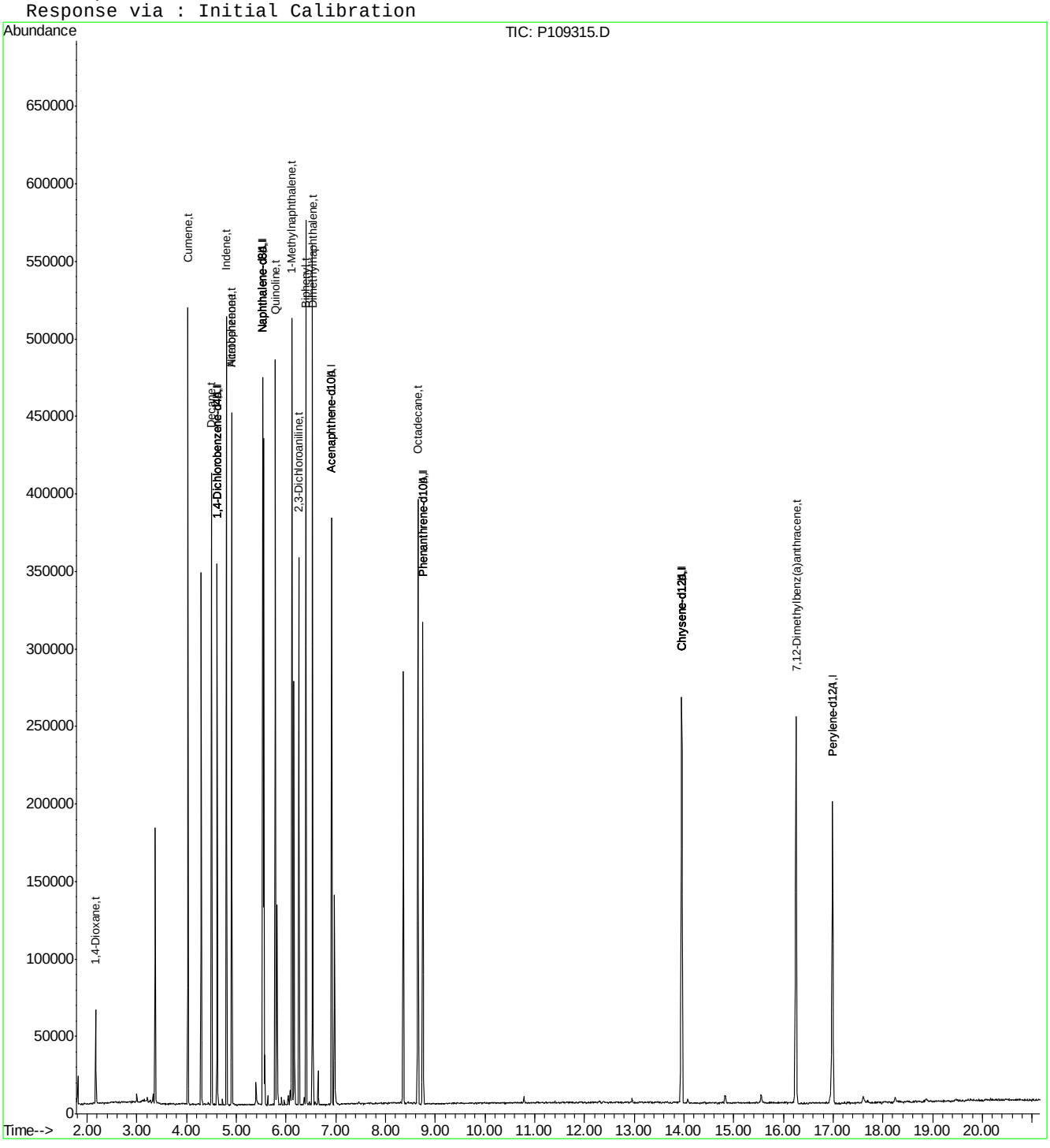
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109315.D Vial: 3
Acq On : 29 Nov 2016 9:06 pm Operator: juliusj
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 9:38 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109315.D MP4851.M Wed Nov 30 09:38:35 2016 Page 3

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109316.D Vial: 4
Acq On : 29 Nov 2016 9:34 pm Operator: juliusj
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 29 21:56:00 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.62	152	39620	40.00 ppm	-0.04
24) Naphthalene-d8	5.53	136	151330	40.00 ppm	-0.04
47) Acenaphthene-d10	6.92	164	91635	40.00 ppm	-0.05
69) Phenanthrene-d10	8.75	188	166636	40.00 ppm	-0.07
83) Chrysene-d12	13.95	240	176826	40.00 ppm	-0.10
91) Perylene-d12	16.99	264	153979	40.00 ppm	-0.10
101) 1,4-Dichlorobenzene-d4A	4.62	152	39620	40.00 ppm	-0.04
111) Naphthalene-d8A	5.53	136	151330	40.00 ppm	-0.04
120) Acenaphthene-d10A	6.92	164	91635	40.00 ppm	-0.05
131) Phenanthrene-d10A	8.75	188	166636	40.00 ppm	-0.07
146) Chrysene-d12A	13.95	240	176826	40.00 ppm	-0.10
154) Perylene-d12A	16.99	264	153979	40.00 ppm	-0.10
158) 1,4-Dichlorobenzene-d4b	4.62	152	39620	40.00 ppm	-0.02
160) Phenanthrene-d10b	8.75	188	166636	40.00 ppm	-0.03
162) Chrysene-d12b	13.95	240	176826	40.00 ppm	-0.05
164) Naphthalene-d8b	5.53	136	151330	40.00 ppm	-0.02
166) Acenaphthene-d10b	6.92	164	91635	40.00 ppm	-0.02
168) Naphthalene-d8c	5.53	136	151330	40.00 ppm	-0.04
173) 1,4-Dichlorobenzene-d4c	4.62	152	39620	40.00 ppm	-0.04
175) Chrysene-d12c	13.95	240	176826	40.00 ppm	-0.10
177) Chrysene-d12d	13.95	240	176826	40.00 ppm	-0.10
179) Naphthalene-d8d	5.53	136	151330	40.00 ppm	-0.04

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
165) Hydroquinone	5.83	110	86268	56.28 ppm	96

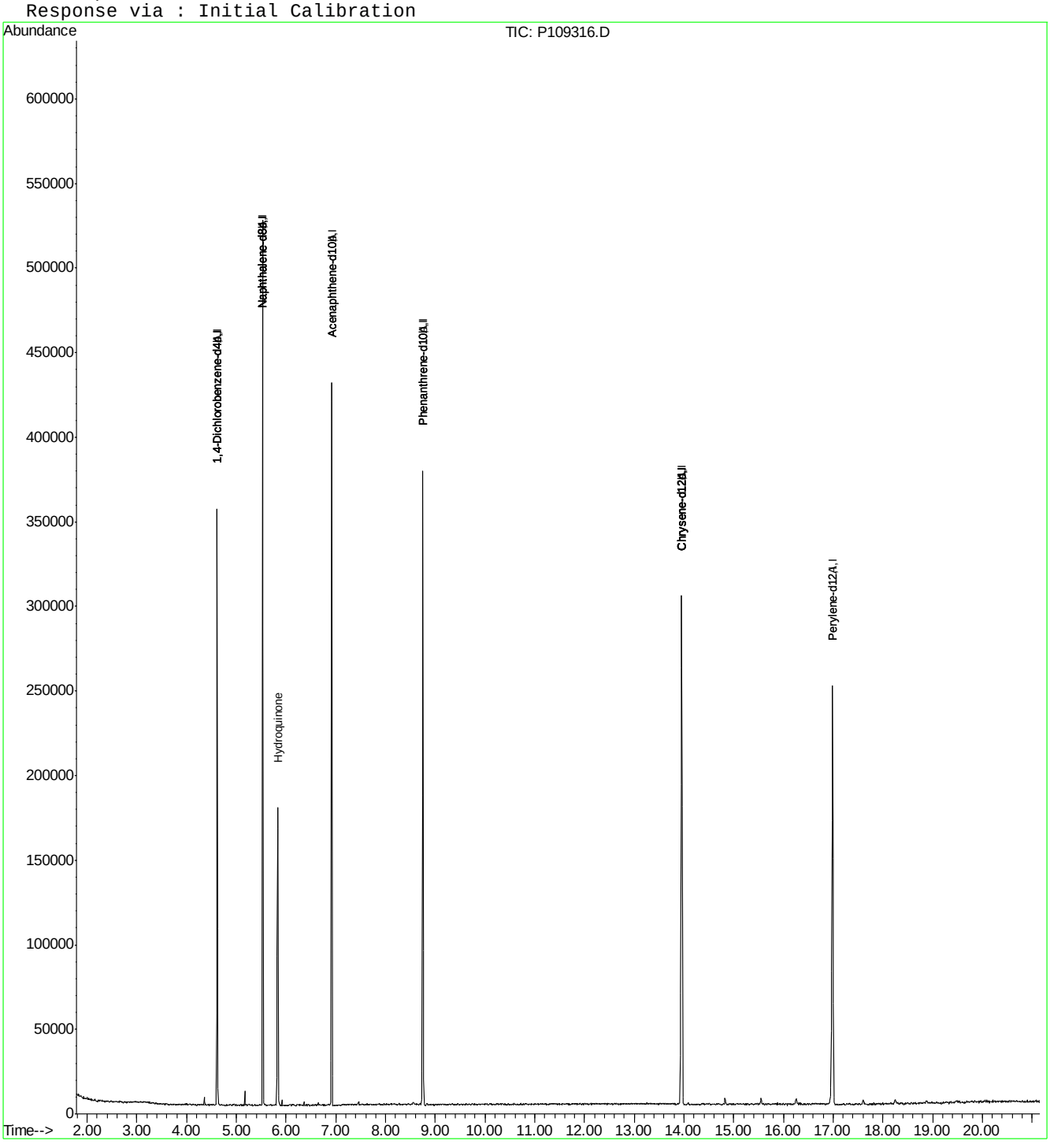
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\EP4853\P109316.D Vial: 4
Acq On : 29 Nov 2016 9:34 pm Operator: juliusj
Sample : ICV4852-50 Inst : MSP
Misc : OP98670,EP4853 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 9:35 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109316.D MP4851.M Wed Nov 30 09:39:18 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4854\P109318.D Vial: 2
Acq On : 30 Nov 2016 9:55 am Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4854 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 10:16:14 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.62	152	35271	40.00 ppm	-0.04
24) Naphthalene-d8	5.53	136	125324	40.00 ppm	-0.04
47) Acenaphthene-d10	6.92	164	78723	40.00 ppm	-0.05
69) Phenanthrene-d10	8.76	188	143342	40.00 ppm	-0.06
83) Chrysene-d12	13.95	240	149867	40.00 ppm	-0.10
91) Perylene-d12	16.99	264	127746	40.00 ppm	-0.10
101) 1,4-Dichlorobenzene-d4A	4.62	152	35271	40.00 ppm	-0.04
111) Naphthalene-d8A	5.53	136	125324	40.00 ppm	-0.04
120) Acenaphthene-d10A	6.92	164	78723	40.00 ppm	-0.05
131) Phenanthrene-d10A	8.76	188	143342	40.00 ppm	-0.06
146) Chrysene-d12A	13.95	240	149867	40.00 ppm	-0.10
154) Perylene-d12A	16.99	264	127746	40.00 ppm	-0.10
158) 1,4-Dichlorobenzene-d4b	4.62	152	35271	40.00 ppm	-0.02
160) Phenanthrene-d10b	8.76	188	143342	40.00 ppm	-0.03
162) Chrysene-d12b	13.95	240	149867	40.00 ppm	-0.05
164) Naphthalene-d8b	5.53	136	125324	40.00 ppm	-0.02
166) Acenaphthene-d10b	6.92	164	78723	40.00 ppm	-0.02
168) Naphthalene-d8c	5.53	136	125324	40.00 ppm	-0.04
173) 1,4-Dichlorobenzene-d4c	4.62	152	35271	40.00 ppm	-0.04
175) Chrysene-d12c	13.95	240	149867	40.00 ppm	-0.10
177) Chrysene-d12d	13.95	240	149867	40.00 ppm	-0.10
179) Naphthalene-d8d	5.53	136	125324	40.00 ppm	-0.04

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%		

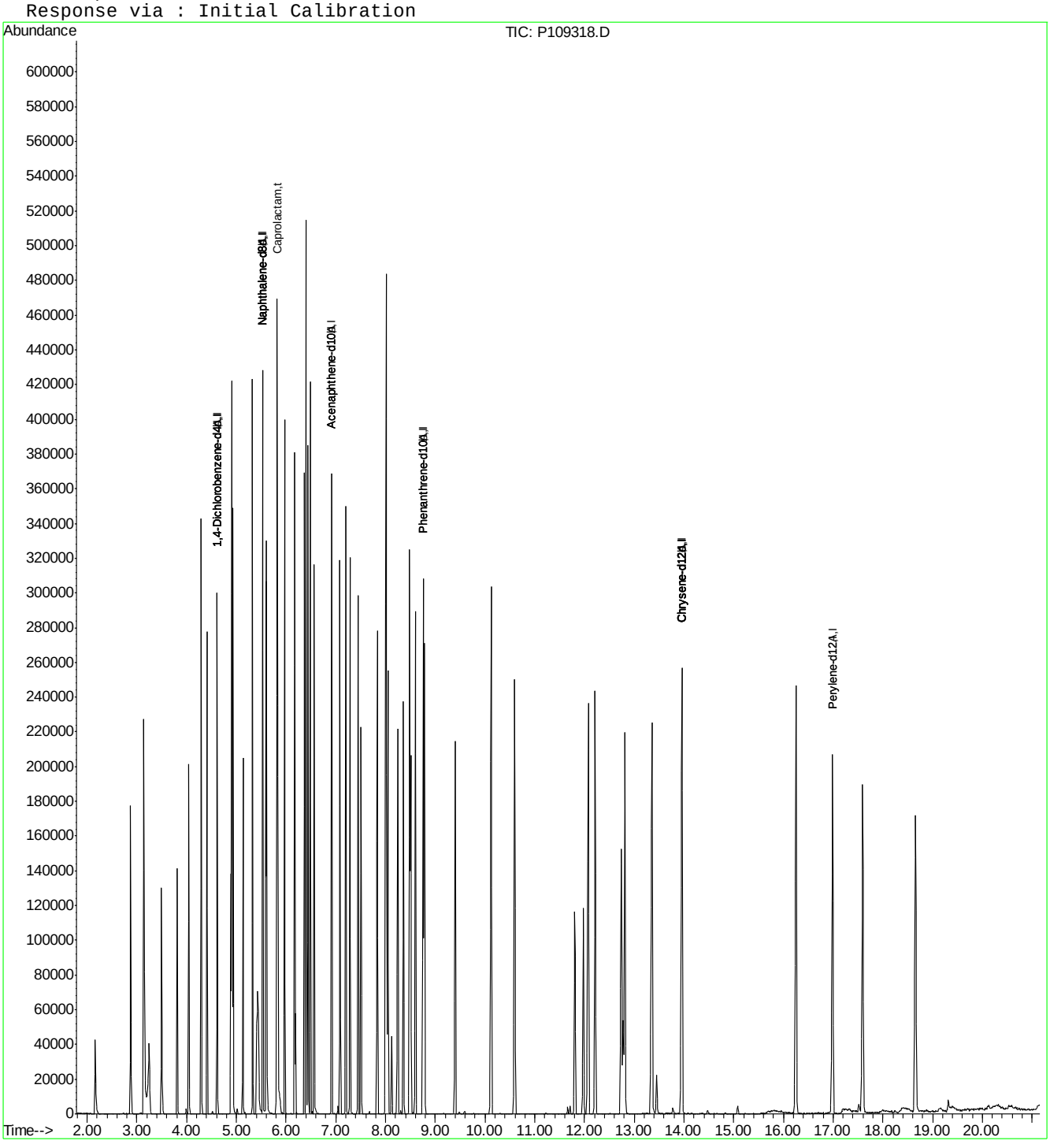
Target Compounds					Qvalue
41) Caprolactam	5.82	55	26511	52.24 ppm	# 1

(#) = qualifier out of range (m) = manual integration (+) = signals summed
P109318.D MP4851.M Wed Nov 30 10:19:34 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4854\P109318.D Vial: 2
Acq On : 30 Nov 2016 9:55 am Operator: robertl1
Sample : ICV4851-50 Inst : MSP
Misc : OP98670,EP4854 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 30 10:19 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Nov 29 14:42:56 2016
Response via : Initial Calibration



P109318.D MP4851.M Wed Nov 30 10:19:35 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4874\P109762.D Vial: 2
Acq On : 14 Dec 2016 10:27 am Operator: robertl1
Sample : CC4851-50 Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 10:48:43 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.66	152	34361	40.00 ppm	-0.03
24) Naphthalene-d8	5.58	136	118625	40.00 ppm	-0.03
47) Acenaphthene-d10	6.98	164	73181	40.00 ppm	-0.03
69) Phenanthrene-d10	8.84	188	131565	40.00 ppm	-0.04
83) Chrysene-d12	14.08	240	144008	40.00 ppm	-0.04
91) Perylene-d12	17.12	264	85598	40.00 ppm	-0.04
101) 1,4-Dichlorobenzene-d4b	4.66	152	34361	40.00 ppm	-0.03
103) Phenanthrene-d10b	8.84	188	131565	40.00 ppm	-0.04
105) Chrysene-d12b	14.08	240	144008	40.00 ppm	-0.04
107) Naphthalene-d8b	5.58	136	118625	40.00 ppm	-0.03
109) Acenaphthene-d10b	6.98	164	73181	40.00 ppm	-0.03
System Monitoring Compounds					
5) 2-Fluorophenol	3.71	112	65548	47.61 ppm	0.00
Spiked Amount 50.000			Recovery	= 95.22%	
8) Phenol-d5	4.43	99	79594	44.83 ppm	-0.02
Spiked Amount 50.000			Recovery	= 89.66%	
25) Nitrobenzene-d5	5.07	82	69656	43.89 ppm	-0.01
Spiked Amount 50.000			Recovery	= 87.78%	
51) 2-Fluorobiphenyl	6.37	172	128755	50.61 ppm	-0.04
Spiked Amount 50.000			Recovery	= 101.22%	
73) 2,4,6-Tribromophenol	7.86	330	18259	55.54 ppm	-0.04
Spiked Amount 50.000			Recovery	= 111.08%	
85) Terphenyl-d14	11.86	244	154589	52.79 ppm	-0.02
Spiked Amount 50.000			Recovery	= 105.58%	

Target Compounds					Qvalue
2) 1,4-Dioxane	2.23	88	24205	42.15 ppm	84
3) Pyridine	2.56	79	68145	45.48 ppm	86
4) N-Nitrosodimethylamine	2.53	42	41213	65.86 ppm	75
6) Indene	4.85	116	96795	44.70 ppm	99
7) Cumene	4.07	105	162385	48.99 ppm	98
9) Phenol	4.43	94	84318	42.45 ppm	71
10) Aniline	4.42	93	75274	33.84 ppm #	39
11) bis(2-Chloroethyl)ether	4.47	93	57162	41.88 ppm	96
12) 2-Chlorophenol	4.53	128	58583	46.18 ppm	96
13) Decane	4.54	43	59299	66.51 ppm	92
14) 1,3-Dichlorobenzene	4.62	146	67185	49.67 ppm	99
15) 1,4-Dichlorobenzene	4.68	146	65695	49.27 ppm	100
16) Benzyl alcohol	4.77	108	38545	46.36 ppm	96
17) 1,2-Dichlorobenzene	4.79	146	61947	48.84 ppm	100
18) Acetophenone	4.95	105	81700	43.77 ppm	99
19) 2-Methylphenol	4.87	108	46971	39.87 ppm	97
20) 2,2'-oxybis(1-Chloropropan	4.86	121	18979	47.26 ppm	95
21) 3&4-Methylphenol	4.97	108	51629	41.79 ppm	100
22) n-Nitroso-di-n-propylamine	4.96	70	48379	41.77 ppm	91
23) Hexachloroethane	5.03	201	25169	53.03 ppm	91
26) Nitrobenzene	5.08	77	69373	44.36 ppm	98
27) Quinoline	5.84	129	109241	49.43 ppm	98
28) Isophorone	5.25	82	117947	43.10 ppm	96

(#) = qualifier out of range (m) = manual integration
P109762.D MP4851.M Wed Dec 14 10:51:22 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4874\P109762.D Vial: 2
Acq On : 14 Dec 2016 10:27 am Operator: robertl1
Sample : CC4851-50 Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 10:48:43 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) 2-Nitrophenol	5.31	139	32301	51.19	ppm		97
30) 2,4-Dimethylphenol	5.35	107	54260	47.59	ppm		94
31) Benzoic acid	5.46	105	47638	59.70	ppm		98
32) bis(2-Chloroethoxy)methane	5.40	93	64312	43.34	ppm		98
33) 2,4-Dichlorophenol	5.49	162	48603	53.25	ppm		93
34) 2,6-Dichlorophenol	5.64	162	45177	51.40	ppm		98
35) 1,3,5-Trichlorobenzene	5.32	180	57281	52.70	ppm		98
36) 1,2,4-Trichlorobenzene	5.54	180	53504	51.67	ppm		96
37) 1,2,3-Trichlorobenzene	5.70	180	50924	52.42	ppm		95
38) Naphthalene	5.59	128	153594	48.56	ppm		99
39) 4-Chloroaniline	5.64	127	61073	44.90	ppm		97
40) 2,3-Dichloroaniline	6.31	161	59733	52.31	ppm		98
41) Caprolactam	5.89	55	25571	53.23	ppm		94
42) Hexachlorobutadiene	5.68	225	35828	57.07	ppm		98
43) 4-Chloro-3-methylphenol	5.99	107	52409	46.91	ppm		76
44) 2-Methylnaphthalene	6.09	141	93714	51.23	ppm		94
45) 1-Methylnaphthalene	6.17	142	107111	49.18	ppm		90
46) Dimethylnaphthalene	6.59	156	99522	51.09	ppm		96
48) Hexachlorocyclopentadiene	6.21	237	58888	99.98	ppm		98
49) 2,4,6-Trichlorophenol	6.32	196	37448	52.89	ppm		96
50) 2,4,5-Trichlorophenol	6.36	196	40407	55.04	ppm		91
52) 2-Chloronaphthalene	6.48	162	97530	47.48	ppm		97
53) Biphenyl	6.45	154	136721	49.69	ppm		98
54) 2-Nitroaniline	6.57	65	41450	50.23	ppm		96
55) Dimethylphthalate	6.71	163	123891	50.96	ppm		98
56) Acenaphthylene	6.84	152	165298	48.07	ppm		98
57) 2,6-Dinitrotoluene	6.77	165	27780	53.82	ppm		72
58) 3-Nitroaniline	6.94	138	31424	49.64	ppm		92
59) Acenaphthene	7.01	153	103005	49.83	ppm		95
60) 2,4-Dinitrophenol	7.05	184	32552	112.71	ppm	#	70
61) 4-Nitrophenol	7.14	109	24235	56.66	ppm		79
62) Dibenzofuran	7.19	168	148687	48.44	ppm		89
63) 2,4-Dinitrotoluene	7.18	165	38285	53.35	ppm		88
64) 2,3,4,6-Tetrachlorophenol	7.33	232	33802	59.01	ppm		97
65) Diethylphthalate	7.43	149	132328	50.27	ppm		98
66) Fluorene	7.57	166	127278	51.48	ppm		98
67) 4-Chlorophenyl-phenylether	7.56	204	66793	52.68	ppm		93
68) 4-Nitroaniline	7.60	138	29202	46.62	ppm		80
70) 4,6-Dinitro-2-methylphenol	7.64	198	25234	58.95	ppm		70
71) n-Nitrosodiphenylamine	7.70	169	92421	51.20	ppm		98
72) 1,2-Diphenylhydrazine	7.75	77	136950	43.45	ppm		97
74) 4-Bromophenyl-phenylether	8.19	248	41311	54.85	ppm		92
75) Hexachlorobenzene	8.29	284	40446	54.88	ppm		96
76) Pentachlorophenol	8.58	266	51475	113.57	ppm		94
77) Phenanthrene	8.87	178	172737	50.40	ppm		99
78) Anthracene	8.95	178	171463	49.68	ppm		99
79) Carbazole	9.24	167	171230	49.02	ppm		99
80) Di-n-butylphthalate	9.91	149	238213	51.94	ppm		99
81) Fluoranthene	11.01	202	230714	54.42	ppm		92

(#) = qualifier out of range (m) = manual integration
P109762.D MP4851.M Wed Dec 14 10:51:22 2016

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4874\P109762.D Vial: 2
Acq On : 14 Dec 2016 10:27 am Operator: robertl1
Sample : CC4851-50 Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 10:48:43 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
82)	Octadecane	8.72	57	79923	50.27 ppm	94
84)	Pyrene	11.44	202	234414	49.99 ppm	91
86)	Butylbenzylphthalate	13.01	149	108556	48.49 ppm	95
87)	Benzo[a]anthracene	14.06	228	217412	52.04 ppm	97
88)	3,3'-Dichlorobenzidine	14.09	252	72587	51.63 ppm	96
89)	Chrysene	14.14	228	176944	47.80 ppm	99
90)	bis(2-Ethylhexyl)phthalate	14.41	149	123860	44.58 ppm	98
92)	Di-n-octylphthalate	15.85	149	216158	57.61 ppm	96
93)	Benzo[b]fluoranthene	16.37	252	173826	61.45 ppm	97
94)	Benzo[k]fluoranthene	16.43	252	128814	52.02 ppm	97
95)	Benzo[a]pyrene	17.01	252	138852	56.44 ppm	96
96)	Indeno[1,2,3-cd]pyrene	19.07	276	105330	49.79 ppm	85
97)	Dibenz(a,h)acridine	18.70	279	100196	50.67 ppm	97
98)	Dibenz[a,h]anthracene	19.12	278	103169	48.78 ppm	93
99)	7,12-Dimethylbenz(a)anthra	16.39	256	71963	60.87 ppm	92
100)	Benzo[g,h,i]perylene	19.51	276	104193	48.31 ppm	94

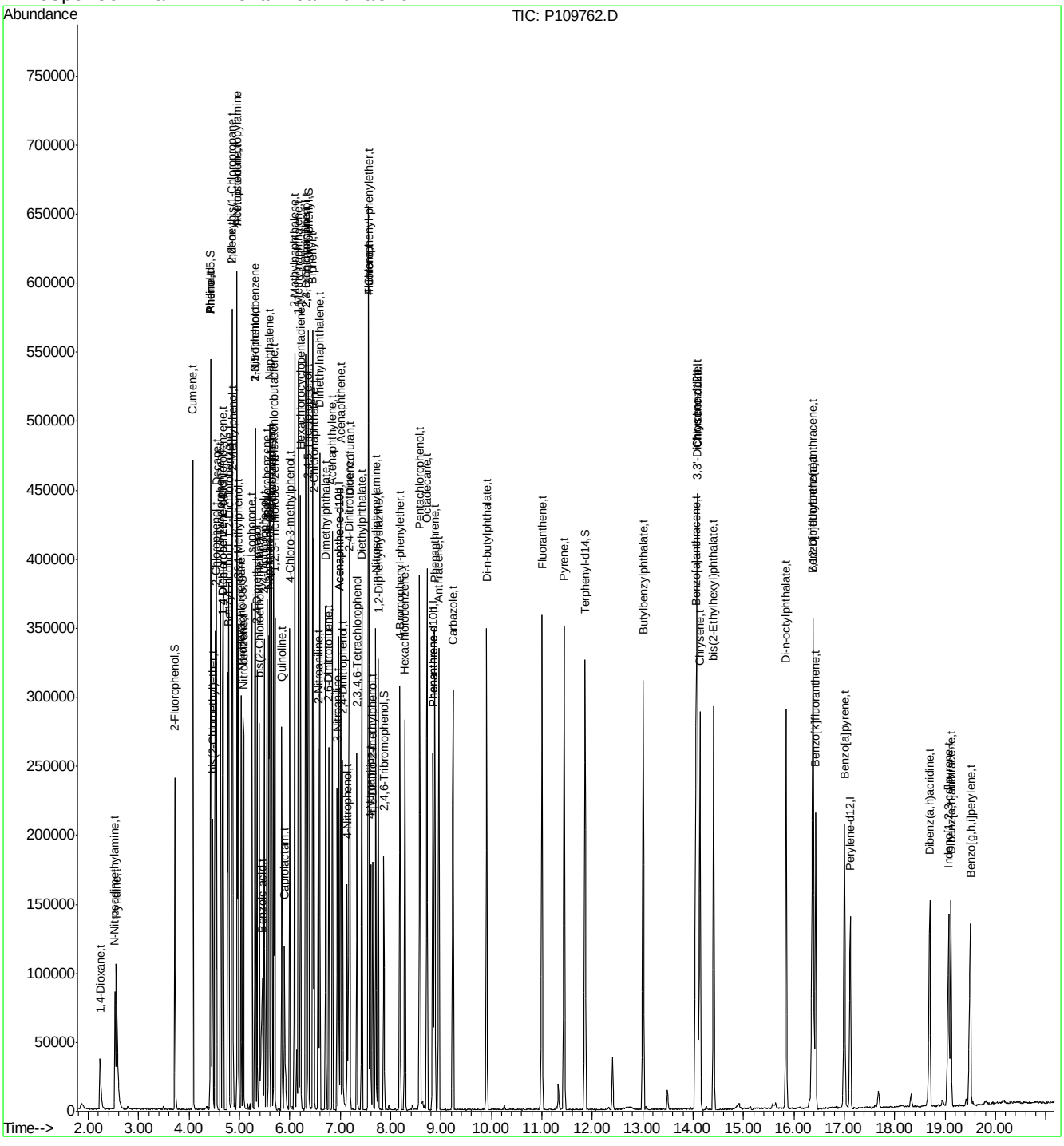
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4874\P109762.D Vial: 2
Acq On : 14 Dec 2016 10:27 am Operator: robertl1
Sample : CC4851-50 Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 10:51 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration



SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4874\P109763.D Vial: 3
Acq On : 14 Dec 2016 11:00 am Operator: robertl1
Sample : CC4852-50 Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 11:21:44 2016 Quant Results File: MP4851.RES

Quant Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration
DataAcq Meth : MP4851

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.66	152	38002	40.00	ppm	-0.03
24) Naphthalene-d8	5.58	136	140740	40.00	ppm	-0.03
47) Acenaphthene-d10	6.98	164	91087	40.00	ppm	-0.03
69) Phenanthrene-d10	8.83	188	162529	40.00	ppm	-0.05
83) Chrysene-d12	14.07	240	173783	40.00	ppm	-0.05
91) Perylene-d12	17.11	264	135978	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4b	4.66	152	38002	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.83	188	162529	40.00	ppm	-0.05
105) Chrysene-d12b	14.07	240	173783	40.00	ppm	-0.05
107) Naphthalene-d8b	5.58	136	140740	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.98	164	91087	40.00	ppm	-0.03

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
102) Benzaldehyde	4.34	105	50827	42.77	ppm	95
104) Atrazine	8.44	200	46436	55.61	ppm	96
106) Benzidine	11.33	184	113467	34.65	ppm	99
108) Hydroquinone	5.88	110	66771	46.83	ppm	89
110) 1,2,4,5-Tetrachlorobenzene	6.22	216	66668	54.27	ppm	98

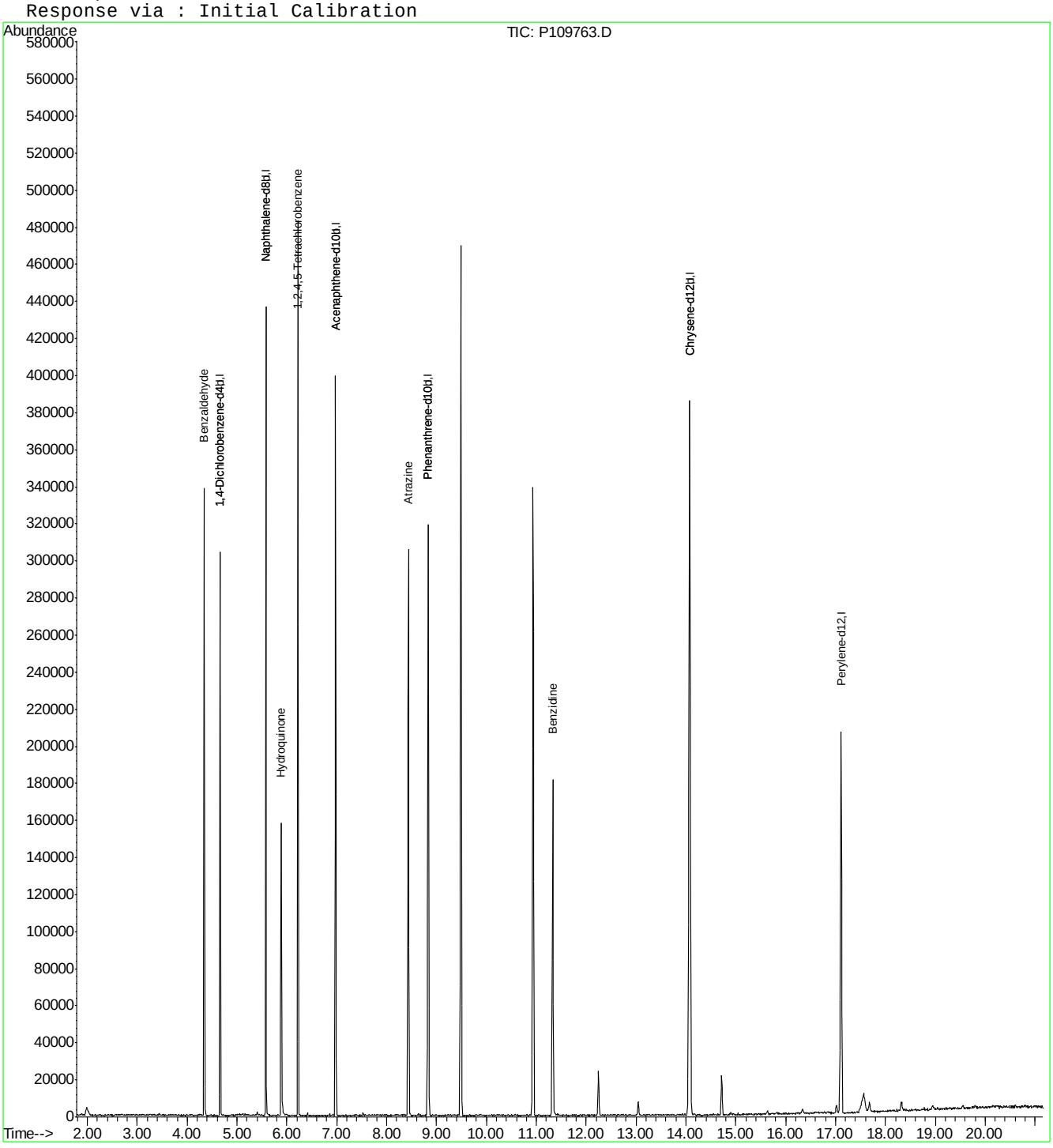
(#) = qualifier out of range (m) = manual integration (+) = signals summed
P109763.D MP4851.M Wed Dec 14 11:33:38 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data File : C:\MSDChem\1\DATA\ep4874\P109763.D Vial: 3
Acq On : 14 Dec 2016 11:00 am Operator: robertl1
Sample : CC4852-50 Inst : MSP
Misc : OP99060,ep4874 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 11:33 2016 Quant Results File: MP4851.RES

Method : C:\MSDCHEM\1\METHODS\MP4851.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Dec 13 11:24:16 2016
Response via : Initial Calibration



SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3946

Print Analyst Name: Ashley N.

Analyst Signature: [signature]

Date: 12-08-2016

Columns: Rxi5Sil MS 30mX0.25mmX0.25µm

Method 8270D / 625

Initial Cal. Method M3E3946

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-129	dftpp	50ppm
PM5732	internal std	4000ppm
1646852	dcm (GC/MS)	—

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: 12/9/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	E89163	dftpp			N	1					not using	442 ↓ Reinject
	89164	dftpp				1					↓	68 ↑ 442 ↓ Reinject
	89165	dftpp				1					OK	9:24pm
	89166	ic3946-2		BNA		2					OK	Adjust solvent delay; run at BNA SV162009-117H
	89167	-1				3					OK	-117I
	89168	-100				4					OK	-117A
	89169	-50				5					OK	-117B
	89170	icc3946-50				6					OK	-117C
	89171	ic3946-25				7					OK	-117D
	89172	-10				8					OK	-117E
	89173	-5				9					OK	-117G
	89174	icv3946-50		Acids		10					OK	SV162064-42
	89175	icv3946-50		Anilines		11					OK	-41
	89176	icv3946-50		ABN Sur		12					not using	terphenyl ↑ OP161845.55
	89177	icv3946-50		BN1		13					RR	SV162009-115 #4 ↓
	89178	icv3946-50		BN2		14					OK	SV162064-35
	89179	icv3946-50		BZD		15					OK	SV162009-20D 3:44pm

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
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9.7.1

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E 3947

Print Analyst Name: Ashley N.

Date: 12-08-2016

Analyst Signature: [signature]

Columns: Rxi5Ssim(30mx25mmx25µm)

Method 8270D/625

Initial Cal. Method M3E3946

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	dftpp	50ppm
CM5732	Internal Std	4000ppm
166852	Dam (Fluor)	—

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: 12/9/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	E 89180	dftpp			W	1					nonusing	AN 12-8-16 ~~127 142~~ 127 68 ↑ Reinject
	89181	dftpp				1					↓	127 ↑ Retune Spill.
	89182	dftpp				1					NG	127 ↑ Retune.
	89183	dftpp				1						PCP ↑ Reinject
	89184	dftpp				1						PCP ↑ Retune flow
	89185	dftpp				1					↓	275 ↑ Reinject
	89186	dftpp			W	1					OK	5:21 pm
	89187	ic 3947-100		TCL42		2					OK	SV162064-46A
	89188	-80				3					OK	-46B
	89189	icc 3947-50				4					OK	-46C
	89190	ic 3947-25				5					OK	-46D
	89191	-10				6					OK	-46E
	89192	-5				7					OK	-46G
	89193	-2				8					OK	-46H
	89194	-1				9					OK	-46I
	89195	icv 3947-50		BN1		10					OK	SV162009-115
	89196	icv 3947-50		BN2		11					OK	SV162064-35

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

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3947

Print Analyst Name: Ashley N.

Analyst Signature: [signature]

Date: 12-8-16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Sepage 49	

Columns: Rxi 5SilMS 30m x 0.25mm x 0.25µm

Method 8270D 1625

Initial Cal. Method M3E3946

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: 12/9/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	3E89197	ICV3947-50		8270D		12					OK	SM162009-200
	89198	ICV3947-50		HQ		13					OK	DP161770116B HOT continuing cont.
												10:32pm

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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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3E3948

Print Analyst Name: Ashley N.

Analyst Signature: [illegible]

Date: 12-09-2016

Columns: Rxi 5Sil MS 30m x 25mm x 25µm

Method 8270D/625

Initial Cal. Method M3E3946

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	DFTPP	50ppm
CM5732	Internal Std	4000ppm
1166852	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: AMcD

Date: 12/9/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	BE 89199A	DFTPP			W	1					not using	wrong method loaded. ran "A" file 275T Reinject
	89200	DFTPP				1						275T Reinject
	89201	DFTPP				1						275T Reinject dice both
	89202	DFTPP				1						275T Reinject
	89203	DFTPP				1						AN 12-9-16. Reinject 1.05T ~~1.49~~ 275T dice both
	89204	DFTPP				1						275T Retune
	89205	DFTPP				1						275T Retune
	89206	DFTPP			W	1					OK	10:44AM
	89207	ICV3946-50		ABN Sur		2					OK	OP16184552 11:03AM

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

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9.7.3

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SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID E3E3956

Print Analyst Name: Ashley N.

Date: 12-15-16

Analyst Signature: [illegible]

Columns: Rxi 5Silms 30m X 250um X 0.25um

Method 8270D/625

Initial Cal. Method M3E3946

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	dPhpp	50ppm
-118 D	BNA	75ppm
162009-	JCW2	↓
CMS932	Internal Std	4000ppm
166852	dem (Biles)	—

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: AMMO

Date: 12-20-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	3E89384	dPhpp			W	1					not valid	
	89385	CC3946-25		BNA		2					↓	61↓ 2↓ /3↑ 4↑ try new lot # Remstall
	89386	dPhpp			W	1					OK	9:53AM
	89387	CC3946-25		BNA		2					OK	SV162009-118B
	89388	OP99167-MB1	99167A1		W	3					OK	pyrene + terphr / 61↓
	89389	JC33384-2		SIM 1401dx		4	20				OK	11:14AM

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
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9.7.4 9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3P2579

Print Analyst Name: Shanice Grant

Analyst Signature: SG

Date: 10/18/2016

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162092Z	dlfmp	50ppm
SV162090	SIM internal	400 ppm
105		
AMO 10/20/16		
166145	DCM (Fisher)	—

Columns: Restek 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M3P2579sim

Injection Volume: 1.0 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: 10/20/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	3P56035	dlfmp				1					OK	1226PM
	56036	ic2579-1.0		BNA sim		2					OK	wrong method from no "A" file SV162009-88A
	56037	IC2579-0.5				3					OK	-88B
	56038	-0.2				4					OK	SV162009-18E
	56039	-0.1				5					OK	-18F
	56040	-0.05				6					OK	-18G
	56041	-0.02				7					OK	-18H
	56042	-0.01				8					OK	-18I
	56043	-5				9					OK	-18A
	56044	-2.5				10					OK	-18B
	56045	ICV 2579-1.0		BSim BNA sim 10/19		11					RR	OP16177060 1:4DIOX L
	56046	-1.0		ACID		12					RR	SV162009A3 4DILPL 346PM
												AMO

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
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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E3P2580

Print Analyst Name: Shannice Grant

Analyst Signature: SG

Date: 10/19/2016

Columns: Rxissilms 30m x .25mm x .25µ

Method 8270D/625

Initial Cal. Method M3P2579 sim

Injection Volume: 1.0 µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-77	dftpp	50µg
SV162009105	sim internal	400 ng
126145	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: 10/20/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	3P56047	dftpp				1					NOT USING	5↑, 127↑ reinject
	56048	dftpp				1					1	51↑, 127↑ bake & reinject
	56049	dftpp				1					OK	
	56050	ICV25791.0		BSIM	W	2					OK	OP1677060 Nitrobenzene-d5 NO DD
	56051	-1.0		ACID	W	3					OK	SV162009093 phenol↑ NO DD
	56052	-1.0		BSIM	W	4		AMO			not OK needed	OP16177093 11:19AM
	56053	-1.0		BN2 2nd	W	5		10/19/16			not needed	SV162009112B

AMO

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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Rev. Date: 1/19/16

SGS ACCUTEST JC33175

9.7.6

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SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID E3P2653

Print Analyst Name: Shanice Grant

Analyst Signature: SG

Date: 12/14/2016

Columns: Rxi5sil MS 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method M3P2579sim

Injection Volume: 1.0 µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009124	dfhp	50µg
SV162064KB	sim std	0.5 ppm
SV162064126	sim IS	400ppm
166552	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: [illegible]

Date: 12-22-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	3P 57215	dfhp				1					OK	9:11am
	57216	CC2579-0.5		BNA sim		2					OK	28↑, 29↑, 32↑
	57217	OP99167A-MB1	99167	B8270sim	W	3			✓	✓	OK	
	57218	-BS12				4			✓	✓	OK	
	57219	-MS				5			✓	✓	OK	
	57220	-MSD				6			✓	✓	OK	
	57221	JC33320-1		BSimPAH		7			✓	✓	OK	
	57222	JC33375-1		BSL		8			✓	✓	OK	8270
	57223	-2				9			✓	✓	OK	
	57224	JC33384-1				10			✓	✓	OK	
	57225	-2				11			✓	✓	OK	8270 1:2
	57226	-3				12			✓	✓	OK	
	57227	JC33175-1				13			✓	✓	OK	3:07pm

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 JC33175

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: E6P1488

Print Analyst Name: Arlie Cecozza

Analyst Signature:

Date: 11/18/16

Columns: RtX5/Rtx5Sil MS 25 m x .25 mm x .25 um

Method: 8270D / 625

Initial Cal. Method: E6P1488

Injection Volume: 1ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
162009124	AFTPP	50ppm
CMS732	Internal Standard	40000ppm
166577	Decam (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: AWO

Date: 11/21/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	6P3129	DFTPP				1					ng/ml	wrong method
	6P32130	DFTPP				1					NC	RT reinjection
	32131	DFTPP				1					NC	Tank peak/baseline
	32132	DFTPP				1					NC	RT reinjection (6P3131)
	32133	DFTPP				1					OK	854AM
	32134	IC14882 2		BNA		2					OK	SUG2005 11714 RCLAN contamination confirmed none
	32135	-1				3					OK	117I
	32136	-100				4					OK	117A
	32137	~~IC1488~~ -80				5					OK	117B
	32138	IC1488-50				6					OK	118B
	32139	IC1488-25				7					OK	115H
	32140	10				8					OK	117E
	32141	5				9					OK	117G
	32142	IC1488-50		Acids		10					OK	110
	32143	50		Anilines		11					OK	109
	32144	50		Acid Surr		12					OK	1618450 418PM
	32145	Cont			W	100						cont RMS SW32134

32149 100

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

SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID E6P1489

Print Analyst Name: Ashley Mayer

Date: 11/18/2016

Analyst Signature: AMO

Columns: Rtx5sil MS 30m x 0.25 mm x 0.25 µm

Method 8270D/625

Initial Cal. Method M6P1488

Injection Volume: 1 µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009124	DFTPP	50 ppm
CM5732	Internal Std.	4000 ppm
1166145	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: 11/21/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	6P32150	DFTPP				1					OK	458 ppm
	32151A	ic 1489-100		TAL42		2					OK	using method loaded ion as A file SV162064-11A
	32152	-80				3					OK	-11B
	32153	ic 1489-50				4					OK	-11C
	32154	ic 1489-25				5					OK	-11D
	32155	-10				6					OK	-11E
	32156	-5				7					OK	-11G
	32157	-2				8					OK	-11H
	32158	-1				9					OK	-11I
	32159	icv 1489-50		BN1		10					OK	Reporting HCCPD SV162009-115 no pod
	32160	icv 1489-50		BN2		11					OK	CAPV -114
	32161	icv 1489-50		BED 3rd		12					OK	Reporting 33 PCB + BED -20C
	32162	icv 1489-50		HQ		13					OK	44 ppm OP161770-116A no pod

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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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: E6P1490

Print Analyst Name: Angelle Cocozza

Analyst Signature:

Date: 11/21/16

Columns: Rtx-5ms 30m x 25mm x 0.25m

Method: 8270D/625

Initial Cal. Method: E6P1485

Injection Volume: 1uL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU1620124	DTPP	50ppm
CMS732	ISTD	400ppm
116587	DCM (FS-1)	

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: 11/21/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	032163	DTPP			W	1					OK	753AM
	32164	ICV1488-50		BNZ	W	2					OK	824AM SU1620629 carbitol DCB

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

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9.7.10

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: E6P1490

Print Analyst Name: Angie Cocozza

Analyst Signature:

Date: 11/21/16

Columns: Rtx 5ms 30mx250ux0.25u

Method: 8270D/625

Initial Cal. Method: u6P1498

Injection Volume: 1ul

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU1620924	DTMP	50ppm
CMS752	ISTD	400ppm
1615871	DCM(FSIM)	

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: 11/21/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	32163	DTMP									OK	753AM
	32164	ICV1488-50		BN2							OK	824AM SU1620629 capVter DCM

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

9.7.10

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: E6P1523

Print Analyst Name: Christopher Sowa

Analyst Signature: [signature]

Date: 12/14/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	dfPPP	50ppm
SV162009-112C	BNA	50ppm
SV167064-98	TCL42	50ppm
CM5732	ISTD	400ppm
106852	dcn (fist.)	—

Columns: Rx-5Sil MS 30m x .25mm x .25µ

Method: 8270D/625

Initial Cal. Method: M6P1488

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: 12-20-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	6P33007	dfPPP				1					OK	10:26pm
	33008	CC1488-50		BNA		2					OK	31-45,54,61
	33009	CC1489-50		TCL42		3					OK	102-106
	33010	TCL42 1ppm				4					OK	SV162064-10A
	33011	OP99167-MBi	99167	ABS270	W	5					OK	Benzoic Ac (4.7ppm)
	33012	-BS1				6					OK	Acid spike compounds (70)
	33013	OP99198-MBi	99198	AB625	W	7					OK	
	33014	-BS1				8					OK	
	33015	JC32902-30	99167	ABSCO	W	9					OK	
	33016	JC33335-15		AB TCL11		10					NC	Extra inj
	33017	-16				11						
	33018	-18				12						
	33019	-19				13						
	33020	-20				14						
	33021	-21				15						
	33022	-22				16						
	33023	OP99167-MS		ABS270		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 JC33175

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID E6P1523

Print Analyst Name: Christopher Sowa

Analyst Signature: [signature]

Date: 12/14/16

Columns: Rtx-5Sil MS 30m x .25mm x .25µ

Method 8270D/625

Initial Cal. Method M6P1488

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See pg 177	

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: 12-20-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	6P33024	6P99167-MSD	99167	ABP8270	W	18			/	/	OK	
	33025	JC33384-1		ABSL, TMNA, PZMNA		19			/		AR	Rx 70 vials
	33026	-2				20			/	/	OK	RR1:20
	33027	-3				21			/		AR	
	33028	JC33175-1 CS 12/14/16		ABSL, TMNA, PZMNA		22			/	/	OK	Rx 70 vials
	33029	JC33581-1	99198	ABPFL	W	23			/	/	OK	
	33030	JC33585-2	99199	BNA, PZMNA	W	24			/	\	OK	
	33031	3				25			/	\	OK	
	33032	5				26			/	\	OK	
	33033	6				27			/	\	OK	RR1:10
	33054	7				28			/	\	OK	RR1:5
	33055	8				29			/	\	OK	
	33056	9				30	8		/	\	OK	1015AM

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

9.7.11

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EM5525

Print Analyst Name: AS/KE/KLD/JC

Date: 11/22/2016

Analyst Signature: AWO

Columns: RVI5SI/ID30m x 15mm x 25µm.

Method 8270D / 625

Initial Cal. Method MM5545525 AWO 11/22/16

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009124	DFTPP	50 ppm
CMS732	Internal Std.	4000 ppm
166577	DCMC/FS/ND	

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: 11-22-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	M129447	DFTPP				1					not using	442, 275↑
	129448	DFTPP				1					OK	933AM.
	129449	IC5525-1		BLA		2					OK	SV162009-61J
	129450	-2				3					OK	-61H
	129451	-5				4					OK	-61G
	129452	-10				5					OK	-61E
	129453	-25				6					OK	-117L
	129454	IC5525-50				7					OK	-117K
	129455	IC5525-80				8					OK	-61B
	129456	-100				9					OK	-61A 1:12pm
	AWO 11/22/16											

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

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EM5526

Print Analyst Name: Sean Blak

Analyst Signature: [signature]

Date: 11/22/16

Columns: Rtx-5ms 30m x 0.25mm x 0.25µm

Method 8270D/625

Initial Cal. Method MM5525

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 162009-124	DFTPP	50 ppm
EM-5722	Internal Std	4000 ppm
166851	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: AMW

Date: 11/28/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	M129457	DFTPP				1					not usmy	127T; re-inject
	129458	DFTPP				1						127T, Re-inject
	129459	dftpp				1						127T; increase flow
	129460	DFTPP				1						127T, re-inject
	129461	DFTPP				1						127T; flow back to 2.1 / + increase split
	129462	DFTPP				1					ok	4:48 pm
	129463	ICV526-1		TCL42		2					ok	SV162064-11J
	129464	-2				3					ok	-11H
	129465	-5				4					ok	-11G
	129466	-10				5					ok	-11E
	129467	-25				6					ok	-11D
	129468	ICV526-50				7					ok	-11C
	129469	ICV526-80				8					ok	-11B
	129470	-100				9					ok	-11A
	129471	ICV526-50		Acid		10					ok	SV162064-31 2,4DMPT for DOD
	129472	-50		Aniline		11					ok	-38
	129473	50		BNA		12					OK	-34 #4 no DOD

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

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EM5526

Print Analyst Name: Sea Black

Analyst Signature: [illegible]

Date: 11/22/16

Columns: Rtx-5Silms 30m x 25mm x.25

Method 8270D 625

Initial Cal. Method MM5525

Injection Volume: 1µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See page 191	

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: 11/28/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	M129474	IcV5526-50		BN2		13					RR	SV162064-29 Capt
	129475	50		Benzidine 3rd		14					OK	SV162009-20A
	129476	50		ABN Surr		15					OK	OP161845-41
	129477	IcV5526-50		HQ		16					OK	SV162009-21 1154PM

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 JC33175

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EM5527

Print Analyst Name: Kevin Moyle

Analyst Signature: KM

Date: 11/28/16

Columns: Rxi5silms30mx15mm x25µm

Method 8270D/625

Initial Cal. Method MM5525

Injection Volume: 1.0µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 162089124	DFTPP	50ppm
CM5732	internal standard	400ppm
166852	PCM (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: 11/28/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	M129478	DFTPP				1					RR	127+ reinject.
	129479	DFTPP				1					RR	127+ reinject
	129480	DFTPP				1					RR	127+ reinject diff bottle
	129481	DFTPP				1					OK	109ppm
	129482	ICV5525-50		BN2	W	2					OK	SV162064129 3rd for cap.
	129483.	ICV5525-50		BN 3rd	W	3					OK	SV162064129 326ppm

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

9.7.14

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SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: EM5555

Print Analyst Name: Julius M. Johnson

Analyst Signature: JMJ

Date: 12/16/16

Columns: Rtx-5Sil MS 30m x .25mm x .25µm

Method: 8270D/625

Initial Cal. Method: MM5525

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	dltpp	50ppm
-117	bna	↓
-93E	tcb42	↓
SV162009-117F	BNA verif	1ppm
CM5732	ISTD	400ppm
157127	dcm (fish)	—

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: 12-19-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	M130063	dltpp				1					Not using	127 Reinjected
	130064	dltpp				1					ok	9:58 pm (DM) 12/16/16
	130065	CC5525-50		bna		2					ok	#8 ↓
	130066	CC5526-50		tcb42		3					ok	#2,3,11,13,31,32,64↑ #107↓
	130067	BNA verif-1ppm		verification		4					OK	#104,105,110,112↑
	130068	UP99254-MB1	99254	AB8270+	W	5		+	/	/	ok	
	130069	-BS1				6			/	/	ok	
	130070	-MS				7			/	/	ok	
	130071	-MSD				8			/	/	ok	
	130072	JC33125-1		ABSL, +1,4-DIOX, +naap, +pah		9			/	/	ok	
	130073	JC33323-2		ABPPL+		10			/	/	ok	not needed 625 sample
	130074	JC33335-15		ABTCL11		11			/	/	ok	
	130075	-16				12			/	/	ok	
	130076	-18				13			/	/	ok	
	130077	-19				14			/	/	ok	
	130078	-20				15			/	/	ok	
	130079	-21				16			/	/	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.

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SGS ACCUTEST JC33175

SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID EM5555

Print Analyst Name: Christopher Sowa

Analyst Signature: [signature]

Date: 12/16/16

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See pg 95	

Columns: Rtx5Sil MS 30m x .25mm x .25

Method 8270D/625

Initial Cal. Method MM5525

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: 12-19-16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	130080	JC33335-22	99254	ABTCL11	W	17			/	/	ok	
	130081	JC33384-1		ABSL, +/4TCL		18			/	/	ok	
	130082	-3				19			/	/	ok	
	130083	~~JC33~~ CS 12/19/16 JC33338-1		AB NJTCL2.0		20		+	/	/	ok	
	130084	-2				21		+	/	/	ok	
	130085	-3				22		+	/	/	ok	
	130086	JC33686-14		6NJTCL2.0		23		+	/	/	ok	8:32 am
												KM 12/19

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

9.7.15

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EP4851

Print Analyst Name: Robert Labuda

Analyst Signature:

Date: 11/29/16

Columns: Rtx-5Sil MS 30m x 0.25mm x 0.25µm

Method 8270D/625

Initial Cal. Method MP4851

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	DFTPP	50ppm

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: 11/30/16.

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P109285	DFTPP				1						
	109286	DFTPP				1						5 libraries 0:57pm
	109287	IC4851-100		BNA		2						SV162009-117A
	109288	-80				3						-117B
	109289	IC4851-50				4						-117C
	109290	IC4851-25				5						-117D
	109291	-10				6						-117E
	109292	-5				7						-117G
	109293	-2				8						-117H
	109294	-1				9						-117I 7:47pm

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

9.7.16

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: EP4852

Print Analyst Name: Roberta LaPosta

Analyst Signature: [signature]

Date: 4/28/16

Columns: Rtx-5Sil MS 30m x 0.25mm x 0.25µm

Method: 8270D/625

Initial Cal. Method: MPU251

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV62004	1ml DCM	10ppm
CM5752	ISTD	40ppm
16652	DCM (Rinse)	

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: 11/30/16.

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P104245	DFTPP				1						DFTPP Neg
	104246	DFTPP				2						9:36 Am
	104247	IC4852-100		1CM2		3						SV62064-11A
	104248	-50				4						-11B
	104249	IC4852-25				5						-11C
	104300	IC4852-10				6						-11D
	104301	-10				7						-11E
	104302	-5				8						-11G
	104303	-2				9						-11H
	104304	-1				10						-11I
	104305	IC4852-50		BN1		10						SV62064-34 Normal
	104306	-50		BN2		11						-35
	104307	-50		Aniline		12						-28
	104308	-50		ACID		13						-31
	104309	-50		ABNSUM		14						08161450 52
	104310	IC4852-50		HQ		15						08161701160 HQ
	104311	-50		BZD		16						SV62004-20B 4:32pm

~~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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Rev. Date: 1/19/16

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9.7.17

9

SGS ACCUTEST

SEMI-VOLATILE by GCMS ANALYSIS LOG

Batch ID EP4853

Print Analyst Name: Julius M. Johnson

Analyst Signature: JM

Date: 11/29/16

Columns: Rxi5Silms 30m x .25mm x .25µm

Method 8270D/625

Initial Cal. Method MP4851

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162009-124	dfbpp	50ppm
CM5732	2,3,10	4ppm
166852	dbm (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: AMQ

Date: 11/30/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	P 109312	dfbpp				1					Not Using	5th Reinjected
	109313	dfbpp				1					ok	8:21pm
	109314	100 EP4851-50		BN1 Spike		2					ok	SV162064-34
	109315	100 EP4852-50		BN2 Spike		3					ok	-35
	109316	100 EP4852-50		HQ		4					ok	SV162009-91 9:34pm

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

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9.7.18

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID EP4854

Print Analyst Name: [illegible]

Analyst Signature: [illegible]

Date: 11/30/16

Columns: [illegible]

Method [illegible]

Initial Cal. Method [illegible]

Injection Volume: [illegible]

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV162109	[illegible] DF 188	0.0 ppm
0M5032	2370	
164577	DCM (KRW)	400 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: [illegible]

Date: 11/30/16.

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution.	L+	IS	SU	Status (Data)	Comments
	109317	DF 188				1					[illegible]	9:22 AM
	109318	EP4851-00		APA 3rd		2					[illegible]	SV162007GA 3rd for Capro.

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

9.7.19

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Batch ID: EP4874

Print Analyst Name: Robert LaPosta

Analyst Signature: [illegible]

Date: 12/14/16

Columns: Rtx-5Sil MS 0.25mm X 0.25µm

Method: 8270D/625 SEMI-VOLATILE

Initial Cal. Method: MP4874-51

Injection Volume: 1µl

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SU162004-124	DFTPP	50ppm
7113E	BNA	50ppm
SU162064-47A	TCL	50ppm
0M0432	AB 625 IV	100ppm
116272	SUM (B/N)	—

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: 12/21/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P104759	DFTPP				1					not reqd	51b reing
	104760	DFTPP				1						51b retue.
	104761	D-25				1					ok	9:59 Am
	104762	CC4951-50		BNA	W	2					ok	aniline, 2-meph, DMNA, B6b?
	104763	CC4952-50		TCL2		3					ok	Bad
	104764	BNA-WF-ppm		BNA		4					ok	
	104765	899167-MB	99167	AB8270	W	5			✓	✓	ok	bis2c@4.252 ppm
	104766	B51				6			✓	✓	R2	m6TCPn, 26dNitro-o-cresol
	104767	JC332463		BGP51PO		7			✓	✓	ok	up "file - Seq changed".
	104768	-5				8			✓	✓	ok	
	104769	JC329023		ABSCO		9					not ppm	BS6 run elsewhere
	104770	JC33335-15		AB7611		10						
	104771	-16				11						
	104772	-17				12						
	104773	-19				13						
	104774	-20				14						
	104775	-21				15						

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

9.7.20

9

SEMI-VOLATILE by GCMS ANALYSIS LOG

SGS ACCUTEST

Date: 12/14/16

Batch ID: EP 4874

Print Analyst Name: Rozzy Labosta

Analyst Signature: [illegible]

Columns: Rtx-5Silms 30m x 0.25mm x 0.25 µm

Method: 8270D/625

Initial Cal. Method: MPM851

Injection Volume: µL

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	LCS pg 70	

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: 12/21/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	L+	IS	SU	Status (Data)	Comments
	P09776	JC33335-22	99167	AB1611	W	16					not run	BSb moved off Sulfur.
	109777	0899167-MS		AB8222		17					↓	↓
	109778	-MSD				18					↓	↓
	109779	0899117-B11	99117	AB625	W	19			✓	✓	Rx	2clpn, 2methylnaph, 1,2,4,5tcb run after 109766
	109780	0899134-MB	99134	AB1270	S	20		+	✓	✓	ok	↓
	109781	JC33382-1A		AB8270-DUB +B3AC		21			✓	✓	ok	run after 109769
	109782	JC33301-4		AB1620		22		+	✓	✓	ok	↓
	109783	JC33015-6		B1620		23			SU		RR	Surrogate Recovery run after 109782
	109784	0899035-MB	99035	AB1270		24		+	✓	✓	ok	run after 109782
	109785	JC33014-6		AB1620		25		+	SU	✓	RR	↓
	109786	JC33375-1	99167	B8AH	W	26			✓	✓	ok	
	109787	-2				27			✓	✓	ok	7:53pm
	109788	JC33014-6	99035	AB1620		28			SU		not usg.	run after 109785 ↓

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

ABN Aqueous Extraction Logbook

LOGBOOK ID: 6-1901

Date Started: 12/13/16 Time Started: 17:00

Date Finished: 12/13/16 Time Finished: 23:30

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other ✓ 3510C SIM_____

Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 99167 RACK# G-3

Set-up by: NJF, ADC, RF

Extracted by: RF

Concentrated by: ZR, ADC

Final Vol. Top-up: ZR

Vialed by: ZR

Supervisor Reviews: 12/13/16

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) > 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		
	JC33175-1 MS		9	L. yellow	485	1	4	Yellow	1		
	MSD		9	L. yellow	485	1	4	Yellow	1		
	BS	12 SIM		DI H2O	1000	1	4	clear	1		
	JC33175-1 MS		5	L. yellow	475	1	4	L. yellow	1		
	MSD		5	L. yellow	475	1	4	L. Yellow	1		
1	JC33335-15	8270	1	clear	980	1	4	Clear	1		
2	JC33335-16	8270	1	clear	990	1	4	clear	1		
3	JC33335-18	8270	2	clear	970	1	4	clear	1		
4	JC33335-19	8270	2	clear	990	1	4	clear	1		
5	JC33335-20	8270	1	L. yellow	1000	1	4	L. Yellow	1		
6	JC33335-21	8270	2	clear	1000	1	4	Clear	1		
7	JC33335-22	8270	1	clear	1000	1	4	Clear	1		
8	JC33375-1	8270	1	L. yellow	1000	1	4	clear	1		
9	JC33375-2	8270	2	L. yellow	990	1	4	clear	1		
10	JC33384-1	8270	1	clear	950	1	4	Clear	1		
11	JC33384-2	8270	2	yellow	900	1	4	L. yellow	1		
12	JC33384-3	8270	1	clear	990	1	4	clear	1		
13	JC33296-3	8270	1	yellow	1000	1	4	Yellow	1		
14	JC33296-5	8270	1	yellow	510	1	4	L. yellow	1		★
15	JC32902-30	8270	2	clear	990	1	4	clear	1		
16	~~JC32913-19~~	8270									
17	~~JC32913-19F~~	8270									
18	JC33320-1	8270	1	brown	890	1	4	Yellow	1		
19	~~JC33175-1~~	8270	8	yellow	950	1	4	L. Yellow	1		
20											

B1 ZR

not ready 12/12 ZR

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3,7	76.6, 76.2	-1.4, -0.9	75, 75	NA
Waterbath Chiller (GPM)	5 3	-1	—	—	2
NEVAP (32-38°C, LPM)	2	35.0	+0.1	35.1	1.0

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	K184569	50	1

WITNESS SIGN: NJF SPIKE SIGN: ADC

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	K206450	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	K206439	50	1
Base #2	K206440	50	1
Anilines	K206441	50	1
BSIM	K184550	1	1

WITNESS SIGN: SPIKE SIGN:

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	166552	Fisher	6086

REAGENT	LOT #	BRAND
NaOH	162930	Fisher
H2SO4	460584	Ricca
Sodium Sulfate	165494	Fisher
Glass Wool	080230-1	Lab
Filter Paper		
pH strips		

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC33175-1

SIM: JC33175-1

Final Volume:

Other: ~~Please filter the F samples first~~ NJF 12/12

Comments:

SOPH MS/MSD - Not enough bottles

★ JC33296-5 had thick sediment layer - sample decanted. only one bottle available

SGS ACCUTEST INC.

Form: OP022A-10

Rev Date: 9/22/16

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ABN Aqueous Extraction Logbook

LOGBOOK ID: 6-1901

Date Started: 12/13/16 Time Started: 17:00

Date Finished: 12/13/16 Time Finished: 23:30

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):

Separatory Funnel: SW846 3510C/CLP/other ✓ 3510C SIM_____

Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # MS 99167 RACK# G-3

Set-up by: NJF, ADC, RF

Extracted by: RF

Concentrated by: ZR, ADC

Final Vol. Top-up: ZR

Vialed by: ZR

Supervisor Reviews: 12/13/16

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) ▷ 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		
	JC33175-1 MS		9	L. yellow	485	1	4	Yellow	1		
	MSD		9	L. yellow	485	1	4	Yellow	1		
	BS	12 SIM		DI H2O	1000	1	4	clear	1		
	JC33175-1 MS		5	L. yellow	475	1	4	L. yellow	1		
	MSD		5	L. yellow	475	1	4	L. Yellow	1		
1	JC33335-15	8270	1	clear	980	1	4	Clear	1		
2	JC33335-16	8270	1	clear	990	1	4	clear	1		
3	JC33335-18	8270	2	clear	970	1	4	clear	1		
4	JC33335-19	8270	2	clear	990	1	4	clear	1		
5	JC33335-20	8270	1	L. yellow	1000	1	4	L. Yellow	1		
6	JC33335-21	8270	2	clear	1000	1	4	Clear	1		
7	JC33335-22	8270	1	clear	1000	1	4	Clear	1		
8	JC33375-1	8270	1	L. yellow	1000	1	4	clear	1		
9	JC33375-2	8270	2	L. yellow	990	1	4	clear	1		
10	JC33384-1	8270	1	clear	950	1	4	clear	1		
11	JC33384-2	8270	2	yellow	900	1	4	L. yellow	1		
12	JC33384-3	8270	1	clear	990	1	4	clear	1		
13	JC33296-3	8270	1	yellow	1000	1	4	Yellow	1		
14	JC33296-5	8270	1	yellow	510	1	4	L. yellow	1		★
15	JC32902-30	8270	2	clear	990	1	4	clear	1		
16	~~JC32913-19~~	8270									
17	~~JC32913-19F~~	8270									
18	JC33320-1	8270	1	brown	890	1	4	Yellow	1		
19	~~JC33175-1~~	8270	8	yellow	950	1	4	L. Yellow	1		
20											

B1 ~~8~~ 9

C2 ~~11~~ 12

not ready ~~16~~ 17

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3,7	76.6, 76.2	-1.4, -0.9	75, 75	NA
Waterbath Chiller (GPM)	5 3	-1	—	—	2
NEVAP (32-38°C, LPM)	2	35.0	+0.1	35.1	1.0

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	16184569	50	1

WITNESS SIGN: NJF SPIKE SIGN: ADC

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	16206450	50	Acid: 1
Acid (for SIM)			A(SIM): 0.1
Base #1	16206439	50	1
Base #2	16206440	50	1
Anilines	16206441	50	1
BSIM	16184550	1	1

WITNESS SIGN: SPIKE SIGN:

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	166552	Fisher	6086

REAGENT	LOT #	BRAND
NaOH	162930	Fisher
H2SO4	460584	Ricca
Sodium Sulfate	165494	Fisher
Glass Wool	080230-1	Lab
Filter Paper		
pH strips		

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC33175-1

SIM: JC33175-1

Final Volume:

Other: ~~Please filter the F samples first~~ 12/12

Comments:

SOIL MS/MSD - Not enough bottles

★ JC33296-5 had thick sediment layer - sample decanted. only one bottle available

SGS ACCUTEST INC.

Form: OP022A-10

Rev Date: 9/22/16

19

LOGBOOK ID: 6-1900

ABN Aqueous Extraction Logbook

Date Started: 12/15/16 Time Started: 500pm
Date Finished: 12/15/16 Time Finished: 23:55

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other √ 3510C SIM
Continuous Liquid Liquid: SW846 3520C/CLP/other

BATCH # MS 99254	RACK# D-15
Set-up by:	NJF, YB, ZR
Extracted by:	YB, NF, AX
Concentrated by:	ZR
Final Vol. Top-up:	
Vialed by:	ZR
Supervisor Review:	L Ell 12/16/16

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		
JC33175-1 BS1			DI H2O	1000	1	4	yellow	1		
JC33328-1 MS		1	L. yellow	950	1	4	yellow	1		
MS2B MSD		1	L. yellow	990	1	4	yellow	1		
BS	12 SIM		DI H2O	1000	1	4	l. yellow	1		
JC33338-2 MS		3	L. yellow	950	1	4	l. yellow	1		
MSD		3	L. yellow	450	1	4	l. yellow	1		
~~JC33323-1~~ MB1	~~8270~~			NOF						*
JC33323-2	8270	1	clear	~~1000~~ 990	1	4	clear	1		
JC33335-15	8270	2	clear	990	1	4	clear	1		
JC33335-16	8270	2	clear	1000	1	4	clear	1		
JC33335-18	8270	1	clear	950	1	4	clear	1		
JC33335-19	8270	1	clear	1000	1	4	clear	1		
JC33335-20	8270	2	yellow	950	1	4	L. yellow	1		
JC33335-21	8270	1	clear	1000	1	4	clear	1		
JC33335-22	8270	2	yellow	990	1	4	clear	1		
JC33384-1	8270	2	clear	950	1	4	clear	1		
JC33384-3	8270	3	clear	1000	1	4	clear	1		
JC33338-1	8270	4	clear	1000	1	4	clear	1		
JC33338-2	8270	4	yellow	900	1	4	L. yellow	1		
JC33338-3	8270	4	yellow	930	1	4	yellow	1		
JC33340-1	8270	2	yellow	990	1	4	clear	1		
JC33340-4	8270	2	yellow	970	1	4	L. yellow	1		
JC33340-5	8270	2	yellow	1000	1	4	yellow	1		
JC33340-6	8270	2	yellow	1000	1	4	L. yellow	1		
~~JC33340-8~~ JC33340-8	8270	2	yellow	950	1	4	L. yellow	1		
JC33686-1A	8270	4	yellow	990	1	4	brown	1		

Comments: Okay to split ~~MS/MSD~~ & SIM MS/[redacted]

Line 19 is JC33175-1

* Line 1 is JC33323-1 and all bottles are depleted

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	3.7	75.1, 73.3	-1.4-0.9	74.74	ok
Waterbath Chiller (GPM)	F3	-5	—	—	ok
NEVAP (32-38°C, LPM)	2	35.0	+0.1	35.1	ok

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	1618456G	50	1.0

WITNESS SIGN: ZR SPIKE SIGN: ADC

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	1620450	50	Acid: 1.0
Acid (for SIM)			A(SIM): 0.1
Base #1	1620443	50	1.0
Base #2	1620440	50	1.0
Anilines	1620441	50	1.0
BSIM	1618470	1	1.0

WITNESS SIGN: ZR SPIKE SIGN: ADC

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	167127	Fisher	600

REAGENT	LOT #	BRAND
NaOH	165930	Fisher
H2SO4	4605884	Ricca
Sodium Sulfate	157477	Fisher
Glass Wool	080430-1	lab
Filter Paper		
pH strips		

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason: Low BS1

Spiking:

Weights/Volumes:

Required MS/MSD: JC33175-1

Final Volume:

Other:

Past HT

SGS ACCUTEST INC.
Form: OP022A-10
Rev Date: 9/22/16

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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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5589-MB1	GH107769.D	1	12/15/16	XPL	n/a	n/a	GGH5589

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	200	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	89%	56-145%
111-27-3	Hexanol	97%	56-145%

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGH5589-BS	GH107770.D	1	12/15/16	XPL	n/a	n/a	GGH5589

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC33175-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
64-17-5	Ethanol	5000	5070	101	74-123
78-83-1	Isobutyl Alcohol	5000	4740	95	70-124
67-63-0	Isopropyl Alcohol	5000	4300	86	76-121
71-23-8	n-Propyl Alcohol	5000	5080	102	73-122
71-36-3	n-Butyl Alcohol	5000	5190	104	67-116
78-92-2	sec-Butyl Alcohol	5000	4910	98	74-118
67-56-1	Methanol	5000	5730	115	67-121

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	98%	56-145%
111-27-3	Hexanol	106%	56-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC33175-1MS	GH107772.D	1	12/15/16	XPL	n/a	n/a	GGH5589
JC33175-1MSD	GH107773.D	1	12/15/16	XPL	n/a	n/a	GGH5589
JC33175-1	GH107771.D	1	12/15/16	XPL	n/a	n/a	GGH5589

The QC reported here applies to the following samples: **Method:** SW846-8015C (DAI)

JC33175-1

CAS No.	Compound	JC33175-1 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	3820	76	5000	4470	89	16	58-145/27
78-83-1	Isobutyl Alcohol	ND		5000	4380	88	5000	5470	109	22	69-131/25
67-63-0	Isopropyl Alcohol	ND		5000	3590	72	5000	3950	79	10	70-133/28
71-23-8	n-Propyl Alcohol	ND		5000	4050	81	5000	5540	111	31* [a]	66-137/29
71-36-3	n-Butyl Alcohol	ND		5000	6450	129	5000	6000	120	7	63-131/25
78-92-2	sec-Butyl Alcohol	ND		5000	5200	104	5000	5080	102	2	64-136/25
67-56-1	Methanol	ND		5000	3990	80	5000	3810	76	5	48-148/34

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
111-27-3	Hexanol	91%	91%	85%	56-145%
111-27-3	Hexanol	81%	92%	84%	56-145%

(a) Outside in house control limits.

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5589-CC5519	**Injection Date:**	12/15/16
Lab File ID:	GH107767.D	**Injection Time:**	08:50
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	GGH5589-BS	**Injection Date:**	12/15/16
Lab File ID:	GH107770.D	**Injection Time:**	09:51
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	0.64	0.64	7850		ug/l	43.0
Ethanol	2 [a]	1.56	1.56	5070		ug/l	
Isobutyl Alcohol	1	1.87	1.88	6160		ug/l	26.1
Isobutyl Alcohol	2 [a]	3.75	3.75	4740		ug/l	
Isopropyl Alcohol	1	0.78	0.78	7630		ug/l	55.8
Isopropyl Alcohol	2 [a]	1.89	1.89	4300		ug/l	
n-Propyl Alcohol	1	1.16	1.16	6270		ug/l	21.0
n-Propyl Alcohol	2 [a]	2.79	2.79	5080		ug/l	
n-Butyl Alcohol	1	2.43	2.43	5660		ug/l	8.7
n-Butyl Alcohol	2 [a]	4.32	4.32	5190		ug/l	
sec-Butyl Alcohol	1	1.48	1.48	6210		ug/l	23.4
sec-Butyl Alcohol	2 [a]	3.24	3.24	4910		ug/l	
Methanol	1	0.49	0.49	7800		ug/l	30.6
Methanol	2 [a]	1.17	1.16	5730		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5589-CC5519	**Injection Date:**	12/15/16
Lab File ID:	GH107767.D	**Injection Time:**	08:50
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC33175-1MS	**Injection Date:**	12/15/16
Lab File ID:	GH107772.D	**Injection Time:**	10:51
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	0.64	0.64	6580		ug/l	53.1
Ethanol	2 [a]	1.56	1.56	3820		ug/l	
Isobutyl Alcohol	1	1.87	1.88	5570		ug/l	23.9
Isobutyl Alcohol	2 [a]	3.75	3.75	4380		ug/l	
Isopropyl Alcohol	1	0.78	0.78	6440		ug/l	56.8
Isopropyl Alcohol	2 [a]	1.89	1.89	3590		ug/l	
n-Propyl Alcohol	1	1.16	1.16	5650		ug/l	33.0
n-Propyl Alcohol	2 [a]	2.80	2.79	4050		ug/l	
n-Butyl Alcohol	1	2.43	2.43	5210		ug/l	21.3
n-Butyl Alcohol	2 [a]	4.32	4.32	6450		ug/l	
sec-Butyl Alcohol	1	1.48	1.48	5650		ug/l	8.3
sec-Butyl Alcohol	2 [a]	3.24	3.24	5200		ug/l	
Methanol	1	0.49	0.49	6450		ug/l	47.1
Methanol	2 [a]	1.16	1.16	3990		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5589-CC5519	**Injection Date:**	12/15/16
Lab File ID:	GH107767.D	**Injection Time:**	08:50
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

Sample ID:	JC33175-1MSD	**Injection Date:**	12/15/16
Lab File ID:	GH107773.D	**Injection Time:**	11:10
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Ethanol	1	0.64	0.64	6330		ug/l	34.4
Ethanol	2 [a]	1.56	1.56	4470		ug/l	
Isobutyl Alcohol	1	1.87	1.88	5450		ug/l	0.4
Isobutyl Alcohol	2 [a]	3.75	3.75	5470		ug/l	
Isopropyl Alcohol	1	0.78	0.78	5880		ug/l	39.3
Isopropyl Alcohol	2 [a]	1.89	1.89	3950		ug/l	
n-Propyl Alcohol	1	1.16	1.16	5080		ug/l	8.7
n-Propyl Alcohol	2 [a]	2.79	2.79	5540		ug/l	
n-Butyl Alcohol	1	2.43	2.43	4890		ug/l	20.4
n-Butyl Alcohol	2 [a]	4.32	4.32	6000		ug/l	
sec-Butyl Alcohol	1	1.48	1.48	5010		ug/l	1.4
sec-Butyl Alcohol	2 [a]	3.24	3.24	5080		ug/l	
Methanol	1	0.49	0.49	5490		ug/l	36.1
Methanol	2 [a]	1.16	1.16	3810		ug/l	

(a) QC results reported from this column.

Volatile Surrogate Recovery Summary

Job Number: JC33175
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]
JC33175-1	GH107771.D	85	84
GGH5589-BS	GH107770.D	98	106
GGH5589-MB1	GH107769.D	89	97
JC33175-1MS	GH107772.D	91	81
JC33175-1MSD	GH107773.D	91	92

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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	GGH5589-CC5519	**Injection Date:**	12/15/16
Lab File ID:	GH107767.D	**Injection Time:**	08:50
Instrument ID:	GCGH	**Method:**	SW846-8015C (DAI)

	S1 [a] RT	S1 [b] RT
Check Std	6.16	5.05

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GGH5589-MB1	GH107769.D	12/15/16	09:32	6.16	5.05
GGH5589-BS	GH107770.D	12/15/16	09:51	6.16	5.05
JC33175-1	GH107771.D	12/15/16	10:33	6.16	5.05
JC33175-1MS	GH107772.D	12/15/16	10:51	6.17	5.05
JC33175-1MSD	GH107773.D	12/15/16	11:10	6.16	5.05
ZZZZZZ	GH107774.D	12/15/16	11:28	6.16	5.05
ZZZZZZ	GH107775.D	12/15/16	11:47	6.16	5.05
ZZZZZZ	GH107776.D	12/15/16	12:05	6.16	5.05
ZZZZZZ	GH107777.D	12/15/16	12:24	6.16	5.05

Surrogate Compounds

S1 = Hexanol

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

Initial Calibration Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: GGH5519-ICC5519
Lab FileID: GH106910.D

Response Factor Report GCGH

Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Tue Oct 11 07:59:30 2016
Response via : Initial Calibration

Calibration Files
0.5 =GH106908.D 1 =GH106909.D 5 =GH106910.D 10 =GH106911.D
50 =GH106912.D 100 =GH106913.D 0.2 =GH106907.D 0.1 =GH106906.D

Compound	0.5	1	5	10	50	100	0.2	0.1	Avg		%RSD
1) Methanol	1.006	1.360	1.085	1.028	0.838	0.897	1.076	1.224	1.064	E1	15.79
2) Ethanol	1.428	1.868	1.575	1.643	1.264	1.240	1.406	1.621	1.505	E1	14.06
3) Tert-Butyl A	2.283	3.019	2.529	2.595	2.099	2.385	2.511	2.811	2.529	E1	11.49
4) 1-Propanol	2.011	3.111	2.902	2.930	1.965	2.481	2.170	3.001	2.571	E1	18.38
5) 2-Propanol	1.486	1.914	1.587	1.666	1.263	1.387	1.541	1.885	1.591	E1	14.24
6) Isobutanol	2.597	3.392	3.330	3.751	2.828	3.143	3.080	2.714	3.104	E1	12.41
7) 1-Butanol	2.449	3.433	3.761	3.340	2.789	3.067	2.951	3.468	3.157	E1	13.43
8) 2-Butanol	2.133	2.972	2.860	3.006	2.413	2.665	2.488	2.602	2.642	E1	11.32
9) Hexanol	8.432	7.939	7.720	8.014	8.162	5.562	5.898		7.389	E1	15.68

Signal #2

1) Methanol	1.300	1.262	1.387	1.205	1.312	1.550	1.387	0.867	1.284	E1	15.40
2) Ethanol	1.841	1.987	1.942	2.090	1.771	2.080	1.699	1.337	1.843	E1	13.44
3) Tert-Butyl A	2.556	2.702	3.217	3.180	2.649	3.094	2.839	3.157	2.924	E1	9.16
4) 1-Propanol	2.888	2.679	2.974	2.929	2.417	2.754	2.987	2.617	2.781	E1	7.24
5) 2-Propanol	1.884	2.126	2.463	2.249	1.835	2.184	1.851	1.602	2.024	E1	13.74
6) Isobutanol	3.537	3.280	3.430	3.462	2.731	3.185	3.170	3.736	3.316	E1	9.12
7) 1-Butanol	2.792	3.210	3.276	3.223	2.603	2.946	3.158	2.910	3.015	E1	7.98
8) 2-Butanol	2.140	2.391	2.902	2.981	2.451	2.800	2.176	1.956	2.475	E1	15.45
9) Hexanol	9.625	8.668	8.851	8.768	8.540	5.996	7.999	6.459	8.113	E1	15.43

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

MGH5519.M Tue Oct 11 08:00:42 2016 GCGH

Initial Calibration Verification

Job Number: JC33175 **Sample:** GGH5519-ICV5519
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH106914.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH106914.D\FID1A.CH        Vial: 10
Acq On    : 10 Oct 2016   1:40 pm                   Operator: XULIU
Sample    : ICV5519-5000                            Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106914.D\FID2B.CH        Vial: 10
Acq On    : 10 Oct 2016   1:59 pm                   Operator: XULIU
Sample    : ICV5519-5000                            Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 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	10.643	10.330	2.9	95	0.00	0.46- 0.52
2	Ethanol	15.055	15.437	-2.5	98	0.00	0.59- 0.69
3	Tert-Butyl Alcohol	25.288	25.421	-0.5	101	0.00	0.83- 0.95
4	1-Propanol	25.711	23.160	9.9	80	0.00	1.07- 1.23
5	2-Propanol	15.911	15.757	1.0	99	0.00	0.71- 0.83
6	Isobutanol	31.044	31.539	-1.6	95	0.00	1.81- 1.91
7	1-Butanol	31.573	37.216	-17.9	99	0.00	2.36- 2.48
8	2-Butanol	26.424	25.368	4.0	89	0.00	1.40- 1.54
9 S	Hexanol	73.894	81.187	-9.9	105	0.00	4.98- 5.10
*****	Signal #2 *****						
1	Methanol	12.838	12.989	-1.2	94	0.00	1.13- 1.19
2	Ethanol	18.434	20.455	-11.0	105	0.00	1.53- 1.59
3	Tert-Butyl Alcohol	29.242	32.770	-12.1	102	0.00	2.13- 2.19
4	1-Propanol	27.806	30.220	-8.7	102	0.00	2.76- 2.83
5	2-Propanol	20.243	22.159	-9.5	90	0.00	1.86- 1.92
6	Isobutanol	33.164	34.774	-4.9	101	0.00	3.72- 3.78
7	1-Butanol	30.147	32.938	-9.3	101	0.00	4.29- 4.35
8	2-Butanol	24.747	30.371	-22.7#	105	0.00	3.21- 3.27
9 S	Hexanol	81.132	86.623	-6.8	98	0.00	6.14- 6.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH106910.D MGH5519.M Tue Oct 11 08:05:43 2016 GCGH

Continuing Calibration Summary

Job Number: JC33175 **Sample:** GGH5589-CC5519
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH107767.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH107767.D\FID1A.CH         Vial: 92
Acq On    : 15 Dec 2016   8:50 am                    Operator: XULIU
Sample    : CC5519-5000                              Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                 Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107767.D\FID2B.CH         Vial: 92
Acq On    : 15 Dec 2016   9:09 am                    Operator: XULIU
Sample    : CC5519-5000                              Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 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	10.643	16.751	-57.4#	154#	0.00	0.46- 0.52
2	Ethanol	15.055	23.919	-58.9#	152#	0.00	0.59- 0.70
3	Tert-Butyl Alcohol	25.288	35.328	-39.7#	140	0.00	0.83- 0.96
4	1-Propanol	25.711	32.575	-26.7#	112	0.00	1.08- 1.24
5	2-Propanol	15.911	24.015	-50.9#	151#	0.00	0.72- 0.84
6	Isobutanol	31.044	39.660	-27.8#	119	0.00	1.82- 1.93
7	1-Butanol	31.573	36.790	-16.5	98	0.00	2.37- 2.50
8	2-Butanol	26.424	33.981	-28.6#	119	0.00	1.41- 1.55
9 S	Hexanol	73.894	74.065	-0.2	96	0.00	4.99- 5.12

***** Signal #2 *****

1	Methanol	12.838	14.363	-11.9	104	0.00	1.13- 1.19
2	Ethanol	18.434	23.523	-27.6#	121	0.00	1.53- 1.59
3	Tert-Butyl Alcohol	29.242	30.844	-5.5	96	0.00	2.13- 2.19
4	1-Propanol	27.806	24.342	12.5	82	0.00	2.76- 2.83
5	2-Propanol	20.243	19.051	5.9	77	0.00	1.86- 1.92
6	Isobutanol	33.164	33.781	-1.9	98	0.00	3.72- 3.78
7	1-Butanol	30.147	32.258	-7.0	98	0.00	4.29- 4.35
8	2-Butanol	24.747	27.398	-10.7	94	0.00	3.21- 3.27
9 S	Hexanol	81.132	79.227	2.3	90	0.00	6.13- 6.19

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH106910.D MGH5519.M Thu Dec 15 09:59:20 2016 GCGH

10.7.3 10

Continuing Calibration Summary

Job Number: JC33175 **Sample:** GGH5589-CC5519
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** GH107778.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\GH107778.D\FID1A.CH         Vial: 95
Acq On    : 15 Dec 2016  12:42 pm                    Operator: XULIU
Sample    : CC5519-10000                             Inst    : GCGH
Misc      : GC49770,GGH5589,5.0,,,,1                 Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107778.D\FID2B.CH         Vial: 95
Acq On    : 15 Dec 2016   1:01 pm                    Operator: XULIU
Sample    : CC5519-10000                             Inst    : GCGH
Misc      : GC49770,GGH5589,5.0,,,,1                 Multiplr: 1.00
IntFile   : autoint2.e

Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 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	10.643	15.904	-49.4#	155#	0.00	0.46- 0.52
2	Ethanol	15.055	22.637	-50.4#	138	0.00	0.59- 0.69
3	Tert-Butyl Alcohol	25.288	32.379	-28.0#	125	0.00	0.83- 0.96
4	1-Propanol	25.711	29.229	-13.7	100	0.00	1.08- 1.24
5	2-Propanol	15.911	22.237	-39.8#	134	0.00	0.71- 0.84
6	Isobutanol	31.044	37.353	-20.3#	100	0.00	1.82- 1.92
7	1-Butanol	31.573	35.128	-11.3	105	0.00	2.37- 2.49
8	2-Butanol	26.424	31.648	-19.8	105	0.00	1.41- 1.55
9 S	Hexanol	73.894	78.332	-6.0	98	0.00	4.99- 5.11

***** Signal #2 *****

1	Methanol	12.838	14.532	-13.2	121	0.00	1.14- 1.20
2	Ethanol	18.434	19.284	-4.6	92	0.00	1.53- 1.59
3	Tert-Butyl Alcohol	29.242	31.980	-9.4	101	0.00	2.13- 2.19
4	1-Propanol	27.806	28.108	-1.1	96	0.00	2.76- 2.83
5	2-Propanol	20.243	18.938	6.4	84	0.00	1.86- 1.92
6	Isobutanol	33.164	33.820	-2.0	98	0.00	3.72- 3.78
7	1-Butanol	30.147	32.369	-7.4	100	0.00	4.28- 4.34
8	2-Butanol	24.747	29.442	-19.0	99	0.00	3.21- 3.27
9 S	Hexanol	81.132	78.174	3.6	89	0.00	6.13- 6.19

(#) = Out of Range SPCC's out = 0 CCC's out = 0
GH106911.D MGH5519.M Fri Dec 16 09:22:54 2016 GCGH

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH107771.D\FID1A.CH          Vial: 20
Acq On    : 15 Dec 2016  10:33 am                     Operator: XULIU
Sample    : JC33175-1                                 Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107771.D\FID2B.CH          Vial: 20
Acq On    : 15 Dec 2016  10:51 am                     Operator: XULIU
Sample    : JC33175-1                                 Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 11:03 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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
9) S   Hexanol           5.05   6.16    308842   346794 4179.506  4274.447
 Spiked Amount   5000.000                  Recovery     =   83.59%    85.49%

Target Compounds
```

11.1.1

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH107771.D  MGH5519.M      Thu Dec 15 13:49:50 2016      GCGH
```

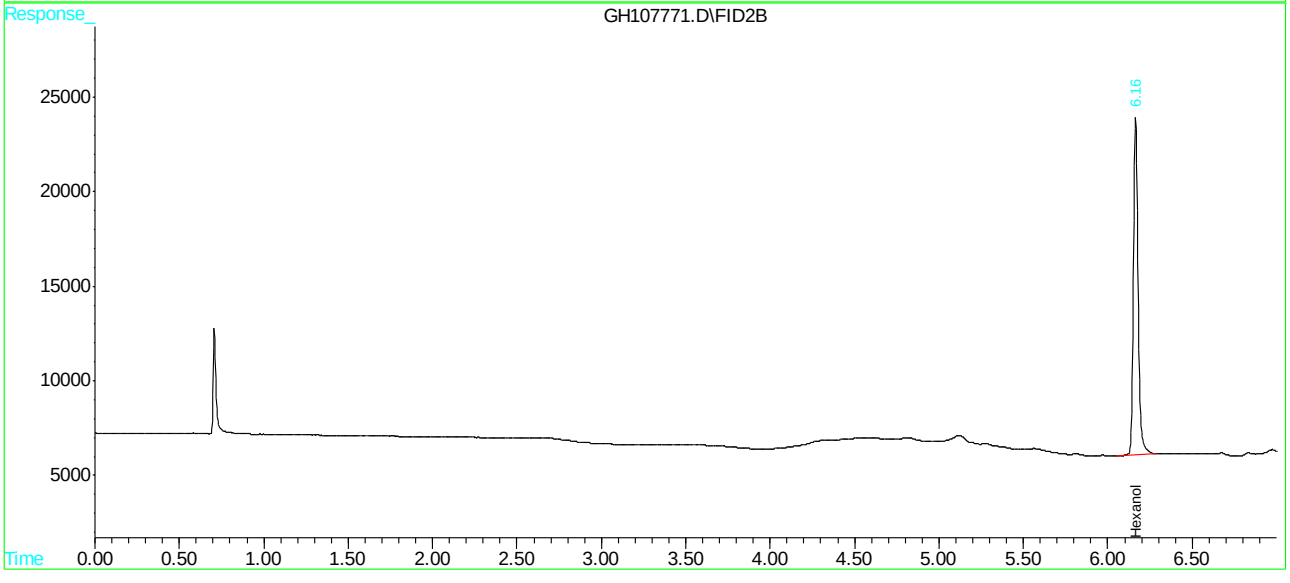
Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH107771.D\FID1A.CH          Vial: 20
Acq On    : 15 Dec 2016  10:33 am                     Operator: XULIU
Sample    : JC33175-1                                 Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107771.D\FID2B.CH          Vial: 20
Acq On    : 15 Dec 2016  10:51 am                     Operator: XULIU
Sample    : JC33175-1                                 Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 11:03 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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\GH107769.D\FID1A.CH          Vial: 93
Acq On    : 15 Dec 2016   9:32 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107769.D\FID2B.CH          Vial: 93
Acq On    : 15 Dec 2016   9:51 am                     Operator: XULIU
Sample    : MB1                                       Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 10:15 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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
9) S   Hexanol           5.05   6.16    359625   361810 4866.737  4459.530
 Spiked Amount   5000.000                  Recovery     =   97.33%    89.19%

Target Compounds
```

11.2.1

11

```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40%  (m)=manual int.
GH107769.D  MGH5519.M      Thu Dec 15 10:18:11 2016      GCGH
```

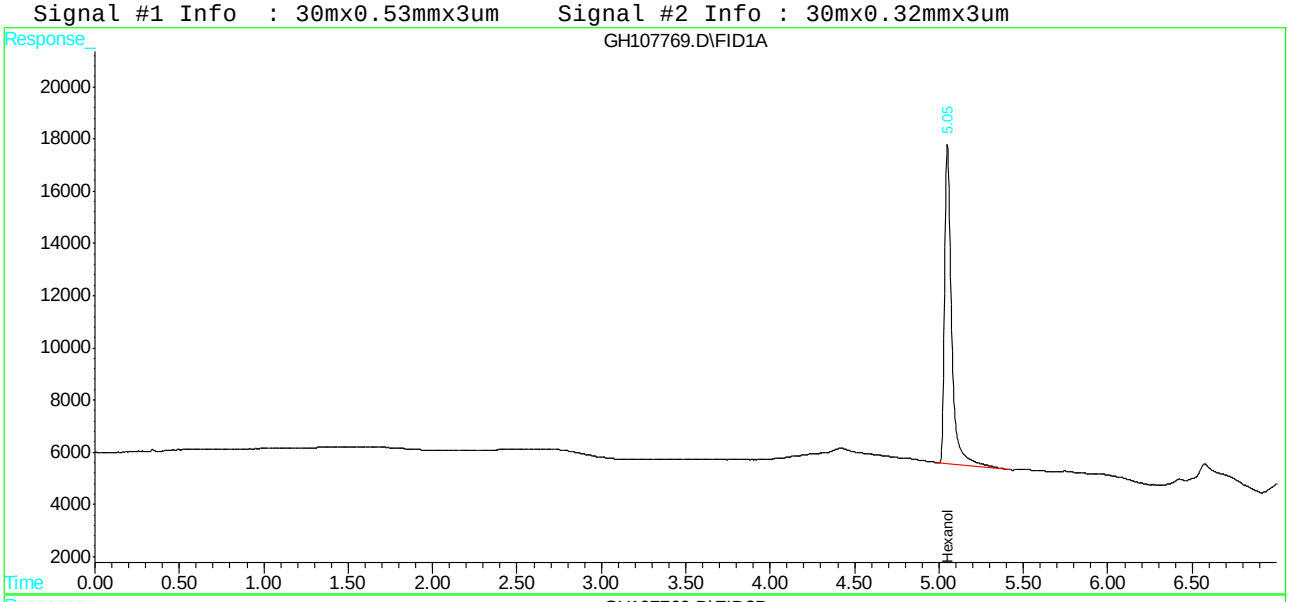
Quantitation Report (QT Reviewed)

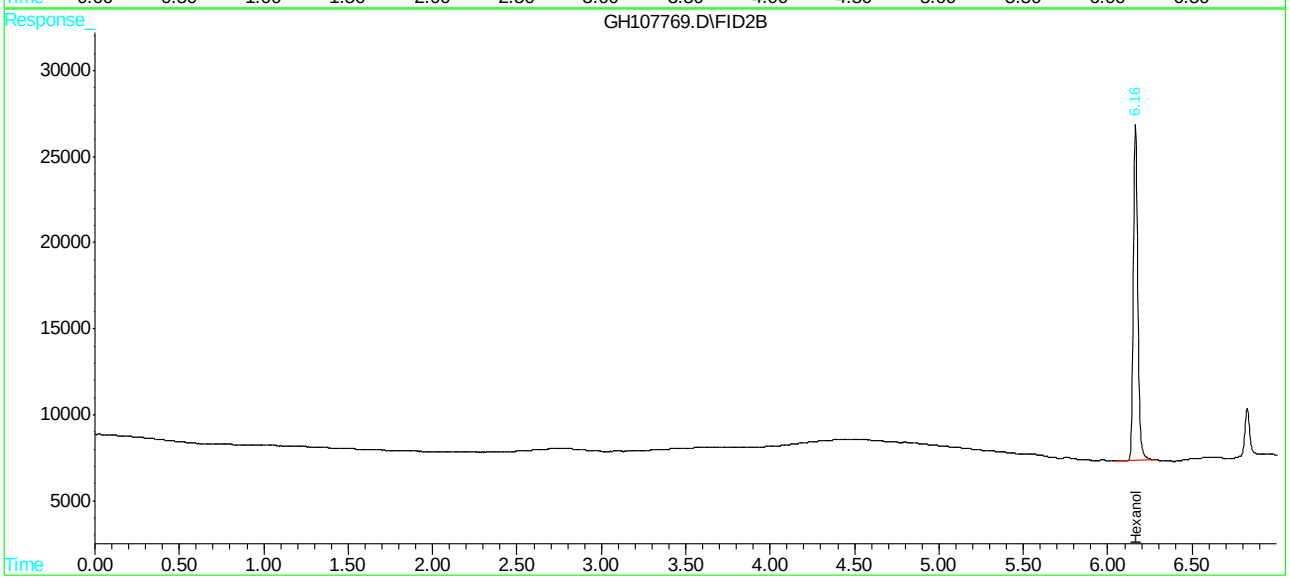
Data File : C:\HPCHEM\1\DATA\GH107769.D\FID1A.CH Vial: 93
Acq On : 15 Dec 2016 9:32 am Operator: XULIU
Sample : MB1 Inst : GCGH
Misc : GC49747,GGH5589,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107769.D\FID2B.CH Vial: 93
Acq On : 15 Dec 2016 9:51 am Operator: XULIU
Sample : MB1 Inst : GCGH
Misc : GC49747,GGH5589,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Dec 15 10:15 2016 Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
12/21/16 14:04

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH107770.D\FID1A.CH          Vial: 94
Acq On    : 15 Dec 2016   9:51 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107770.D\FID2B.CH          Vial: 94
Acq On    : 15 Dec 2016  10:09 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:47 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.05	6.16	390273	397503	5281.501	4899.475
	Spiked Amount 5000.000			Recovery	=	105.63%	97.99%
	Target Compounds						
1)	Methanol	0.49	1.17	82970	73553	7795.838	5729.510m
2)	Ethanol	0.64	1.56	118134	93447	7847.016	5069.248
3)	Tert-Butyl Alcoh	0.90	2.16	176381	142602	6974.824	4876.709
4)	1-Propanol	1.16	2.79	161159	141151	6268.022	5076.279
5)	2-Propanol	0.78	1.89	121388	87014	7628.974	4298.451 #
6)	Isobutanol	1.87	3.75	191379	157331	6164.743	4744.036
7)	1-Butanol	2.43	4.32	178620	156597	5657.398	5194.371
8)	2-Butanol	1.48	3.24	164113	121428	6210.780	4906.740

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

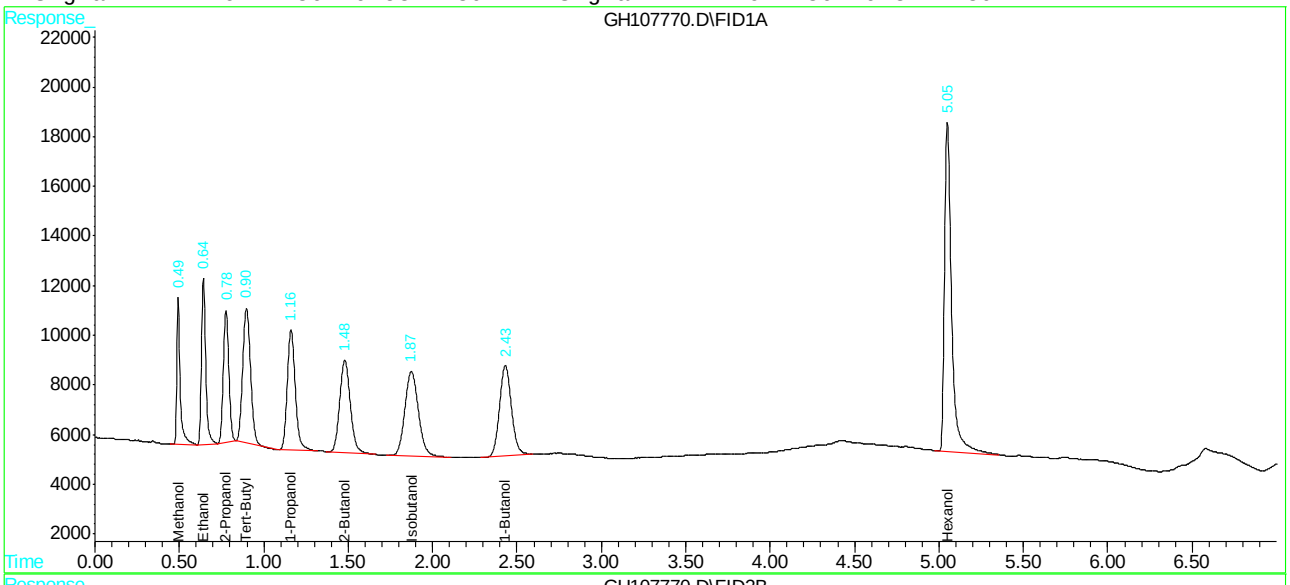
Quantitation Report (QT Reviewed)

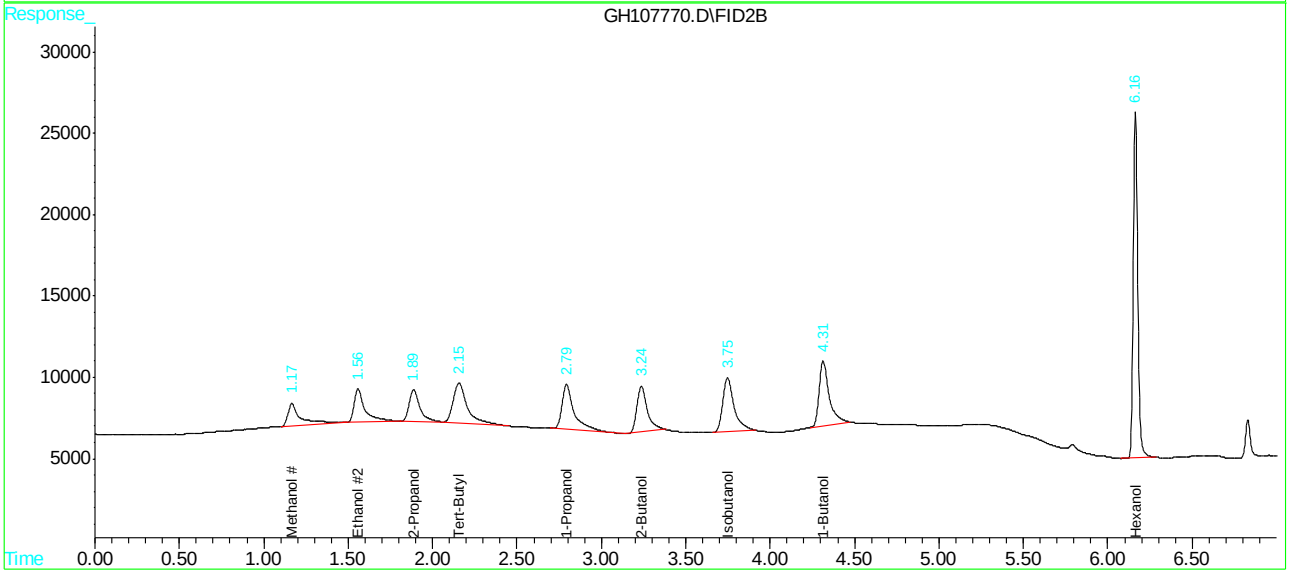
```
Data File : C:\HPCHEM\1\DATA\GH107770.D\FID1A.CH          Vial: 94
Acq On    : 15 Dec 2016   9:51 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107770.D\FID2B.CH          Vial: 94
Acq On    : 15 Dec 2016  10:09 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:47 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Manual Integration Approval Summary

Sample Number:	GGH5589-BS	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH107770.D	**Analyst approved:**	12/16/16 09:32 Xu Liu
Injection Time:	12/15/16 09:51	**Supervisor approved:**	12/21/16 14:04 Dana Tryon

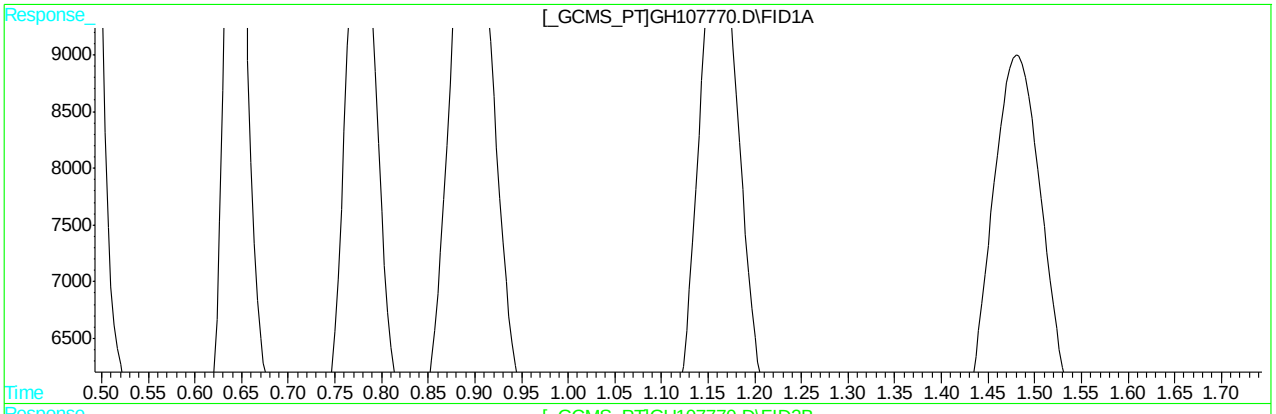
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	1.17	Poor instrument integration

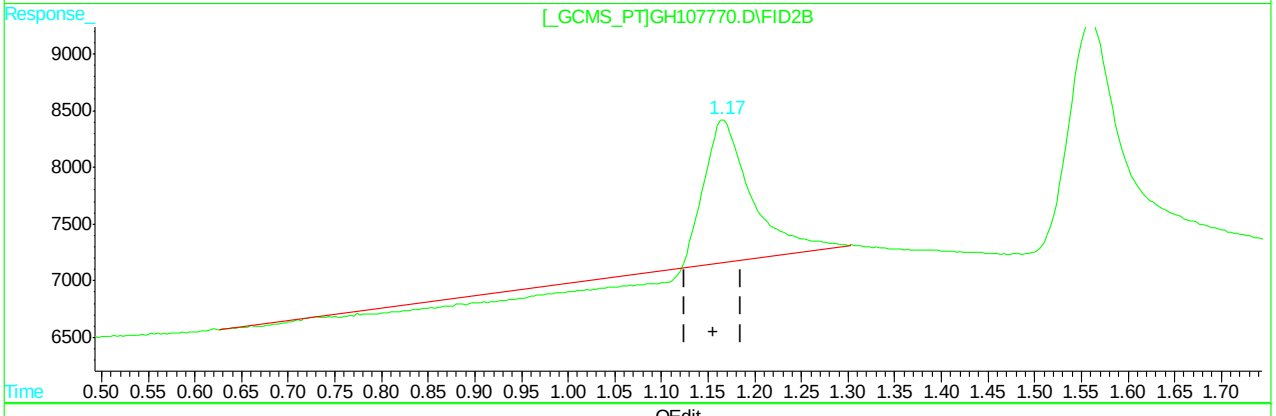
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH107770.D\FID1A.CH          Vial: 94
Acq On    : 15 Dec 2016   9:51 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107770.D\FID2B.CH          Vial: 94
Acq On    : 15 Dec 2016  10:09 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:44 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 7795.838PPB

response 82970

(1) Methanol #2

1.17min 2082.886PPB

response 26739

(+) = Expected Retention Time

GH107770.D MGH5519.M Thu Dec 15 13:46:50 2016 GCGH

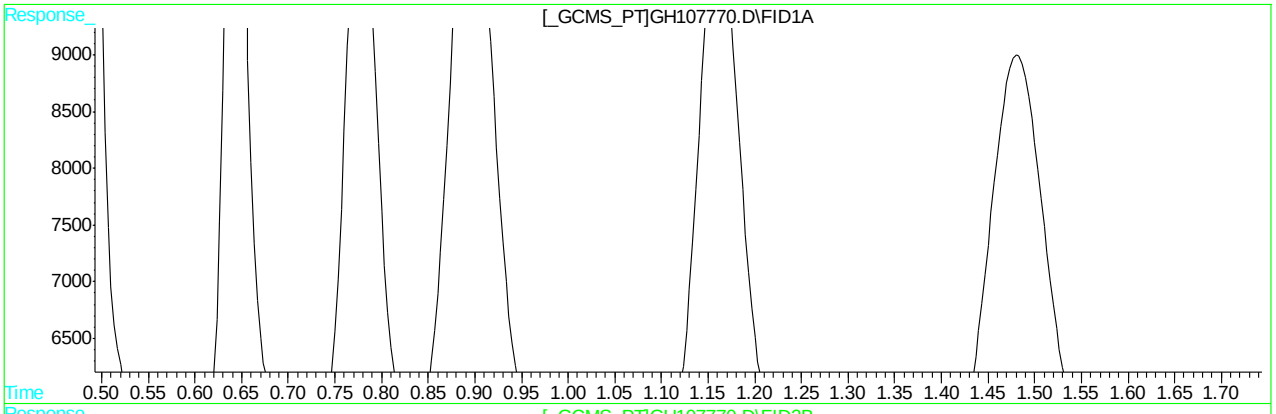
SGS ACCUTEST JC33175

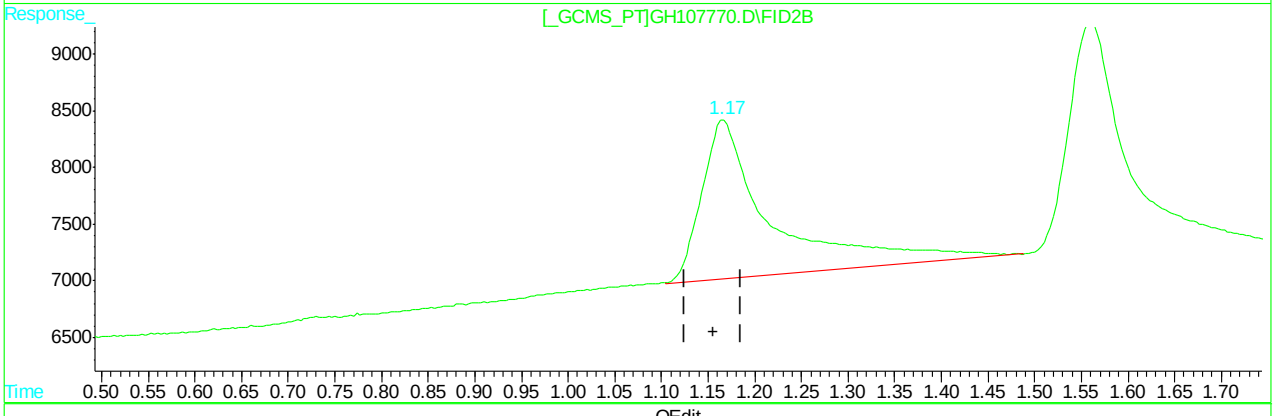
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH107770.D\FID1A.CH          Vial: 94
Acq On    : 15 Dec 2016   9:51 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107770.D\FID2B.CH          Vial: 94
Acq On    : 15 Dec 2016  10:09 am                     Operator: XULIU
Sample    : BS                                        Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:44 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 7795.838PPB

response 82970

(1) Methanol #2

1.17min 5729.510PPB m

response 73553

(+) = Expected Retention Time

GH107770.D MGH5519.M Thu Dec 15 13:47:44 2016 GCGH

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\GH107772.D\FID1A.CH Vial: 21
Acq On : 15 Dec 2016 10:51 am Operator: XULIU
Sample : JC33175-1MS Inst : GCGH
Misc : GC49747,GGH5589,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107772.D\FID2B.CH Vial: 21
Acq On : 15 Dec 2016 11:10 am Operator: XULIU
Sample : JC33175-1MS Inst : GCGH
Misc : GC49747,GGH5589,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Dec 15 13:52 2016 Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Thu Dec 15 09:54:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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							
9) S	Hexanol	5.05	6.17	299222	370764	4049.325	4569.895	
Spiked Amount	5000.000			Recovery	=	80.99%	91.40%	
	Target Compounds							
1)	Methanol	0.49	1.16	68653	51252	6450.604	3992.342	
2)	Ethanol	0.64	1.56	99105	70370	6582.979	3817.370	#
3)	Tert-Butyl Alcoh	0.90	2.16	155210	140361	6137.642	4800.057	
4)	1-Propanol	1.16	2.80	145298	112610	5651.126	4049.830	
5)	2-Propanol	0.78	1.89	102474	72635	6440.269	3588.126	#
6)	Isobutanol	1.87	3.75	172837	145226	5567.465	4379.040	
7)	1-Butanol	2.43	4.32	164356	194457	5205.607	6450.204	
8)	2-Butanol	1.48	3.24	149398	128723	5653.926	5201.532	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH107772.D MGH5519.M Thu Dec 15 13:57:42 2016 GCGH

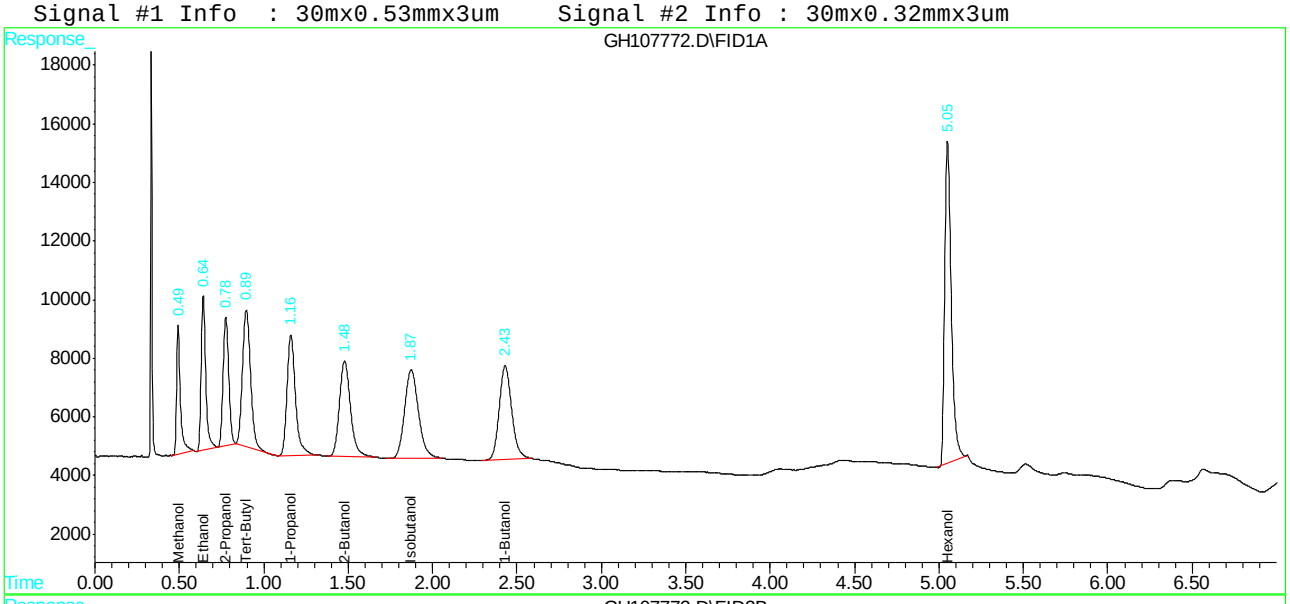
Quantitation Report (QT Reviewed)

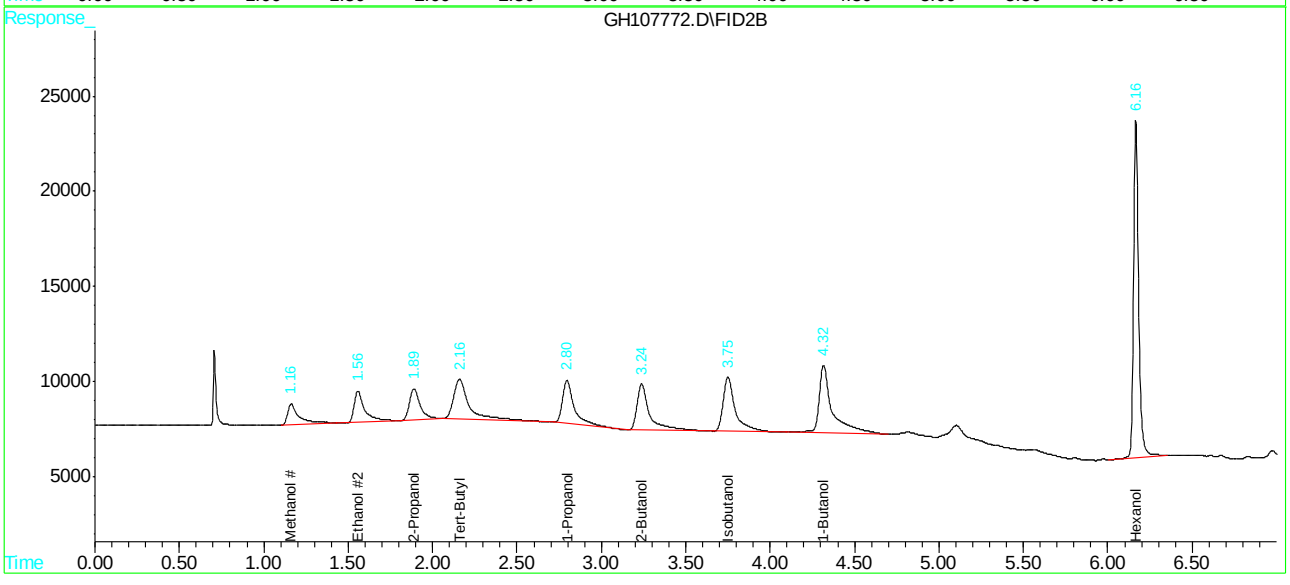
```
Data File : C:\HPCHEM\1\DATA\GH107772.D\FID1A.CH          Vial: 21
Acq On    : 15 Dec 2016  10:51 am                     Operator: XULIU
Sample    : JC33175-1MS                               Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107772.D\FID2B.CH          Vial: 21
Acq On    : 15 Dec 2016  11:10 am                     Operator: XULIU
Sample    : JC33175-1MS                               Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:52 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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\GH107773.D\FID1A.CH          Vial: 22
Acq On    : 15 Dec 2016  11:10 am                     Operator: XULIU
Sample    : JC33175-1MSD                              Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107773.D\FID2B.CH          Vial: 22
Acq On    : 15 Dec 2016  11:28 am                     Operator: XULIU
Sample    : JC33175-1MSD                              Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:55 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.05	6.16	338863	369777	4585.770	4557.730
Spiked Amount	5000.000			Recovery	=	91.72%	91.15%
	Target Compounds						
1)	Methanol	0.49	1.16	58479	48885	5494.683	3807.942
2)	Ethanol	0.64	1.56	95371	82342	6334.943	4466.832
3)	Tert-Butyl Alcoh	0.90	2.16	144740	134348	5723.604	4594.415
4)	1-Propanol	1.16	2.79	130526	153932	5076.622	5535.929
5)	2-Propanol	0.78	1.89	93542	79966	5878.914	3950.313
6)	Isobutanol	1.87	3.75	169107	181325	5447.317	5467.550
7)	1-Butanol	2.43	4.32	154438	180978	4891.487	6003.094
8)	2-Butanol	1.48	3.24	132317	125727	5007.479	5080.476

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

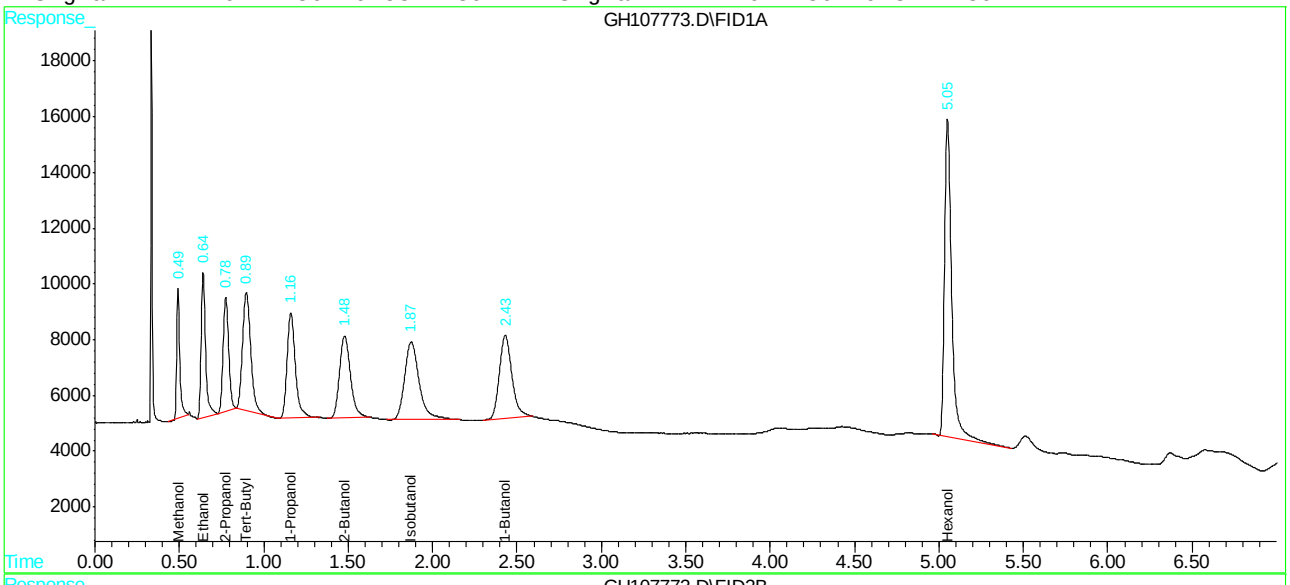
Quantitation Report (QT Reviewed)

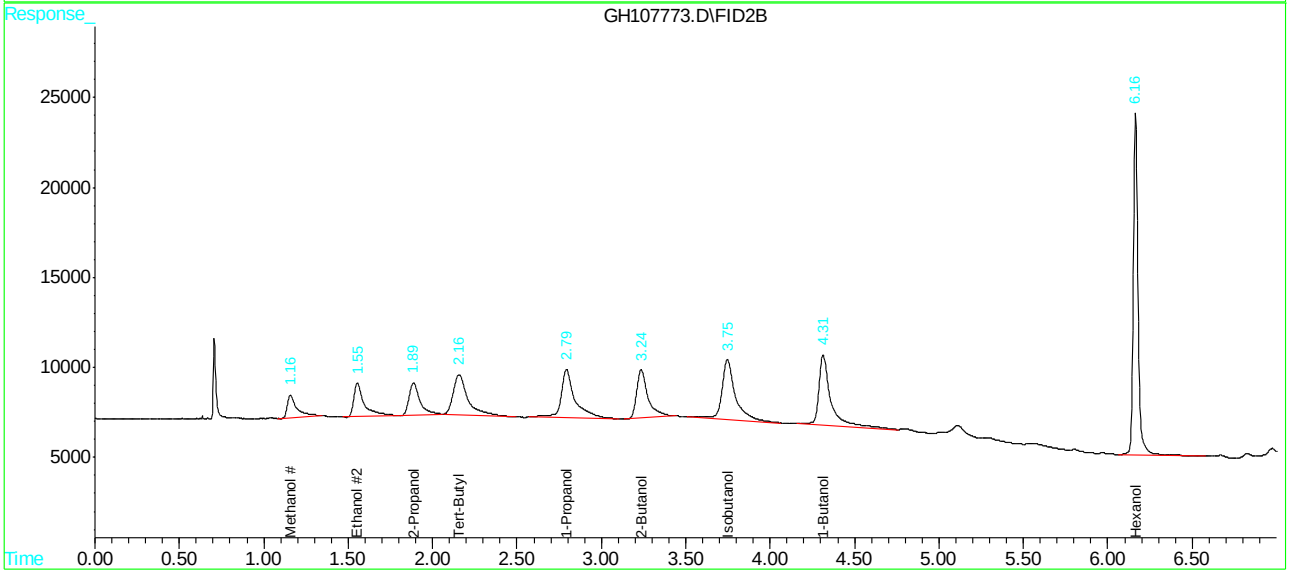
```
Data File : C:\HPCHEM\1\DATA\GH107773.D\FID1A.CH          Vial: 22
Acq On    : 15 Dec 2016  11:10 am                     Operator: XULIU
Sample    : JC33175-1MSD                              Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107773.D\FID2B.CH          Vial: 22
Acq On    : 15 Dec 2016  11:28 am                     Operator: XULIU
Sample    : JC33175-1MSD                              Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:55 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Manual Integrations
APPROVED
(compounds with "m" flag)
Dana Tryon
10/12/16 11:21

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:57 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.06f	6.17	35263	51675	507.581	636.928
Spiked Amount	5000.000			Recovery	=	10.15%	12.74%
	Target Compounds						
1)	Methanol	0.49	1.16	1224	867	132.440m	63.365 #
2)	Ethanol	0.64	1.56	1621	1337	107.666	71.976m
3)	Tert-Butyl Alcoh	0.89	2.16	2811	3157	115.197m	108.917m
4)	1-Propanol	1.14	2.79	3001	2617	116.795m	94.888m
5)	2-Propanol	0.77	1.89	1885	1602	118.486	80.065m
6)	Isobutanol	1.86	3.75	2714	3736	92.658	112.745
7)	1-Butanol	2.41	4.31	3468	2910	115.194	98.114m
8)	2-Butanol	1.46	3.24	2602	1956	98.730m	79.022m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH106906.D MGH5519.M Mon Oct 10 14:57:58 2016 GCGH

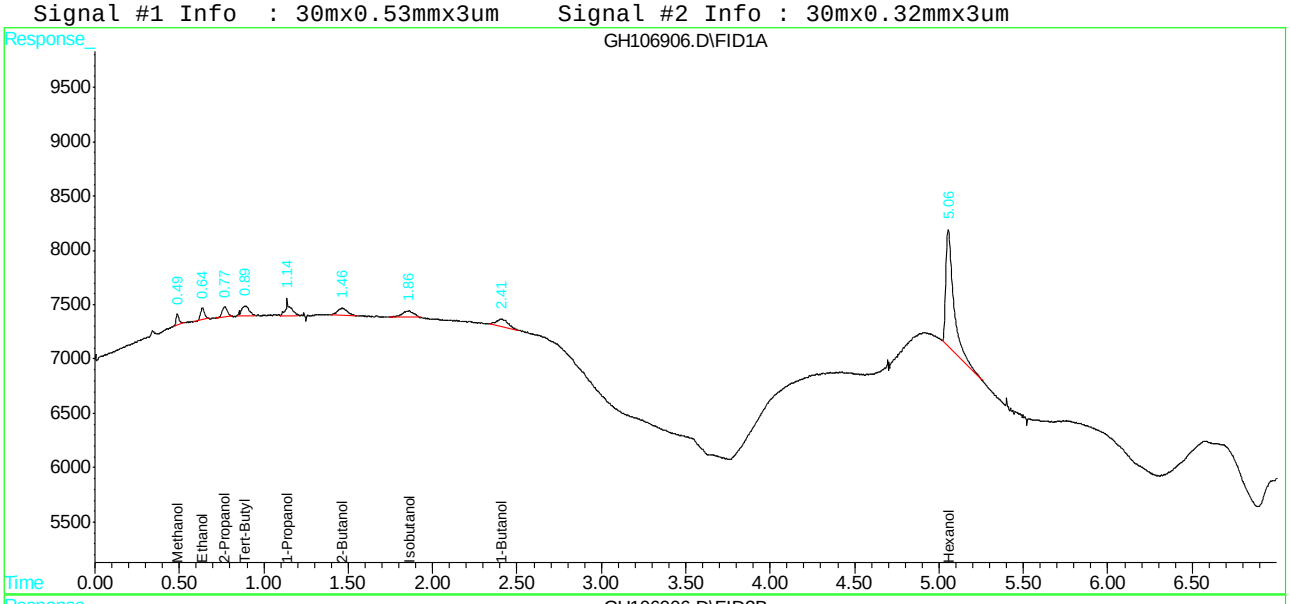
Quantitation Report (QT Reviewed)

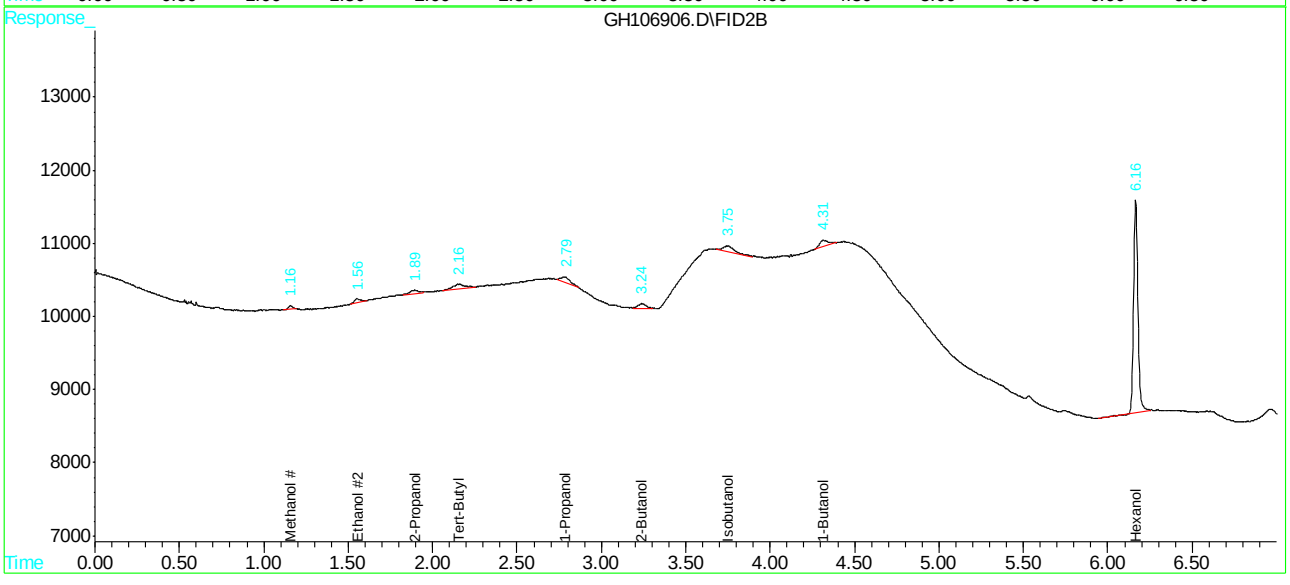
```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:57 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Manual Integration Approval Summary

Sample Number:	GGH5519-IC5519	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH106906.D	**Analyst approved:**	10/11/16 08:09 Xu Liu
Injection Time:	10/10/16 10:17	**Supervisor approved:**	10/12/16 11:21 Dana Tryon

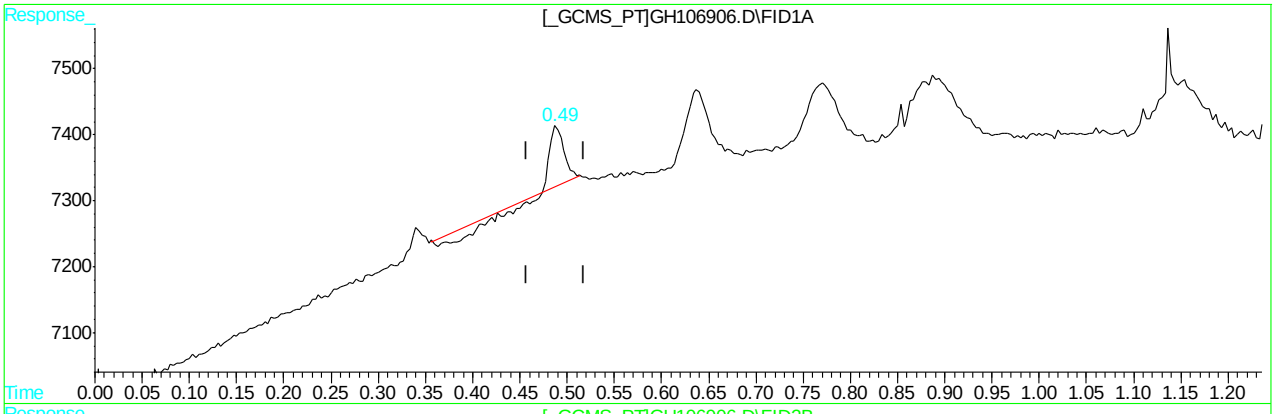
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	1	0.49	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0	1	0.89	Poor instrument integration
n-Propyl Alcohol	71-23-8	1	1.14	Poor instrument integration
sec-Butyl Alcohol	78-92-2	1	1.46	Poor instrument integration
Ethanol	64-17-5	2	1.56	Poor instrument integration
Isopropyl Alcohol	67-63-0	2	1.89	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0	2	2.16	Poor instrument integration
n-Propyl Alcohol	71-23-8	2	2.79	Poor instrument integration
sec-Butyl Alcohol	78-92-2	2	3.24	Poor instrument integration
n-Butyl Alcohol	71-36-3	2	4.31	Poor instrument integration

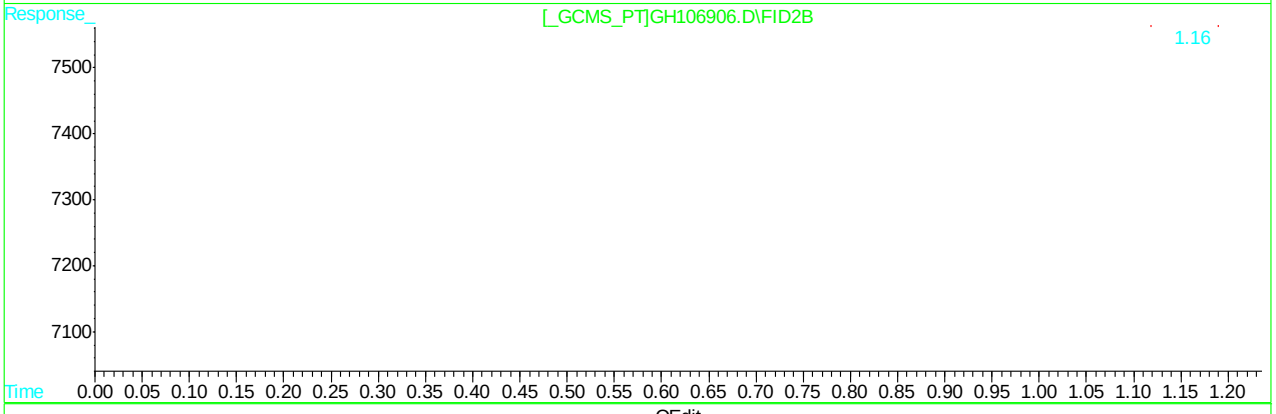
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 29.389PPB

response 272

(1) Methanol #2

1.16min 63.365PPB

response 867

(+) = Expected Retention Time

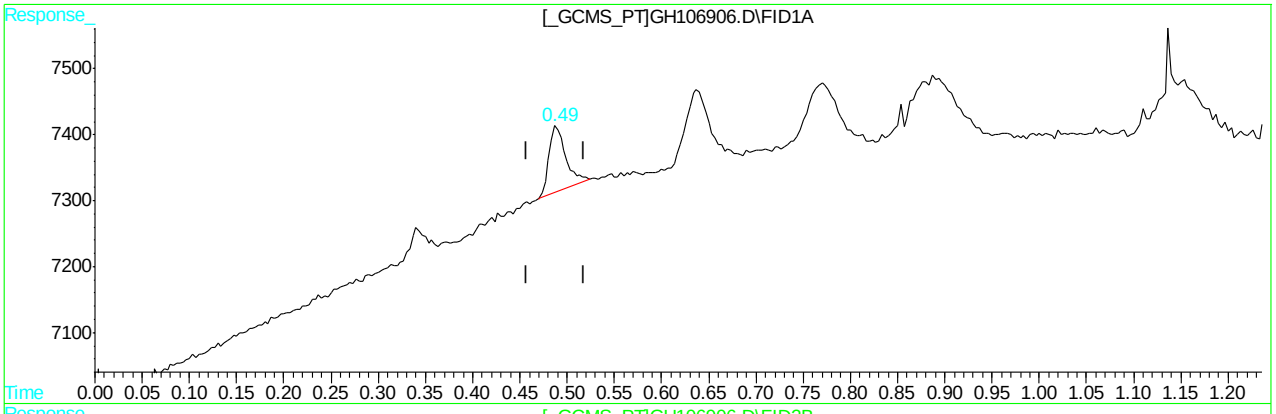
GH106906.D MGH5519.M Mon Oct 10 14:48:04 2016 GCGH

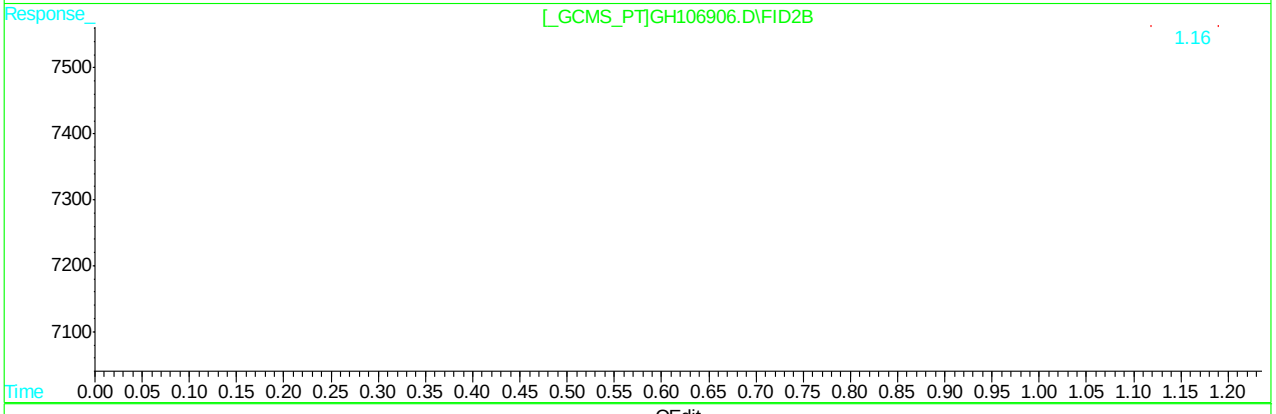
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 132.440PPB m

response 1224

(1) Methanol #2

1.16min 63.365PPB

response 867

(+) = Expected Retention Time

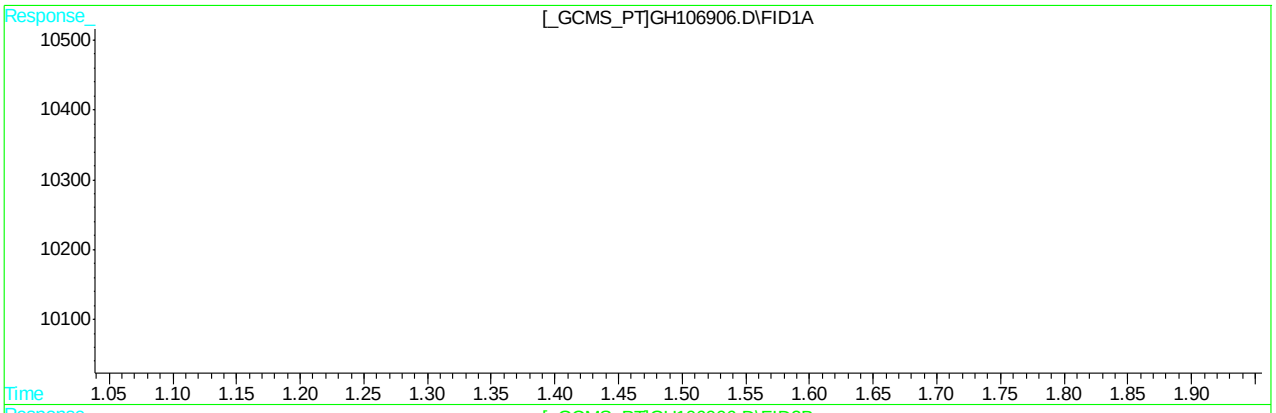
GH106906.D MGH5519.M Mon Oct 10 14:48:41 2016 GCGH

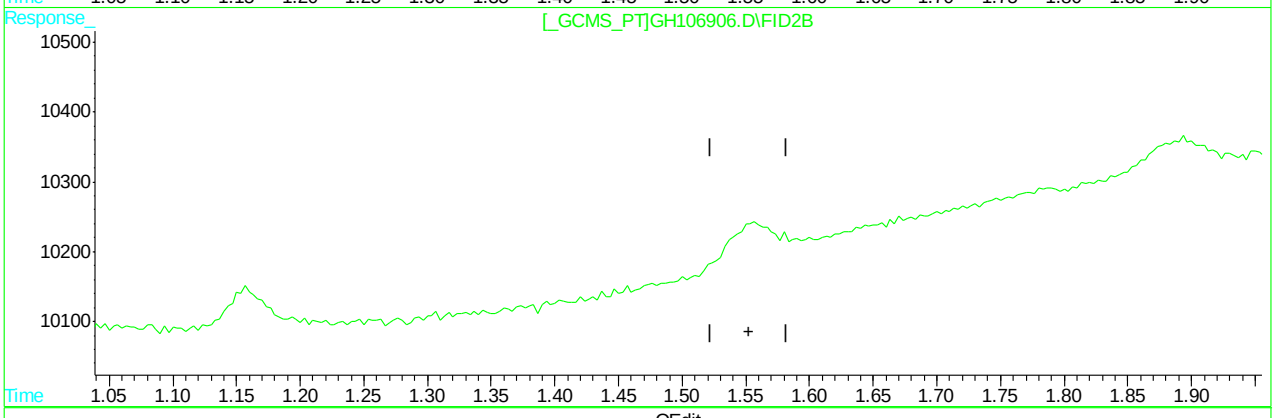
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

0.64min 107.666PPB

response 1621

(2) Ethanol #2

1.56min -9.778PPB

response -182

(+) = Expected Retention Time

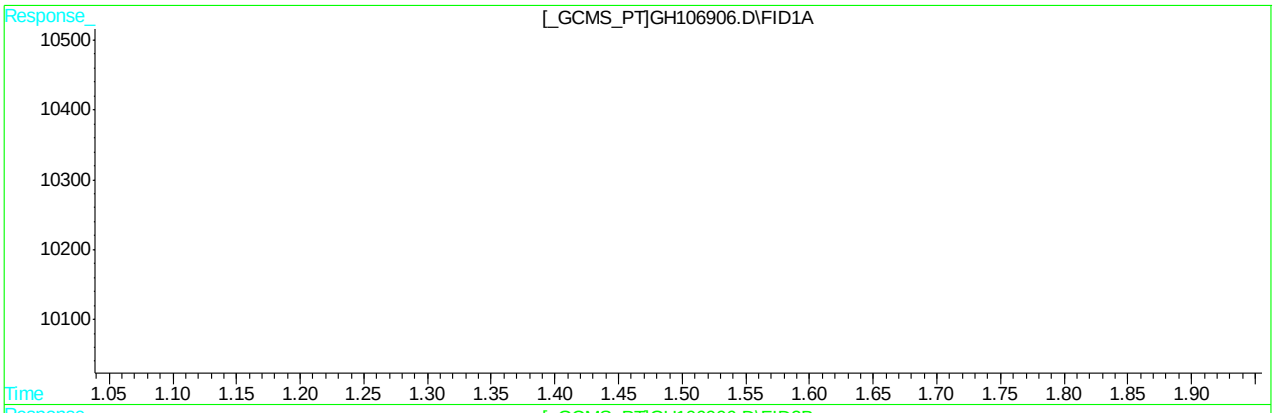
GH106906.D MGH5519.M Mon Oct 10 14:48:58 2016 GCGH

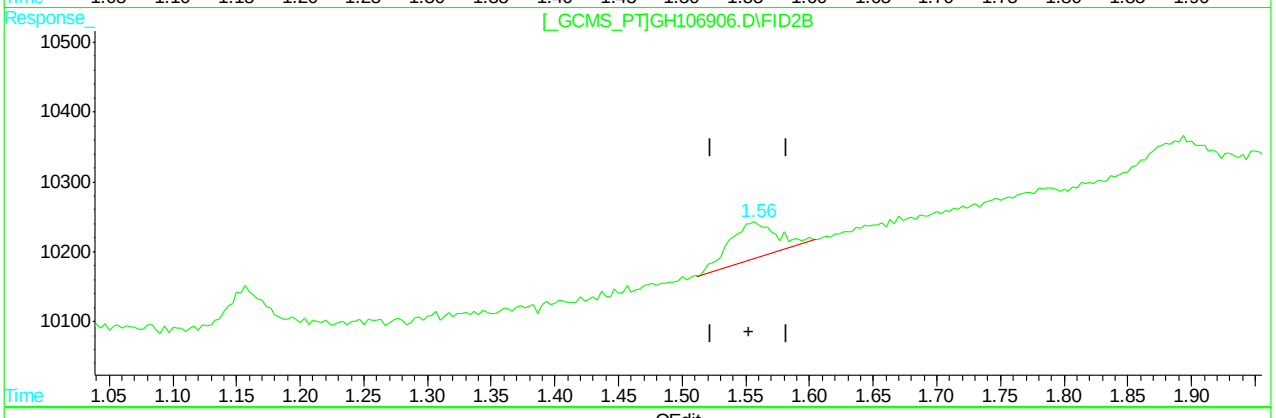
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Ethanol

0.64min 107.666PPB

response 1621

(2) Ethanol #2

1.56min 71.976PPB m

response 1337

(+) = Expected Retention Time

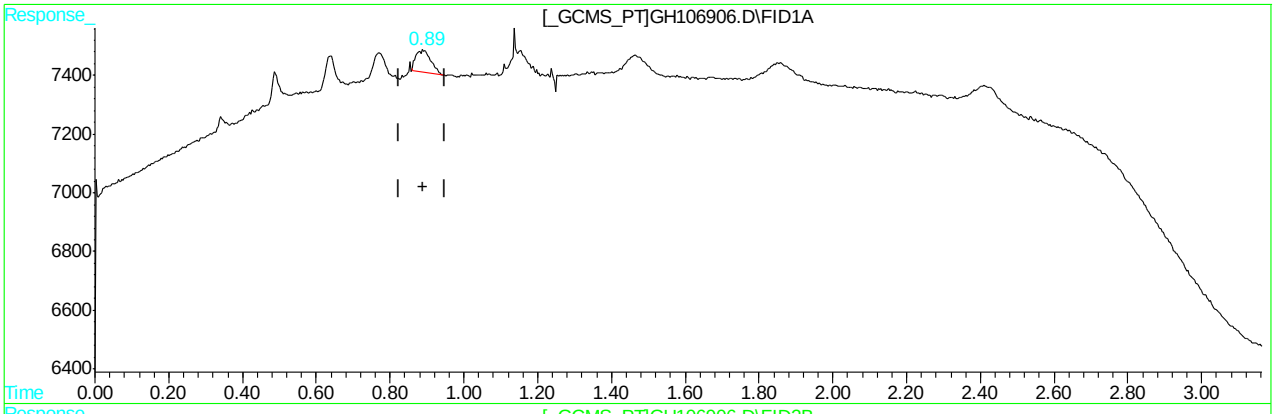
GH106906.D MGH5519.M Mon Oct 10 14:49:48 2016 GCGH

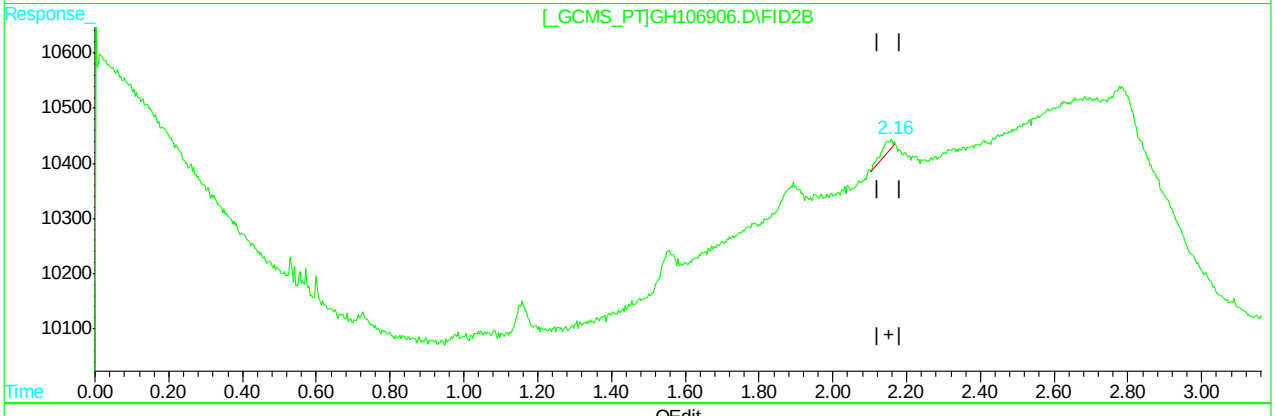
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

0.89min 86.272PPB

response 2106

(3) Tert-Butyl Alcohol #2

2.16min 13.387PPB

response 388

(+) = Expected Retention Time

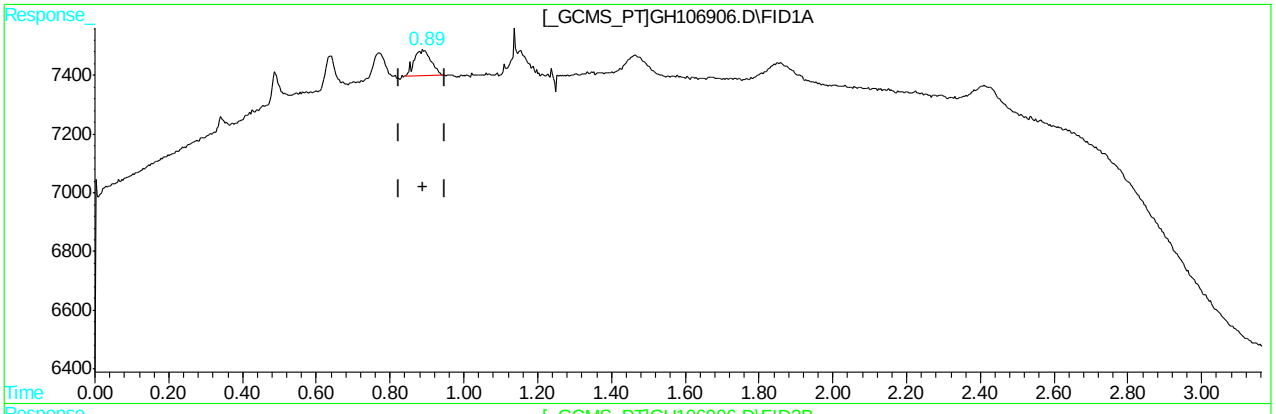
GH106906.D MGH5519.M Mon Oct 10 14:50:51 2016 GCGH

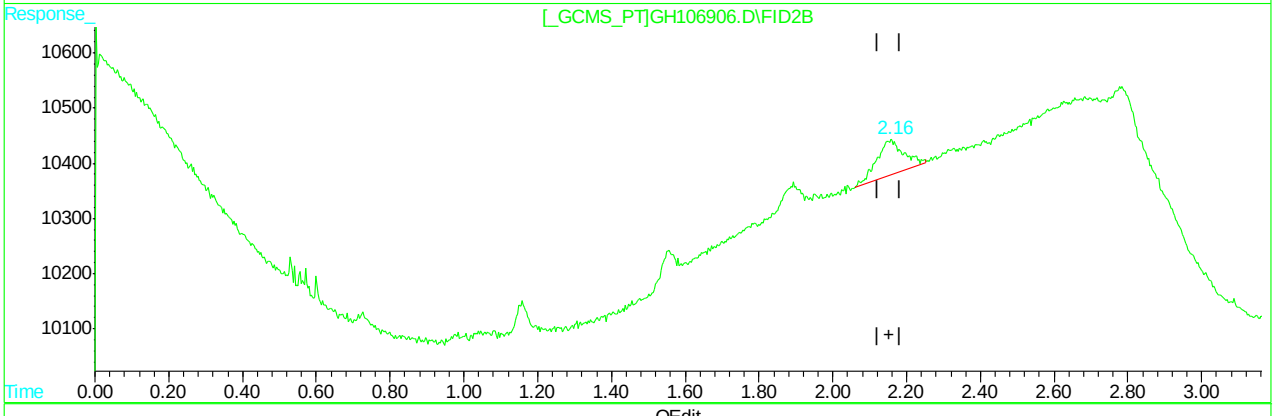
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

0.89min 115.197PPB m

response 2811

(3) Tert-Butyl Alcohol #2

2.16min 108.917PPB m

response 3157

(+) = Expected Retention Time

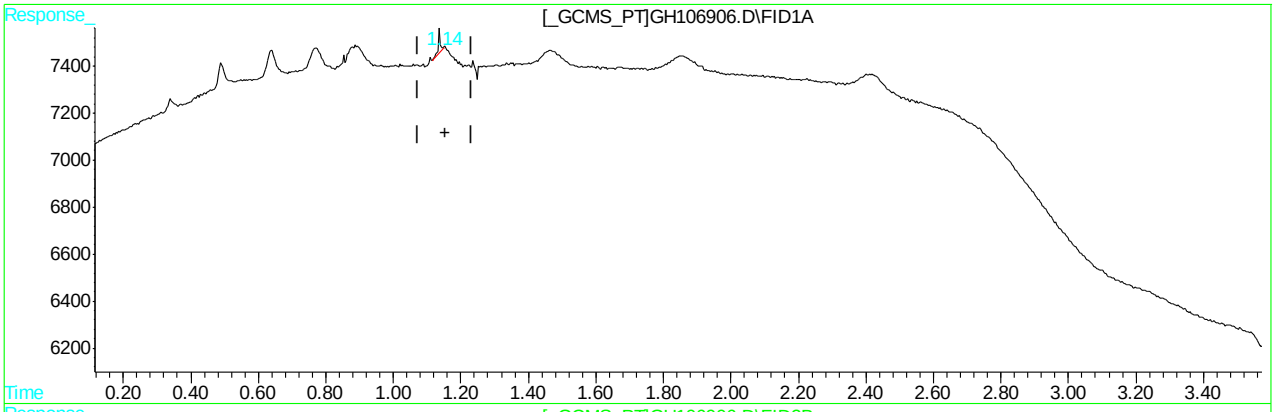
GH106906.D MGH5519.M Mon Oct 10 14:52:53 2016 GCGH

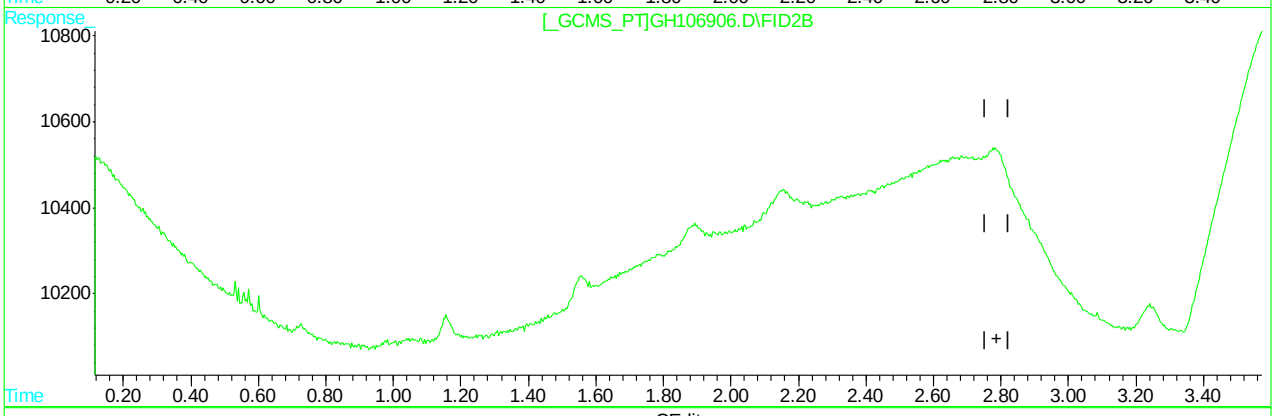
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH        Vial: 1
Acq On    : 10 Oct 2016  10:17 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH        Vial: 1
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.14min 12.678PPB

response 326

(4) 1-Propanol #2

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

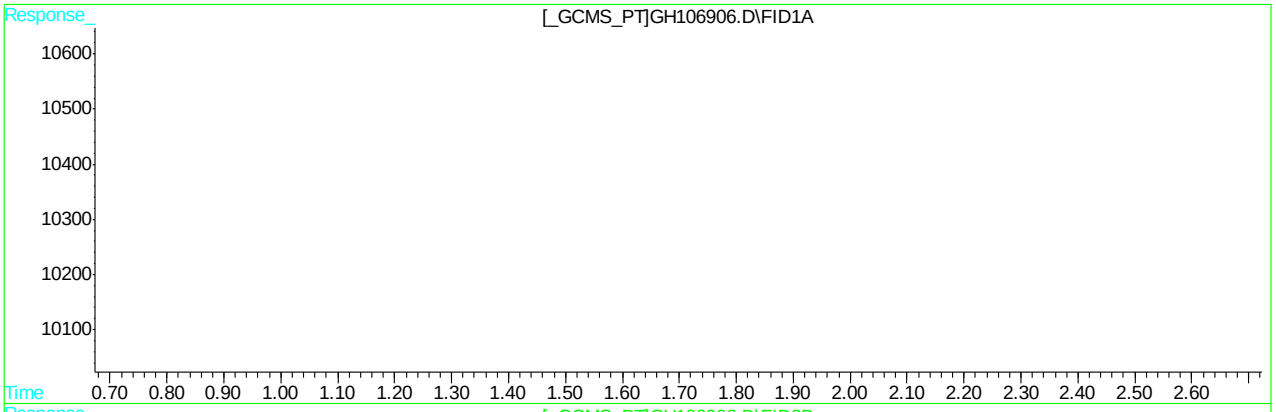
GH106906.D MGH5519.M Mon Oct 10 14:53:00 2016 GCGH

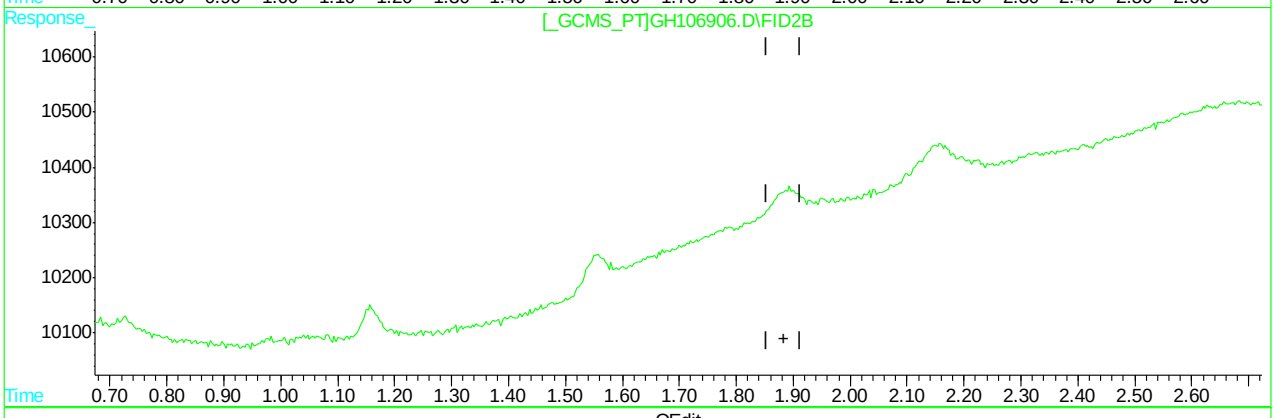
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

0.77min 118.486PPB

response 1885

(5) 2-Propanol #2

1.90min -42.921PPB

response -859

(+) = Expected Retention Time

GH106906.D MGH5519.M Mon Oct 10 14:54:13 2016 GCGH

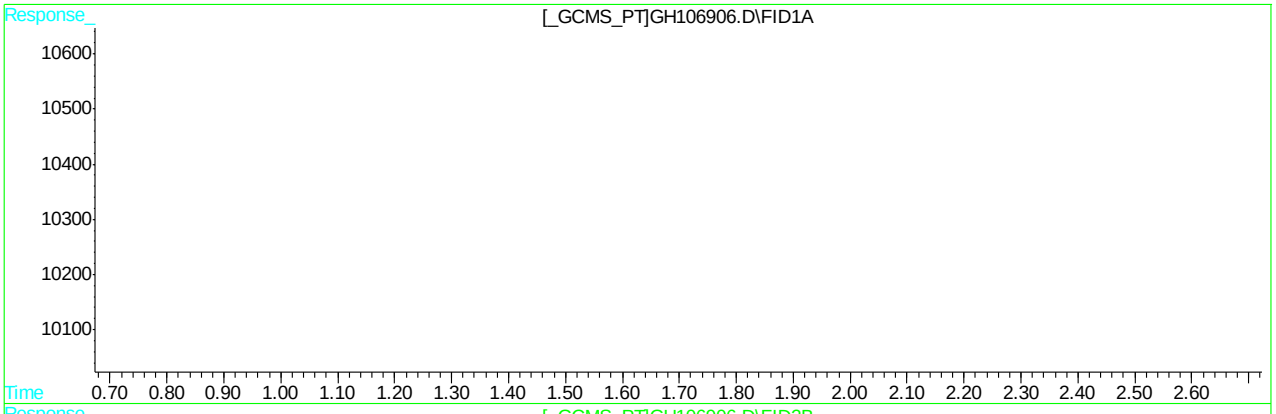
SGS ACCUTEST JC33175

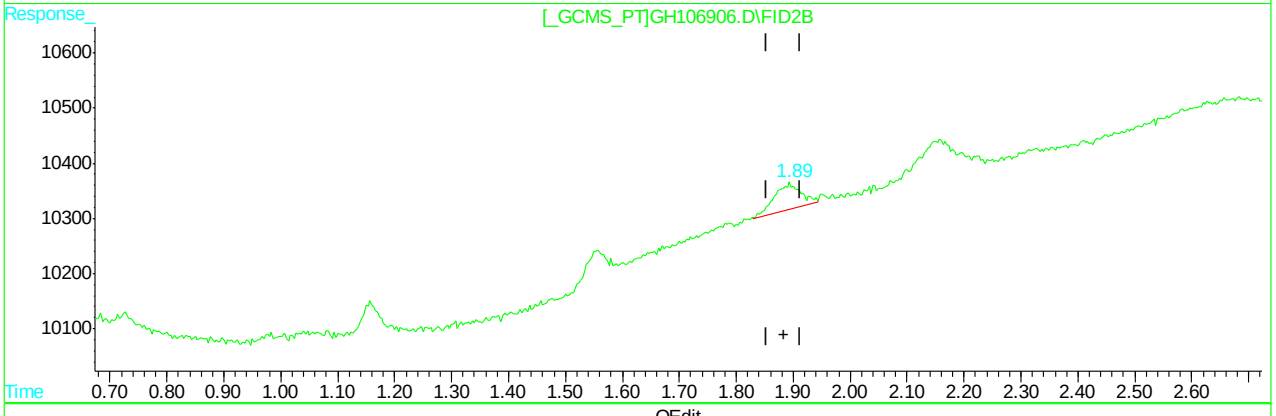
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(5) 2-Propanol

0.77min 118.486PPB

response 1885

(5) 2-Propanol #2

1.89min 80.065PPB m

response 1602

(+) = Expected Retention Time

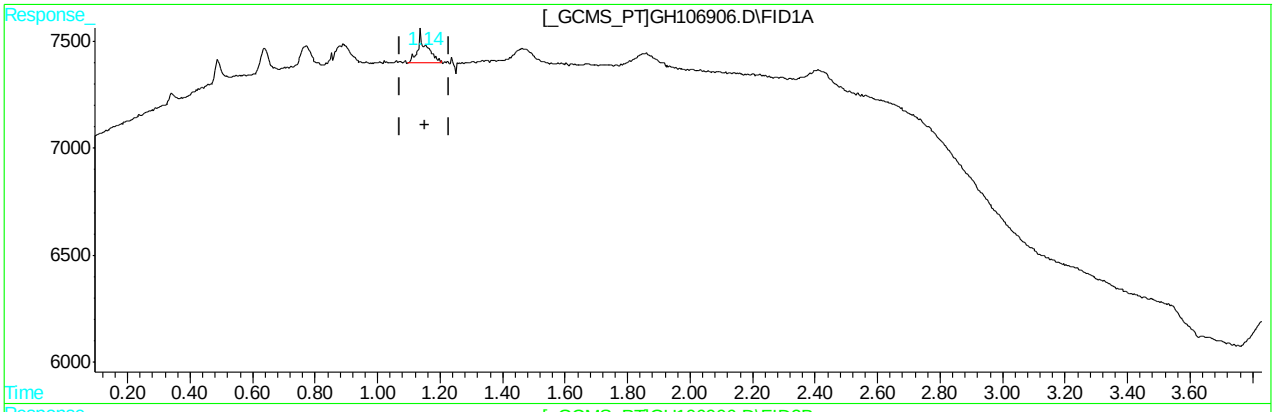
GH106906.D MGH5519.M Mon Oct 10 14:54:57 2016 GCGH

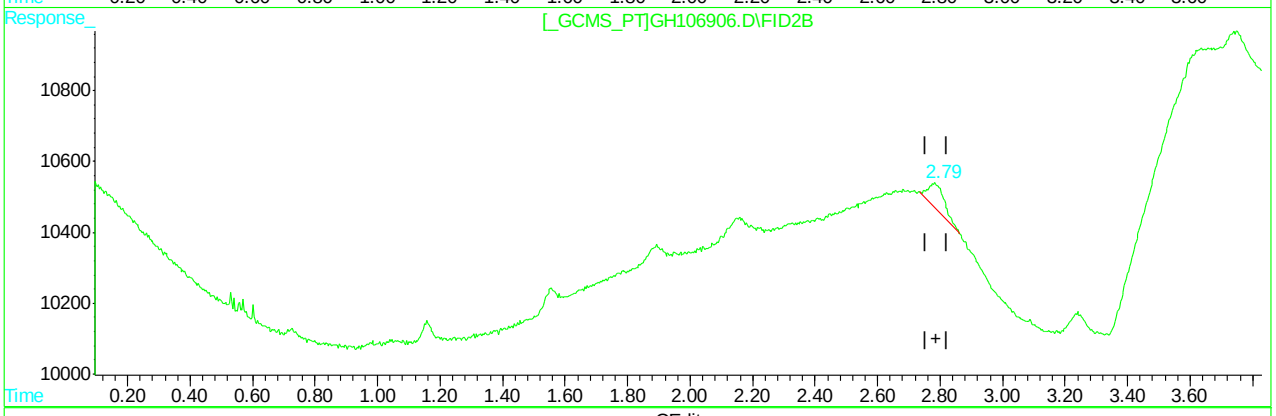
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.14min 116.795PPB m

response 3001

(4) 1-Propanol #2

2.79min 94.888PPB m

response 2617

(+) = Expected Retention Time

GH106906.D MGH5519.M Mon Oct 10 14:55:25 2016 GCGH

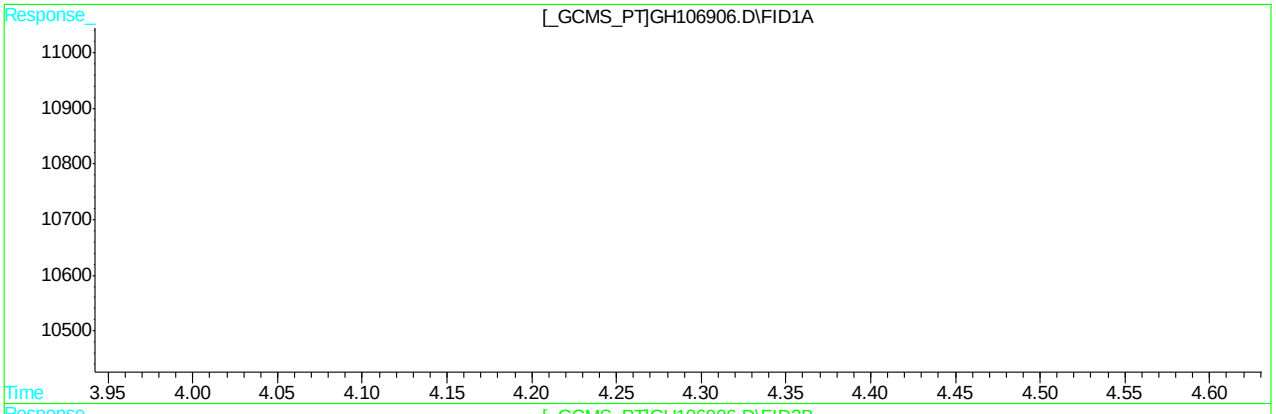
SGS ACCUTEST JC33175

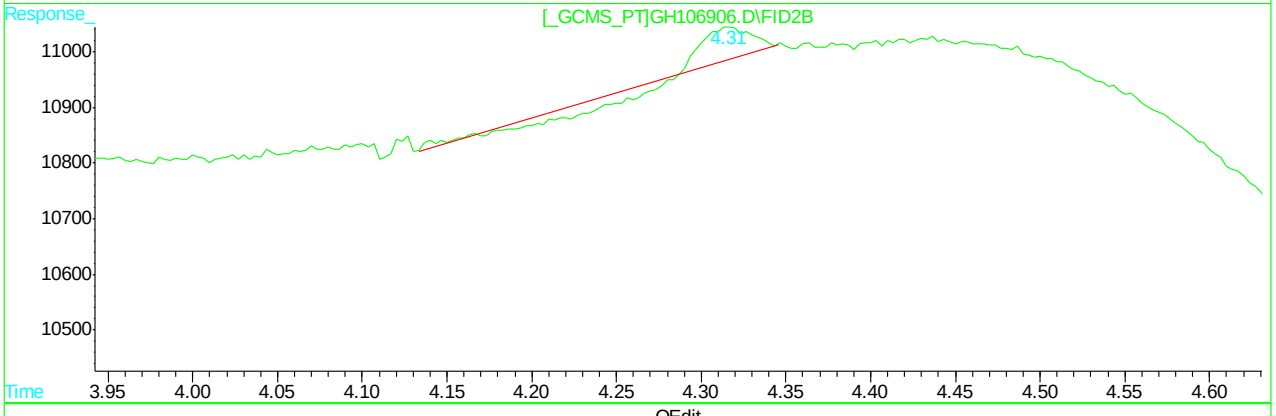
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH          Vial: 1
Acq On    : 10 Oct 2016  10:17 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH          Vial: 1
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-100                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.41min 115.194PPB

response 3468

(7) 1-Butanol #2

4.32min 7.415PPB

response 220

(+) = Expected Retention Time

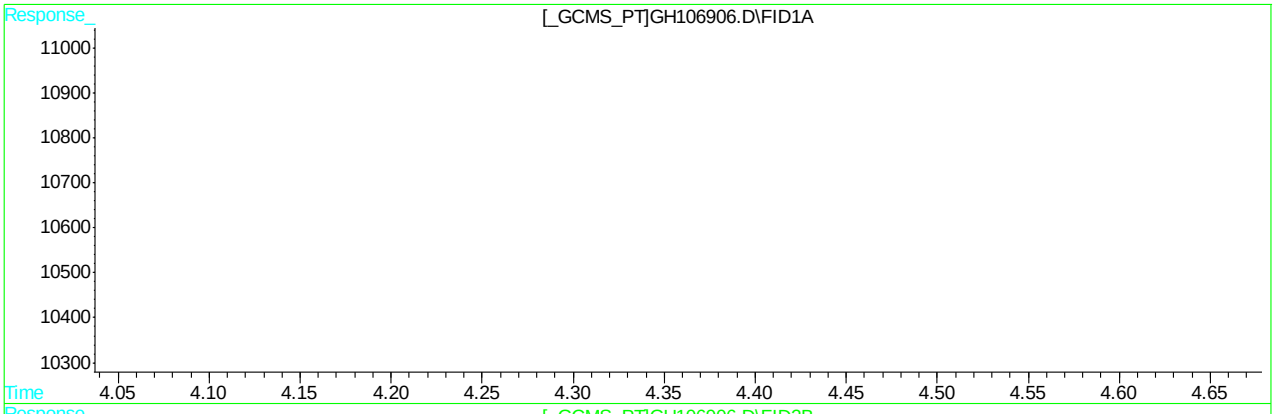
GH106906.D MGH5519.M Mon Oct 10 14:56:25 2016 GCGH

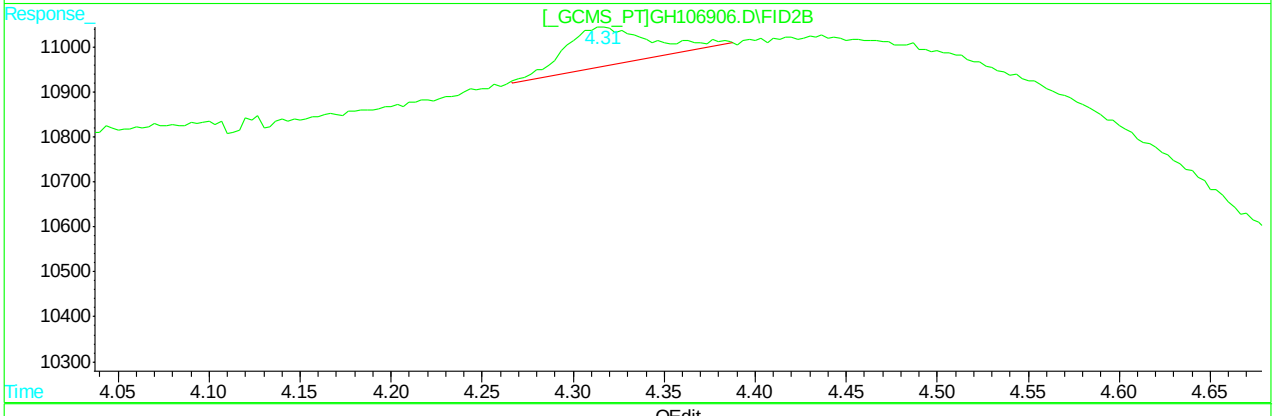
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH        Vial: 1
Acq On    : 10 Oct 2016  10:17 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH        Vial: 1
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.41min 115.194PPB

response 3468

(7) 1-Butanol #2

4.31min 98.114PPB m

response 2910

(+) = Expected Retention Time

GH106906.D MGH5519.M Mon Oct 10 14:56:59 2016 GCGH

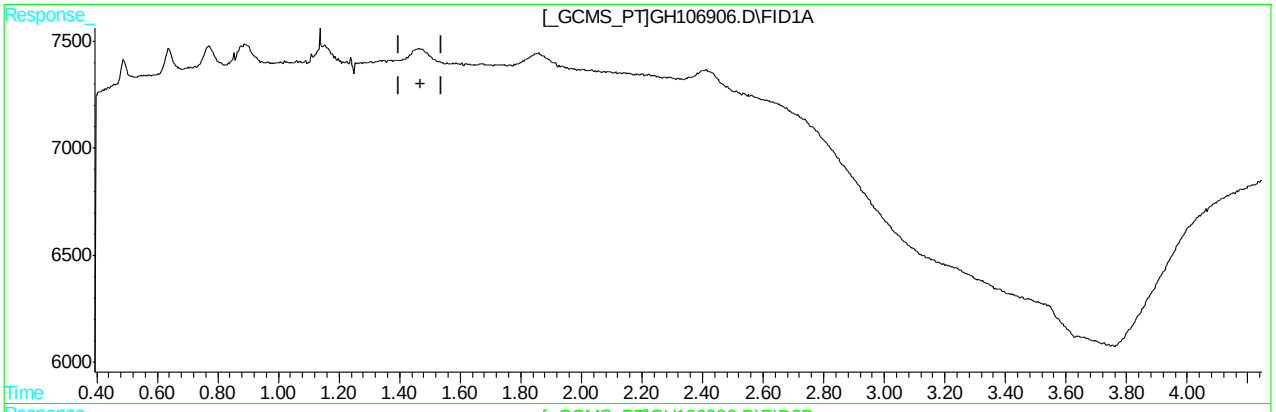
11.5.1.13 11

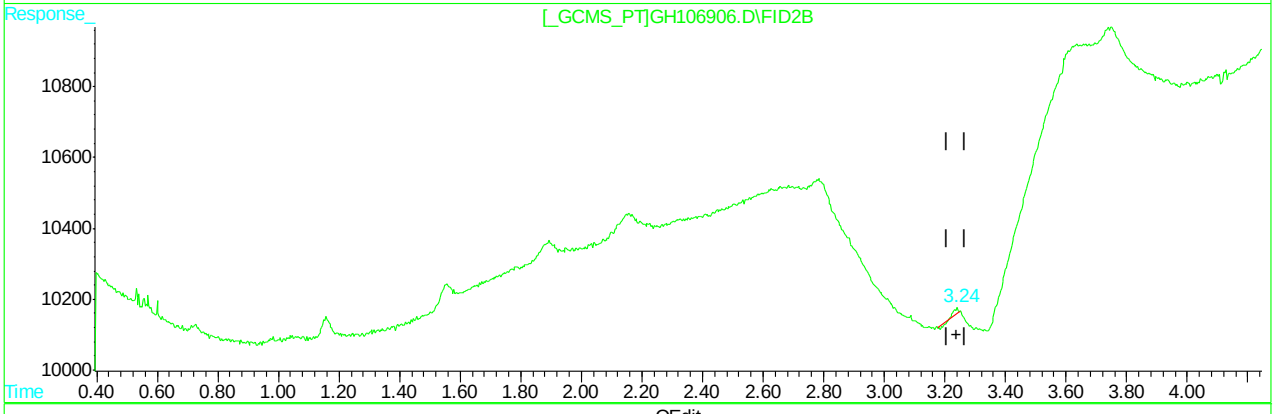
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH        Vial: 1
Acq On    : 10 Oct 2016  10:17 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH        Vial: 1
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

1.46min -0.548PPB

response -14

(8) 2-Butanol #2

3.24min 0.128PPB

response 3

(+) = Expected Retention Time

GH106906.D MGH5519.M Mon Oct 10 14:57:04 2016 GCGH

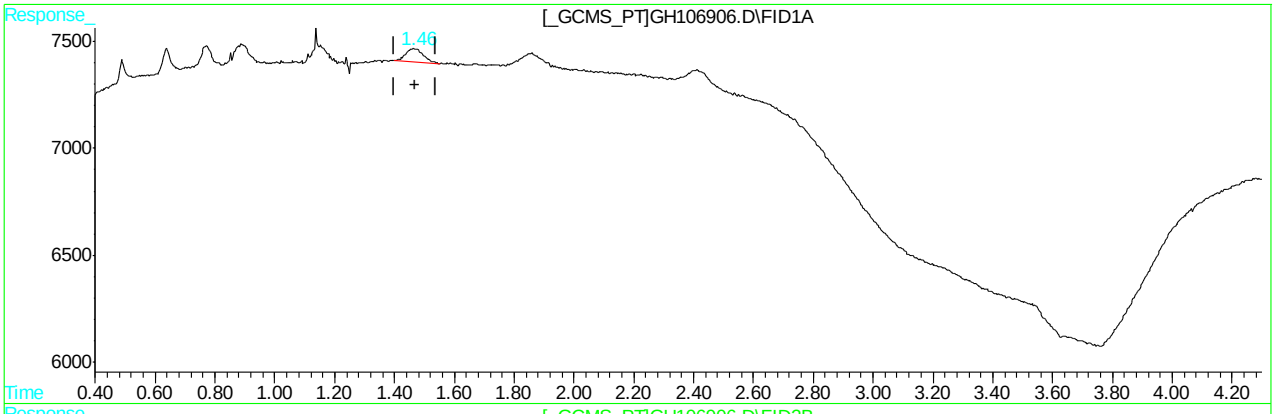
SGS ACCUTEST JC33175

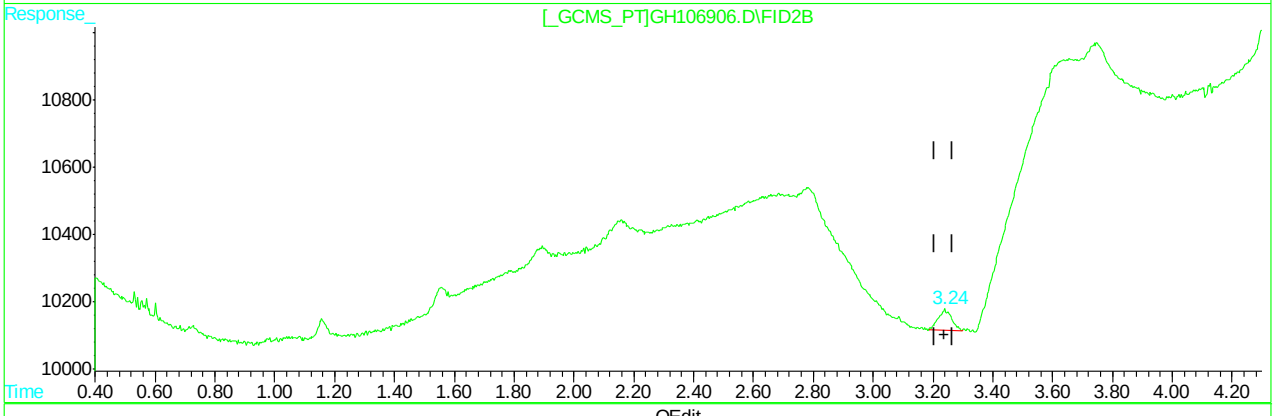
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106906.D\FID1A.CH        Vial: 1
Acq On    : 10 Oct 2016  10:17 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106906.D\FID2B.CH        Vial: 1
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-100                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:28 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

1.46min 98.730PPB m

response 2602

(8) 2-Butanol #2

3.24min 79.022PPB m

response 1956

(+) = Expected Retention Time

GH106906.D MGH5519.M Mon Oct 10 14:57:42 2016 GCGH

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon 10/12/16 11:21

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  7:39 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:26:01 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.05	6.16	94361	127982	1290.842	1532.821
Spiked Amount	5000.000			Recovery	=	25.82%	30.66%
	Target Compounds						
1)	Methanol	0.49	1.16	2152	2774	211.521	192.624
2)	Ethanol	0.64	1.55	2812	3398	188.845	177.355
3)	Tert-Butyl Alcoh	0.89	2.15	5022	5677	201.811	197.421m
4)	1-Propanol	1.16	2.79	4340	5974	172.925	212.719m
5)	2-Propanol	0.77	1.88	3082	3702	198.965	177.593
6)	Isobutanol	1.86	3.75	6161	6340	208.145m	194.908
7)	1-Butanol	2.41	4.31	5901	6317	200.362m	207.489m
8)	2-Butanol	1.47	3.25	4975	4353	188.945m	170.808m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

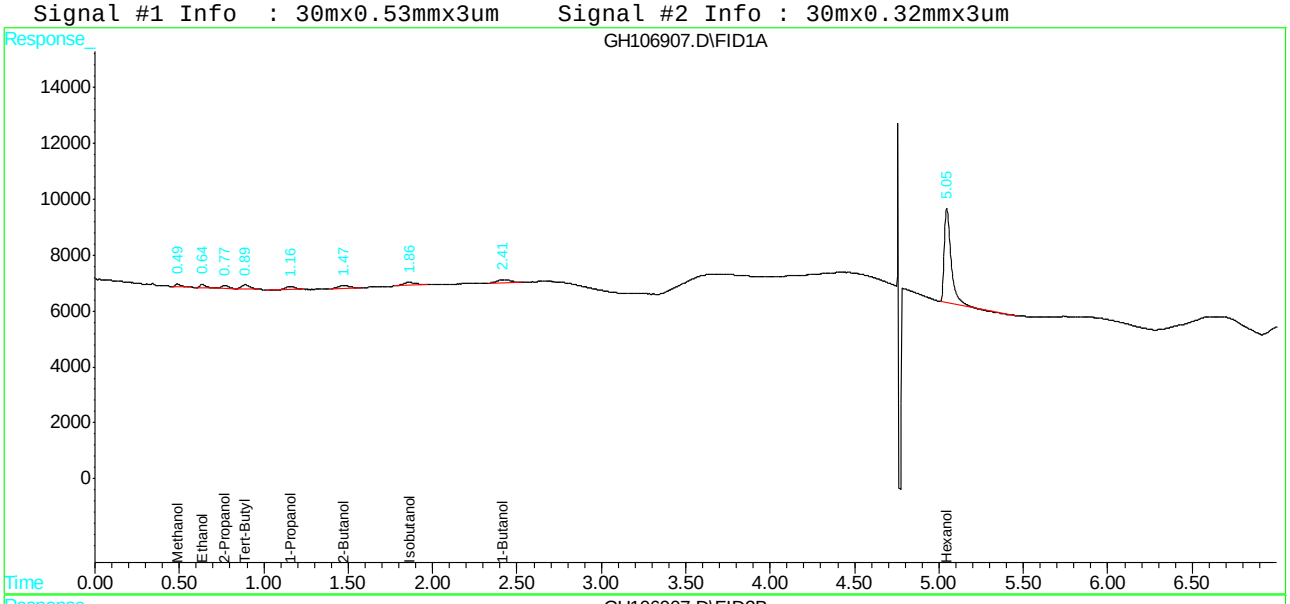
Quantitation Report (QT Reviewed)

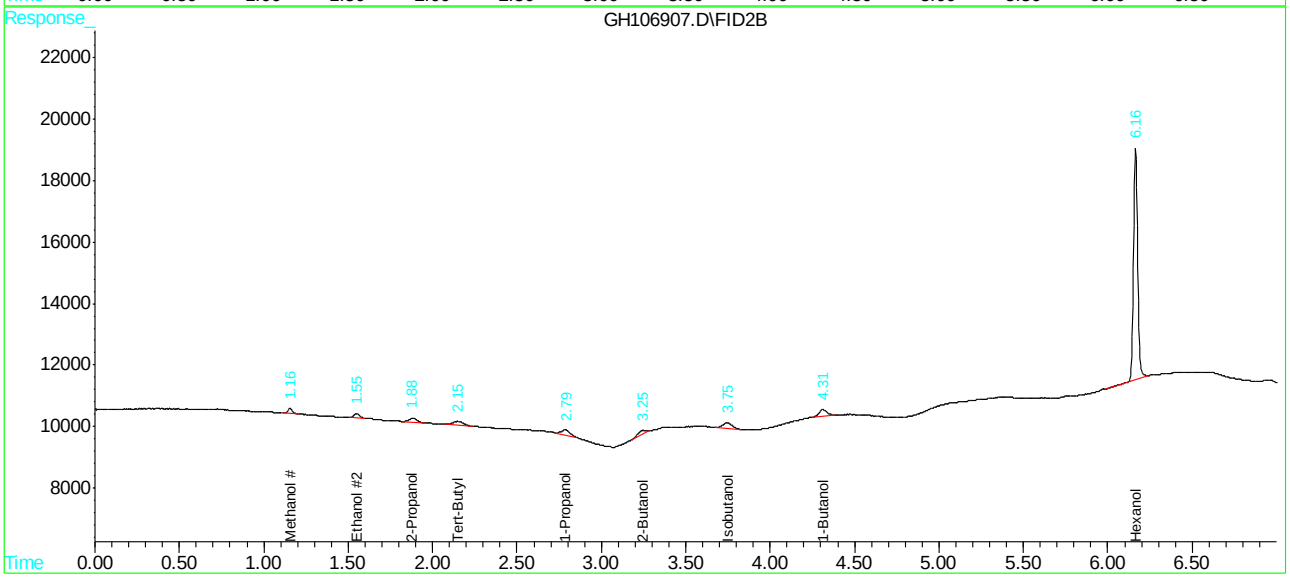
```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  7:39 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:26:01 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Manual Integration Approval Summary

Sample Number:	GGH5519-IC5519	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH106907.D	**Analyst approved:**	10/11/16 08:09 Xu Liu
Injection Time:	10/10/16 10:35	**Supervisor approved:**	10/12/16 11:21 Dana Tryon

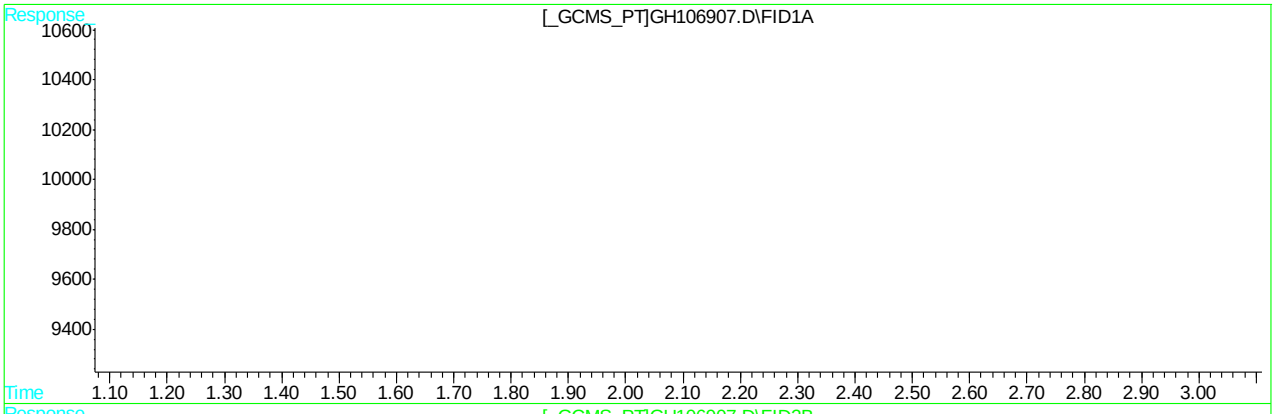
Parameter	CAS	Sig#	R.T. (min.)	Reason
sec-Butyl Alcohol	78-92-2	1	1.47	Poor instrument integration
Isobutyl Alcohol	78-83-1	1	1.86	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0	2	2.15	Poor instrument integration
n-Butyl Alcohol	71-36-3	1	2.41	Poor instrument integration
n-Propyl Alcohol	71-23-8	2	2.79	Poor instrument integration
sec-Butyl Alcohol	78-92-2	2	3.25	Poor instrument integration
n-Butyl Alcohol	71-36-3	2	4.31	Poor instrument integration

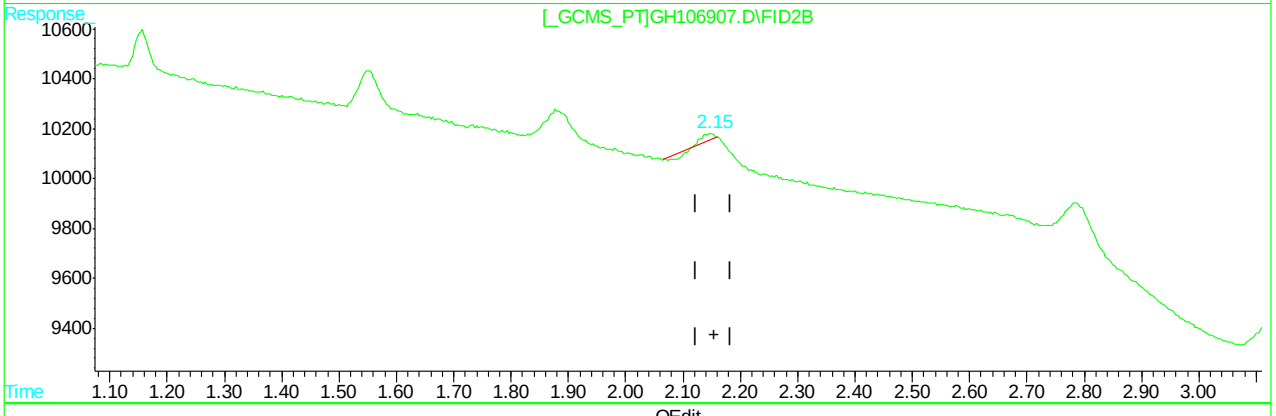
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH        Vial: 2
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH        Vial: 2
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

0.89min 201.811PPB

response 5022

(3) Tert-Butyl Alcohol #2

2.15min 0.534PPB

response 15

(+) = Expected Retention Time

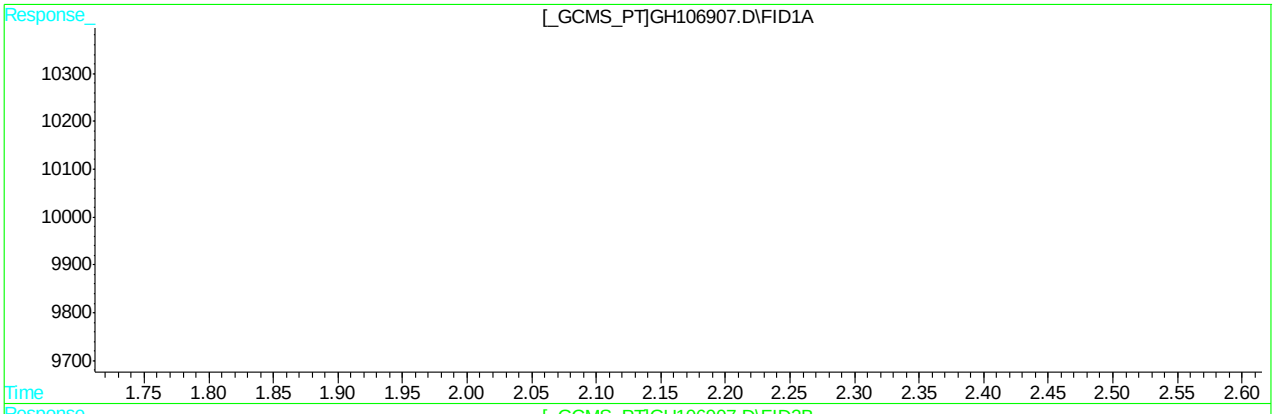
GH106907.D MGH5519.M Tue Oct 11 07:32:05 2016 GCGH

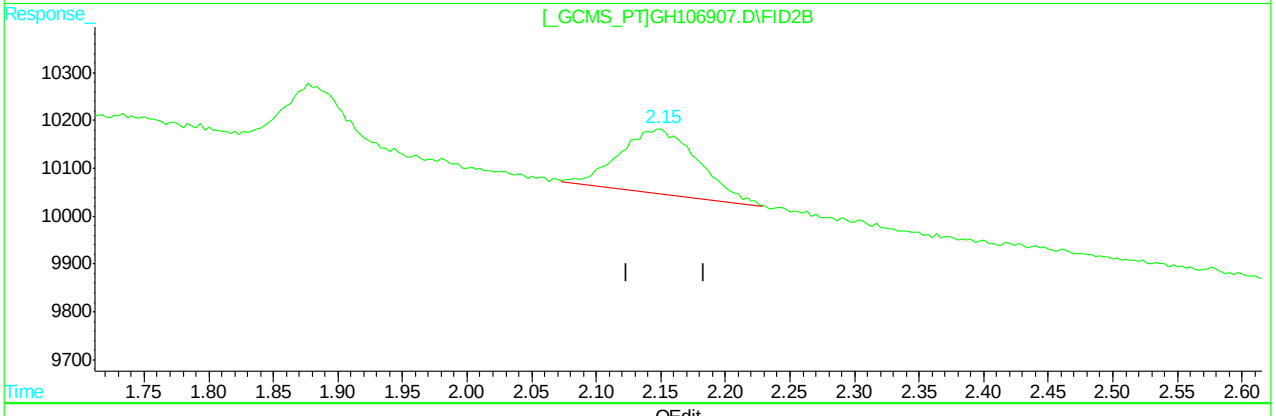
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Tert-Butyl Alcohol

0.89min 201.811PPB

response 5022

(3) Tert-Butyl Alcohol #2

2.15min 197.421PPB m

response 5677

(+) = Expected Retention Time

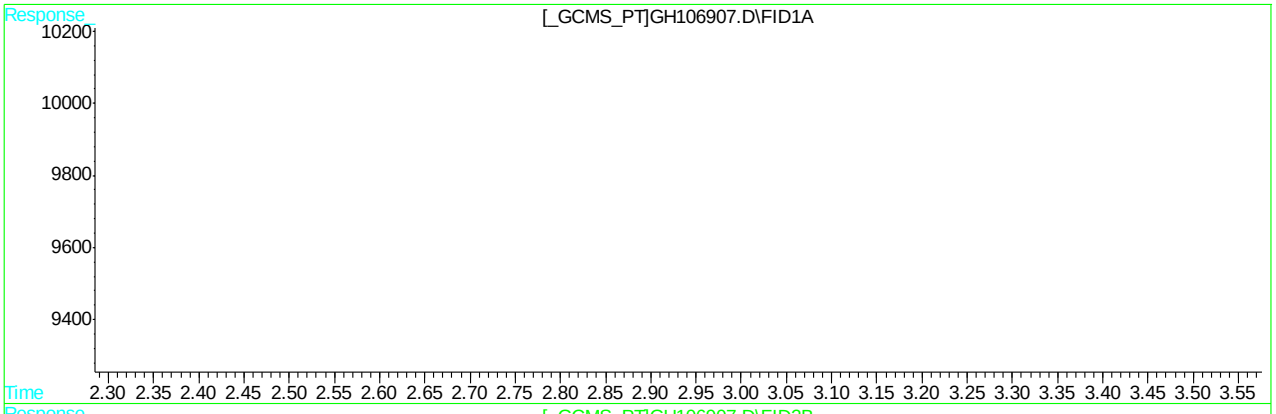
GH106907.D MGH5519.M Tue Oct 11 07:34:08 2016 GCGH

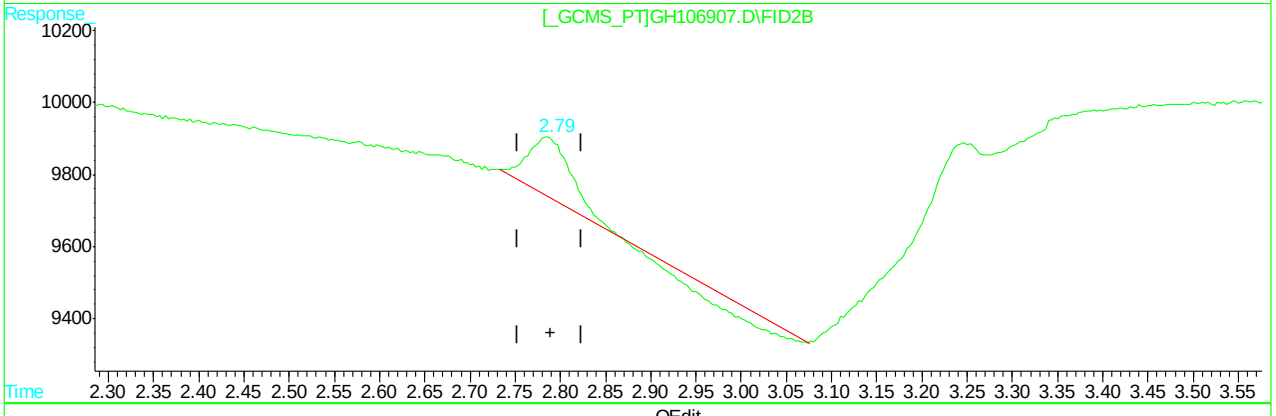
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH        Vial: 2
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH        Vial: 2
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.16min 172.925PPB

response 4340

(4) 1-Propanol #2

2.79min 98.797PPB

response 2775

(+) = Expected Retention Time

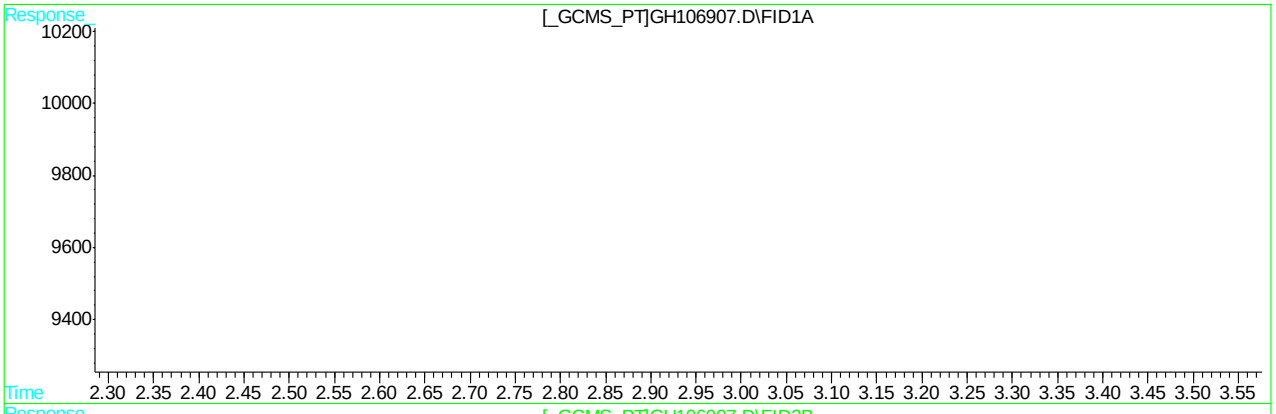
GH106907.D MGH5519.M Tue Oct 11 07:34:27 2016 GCGH

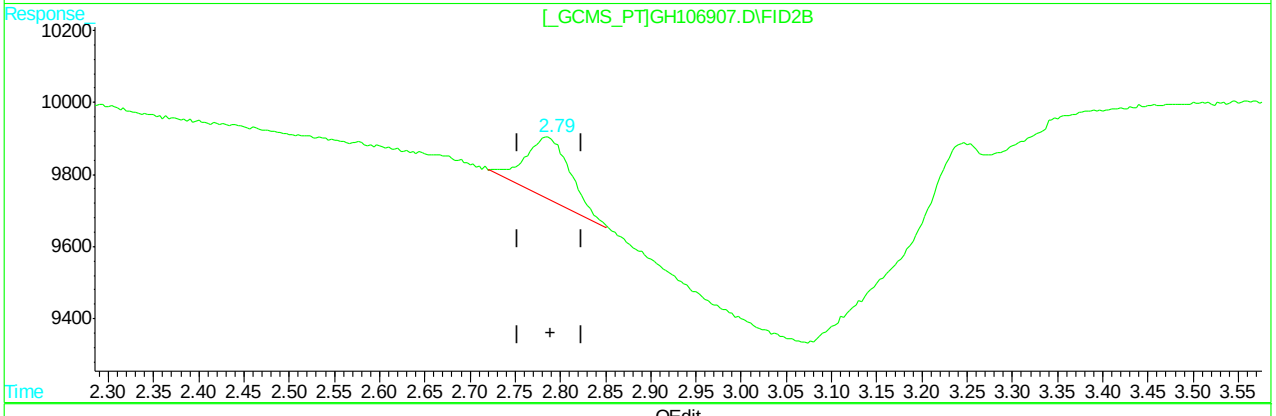
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH        Vial: 2
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH        Vial: 2
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.16min 172.925PPB

response 4340

(4) 1-Propanol #2

2.79min 212.719PPB m

response 5974

(+) = Expected Retention Time

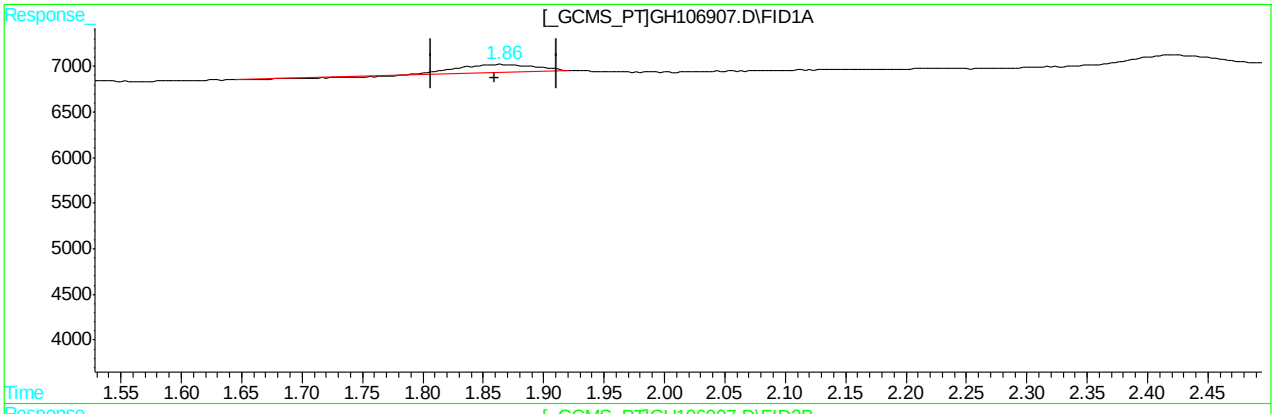
GH106907.D MGH5519.M Tue Oct 11 07:35:34 2016 GCGH

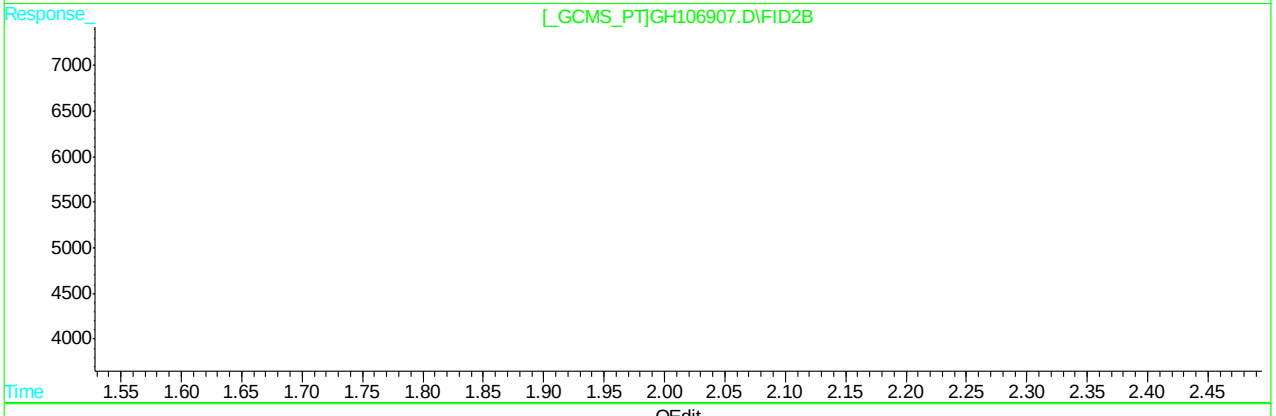
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(6) Isobutanol

1.86min 113.326PPB

response 3354

(6) Isobutanol #2

3.75min 194.908PPB

response 6340

(+) = Expected Retention Time

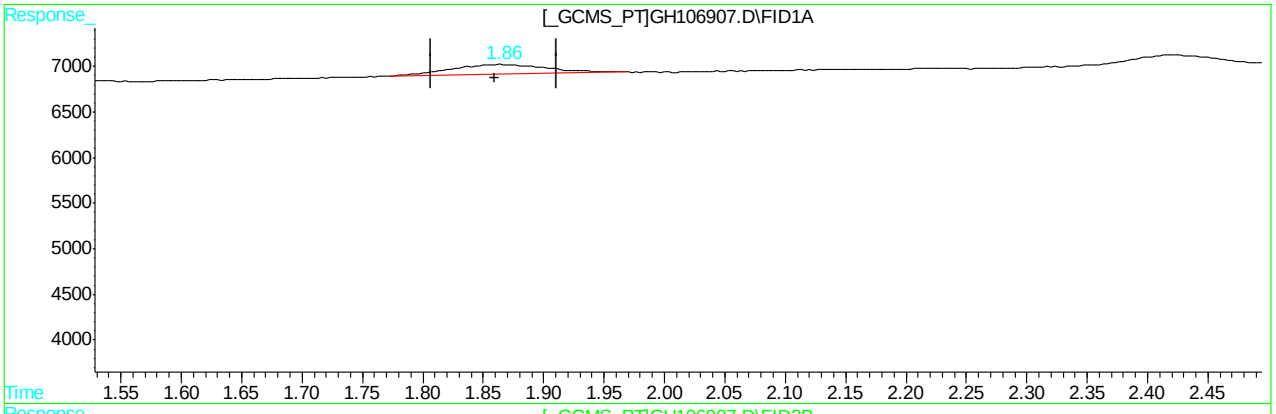
GH106907.D MGH5519.M Tue Oct 11 07:36:05 2016 GCGH

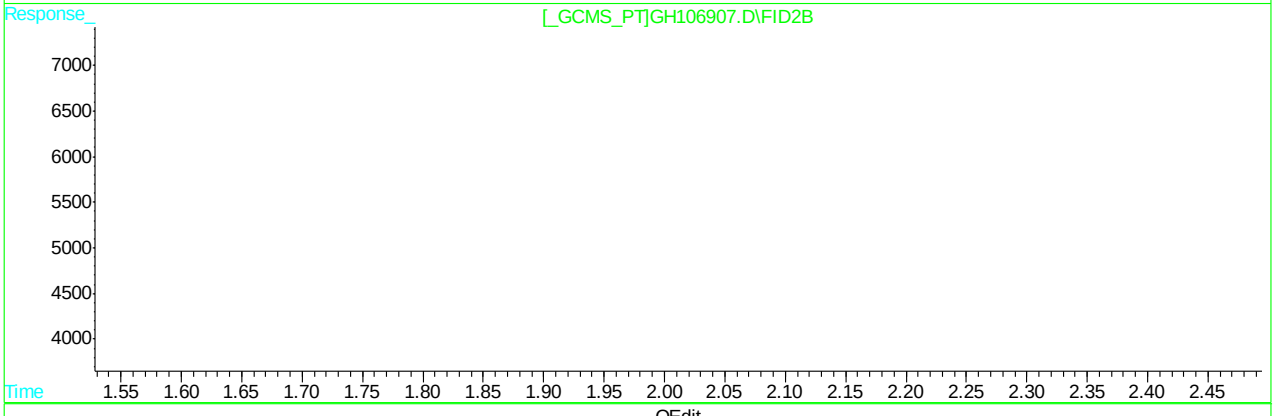
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(6) Isobutanol

1.86min 208.145PPB m

response 6161

(6) Isobutanol #2

3.75min 194.908PPB

response 6340

(+) = Expected Retention Time

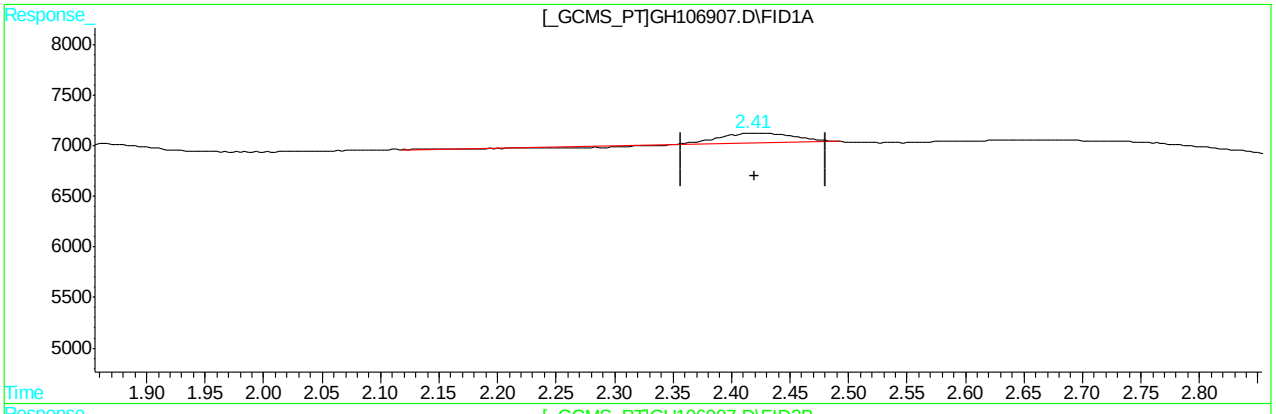
GH106907.D MGH5519.M Tue Oct 11 07:36:32 2016 GCGH

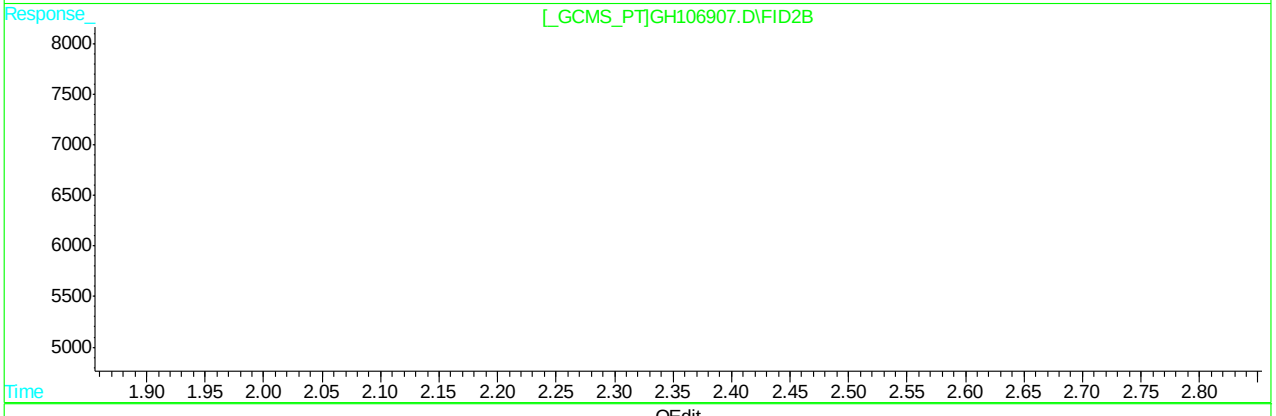
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.42min 120.646PPB

response 3553

(7) 1-Butanol #2

4.32min 394.584PPB

response 12012

(+) = Expected Retention Time

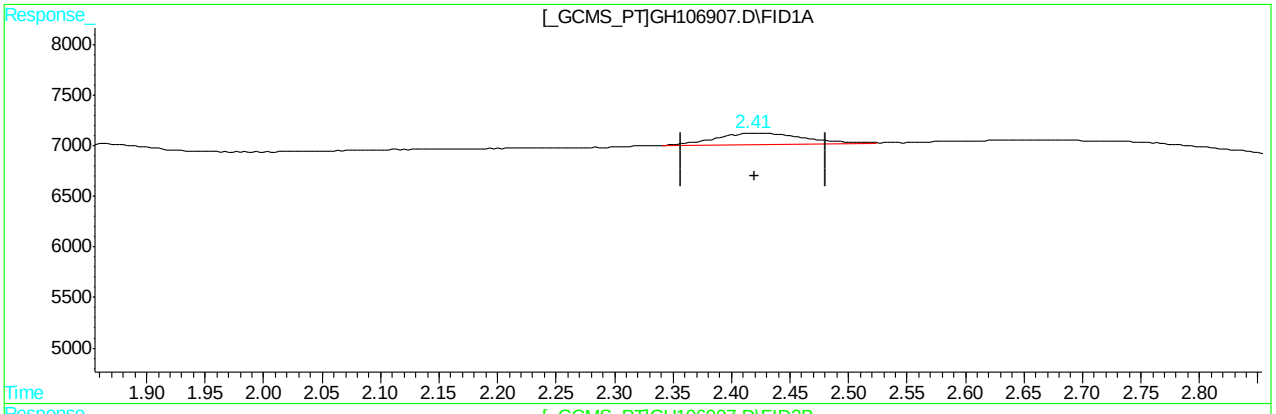
GH106907.D MGH5519.M Tue Oct 11 07:36:57 2016 GCGH

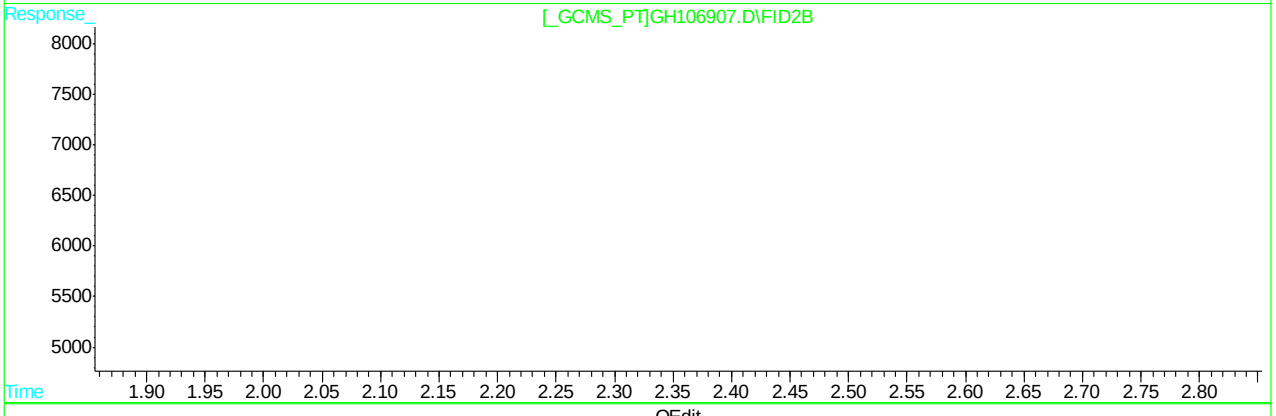
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.41min 200.362PPB m

response 5901

(7) 1-Butanol #2

4.32min 394.584PPB

response 12012

(+) = Expected Retention Time

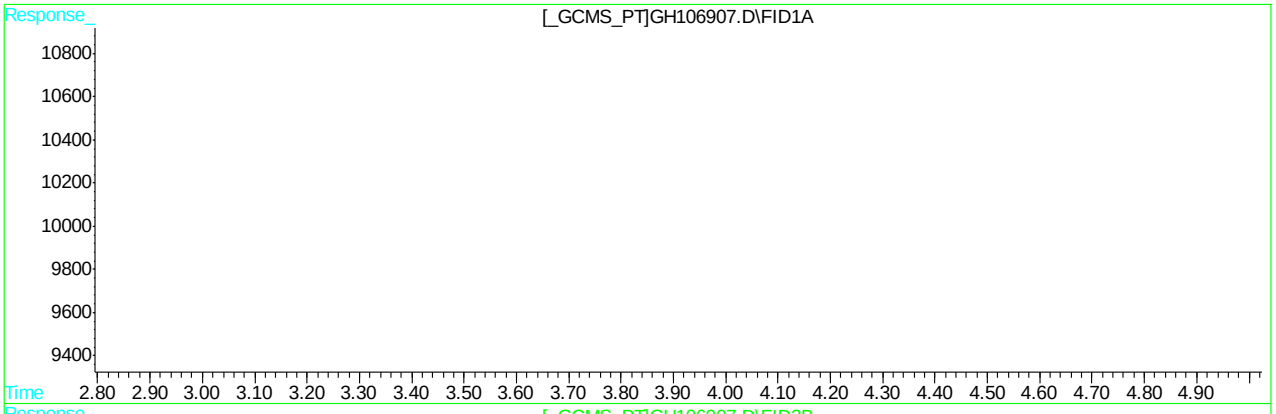
GH106907.D MGH5519.M Tue Oct 11 07:37:35 2016 GCGH

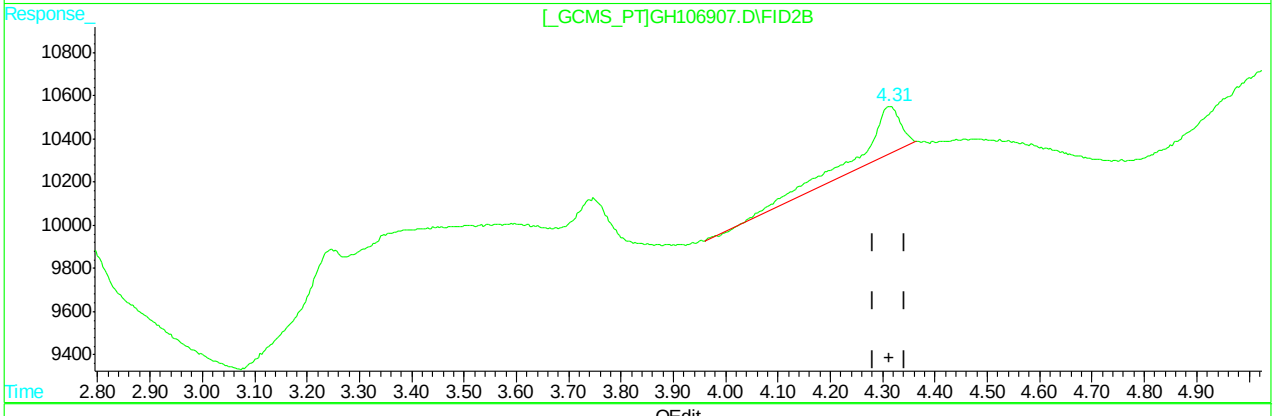
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.41min 200.362PPB m

response 5901

(7) 1-Butanol #2

4.32min 394.584PPB

response 12012

(+) = Expected Retention Time

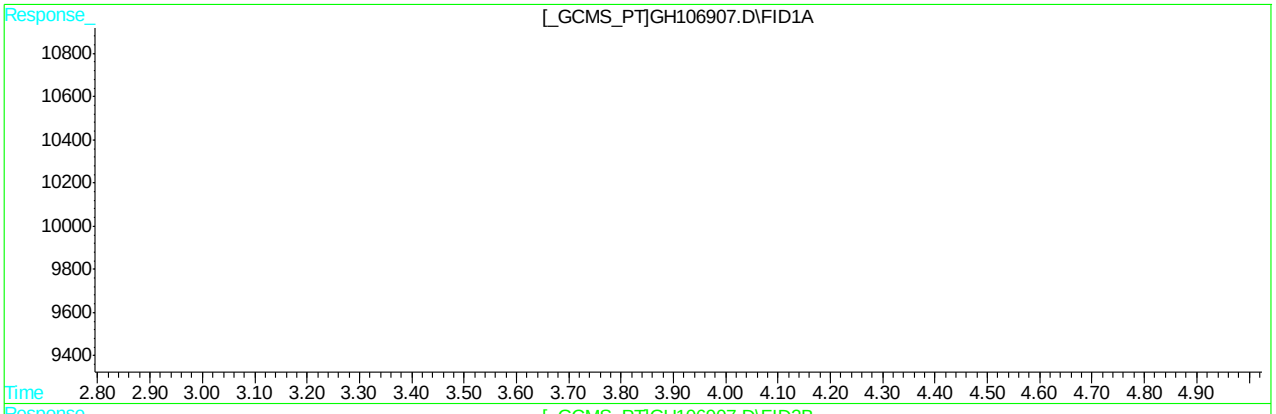
GH106907.D MGH5519.M Tue Oct 11 07:37:57 2016 GCGH

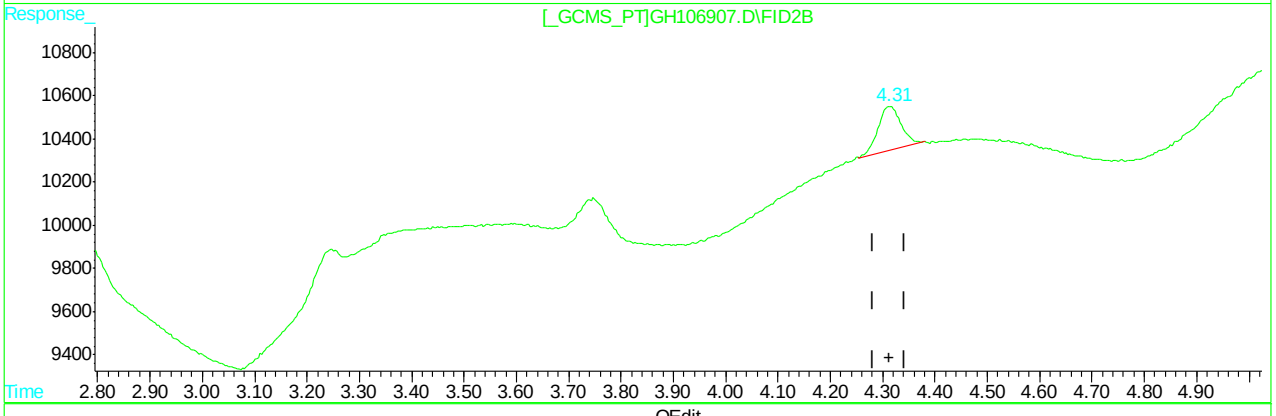
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH        Vial: 2
Acq On    : 10 Oct 2016  10:35 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH        Vial: 2
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-200                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.41min 200.362PPB m

response 5901

(7) 1-Butanol #2

4.31min 207.489PPB m

response 6317

(+) = Expected Retention Time

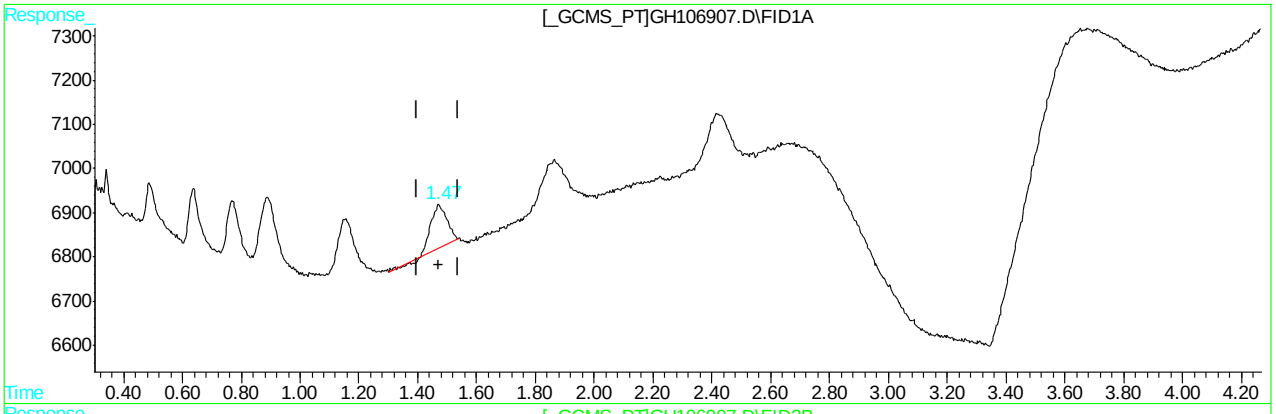
GH106907.D MGH5519.M Tue Oct 11 07:38:20 2016 GCGH

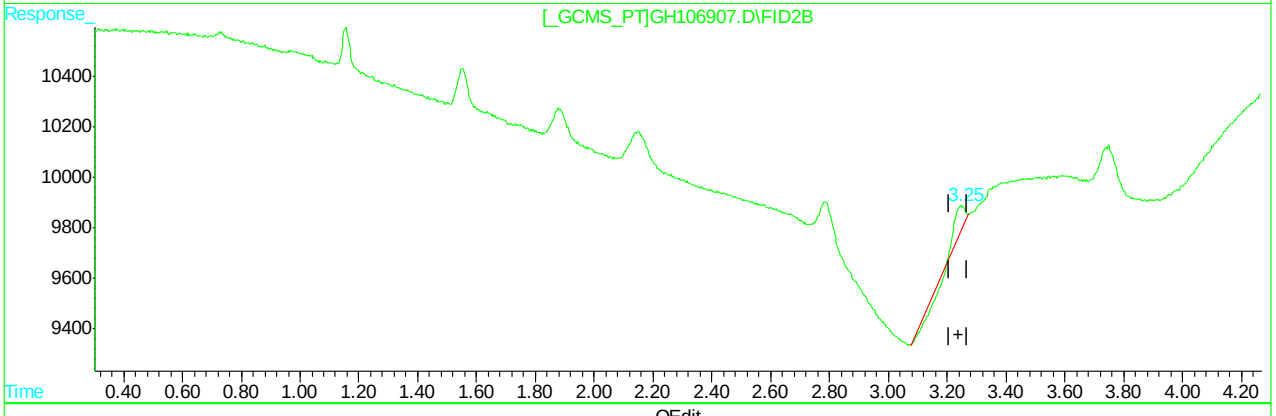
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

1.47min 139.187PPB

response 3665

(8) 2-Butanol #2

3.25min 16.080PPB

response 410

(+) = Expected Retention Time

GH106907.D MGH5519.M Tue Oct 11 07:38:41 2016 GCGH

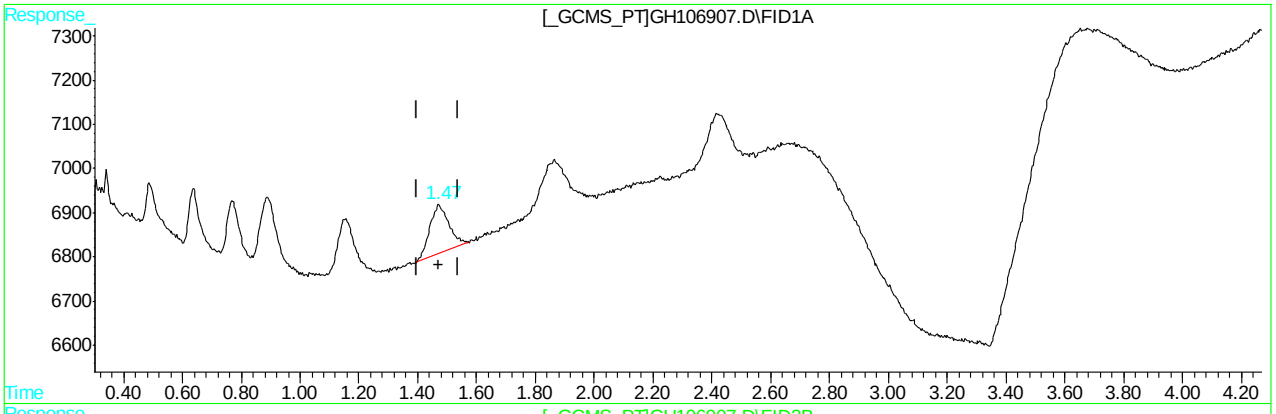
SGS ACCUTEST JC33175

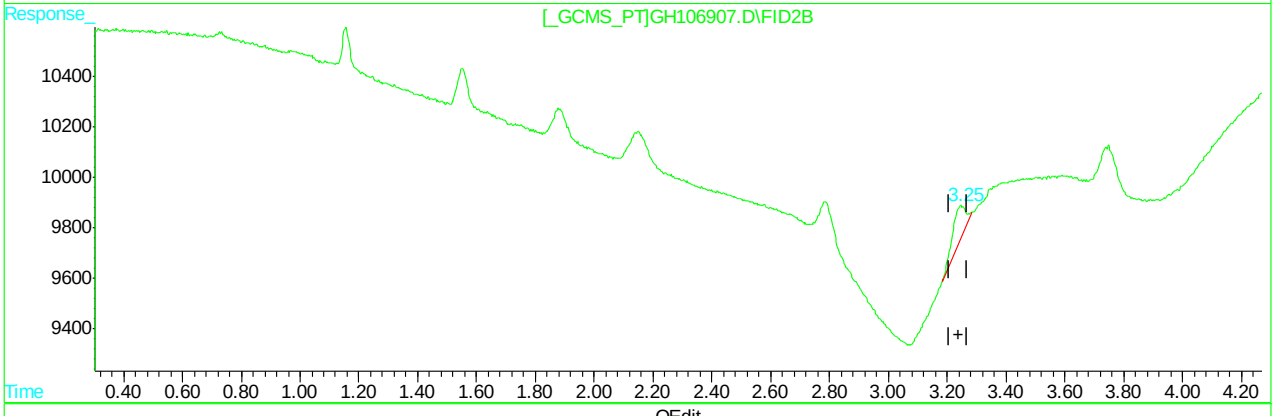
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106907.D\FID1A.CH          Vial: 2
Acq On    : 10 Oct 2016  10:35 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106907.D\FID2B.CH          Vial: 2
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-200                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:26 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

1.47min 188.945PPB m

response 4975

(8) 2-Butanol #2

3.25min 170.808PPB m

response 4353

(+) = Expected Retention Time

GH106907.D MGH5519.M Tue Oct 11 07:40:03 2016 GCGH

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
10/12/16 11:21

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106908.D\FID1A.CH          Vial: 3
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-500                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106908.D\FID2B.CH          Vial: 3
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-500                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  7:44 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:24:13 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.05	6.16	168649	192492	2235.106	2289.428
	Spiked Amount 5000.000			Recovery	=	44.70%	45.79%
	Target Compounds						
1)	Methanol	0.49	1.15	5029	6499	499.086	448.539
2)	Ethanol	0.64	1.55	7138	9205	475.004	471.609
3)	Tert-Butyl Alcoh	0.89	2.15	11413	12778	459.337	440.663
4)	1-Propanol	1.15	2.79	10056	14441	391.844	474.202m
5)	2-Propanol	0.77	1.88	7431	9421	479.295	443.667
6)	Isobutanol	1.86	3.75	12985	17687	409.168	541.404
7)	1-Butanol	2.42	4.31	12243	13960	389.917	459.236
8)	2-Butanol	1.47	3.24	10666	10698	385.520m	409.740

11.5.3 11

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH106908.D MGH5519.M Tue Oct 11 07:45:07 2016 GCGH

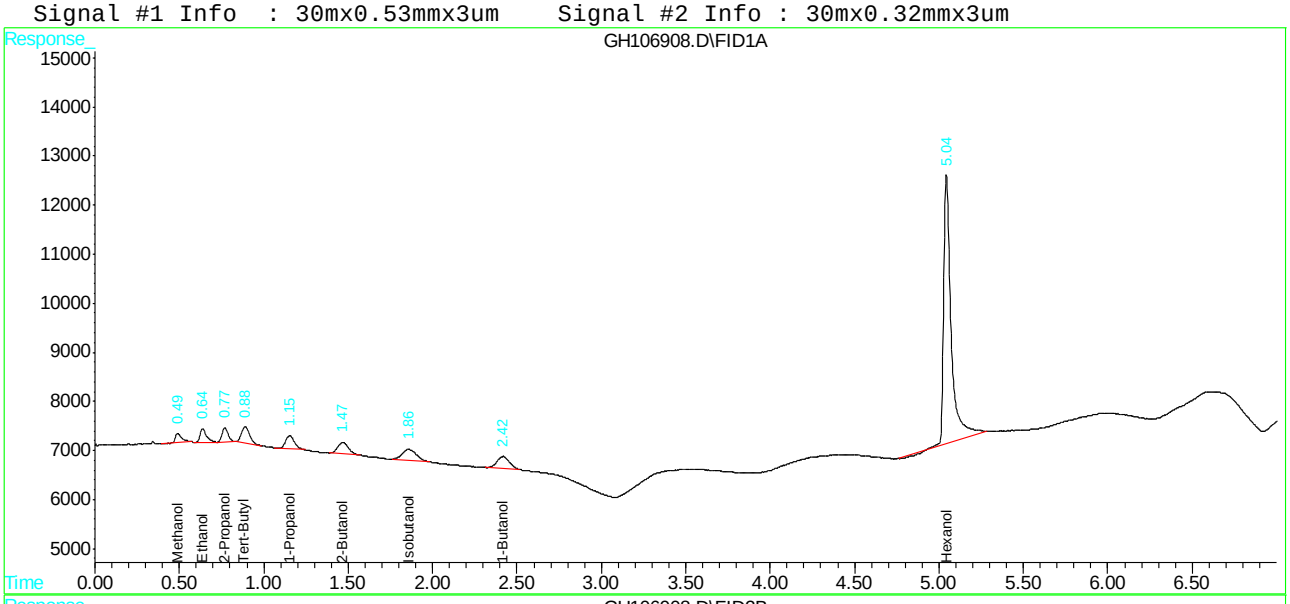
Quantitation Report (QT Reviewed)

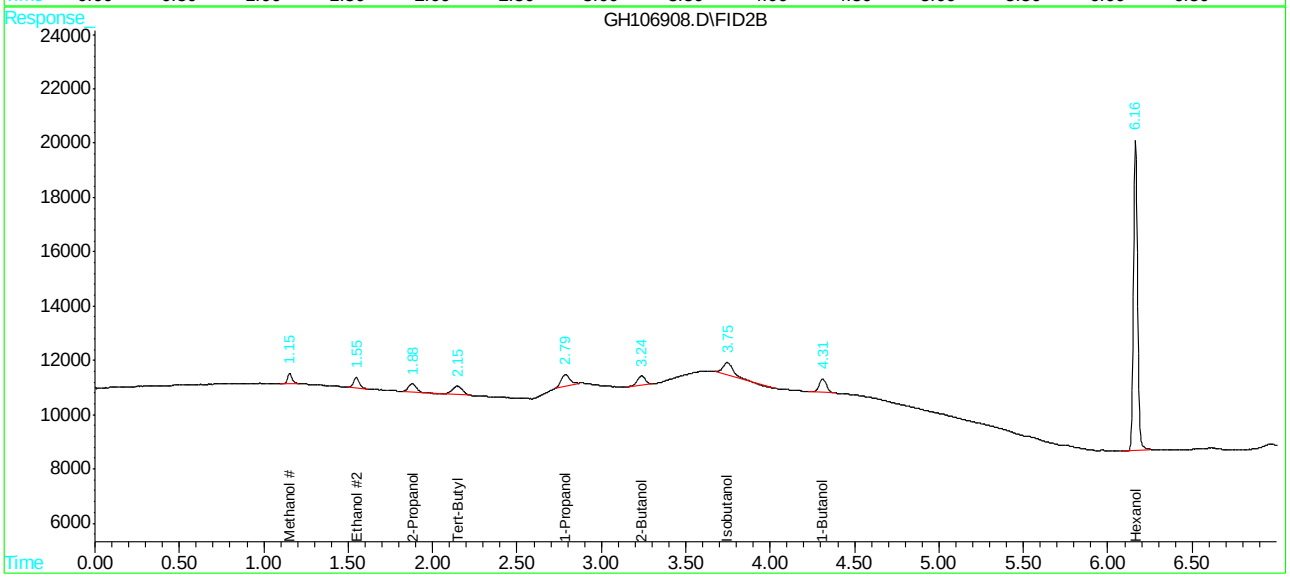
Data File : C:\HPCHEM\1\DATA\GH106908.D\FID1A.CH Vial: 3
Acq On : 10 Oct 2016 10:54 am Operator: XULIU
Sample : IC5519-500 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106908.D\FID2B.CH Vial: 3
Acq On : 10 Oct 2016 11:12 am Operator: XULIU
Sample : IC5519-500 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Oct 11 7:44 2016 Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Oct 10 14:24:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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:	GGH5519-IC5519	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH106908.D	**Analyst approved:**	10/11/16 08:09 Xu Liu
Injection Time:	10/10/16 10:54	**Supervisor approved:**	10/12/16 11:21 Dana Tryon

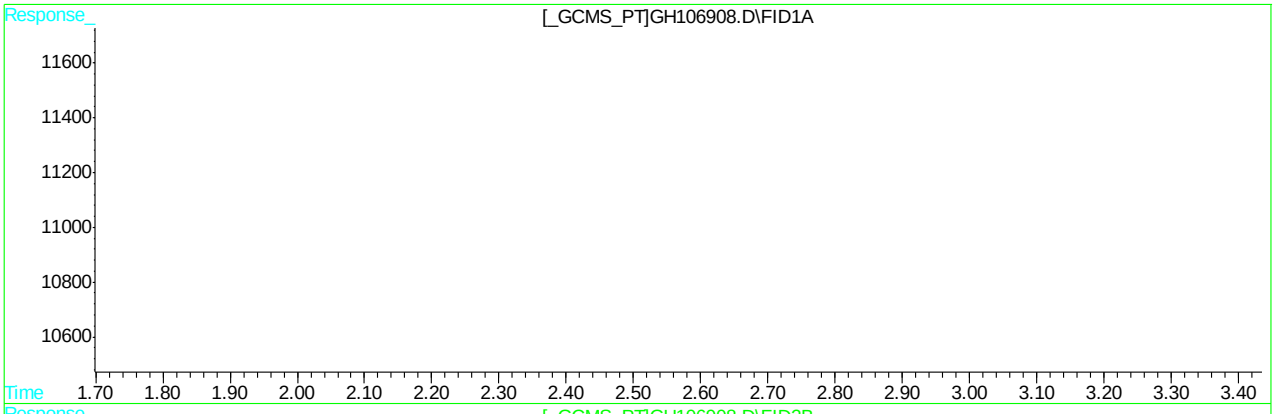
Parameter	CAS	Sig#	R.T. (min.)	Reason
sec-Butyl Alcohol	78-92-2	1	1.47	Poor instrument integration
n-Propyl Alcohol	71-23-8	2	2.79	Poor instrument integration

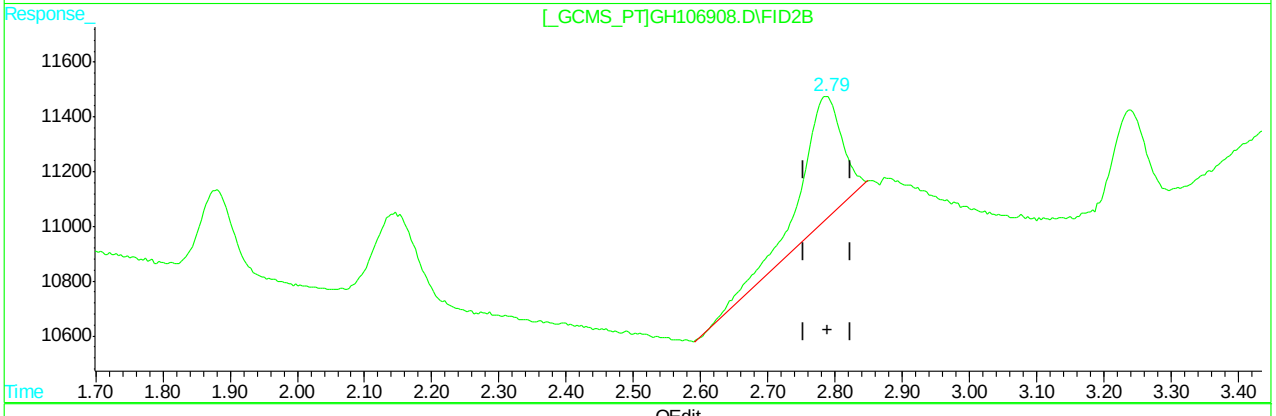
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106908.D\FID1A.CH        Vial: 3
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-500                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106908.D\FID2B.CH        Vial: 3
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-500                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:24 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.15min 391.844PPB

response 10056

(4) 1-Propanol #2

2.79min 633.553PPB

response 19293

(+) = Expected Retention Time

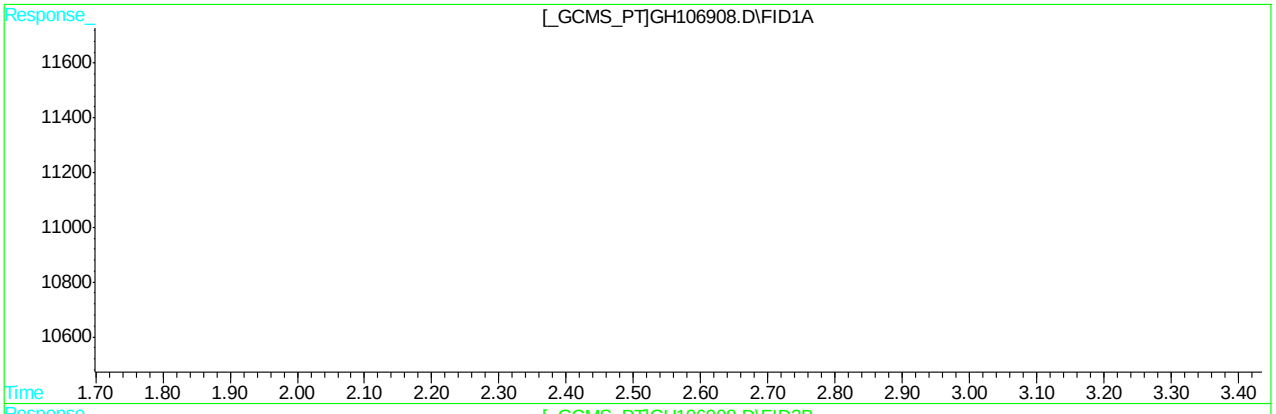
GH106908.D MGH5519.M Tue Oct 11 07:42:42 2016 GCGH

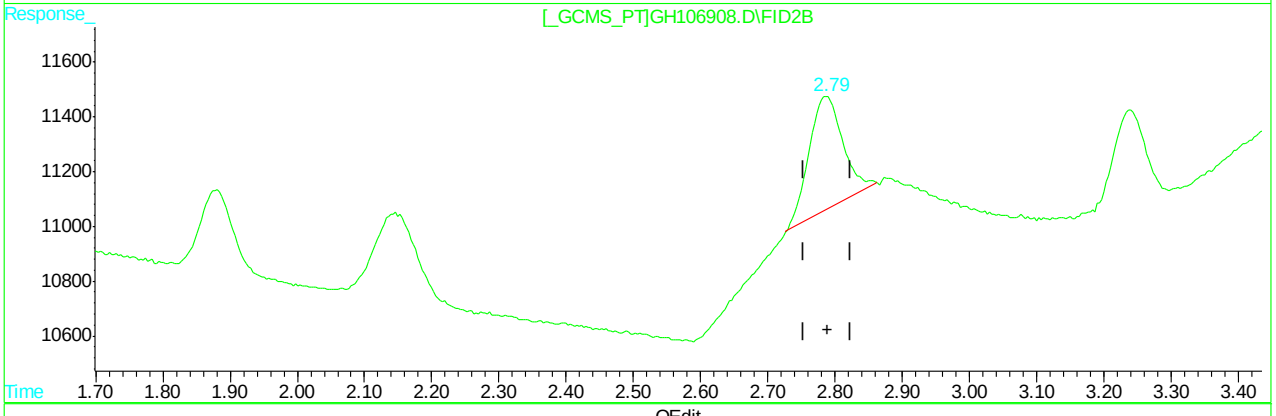
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106908.D\FID1A.CH        Vial: 3
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-500                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106908.D\FID2B.CH        Vial: 3
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-500                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:24 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.15min 391.844PPB

response 10056

(4) 1-Propanol #2

2.79min 474.202PPB m

response 14441

(+) = Expected Retention Time

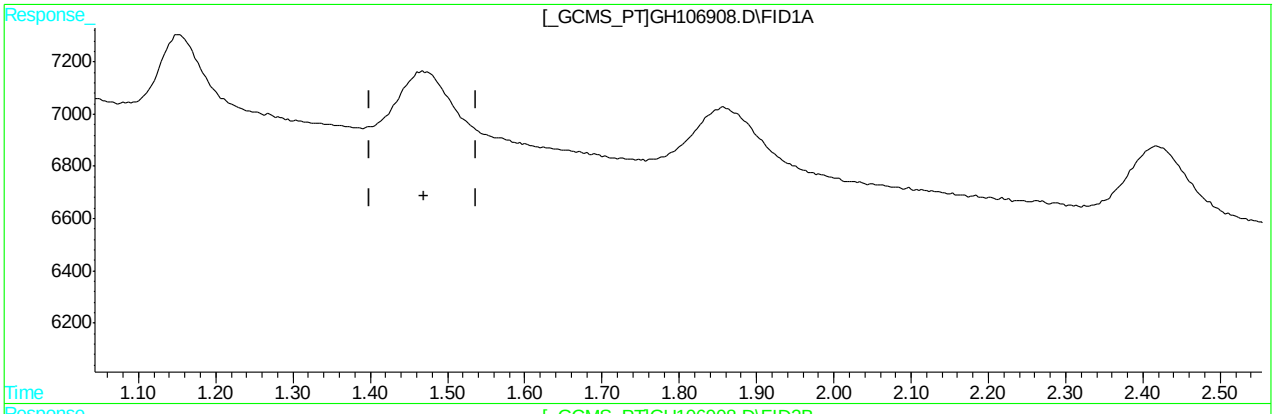
GH106908.D MGH5519.M Tue Oct 11 07:43:14 2016 GCGH

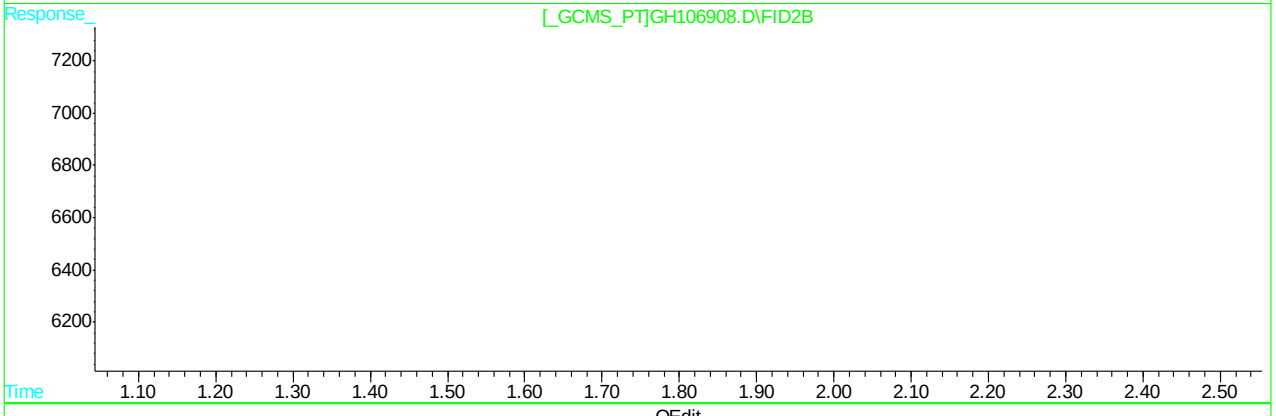
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106908.D\FID1A.CH        Vial: 3
Acq On    : 10 Oct 2016  10:54 am                   Operator: XULIU
Sample    : IC5519-500                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106908.D\FID2B.CH        Vial: 3
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-500                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:24 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

1.47min -45.041PPB

response -1246

(8) 2-Butanol #2

3.24min 409.740PPB

response 10698

(+) = Expected Retention Time

GH106908.D MGH5519.M Tue Oct 11 07:43:51 2016 GCGH

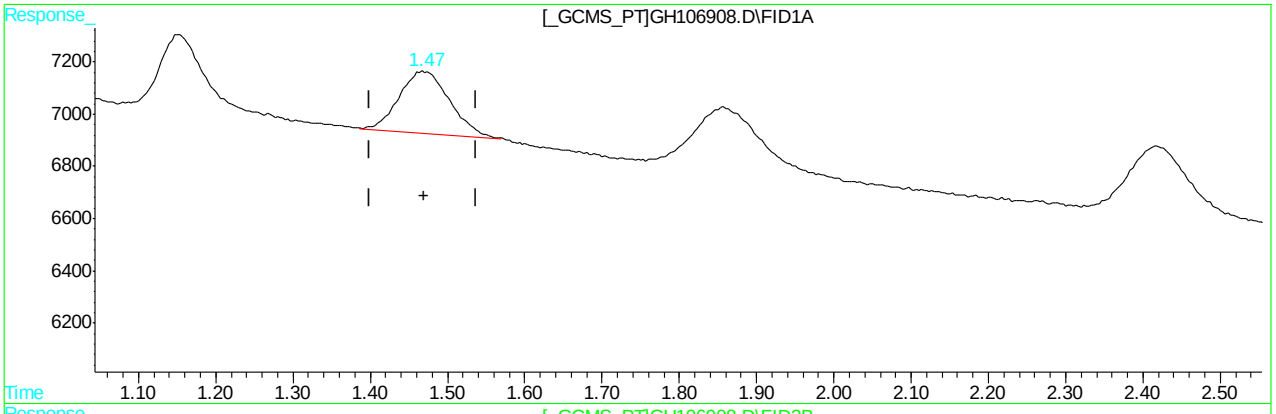
SGS ACCUTEST JC33175

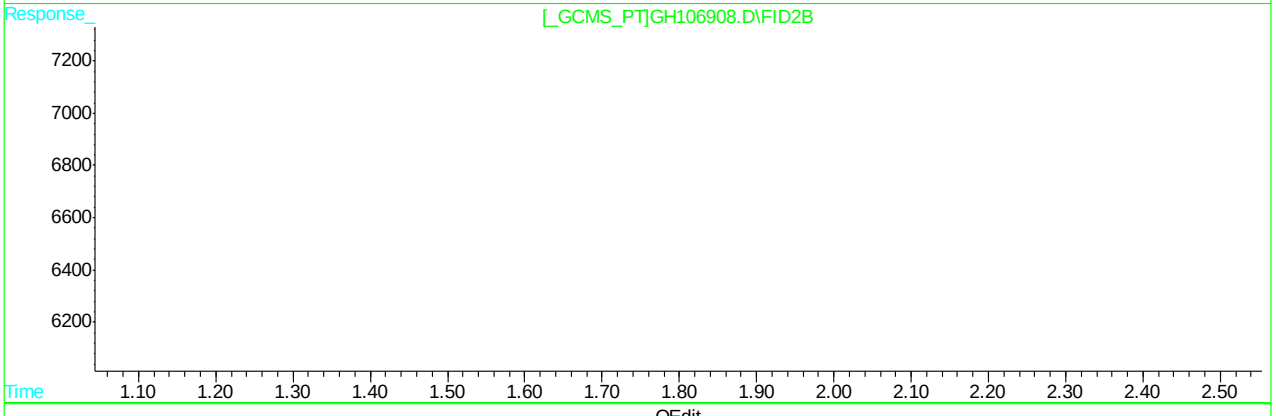
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106908.D\FID1A.CH          Vial: 3
Acq On    : 10 Oct 2016  10:54 am                     Operator: XULIU
Sample    : IC5519-500                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106908.D\FID2B.CH          Vial: 3
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-500                                Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:24 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(8) 2-Butanol

1.47min 385.520PPB m

response 10666

(8) 2-Butanol #2

3.24min 409.740PPB

response 10698

(+) = Expected Retention Time

GH106908.D MGH5519.M Tue Oct 11 07:44:50 2016 GCGH

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon 10/12/16 11:21

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH          Vial: 4
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH          Vial: 4
Acq On    : 10 Oct 2016  11:31 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  7:48 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:22:24 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.04	6.16	317543	346705	4309.718	4246.490
Spiked Amount	5000.000			Recovery	=	86.19%	84.93%
	Target Compounds						
1)	Methanol	0.49	1.16	13604	12616	1349.565	853.171m
2)	Ethanol	0.64	1.56	18678	19875	1230.580	1006.778
3)	Tert-Butyl Alcoh	0.89	2.15	30187	27021	1195.467	910.253
4)	1-Propanol	1.15	2.79	31106	26787	1161.817	929.267m
5)	2-Propanol	0.77	1.88	19144	21264	1224.583	979.309
6)	Isobutanol	1.86	3.75	33915	32795	1031.234	1020.776m
7)	1-Butanol	2.42	4.31	34327	32102	1047.123	1039.133m
8)	2-Butanol	1.47	3.24	29725	23911	1067.986	883.920

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.
GH106909.D MGH5519.M Tue Oct 11 07:49:35 2016 GCGH

SGS ACCUTEST JC33175

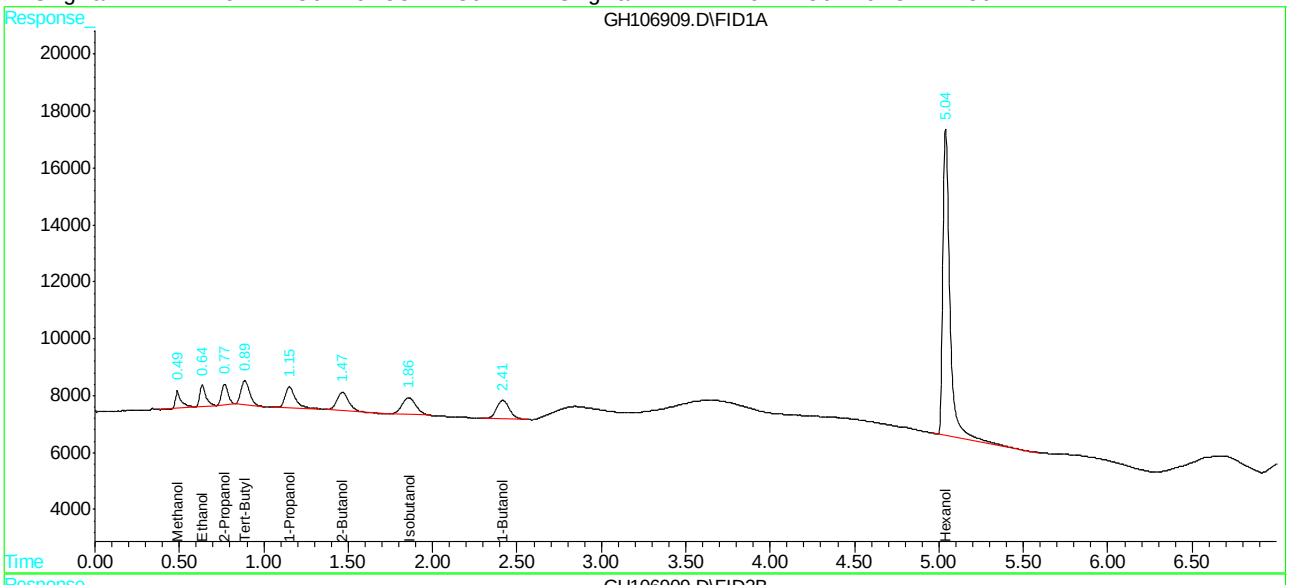
Quantitation Report (QT Reviewed)

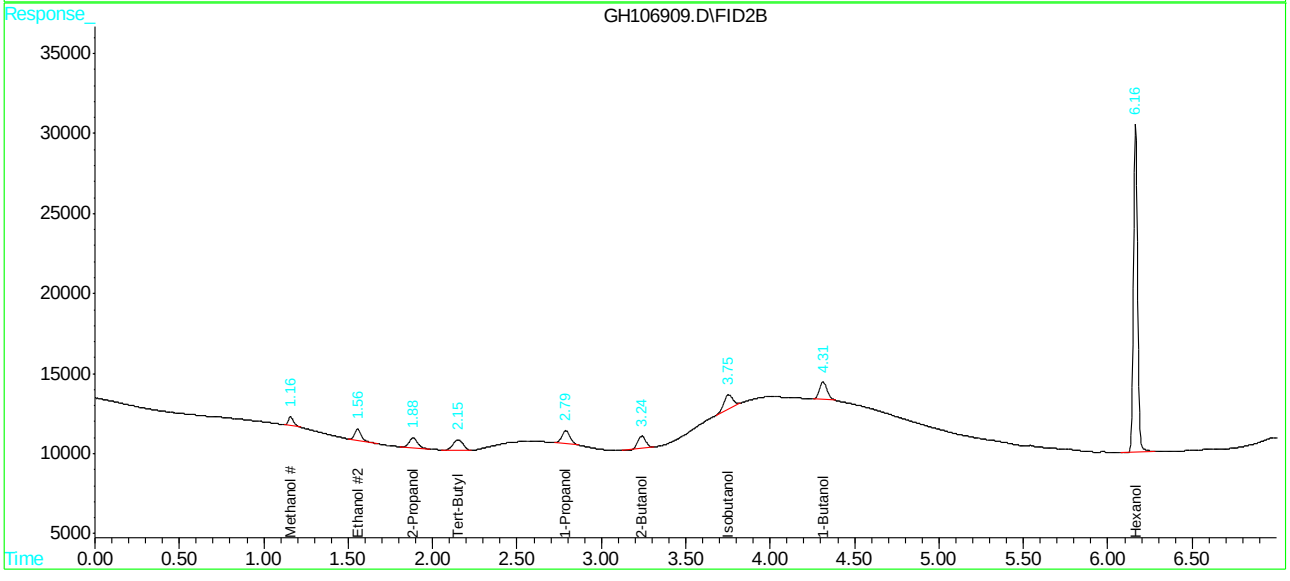
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH Vial: 4
Acq On : 10 Oct 2016 11:12 am Operator: XULIU
Sample : IC5519-1000 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH Vial: 4
Acq On : 10 Oct 2016 11:31 am Operator: XULIU
Sample : IC5519-1000 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Oct 11 7:48 2016 Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Oct 10 14:22:24 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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:	GGH5519-IC5519	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH106909.D	**Analyst approved:**	10/11/16 08:09 Xu Liu
Injection Time:	10/10/16 11:12	**Supervisor approved:**	10/12/16 11:21 Dana Tryon

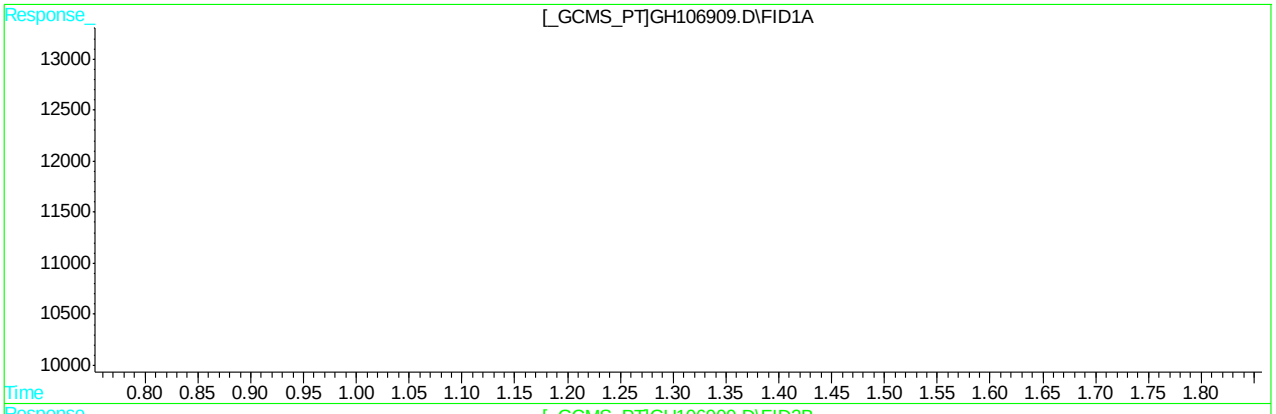
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	2	1.16	Poor instrument integration
n-Propyl Alcohol	71-23-8	2	2.79	Poor instrument integration
Isobutyl Alcohol	78-83-1	2	3.75	Poor instrument integration
n-Butyl Alcohol	71-36-3	2	4.31	Poor instrument integration

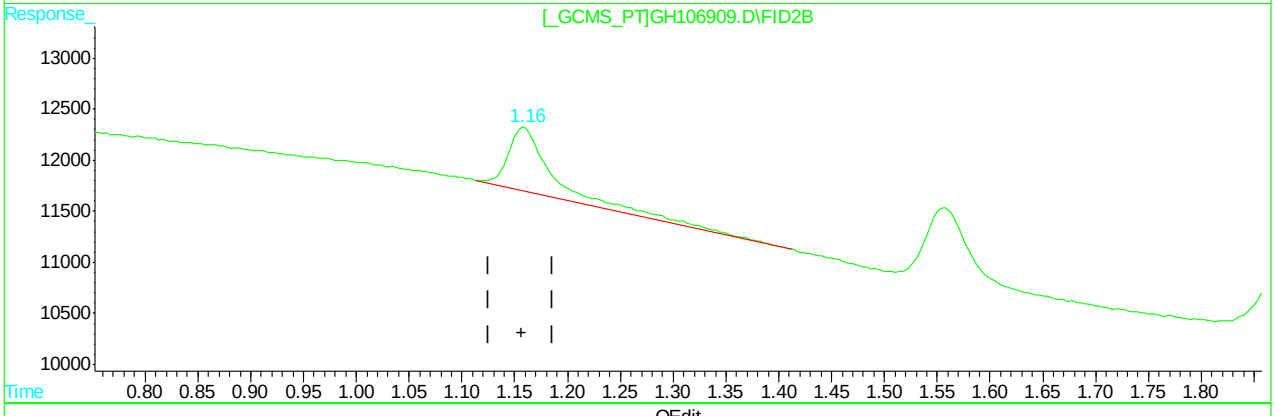
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH        Vial: 4
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH        Vial: 4
Acq On    : 10 Oct 2016  11:31 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 1349.565PPB

response 13604

(1) Methanol #2

1.16min 1311.283PPB

response 19390

(+) = Expected Retention Time

GH106909.D MGH5519.M Tue Oct 11 07:45:57 2016 GCGH

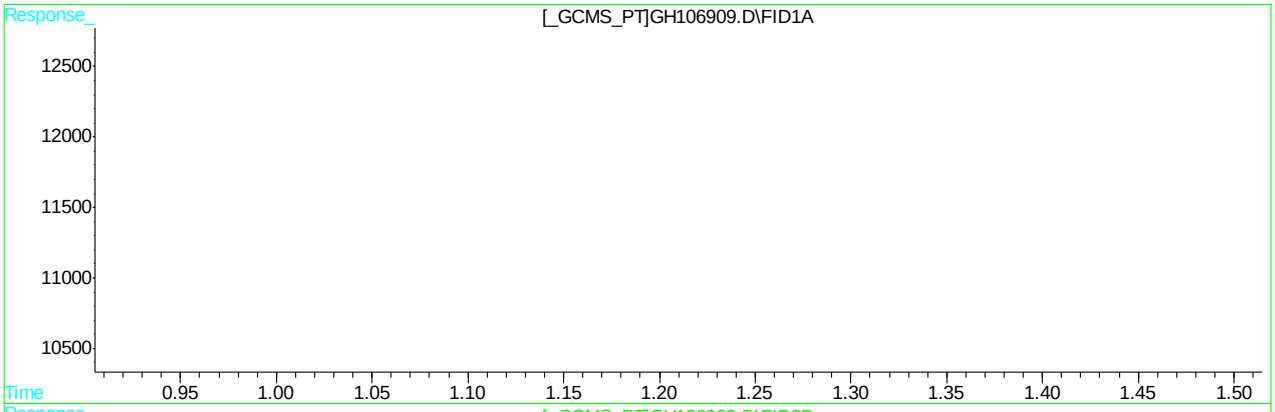
SGS ACCUTEST JC33175

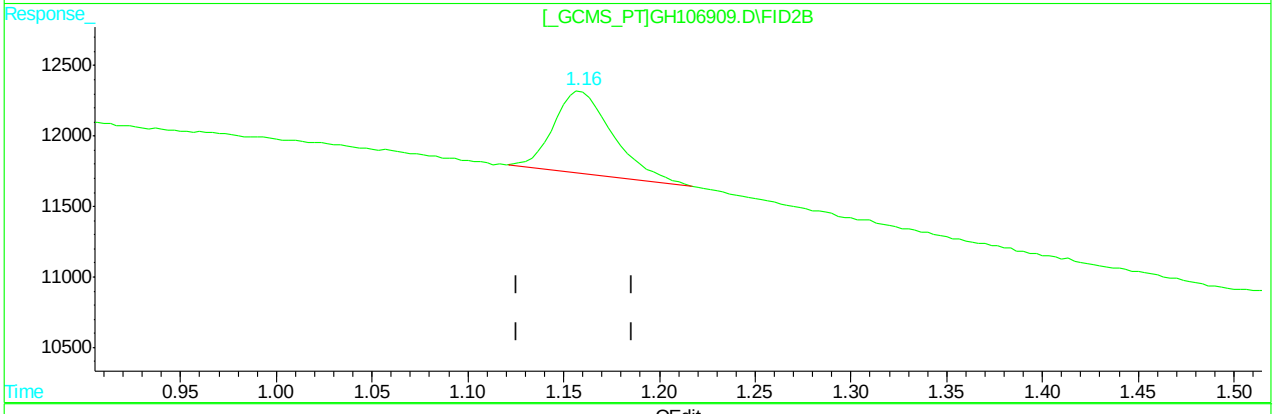
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH        Vial: 4
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH        Vial: 4
Acq On    : 10 Oct 2016  11:31 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 1349.565PPB

response 13604

(1) Methanol #2

1.16min 853.171PPB m

response 12616

(+) = Expected Retention Time

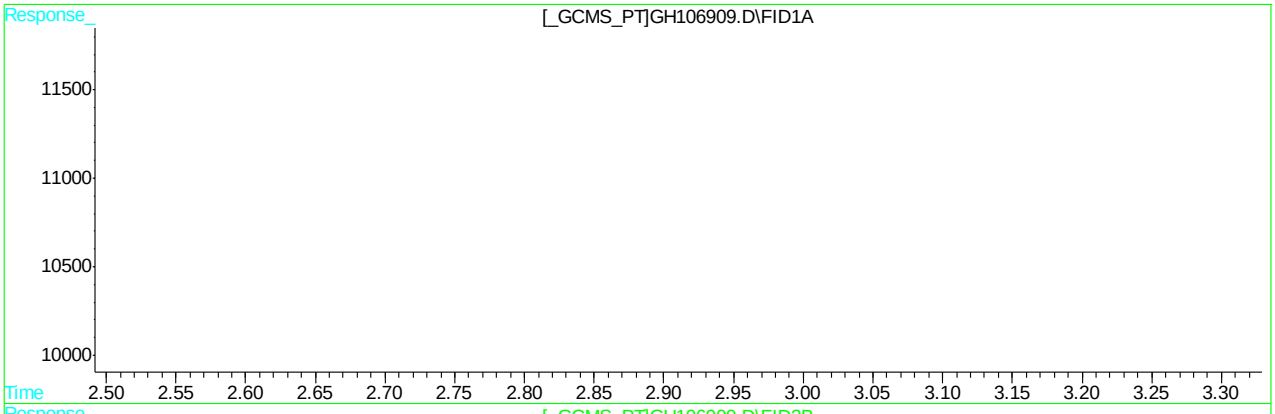
GH106909.D MGH5519.M Tue Oct 11 07:46:16 2016 GCGH

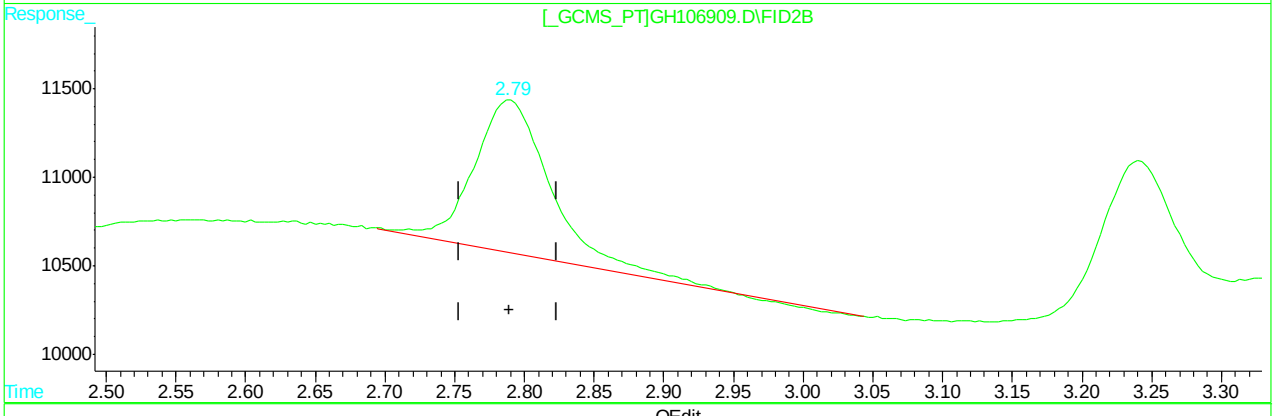
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH        Vial: 4
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH        Vial: 4
Acq On    : 10 Oct 2016  11:31 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.15min 1161.817PPB

response 31106

(4) 1-Propanol #2

2.79min 1158.289PPB

response 33388

(+) = Expected Retention Time

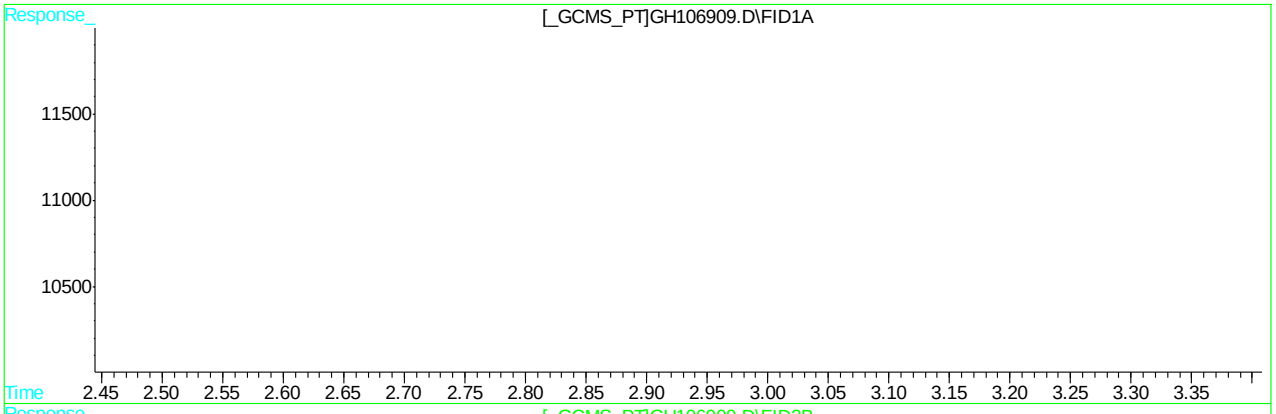
GH106909.D MGH5519.M Tue Oct 11 07:46:39 2016 GCGH

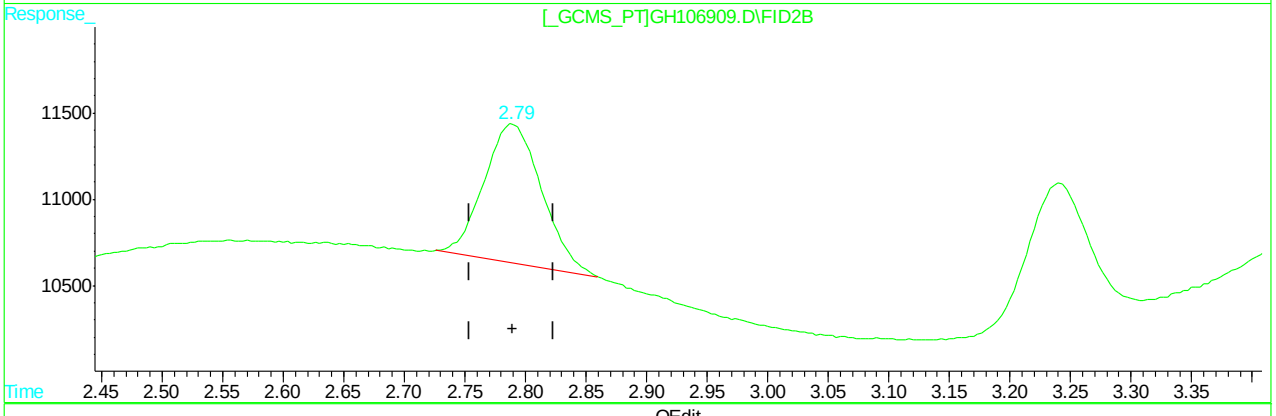
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH        Vial: 4
Acq On    : 10 Oct 2016  11:12 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH        Vial: 4
Acq On    : 10 Oct 2016  11:31 am                   Operator: XULIU
Sample    : IC5519-1000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(4) 1-Propanol

1.15min 1161.817PPB

response 31106

(4) 1-Propanol #2

2.79min 929.267PPB m

response 26787

(+) = Expected Retention Time

GH106909.D MGH5519.M Tue Oct 11 07:47:52 2016 GCGH

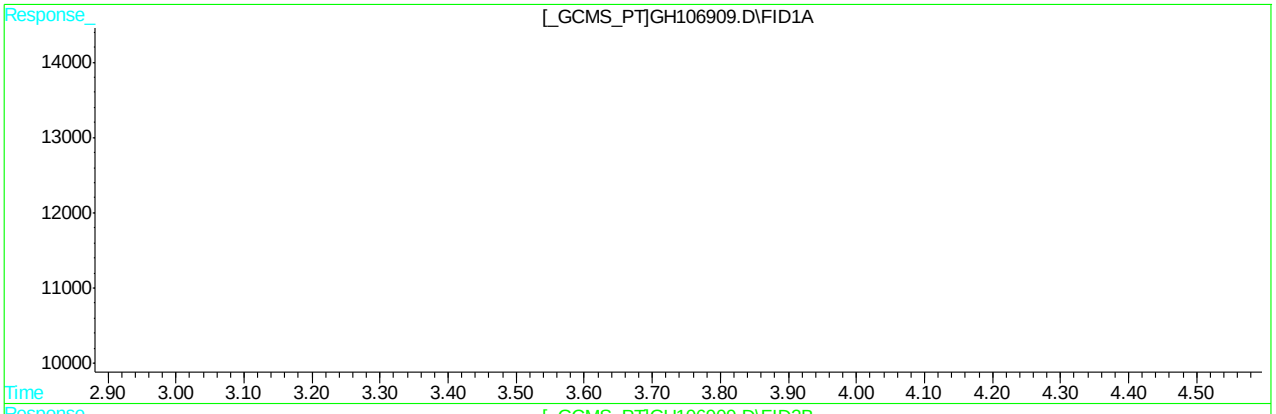
SGS ACCUTEST JC33175

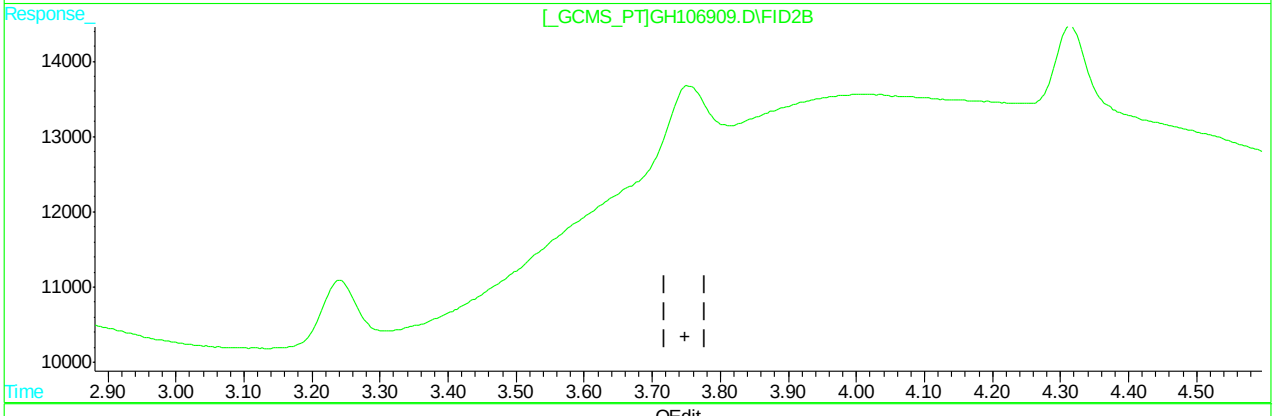
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH          Vial: 4
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH          Vial: 4
Acq On    : 10 Oct 2016  11:31 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(6) Isobutanol

1.86min 1031.234PPB

response 33915

(6) Isobutanol #2

3.75min -90.709PPB

response -2914

(+) = Expected Retention Time

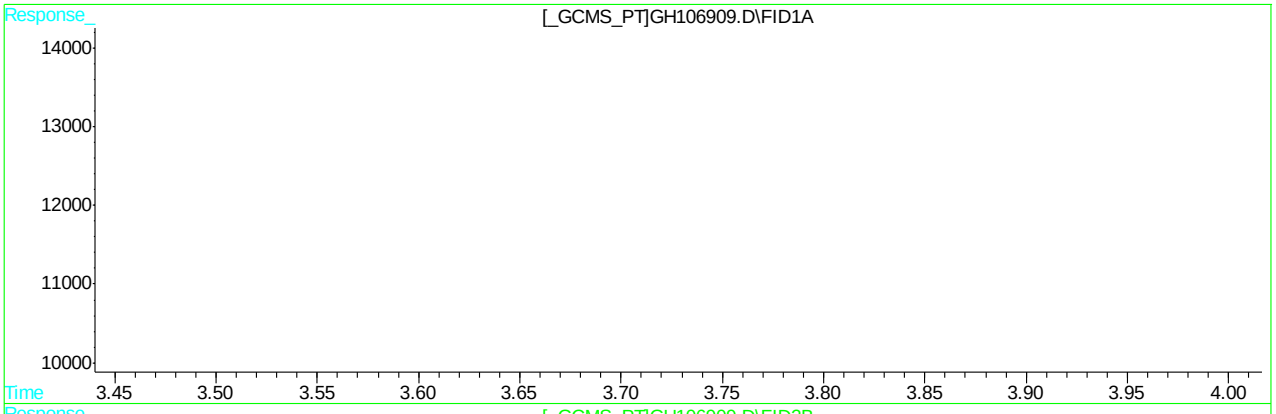
GH106909.D MGH5519.M Tue Oct 11 07:48:04 2016 GCGH

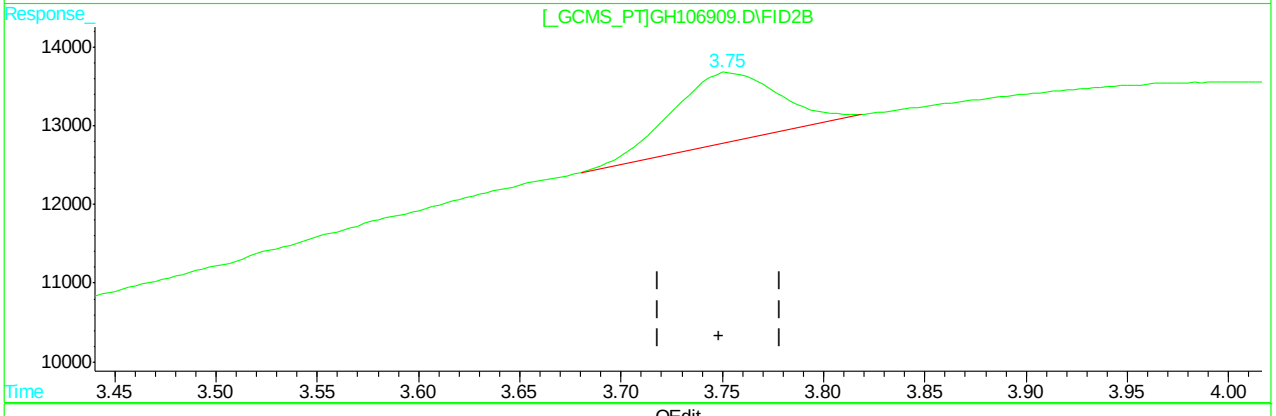
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH          Vial: 4
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH          Vial: 4
Acq On    : 10 Oct 2016  11:31 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(6) Isobutanol

1.86min 1031.234PPB

response 33915

(6) Isobutanol #2

3.75min 1020.776PPB m

response 32795

(+) = Expected Retention Time

GH106909.D MGH5519.M Tue Oct 11 07:48:26 2016 GCGH

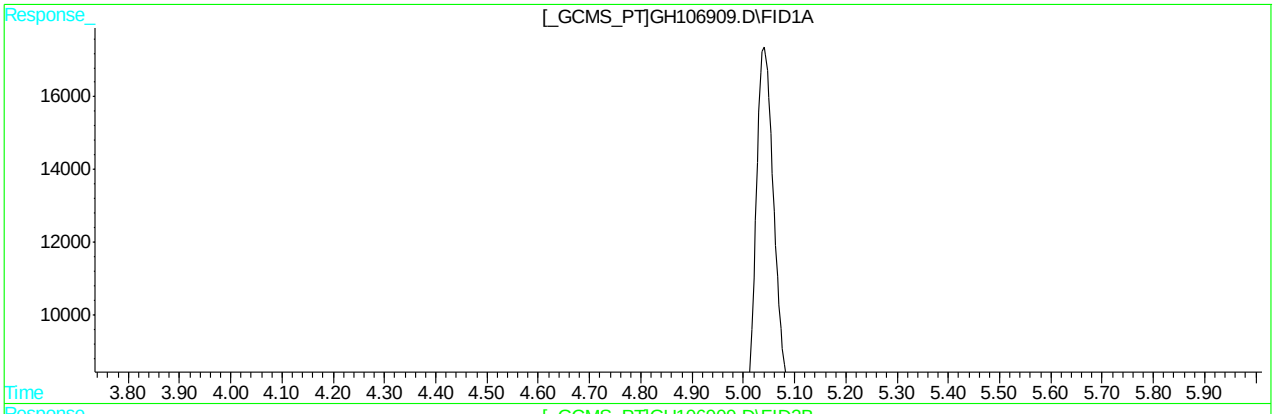
SGS ACCUTEST JC33175

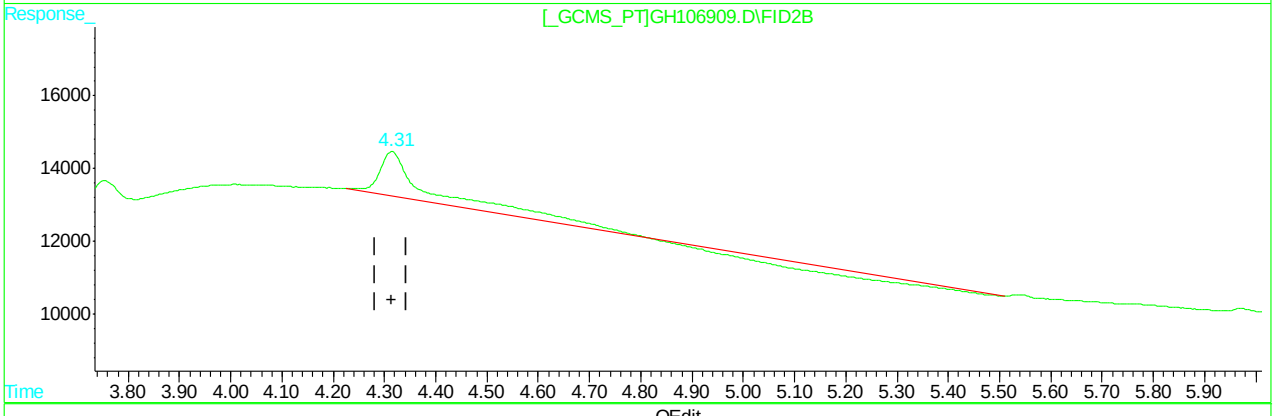
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH          Vial: 4
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH          Vial: 4
Acq On    : 10 Oct 2016  11:31 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.42min 1047.123PPB

response 34327

(7) 1-Butanol #2

4.32min 1513.117PPB

response 46745

(+) = Expected Retention Time

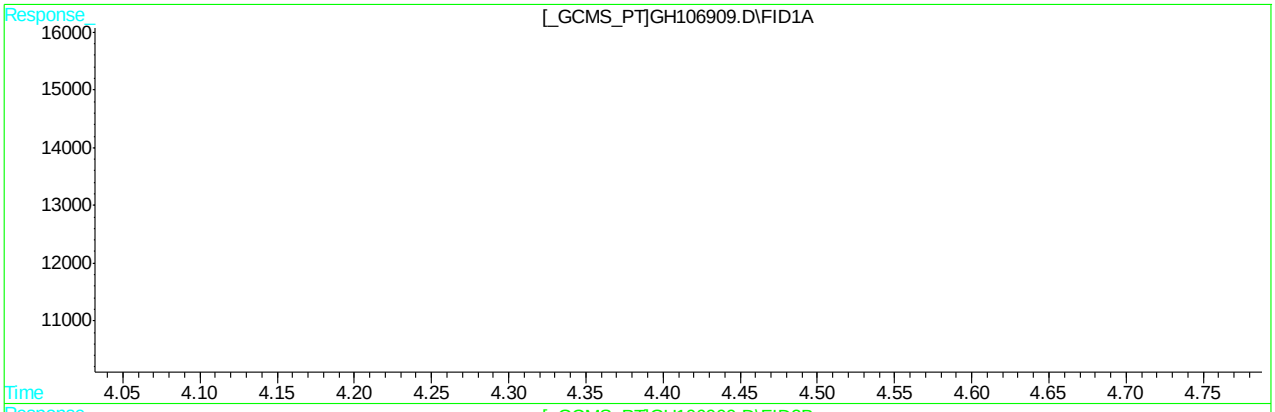
GH106909.D MGH5519.M Tue Oct 11 07:48:40 2016 GCGH

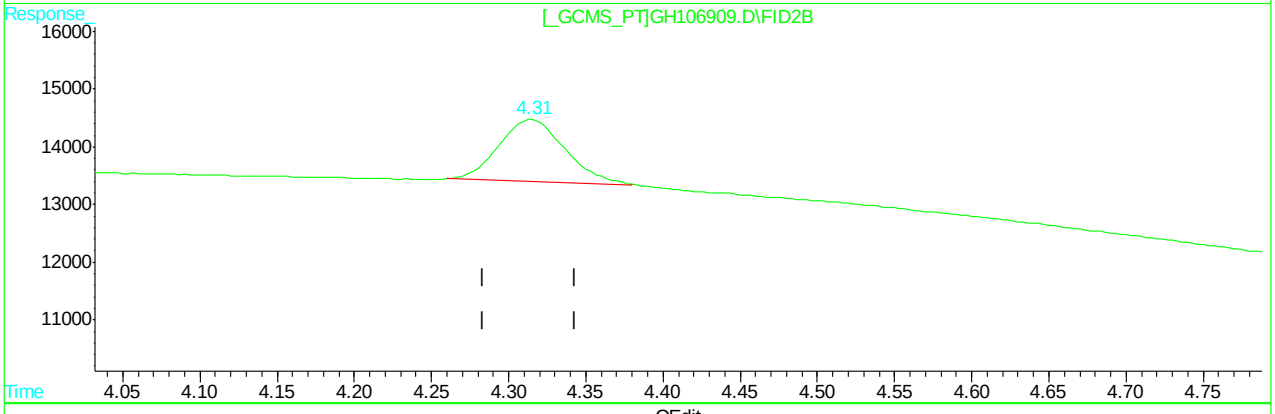
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106909.D\FID1A.CH          Vial: 4
Acq On    : 10 Oct 2016  11:12 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106909.D\FID2B.CH          Vial: 4
Acq On    : 10 Oct 2016  11:31 am                     Operator: XULIU
Sample    : IC5519-1000                               Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:22 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(7) 1-Butanol

2.42min 1047.123PPB

response 34327

(7) 1-Butanol #2

4.31min 1039.133PPB m

response 32102

(+) = Expected Retention Time

GH106909.D MGH5519.M Tue Oct 11 07:49:00 2016 GCGH

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106910.D\FID1A.CH          Vial: 5
Acq On    : 10 Oct 2016  11:31 am                     Operator: XULIU
Sample    : ICC5519-5000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106910.D\FID2B.CH          Vial: 5
Acq On    : 10 Oct 2016  11:50 am                     Operator: XULIU
Sample    : ICC5519-5000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:06 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:02:19 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.04	6.16	385992	442563	4958.577	4804.453
	Spiked Amount 5000.000			Recovery	=	99.17%	96.09%
	Target Compounds						
1)	Methanol	0.49	1.16	54229	69369	8940.721	5199.046 #
2)	Ethanol	0.64	1.55	78760	97112	8412.761	5348.496
3)	Tert-Butyl Alcoh	0.89	2.15	126428	160850	7317.370	5397.994
4)	1-Propanol	1.15	2.79	145077	148693	10190.959	5512.162 #
5)	2-Propanol	0.77	1.88	79326	123129	8322.588	6216.983
6)	Isobutanol	1.86	3.75	166505	171507	8725.894	6846.013
7)	1-Butanol	2.42	4.31	188072	163779	8641.100	5620.049
8)	2-Butanol	1.47	3.24	143015	145120	8775.824	5771.577

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC33175

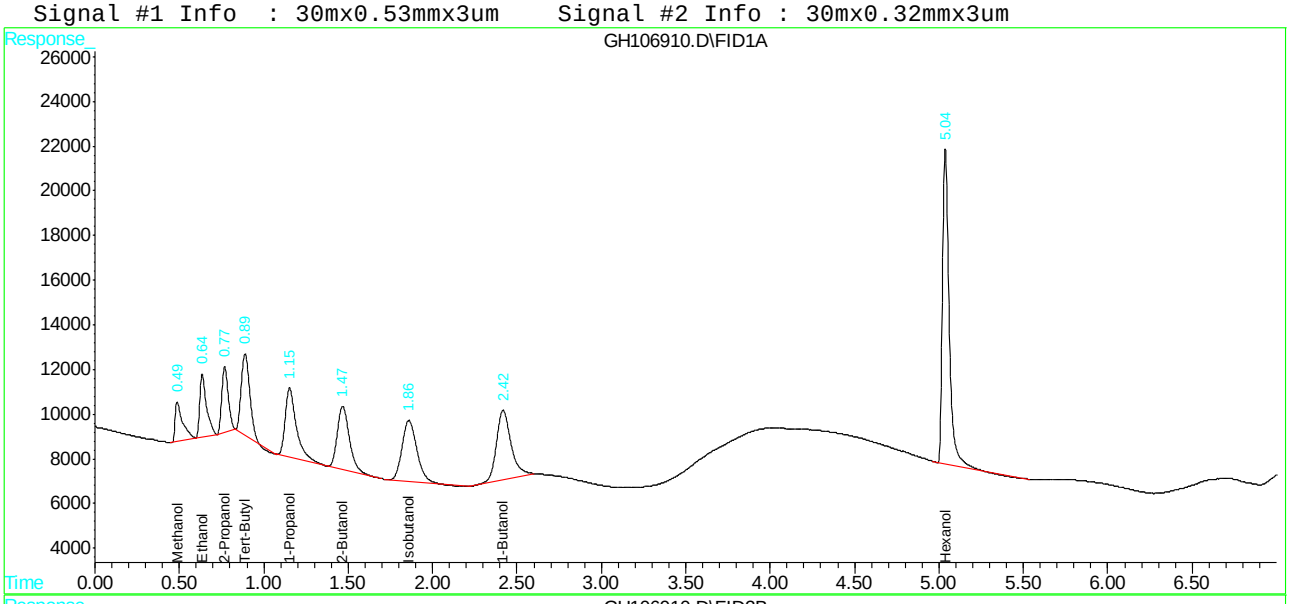
Quantitation Report (QT Reviewed)

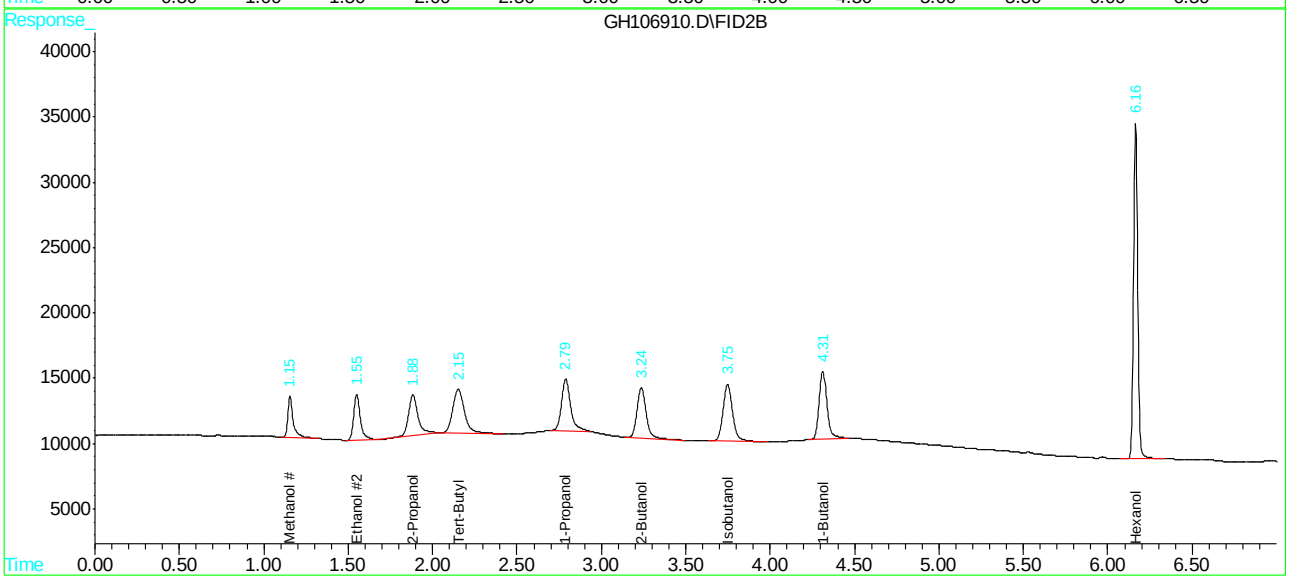
Data File : C:\HPCHEM\1\DATA\GH106910.D\FID1A.CH Vial: 5
Acq On : 10 Oct 2016 11:31 am Operator: XULIU
Sample : ICC5519-5000 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106910.D\FID2B.CH Vial: 5
Acq On : 10 Oct 2016 11:50 am Operator: XULIU
Sample : ICC5519-5000 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Oct 10 14:06 2016 Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Oct 10 14:02:19 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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\GH106911.D\FID1A.CH          Vial: 6
Acq On    : 10 Oct 2016  11:50 am                     Operator: XULIU
Sample    : IC5519-10000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106911.D\FID2B.CH          Vial: 6
Acq On    : 10 Oct 2016  12:08 pm                     Operator: XULIU
Sample    : IC5519-10000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:09 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:02:19 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S Hexanol	5.04	6.16	400691	438388	5147.402	4759.127
Spiked Amount 5000.000			Recovery	=	102.95%	95.18%
Target Compounds						
1) Methanol	0.49	1.16	102816	120541	16951.404	9034.219 #
2) Ethanol	0.64	1.56	164308	208983	17550.468	11509.803
3) Tert-Butyl Alcoh	0.89	2.15	259492	318005	15018.826	10671.962
4) 1-Propanol	1.15	2.79	292952	292932	20578.460	10859.247 #
5) 2-Propanol	0.77	1.89	166569	224855	17475.728	11353.283
6) Isobutanol	1.86	3.75	375072	346176	19656.136	13818.268
7) 1-Butanol	2.42	4.32	334032	322325	15347.346	11060.545
8) 2-Butanol	1.47	3.24	300574	298135	18444.163	11857.145

11.5.6

11

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

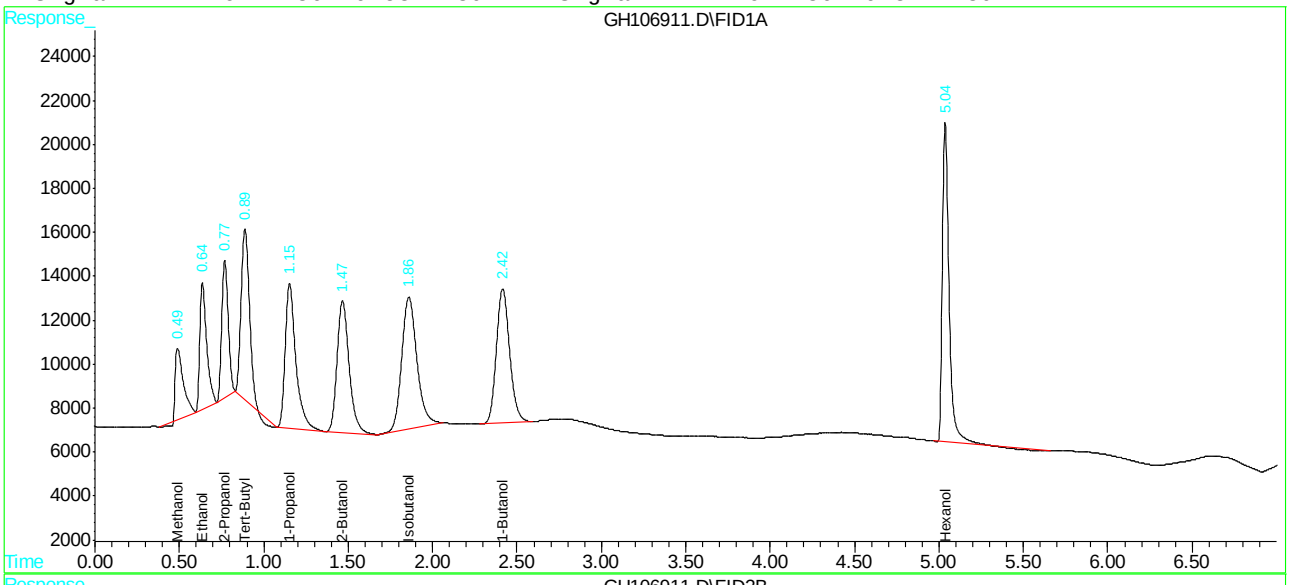
Quantitation Report (QT Reviewed)

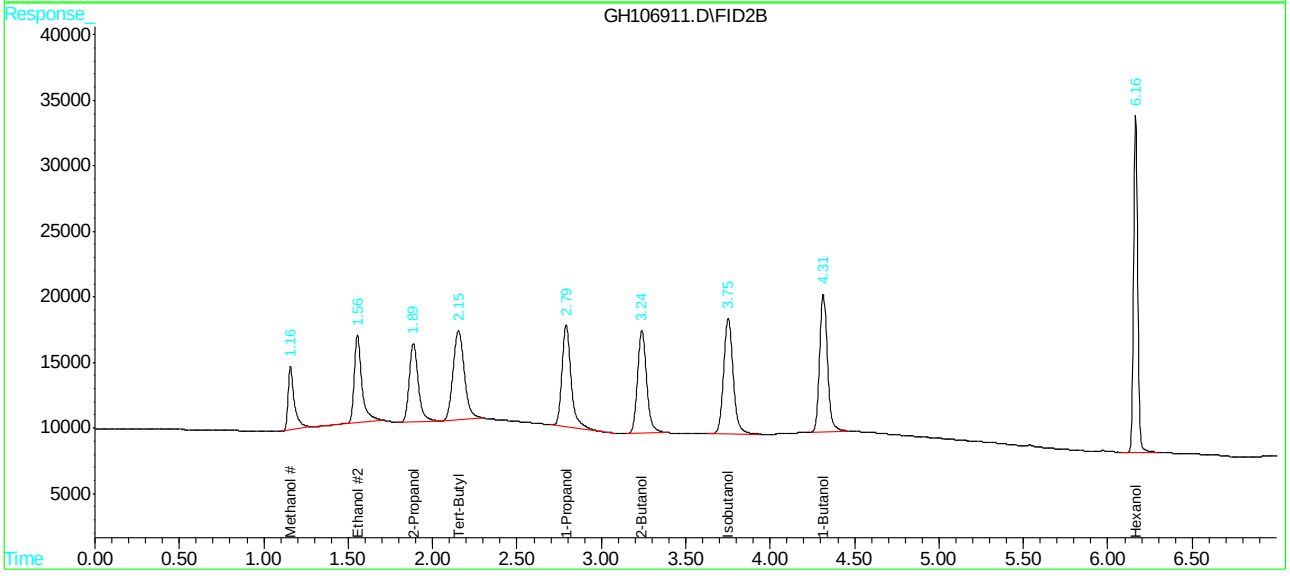
```
Data File : C:\HPCHEM\1\DATA\GH106911.D\FID1A.CH          Vial: 6
Acq On    : 10 Oct 2016  11:50 am                     Operator: XULIU
Sample    : IC5519-10000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106911.D\FID2B.CH          Vial: 6
Acq On    : 10 Oct 2016  12:08 pm                     Operator: XULIU
Sample    : IC5519-10000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:09 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:02:19 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106912.D\FID1A.CH          Vial: 7
Acq On    : 10 Oct 2016  12:08 pm                     Operator: XULIU
Sample    : IC5519-50000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106912.D\FID2B.CH          Vial: 7
Acq On    : 10 Oct 2016  12:27 pm                     Operator: XULIU
Sample    : IC5519-50000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:15 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:02:19 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.04	6.17	489726	512387	6291.177	5562.461
Spiked Amount	5000.000			Recovery	=	125.82%	111.25%
	Target Compounds						
1)	Methanol	0.49	1.15	418887	655891	69062.350	49157.405
2)	Ethanol	0.64	1.55	631808	885329	67486.208	48759.798
3)	Tert-Butyl Alcoh	0.89	2.15	1049349	1324734	60734.043	44456.866
4)	1-Propanol	1.15	2.79	982294	1208278	69001.337	44791.909
5)	2-Propanol	0.77	1.88	631683	917626	66273.733	46332.489
6)	Isobutanol	1.86	3.75	1414135	1365668	74109.497	54513.223
7)	1-Butanol	2.42	4.32	1394640	1301563	64077.711	44663.033
8)	2-Butanol	1.47	3.24	1206426	1225471	74030.029	48738.265

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

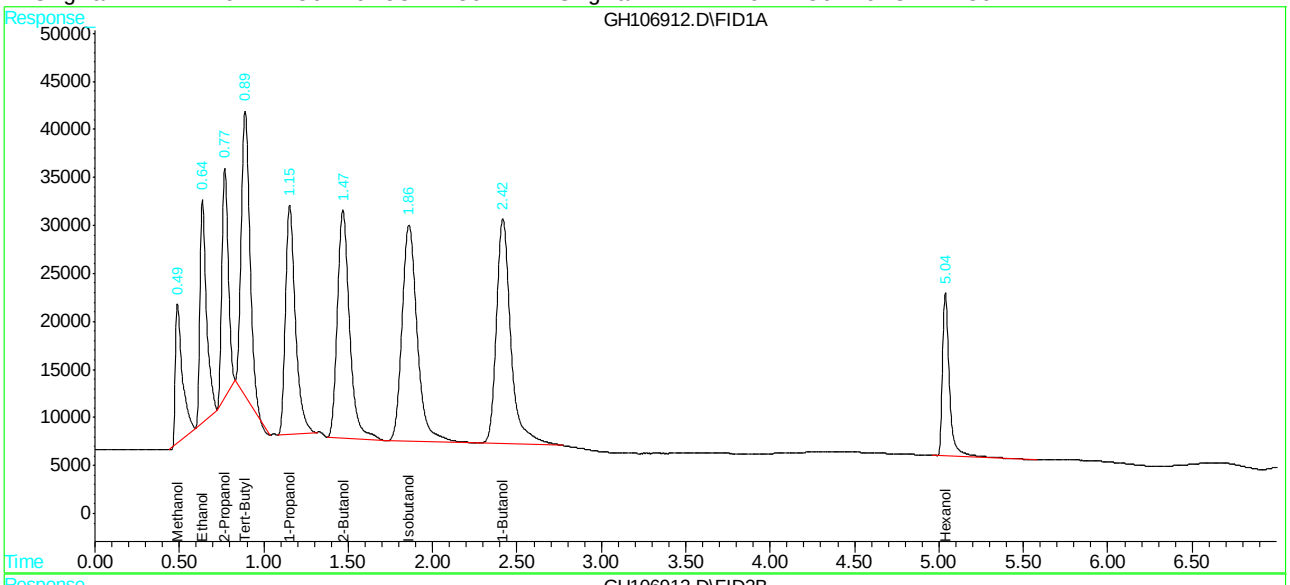
Quantitation Report (QT Reviewed)

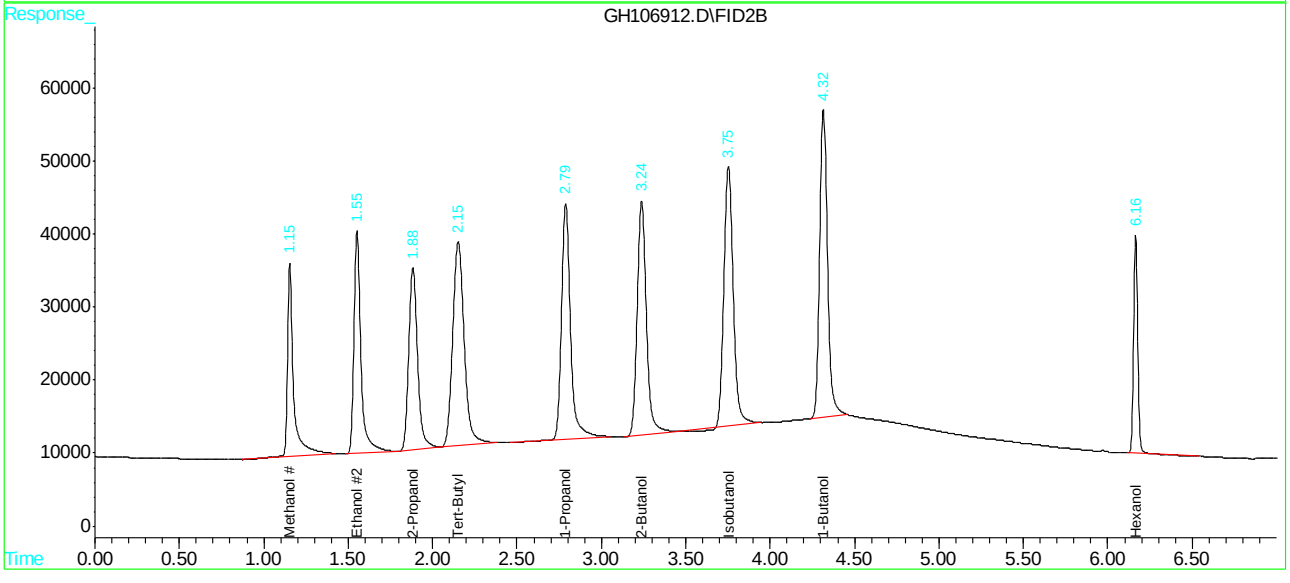
Data File : C:\HPCHEM\1\DATA\GH106912.D\FID1A.CH Vial: 7
Acq On : 10 Oct 2016 12:08 pm Operator: XULIU
Sample : IC5519-50000 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106912.D\FID2B.CH Vial: 7
Acq On : 10 Oct 2016 12:27 pm Operator: XULIU
Sample : IC5519-50000 Inst : GCGH
Misc : GC49338,GGH5519,5.0,,,,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Oct 10 14:15 2016 Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title : METHOD SW846-8015C (DAI)
Last Update : Mon Oct 10 14:02:19 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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
10/12/16 11:21

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106913.D\FID1A.CH          Vial: 8
Acq On    : 10 Oct 2016  12:27 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106913.D\FID2B.CH          Vial: 8
Acq On    : 10 Oct 2016  12:45 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  7:55 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:02:19 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.04	6.16	444938	479690	5715.812m	5207.497
	Spiked Amount 5000.000			Recovery	=	114.32%	104.15%
	Target Compounds						
1)	Methanol	0.49	1.15	897499	1550073	147971.403m	116174.067
2)	Ethanol	0.64	1.54	1239505	2080217	132397.102	114568.622
3)	Tert-Butyl Alcoh	0.89	2.14	2384674	3093844	138019.754	103826.625
4)	1-Propanol	1.15	2.78	2480535	2754216	174245.422	102101.118 #
5)	2-Propanol	0.77	1.87	1386542	2183974	145470.470	110272.528
6)	Isobutanol	1.86	3.75	3143422	3185089	164734.936	127138.831
7)	1-Butanol	2.42	4.31	3067354	2945587	140931.695	101077.605
8)	2-Butanol	1.47	3.23	2664870	2799790	163524.673	111350.555

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

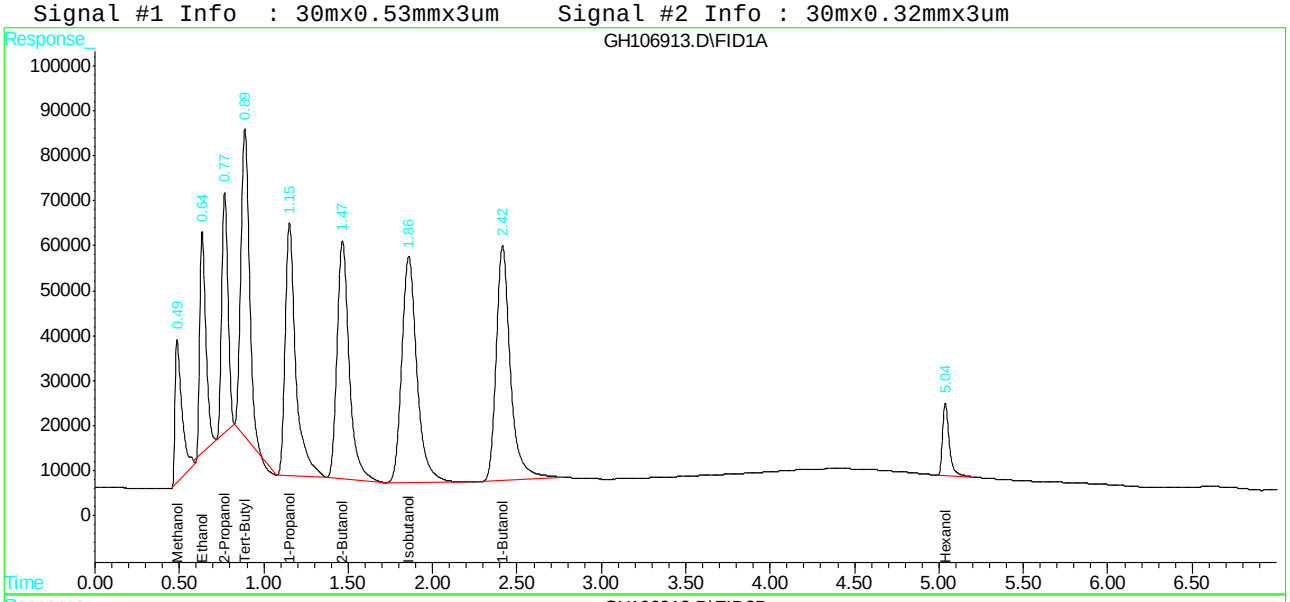
Quantitation Report (QT Reviewed)

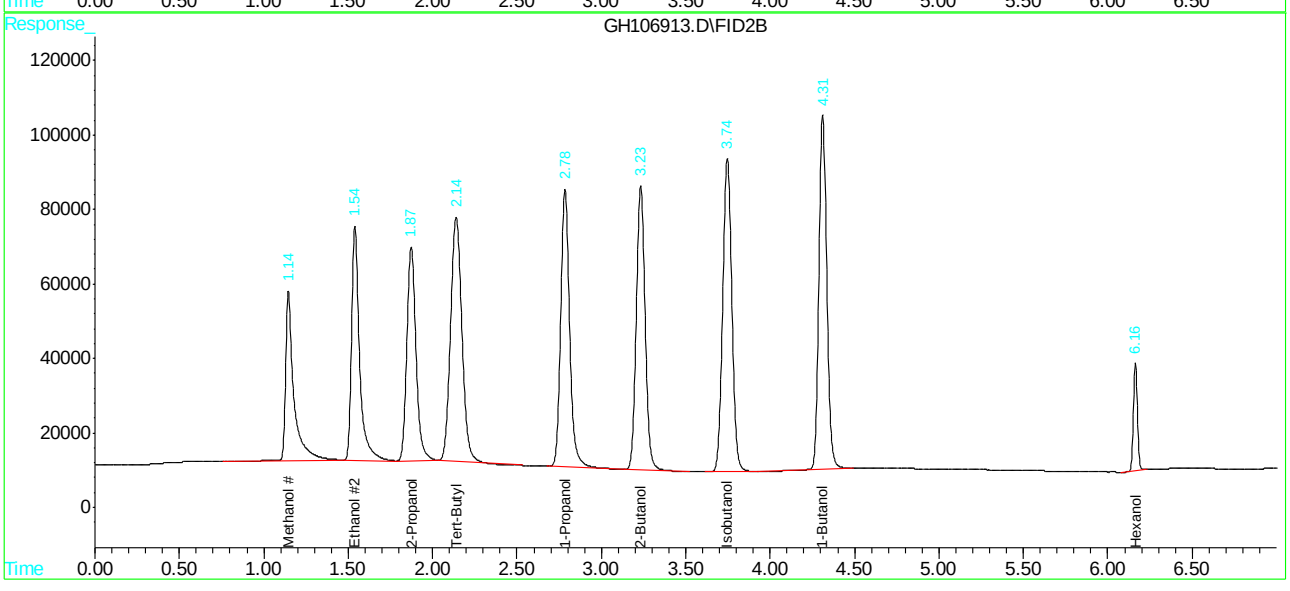
```
Data File : C:\HPCHEM\1\DATA\GH106913.D\FID1A.CH          Vial: 8
Acq On    : 10 Oct 2016  12:27 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106913.D\FID2B.CH          Vial: 8
Acq On    : 10 Oct 2016  12:45 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  7:55 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:02:19 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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:	GGH5519-IC5519	**Method:**	SW846-8015C (DAI)
Lab FileID:	GH106913.D	**Analyst approved:**	10/11/16 08:09 Xu Liu
Injection Time:	10/10/16 12:27	**Supervisor approved:**	10/12/16 11:21 Dana Tryon

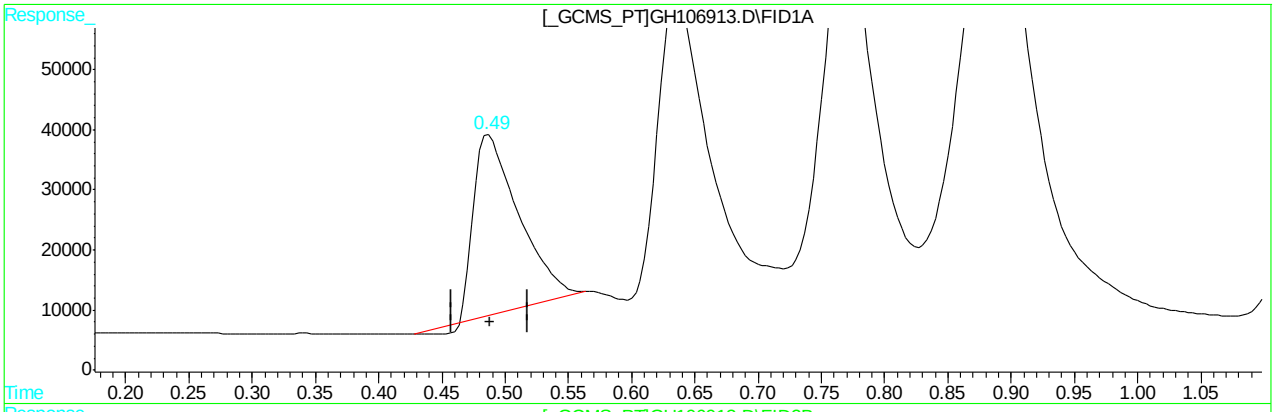
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methanol	67-56-1	1	0.49	Poor instrument integration
Hexanol	111-27-3	1	5.04	Poor instrument integration

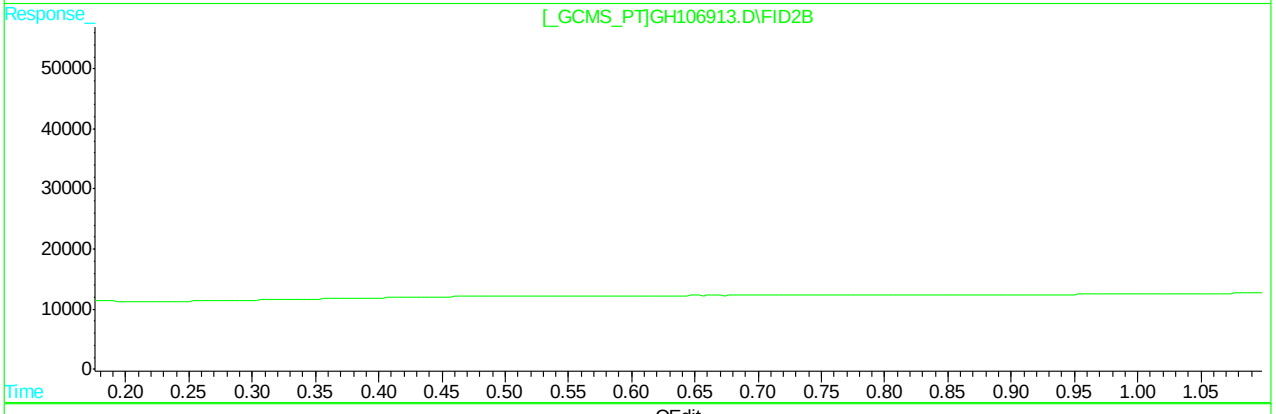
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106913.D\FID1A.CH          Vial: 8
Acq On    : 10 Oct 2016  12:27 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106913.D\FID2B.CH          Vial: 8
Acq On    : 10 Oct 2016  12:45 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:16 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 120233.080PPB

response 729256

(1) Methanol #2

1.15min 116174.067PPB

response 1550073

(+) = Expected Retention Time

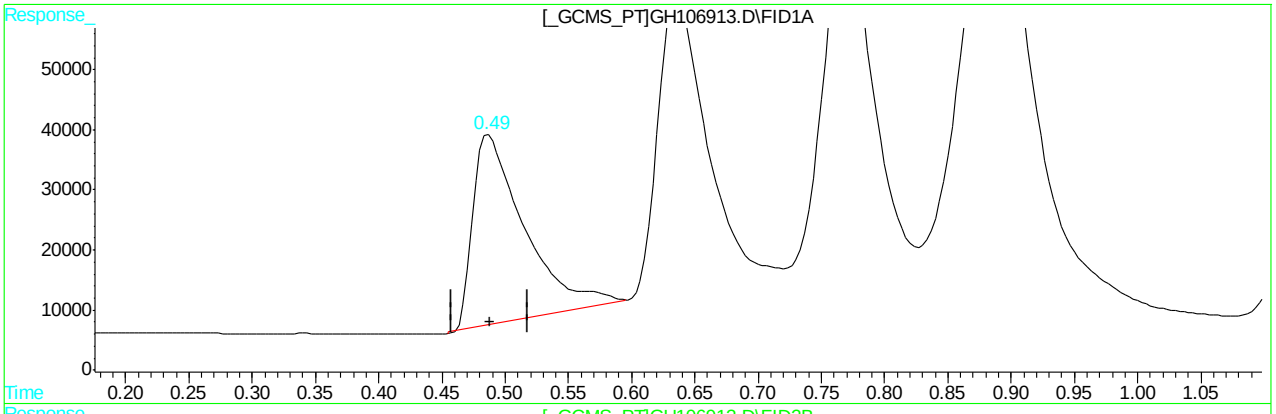
GH106913.D MGH5519.M Tue Oct 11 07:54:08 2016 GCGH

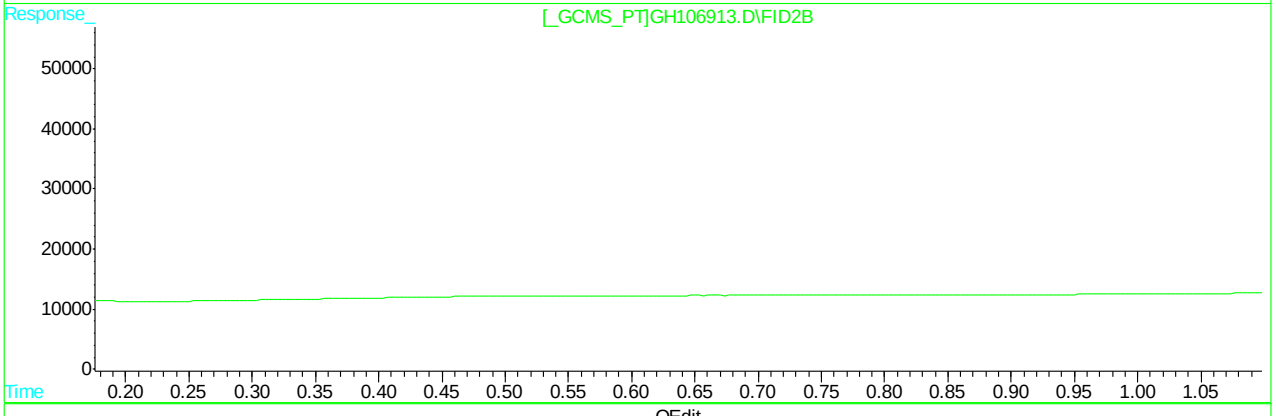
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106913.D\FID1A.CH          Vial: 8
Acq On    : 10 Oct 2016  12:27 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106913.D\FID2B.CH          Vial: 8
Acq On    : 10 Oct 2016  12:45 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:16 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(1) Methanol

0.49min 147971.403PPB m

response 897499

(1) Methanol #2

1.15min 116174.067PPB

response 1550073

(+) = Expected Retention Time

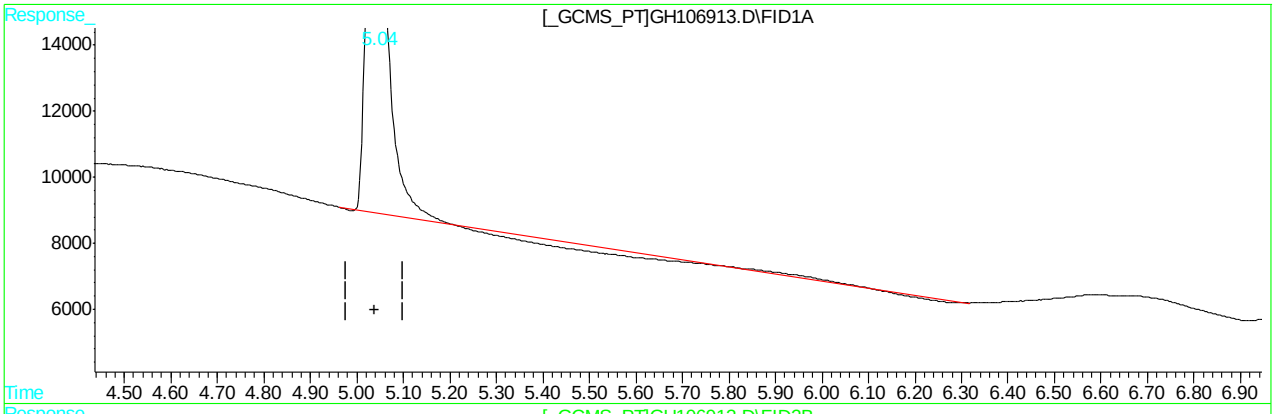
GH106913.D MGH5519.M Tue Oct 11 07:54:23 2016 GCGH

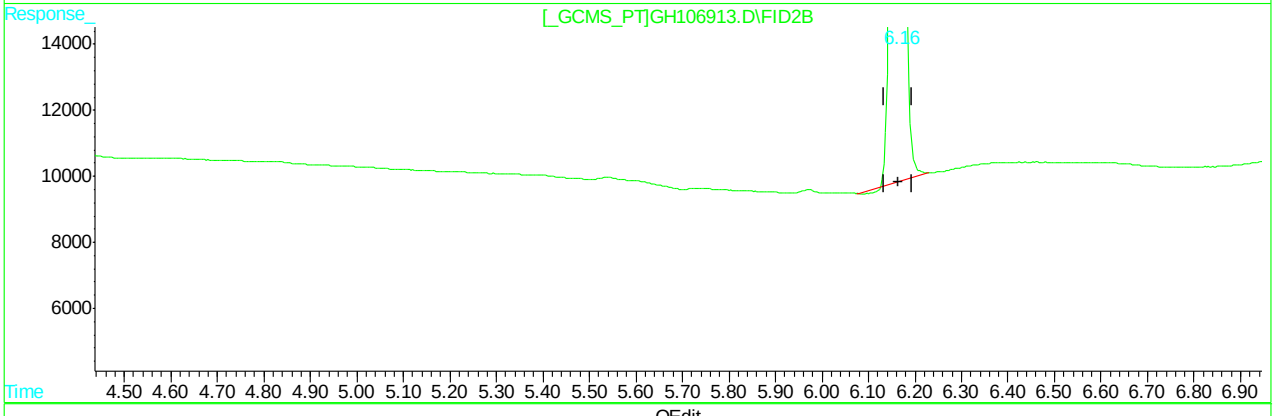
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106913.D\FID1A.CH        Vial: 8
Acq On    : 10 Oct 2016  12:27 pm                   Operator: XULIU
Sample    : IC5519-100000                           Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106913.D\FID2B.CH        Vial: 8
Acq On    : 10 Oct 2016  12:45 pm                   Operator: XULIU
Sample    : IC5519-100000                           Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:16 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(9) Hexanol (S)

5.04min 5144.695PPB

response 400480

(9) Hexanol #2 (S)

6.16min 5207.497PPB

response 479690

(+) = Expected Retention Time

GH106913.D MGH5519.M Tue Oct 11 07:54:51 2016 GCGH

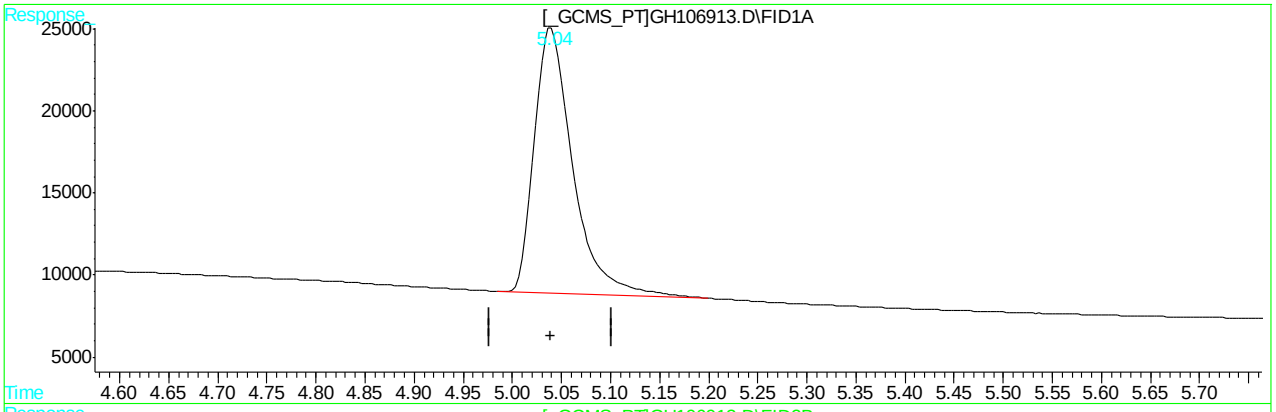
SGS ACCUTEST JC33175

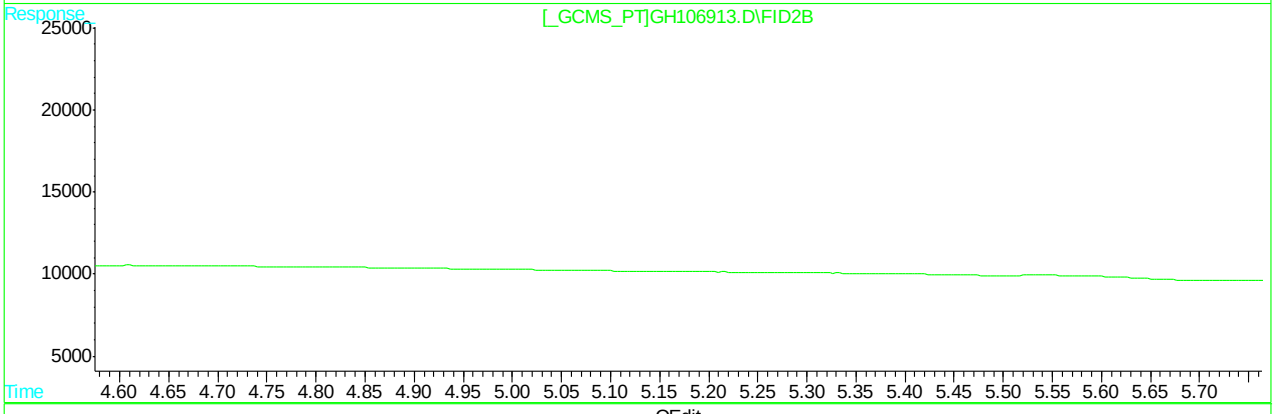
Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\GH106913.D\FID1A.CH          Vial: 8
Acq On    : 10 Oct 2016  12:27 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106913.D\FID2B.CH          Vial: 8
Acq On    : 10 Oct 2016  12:45 pm                     Operator: XULIU
Sample    : IC5519-100000                             Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 10 14:16 2016  Quant Results File: MGH5519.RES


Method       : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Mon Oct 10 14:28:17 2016
Response via : Multiple Level Calibration
```





QEdit

(9) Hexanol (S)

5.04min 5715.812PPB m

response 444938

(9) Hexanol #2 (S)

6.16min 5207.497PPB

response 479690

(+) = Expected Retention Time

GH106913.D MGH5519.M Tue Oct 11 07:55:21 2016 GCGH

11.5.8.5 11

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH106914.D\FID1A.CH          Vial: 10
Acq On    : 10 Oct 2016   1:40 pm                     Operator: XULIU
Sample    : ICV5519-5000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106914.D\FID2B.CH          Vial: 10
Acq On    : 10 Oct 2016   1:59 pm                     Operator: XULIU
Sample    : ICV5519-5000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  8:01 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.04	6.17	405933	433113	5493.427	5338.387
Spiked Amount	5000.000			Recovery	=	109.87%	106.77%
	Target Compounds						
1)	Methanol	0.49	1.16	51651	64944	4853.079	5058.890
2)	Ethanol	0.64	1.56	77186	102274	5127.056	5548.084
3)	Tert-Butyl Alcoh	0.89	2.16	127103	163852	5026.165	5603.392
4)	1-Propanol	1.15	2.79	115798	151098	4503.800	5434.016
5)	2-Propanol	0.77	1.89	78787	110797	4951.576	5473.320
6)	Isobutanol	1.86	3.75	157695	173868	5079.728	5242.689
7)	1-Butanol	2.42	4.32	186080	164688	5893.671	5462.743
8)	2-Butanol	1.47	3.24	126840	151855	4800.210	6136.280

11.5.9

11

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC33175

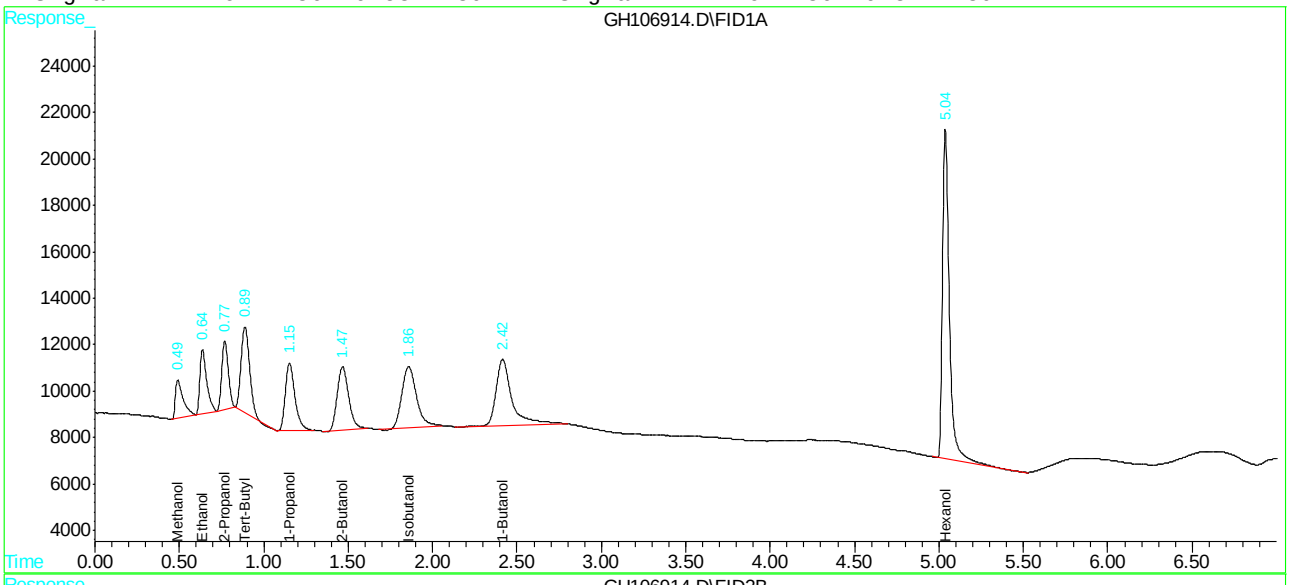
Quantitation Report (QT Reviewed)

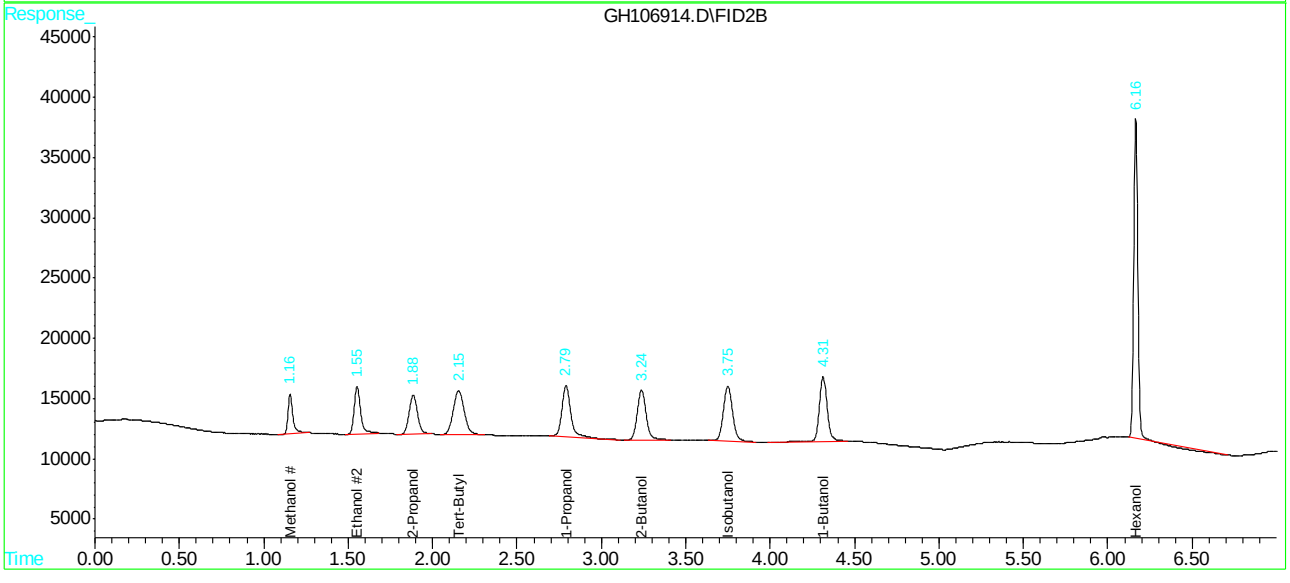
```
Data File : C:\HPCHEM\1\DATA\GH106914.D\FID1A.CH          Vial: 10
Acq On    : 10 Oct 2016   1:40 pm                     Operator: XULIU
Sample    : ICV5519-5000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH106914.D\FID2B.CH          Vial: 10
Acq On    : 10 Oct 2016   1:59 pm                     Operator: XULIU
Sample    : ICV5519-5000                              Inst    : GCGH
Misc      : GC49338,GGH5519,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Oct 11  8:01 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH107767.D\FID1A.CH          Vial: 92
Acq On    : 15 Dec 2016   8:50 am                     Operator: XULIU
Sample    : CC5519-5000                               Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107767.D\FID2B.CH          Vial: 92
Acq On    : 15 Dec 2016   9:09 am                     Operator: XULIU
Sample    : CC5519-5000                               Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15  9:55 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.05	6.16	370325	396134	5011.549	4882.603
Spiked Amount	5000.000			Recovery	=	100.23%	97.65%
	Target Compounds						
1)	Methanol	0.49	1.16	83757	71814	7869.802	5593.987
2)	Ethanol	0.64	1.56	119593	117616	7943.931	6380.357
3)	Tert-Butyl Alcoh	0.90	2.16	176638	154218	6984.999	5273.948
4)	1-Propanol	1.16	2.79	162875	121711	6334.776	4377.152
5)	2-Propanol	0.78	1.89	120073	95253	7546.338	4705.495
6)	Isobutanol	1.88	3.75	198298	168905	6387.615	5093.047
7)	1-Butanol	2.43	4.32	183950	161291	5826.235	5350.070
8)	2-Butanol	1.48	3.24	169907	136991	6430.078	5535.621

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC33175

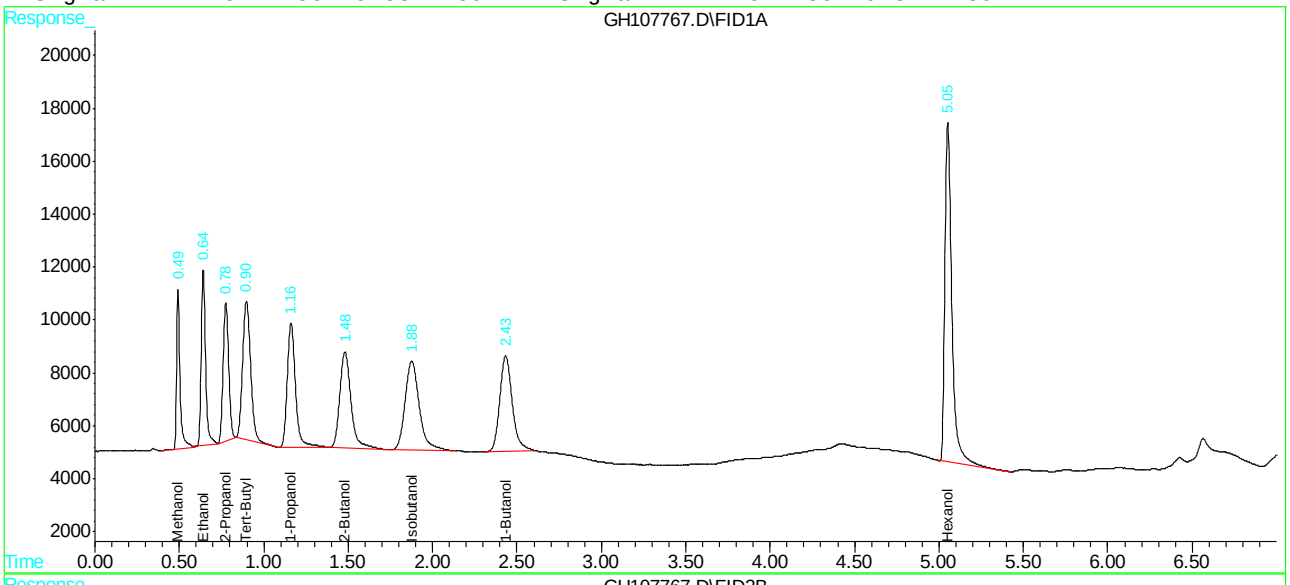
Quantitation Report (QT Reviewed)

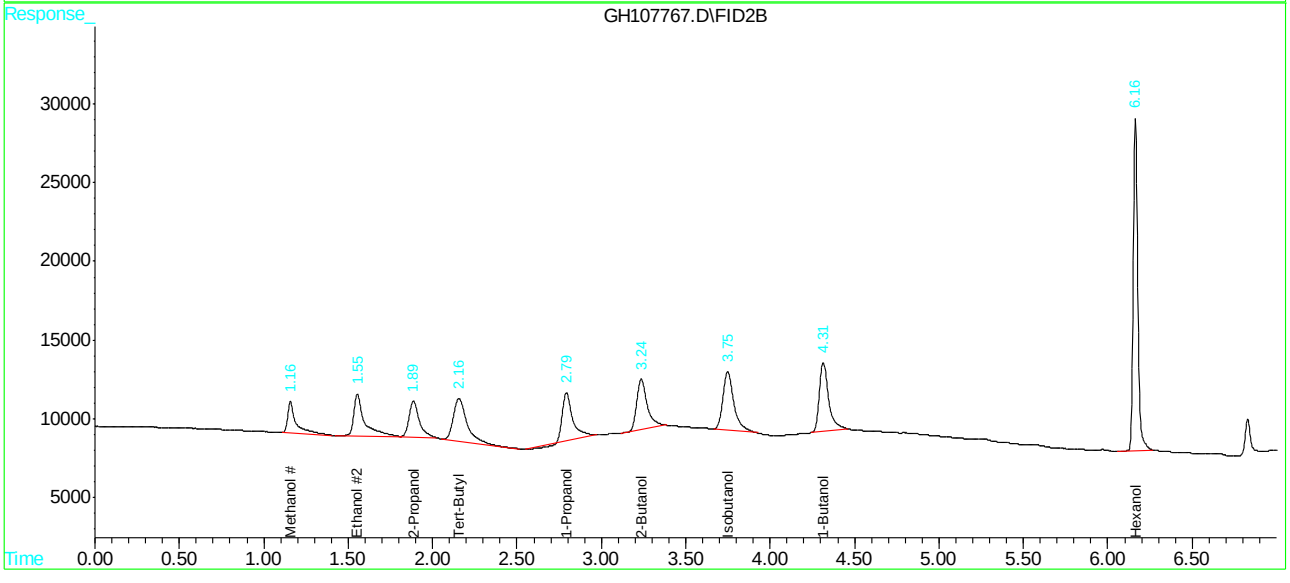
```
Data File : C:\HPCHEM\1\DATA\GH107767.D\FID1A.CH          Vial: 92
Acq On    : 15 Dec 2016   8:50 am                     Operator: XULIU
Sample    : CC5519-5000                               Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107767.D\FID2B.CH          Vial: 92
Acq On    : 15 Dec 2016   9:09 am                     Operator: XULIU
Sample    : CC5519-5000                               Inst    : GCGH
Misc      : GC49747,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15  9:55 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Thu Dec 15 09:54:28 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\GH107778.D\FID1A.CH          Vial: 95
Acq On    : 15 Dec 2016  12:42 pm                     Operator: XULIU
Sample    : CC5519-10000                              Inst    : GCGH
Misc      : GC49770,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107778.D\FID2B.CH          Vial: 95
Acq On    : 15 Dec 2016   1:01 pm                     Operator: XULIU
Sample    : CC5519-10000                              Inst    : GCGH
Misc      : GC49770,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:13 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 2016
Response via : Initial Calibration
DataAcq Meth : MGH5519.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						
9) S	Hexanol	5.05	6.16	391658	390869	5300.246	4817.706
Spiked Amount	5000.000			Recovery	=	106.00%	96.35%
	Target Compounds						
1)	Methanol	0.49	1.17	159040	145320	14943.353	11319.815
2)	Ethanol	0.64	1.56	226372	192837	15036.657	10460.873
3)	Tert-Butyl Alcoh	0.89	2.16	323787	319804	12803.867	10936.619
4)	1-Propanol	1.16	2.79	292291	281085	11368.210	10108.775
5)	2-Propanol	0.78	1.89	222374	189384	13975.717	9355.542
6)	Isobutanol	1.87	3.75	373529	338197	12032.224	10197.738
7)	1-Butanol	2.43	4.31	351279	323688	11126.001	10736.812
8)	2-Butanol	1.48	3.24	316483	294420	11977.186	11897.142

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

SGS ACCUTEST JC33175

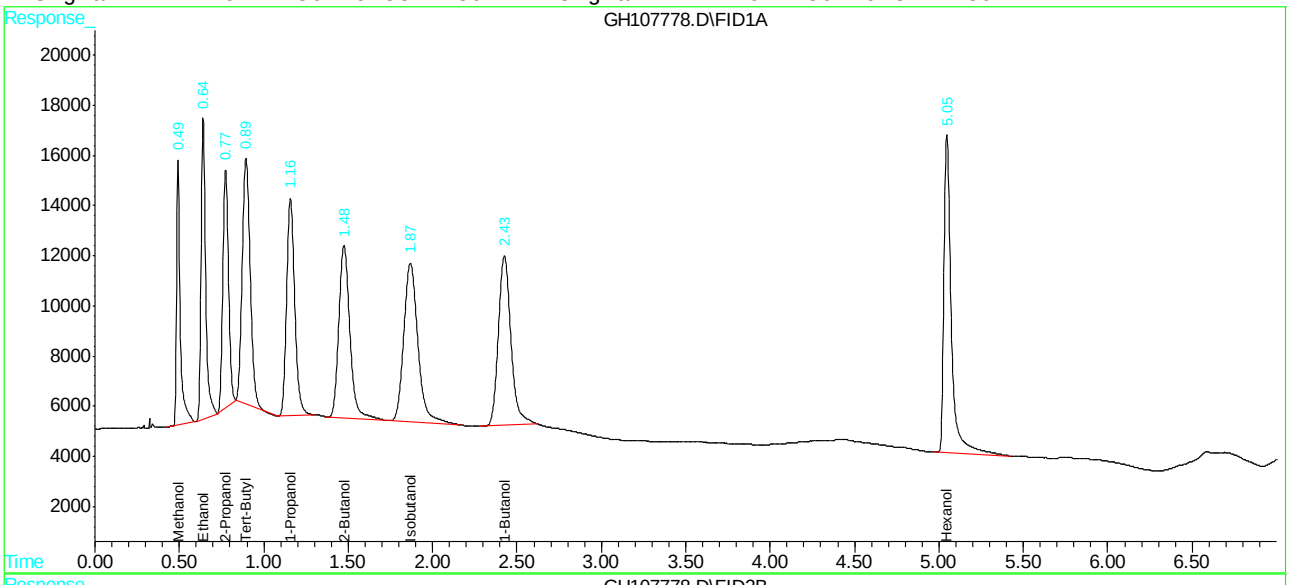
Quantitation Report (QT Reviewed)

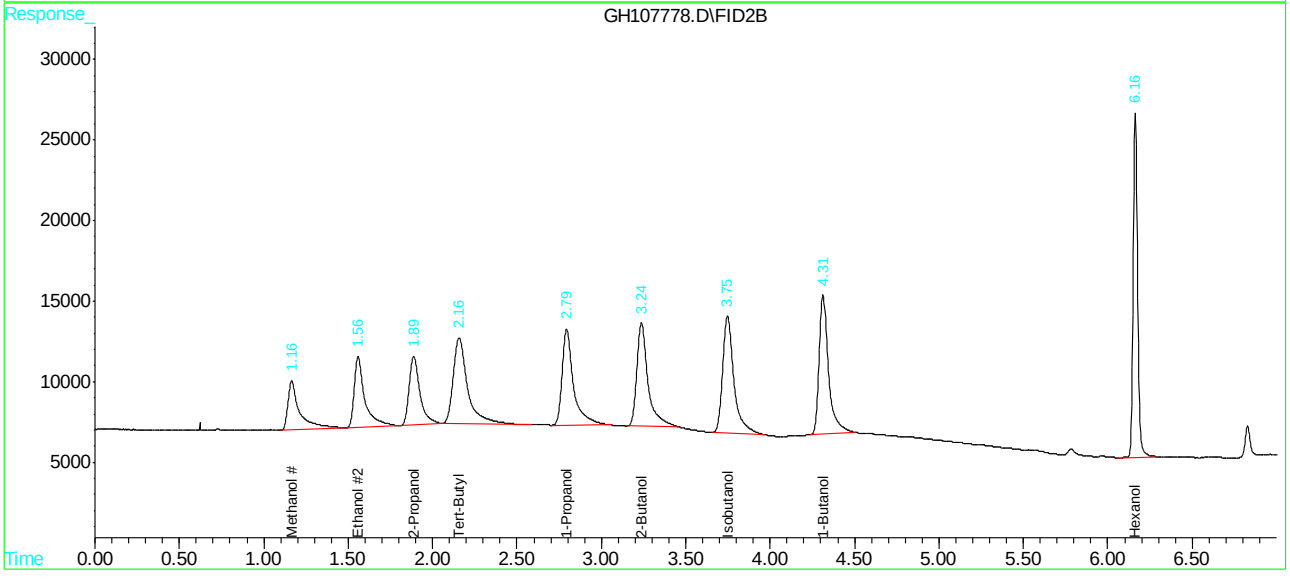
```
Data File : C:\HPCHEM\1\DATA\GH107778.D\FID1A.CH          Vial: 95
Acq On    : 15 Dec 2016  12:42 pm                     Operator: XULIU
Sample    : CC5519-10000                              Inst    : GCGH
Misc      : GC49770,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : AUTOINT1.E

Data File : C:\HPCHEM\1\DATA\GH107778.D\FID2B.CH          Vial: 95
Acq On    : 15 Dec 2016   1:01 pm                     Operator: XULIU
Sample    : CC5519-10000                              Inst    : GCGH
Misc      : GC49770,GGH5589,5.0,,,,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 15 13:13 2016  Quant Results File: MGH5519.RES

Quant Method : C:\HPCHEM\1\METHODS\MGH5519.M (Chemstation Integrator)
Title        : METHOD SW846-8015C (DAI)
Last Update  : Tue Oct 11 07:59:30 2016
Response via : Multiple Level Calibration
DataAcq Meth : MGH5519.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 JC33175

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5519

Print Analyst Name: Xu Lin

Date: 10/10/16

Analyst Signature:

Columns: ZB624 / RTX-1701 (30m x 0.53mm x 3µm) (30m x 0.53mm x 3µm)

Method 8015LALL

Initial Cal. Method MGH5519

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
016235046	ACL SUR (10/28)	2000ppm
016235047	ACL STD (10/28)	1000 ppm
016235048	ACL STD12 (10/28)	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: 10/12/16

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
	GH106905	2B					1					✓	OK		
	106906	2C5519-100					1					✓	OK	4µl SUR, 10µl STD / ~~50ml~~ 10ml 10/10 / 20	
	106907	2C5519-200					1					✓	OK	8µl SUR, 20µl STD / 10ml / 20	
	106908	2C5519-500					1					✓	OK	1µl SUR, 5µl STD / 1ml / 20	
	106909	2C5519-1000					1					✓	OK	2µl SUR, 10µl STD / 1ml / 20	
	106910	2C5519-5000					1					✓	OK	2.5µl SUR, 50µl STD / 1ml / 20	
	106911	2C5519-10,000					1					✓	OK	2.5µl SUR, 100µl STD / 1ml / 20	
	106912	2C5519-50,000					1					✓	OK	3µl SUR, 500µl STD / 1ml / 20	
	106913	2C5519-~~500~~ 100,000 10/10					1					✓	OK	4µl SUR, 1000µl STD / 1ml / 20	
	106914	2W5519-5000					1					✓	OK	2.5µl SUR, 50µl STD 12 / 1ml / 20	
														10/10	

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: OR001-10
Rev. Date: 1/19/16

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SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5589

Date: 12/15/16

Print Analyst Name: Xu Gu

Analyst Signature:

Columns: 2B624 / RTX-1701 (30m X 0.53mm x 3μm) (30m x 0.53mm x 2μm)

Method 8015 CALL

Initial Cal. Method MGH5519

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
016235082	All SUR (12/30)	2000ppm
016235083	All SUR (12/30)	100ppm
016235080	All SUR(2) (12/30)	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: 12/19/16

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
	GH107765	2B					1						Data not collected, Injector stopped.	Repeat 2nd signal. (RTX 1701)	
	107766	2B					1					✓	OK		
	107767	CC5519-5000					1					✓	OK	1st 50μl SUD/1mL H2O.	
	107768	MB1					1						Data not collected, Injector stopped.		
	107769	MB1					1					✓	OK		
	107770	BS					1					✓	OK	50μl SUD(2)/1mL H2O	
	107771	JC33175-1	49747 CMA	W	14		1					✓	OK		✓
	107772	JC33175-1MS	✓	W	14		1					✓	OK	50μl SUD(2)/1mL sample	✓
	107773	JC33175-1MSD	✓	W	14		1					✓	OK	50μl SUD(2)/1mL sample	✓
	107774	JC32414-1	49761 Meth	W	6		50μl/1mL H2O 10μl/1mL H2O	X2000				✓	OK	Turbidity + resin	9
	107775	JC32417-1	✓	W	3		50μl/1mL H2O 10μl/1mL H2O	X2000				✓	OK	✓	6
	107776	JC32413-1	49779 Meth	W	8		1	12/15				✓	OK		9
	107777	JC32415-1	✓	W	10		50μl/1mL H2O 10μl/1mL H2O	X2000				✓	OK	Turbidity + resin	9
	107778	CC5519-10,000					1					✓	OK	1st 100μl SUD/1mL H2O	
	107779	MB2					1					✓	OK		
	107780	JC32439-1	✓	W	9		50μl/1mL H2O 10μl/1mL H2O	X2000				✓	OK	Turbidity + resin	6
	107781	JC32440-1	✓	W	11		50μl/1mL H2O 10μl/1mL H2O	X2000				✓	OK	✓	6

*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: OR001-10
Rev. Date: 1/19/16

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SGS ACCUTEST JC33175

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: GGH5589

Date: 12/15/16

Print Analyst Name: Xu Liu

Analyst Signature:

Columns: 2B6W / RTX-1701 (30m x0.53mm x3μm) (30m x0.53mm x3μm)

Method 8015C ALL

Initial Cal. Method MGH5519

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

Pg 107

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: 12/19/16

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
	GH107782	JC32441-1	49778 Meth	W W	10		50ml/ml/20 10ml/ml/20		X2000			✓	OK	Report 2nd signal (RTX-1701) Turbidity + resin	6
	107783	JC32462-1	✓	W W	10		50ml/ml/20 10ml/ml/20		X2000			✓	OK	✓	6
	107784	CC5519-5000					1					✓	OK	1st 50ml/10ml/20	
	107785	MB3					1					✓	not ml		
	107786	JC33600-1	49768 Eric	S W	7		1					✓	RR	Begining cc ethet	✓
	107787	JC33600-2	✓	S W	9		1					✓	RR	✓	✓
	107788	JC33600-3	✓	S W	8		1					✓	RR	✓	✓
	107789	CC5519-10,000					1					✓	not need	100ml/10ml/20	
	107790														

12/15

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

OLC

Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST JC33175

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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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99172-MB1	1G130500.D	1	12/14/16	KD	12/13/16	OP99172	G1G4171

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC33175-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0060	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0060	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0057	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0028	ug/l	
5103-71-9	alpha-Chlordane	ND	0.010	0.0046	ug/l	
5103-74-2	gamma-Chlordane	ND	0.010	0.0046	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0036	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0038	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0062	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0050	ug/l	
72-20-8	Endrin	ND	0.010	0.0050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0051	ug/l	
53494-70-5	Endrin ketone	ND	0.010	0.0051	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0050	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0043	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0065	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.0057	ug/l	
8001-35-2	Toxaphene	ND	0.25	0.18	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	90%	26-132%
877-09-8	Tetrachloro-m-xylene	91%	26-132%
2051-24-3	Decachlorobiphenyl	42%	10-118%
2051-24-3	Decachlorobiphenyl	42%	10-118%

Blank Spike Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99172-BS1	1G130501.D	1	12/14/16	KD	12/13/16	OP99172	G1G4171

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC33175-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.24	96	38-138
319-84-6	alpha-BHC	0.25	0.26	104	51-144
319-85-7	beta-BHC	0.25	0.28	112	55-137
319-86-8	delta-BHC	0.25	0.30	120	33-148
58-89-9	gamma-BHC (Lindane)	0.25	0.27	108	53-142
5103-71-9	alpha-Chlordane	0.25	0.26	104	52-137
5103-74-2	gamma-Chlordane	0.25	0.26	104	52-140
60-57-1	Dieldrin	0.25	0.26	104	54-144
72-54-8	4,4'-DDD	0.25	0.25	100	46-151
72-55-9	4,4'-DDE	0.25	0.25	100	51-142
50-29-3	4,4'-DDT	0.25	0.25	100	53-158
72-20-8	Endrin	0.25	0.28	112	53-149
1031-07-8	Endosulfan sulfate	0.25	0.26	104	49-148
7421-93-4	Endrin aldehyde	0.25	0.27	108	45-137
53494-70-5	Endrin ketone	0.25	0.26	104	48-142
959-98-8	Endosulfan-I	0.25	0.26	104	54-139
33213-65-9	Endosulfan-II	0.25	0.26	104	54-142
76-44-8	Heptachlor	0.25	0.26	104	45-137
1024-57-3	Heptachlor epoxide	0.25	0.28	112	54-140
72-43-5	Methoxychlor	0.25	0.23	92	51-157

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	86%	26-132%
877-09-8	Tetrachloro-m-xylene	85%	26-132%
2051-24-3	Decachlorobiphenyl	45%	10-118%
2051-24-3	Decachlorobiphenyl	45%	10-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99172-MS	1G130503.D	1	12/14/16	KD	12/13/16	OP99172	G1G4171
OP99172-MSD	1G130504.D	1	12/14/16	KD	12/13/16	OP99172	G1G4171
JC33175-1	1G130502.D	1	12/14/16	KD	12/13/16	OP99172	G1G4171

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC33175-1

CAS No.	Compound	JC33175-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.525	0.50	95	0.525	0.44	84	13	37-159/40
319-84-6	alpha-BHC	ND		0.525	0.55	105	0.525	0.51	97	8	37-164/37
319-85-7	beta-BHC	ND		0.525	0.64	122	0.525	0.57	108	12	46-151/36
319-86-8	delta-BHC	ND		0.525	0.65	124	0.525	0.58	110	11	32-168/36
58-89-9	gamma-BHC (Lindane)	ND		0.525	0.58	110	0.525	0.52	99	11	44-160/37
5103-71-9	alpha-Chlordane	ND		0.525	0.57	108	0.525	0.50	95	13	38-160/35
5103-74-2	gamma-Chlordane	ND		0.525	0.57	108	0.525	0.50	95	13	39-157/37
60-57-1	Dieldrin	ND		0.525	0.54	103	0.525	0.49	93	10	42-161/36
72-54-8	4,4'-DDD	ND		0.525	0.52	99	0.525	0.47	89	10	40-161/36
72-55-9	4,4'-DDE	ND		0.525	0.55	105	0.525	0.49	93	12	34-158/36
50-29-3	4,4'-DDT	ND		0.525	0.56	106	0.525	0.46	87	20	41-173/33
72-20-8	Endrin	ND		0.525	0.59	112	0.525	0.52	99	13	44-166/35
1031-07-8	Endosulfan sulfate	ND		0.525	0.56	106	0.525	0.50	95	11	46-161/36
7421-93-4	Endrin aldehyde	ND		0.525	0.56	106	0.525	0.54	103	4	34-149/36
53494-70-5	Endrin ketone	ND		0.525	0.57	108	0.525	0.51	97	11	44-157/36
959-98-8	Endosulfan-I	ND		0.525	0.56	106	0.525	0.50	95	11	43-154/35
33213-65-9	Endosulfan-II	ND		0.525	0.54	103	0.525	0.49	93	10	40-162/35
76-44-8	Heptachlor	ND		0.525	0.58	110	0.525	0.50	95	15	33-153/37
1024-57-3	Heptachlor epoxide	ND		0.525	0.56	106	0.525	0.52	99	7	45-154/37
72-43-5	Methoxychlor	ND		0.525	0.49	93	0.525	0.44	84	11	48-169/32
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
877-09-8	Tetrachloro-m-xylene	87%	79%	98%	26-132%
877-09-8	Tetrachloro-m-xylene	88%	77%	94%	26-132%
2051-24-3	Decachlorobiphenyl	52%	46%	66%	10-118%
2051-24-3	Decachlorobiphenyl	54%	48%	65%	10-118%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G4171-CC4166	**Injection Date:**	12/14/16
Lab File ID:	1G130498.D	**Injection Time:**	09:38
Instrument ID:	GC1G	**Method:**	SW846 8081B

	IS 1 AREA	RT	IS 2 AREA	RT
Check Std	248919743	1.33	260035202	1.22
Upper Limit [a]	497839486	1.83	520070404	1.72
Lower Limit [b]	124459871	0.83	130017601	0.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP99172-MB1	242741154	1.32	246748536	1.22
OP99172-BS1	233172840	1.32	236951879	1.22
JC33175-1	226155982	1.32	224247052	1.22
OP99172-MS	235200954	1.33	236235743	1.22
OP99172-MSD	244646643	1.33	244478504	1.22
ZZZZZZ	242924012	1.33	232346352	1.22
ZZZZZZ	232563569	1.33	241251941	1.22
ZZZZZZ	249721090	1.33	248223055	1.22
ZZZZZZ	250224784	1.32	249105812	1.22
ZZZZZZ	262632559	1.33	264739684	1.22
ZZZZZZ	175060092	1.32	253619288	1.22

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.

12.4.1

12

DDT/Endrin Breakdown Check

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G1G4166-DDT
Lab File ID: 1G130372.D
Instrument ID: GC1G
Injection Date: 12/08/16
Injection Time: 16:32

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	4554288	58046861
4,4'-DDE	4782127	37849642
4,4'-DDT	633129710	3928492345
DDT Breakdown [a]	1.5 %	2.4 %
Endrin aldehyde	4635290	42197764
Endrin ketone	13673824	100869819
Endrin	292203824	2203357230
Endrin Breakdown [b]	5.9 %	6.1 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4166-IC4166	1G130374.D	12/08/16	17:05	00:34	Initial cal 1
G1G4166-IC4166	1G130375.D	12/08/16	17:22	00:50	Initial cal 2
G1G4166-IC4166	1G130376.D	12/08/16	17:39	01:07	Initial cal 5
G1G4166-IC4166	1G130377.D	12/08/16	17:55	01:24	Initial cal 10
G1G4166-ICC4166	1G130378.D	12/08/16	18:12	01:41	Initial cal 25
G1G4166-IC4166	1G130379.D	12/08/16	18:30	01:58	Initial cal 50
G1G4166-IC4166	1G130380.D	12/08/16	18:46	02:15	Initial cal 75
G1G4166-IC4166	1G130381.D	12/08/16	19:03	02:32	Initial cal 100
G1G4166-IC4166	1G130382.D	12/08/16	19:20	02:49	Initial cal 500
G1G4166-IC4166	1G130383.D	12/08/16	19:37	03:05	Initial cal 500
G1G4166-ICV4166	1G130384.D	12/08/16	19:54	03:22	Initial cal verification 25
G1G4166-ICV4166	1G130385.D	12/08/16	20:11	03:39	Initial cal verification 500
G1G4166-ICV4166	1G130386.D	12/08/16	20:27	03:55	Initial cal verification 500
G1G4166-ICV4166	1G130387.D	12/08/16	20:44	04:12	Initial cal verification 50
G1G4166-ICV4166	1G130388.D	12/08/16	21:01	04:29	Initial cal verification 50
G1G4166-ICV4166	1G130389.D	12/08/16	21:18	04:46	Initial cal verification 25
G1G4167-CC4166	1G130390.D	12/08/16	21:35	05:03	Continuing cal 25
OP98969-MB1	1G130392.D	12/08/16	22:08	05:36	Method Blank
OP98969-BS1	1G130393.D	12/08/16	22:25	05:53	Blank Spike
ZZZZZZ	1G130394.D	12/08/16	22:42	06:10	(unrelated sample)
ZZZZZZ	1G130395.D	12/08/16	22:59	06:27	(unrelated sample)
ZZZZZZ	1G130396.D	12/08/16	23:16	06:44	(unrelated sample)
ZZZZZZ	1G130397.D	12/08/16	23:32	07:00	(unrelated sample)
JC32781-5	1G130398.D	12/08/16	23:49	07:17	(used for QC only; not part of job JC33175)

DDT/Endrin Breakdown Check

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G1G4166-DDT
Lab File ID: 1G130372.D
Instrument ID: GC1G
Injection Date: 12/08/16
Injection Time: 16:32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP98969-MS	1G130399.D	12/09/16	00:06	07:34	Matrix Spike
OP98969-MSD	1G130400.D	12/09/16	00:23	07:51	Matrix Spike Duplicate
ZZZZZZ	1G130401.D	12/09/16	00:40	08:08	(unrelated sample)
ZZZZZZ	1G130402.D	12/09/16	00:57	08:25	(unrelated sample)
ZZZZZZ	1G130403.D	12/09/16	01:14	08:42	(unrelated sample)
ZZZZZZ	1G130404.D	12/09/16	01:31	08:59	(unrelated sample)
ZZZZZZ	1G130405.D	12/09/16	01:48	09:16	(unrelated sample)
ZZZZZZ	1G130406.D	12/09/16	02:05	09:33	(unrelated sample)
ZZZZZZ	1G130407.D	12/09/16	02:22	09:50	(unrelated sample)
ZZZZZZ	1G130408.D	12/09/16	02:38	10:06	(unrelated sample)
ZZZZZZ	1G130409.D	12/09/16	02:55	10:23	(unrelated sample)
ZZZZZZ	1G130410.D	12/09/16	03:12	10:40	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Sample: G1G4171-DDT
Lab File ID: 1G130497.D
Instrument ID: GC1G
Injection Date: 12/14/16
Injection Time: 09:21

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	4043928	49782245
4,4'-DDE	4060227	29815505
4,4'-DDT	534122443	3368877632
DDT Breakdown [a]	1.5 %	2.3 %
Endrin aldehyde	5673312	19547309
Endrin ketone	10273012	87394128
Endrin	260082044	2150285918
Endrin Breakdown [b]	5.8 %	4.7 %

(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
G1G4171-CC4166	1G130498.D	12/14/16	09:38	00:17	Continuing cal 25
OP99172-MB1	1G130500.D	12/14/16	10:11	00:50	Method Blank
OP99172-BS1	1G130501.D	12/14/16	10:28	01:07	Blank Spike
JC33175-1	1G130502.D	12/14/16	10:45	01:24	UP-1
OP99172-MS	1G130503.D	12/14/16	11:02	01:41	Matrix Spike
OP99172-MSD	1G130504.D	12/14/16	11:19	01:58	Matrix Spike Duplicate
ZZZZZZ	1G130505.D	12/14/16	11:36	02:15	(unrelated sample)
ZZZZZZ	1G130506.D	12/14/16	11:52	02:31	(unrelated sample)
ZZZZZZ	1G130507.D	12/14/16	12:09	02:48	(unrelated sample)
ZZZZZZ	1G130508.D	12/14/16	12:26	03:05	(unrelated sample)
ZZZZZZ	1G130509.D	12/14/16	12:43	03:22	(unrelated sample)
ZZZZZZ	1G130514.D	12/14/16	14:09	04:48	(unrelated sample)

GC Identification Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G4171-CC4166	**Injection Date:**	12/14/16
Lab File ID:	1G130498.D	**Injection Time:**	09:38
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP99172-BS1	**Injection Date:**	12/14/16
Lab File ID:	1G130501.D	**Injection Time:**	10:28
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.36	3.35	0.24		ug/l	15.4
Aldrin	2	4.01	4.01	0.28		ug/l	
alpha-BHC	1 [a]	2.27	2.27	0.26		ug/l	7.4
alpha-BHC	2	2.69	2.69	0.28		ug/l	
beta-BHC	1 [a]	2.63	2.63	0.28		ug/l	6.9
beta-BHC	2	3.16	3.16	0.30		ug/l	
delta-BHC	1 [a]	2.80	2.80	0.30		ug/l	6.5
delta-BHC	2	3.52	3.52	0.32		ug/l	
gamma-BHC (Lindane)	1 [a]	2.56	2.56	0.27		ug/l	7.1
gamma-BHC (Lindane)	2	3.08	3.08	0.29		ug/l	
alpha-Chlordane	1 [a]	4.36	4.36	0.26		ug/l	10.9
alpha-Chlordane	2	5.25	5.25	0.29		ug/l	
gamma-Chlordane	1 [a]	4.19	4.19	0.26		ug/l	14.3
gamma-Chlordane	2	5.04	5.04	0.30		ug/l	
Dieldrin	1 [a]	4.84	4.84	0.26		ug/l	7.4
Dieldrin	2	5.75	5.75	0.28		ug/l	
4,4'-DDD	1 [a]	5.28	5.28	0.25		ug/l	11.3
4,4'-DDD	2	6.42	6.42	0.28		ug/l	
4,4'-DDE	1 [a]	4.47	4.47	0.25		ug/l	14.8
4,4'-DDE	2	5.52	5.52	0.29		ug/l	
4,4'-DDT	1 [a]	5.69	5.69	0.25		ug/l	3.9
4,4'-DDT	2	6.93	6.93	0.26		ug/l	
Endrin	1 [a]	5.15	5.15	0.28		ug/l	6.9
Endrin	2	6.22	6.22	0.30		ug/l	
Endosulfan sulfate	1 [a]	6.73	6.74	0.26		ug/l	10.9
Endosulfan sulfate	2	7.57	7.57	0.29		ug/l	
Endrin aldehyde	1 [a]	6.07	6.07	0.27		ug/l	3.6
Endrin aldehyde	2	7.11	7.11	0.28		ug/l	
Endrin ketone	1 [a]	7.16	7.16	0.26		ug/l	7.4
Endrin ketone	2	8.49	8.49	0.28		ug/l	
Endosulfan-I	1 [a]	4.53	4.53	0.26		ug/l	7.4
Endosulfan-I	2	5.34	5.34	0.28		ug/l	
Endosulfan-II	1 [a]	5.46	5.46	0.26		ug/l	7.4
Endosulfan-II	2	6.56	6.56	0.28		ug/l	
Heptachlor	1 [a]	3.03	3.03	0.26		ug/l	3.8
Heptachlor	2	3.60	3.60	0.27		ug/l	
Heptachlor epoxide	1	4.04	4.04	0.28		ug/l	0.0
Heptachlor epoxide	2 [a]	4.77	4.77	0.28		ug/l	
Methoxychlor	1	6.46	6.46	0.24		ug/l	4.3
Methoxychlor	2 [a]	8.16	8.16	0.23		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G4171-CC4166	**Injection Date:**	12/14/16
Lab File ID:	1G130498.D	**Injection Time:**	09:38
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP99172-MS	**Injection Date:**	12/14/16
Lab File ID:	1G130503.D	**Injection Time:**	11:02
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.35	3.35	0.50		ug/l	14.8
Aldrin	2	4.01	4.01	0.58		ug/l	
alpha-BHC	1 [a]	2.27	2.27	0.55		ug/l	3.6
alpha-BHC	2	2.69	2.69	0.57		ug/l	
beta-BHC	1 [a]	2.63	2.63	0.64		ug/l	18.4
beta-BHC	2	3.16	3.16	0.77		ug/l	
delta-BHC	1 [a]	2.80	2.80	0.65		ug/l	6.0
delta-BHC	2	3.52	3.52	0.69		ug/l	
gamma-BHC (Lindane)	1 [a]	2.56	2.56	0.58		ug/l	11.4
gamma-BHC (Lindane)	2	3.08	3.08	0.65		ug/l	
alpha-Chlordane	1 [a]	4.36	4.36	0.57		ug/l	3.4
alpha-Chlordane	2	5.25	5.25	0.59		ug/l	
gamma-Chlordane	1 [a]	4.19	4.19	0.57		ug/l	16.1
gamma-Chlordane	2	5.04	5.04	0.67		ug/l	
Dieldrin	1 [a]	4.84	4.84	0.54		ug/l	10.5
Dieldrin	2	5.75	5.75	0.60		ug/l	
4,4'-DDD	1 [a]	5.28	5.28	0.52		ug/l	10.9
4,4'-DDD	2	6.42	6.42	0.58		ug/l	
4,4'-DDE	1 [a]	4.47	4.47	0.55		ug/l	7.0
4,4'-DDE	2	5.52	5.52	0.59		ug/l	
4,4'-DDT	1 [a]	5.69	5.69	0.56		ug/l	6.9
4,4'-DDT	2	6.93	6.93	0.60		ug/l	
Endrin	1 [a]	5.15	5.15	0.59		ug/l	1.7
Endrin	2	6.22	6.22	0.58		ug/l	
Endosulfan sulfate	1 [a]	6.73	6.74	0.56		ug/l	11.8
Endosulfan sulfate	2	7.56	7.57	0.63		ug/l	
Endrin aldehyde	1 [a]	6.07	6.07	0.56		ug/l	0.0
Endrin aldehyde	2	7.11	7.11	0.56		ug/l	
Endrin ketone	1 [a]	7.16	7.16	0.57		ug/l	8.4
Endrin ketone	2	8.49	8.49	0.62		ug/l	
Endosulfan-I	1 [a]	4.53	4.53	0.56		ug/l	11.8
Endosulfan-I	2	5.33	5.34	0.63		ug/l	
Endosulfan-II	1 [a]	5.46	5.46	0.54		ug/l	5.4
Endosulfan-II	2	6.56	6.56	0.57		ug/l	
Heptachlor	1 [a]	3.03	3.03	0.58		ug/l	7.1
Heptachlor	2	3.60	3.60	0.54		ug/l	
Heptachlor epoxide	1 [a]	4.04	4.04	0.56		ug/l	6.9
Heptachlor epoxide	2	4.77	4.77	0.60		ug/l	
Methoxychlor	1 [a]	6.46	6.46	0.49		ug/l	4.2
Methoxychlor	2	8.16	8.16	0.47		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G4171-CC4166	**Injection Date:**	12/14/16
Lab File ID:	1G130498.D	**Injection Time:**	09:38
Instrument ID:	GC1G	**Method:**	SW846 8081B

Sample ID:	OP99172-MSD	**Injection Date:**	12/14/16
Lab File ID:	1G130504.D	**Injection Time:**	11:19
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	3.35	3.35	0.44		ug/l	14.7
Aldrin	2	4.01	4.01	0.51		ug/l	
alpha-BHC	1 [a]	2.27	2.27	0.51		ug/l	1.9
alpha-BHC	2	2.69	2.69	0.52		ug/l	
beta-BHC	1 [a]	2.63	2.63	0.57		ug/l	14.6
beta-BHC	2	3.16	3.16	0.66		ug/l	
delta-BHC	1 [a]	2.80	2.80	0.58		ug/l	6.7
delta-BHC	2	3.52	3.52	0.62		ug/l	
gamma-BHC (Lindane)	1 [a]	2.56	2.56	0.52		ug/l	10.9
gamma-BHC (Lindane)	2	3.08	3.08	0.58		ug/l	
alpha-Chlordane	1 [a]	4.36	4.36	0.50		ug/l	9.5
alpha-Chlordane	2	5.25	5.25	0.55		ug/l	
gamma-Chlordane	1 [a]	4.19	4.19	0.50		ug/l	16.5
gamma-Chlordane	2	5.04	5.04	0.59		ug/l	
Dieldrin	1 [a]	4.84	4.84	0.49		ug/l	9.7
Dieldrin	2	5.75	5.75	0.54		ug/l	
4,4'-DDD	1 [a]	5.28	5.28	0.47		ug/l	12.0
4,4'-DDD	2	6.42	6.42	0.53		ug/l	
4,4'-DDE	1 [a]	4.47	4.47	0.49		ug/l	5.9
4,4'-DDE	2	5.52	5.52	0.52		ug/l	
4,4'-DDT	1 [a]	5.69	5.69	0.46		ug/l	6.3
4,4'-DDT	2	6.93	6.93	0.49		ug/l	
Endrin	1 [a]	5.15	5.15	0.52		ug/l	10.9
Endrin	2	6.22	6.22	0.58		ug/l	
Endosulfan sulfate	1 [a]	6.74	6.74	0.50		ug/l	13.1
Endosulfan sulfate	2	7.57	7.57	0.57		ug/l	
Endrin aldehyde	1 [a]	6.07	6.07	0.54		ug/l	3.6
Endrin aldehyde	2	7.11	7.11	0.56		ug/l	
Endrin ketone	1 [a]	7.16	7.16	0.51		ug/l	9.3
Endrin ketone	2	8.49	8.49	0.56		ug/l	
Endosulfan-I	1 [a]	4.53	4.53	0.50		ug/l	9.5
Endosulfan-I	2	5.33	5.34	0.55		ug/l	
Endosulfan-II	1 [a]	5.46	5.46	0.49		ug/l	5.9
Endosulfan-II	2	6.56	6.56	0.52		ug/l	
Heptachlor	1 [a]	3.03	3.03	0.50		ug/l	0.0
Heptachlor	2	3.60	3.60	0.50		ug/l	
Heptachlor epoxide	1 [a]	4.04	4.04	0.52		ug/l	3.8
Heptachlor epoxide	2	4.77	4.77	0.54		ug/l	
Methoxychlor	1 [a]	6.46	6.46	0.44		ug/l	0.0
Methoxychlor	2	8.16	8.16	0.44		ug/l	

(a) QC results reported from this column.

Semivolatile Surrogate Recovery Summary

Job Number: JC33175
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]
JC33175-1	1G130502.D	98	94	66	65
OP99172-BS1	1G130501.D	86	85	45	45
OP99172-MB1	1G130500.D	90	91	42	42
OP99172-MS	1G130503.D	87	88	52	54
OP99172-MSD	1G130504.D	79	77	46	48

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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR

Check Std:	G1G4171-CC4166	**Injection Date:**	12/14/16
Lab File ID:	1G130498.D	**Injection Time:**	09:38
Instrument ID:	GC1G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	1.81	2.09	8.98	10.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP99172-MB1	1G130500.D	12/14/16	10:11	1.81	2.09	8.98	10.35
OP99172-BS1	1G130501.D	12/14/16	10:28	1.81	2.09	8.99	10.35
JC33175-1	1G130502.D	12/14/16	10:45	1.81	2.09	8.98	10.35
OP99172-MS	1G130503.D	12/14/16	11:02	1.81	2.09	8.98	10.35
OP99172-MSD	1G130504.D	12/14/16	11:19	1.81	2.09	8.98	10.35
ZZZZZZ	1G130505.D	12/14/16	11:36	1.81	2.09	8.98	10.35
ZZZZZZ	1G130506.D	12/14/16	11:52	1.81	2.09	8.98	10.35
ZZZZZZ	1G130507.D	12/14/16	12:09	1.81	2.09	8.98	10.35
ZZZZZZ	1G130508.D	12/14/16	12:26	1.81	2.09	8.98	10.35
ZZZZZZ	1G130509.D	12/14/16	12:43	1.81	2.09	8.98	10.35
ZZZZZZ	1G130514.D	12/14/16	14:09	1.81	2.09	8.98	10.35

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: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G4166-ICC4166
Lab FileID: 1G130378.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration

Calibration Files
2 =1G130375.D 5 =1G130376.D 10 =1G130377.D 25 =1G130378.D
50 =1G130379.D 100 =1G130381.D 1 =1G130374.D 75 =1G130380.D

Compound	2	5	10	25	50	100	1	75	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.754	0.852	0.803	0.832	0.843	0.849	0.745	0.846	0.816	5.36
3) Hexachlorobe	1.444	1.606	1.377	1.370	1.337	1.329	1.580	1.325	1.421	7.96
4) alpha-BHC	1.030	1.111	1.069	1.151	1.200	1.258	1.059	1.229	1.138	7.44
5) gamma-BHC	1.018	1.019	0.978	1.048	1.080	1.139	1.002	1.113	1.050	5.36
6) Heptachlor	1.028	1.094	1.032	1.073	1.088	1.106	1.092	1.089	1.075	2.73
7) beta-BHC	0.468	0.496	0.460	0.463	0.463	0.468	0.504	0.464	0.473	3.55
8) delta-BHC	0.858	0.933	0.901	0.970	1.028	1.100	0.970	1.064	0.978	8.41
9) Aldrin	0.975	1.046	0.991	1.044	1.071	1.106	1.028	1.087	1.043	4.33
10) Alachlor	0.149	0.166	0.143	0.141	0.134	0.127	0.187	0.130	0.147	13.83
11) Heptachlor E	0.875	0.923	0.892	0.936	0.948	0.989	1.233	0.972	0.971	11.56
12) gamma-Chlord	0.938	0.983	0.893	0.923	0.948	0.993	1.039	0.971	0.961	4.73
13) alpha-Chlord	0.930	0.973	0.922	0.958	0.976	1.001	0.965	0.987	0.964	2.78
14) Endosulfan I	0.932	0.978	0.922	0.953	0.962	0.978	0.892	0.970	0.948	3.24
15) 4,4'-DDE	1.003	1.027	0.964	1.007	1.025	1.052	0.980	1.037	1.012	2.89
16) Dieldrin	0.981	1.028	0.980	1.030	1.057	1.091	0.978	1.075	1.027	4.35
17) Endrin	0.927	0.924	0.861	0.890	0.890	0.904	0.969	0.892	0.907	3.60
18) 4,4'-DDD	0.801	0.863	0.790	0.832	0.855	0.888	0.931	0.873	0.854	5.40
19) Endosulfan I	0.911	1.007	0.928	0.953	0.960	0.974	0.973	0.968	0.959	3.08
20) 4,4'-DDT	0.829	0.862	0.807	0.850	0.864	0.891	0.869	0.870	0.855	3.08
21) Endrin Aldeh	0.698	0.747	0.702	0.725	0.736	0.747	0.812	0.745	0.739	4.78
22) Endosulfan S	0.790	0.870	0.816	0.832	0.837	0.844	0.804	0.840	0.829	3.02
23) Methoxychlor	0.570	0.556	0.501	0.499	0.482	0.470	0.654	0.469	0.525	12.27
24) Mirex	0.899	0.939	0.859	0.847	0.815	0.798	0.997	0.803	0.869	8.15
25) Endrin Keton	0.875	0.942	0.886	0.903	0.905	0.893	1.015	0.896	0.915	4.94
26) Decachlorobi	1.192	1.259	1.136	1.115	1.082	1.056	1.251	1.066	1.144	7.06
27) I 1-bromo-2-nitrobenzen	ISTD									
28) Toxaphene{A}					0.018				0.018	0.00
29) Toxaphene{B}					0.050				0.050	0.00
30) Toxaphene{C}					0.033				0.033	0.00
31) Toxaphene{D}					0.027				0.027	0.00
32) Toxaphene{E}					0.030				0.030	0.00
33) I 1-bromo-2-nitrobenzen	ISTD									
34) Chlordane {A					0.056				0.056	0.00
35) Chlordane {B					0.046				0.046	0.00
36) Chlordane {C					0.144				0.144	0.00
37) Chlordane {D					0.232				0.232	0.00
38) Chlordane {E					0.042				0.042	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-	0.650	0.795	0.762	0.752	0.746	0.757	0.821	0.744	0.754	6.57

Initial Calibration Summary

Job Number: JC33175 **Sample:** G1G4166-ICC4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130378.D
Project: BMSMC, Building 5 Area, PR

3)	Hexachlorobe	0.805	0.972	0.911	0.935	0.937	0.966	0.759	0.982	0.908	9.04
4)	alpha-BHC	0.993	1.145	1.088	1.139	1.160	1.204	0.853	1.170	1.094	10.66
5)	gamma-BHC	0.845	0.948	0.930	0.976	0.996	1.046	0.824	1.019	0.948	8.35
6)	Heptachlor	0.718	0.859	0.855	0.865	0.892	0.902	0.726	0.891	0.838	8.81
7)	beta-BHC	0.357	0.380	0.375	0.388	0.390	0.402	0.402	0.393	0.386	3.89
8)	delta-BHC	0.769	0.905	0.875	0.919	0.961	1.017	0.811	0.986	0.905	9.41
9)	Aldrin	0.734	0.830	0.836	0.881	0.876	0.903	0.778	0.890	0.841	7.07
10)	Alachlor	0.111	0.115	0.105	0.103	0.099	0.095	0.120	0.095	0.105	8.88
11)	Heptachlor E	0.760	0.778	0.733	0.769	0.777	0.779	0.850	0.774	0.778	4.25
12)	gamma-Chlord	0.717	0.771	0.748	0.788	0.800	0.820	0.645	0.805	0.762	7.59
13)	alpha-Chlord	0.676	0.740	0.719	0.749	0.760	0.781	0.746	0.766	0.742	4.39
14)	Endosulfan I	0.719	0.752	0.722	0.742	0.745	0.754	0.826	0.747	0.751	4.38
15)	4,4'-DDE	0.699	0.834	0.762	0.797	0.807	0.824	0.719	0.813	0.782	6.41
16)	Dieldrin	0.744	0.841	0.808	0.829	0.846	0.859	0.740	0.848	0.814	5.79
17)	Endrin	0.641	0.702	0.713	0.730	0.722	0.721	0.681	0.716	0.703	4.16
18)	4,4'-DDD	0.589	0.659	0.639	0.662	0.673	0.686	0.630	0.679	0.652	4.88
19)	Endosulfan I	0.636	0.748	0.703	0.720	0.722	0.731	0.742	0.726	0.716	4.91
20)	4,4'-DDT	0.548	0.544	0.533	0.569	0.594	0.598	0.556	0.582	0.565	4.29
21)	Endrin Aldeh	0.565	0.533	0.516	0.523	0.548	0.549	0.574	0.545	0.544	3.62
22)	Endosulfan S	0.564	0.588	0.583	0.603	0.620	0.629	0.514	0.619	0.590	6.40
23)	Methoxychlor	0.325	0.309	0.256	0.283	0.284	0.282	0.373	0.279	0.299	12.16
24)	Mirex	0.452	0.477	0.464	0.485	0.484	0.485	0.425	0.482	0.469	4.59
25)	Endrin Keton	0.602	0.645	0.616	0.622	0.625	0.612	0.769	0.613	0.638	8.55
26)	Decachlorobi	0.627	0.594	0.534	0.517	0.517	0.531	0.639	0.518	0.560	9.28

27) I 1-bromo-2-nitrobenzen ----------ISTD----------

28)	Toxaphene{A}	0.019	0.019	0.00
29)	Toxaphene{B}	0.024	0.024	0.00
30)	Toxaphene{C}	0.038	0.038	0.00
31)	Toxaphene{D}	0.025	0.025	0.00
32)	Toxaphene{E}	0.020	0.020	0.00

33) I 1-bromo-2-nitrobenzen ----------ISTD----------

34)	Chlordane {A	0.048	0.048	0.00
35)	Chlordane {B	0.033	0.033	0.00
36)	Chlordane {C	0.111	0.111	0.00
37)	Chlordane {D	0.179	0.179	0.00
38)	Chlordane {E	0.033	0.033	0.00

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

1PST4166.M Fri Dec 09 15:36:51 2016 RPT1

12.9.1

12

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130384.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\1g...6\1G130384.D\ECD1A.CH Vial: 36
Signal #2 : C:\msdchem\1\data\1g\1g4166\1G130384.D\ECD2B.CH
Acq On    : 08 Dec 2016   7:54 pm                    Operator: rebeccak
Sample    : icv4166-25                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\1PST4166.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 14:02:34 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	1.20- 1.26
2	SAB	Tetrachloro-m-xylene	0.816	0.867	-6.3	95	0.00	1.80- 1.86
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.138	1.220	-7.2	96	0.00	2.27- 2.33
5	MA	gamma-BHC	1.050	1.147	-9.2	99	0.00	2.56- 2.62
6	MA	Heptachlor	1.075	1.136	-5.7	96	0.00	3.04- 3.10
7	B	beta-BHC	0.473	0.512	-8.2	100	0.00	2.63- 2.69
8	B	delta-BHC	0.978	1.046	-7.0	98	0.00	2.80- 2.86
9	MB	Aldrin	1.043	1.119	-7.3	97	0.00	3.36- 3.42
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide	0.971	1.082	-11.4	105	0.00	4.05- 4.11
12	B	gamma-Chlordane	0.961	1.053	-9.6	104	0.00	4.21- 4.27
13	B	alpha-Chlordane	0.964	1.061	-10.1	101	0.00	4.38- 4.44
14	A	Endosulfan I	0.948	1.021	-7.7	97	0.00	4.55- 4.61
15	B	4,4'-DDE	1.012	1.103	-9.0	99	0.00	4.49- 4.55
16	MA	Dieldrin	1.027	1.129	-9.9	99	0.00	4.86- 4.92
17	MA	Endrin	0.907	0.919	-1.3	94	0.00	5.18- 5.24
18	A	4,4'-DDD	0.854	0.917	-7.4	100	0.00	5.30- 5.37
19	B	Endosulfan II	0.959	1.007	-5.0	96	0.00	5.49- 5.55
20	MA	4,4'-DDT	0.855	0.864	-1.1	92	0.00	5.72- 5.78
21	B	Endrin Aldehyde	0.739	0.770	-4.2	96	0.00	6.10- 6.16
22	B	Endosulfan Sulfate	0.829	0.860	-3.7	94	0.00	6.78- 6.84
23	A	Methoxychlor	0.525	0.498	5.1	91	0.00	6.50- 6.56
24		Mirex		----------NA----------				
25	B	Endrin Ketone	0.915	0.846	7.5	85	0.00	7.21- 7.27
26	SA	Decachlorobiphenyl	1.144	1.225	-7.1	100	0.00	9.03- 9.09
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.13- 1.33
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.13- 1.33
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

12.9.2 12

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G4166-ICV4166
Lab FileID: 1G130384.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	92	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene	0.754	0.765	-1.5	94	0.00	2.05- 2.11
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.094	1.209	-10.5	98	0.00	2.66- 2.72
5	MA	gamma-BHC	0.948	1.070	-12.9	101	0.00	3.05- 3.11
6	MA	Heptachlor	0.838	0.937	-11.8	100	0.00	3.57- 3.63
7	B	beta-BHC	0.386	0.430	-11.4	102	0.00	3.13- 3.19
8	B	delta-BHC	0.905	1.012	-11.8	101	0.00	3.48- 3.54
9	MB	Aldrin	0.841	0.959	-14.0	100	0.00	3.98- 4.04
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide	0.778	0.861	-10.7	103	0.00	4.74- 4.80
12	B	gamma-Chlordane	0.762	0.879	-15.4	103	0.00	5.01- 5.07
13	B	alpha-Chlordane	0.742	0.841	-13.3	103	0.00	5.22- 5.28
14	A	Endosulfan I	0.751	0.816	-8.7	101	0.00	5.31- 5.37
15	B	4,4'-DDE	0.782	0.892	-14.1	103	0.00	5.49- 5.55
16	MA	Dieldrin	0.814	0.930	-14.3	103	0.00	5.72- 5.78
17	MA	Endrin	0.703	0.761	-8.3	96	0.00	6.19- 6.25
18	A	4,4'-DDD	0.652	0.745	-14.3	104	0.00	6.39- 6.45
19	B	Endosulfan II	0.716	0.777	-8.5	99	0.00	6.53- 6.59
20	MA	4,4'-DDT	0.565	0.587	-3.9	95	0.00	6.90- 6.96
21	B	Endrin Aldehyde	0.544	0.573	-5.3	101	0.00	7.08- 7.14
22	B	Endosulfan Sulfate	0.590	0.638	-8.1	97	0.00	7.54- 7.60
23	A	Methoxychlor	0.299	0.291	2.7	95	0.00	8.13- 8.19
24		Mirex		----------NA----------				
25	B	Endrin Ketone	0.638	0.601	5.8	89	0.00	8.46- 8.52
26	SA	Decachlorobiphenyl	0.560	0.593	-5.9	106	0.00	10.31-10.37
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.22- 1.42
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.22- 1.42
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130378.D 1PST4166.M Fri Dec 09 16:10:46 2016

12.9.2

12

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130385.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\1g...6\1G130385.D\ECD1A.CH Vial: 37
Signal #2 : C:\msdchem\1\data\1g\1g4166\1G130385.D\ECD2B.CH
Acq On    : 08 Dec 2016   8:11 pm                    Operator: rebeccak
Sample    : icv4166-500                              Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\1PST4166.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 14:02:34 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	100	0.00	1.20- 1.26
2	SAB	Tetrachloro-m-xylene	0.816	0.775	5.0	92	0.00	1.80- 1.86
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	1.144	1.115	2.5	103	0.00	9.03- 9.09
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	1.13- 1.33
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	1.13- 1.33
34		Chlordane {A}	0.056	0.054	3.6	104	0.00	2.97- 3.17
35		Chlordane {B}	0.046	0.042	8.7	99	0.00	3.43- 3.63
36		Chlordane {C}	0.144	0.139	3.5	104	0.00	4.14- 4.34
37		Chlordane {D}	0.232	0.221	4.7	103	0.00	4.30- 4.50
38		Chlordane {E}	0.042	0.035	16.7	92	0.00	5.33- 5.53

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G4166-ICV4166
Lab FileID: 1G130385.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene	0.754	0.687	8.9	95	0.00	2.05- 2.11
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	0.560	0.547	2.3	110	0.00	10.32-10.38
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	114	0.00	1.22- 1.42
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	1.22- 1.42
34		Chlordane {A}	0.048	0.044	8.3	103	0.00	3.50- 3.70
35		Chlordane {B}	0.033	0.029	12.1	98	0.00	4.09- 4.29
36		Chlordane {C}	0.111	0.103	7.2	103	0.00	4.94- 5.14
37		Chlordane {D}	0.179	0.168	6.1	103	0.00	5.15- 5.35
38		Chlordane {E}	0.033	0.027	18.2	90	0.00	6.53- 6.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130379.D 1PST4166.M Fri Dec 09 16:12:44 2016

12.9.3 12

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130386.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\1g...6\1G130386.D\ECD1A.CH Vial: 38
Signal #2 : C:\msdchem\1\data\1g\1g4166\1G130386.D\ECD2B.CH
Acq On    : 08 Dec 2016   8:27 pm                    Operator: rebeccak
Sample    : icv4166-500                              Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\1PST4166.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 14:02:34 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	97	0.00	1.20- 1.26
2	SAB	Tetrachloro-m-xylene	0.816	0.782	4.2	90	0.00	1.80- 1.86
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	1.144	1.114	2.6	100	0.00	9.04- 9.09
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	1.13- 1.33
28	L8	Toxaphene{A}	0.018	0.017	5.6	101	0.00	4.80- 5.00
29	L8	Toxaphene{B}	0.050	0.044	12.0	95	0.00	5.41- 5.61
30	L8	Toxaphene{C}	0.033	0.032	3.0	102	0.00	5.58- 5.78
31	L8	Toxaphene{D}	0.027	0.027	0.0	105	0.00	5.92- 6.12
32	L8	Toxaphene{E}	0.030	0.031	-3.3	111	0.00	6.55- 6.75
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.13- 1.33
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G4166-ICV4166
Lab FileID: 1G130386.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene	0.754	0.694	8.0	92	0.00	2.05- 2.11
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	0.560	0.555	0.9	106	0.00	10.31-10.37
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	1.22- 1.42
28	L8	Toxaphene{A}	0.019	0.018	5.3	102	0.00	5.62- 5.82
29	L8	Toxaphene{B}	0.024	0.022	8.3	98	0.00	6.43- 6.63
30	L8	Toxaphene{C}	0.038	0.034	10.5	98	0.00	6.59- 6.79
31	L8	Toxaphene{D}	0.025	0.023	8.0	101	0.00	7.02- 7.22
32	L8	Toxaphene{E}	0.020	0.019	5.0	103	0.00	7.88- 8.08
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.22- 1.42
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130379.D 1PST4166.M Fri Dec 09 16:12:46 2016

12.9.4

12

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130387.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\1g...6\1G130387.D\ECD1A.CH Vial: 39
Signal #2 : C:\msdchem\1\data\1g\1g4166\1G130387.D\ECD2B.CH
Acq On    : 08 Dec 2016   8:44 pm                    Operator: rebeccak
Sample    : icv4166-50                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\1PST4166.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 14:02:34 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	95	0.00	1.20- 1.26
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor	0.147	0.148	-0.7	105	0.00	3.51- 3.57
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	1.13- 1.33
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.13- 1.33
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G4166-ICV4166
Lab FileID: 1G130387.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor	0.105	0.107	-1.9	107	0.00	3.83- 3.89
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	1.22- 1.42
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.22- 1.42
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130379.D 1PST4166.M Fri Dec 09 16:12:48 2016

12.9.5
12

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130388.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\1g...6\1G130388.D\ECD1A.CH Vial: 40
Signal #2 : C:\msdchem\1\data\1g\1g4166\1G130388.D\ECD2B.CH
Acq On    : 08 Dec 2016   9:01 pm                    Operator: rebeccak
Sample    : icv4166-50                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\1PST4166.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 14:02:34 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	95	0.00	1.20- 1.26
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		Hexachlorobenzene	1.421	1.499	-5.5	107	0.00	2.13- 2.19
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.13- 1.33
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.13- 1.33
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC33175
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, PR
Sample: G1G4166-ICV4166
Lab FileID: 1G130388.D

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		Hexachlorobenzene	0.908	1.005	-10.7	108	0.00	2.52- 2.58
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	111	0.00	1.22- 1.42
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00	1.22- 1.42
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130379.D 1PST4166.M Fri Dec 09 16:12:50 2016

12.9.6

12

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130389.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\1g...6\1G130389.D\ECD1A.CH Vial: 41
Signal #2 : C:\msdchem\1\data\1g\1g4166\1G130389.D\ECD2B.CH
Acq On    : 08 Dec 2016   9:18 pm                    Operator: rebeccak
Sample    : icv4166-25                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\msdchem\1\methods\1PST4166.M (ChemStation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 14:02:34 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	74	0.00	1.20- 1.26
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex	0.869	1.021	-17.5	89	0.00	6.63- 6.69
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.13- 1.33
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.13- 1.33
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC33175 **Sample:** G1G4166-ICV4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130389.D
Project: BMSMC, Building 5 Area, PR

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	77	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		Hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		Alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex	0.469	0.576	-22.8#	92	0.00	8.38- 8.44
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.22- 1.42
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.22- 1.42
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130378.D 1PST4166.M Fri Dec 09 16:10:48 2016

12.9.7

12

Continuing Calibration Summary

Job Number: JC33175 **Sample:** G1G4171-CC4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130498.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD2B.CH
Acq On    : 12-14-16 09:38:16 AM                    Operator: kristend
Sample    : cc4166-25                               Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 16 10:25:23 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	81	0.00	1.19- 1.25
2	SAB	Tetrachloro-m-xylene	0.816	0.922	-13.0	90	0.00	1.78- 1.84
3		Hexachlorobenzene	1.421	1.513	-6.5	89	0.00	2.11- 2.17
4	A	alpha-BHC	1.138	1.259	-10.6	89	0.00	2.24- 2.30
5	MA	gamma-BHC	1.050	1.148	-9.3	89	0.00	2.53- 2.59
6	MA	Heptachlor	1.075	1.227	-14.1	93	0.00	3.00- 3.06
7	B	beta-BHC	0.473	0.514	-8.7	90	0.00	2.60- 2.66
8	B	delta-BHC	0.978	1.124	-14.9	94	0.00	2.77- 2.83
9	MB	Aldrin	1.043	1.136	-8.9	88	0.00	3.32- 3.38
10		Alachlor	0.147	0.146	0.7	84	0.00	3.46- 3.52
11	B	Heptachlor Epoxide	0.971	1.003	-3.3	87	0.00	4.01- 4.07
12	B	gamma-Chlordane	0.961	1.023	-6.5	90	0.00	4.16- 4.22
13	B	alpha-Chlordane	0.964	1.022	-6.0	86	0.00	4.33- 4.39
14	A	Endosulfan I	0.948	1.011	-6.6	86	0.00	4.50- 4.56
15	B	4,4'-DDE	1.012	1.063	-5.0	86	0.00	4.44- 4.50
16	MA	Dieldrin	1.027	1.083	-5.5	85	0.00	4.81- 4.87
17	MA	Endrin	0.907	0.978	-7.8	89	0.00	5.12- 5.18
18	A	4,4'-DDD	0.854	0.863	-1.1	84	0.00	5.24- 5.31
19	B	Endosulfan II	0.959	0.984	-2.6	84	0.00	5.43- 5.49
20	MA	4,4'-DDT	0.855	0.901	-5.4	86	0.00	5.66- 5.72
21	B	Endrin Aldehyde	0.739	0.758	-2.6	85	0.00	6.04- 6.10
22	B	Endosulfan Sulfate	0.829	0.888	-7.1	86	0.00	6.71- 6.77
23	A	Methoxychlor	0.525	0.540	-2.9	88	0.00	6.43- 6.49
24		Mirex	0.869	0.837	3.7	80	0.00	6.56- 6.62
25	B	Endrin Ketone	0.915	0.943	-3.1	85	0.00	7.13- 7.19
26	SA	Decachlorobiphenyl	1.144	1.063	7.1	77	0.00	8.95- 9.01

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	75	0.00	1.30- 1.36
2	SAB	Tetrachloro-m-xylene	0.754	0.844	-11.9	84	0.00	2.06- 2.12
3		Hexachlorobenzene	0.908	1.073	-18.2	86	0.00	2.52- 2.58
4	A	alpha-BHC	1.094	1.300	-18.8	85	0.00	2.66- 2.72
5	MA	gamma-BHC	0.948	1.137	-19.9	87	0.00	3.05- 3.11
6	MA	Heptachlor	0.838	1.041	-24.2#	90	0.00	3.57- 3.63
7	B	beta-BHC	0.386	0.463	-19.9	89	0.00	3.13- 3.19
8	B	delta-BHC	0.905	1.116	-23.3#	91	0.00	3.49- 3.55
9	MB	Aldrin	0.841	0.981	-16.6	83	0.00	3.98- 4.04
10		Alachlor	0.105	0.110	-4.8	80	0.00	3.83- 3.89

Continuing Calibration Summary

Job Number: JC33175 **Sample:** G1G4171-CC4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130498.D
Project: BMSMC, Building 5 Area, PR

11	B	Heptachlor Epoxide	0.778	0.842	-8.2	82	0.00	4.74- 4.80
12	B	gamma-Chlordane	0.762	0.869	-14.0	82	0.00	5.01- 5.07
13	B	alpha-Chlordane	0.742	0.840	-13.2	84	0.00	5.22- 5.28
14	A	Endosulfan I	0.751	0.829	-10.4	84	0.00	5.31- 5.37
15	B	4,4'-DDE	0.782	0.879	-12.4	82	0.00	5.49- 5.55
16	MA	Dieldrin	0.814	0.918	-12.8	83	0.00	5.72- 5.78
17	MA	Endrin	0.703	0.827	-17.6	85	0.00	6.19- 6.25
18	A	4,4'-DDD	0.652	0.735	-12.7	83	0.00	6.39- 6.45
19	B	Endosulfan II	0.716	0.787	-9.9	82	0.00	6.53- 6.59
20	MA	4,4'-DDT	0.565	0.611	-8.1	80	0.00	6.90- 6.96
21	B	Endrin Aldehyde	0.544	0.585	-7.5	84	0.00	7.08- 7.14
22	B	Endosulfan Sulfate	0.590	0.678	-14.9	84	0.00	7.54- 7.60
23	A	Methoxychlor	0.299	0.285	4.7	75	0.00	8.13- 8.19
24		Mirex	0.469	0.497	-6.0	77	0.00	8.38- 8.44
25	B	Endrin Ketone	0.638	0.705	-10.5	85	0.00	8.46- 8.52
26	SA	Decachlorobiphenyl	0.560	0.562	-0.4	81	0.00	10.32-10.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130378.D 1PST4166.M Mon Dec 19 13:16:05 2016 RPT1

12.9.8

12

Continuing Calibration Summary

Job Number: JC33175 **Sample:** G1G4171-CC4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130516.D
Project: BMSMC, Building 5 Area, PR

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 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	82	-0.02	1.18- 1.24
2	SAB	Tetrachloro-m-xylene	0.816	0.884	-8.3	86	-0.01	1.77- 1.83
3		Hexachlorobenzene	1.421	1.431	-0.7	87	-0.02	2.10- 2.16
4	A	alpha-BHC	1.138	1.251	-9.9	85	-0.02	2.24- 2.30
5	MA	gamma-BHC	1.050	1.137	-8.3	86	-0.02	2.52- 2.58
6	MA	Heptachlor	1.075	1.163	-8.2	87	-0.02	3.00- 3.06
7	B	beta-BHC	0.473	0.492	-4.0	87	-0.02	2.59- 2.65
8	B	delta-BHC	0.978	1.073	-9.7	85	-0.02	2.77- 2.83
9	MB	Aldrin	1.043	1.104	-5.8	84	-0.02	3.32- 3.38
10		Alachlor	0.147	0.131	10.9	80	-0.02	3.46- 3.52
11	B	Heptachlor Epoxide	0.971	0.965	0.6	83	-0.02	4.00- 4.06
12	B	gamma-Chlordane	0.961	0.965	-0.4	83	-0.02	4.16- 4.22
13	B	alpha-Chlordane	0.964	0.969	-0.5	81	-0.02	4.32- 4.38
14	A	Endosulfan I	0.948	0.960	-1.3	81	-0.02	4.49- 4.55
15	B	4,4'-DDE	1.012	1.016	-0.4	81	-0.02	4.44- 4.50
16	MA	Dieldrin	1.027	1.037	-1.0	80	-0.02	4.80- 4.86
17	MA	Endrin	0.907	0.914	-0.8	84	-0.03	5.11- 5.17
18	A	4,4'-DDD	0.854	0.827	3.2	79	-0.03	5.24- 5.31
19	B	Endosulfan II	0.959	0.927	3.3	79	-0.03	5.42- 5.48
20	MA	4,4'-DDT	0.855	0.807	5.6	76	-0.03	5.65- 5.71
21	B	Endrin Aldehyde	0.739	0.728	1.5	81	-0.03	6.03- 6.09
22	B	Endosulfan Sulfate	0.829	0.769	7.2	75	-0.03	6.70- 6.76
23	A	Methoxychlor	0.525	0.463	11.8	78	-0.03	6.43- 6.49
24		Mirex	0.869	0.761	12.4	76	-0.03	6.56- 6.62
25	B	Endrin Ketone	0.915	0.841	8.1	76	-0.03	7.13- 7.19
26	SA	Decachlorobiphenyl	1.144	0.994	13.1	75	-0.03	8.95- 9.01

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	77	0.00	1.29- 1.35
2	SAB	Tetrachloro-m-xylene	0.754	0.849	-12.6	88	0.00	2.05- 2.11
3		Hexachlorobenzene	0.908	1.028	-13.2	84	0.00	2.51- 2.57
4	A	alpha-BHC	1.094	1.259	-15.1	84	0.00	2.66- 2.72
5	MA	gamma-BHC	0.948	1.111	-17.2	86	0.00	3.05- 3.11
6	MA	Heptachlor	0.838	1.022	-22.0#	88	0.00	3.57- 3.63
7	B	beta-BHC	0.386	0.446	-15.5	88	0.00	3.13- 3.19
8	B	delta-BHC	0.905	1.082	-19.6	87	0.00	3.48- 3.54
9	MB	Aldrin	0.841	0.981	-16.6	86	0.00	3.98- 4.04
10		Alachlor	0.105	0.110	-4.8	86	0.00	3.82- 3.88
11	B	Heptachlor Epoxide	0.778	0.854	-9.8	85	0.00	4.74- 4.80
12	B	gamma-Chlordane	0.762	0.873	-14.6	84	0.00	5.01- 5.07

Continuing Calibration Summary

Job Number: JC33175 **Sample:** G1G4171-CC4166
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** 1G130516.D
Project: BMSMC, Building 5 Area, PR

13	B	alpha-Chlordane	0.742	0.836	-12.7	85	0.00	5.22- 5.28
14	A	Endosulfan I	0.751	0.823	-9.6	85	0.00	5.30- 5.36
15	B	4,4'-DDE	0.782	0.885	-13.2	84	0.00	5.49- 5.55
16	MA	Dieldrin	0.814	0.920	-13.0	84	0.00	5.72- 5.78
17	MA	Endrin	0.703	0.820	-16.6	87	0.00	6.19- 6.25
18	A	4,4'-DDD	0.652	0.737	-13.0	84	0.00	6.39- 6.45
19	B	Endosulfan II	0.716	0.791	-10.5	84	0.00	6.53- 6.59
20	MA	4,4'-DDT	0.565	0.576	-1.9	75	0.00	6.90- 6.96
21	B	Endrin Aldehyde	0.544	0.607	-11.6	85	0.00	7.08- 7.14
22	B	Endosulfan Sulfate	0.590	0.641	-8.6	80	0.00	7.54- 7.60
23	A	Methoxychlor	0.299	0.304	-1.7	82	0.00	8.13- 8.19
24		Mirex	0.469	0.522	-11.3	83	0.00	8.38- 8.44
25	B	Endrin Ketone	0.638	0.680	-6.6	84	0.00	8.46- 8.52
26	SA	Decachlorobiphenyl	0.560	0.552	1.4	82	0.00	10.32-10.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G130379.D 1PST4166.M Thu Dec 15 08:38:53 2016 RPT1

12.9.9
12

GC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/20/16 17:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130502.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:45 am
Operator : kristend
Sample : jc33175-1
Misc : op99172,g1g4171,950,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:41:37 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.217	1.324	224.2E6	2261.6E6	50.000	50.000
27) I	1-bromo-2...	1.217	1.324	224.2E6	2261.6E6	50.000	50.000
33) I	1-bromo-2...	1.217	1.324	224.2E6	2261.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.809	2.086	142.7E6	1281.8E6	39.027m	37.607m
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 97.57%	94.02%
26) SA	Decachlor...	8.984	10.347	134.8E6	659.2E6	26.267m	26.040
	Spiked Amount	40.000			Recovery	= 65.67%	65.10%
	Target Compounds						
	SemiQuant Compounds - Not Calibrated on this Instrument						

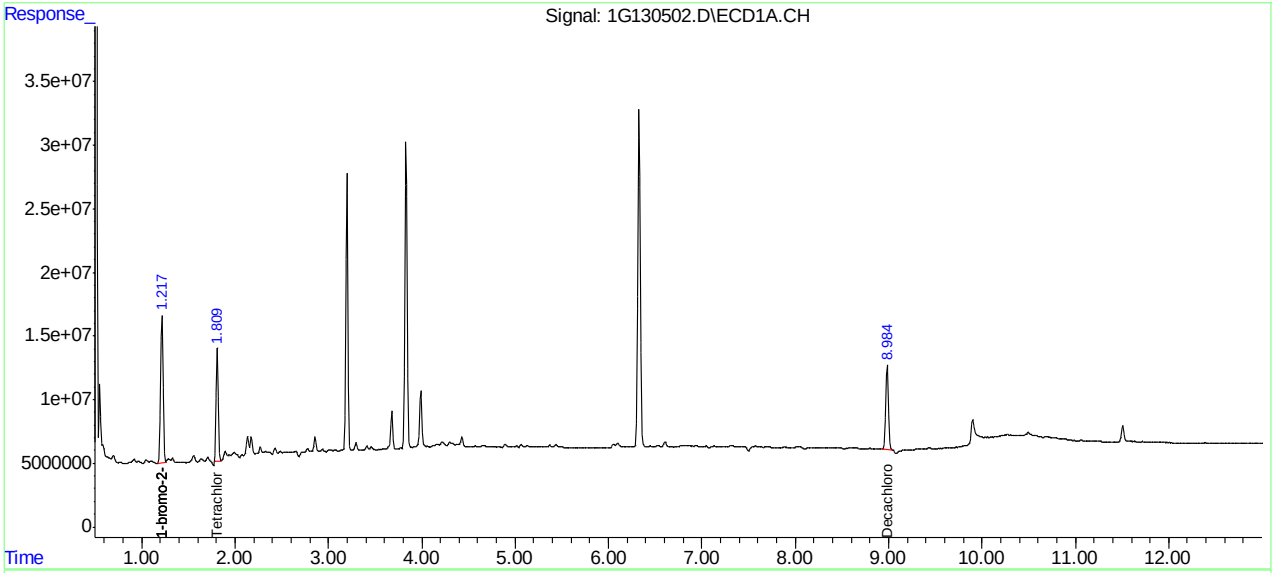
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

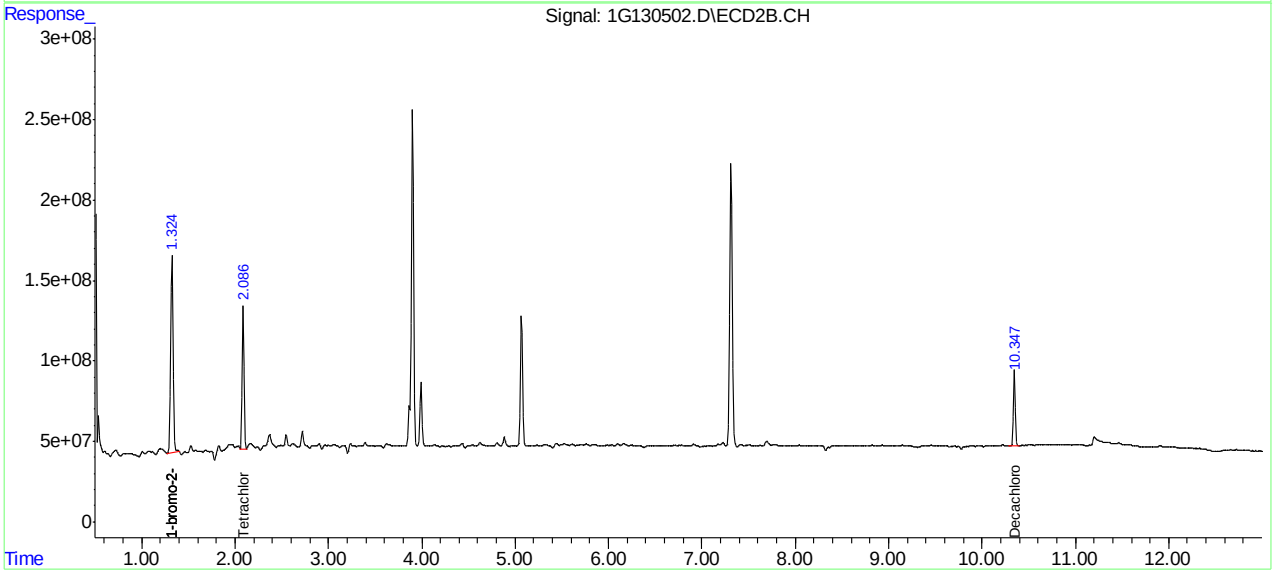
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130502.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:45 am
Operator : kristend
Sample : jc33175-1
Misc : op99172,g1g4171,950,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:41:37 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

Sample Number:	JC33175-1	**Method:**	SW846 8081B
Lab FileID:	1G130502.D	**Analyst approved:**	12/15/16 13:42 Dhara Saparia
Injection Time:	12/14/16 10:45	**Supervisor approved:**	12/20/16 17:54 Gwendolyn Burns

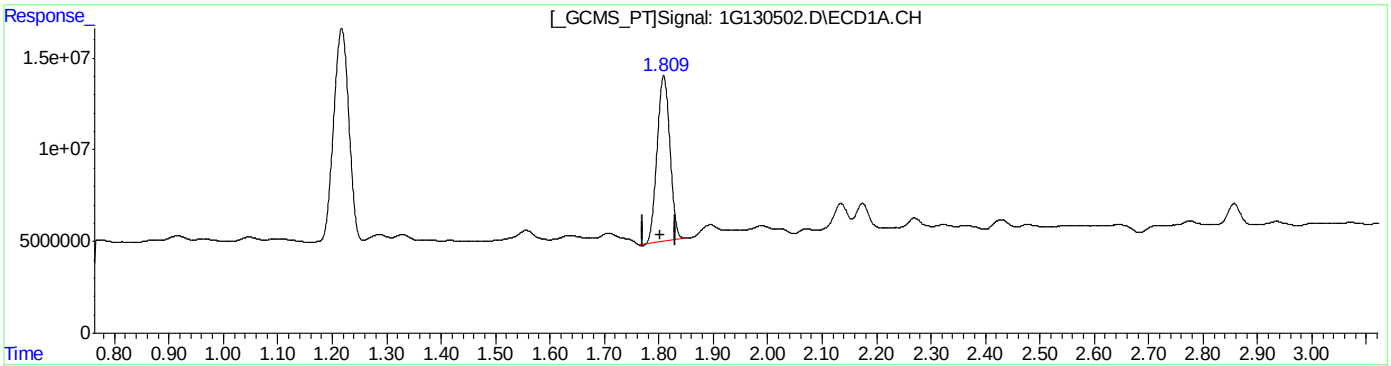
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.81	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.09	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	8.98	Poorly defined baseline

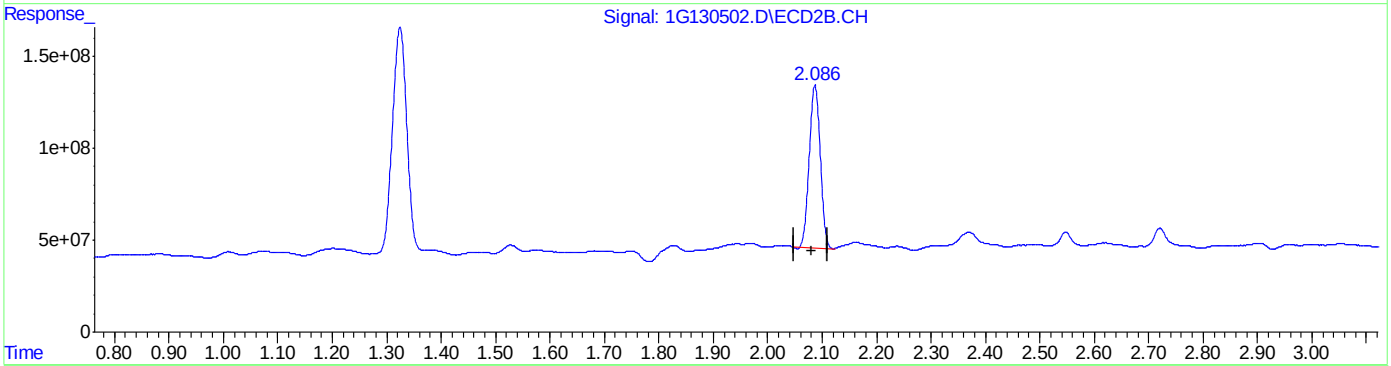
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130502.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:45 am
Operator : kristend
Sample : jc33175-1
Misc : op99172,g1g4171,950,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:38:01 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(2) Tetrachloro-m-xylene (SAB)
1.809min 40.240 PPB
response 147177685

(2) Tetrachloro-m-xylene #2 (SAB)
2.087min 36.878 PPB
response 1256919498

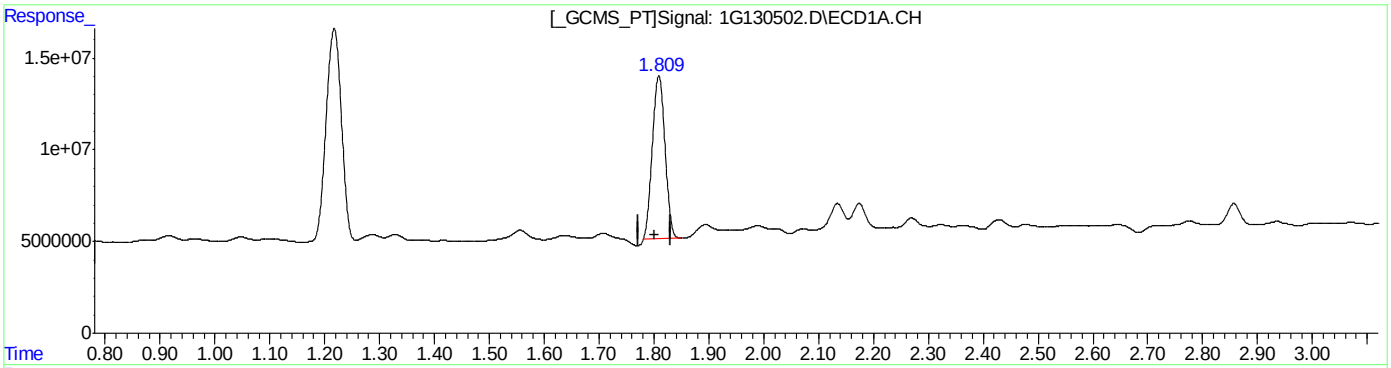
(+) = Expected Retention Time

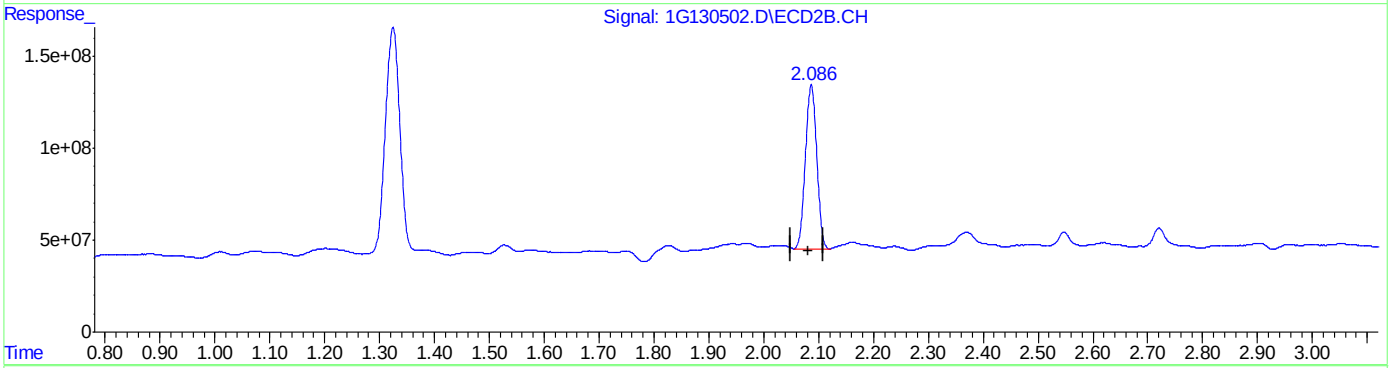
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130502.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:45 am
Operator : kristend
Sample : jc33175-1
Misc : op99172,g1g4171,950,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:38:01 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(2) Tetrachloro-m-xylene (SAB)
1.809min 39.027 PPB m
response 142741842

(2) Tetrachloro-m-xylene #2 (SAB)
2.086min 37.607 PPB m
response 1281791020

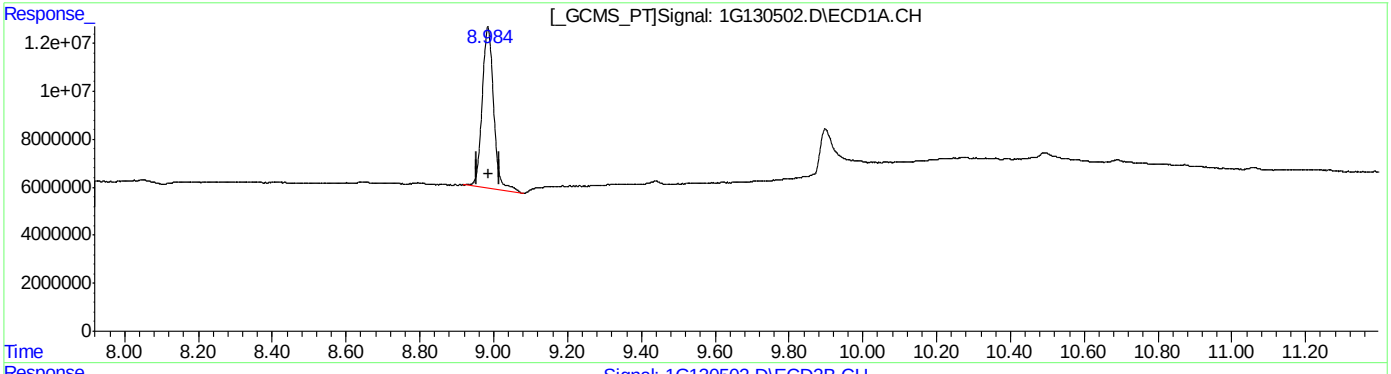
(+) = Expected Retention Time

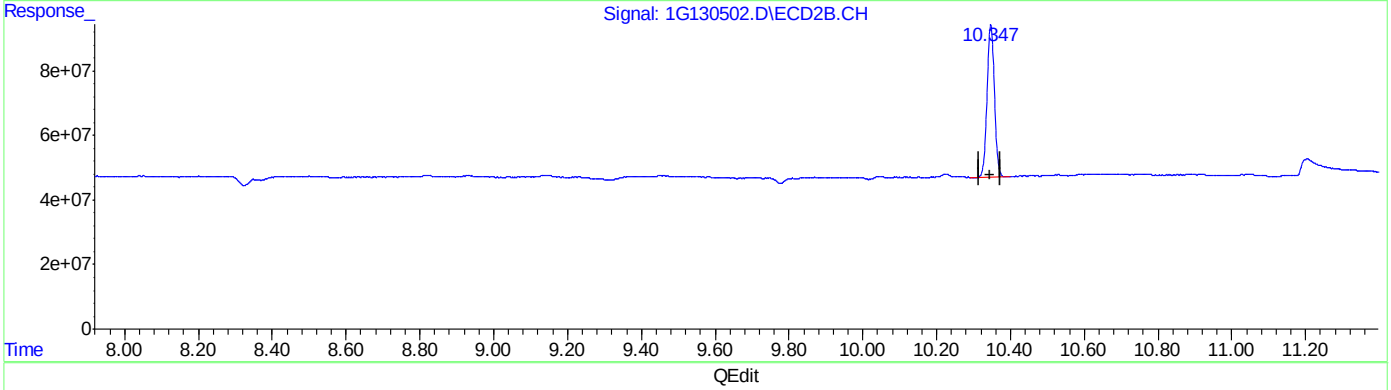
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130502.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:45 am
Operator : kristend
Sample : jc33175-1
Misc : op99172,g1g4171,950,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:38:01 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
8.984min 28.661 PPB
response 147107890

(26) Decachlorobiphenyl #2 (SA)
10.347min 26.040 PPB
response 659240417

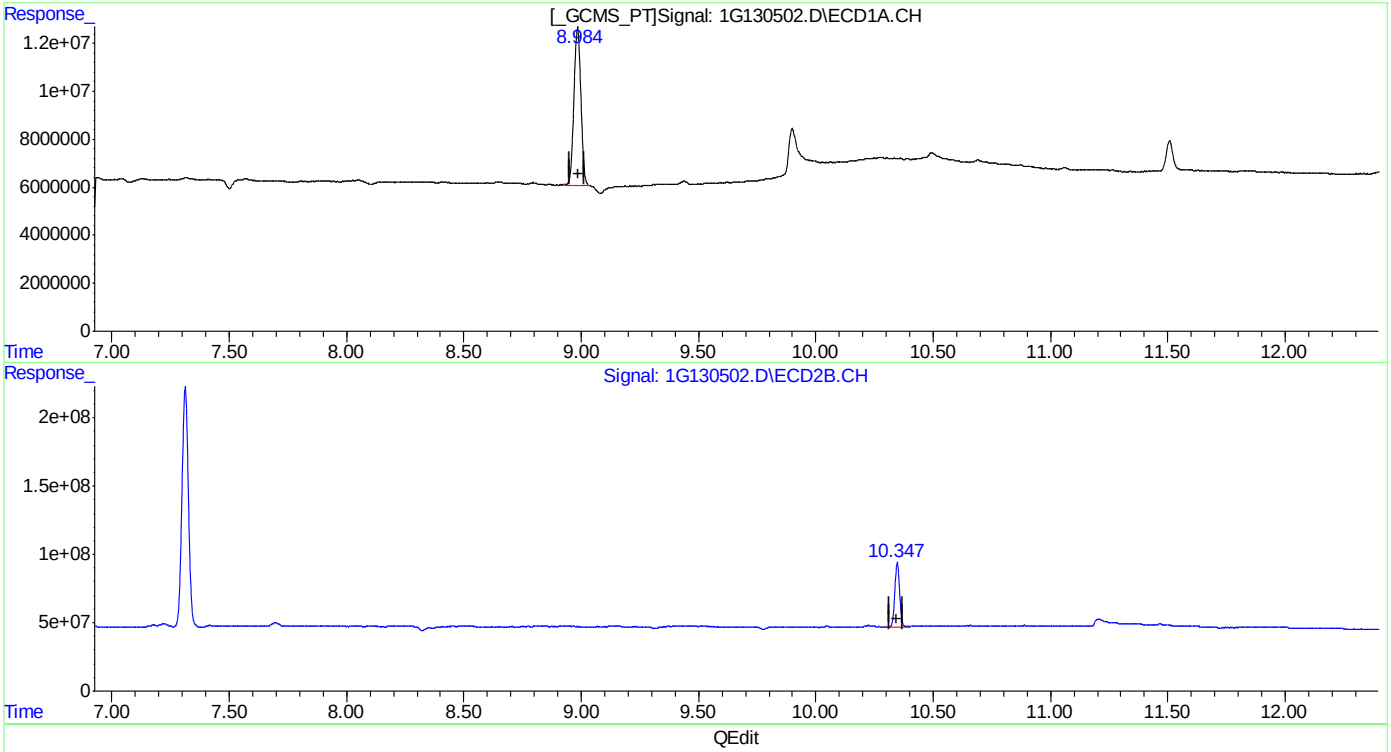
(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:41:10 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130502.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:45 am
Operator : kristend
Sample : jc33175-1
Misc : op99172,g1g4171,950,,,10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:38:01 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
8.984min 26.267 PPB m
response 134818039

(26) Decachlorobiphenyl #2 (SA)
10.347min 26.040 PPB
response 659240417

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130500.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:11 am
Operator : kristend
Sample : op99172-mb1
Misc : op99172,g1g4171,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:35:22 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
Internal Standards						
1) I 1-bromo-2...	1.218	1.325	246.7E6	2427.4E6	50.000	50.000
27) I 1-bromo-2...	1.218	1.325	246.7E6	2427.4E6	50.000	50.000
33) I 1-bromo-2...	1.218	1.325	246.7E6	2427.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachlo...	1.809	2.087	145.0E6	1337.3E6	36.020	36.556
Spiked Amount	40.000	Range	30 - 150	Recovery	= 90.05%	91.39%
26) SA Decachlor...	8.984	10.347	94932689	452.8E6	16.809	16.663
Spiked Amount	40.000			Recovery	= 42.02%	41.66%
Target Compounds						
SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

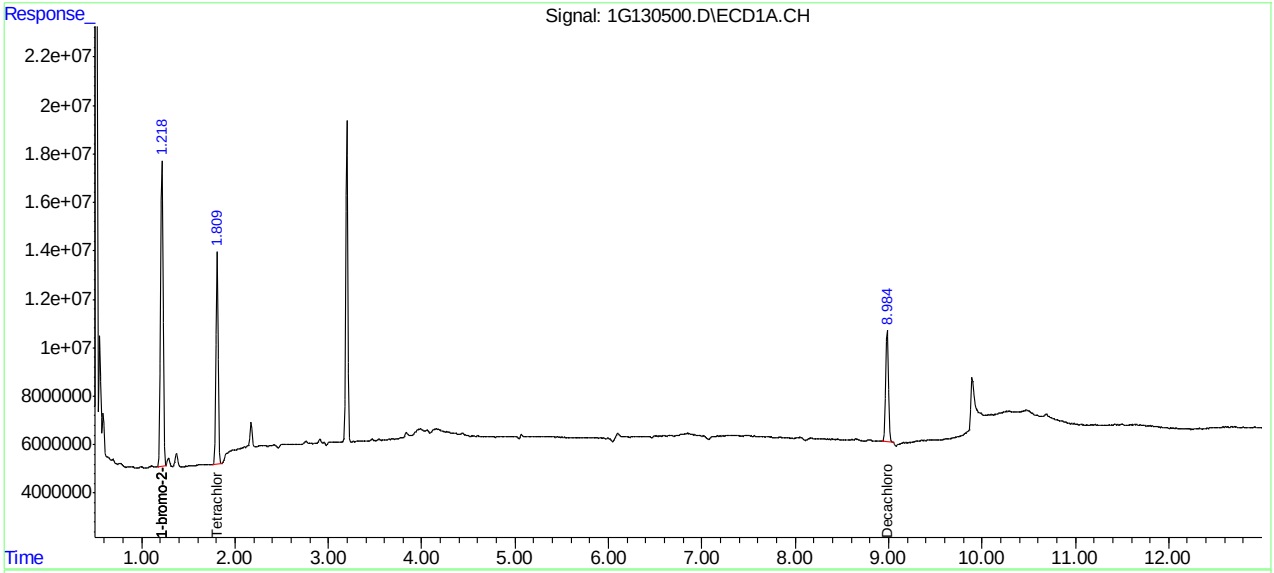
SGS ACCUTEST JC33175

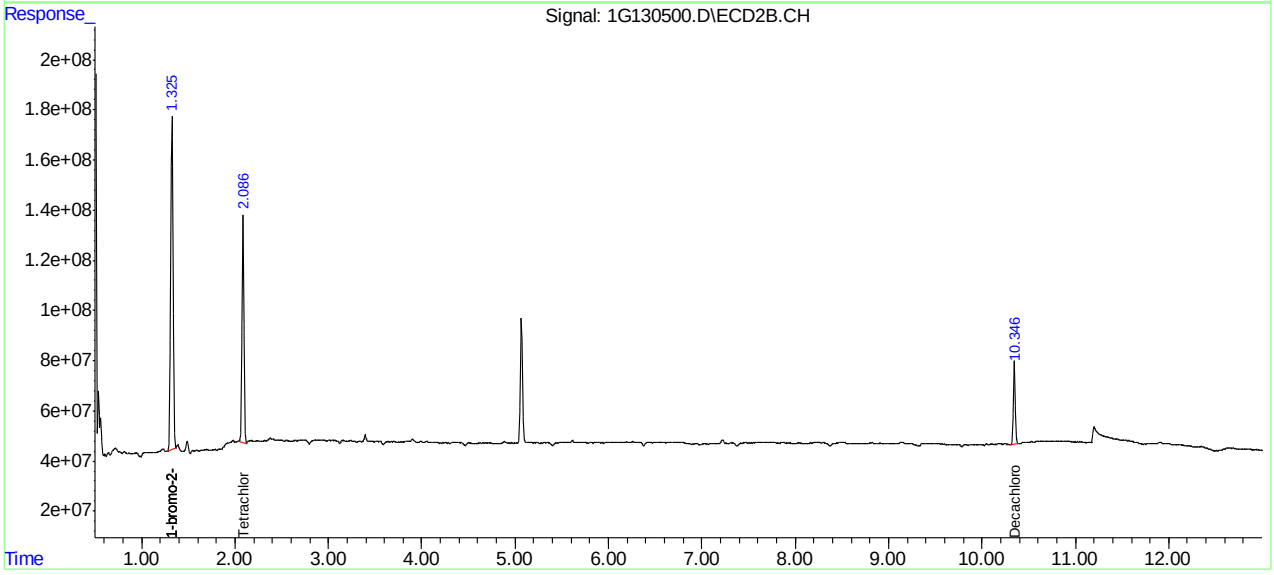
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130500.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:11 am
Operator : kristend
Sample : op99172-mb1
Misc : op99172,g1g4171,1000,,,10,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:35:22 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130501.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:28 am
Operator : kristend
Sample : op99172-bs1
Misc : op99172,g1g4171,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:36:42 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.218	1.325	237.0E6	2331.7E6	50.000	50.000
27) I	1-bromo-2...	1.218	1.325	237.0E6	2331.7E6	50.000	50.000
33) I	1-bromo-2...	1.218	1.325	237.0E6	2331.7E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.809	2.087	133.2E6	1188.4E6	34.455	33.817
	Spiked Amount 40.000	Range	30 - 150	Recovery	=	86.14%	84.54%
26) SA	Decachlor...	8.985	10.346	96629027	466.7E6	17.817	17.879
	Spiked Amount 40.000			Recovery	=	44.54%	44.70%
	Target Compounds						
4) A	alpha-BHC	2.271	2.691	141.2E6	1416.7E6	26.170	27.773
5) MA	gamma-BHC	2.556	3.079	134.1E6	1294.7E6	26.950	29.290
6) MA	Heptachlor	3.035	3.599	132.8E6	1070.4E6	26.057	27.375
7) B	beta-BHC	2.625	3.158	62636537	543.3E6	27.928	30.200
8) B	delta-BHC	2.803	3.517	137.3E6	1344.1E6	29.621	31.833
9) MB	Aldrin	3.355	4.008	120.4E6	1087.2E6	24.348	27.722
11) B	Heptachlo...	4.036	4.773	130.0E6	1020.0E6	28.245	28.126
12) B	gamma-Chl...	4.193	5.038	120.6E6	1052.2E6	26.486	29.618
13) B	alpha-Chl...	4.359	5.251	120.6E6	986.6E6	26.409	28.516
14) A	Endosulfan I	4.527	5.335	115.2E6	977.7E6	25.632	27.914
15) B	4,4'-DDE	4.473	5.517	119.6E6	1046.8E6	24.940	28.708
16) MA	Dieldrin	4.839	5.746	128.1E6	1082.1E6	26.307	28.494
17) MA	Endrin	5.150	6.221	118.4E6	995.8E6	27.537	30.356
18) A	4,4'-DDD	5.277	6.422	101.6E6	849.9E6	25.105	27.959
19) B	Endosulfa...	5.459	6.559	116.6E6	920.7E6	25.660	27.575
20) MA	4,4'-DDT	5.688	6.933	103.2E6	691.3E6	25.461	26.215
21) B	Endrin Al...	6.067	7.114	96295829	721.3E6	27.495	28.417
22) B	Endosulfa...	6.734	7.567	103.9E6	805.8E6	26.455	29.289
23) A	Methoxychlor	6.463	8.159	60579963	323.7E6	24.345	23.213
25) B	Endrin Ke...	7.163	8.489	112.5E6	835.1E6	25.952	28.075

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

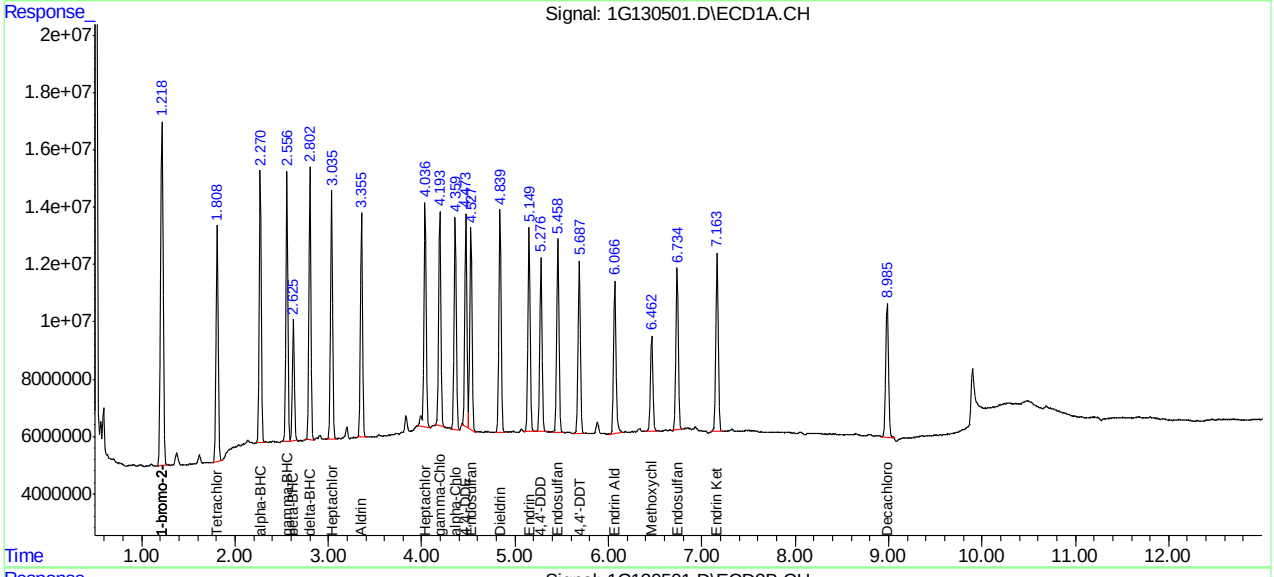
SGS ACCUTEST JC33175

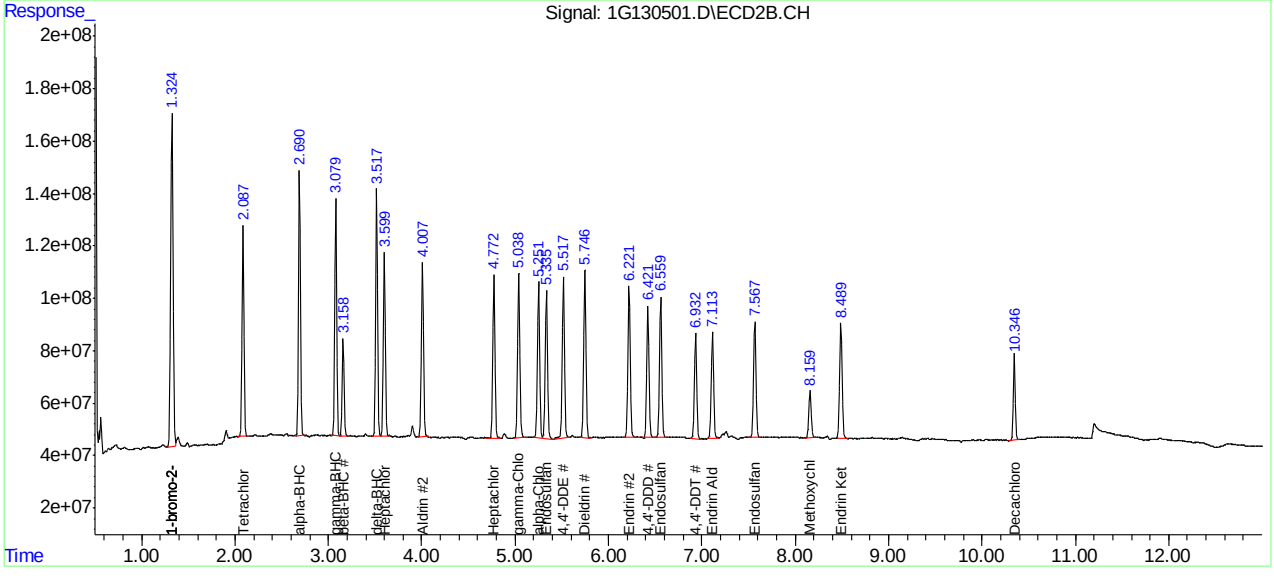
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130501.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 10:28 am
Operator : kristend
Sample : op99172-bs1
Misc : op99172,g1g4171,1000,,,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:36:42 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/20/16 17:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:09 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.218	1.326	236.2E6	2352.0E6	50.000	50.000
27) I	1-bromo-2...	1.218	1.326	236.2E6	2352.0E6	50.000	50.000
33) I	1-bromo-2...	1.218	1.326	236.2E6	2352.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.809	2.086	133.5E6	1242.6E6	34.655	35.055
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 86.64%	87.64%
26) SA	Decachlor...	8.984	10.345	112.4E6	566.7E6	20.788m	21.524
	Spiked Amount	40.000			Recovery	= 51.97%	53.81%
	Target Compounds						
4) A	alpha-BHC	2.271	2.690	141.1E6	1381.8E6	26.240	26.855
5) MA	gamma-BHC	2.556	3.079	135.6E6	1374.5E6	27.333	30.827
6) MA	Heptachlor	3.034	3.599	140.2E6	1017.3E6	27.586	25.794
7) B	beta-BHC	2.626	3.158	68006725	663.6E6	30.414	36.571
8) B	delta-BHC	2.802	3.516	142.5E6	1388.4E6	30.838	32.598
9) MB	Aldrin	3.354	4.008	117.0E6	1081.5E6	23.730	27.338
11) B	Heptachlo...	4.036	4.772	122.7E6	1044.2E6	26.742	28.546
12) B	gamma-Chl...	4.192	5.036	122.8E6	1139.0E6	27.049m	31.785m
13) B	alpha-Chl...	4.357	5.251	123.7E6	985.1E6	27.161m	28.229
14) A	Endosulfan I	4.526	5.334	118.3E6	1051.8E6	26.400	29.771
15) B	4,4'-DDE	4.471	5.515	124.2E6	1029.5E6	25.989	27.991m
16) MA	Dieldrin	4.836	5.745	125.6E6	1095.6E6	25.873	28.600
17) MA	Endrin	5.149	6.220	120.0E6	915.2E6	28.001m	27.656m
18) A	4,4'-DDD	5.275	6.420	99697616	847.0E6	24.706	27.622m
19) B	Endosulfa...	5.457	6.558	116.5E6	918.3E6	25.716	27.266
20) MA	4,4'-DDT	5.686	6.932	107.5E6	762.8E6	26.601	28.679
21) B	Endrin Al...	6.066	7.111	93551720	677.1E6	26.793	26.444
22) B	Endosulfa...	6.734	7.565	104.4E6	827.0E6	26.645	29.800m
23) A	Methoxychlor	6.462	8.157	58302195	314.1E6	23.500	22.333
25) B	Endrin Ke...	7.163	8.488	117.4E6	880.5E6	27.163	29.347m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

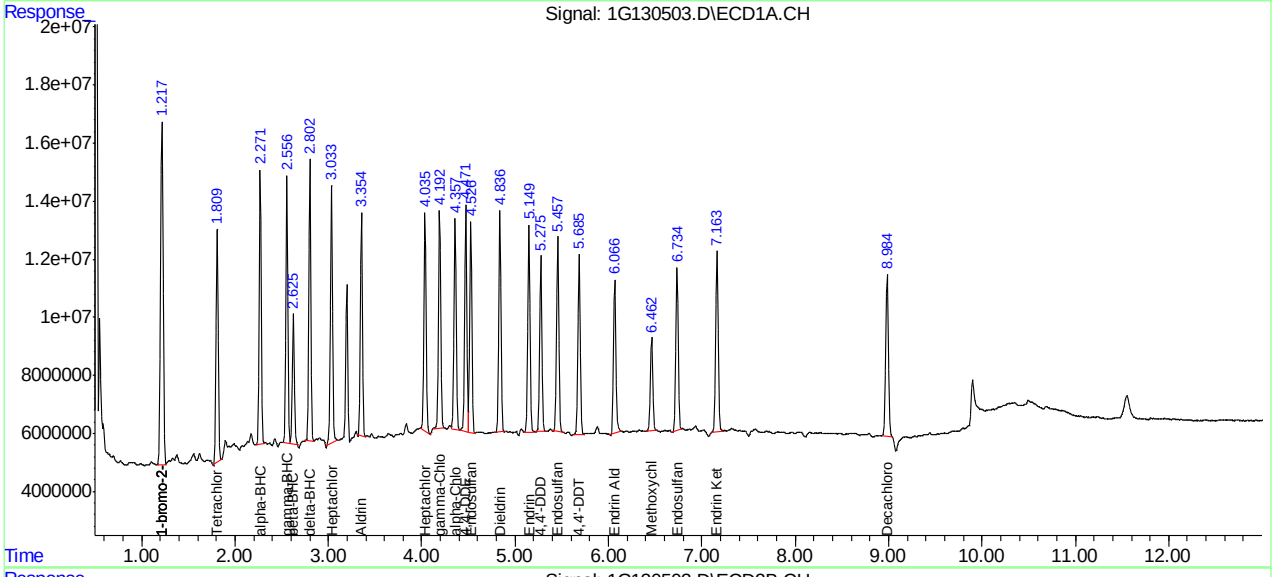
SGS ACCUTEST JC33175

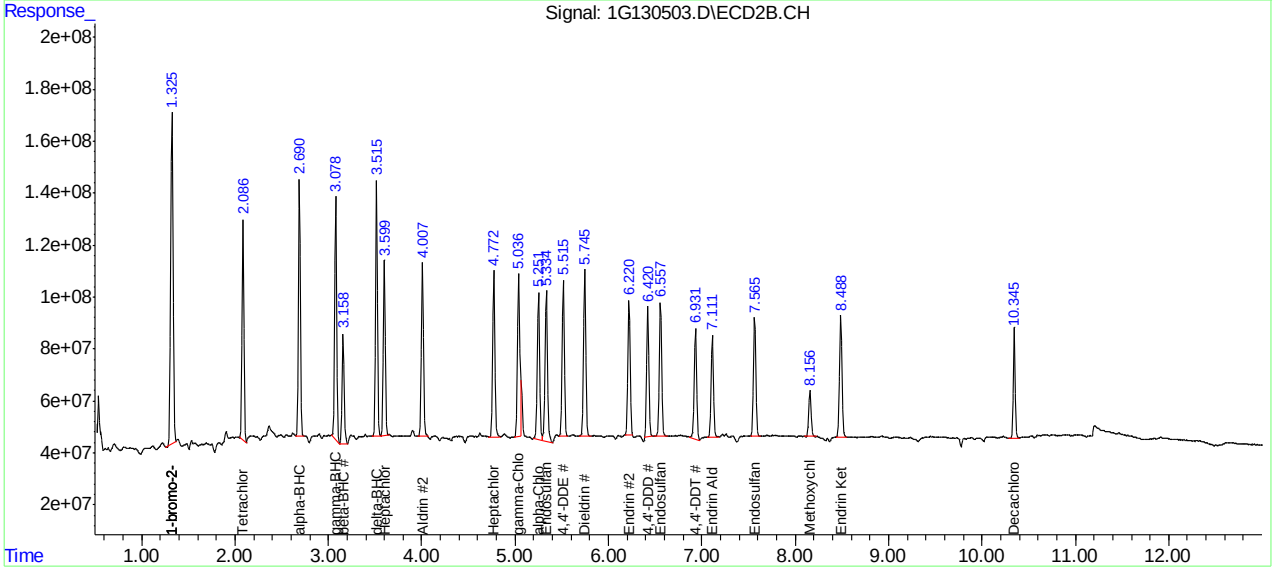
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:09 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

Sample Number:	OP99172-MS	**Method:**	SW846 8081B
Lab FileID:	1G130503.D	**Analyst approved:**	12/15/16 13:42 Dhara Saparia
Injection Time:	12/14/16 11:02	**Supervisor approved:**	12/20/16 17:54 Gwendolyn Burns

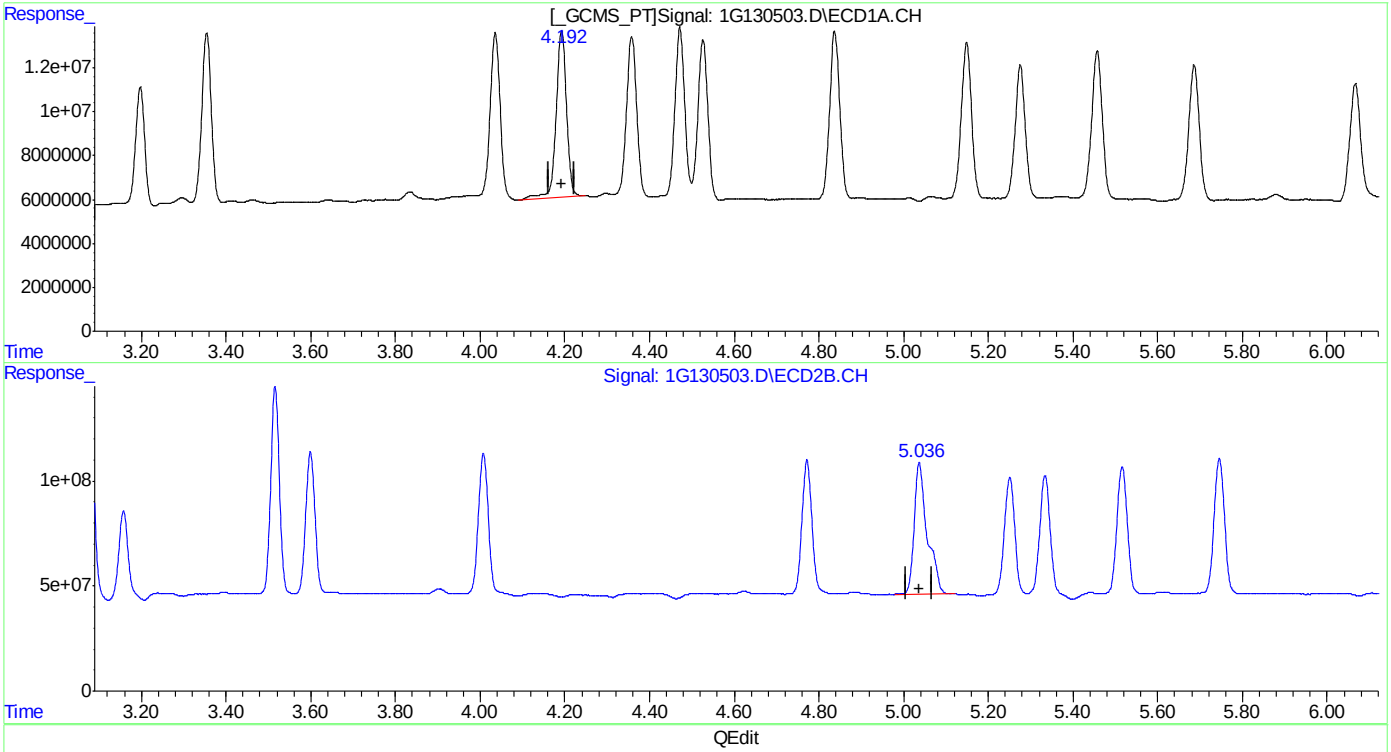
Parameter	CAS	Sig#	R.T. (min.)	Reason
gamma-Chlordane	5103-74-2	1	4.19	Poorly defined baseline
alpha-Chlordane	5103-71-9	1	4.36	Poorly defined baseline
gamma-Chlordane	5103-74-2	2	5.04	Poorly defined baseline
Endrin	72-20-8	1	5.15	Poorly defined baseline
4,4'-DDE	72-55-9	2	5.52	Poorly defined baseline
Endrin	72-20-8	2	6.22	Poorly defined baseline
4,4'-DDD	72-54-8	2	6.42	Poorly defined baseline
Endosulfan sulfate	1031-07-8	2	7.56	Poorly defined baseline
Endrin ketone	53494-70-5	2	8.49	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	8.98	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(12) gamma-Chlordane (B)
4.192min 29.056 PPB
response 131921046

(12) gamma-Chlordane #2 (B)
5.037min 37.361 PPB
response 1338843017

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:42:52 2016

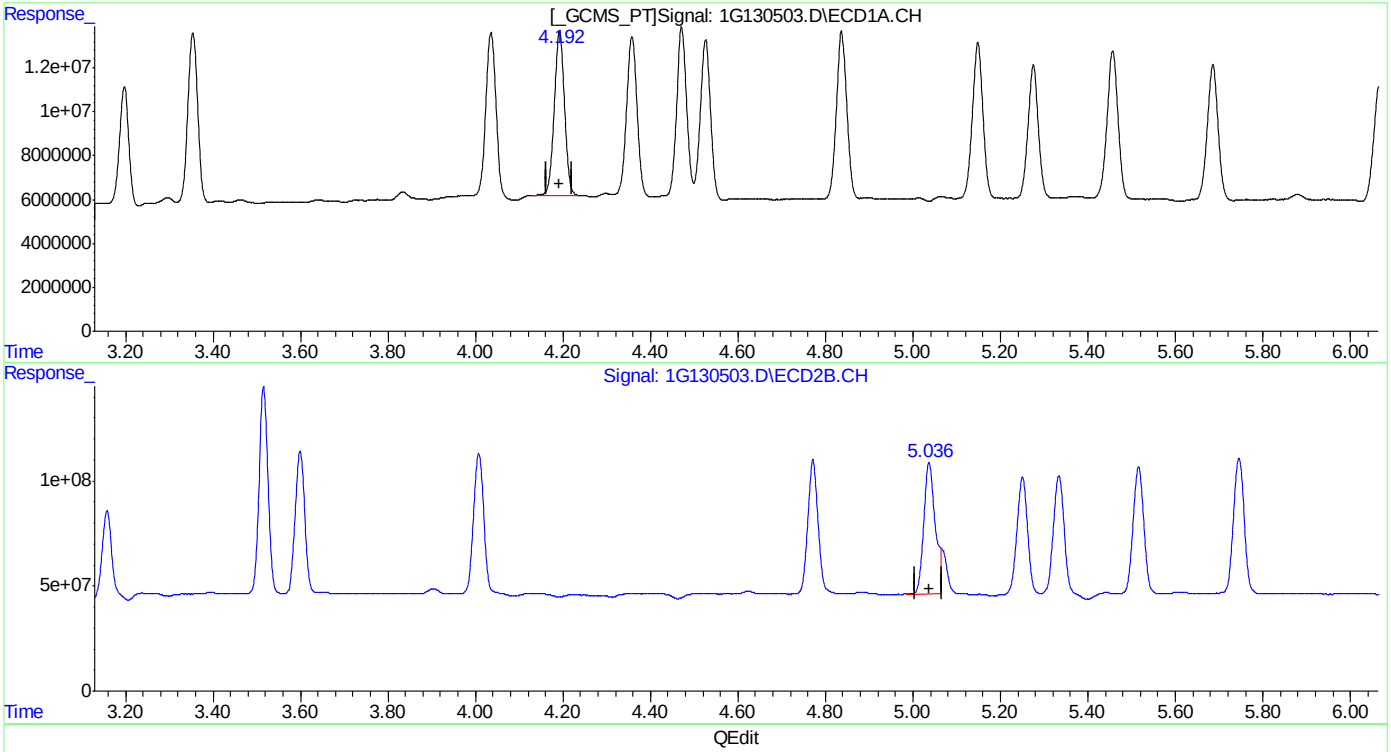
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(12) gamma-Chlordane (B)
4.192min 27.049 PPB m
response 122812762

(12) gamma-Chlordane #2 (B)
5.036min 31.785 PPB m
response 1138995541

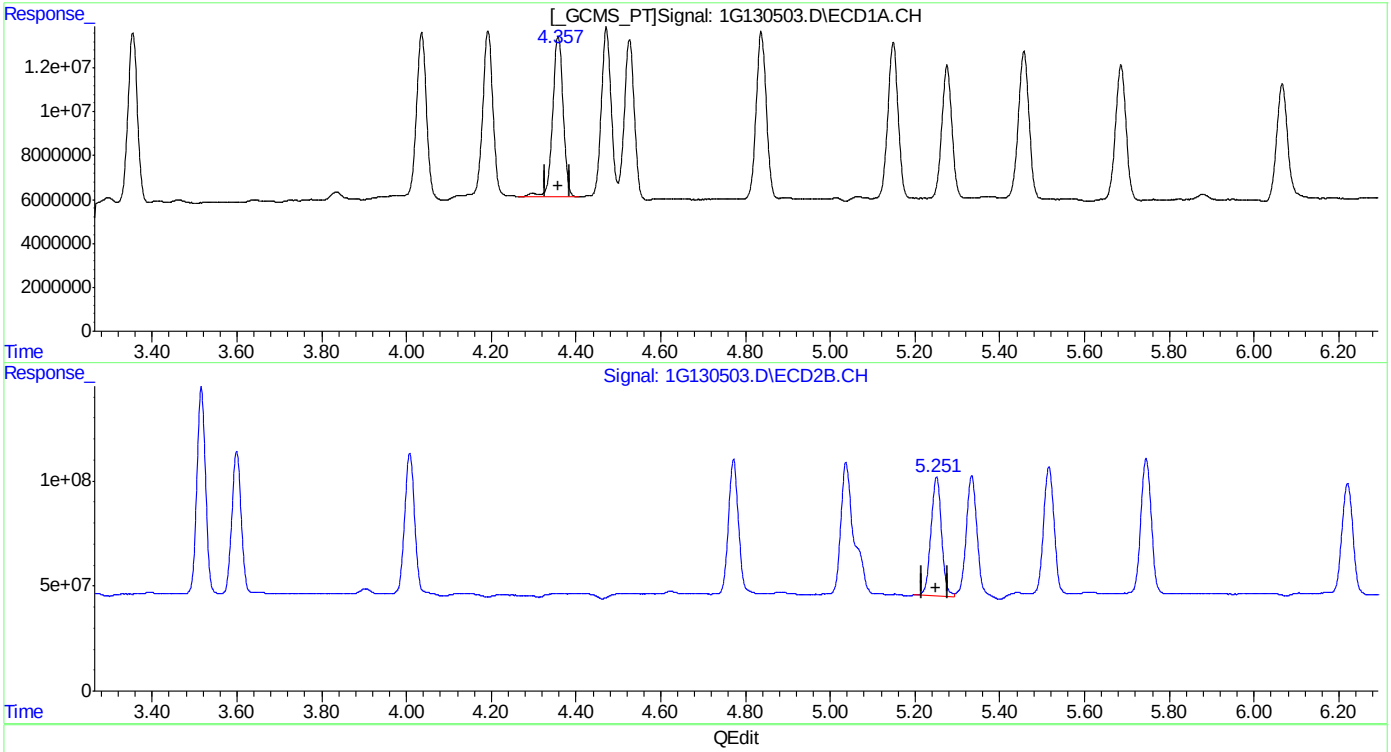
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(13) alpha-Chlordane (B)
4.358min 27.679 PPB
response 126047362

(13) alpha-Chlordane #2 (B)
5.251min 28.229 PPB
response 985132573

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:43:20 2016

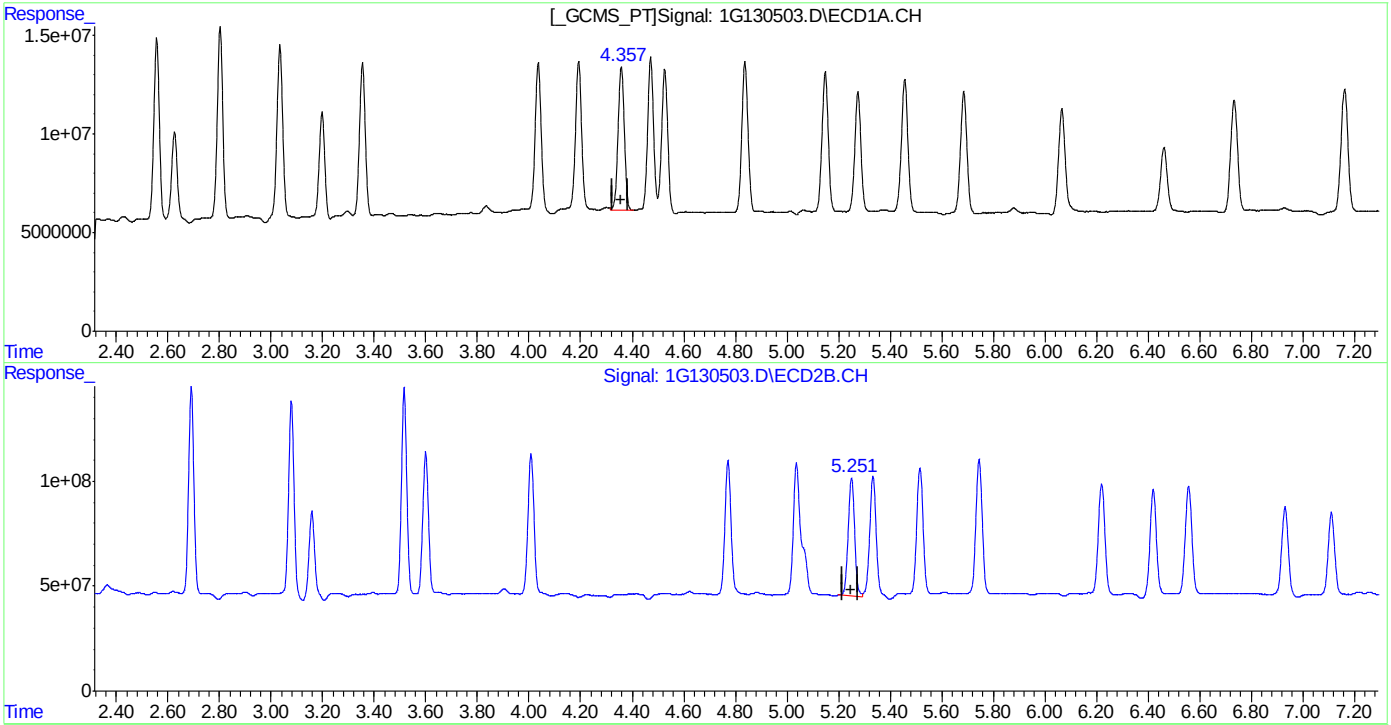
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(13) alpha-Chlordane (B)
4.357min 27.161 PPB m
response 123689108

(13) alpha-Chlordane #2 (B)
5.251min 28.229 PPB
response 985132573

(+) = Expected Retention Time

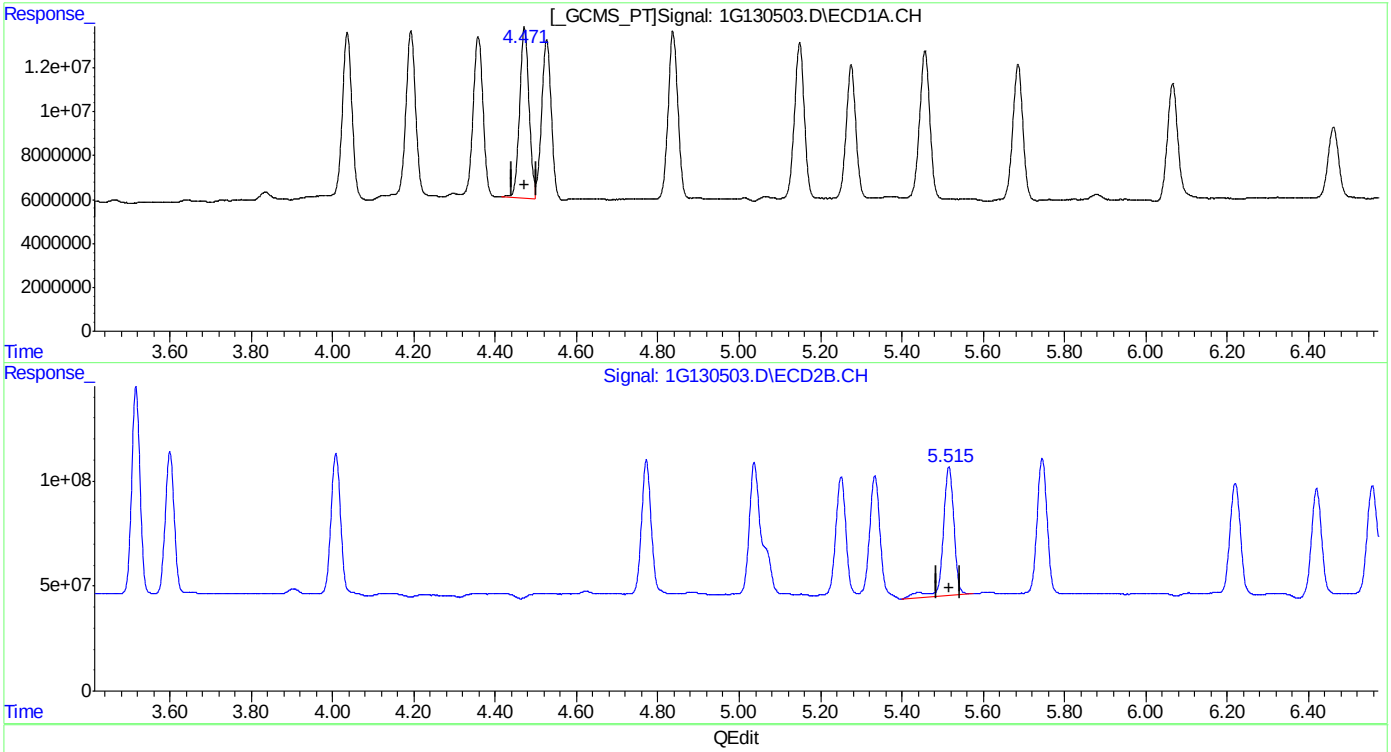
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(15) 4,4'-DDE (B)
4.471min 25.989 PPB
response 124246733

(15) 4,4'-DDE #2 (B)
5.516min 31.043 PPB
response 1141752776

(+) = Expected Retention Time

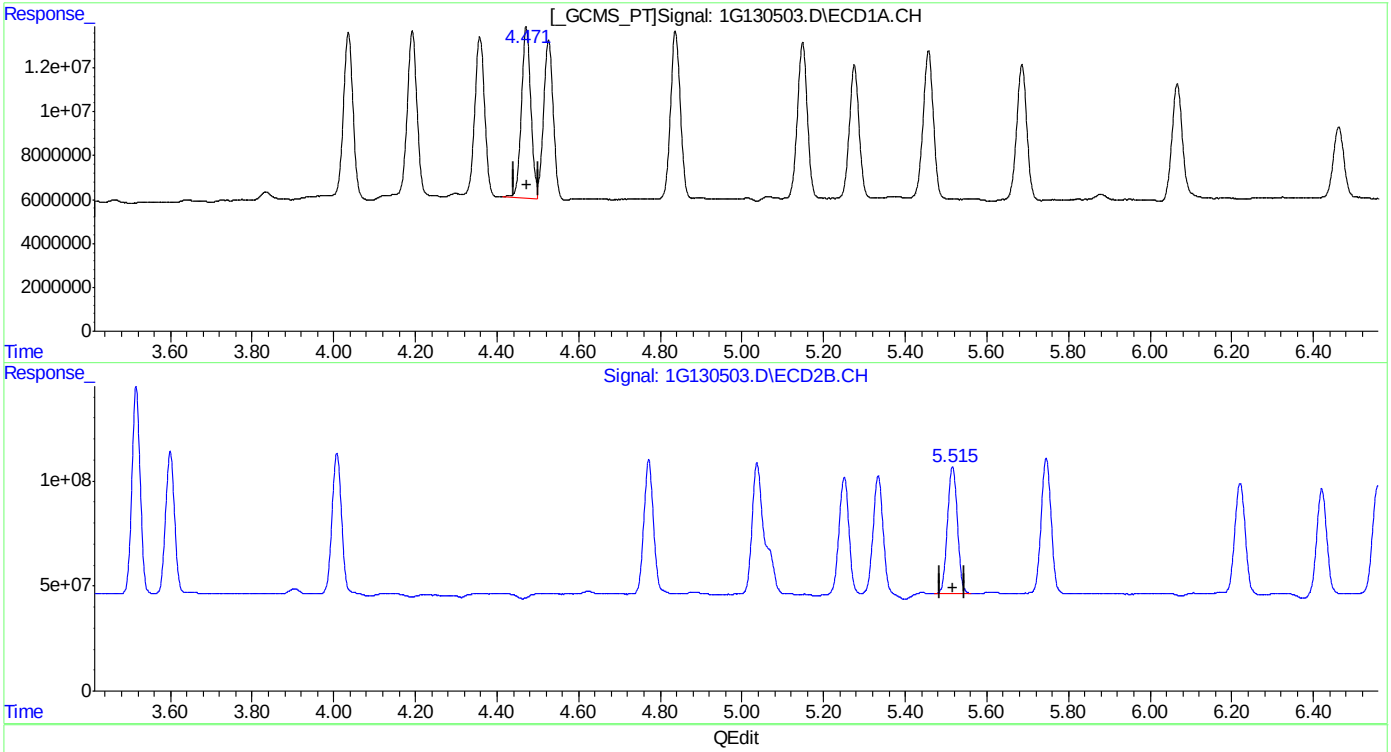
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(15) 4,4'-DDE (B)
4.471min 25.989 PPB
response 124246733

(15) 4,4'-DDE #2 (B)
5.515min 27.991 PPB m
response 1029527897

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:43:45 2016

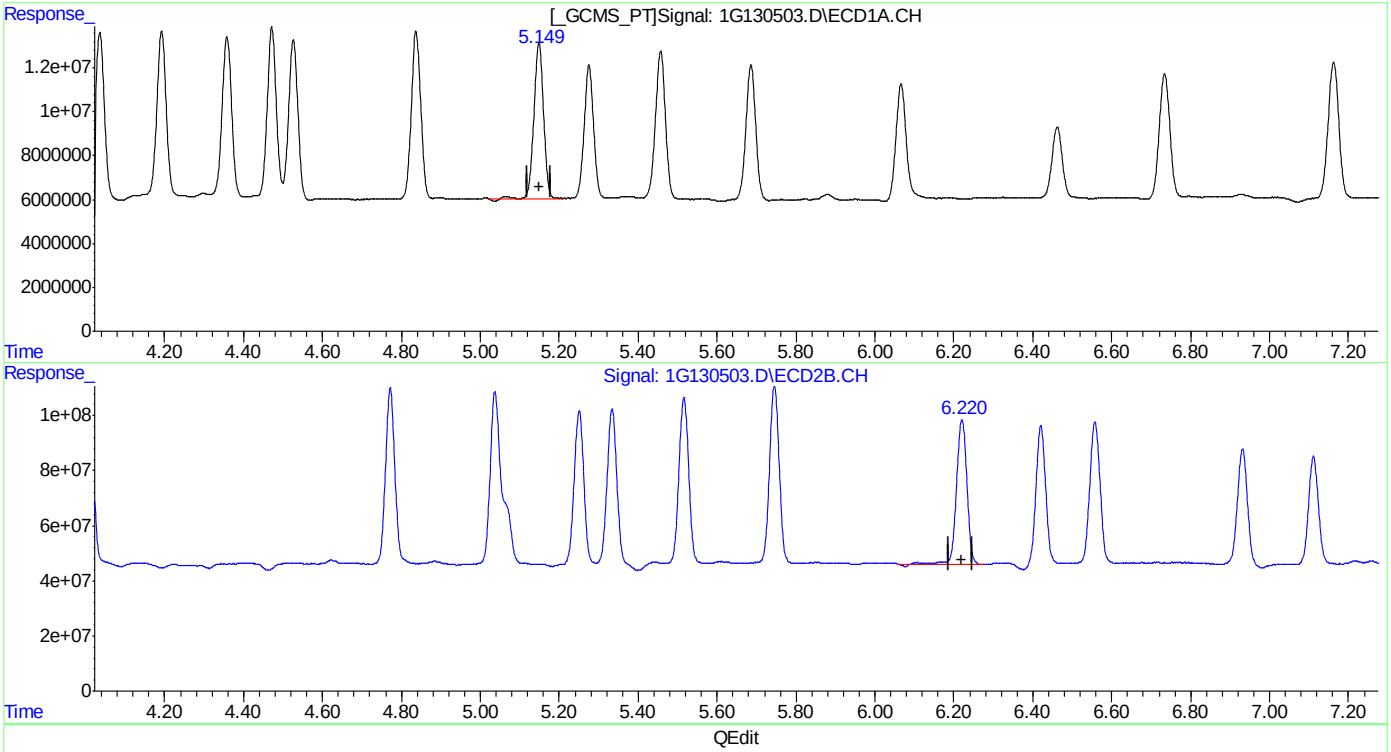
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(17) Endrin (MA)
5.149min 28.328 PPB
response 121398852

(17) Endrin #2 (MA)
6.220min 29.600 PPB
response 979473555

(+) = Expected Retention Time

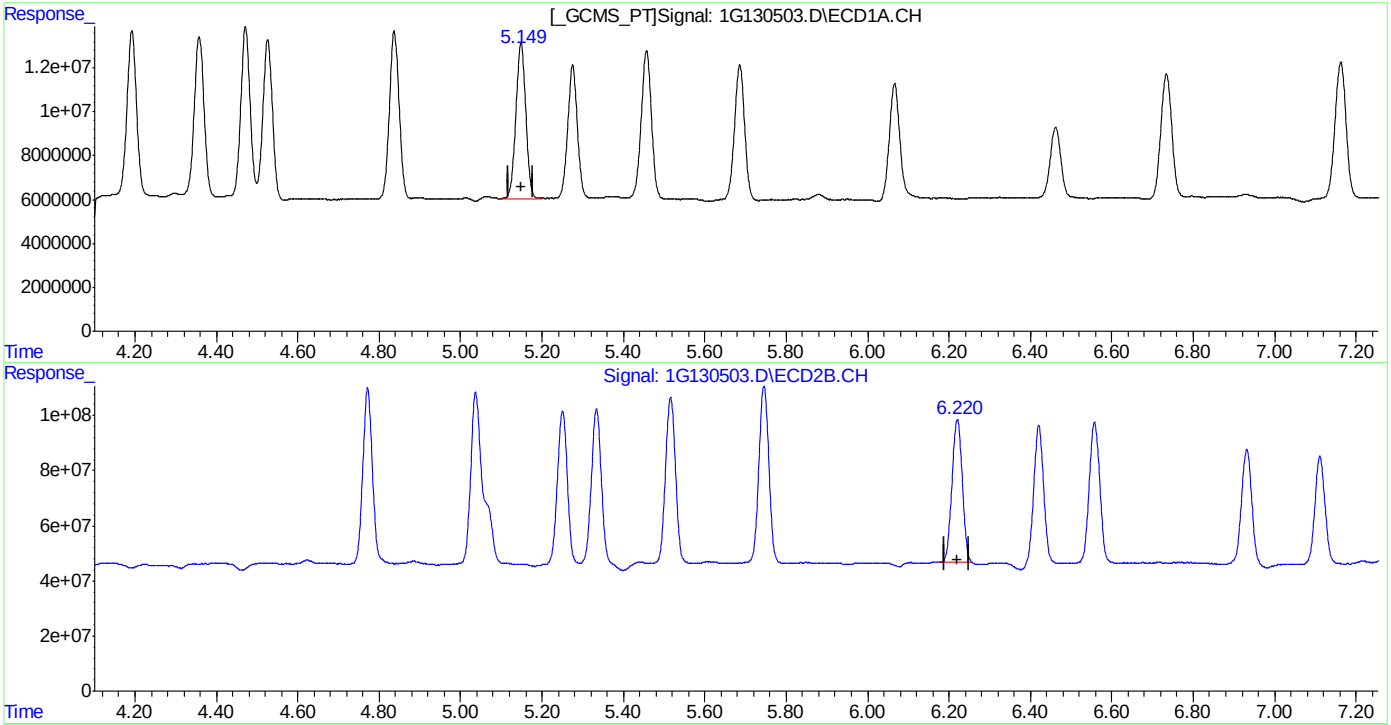
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(17) Endrin (MA)
5.149min 28.001 PPB m
response 119998603

(17) Endrin #2 (MA)
6.220min 27.656 PPB m
response 915160175

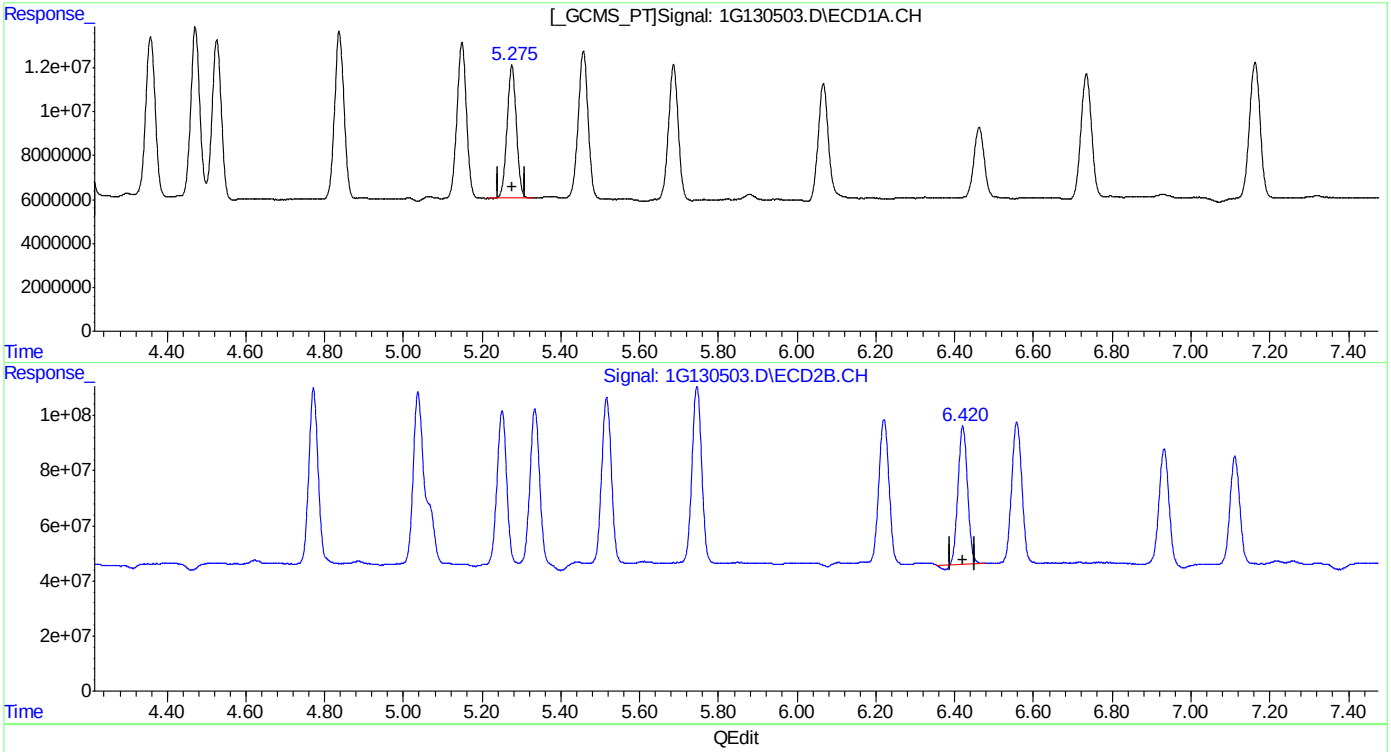
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDD (A)
5.275min 24.706 PPB
response 99697616

(18) 4,4'-DDD #2 (A)
6.420min 27.113 PPB
response 831377780

(+) = Expected Retention Time

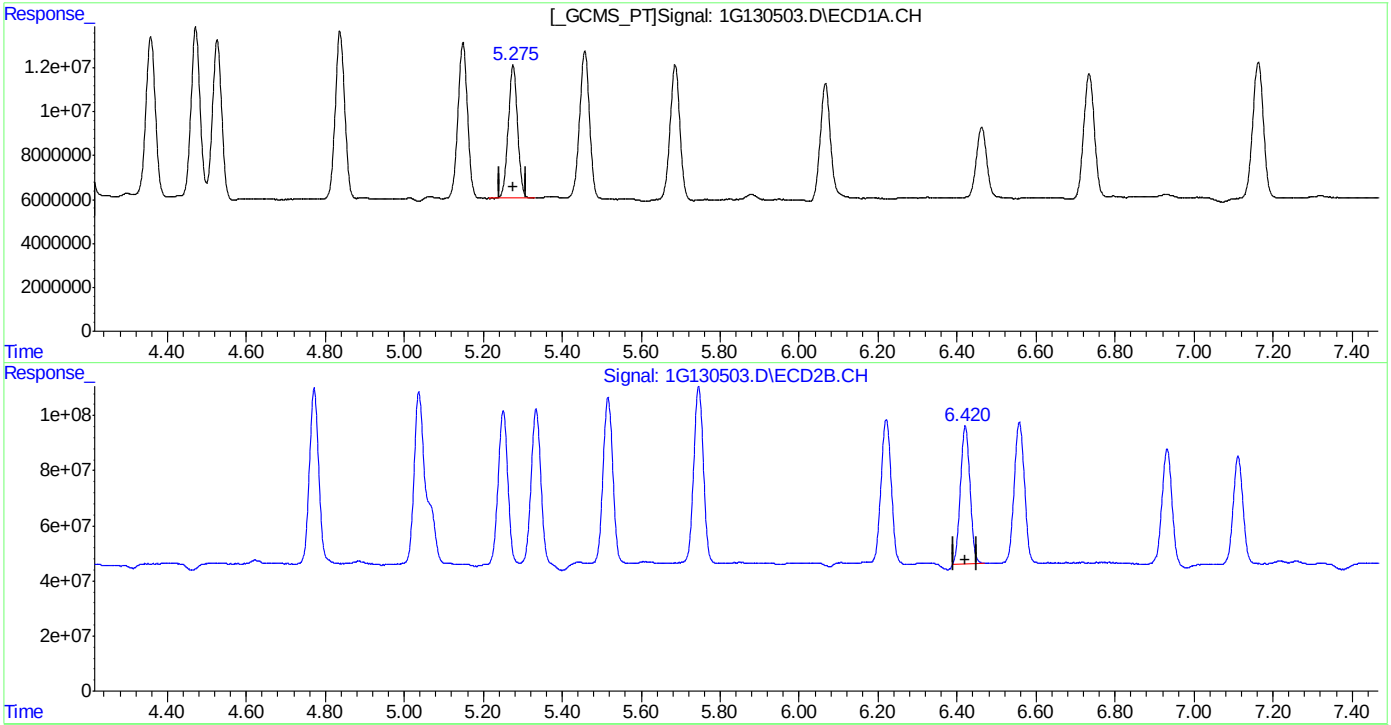
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(18) 4,4'-DDD (A)
5.275min 24.706 PPB
response 99697616

(18) 4,4'-DDD #2 (A)
6.420min 27.622 PPB m
response 846976830

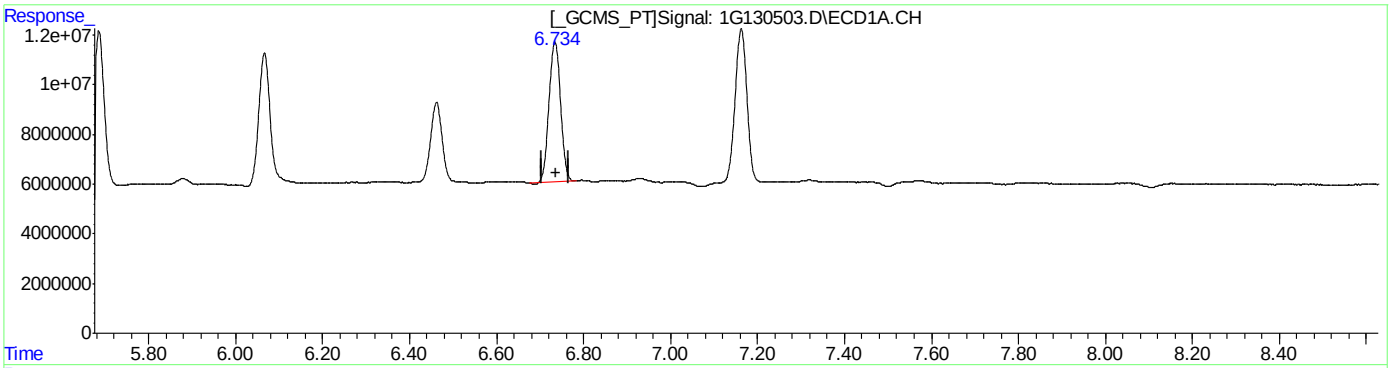
(+) = Expected Retention Time

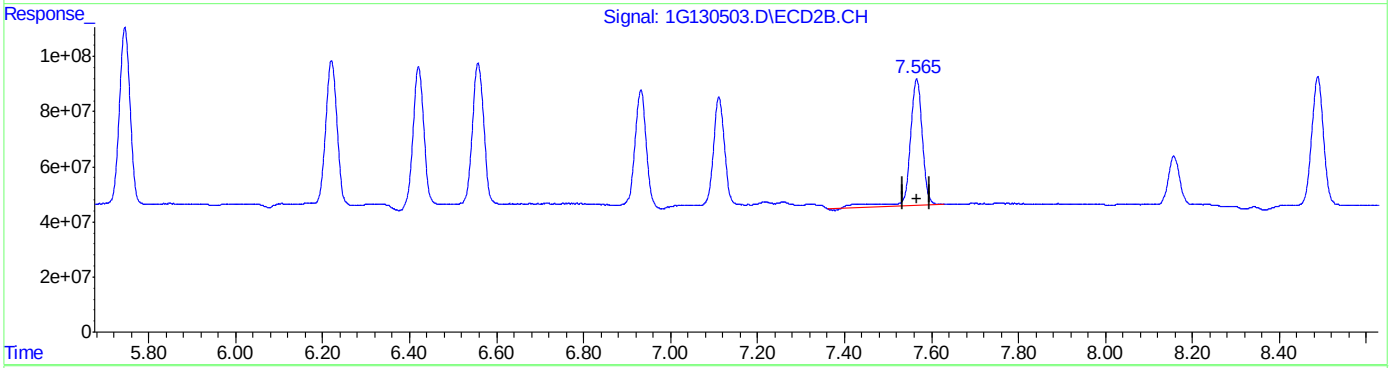
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(22) Endosulfan Sulfate (B)
6.734min 26.645 PPB
response 104376717

(22) Endosulfan Sulfate #2 (B)
7.566min 33.169 PPB
response 920507690

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:44:36 2016

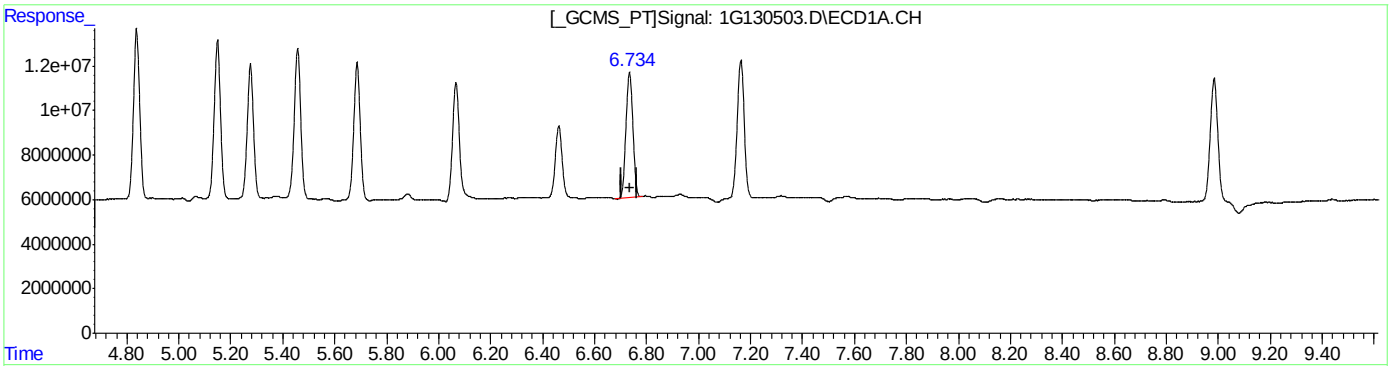
SGS ACCUTEST JC33175

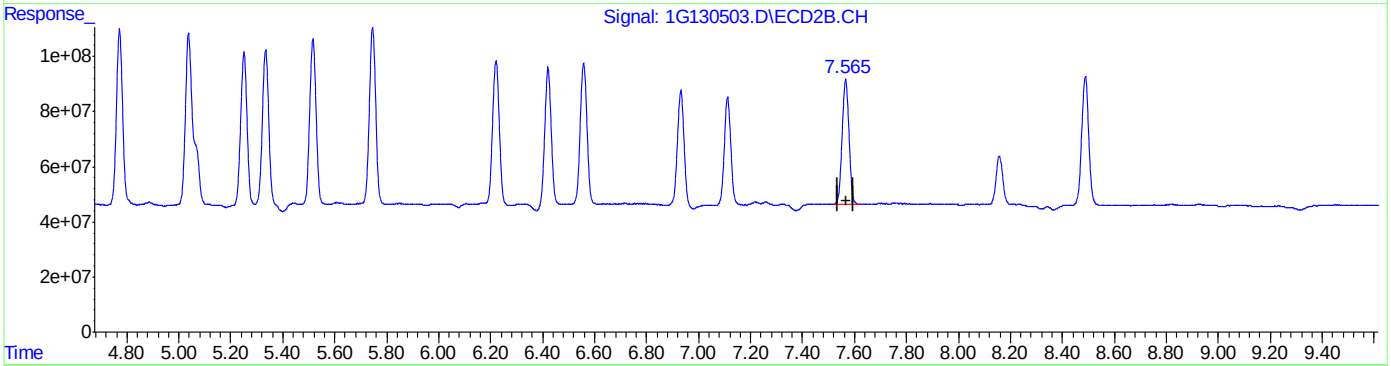
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(22) Endosulfan Sulfate (B)
6.734min 26.645 PPB
response 104376717

(22) Endosulfan Sulfate #2 (B)
7.565min 29.800 PPB m
response 826989844

(+) = Expected Retention Time

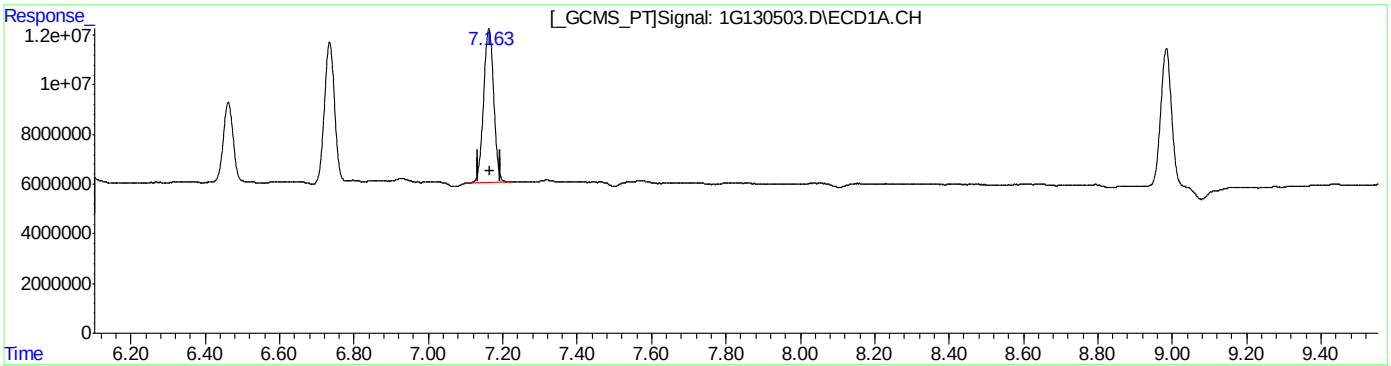
SGS ACCUTEST JC33175

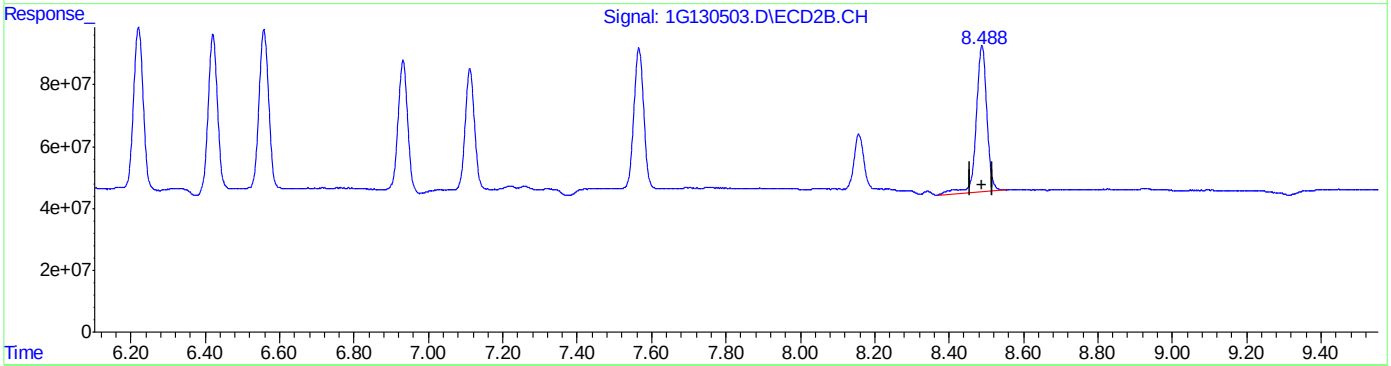
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)
7.163min 27.163 PPB
response 117370705

(25) Endrin Ketone #2 (B)
8.488min 31.954 PPB
response 958719604

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:44:51 2016

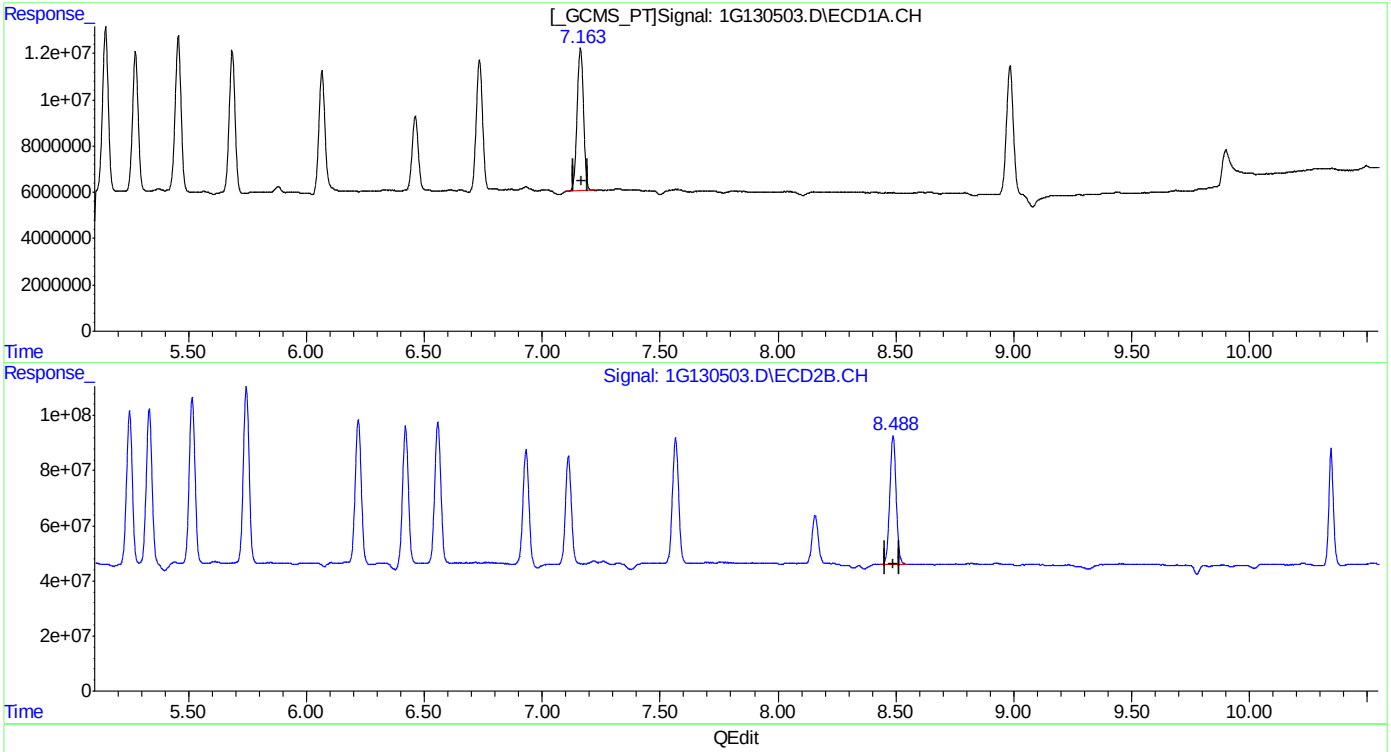
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(25) Endrin Ketone (B)
7.163min 27.163 PPB
response 117370705

(25) Endrin Ketone #2 (B)
8.488min 29.347 PPB m
response 880518416

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:45:00 2016

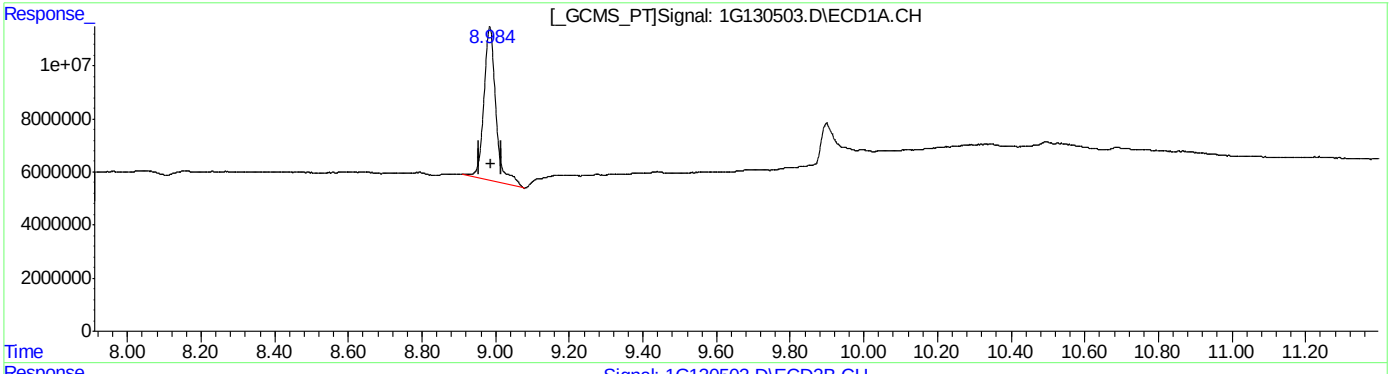
SGS ACCUTEST JC33175

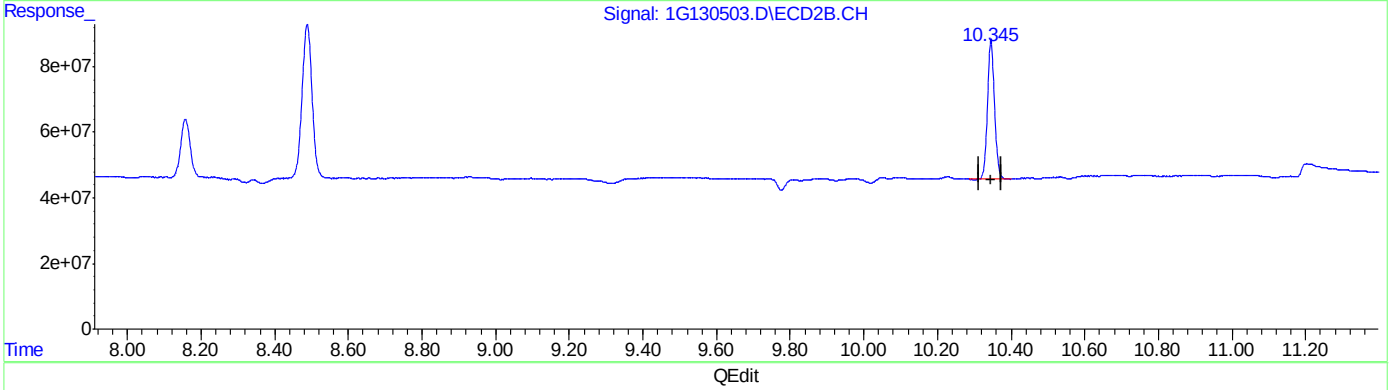
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(26) Decachlorobiphenyl (SA)
8.984min 24.382 PPB
response 131835269

(26) Decachlorobiphenyl #2 (SA)
10.345min 21.524 PPB
response 566701393

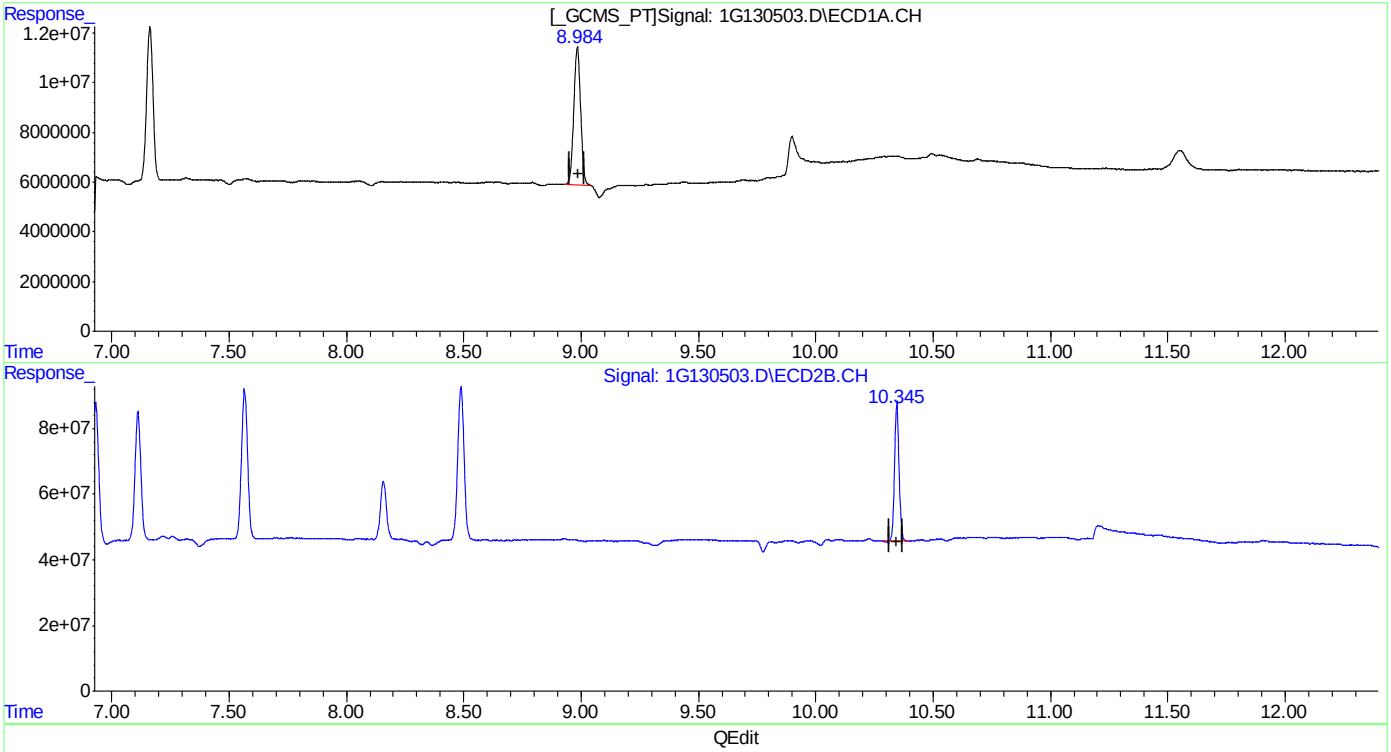
(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:45:03 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130503.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:02 am
Operator : kristend
Sample : op99172-ms
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:42:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(26) Decachlorobiphenyl (SA)
8.984min 20.788 PPB m
response 112401951

(26) Decachlorobiphenyl #2 (SA)
10.345min 21.524 PPB
response 566701393

(+) = Expected Retention Time

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/20/16 17:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:47:25 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.218	1.325	244.5E6	2446.5E6	50.000	50.000
27) I	1-bromo-2...	1.218	1.325	244.5E6	2446.5E6	50.000	50.000
33) I	1-bromo-2...	1.218	1.325	244.5E6	2446.5E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.809	2.086	125.8E6	1137.8E6	31.553	30.859
Spiked Amount		40.000 Range	30 - 150	Recovery	=	78.88%	77.15%
26) SA	Decachlor...	8.983	10.347	103.2E6	520.9E6	18.449m	19.020
Spiked Amount		40.000		Recovery	=	46.12%	47.55%
	Target Compounds						
4) A	alpha-BHC	2.271	2.690	133.7E6	1327.6E6	24.017	24.806m
5) MA	gamma-BHC	2.556	3.078	127.0E6	1273.3E6	24.748	27.456
6) MA	Heptachlor	3.034	3.599	123.7E6	980.2E6	23.524	23.894
7) B	beta-BHC	2.625	3.158	62861049	593.1E6	27.165	31.423
8) B	delta-BHC	2.802	3.517	132.8E6	1312.0E6	27.756	29.614
9) MB	Aldrin	3.354	4.008	107.5E6	995.2E6	21.080	24.185
11) B	Heptachlo...	4.036	4.772	117.4E6	983.6E6	24.734	25.851
12) B	gamma-Chl...	4.192	5.039	111.4E6	1051.2E6	23.700	28.203m
13) B	alpha-Chl...	4.359	5.250	111.1E6	941.1E6	23.582	25.926
14) A	Endosulfan I	4.527	5.334	109.6E6	962.7E6	23.642	26.196
15) B	4,4'-DDE	4.472	5.517	114.1E6	948.0E6	23.063	24.781m
16) MA	Dieldrin	4.838	5.746	116.6E6	1024.2E6	23.215	25.703
17) MA	Endrin	5.148	6.220	109.8E6	943.5E6	24.762	27.412
18) A	4,4'-DDD	5.275	6.421	92335405	806.4E6	22.110	25.282
19) B	Endosulfa...	5.456	6.558	109.1E6	866.9E6	23.255	24.746
20) MA	4,4'-DDT	5.686	6.932	92253278	643.9E6	22.059	23.275
21) B	Endrin Al...	6.067	7.113	91946770	709.1E6	25.445	26.625
22) B	Endosulfa...	6.735	7.566	96585438	777.5E6	23.825	26.935
23) A	Methoxychlor	6.461	8.158	53995096	304.6E6	21.030	20.819
25) B	Endrin Ke...	7.163	8.488	109.2E6	824.4E6	24.430	26.416m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

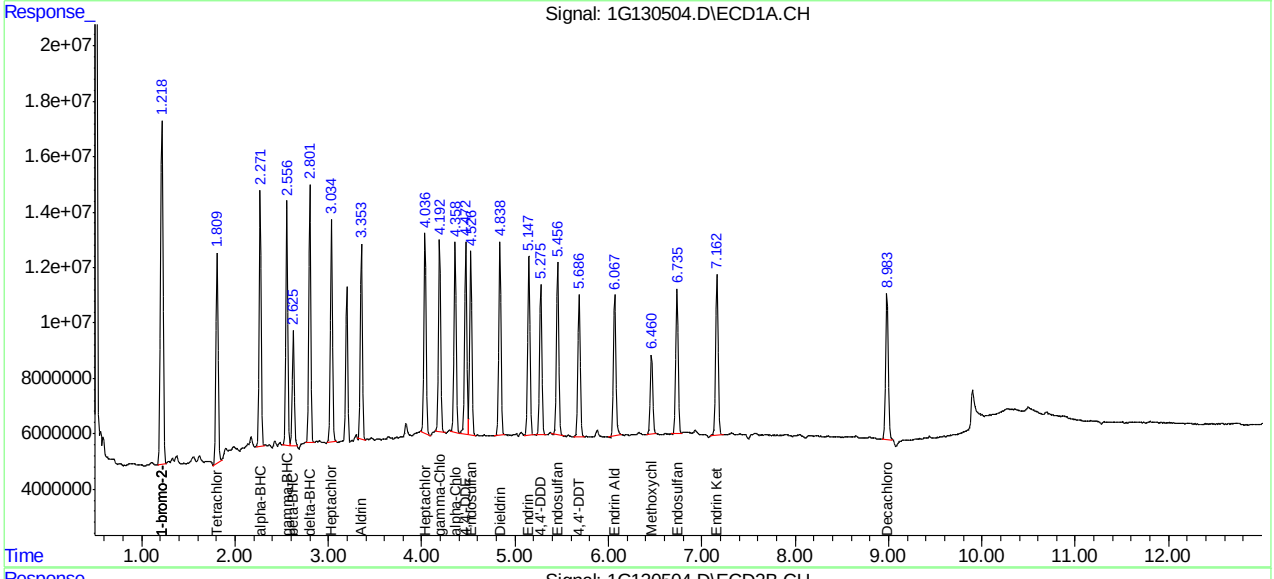
SGS ACCUTEST JC33175

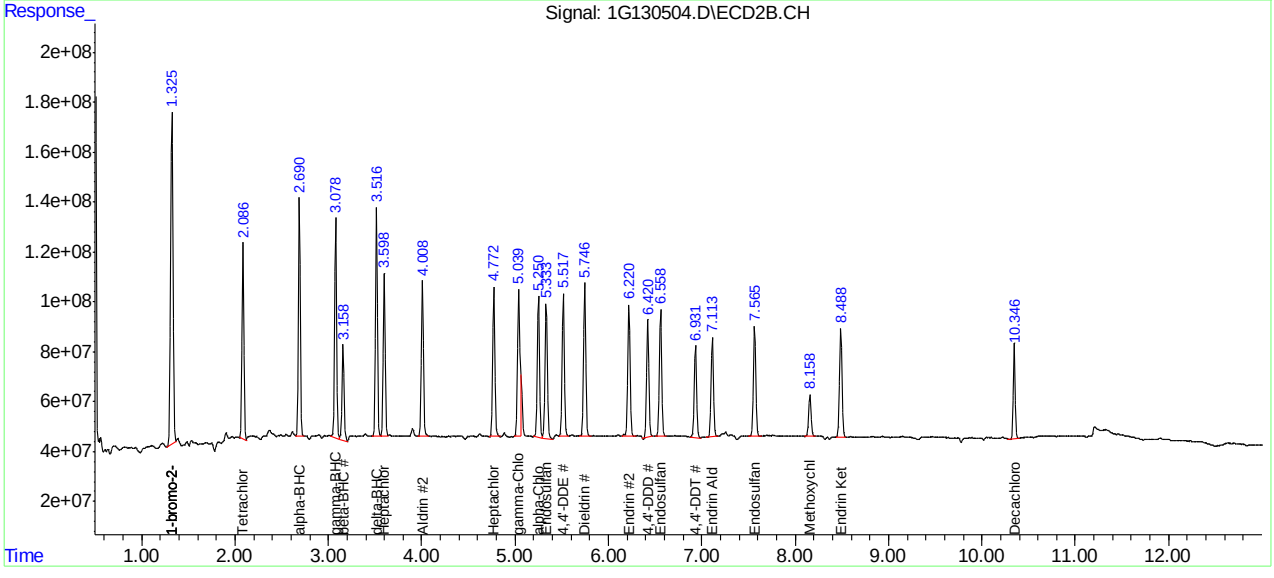
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:47:25 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

Sample Number:	OP99172-MSD	**Method:**	SW846 8081B
Lab FileID:	1G130504.D	**Analyst approved:**	12/15/16 13:42 Dhara Saparia
Injection Time:	12/14/16 11:19	**Supervisor approved:**	12/20/16 17:54 Gwendolyn Burns

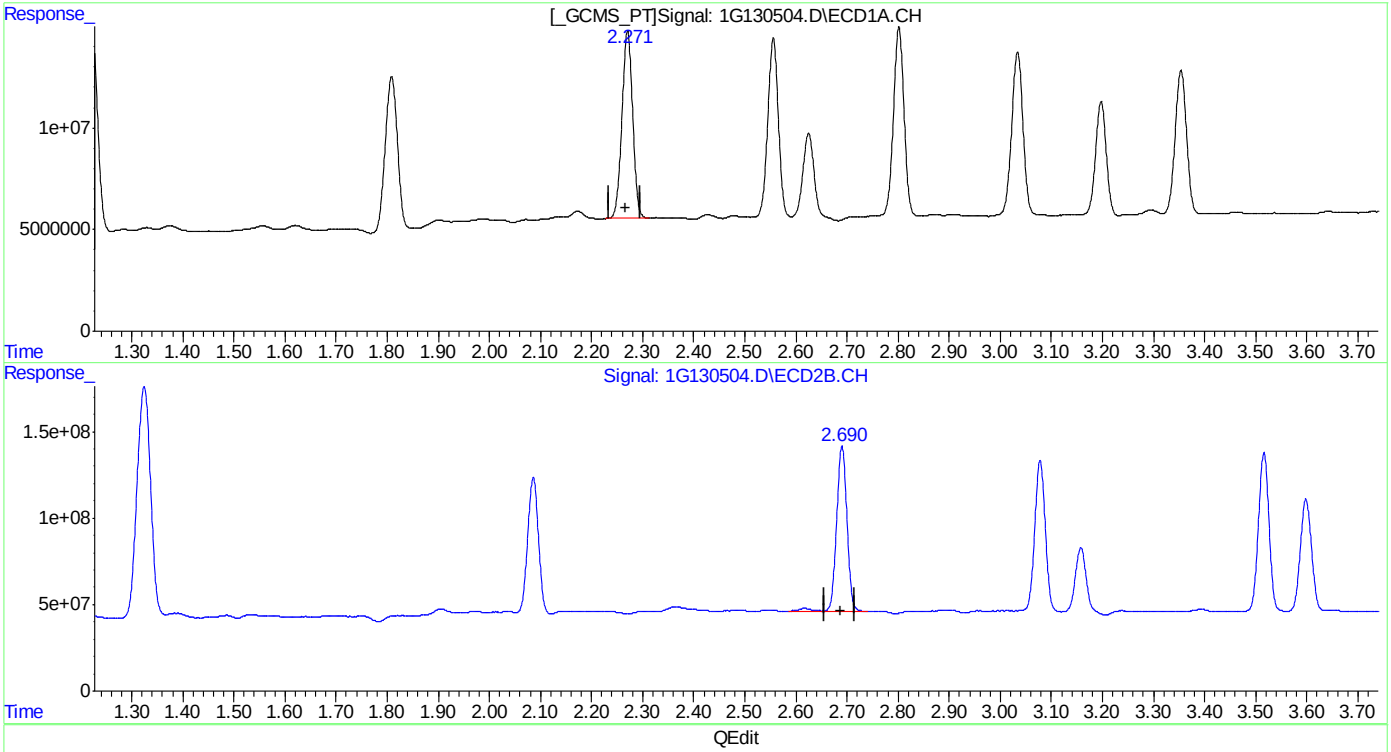
Parameter	CAS	Sig#	R.T. (min.)	Reason
alpha-BHC	319-84-6	2	2.69	Poorly defined baseline
gamma-Chlordane	5103-74-2	2	5.04	Poorly defined baseline
4,4'-DDE	72-55-9	2	5.52	Poorly defined baseline
Endrin ketone	53494-70-5	2	8.49	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	8.98	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(4) alpha-BHC (A)
2.271min 24.017 PPB
response 133652814

(4) alpha-BHC #2 (A)
2.690min 25.320 PPB
response 1355102831

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:45:53 2016

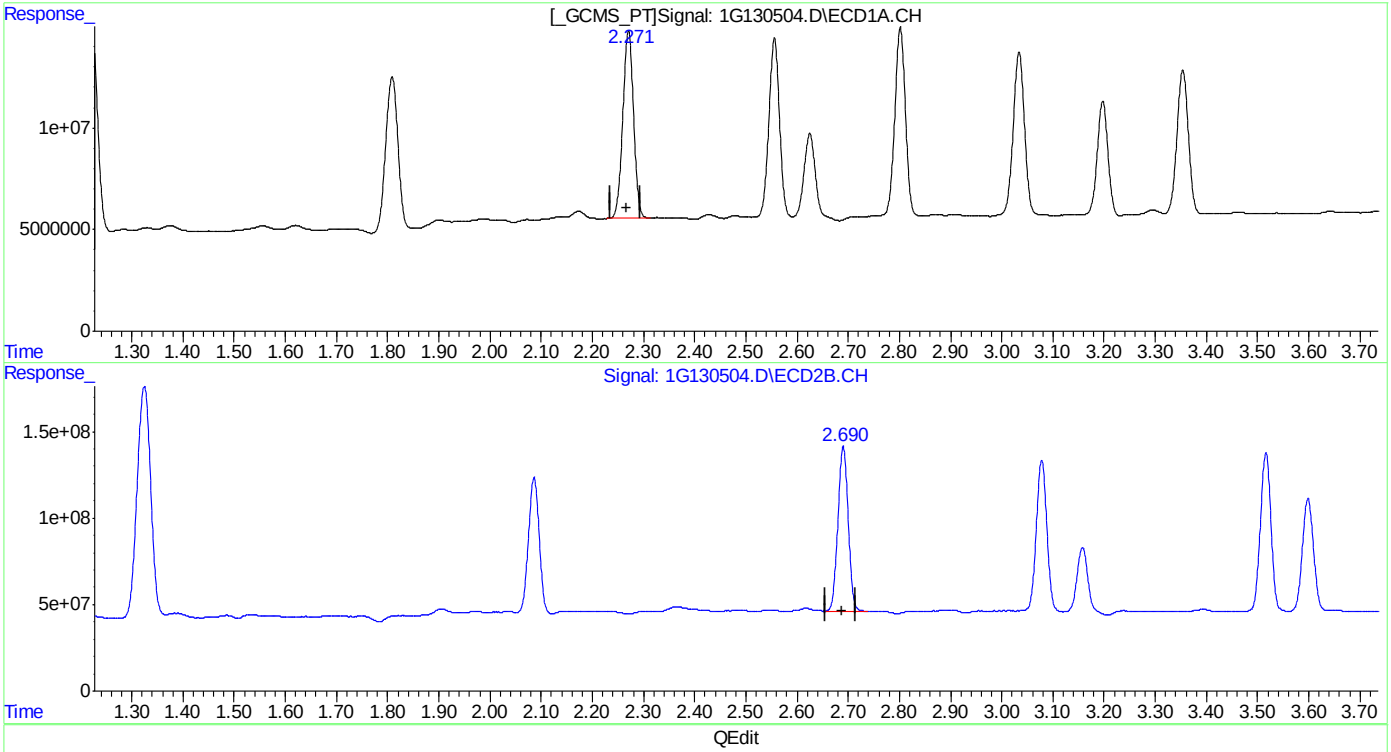
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(4) alpha-BHC (A)
2.271min 24.017 PPB
response 133652814

(4) alpha-BHC #2 (A)
2.690min 24.806 PPB m
response 1327632627

(+) = Expected Retention Time

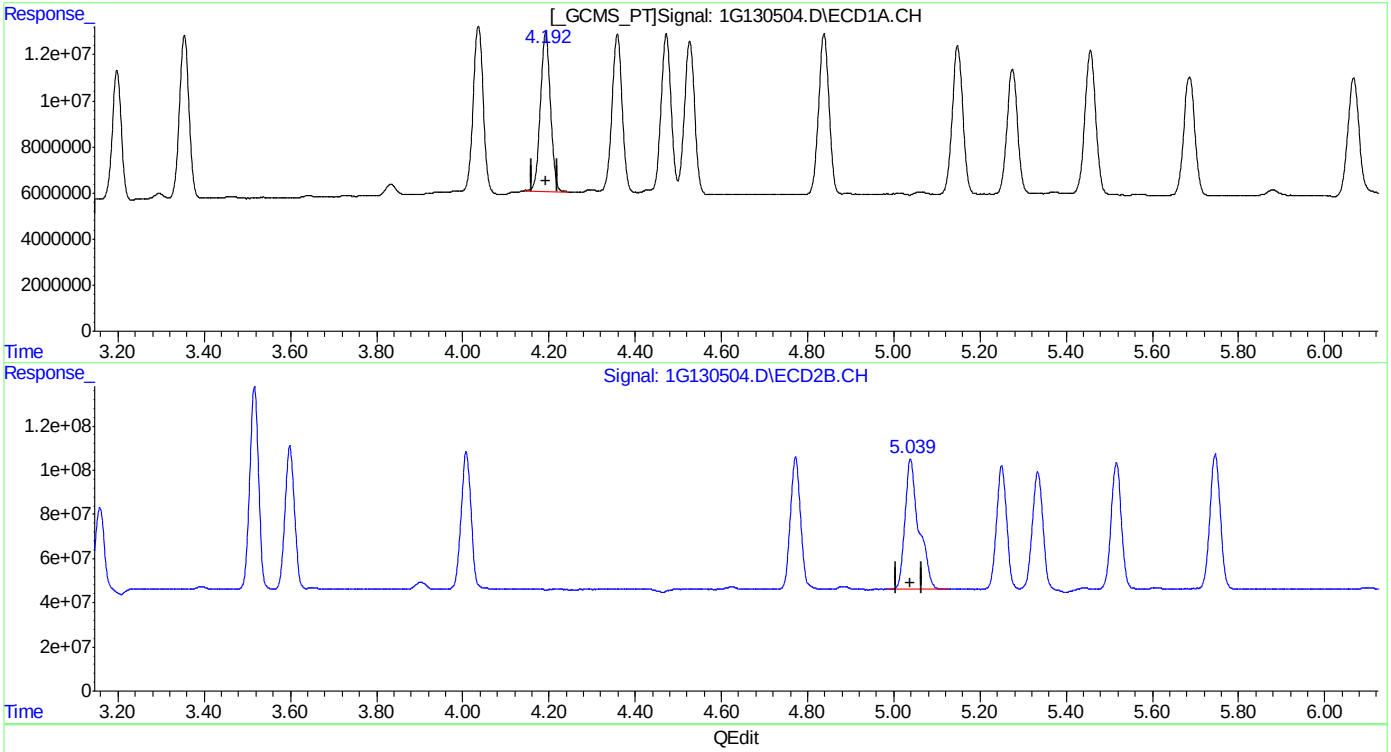
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(12) gamma-Chlordane (B)
4.192min 23.700 PPB
response 111359318

(12) gamma-Chlordane #2 (B)
5.039min 35.445 PPB
response 1321178715

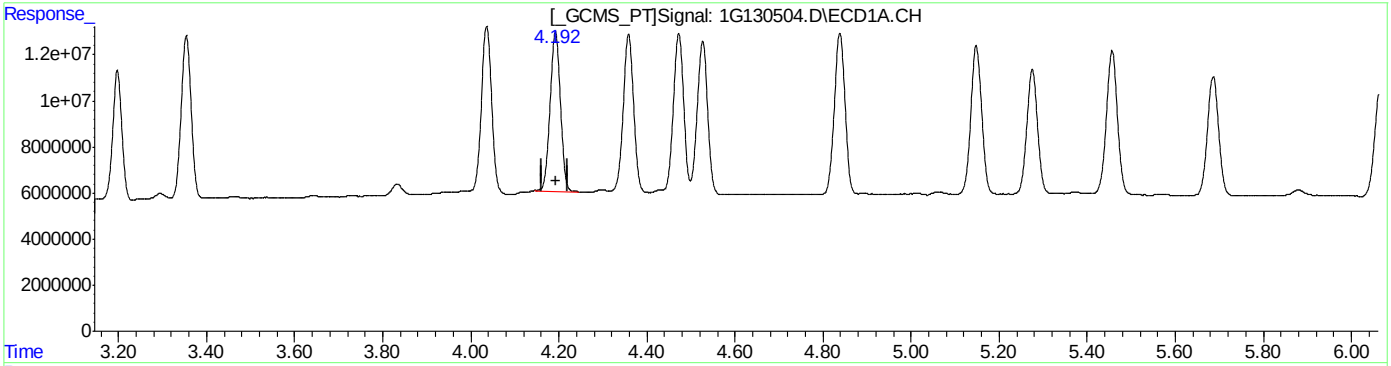
(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:46:18 2016

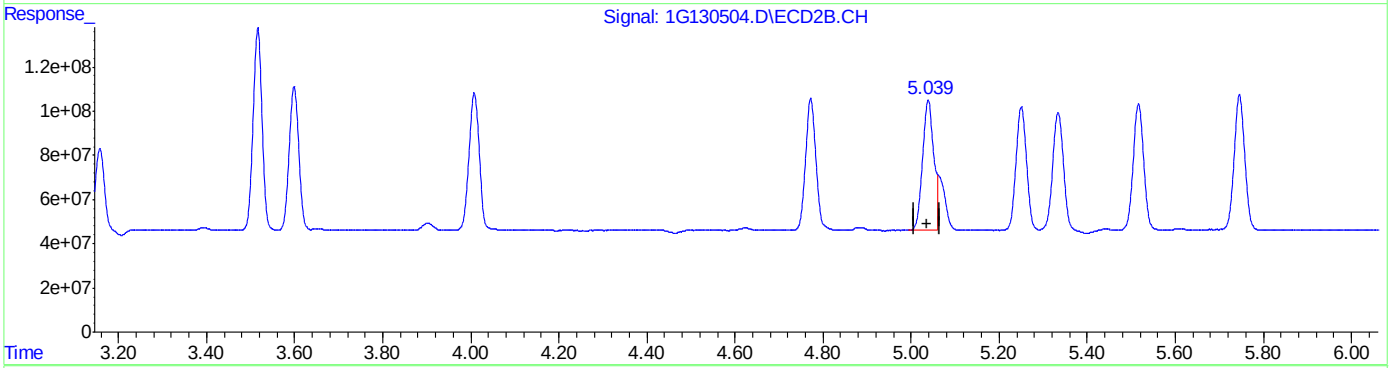
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(12) gamma-Chlordane (B)
4.192min 23.700 PPB
response 111359318

(12) gamma-Chlordane #2 (B)
5.039min 28.203 PPB m
response 1051229077

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:46:37 2016

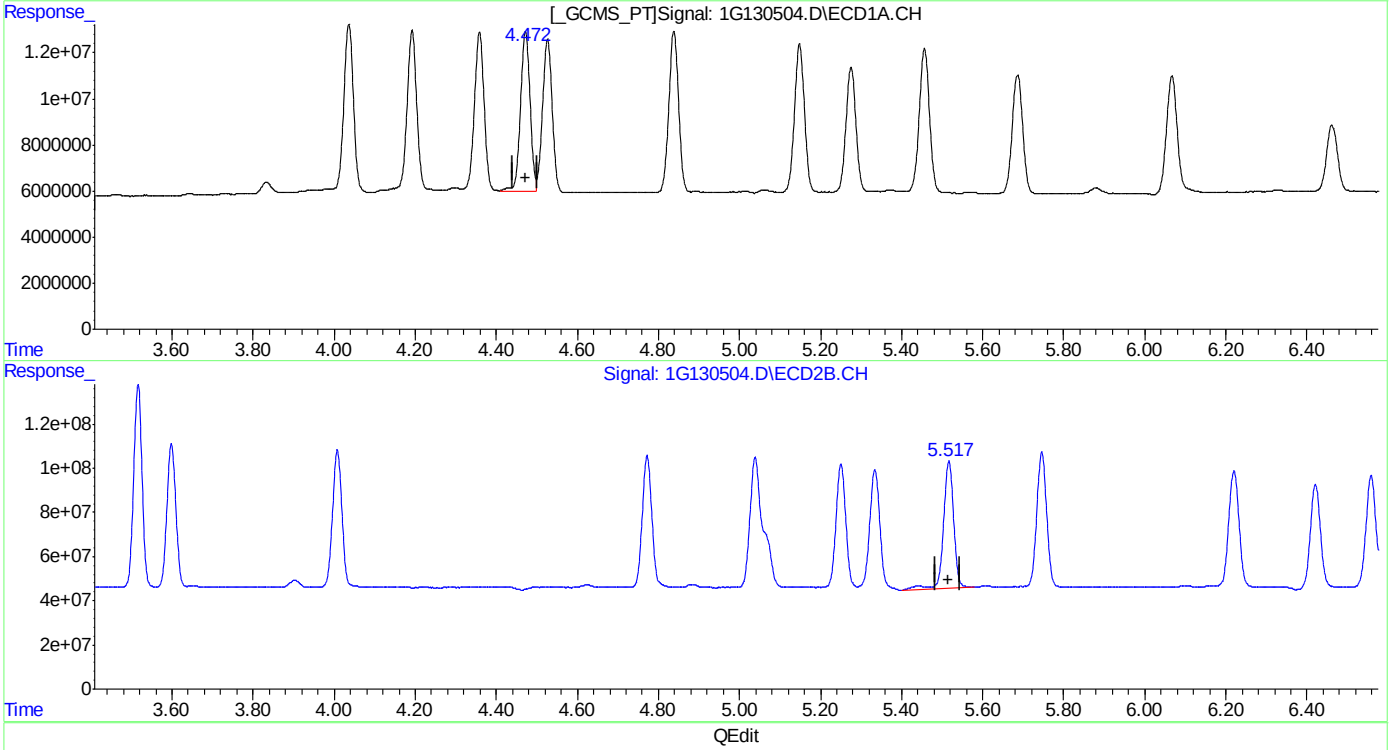
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(15) 4,4'-DDE (B)
4.472min 23.063 PPB
response 114106053

(15) 4,4'-DDE #2 (B)
5.517min 26.564 PPB
response 1016258080

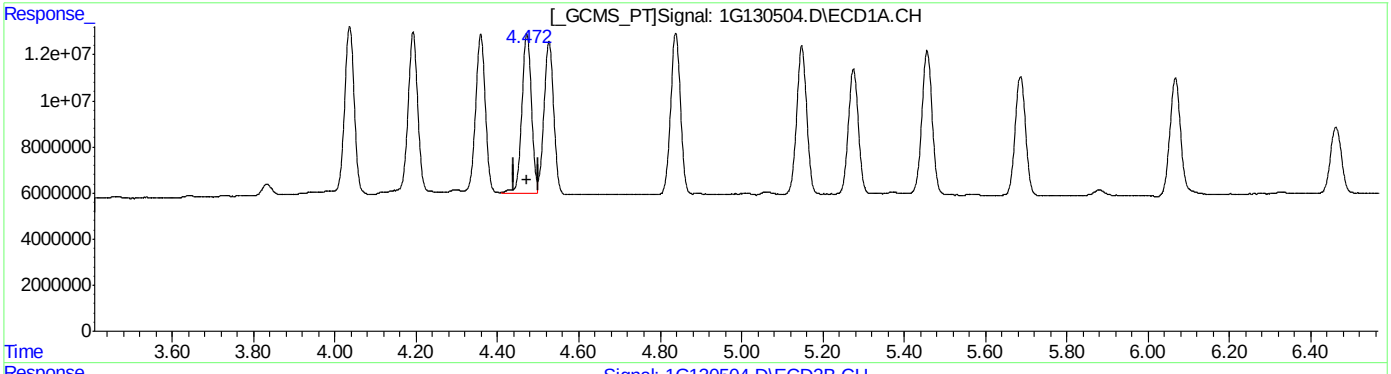
(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:46:43 2016

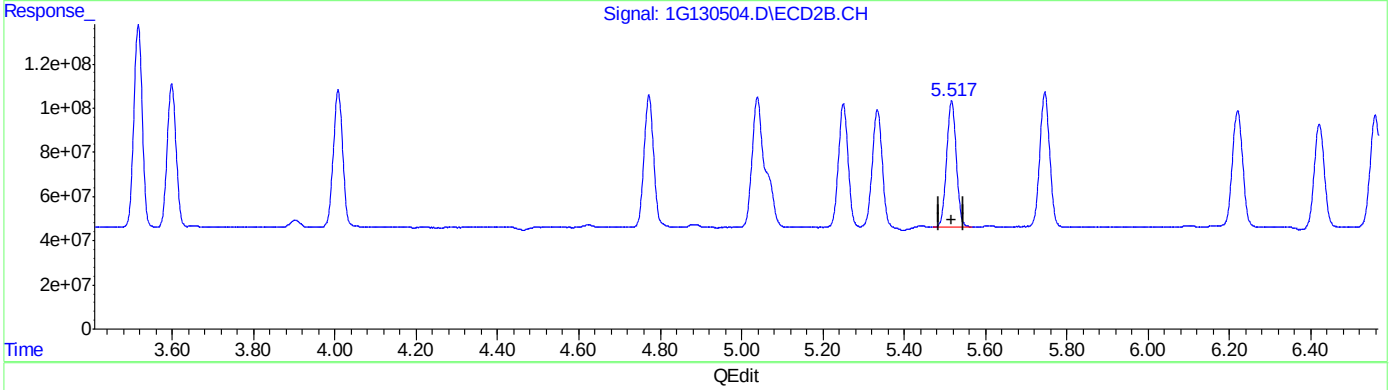
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)
4.472min 23.063 PPB
response 114106053

(15) 4,4'-DDE #2 (B)
5.517min 24.781 PPB m
response 948044379

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:46:54 2016

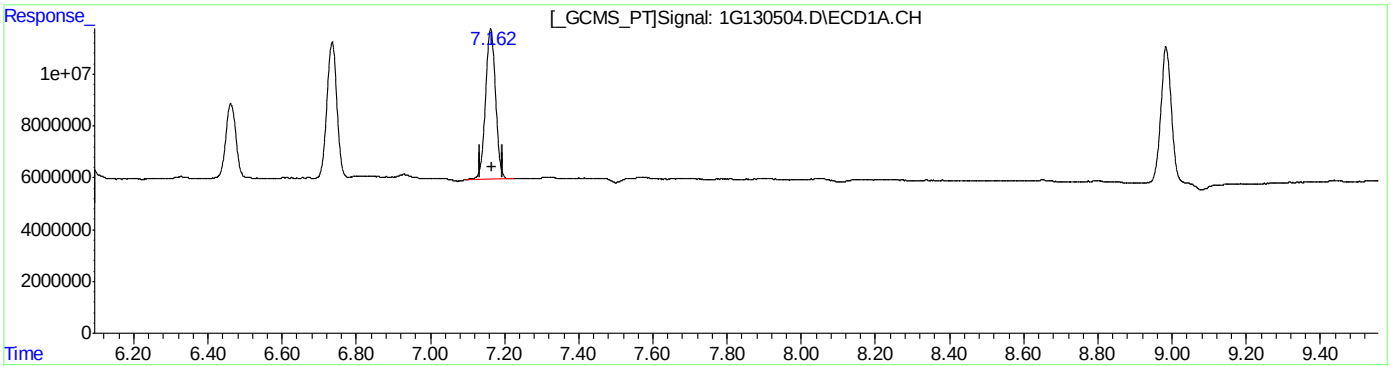
SGS ACCUTEST JC33175

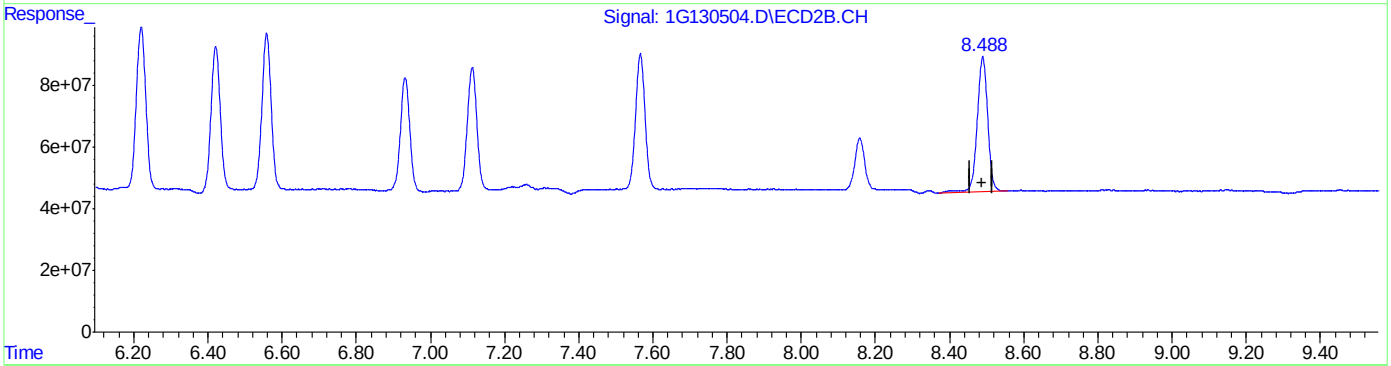
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(25) Endrin Ketone (B)
7.163min 24.430 PPB
response 109246158

(25) Endrin Ketone #2 (B)
8.489min 28.103 PPB
response 877063332

(+) = Expected Retention Time

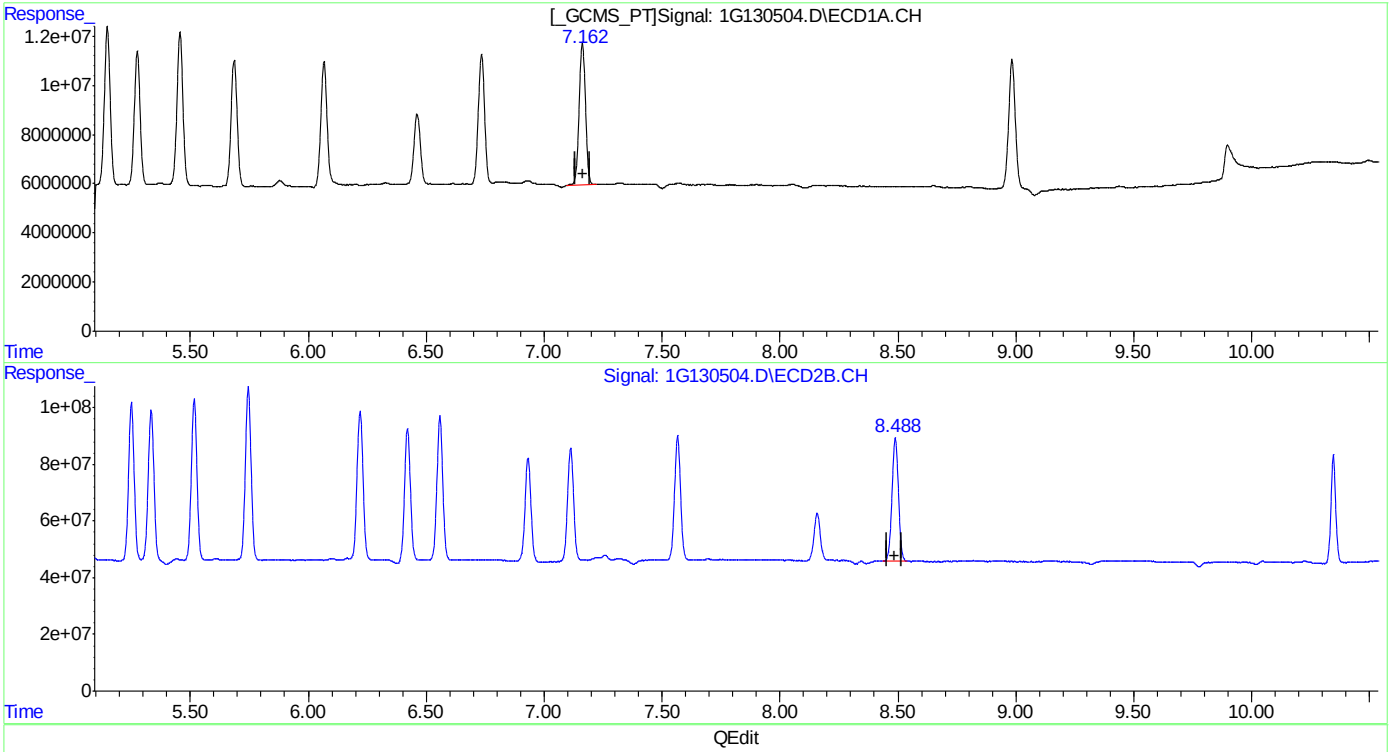
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(25) Endrin Ketone (B)
7.163min 24.430 PPB
response 109246158

(25) Endrin Ketone #2 (B)
8.488min 26.416 PPB m
response 824403371

(+) = Expected Retention Time
1PST4166.M Thu Dec 15 11:47:17 2016

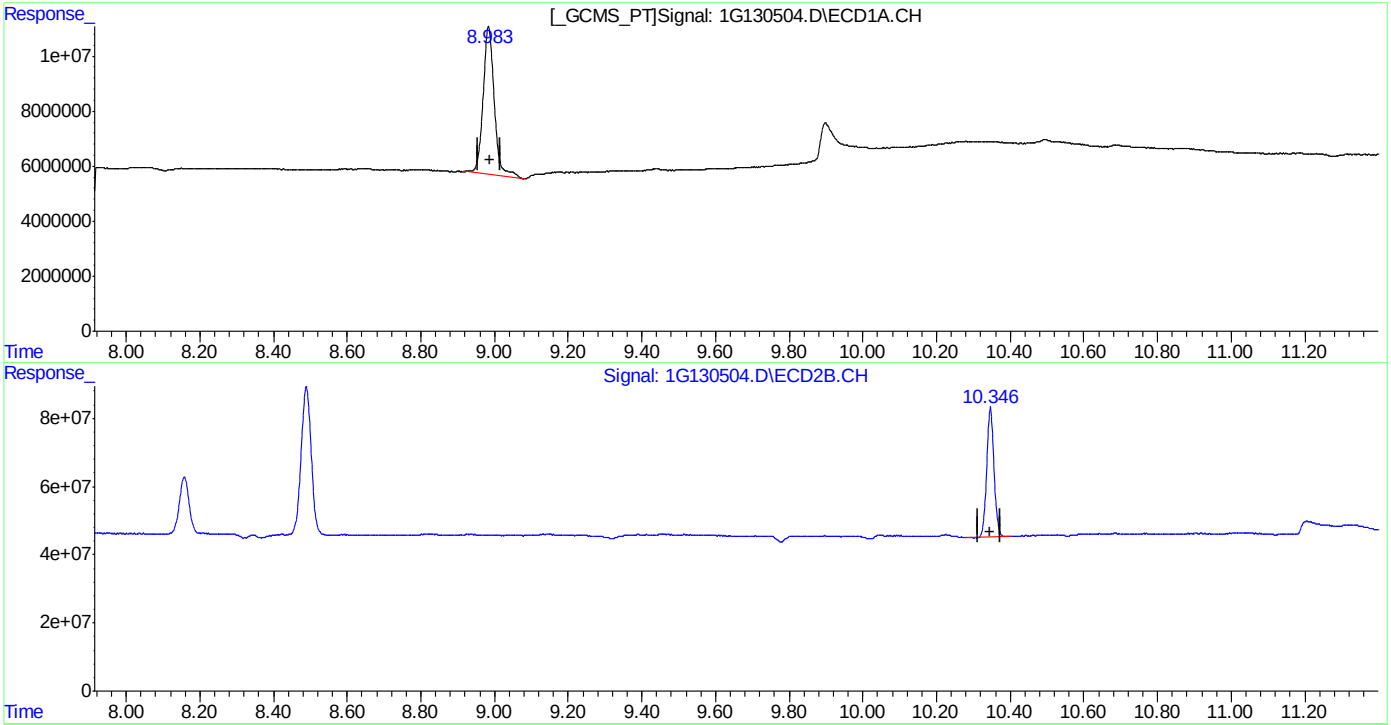
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(26) Decachlorobiphenyl (SA)
8.983min 20.194 PPB
response 112997712

(26) Decachlorobiphenyl #2 (SA)
10.347min 19.020 PPB
response 520879695

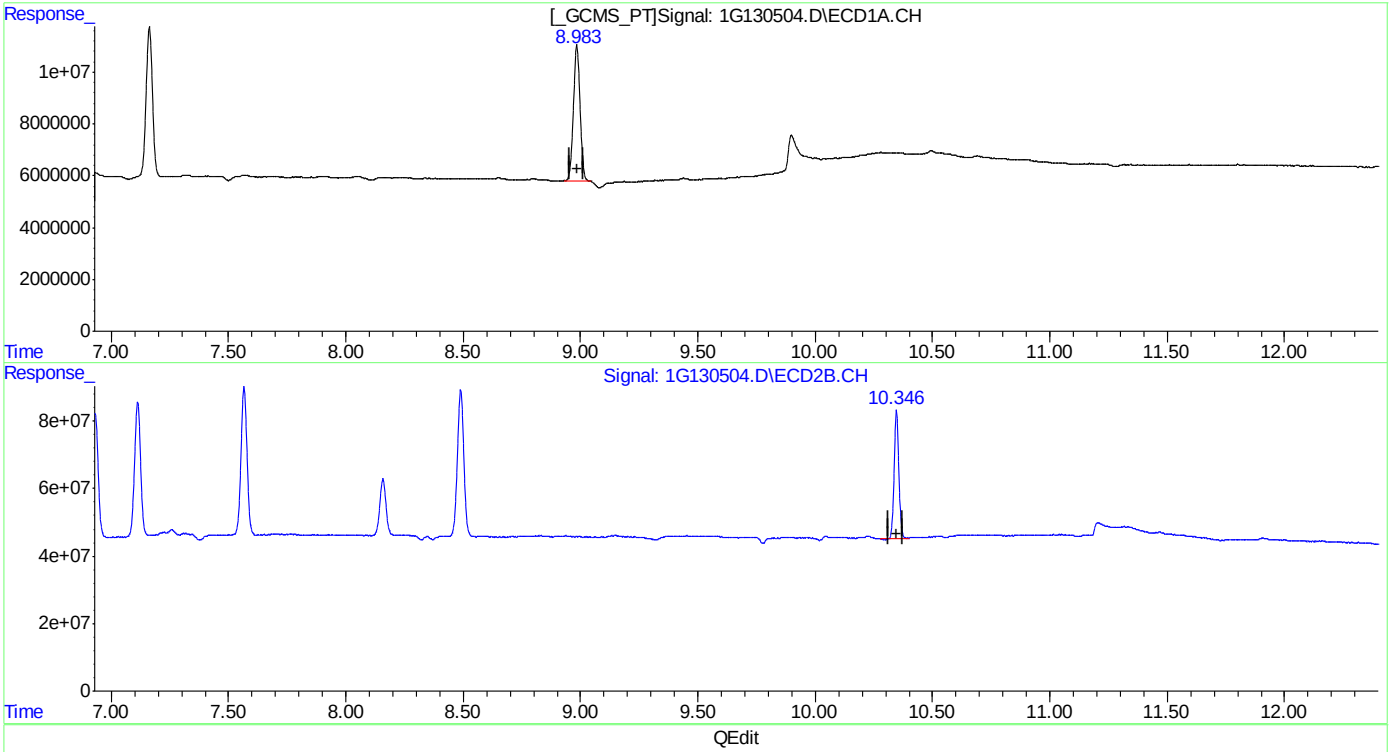
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4171\
Data File : 1G130504.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Dec 2016 11:19 am
Operator : kristend
Sample : op99172-msd
Misc : op99172,g1g4171,475,,,10,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 15 11:45:36 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Thu Dec 15 11:32:48 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(26) Decachlorobiphenyl (SA)
8.983min 18.449 PPB m
response 103237976

(26) Decachlorobiphenyl #2 (SA)
10.347min 19.020 PPB
response 520879695

(+) = Expected Retention Time

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns
12/13/16 16:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:49:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.222	1.318	291.8E6	2923.0E6	50.000	50.000
27) I	1-bromo-2...	1.222	1.318	291.8E6	2923.0E6	50.000	50.000
33) I	1-bromo-2...	1.222	1.318	291.8E6	2923.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.821	2.084	100.5E6	971.6E6	21.103	22.056
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 52.76%	55.14%
26) SA	Decachlor...	9.053	10.344	147.6E6	639.0E6	22.094	19.530
	Spiked Amount	40.000			Recovery	= 55.23%	48.83%
	Target Compounds						
15) B	4,4'-DDE	4.514	5.521	4782127	37849642	0.810m	0.828
17) MA	Endrin	5.197	6.224	292.2E6	2203.4E6	55.193	53.579
18) A	4,4'-DDD	5.324	6.428	4554288	58046861	0.914	1.523 #
20) MA	4,4'-DDT	5.738	6.935	633.1E6	3928.5E6	126.819	118.846
21) B	Endrin Al...	6.124	7.117	4635290	42197764	1.075m	1.326
25) B	Endrin Ke...	7.225	8.490	13673824	100.9E6	2.562m	2.705

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

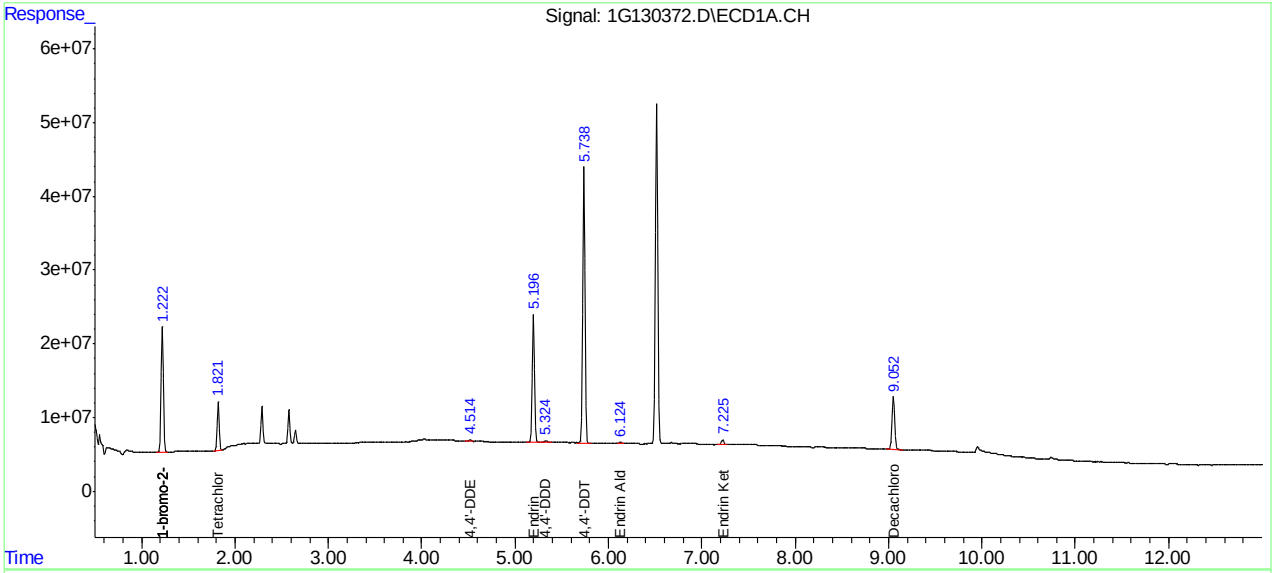
13.5.1 13

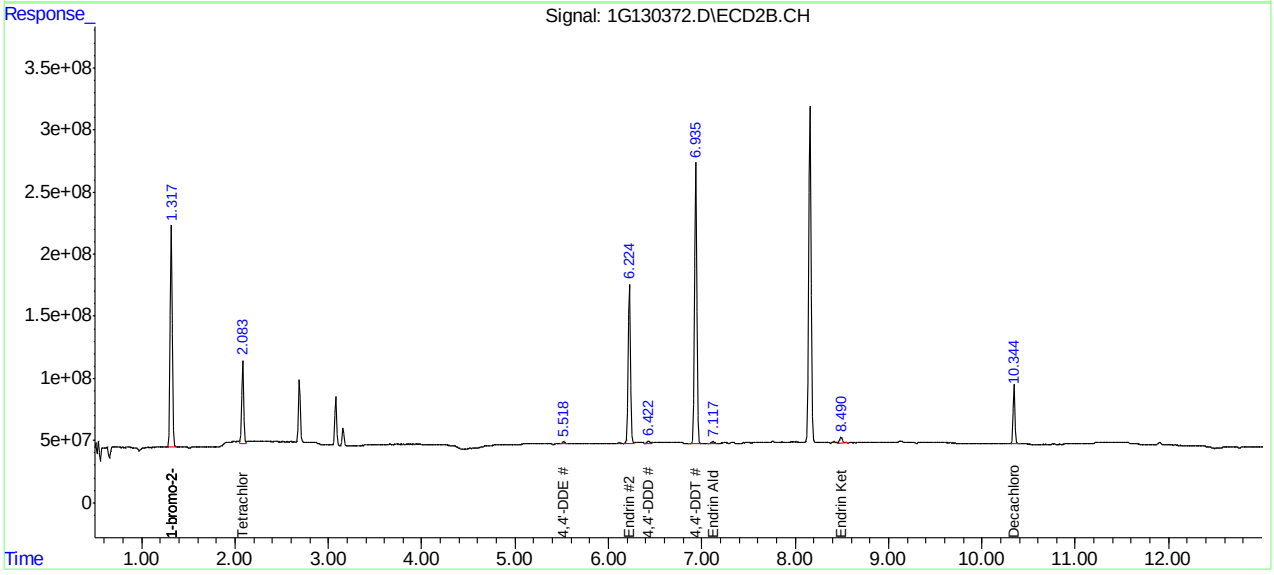
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:49:02 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G1G4166-DDT	**Method:**	SW846 8081B
Lab FileID:	1G130372.D	**Analyst approved:**	12/09/16 16:17 Dhara Saparia
Injection Time:	12/08/16 16:32	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

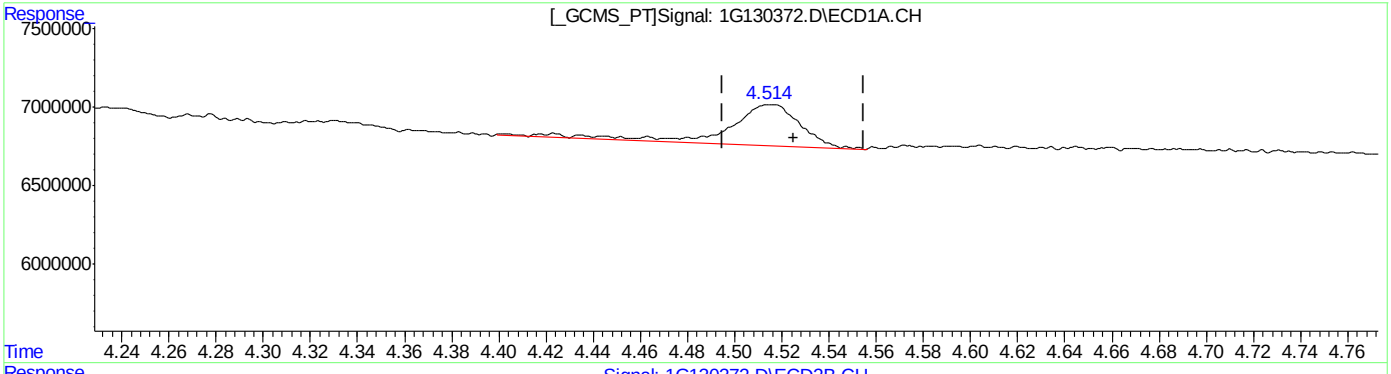
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.51	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.12	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.23	Poorly defined baseline

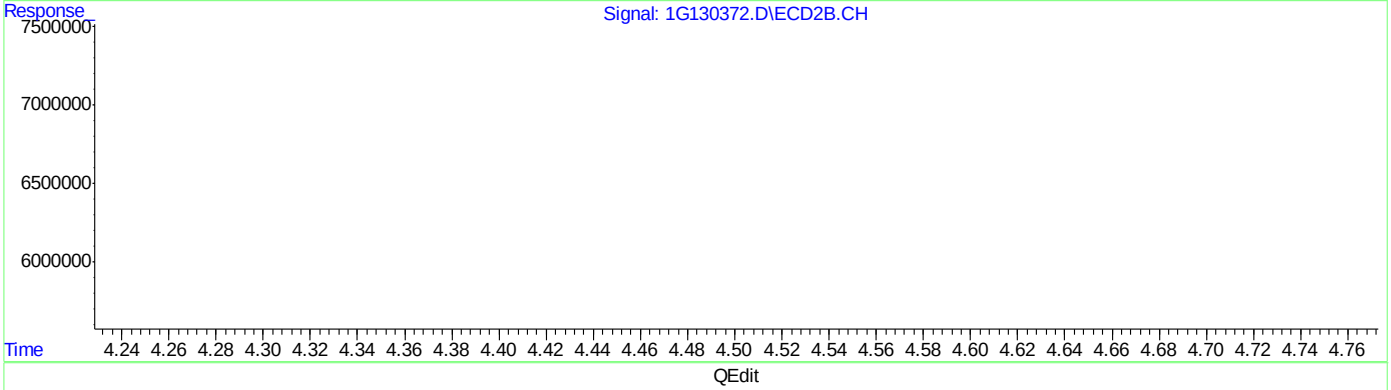
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:47:05 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)
4.515min 0.965 PPB
response 5697244

(15) 4,4'-DDE #2 (B)
5.521min 0.828 PPB
response 37849642

(+) = Expected Retention Time

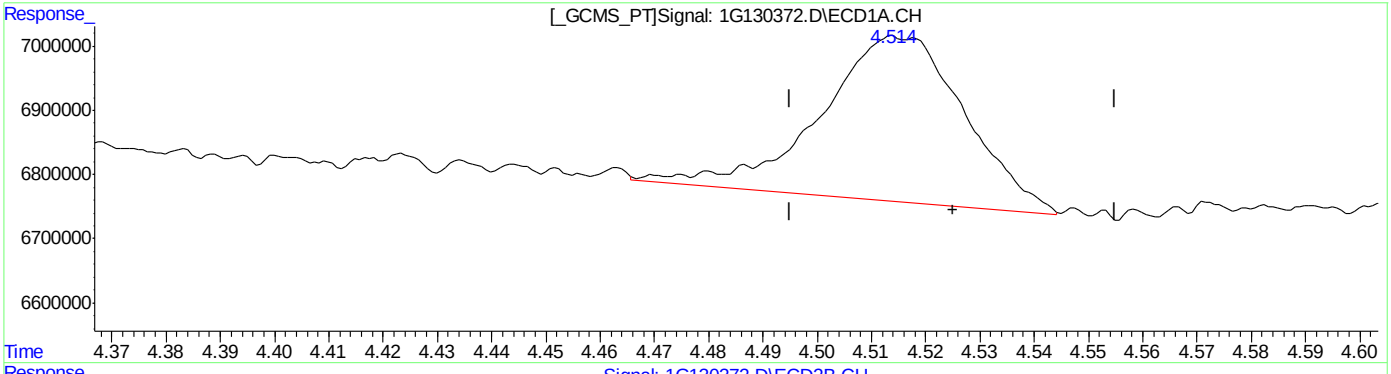
SGS ACCUTEST JC33175

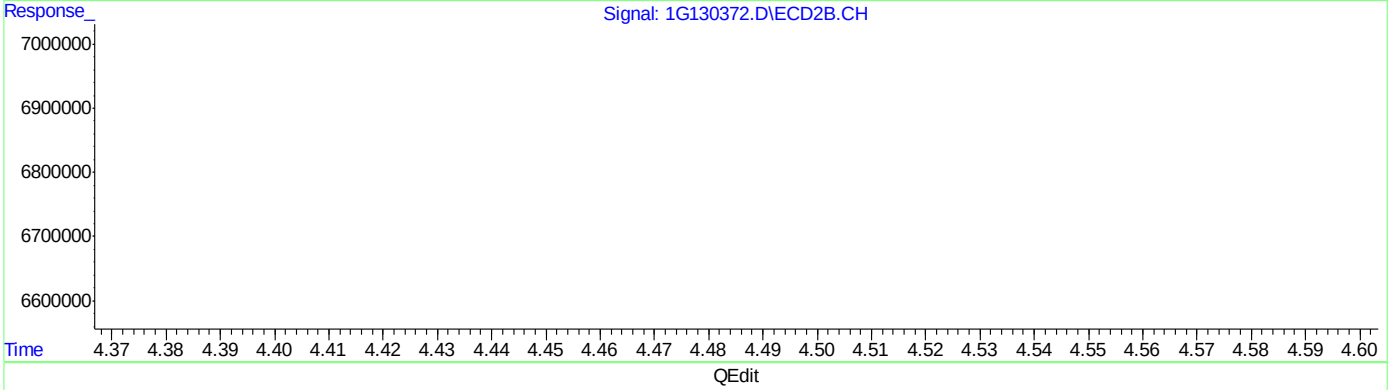
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:47:05 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(15) 4,4'-DDE (B)
4.514min 0.810 PPB m
response 4782127

(15) 4,4'-DDE #2 (B)
5.521min 0.828 PPB
response 37849642

(+) = Expected Retention Time

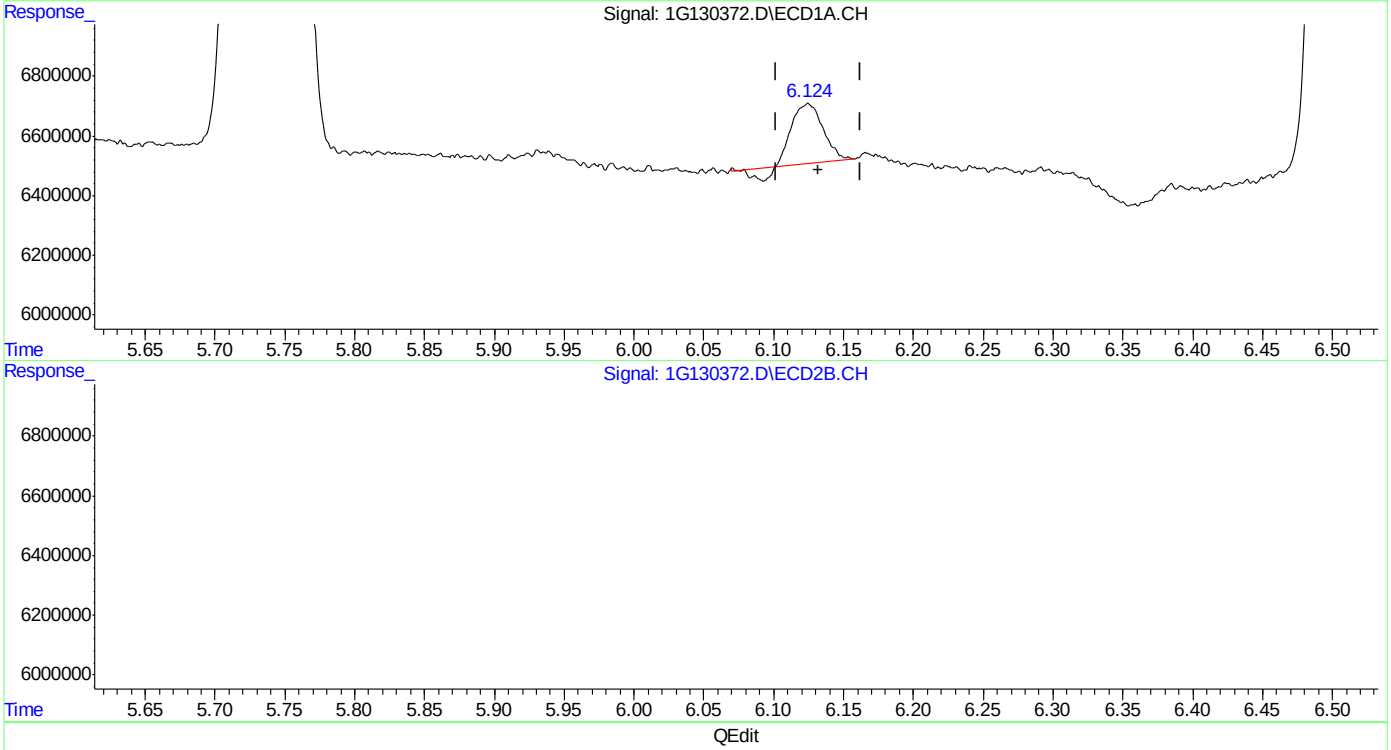
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:47:05 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(21) Endrin Aldehyde (B)
6.124min 0.657 PPB
response 2833300

(21) Endrin Aldehyde #2 (B)
7.117min 1.326 PPB
response 42197764

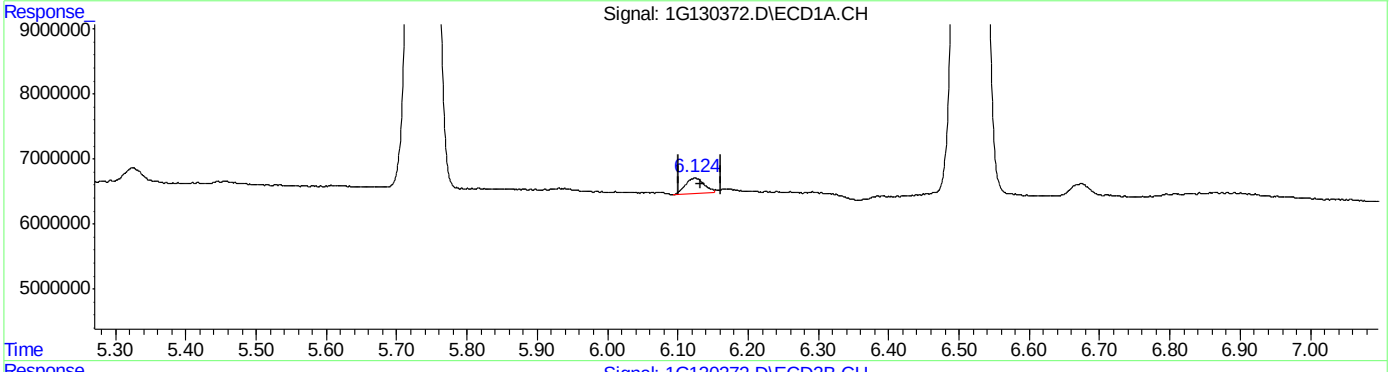
(+) = Expected Retention Time

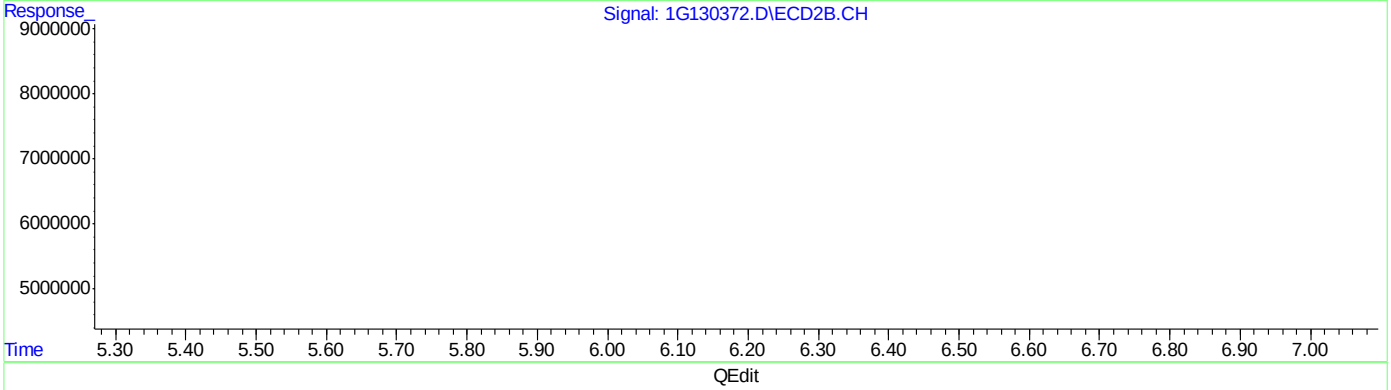
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:47:05 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





QEdit

(21) Endrin Aldehyde (B)
6.124min 1.075 PPB m
response 4635290

(21) Endrin Aldehyde #2 (B)
7.117min 1.326 PPB
response 42197764

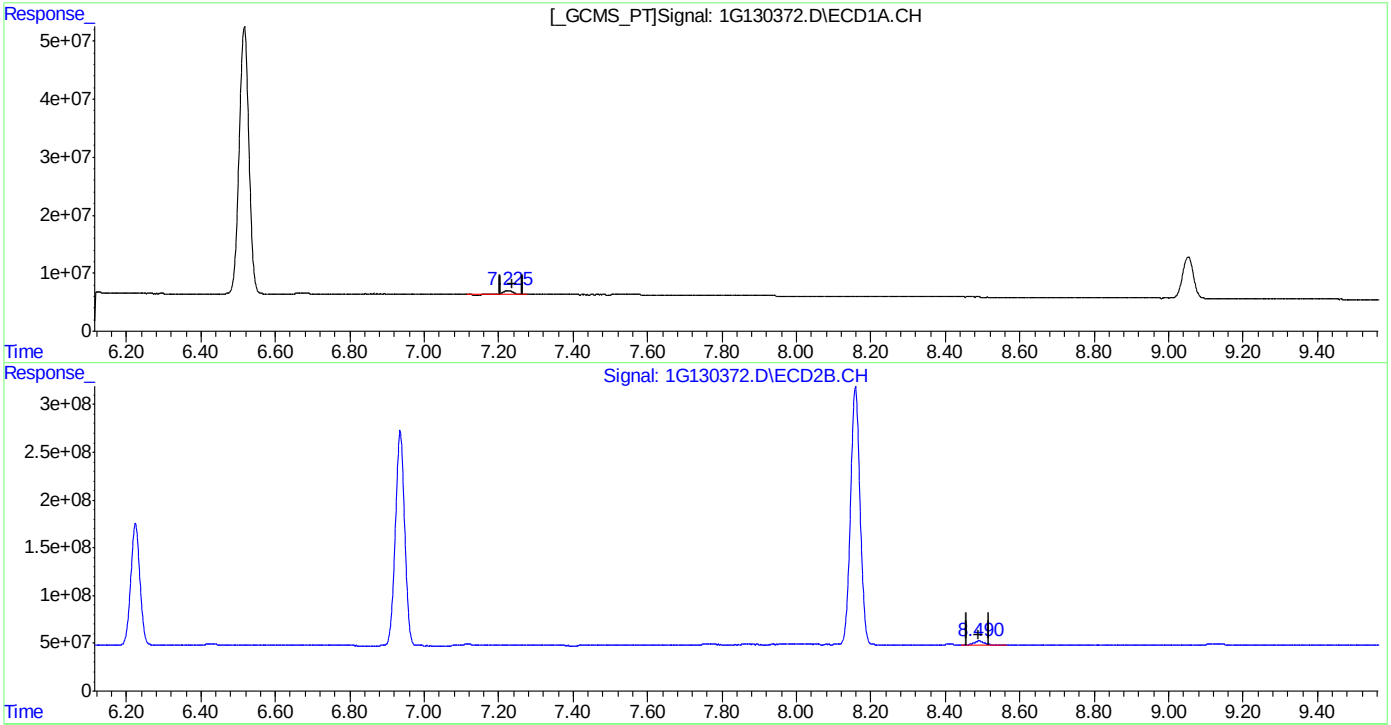
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:47:05 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(25) Endrin Ketone (B)
7.225min 2.448 PPB
response 13068859

(25) Endrin Ketone #2 (B)
8.490min 2.705 PPB
response 100869819

(+) = Expected Retention Time
1PST4166.M Fri Dec 09 15:48:53 2016

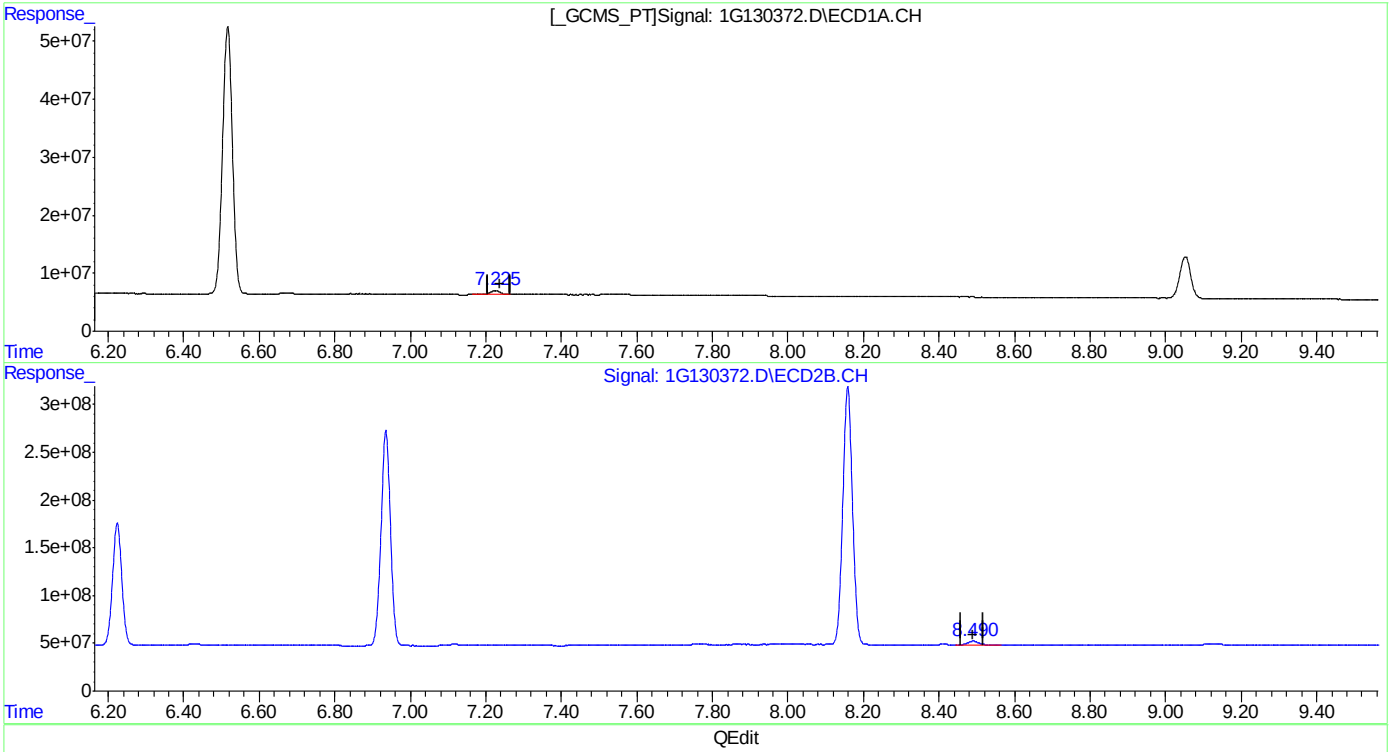
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130372.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 4:32 pm
Operator : rebeccak
Sample : ddt
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:47:05 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



(25) Endrin Ketone (B)
7.225min 2.562 PPB m
response 13673824

(25) Endrin Ketone #2 (B)
8.490min 2.705 PPB
response 100869819

(+) = Expected Retention Time

SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/15/16 12:10

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:14 2016  Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   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-nitrob	1.22	1.33	267.1E6	2568.1E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.22	1.33	267.1E6	2568.1E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.22	1.33	267.1E6	2568.1E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.81	2.09	90426898	812.8E6	20.757	21.000
	Spiked Amount 40.000	Range 30 - 150		Recovery =		51.89%	52.50%
26) SA	Decachlorobiphen	8.98f	10.35	112.8E6	505.6E6	18.455m	17.586m
	Spiked Amount 40.000			Recovery =		46.14%	43.96%
	Target Compounds						
15) B	4,4'-DDE	4.47	5.52	4060227	29815505	0.751m	0.742m
17) MA	Endrin	5.14	6.22	260.1E6	2150.3E6	53.676	59.513
18) A	4,4'-DDD	5.27	6.42	4043928	49782245	0.886m	1.487
20) MA	4,4'-DDT	5.68f	6.93	534.1E6	3368.9E6	116.897m	115.999
21) B	Endrin Aldehyde	6.06	7.11	5673312	19547309	1.437m	0.699m
25) B	Endrin Ketone	7.16f	8.49	10273012	87394128	2.103m	2.668

(f)=RT Delta > 1/2 Window (m)=manual int.

SGS ACCUTEST JC33175

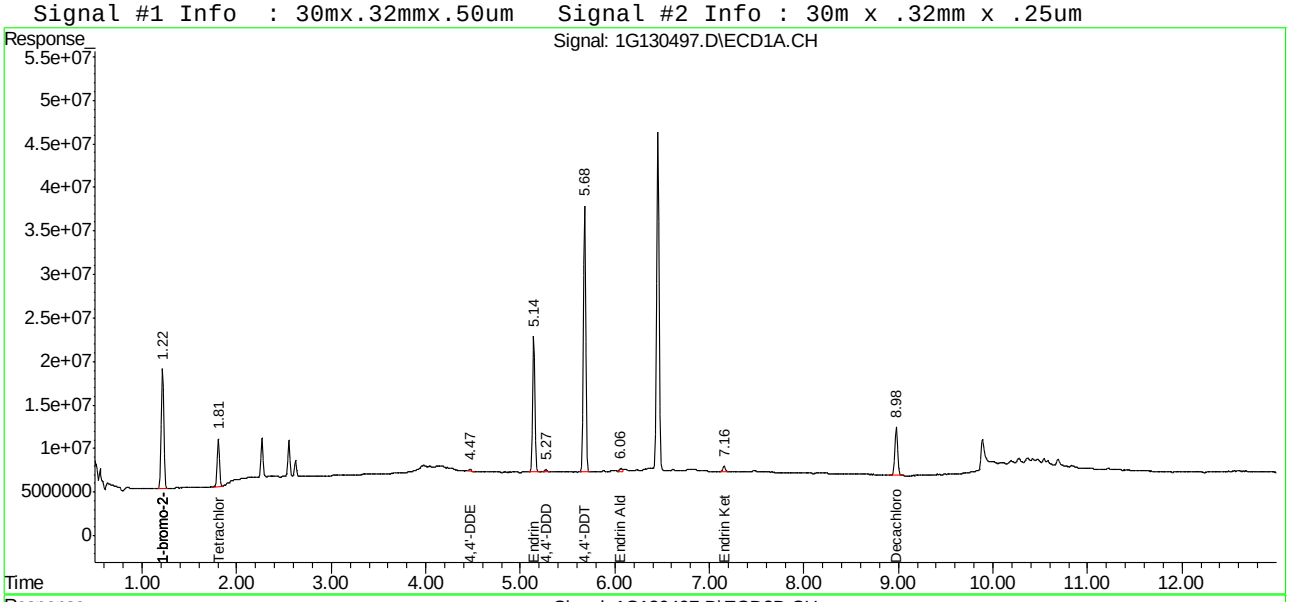
Quantitation Report (QT Reviewed)

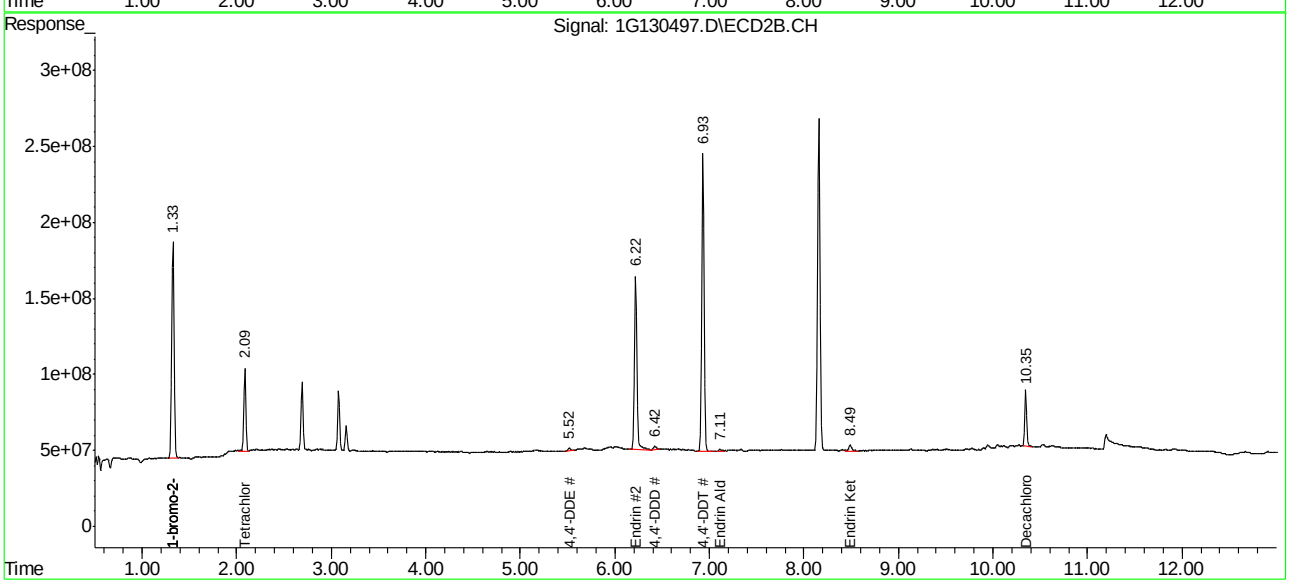
```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:14 2016  Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```





SGS ACCUTEST JC33175

Manual Integration Approval Summary

Sample Number:	G1G4171-DDT	**Method:**	SW846 8081B
Lab FileID:	1G130497.D	**Analyst approved:**	12/14/16 10:16 Kristen Drake
Injection Time:	12/14/16 09:21	**Supervisor approved:**	12/15/16 12:10 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	1	4.47	Poorly defined baseline
4,4'-DDD	72-54-8	1	5.27	Poorly defined baseline
4,4'-DDE	72-55-9	2	5.52	Poorly defined baseline
4,4'-DDT	50-29-3	1	5.68	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.06	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	7.11	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.16	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	8.98	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	10.35	Poorly defined baseline

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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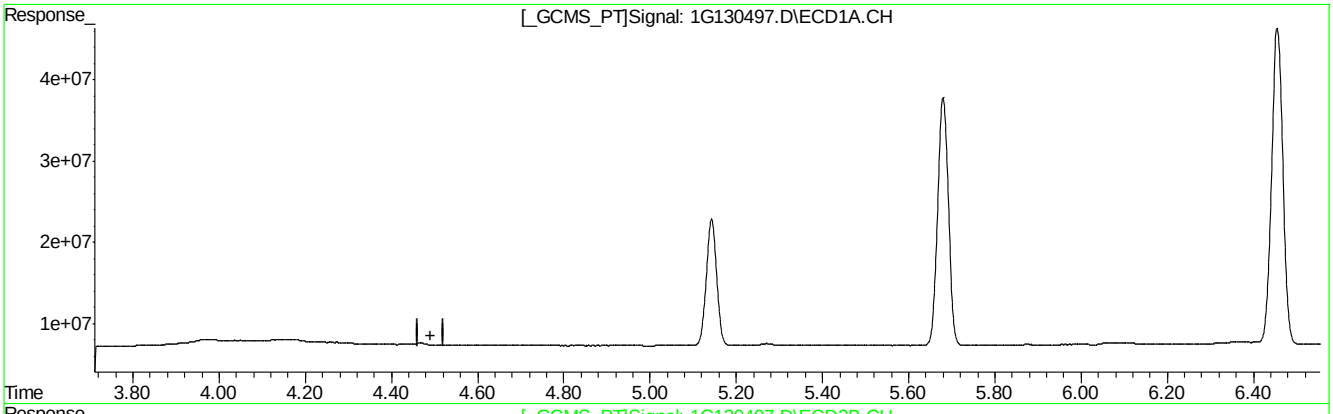

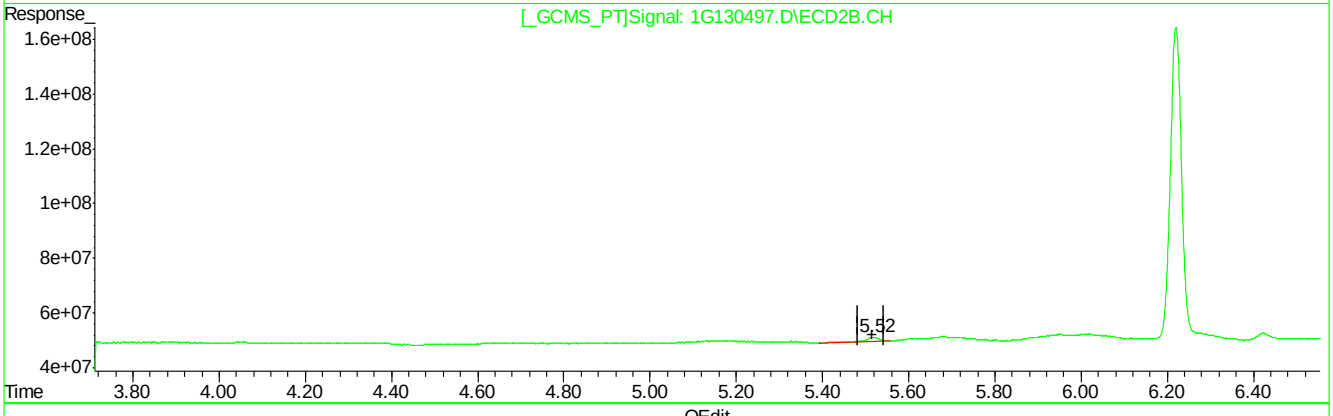

QEdit

(15) 4,4'-DDE (B)

0.00min 0.000PPB

response 0

(15) 4,4'-DDE #2 (B)

5.52min 0.832PPB

response 33410520

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:08:45 2016 RPT1

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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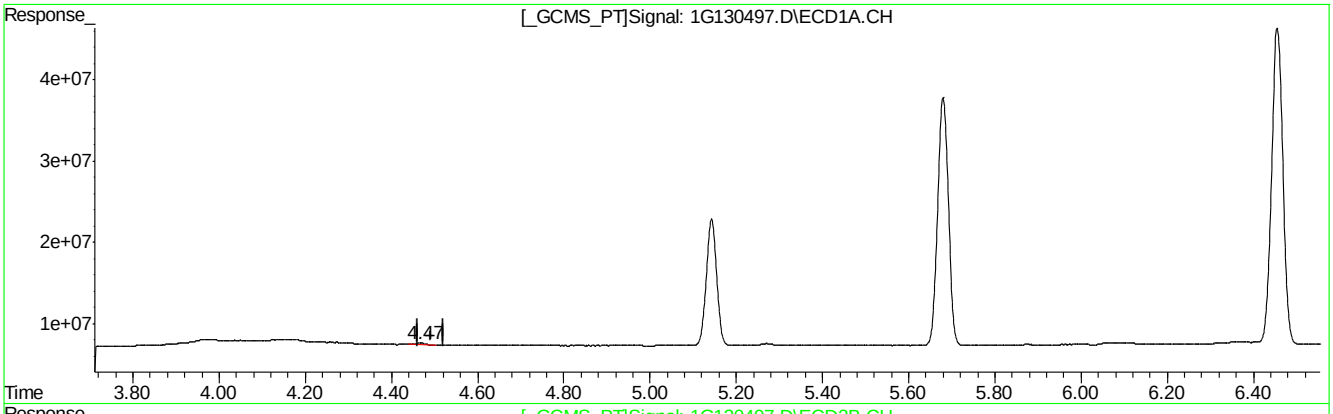

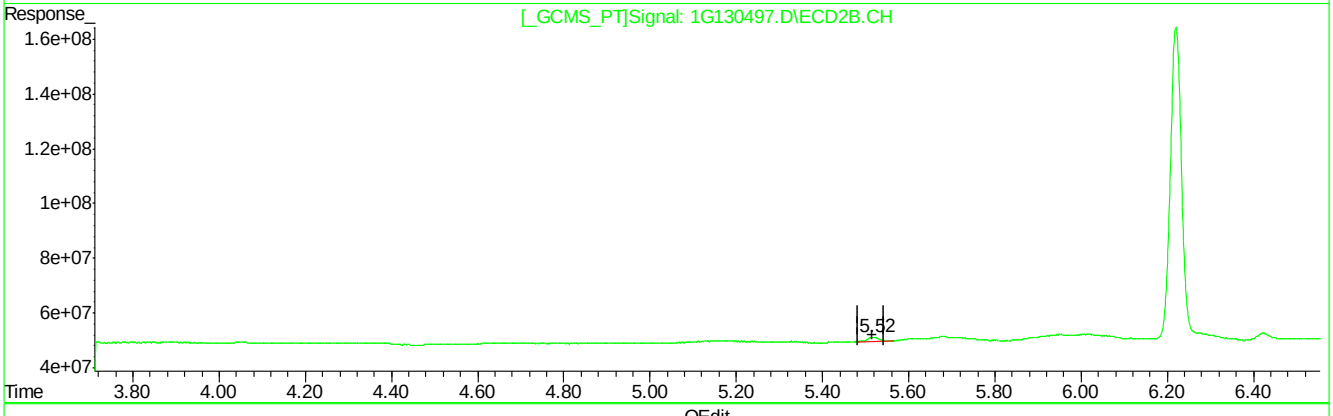

QEdit

(15) 4,4'-DDE (B)

4.47min 0.751PPB m

response 4060227

(15) 4,4'-DDE #2 (B)

5.52min 0.742PPB m

response 29815505

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:09:23 2016 RPT1

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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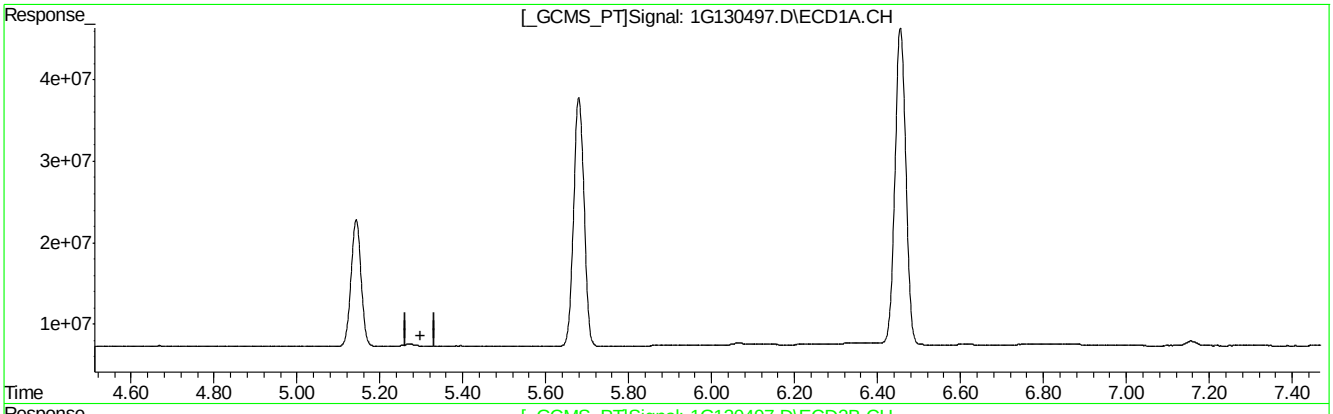
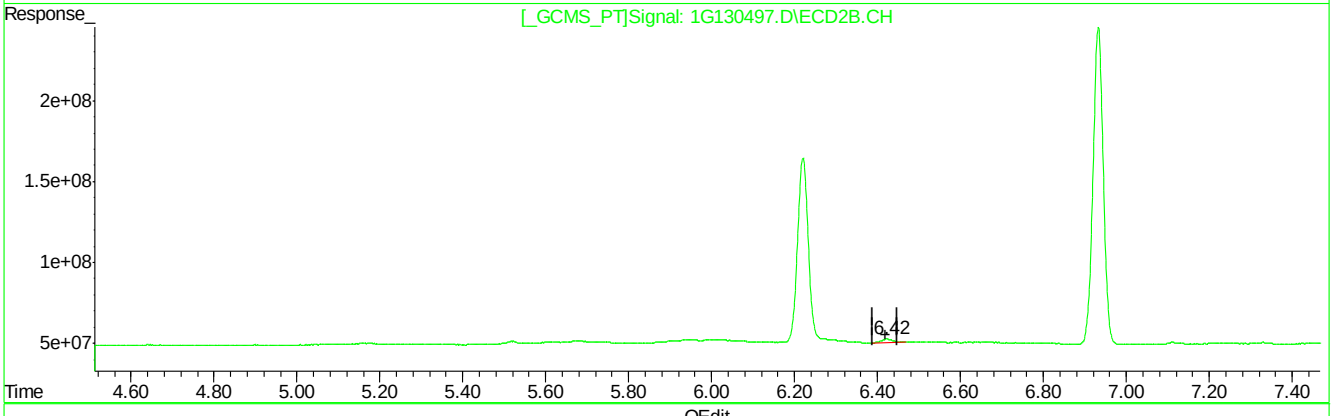




QEdit

(18) 4,4'-DDD (A)

0.00min 0.000PPB

response 0

(18) 4,4'-DDD #2 (A)

6.42min 1.487PPB

response 49782245

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:09:32 2016 RPT1

13.5.2.4

13

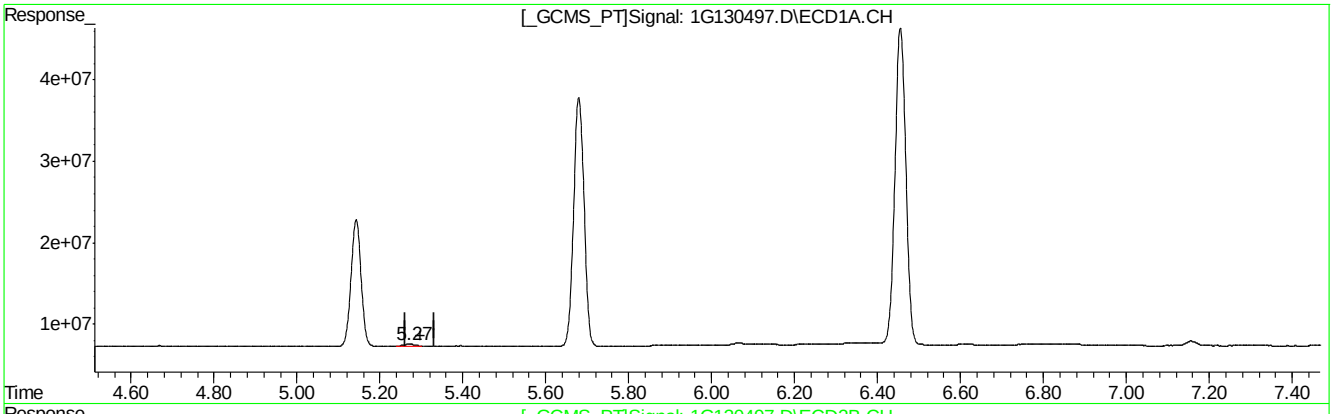
SGS ACCUTEST JC33175

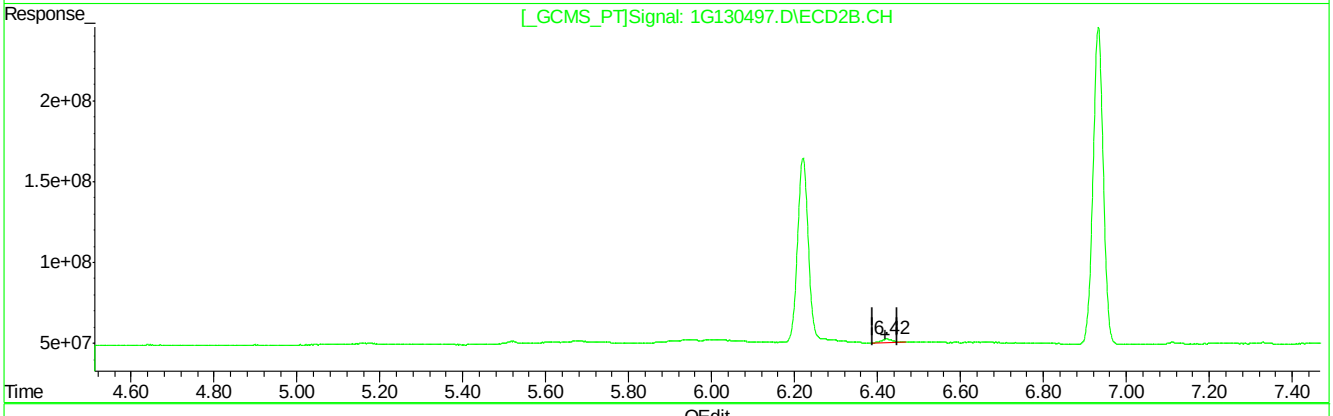
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                        Operator: kristend
Sample    : ddt                                         Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                        Operator: kristend
Sample    : ddt                                         Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(18) 4,4'-DDD (A)

5.27min 0.886PPB m

response 4043928

(18) 4,4'-DDD #2 (A)

6.42min 1.487PPB

response 49782245

(+) = Expected Retention Time

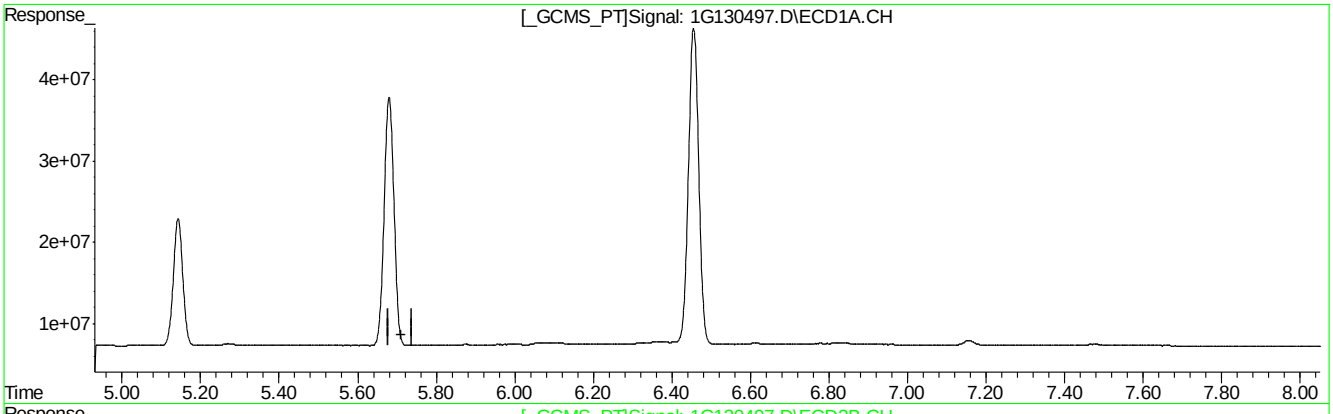
1G130497.D 1PST4166.M Wed Dec 14 10:12:15 2016 RPT1

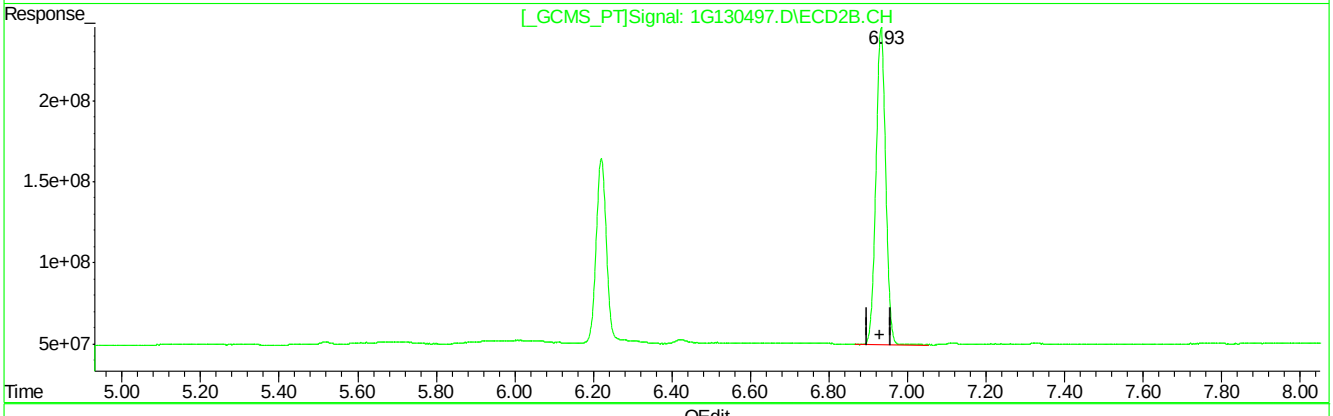
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(20) 4,4'-DDT (MA)

0.00min 0.000PPB

response 0

(20) 4,4'-DDT #2 (MA)

6.93min 115.999PPB

response 3368877632

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:12:30 2016 RPT1

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                        Operator: kristend
Sample    : ddt                                         Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                        Operator: kristend
Sample    : ddt                                         Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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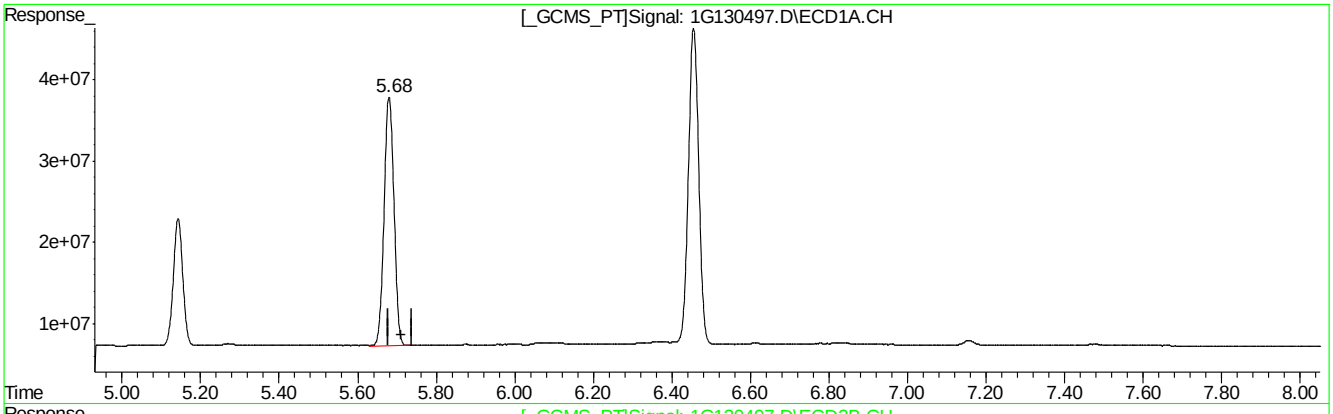

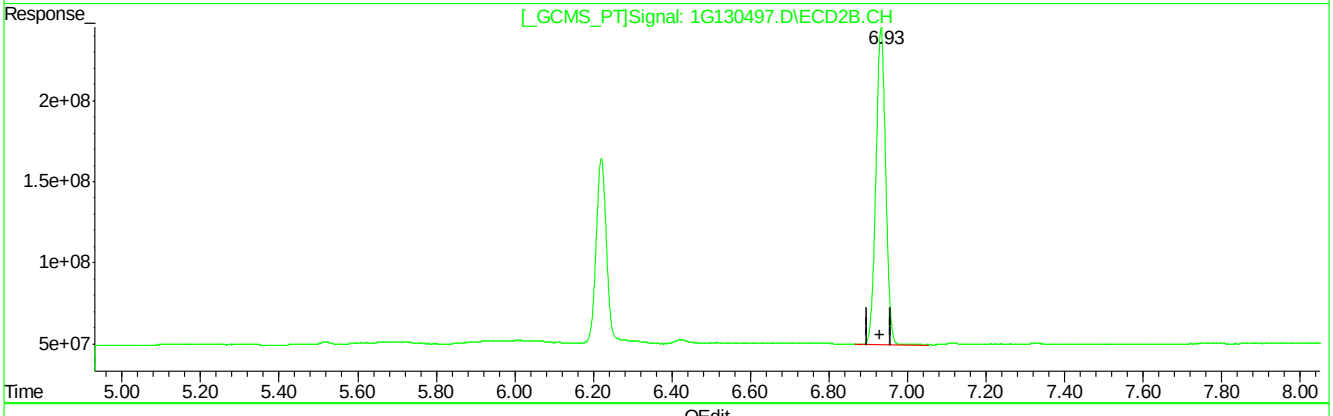

QEdit

(20) 4,4'-DDT (MA)

5.68min 116.897PPB m

response 534122443

(20) 4,4'-DDT #2 (MA)

6.93min 115.999PPB

response 3368877632

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:12:45 2016 RPT1

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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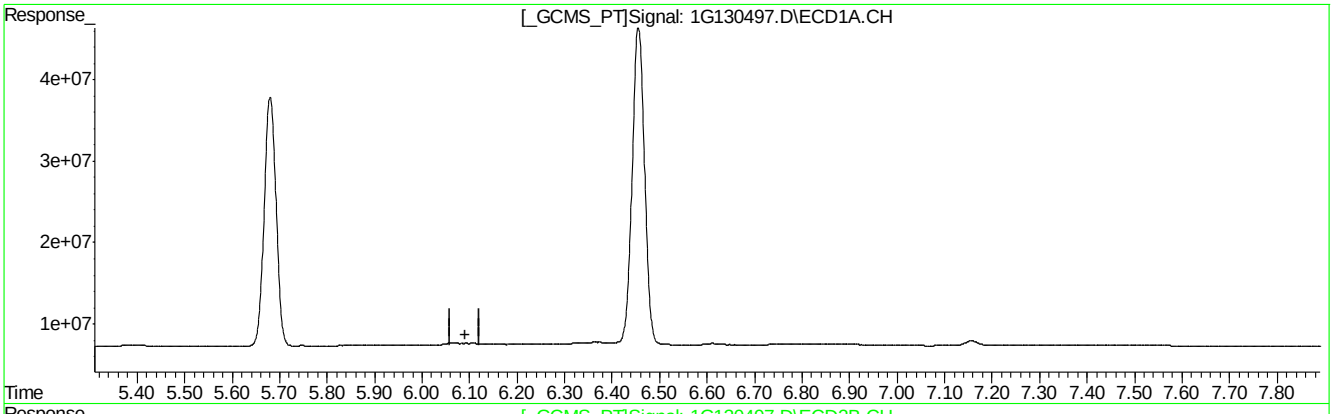

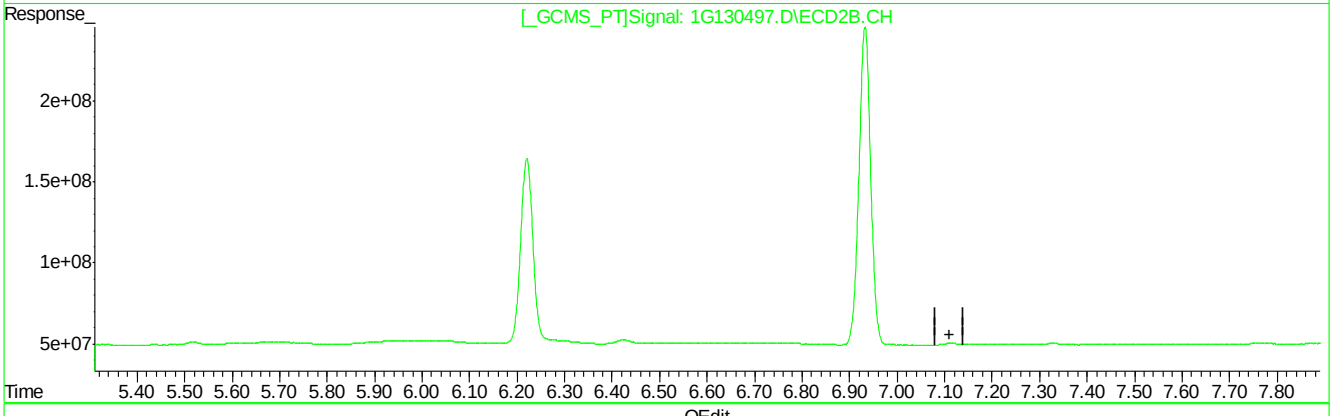

QEdit

(21) Endrin Aldehyde (B)

0.00min 0.000PPB

response 0

(21) Endrin Aldehyde #2 (B)

0.00min 0.000PPB

response 0

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:12:48 2016 RPT1

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                        Operator: kristend
Sample    : ddt                                         Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1                 Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                        Operator: kristend
Sample    : ddt                                         Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1                 Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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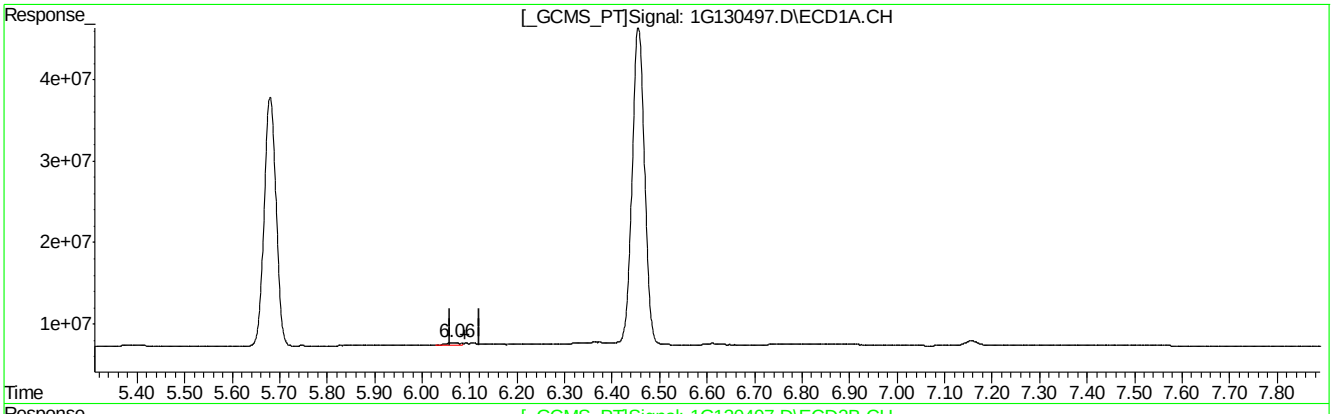

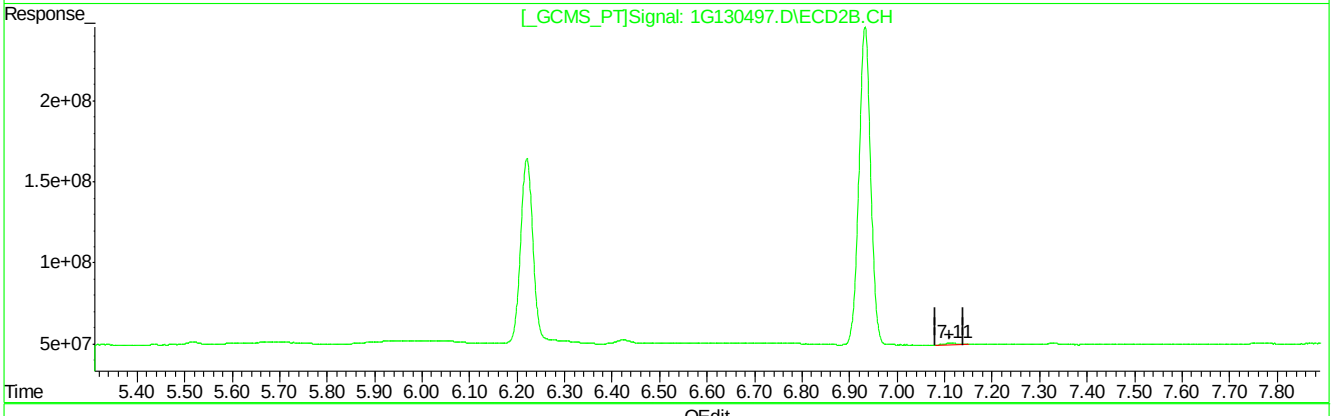

QEdit

(21) Endrin Aldehyde (B)

6.06min 1.437PPB m

response 5673312

(21) Endrin Aldehyde #2 (B)

7.11min 0.699PPB m

response 19547309

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:13:19 2016 RPT1

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
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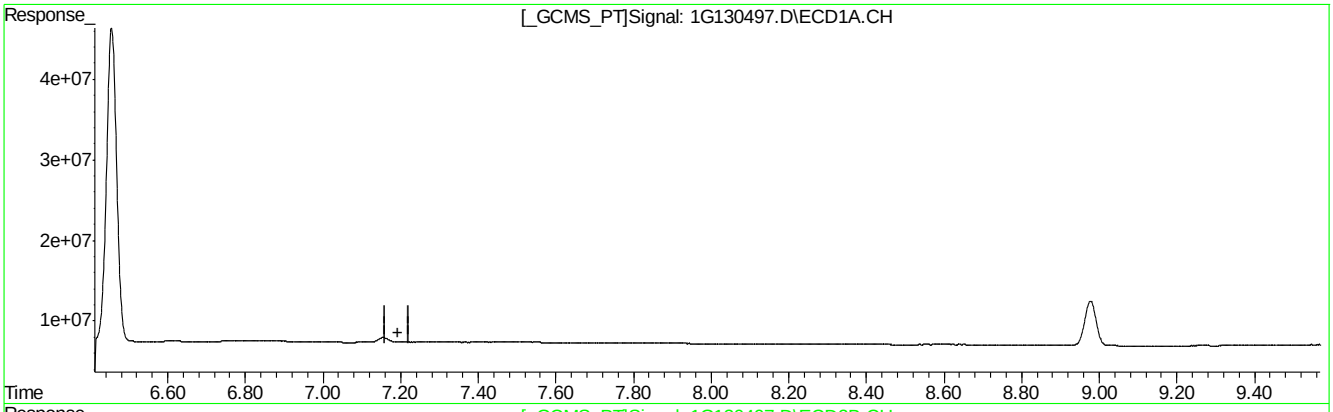
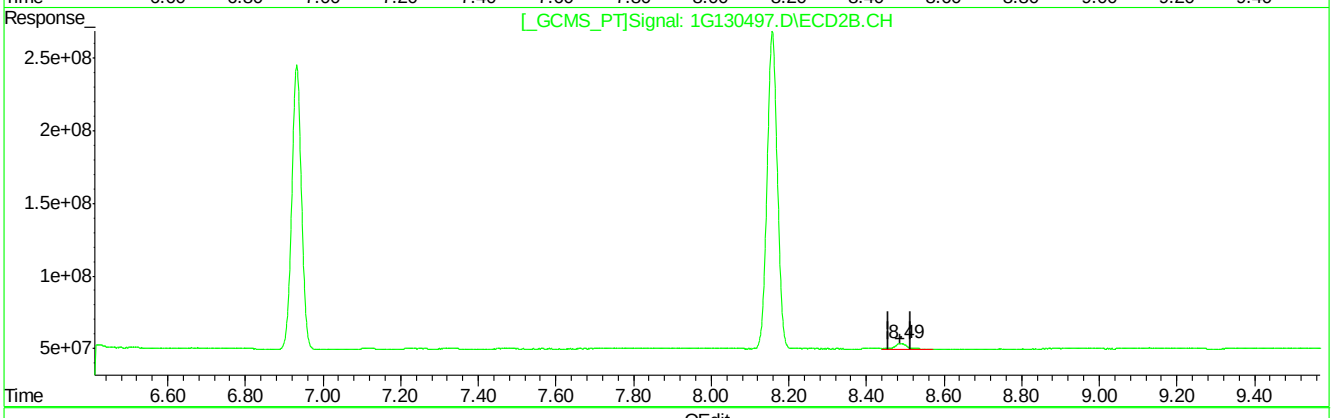




QEdit

(25) Endrin Ketone (B)

0.00min 0.000PPB

response 0

(25) Endrin Ketone #2 (B)

8.49min 2.668PPB

response 87394128

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:13:29 2016 RPT1

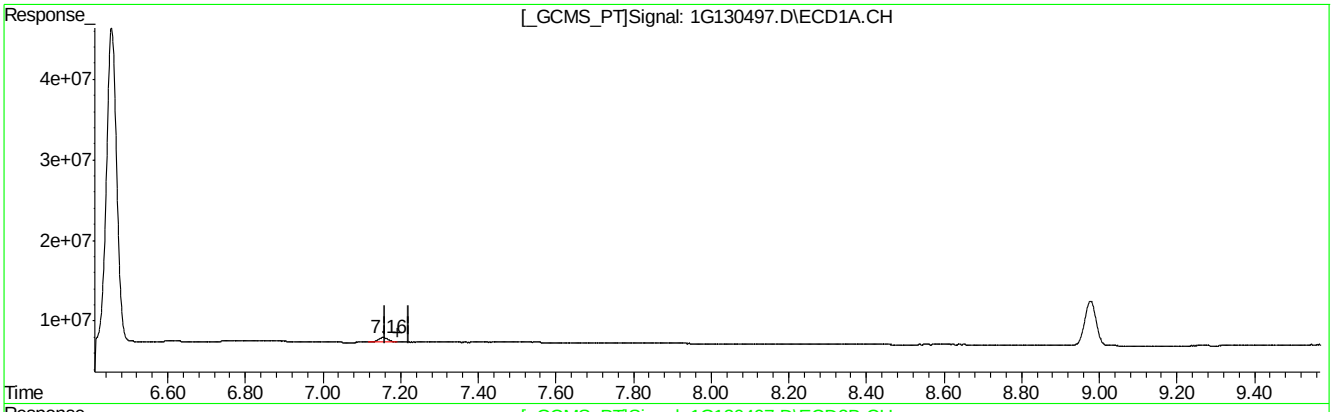
SGS ACCUTEST JC33175

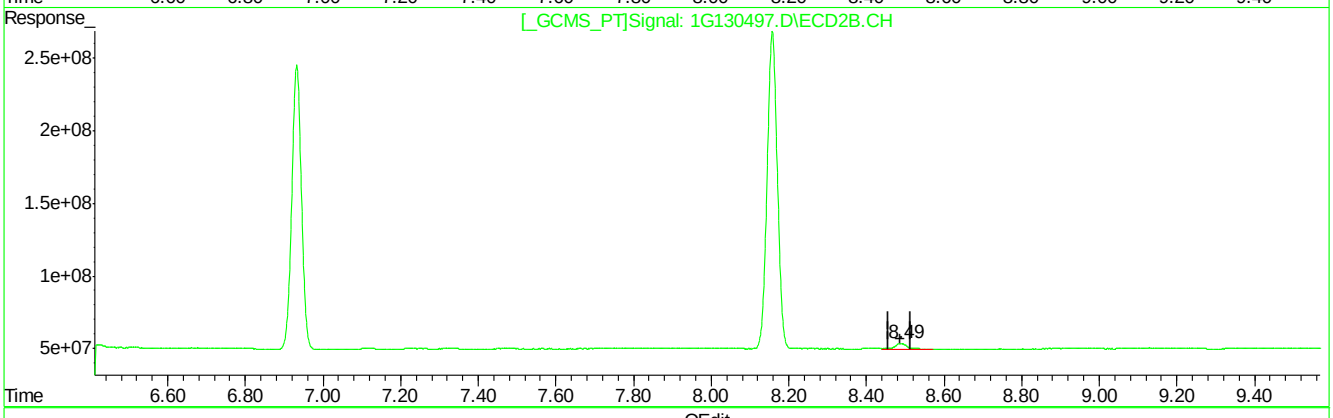
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                    Operator: kristend
Sample    : ddt                                     Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(25) Endrin Ketone (B)

7.16min 2.103PPB m

response 10273012

(25) Endrin Ketone #2 (B)

8.49min 2.668PPB

response 87394128

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:13:56 2016 RPT1

13.5.2.11

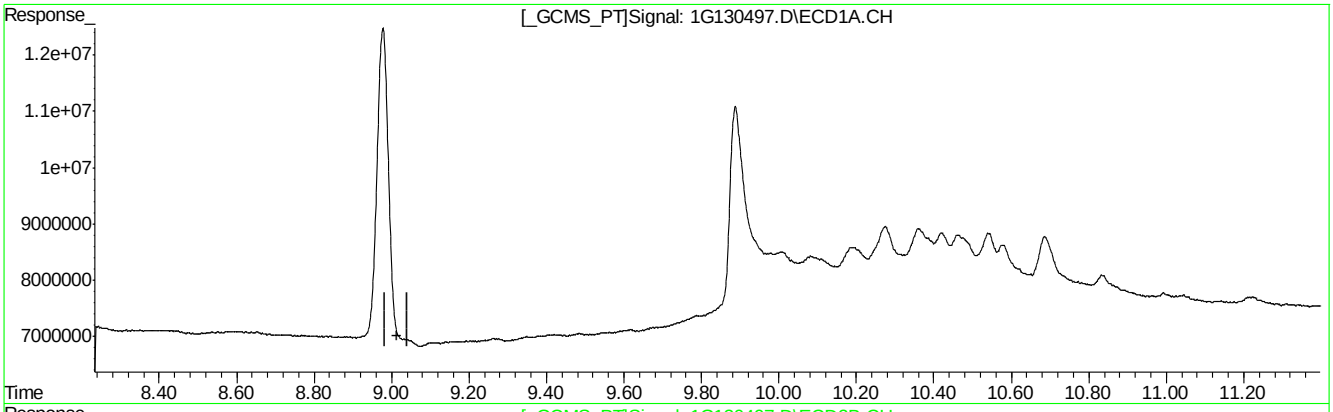
13

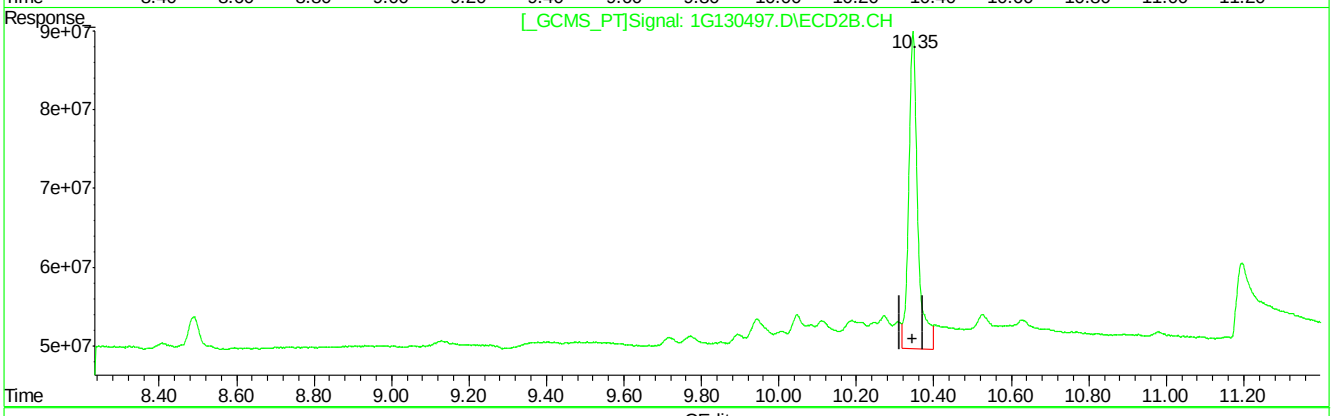
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

0.00min 0.000PPB

response 0

(26) Decachlorobiphenyl #2 (SA)

10.35min 22.819PPB

response 656002209

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:14:00 2016 RPT1

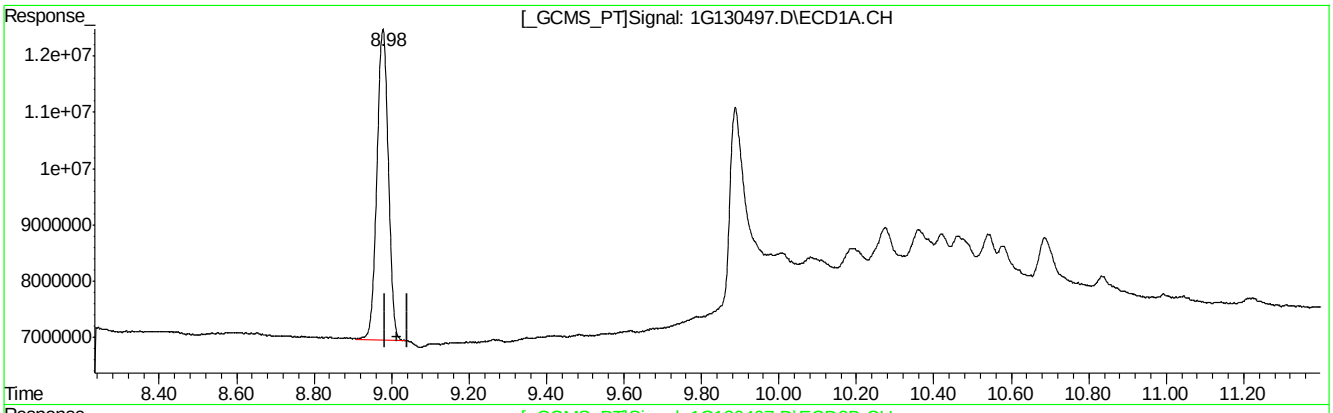
SGS ACCUTEST JC33175

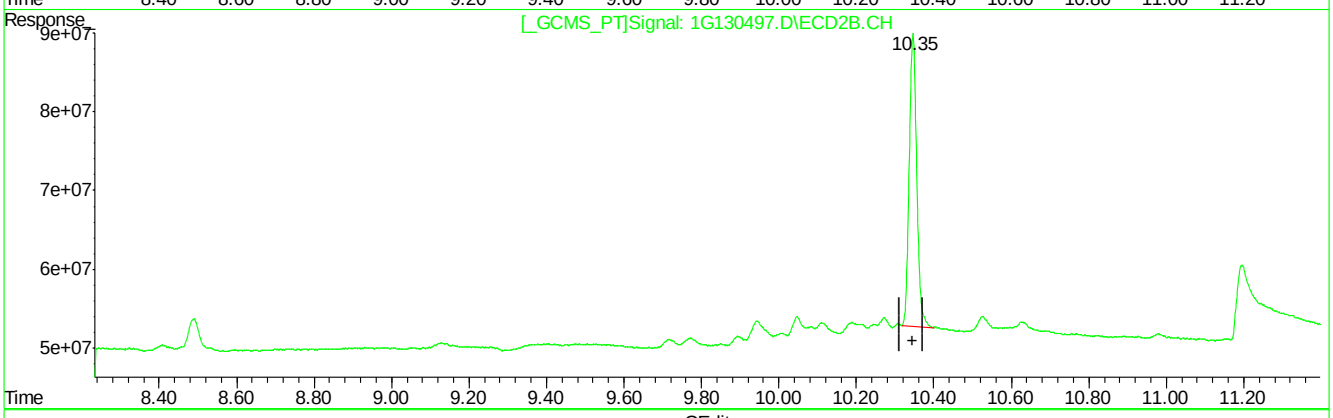
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD1A.CH Vial: 1
Acq On    : 12-14-16 09:21:27 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4171\1G130497.D\ECD2B.CH Vial: 1
Acq On    : 12-14-16 09:21:26 AM                      Operator: kristend
Sample    : ddt                                       Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1               Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec 14 10:08 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

8.98min 18.455PPB m

response 112823977

(26) Decachlorobiphenyl #2 (SA)

10.35min 17.586PPB m

response 505558062

(+) = Expected Retention Time

1G130497.D 1PST4166.M Wed Dec 14 10:14:36 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On : 12-8-16 05:05:38 PM Operator: rebeccak
Sample : ic4166-1 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:47 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	286.3E6	2958.9E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	286.3E6	2958.9E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	286.3E6	2958.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.82	2.08	4263098	48558972	0.898m	0.944m
Spiked Amount	40.000 Range	30 - 150	Recovery	=		2.25%#	2.36%#
26) SA	Decachlorobiphen	9.06	10.34	7161312	37807364	1.080m	1.163
Spiked Amount	40.000		Recovery	=		2.70%	2.91%
	Target Compounds						
3)	Hexachlorobenzen	2.16	2.55	9048660	44938149	1.119m	0.770
4) A	alpha-BHC	2.29	2.69	6060821	50476440	0.905	0.716
5) MA	gamma-BHC	2.58	3.08	5735343	48783819	0.891m	0.760
6) MA	Heptachlor	3.07	3.60	6249448	42981293	0.957	0.788m
7) B	beta-BHC	2.65	3.16	2884616	23770177	0.993m	0.924m
8) B	delta-BHC	2.83	3.52	5556010	47969968	0.896	0.773
9) MB	Aldrin	3.39	4.01	5883886	46054832	0.921	0.787
10)	Alachlor	3.53	3.85	1072933	7082120	1.261m	1.015m
11) B	Heptachlor Epoxi	4.08	4.77	7057208	50330457	1.135m	0.956
12) B	gamma-Chlordane	4.24	5.04	5945930	38156871	0.901m	0.704
13) B	alpha-Chlordane	4.41	5.25	5522733	44150193	0.911	0.856
14) A	Endosulfan I	4.58	5.34	5107191	48876704	0.881	0.939
15) B	4,4'-DDE	4.52	5.52	5612410	42527791	0.909	0.787
16) MA	Dieldrin	4.89	5.75	5597657	43790704	0.890	0.782
17) MA	Endrin	5.20	6.23	5547736	40329728	1.053m	0.853
18) A	4,4'-DDD	5.33	6.42	5330064	37256823	1.045	0.886
19) B	Endosulfan II	5.52	6.56	5568458	43884507	0.975	0.908m
20) MA	4,4'-DDT	5.75	6.93	4976631	32886566	1.013	1.027m
21) B	Endrin Aldehyde	6.13	7.12	4648064	33975217	1.094	0.904m
22) B	Endosulfan Sulfa	6.80	7.57	4601089	30398468	0.918	0.789
23) A	Methoxychlor	6.52	8.16	3746583	22073266	1.262m	1.347m
24)	Mirex	6.65	8.41	5710560	25122074	1.127	0.799
25) B	Endrin Ketone	7.23	8.49	5813069	45526664	1.045m	1.009m

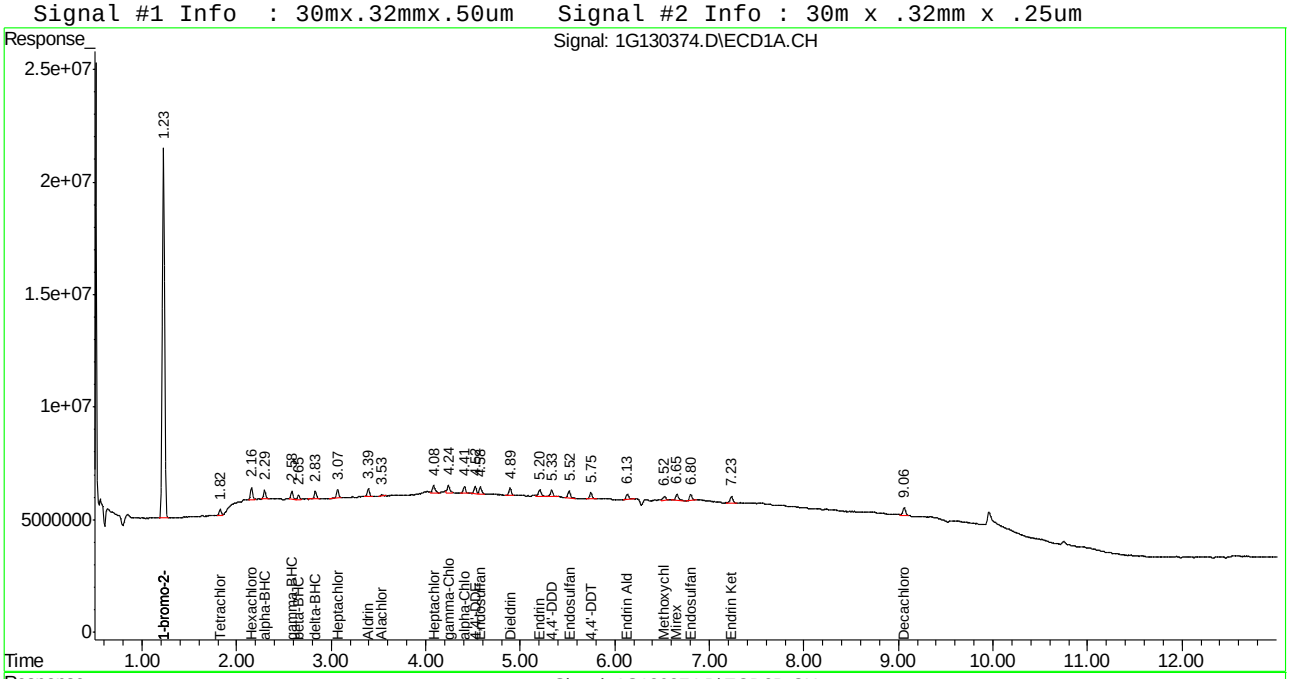
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130374.D 1PST4166.M Fri Dec 09 13:47:42 2016 RPT1 Page 1

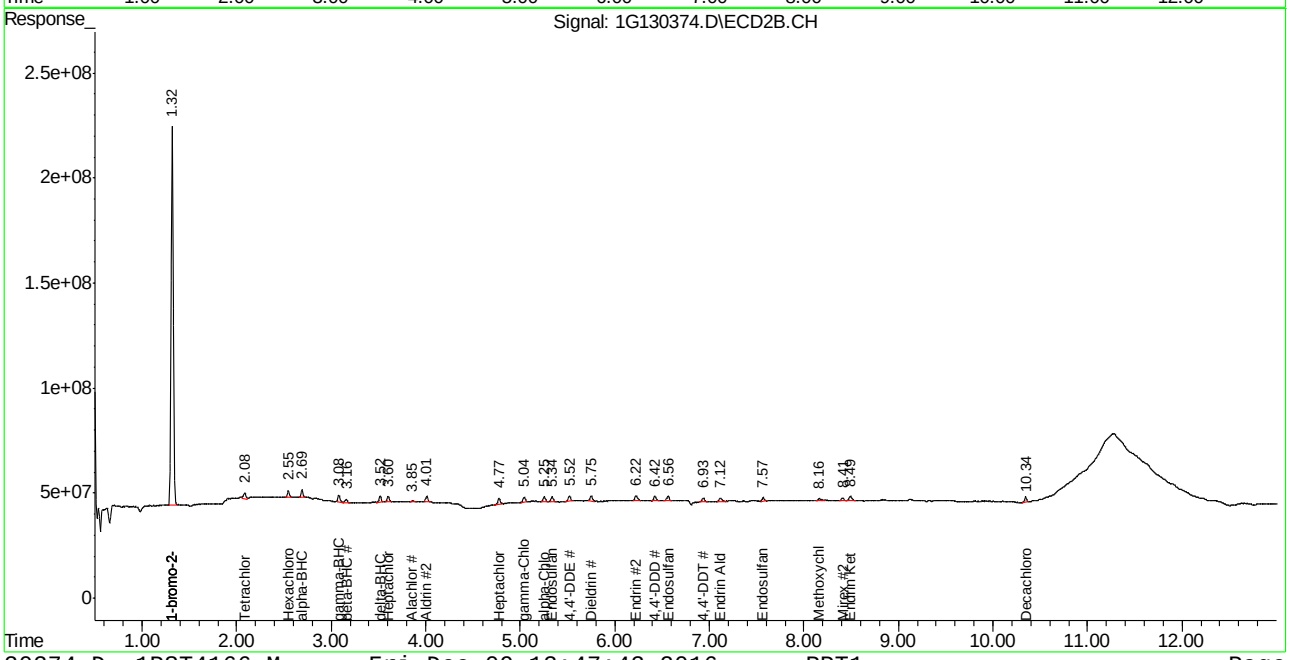
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On : 12-8-16 05:05:38 PM Operator: rebeccak
Sample : ic4166-1 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:47 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

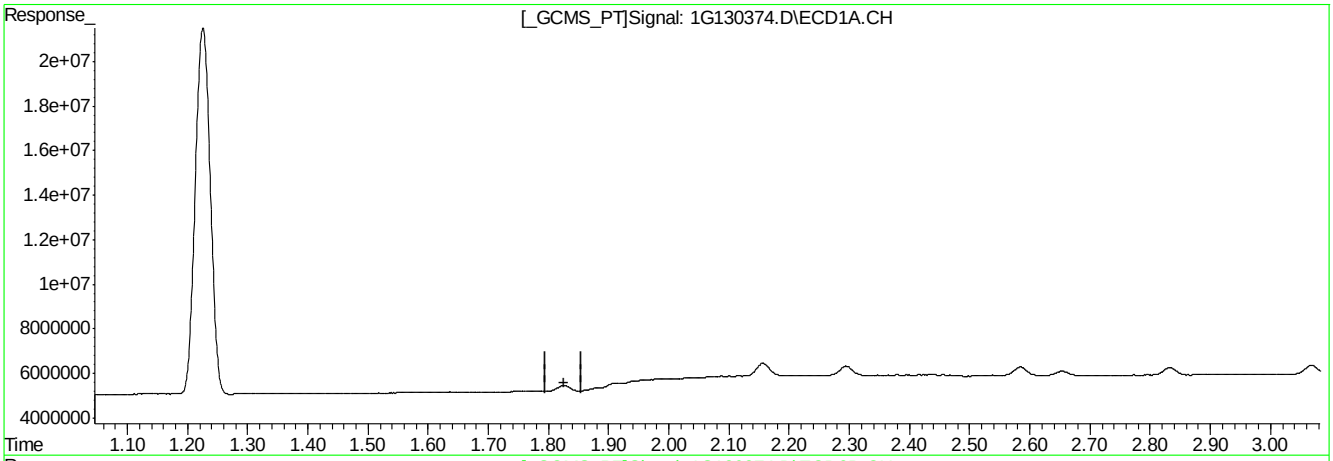
Sample Number: G1G4166-IC4166 **Method:** SW846 8081B
Lab FileID: 1G130374.D **Analyst approved:** 12/09/16 14:06 Rebecca Krug
Injection Time: 12/08/16 17:05 **Supervisor approved:** 12/13/16 16:42 Gwendolyn Burns

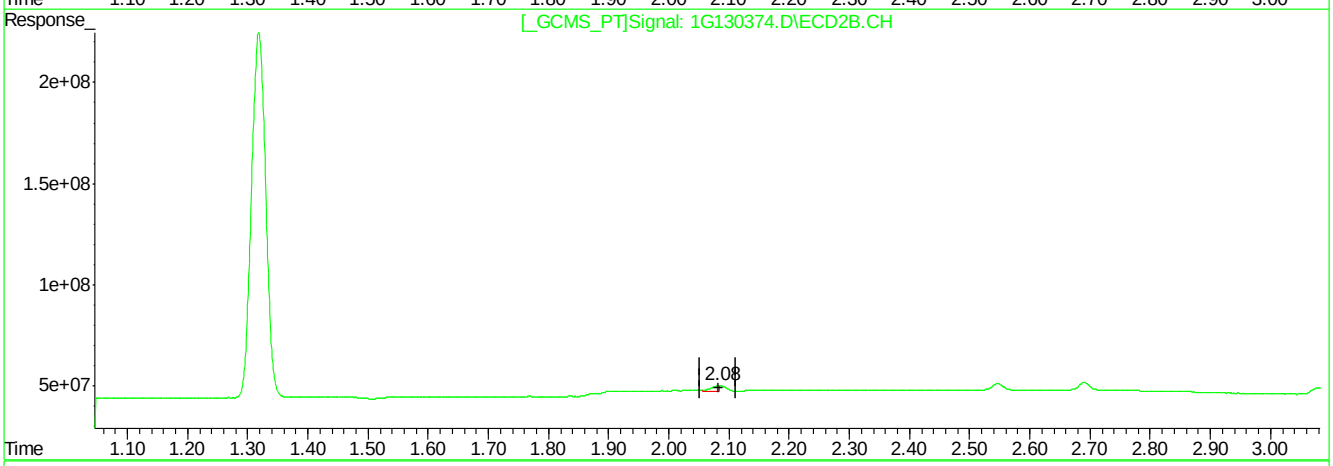
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	1.82	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	2.08	Poorly defined baseline
Hexachlorobenzene	118-74-1	1	2.16	Poorly defined baseline
gamma-BHC (Lindane)	58-89-9	1	2.58	Poorly defined baseline
beta-BHC	319-85-7	1	2.65	Poorly defined baseline
beta-BHC	319-85-7	2	3.16	Poorly defined baseline
Alachlor	15972-60-8	1	3.53	Poorly defined baseline
Heptachlor	76-44-8	2	3.60	Poorly defined baseline
Alachlor	15972-60-8	2	3.85	Poorly defined baseline
Heptachlor epoxide	1024-57-3	1	4.08	Poorly defined baseline
gamma-Chlordane	5103-74-2	1	4.24	Poorly defined baseline
Endrin	72-20-8	1	5.20	Poorly defined baseline
Methoxychlor	72-43-5	1	6.52	Poorly defined baseline
Endosulfan-II	33213-65-9	2	6.56	Poorly defined baseline
4,4'-DDT	50-29-3	2	6.93	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	7.12	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.23	Poorly defined baseline
Methoxychlor	72-43-5	2	8.16	Poorly defined baseline
Endrin ketone	53494-70-5	2	8.49	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.06	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

0.00min 0.000PPB

response 0

(2) Tetrachloro-m-xylene #2 (SAB)

2.08min 0.496PPB

response 25501344

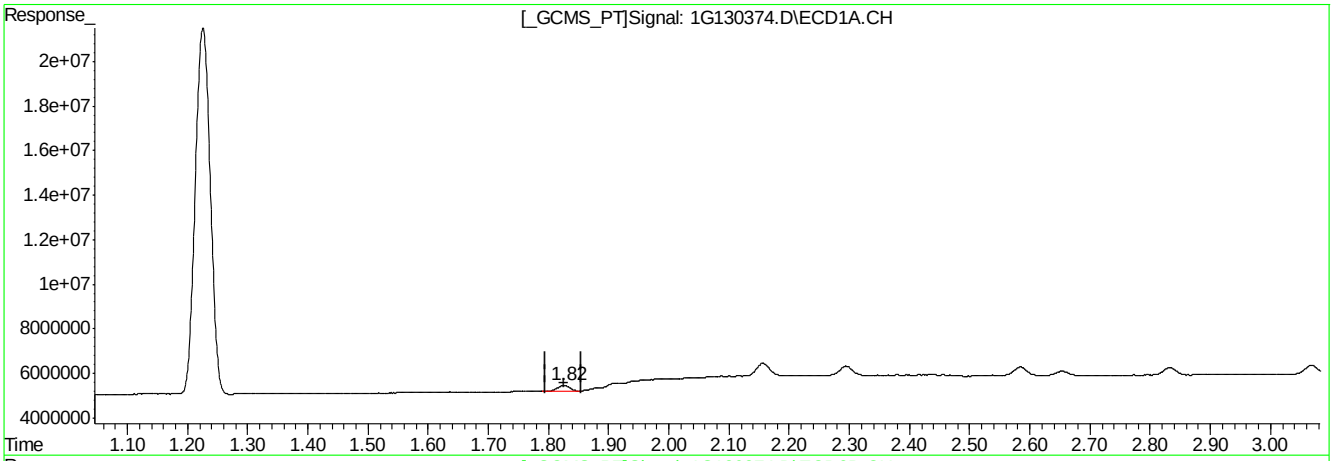
(+) = Expected Retention Time

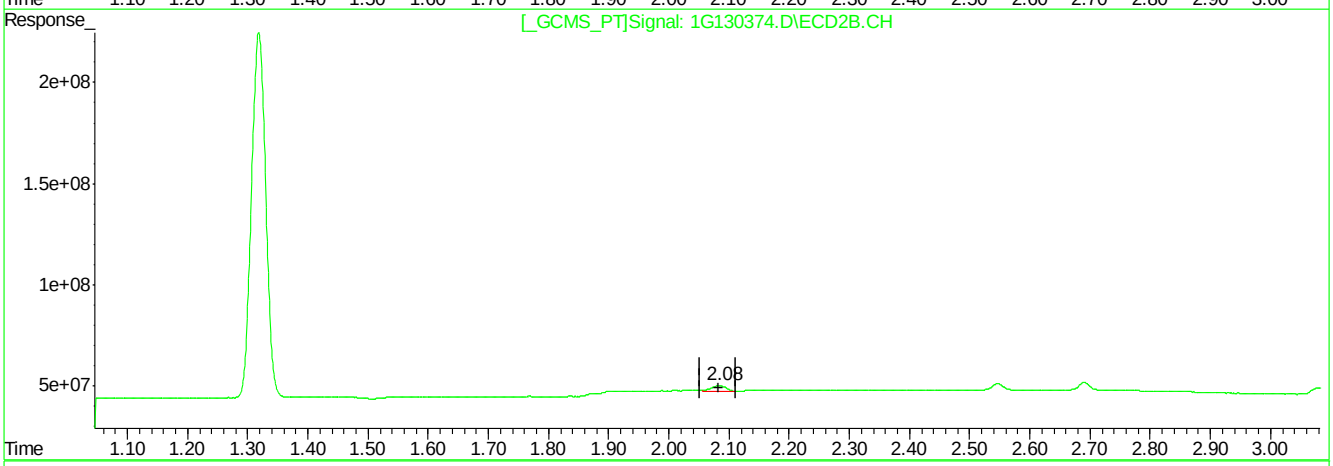
1G130374.D 1PST4166.M Fri Dec 09 13:44:36 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(2) Tetrachloro-m-xylene (SAB)

1.82min 0.898PPB m

response 4263098

(2) Tetrachloro-m-xylene #2 (SAB)

2.08min 0.944PPB m

response 48558972

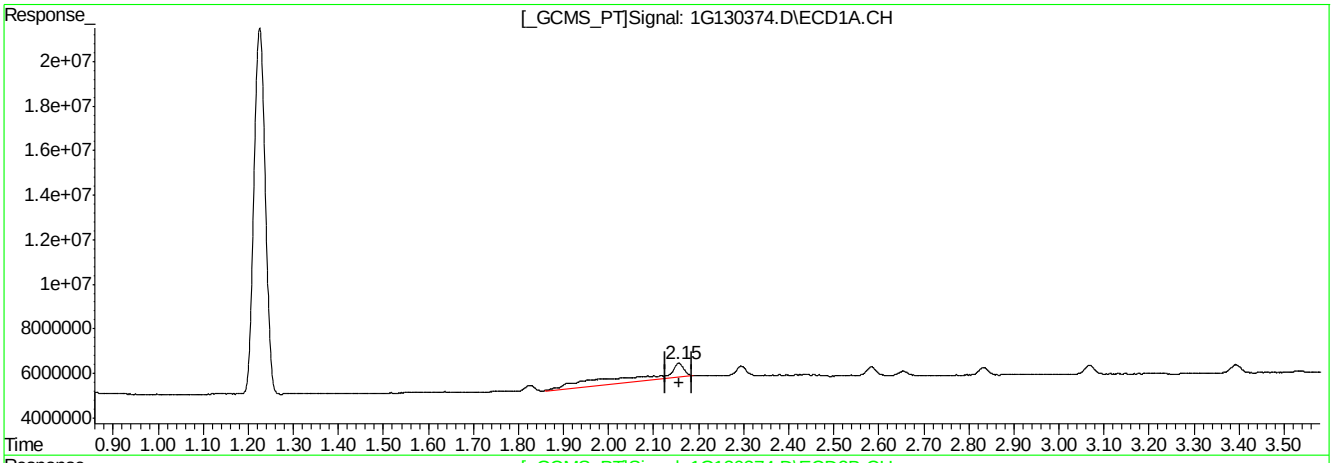
(+) = Expected Retention Time

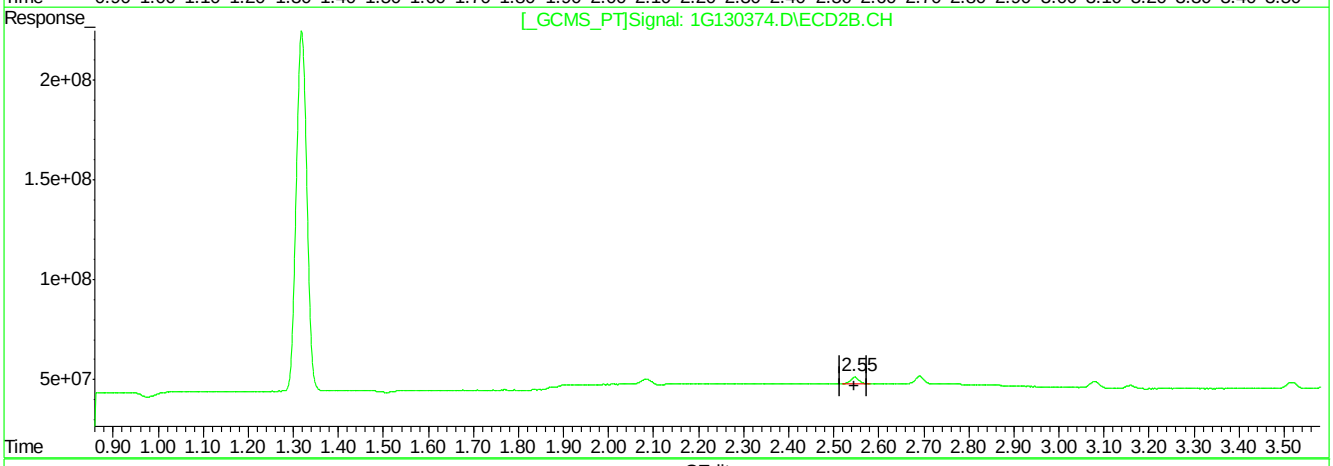
1G130374.D 1PST4166.M Fri Dec 09 13:44:56 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Hexachlorobenzene

2.16min 5.167PPB

response 41773736

(3) Hexachlorobenzene #2

2.55min 0.770PPB

response 44938149

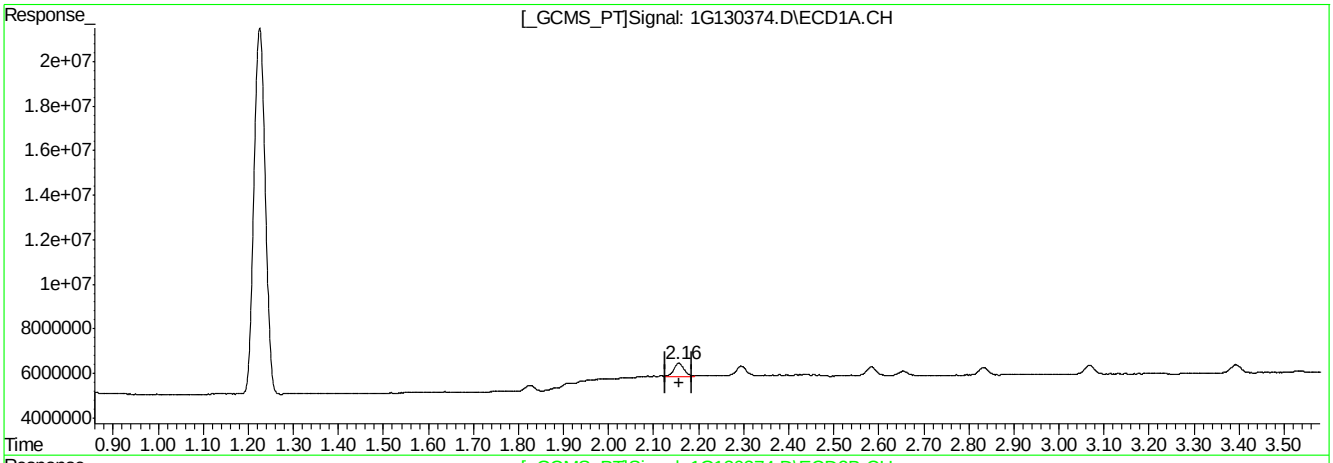
(+) = Expected Retention Time

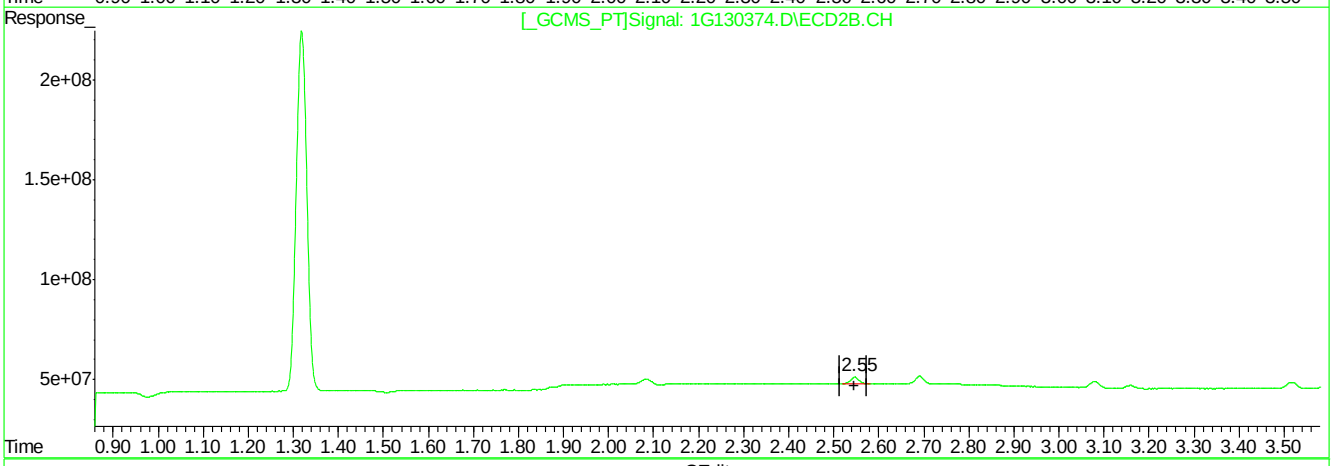
1G130374.D 1PST4166.M Fri Dec 09 13:44:59 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Hexachlorobenzene

2.16min 1.119PPB m

response 9048660

(3) Hexachlorobenzene #2

2.55min 0.770PPB

response 44938149

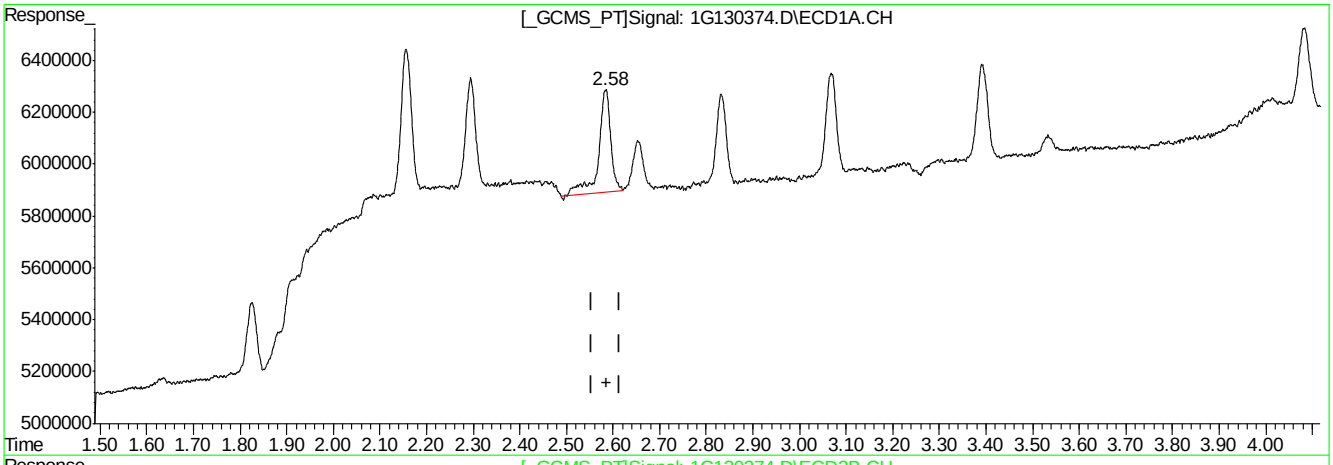
(+) = Expected Retention Time

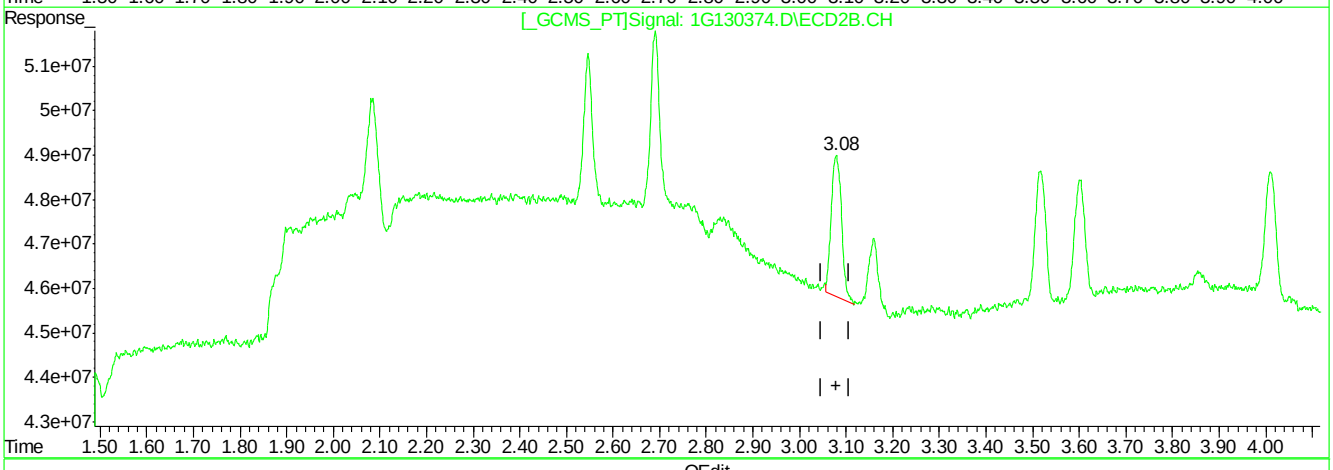
1G130374.D 1PST4166.M Fri Dec 09 13:45:06 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(5) gamma-BHC (MA)

2.58min 1.106PPB

response 7118361

(5) gamma-BHC #2 (MA)

3.08min 0.760PPB

response 48783819

(+) = Expected Retention Time

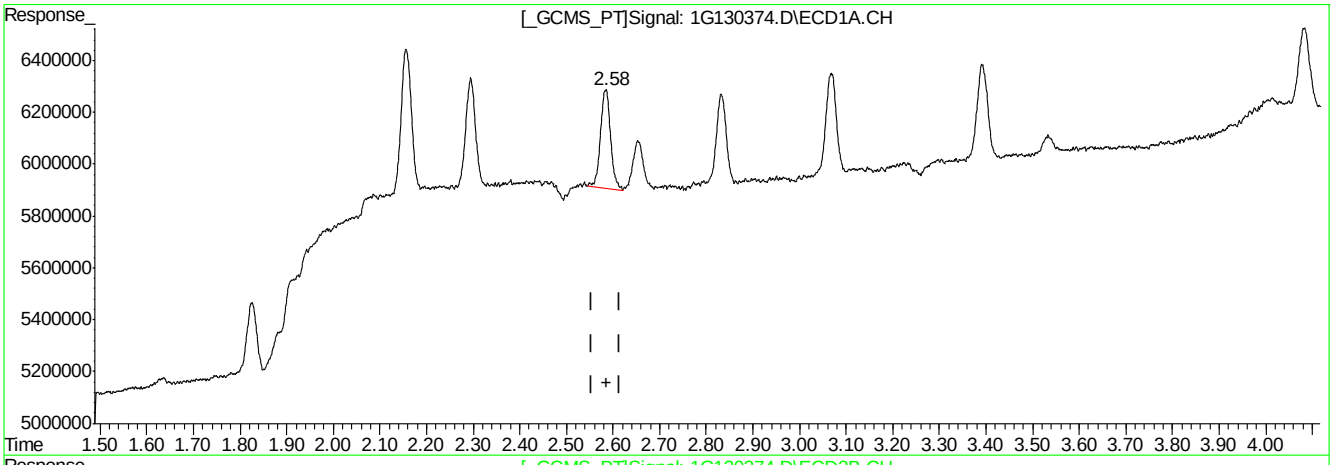
1G130374.D 1PST4166.M Fri Dec 09 13:45:10 2016 RPT1

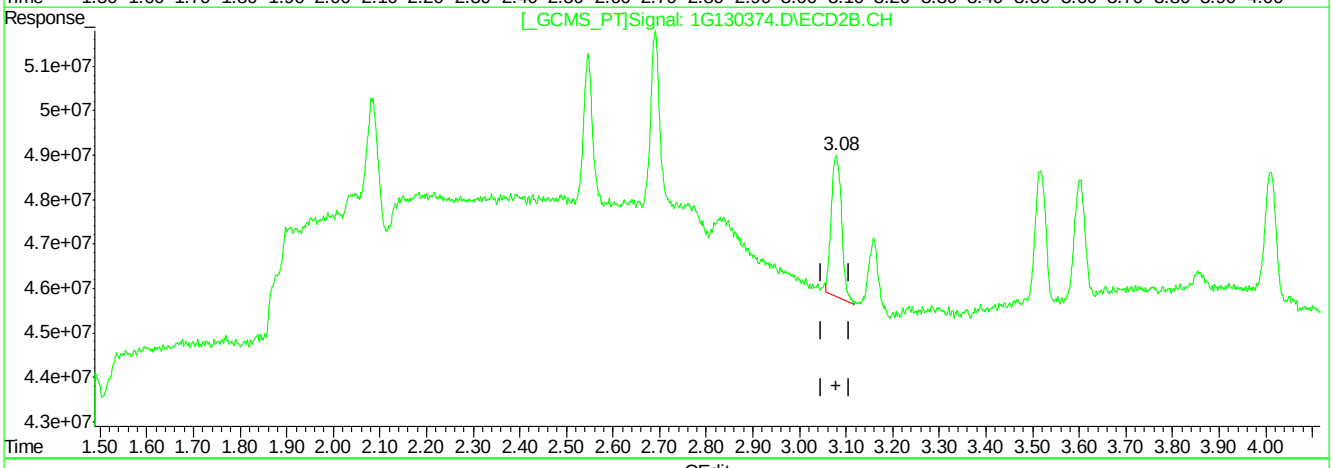
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(5) gamma-BHC (MA)

2.58min 0.891PPB m

response 5735343

(5) gamma-BHC #2 (MA)

3.08min 0.760PPB

response 48783819

(+) = Expected Retention Time

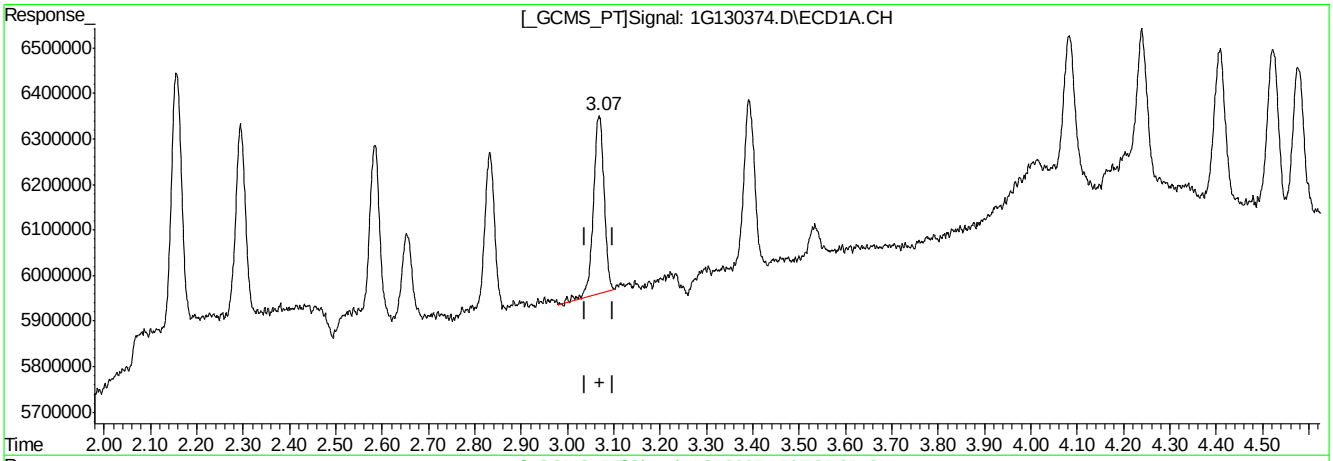
1G130374.D 1PST4166.M Fri Dec 09 13:45:16 2016 RPT1

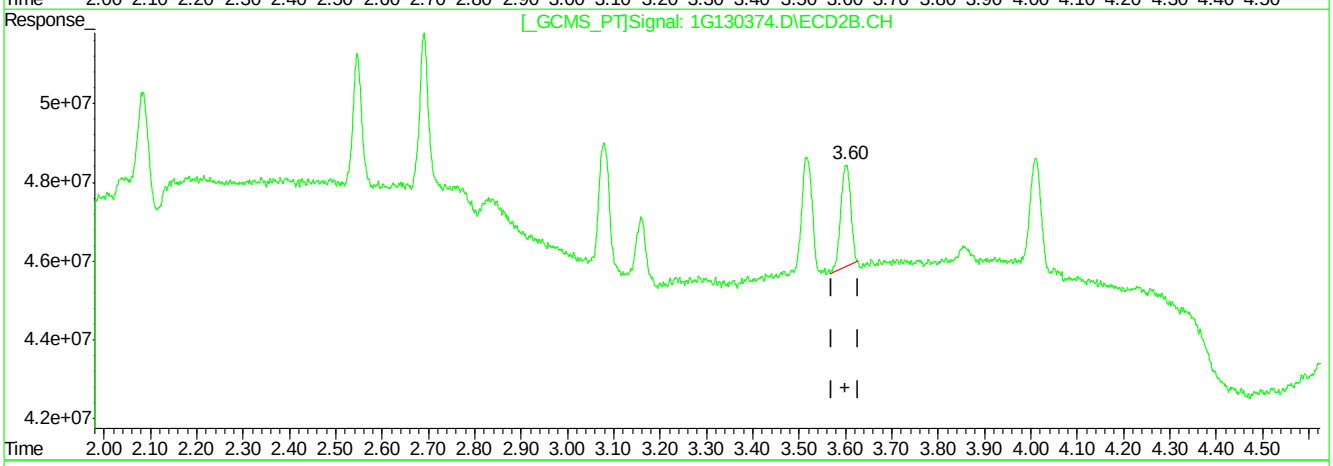
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(6) Heptachlor (MA)

3.07min 0.957PPB

response 6249448

(6) Heptachlor #2 (MA)

3.60min 0.707PPB

response 38554930

(+) = Expected Retention Time

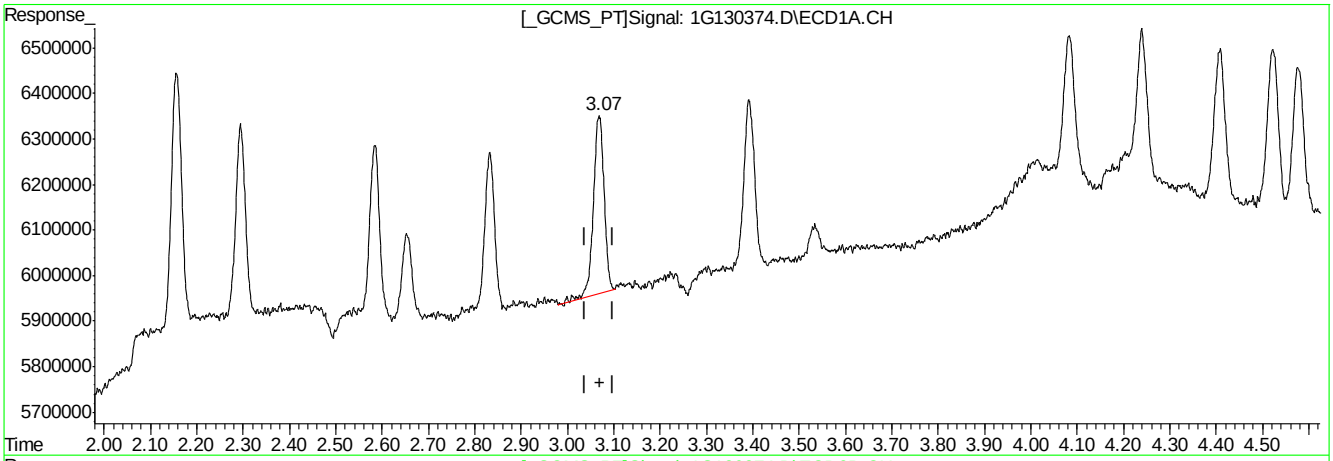
1G130374.D 1PST4166.M Fri Dec 09 13:45:21 2016 RPT1

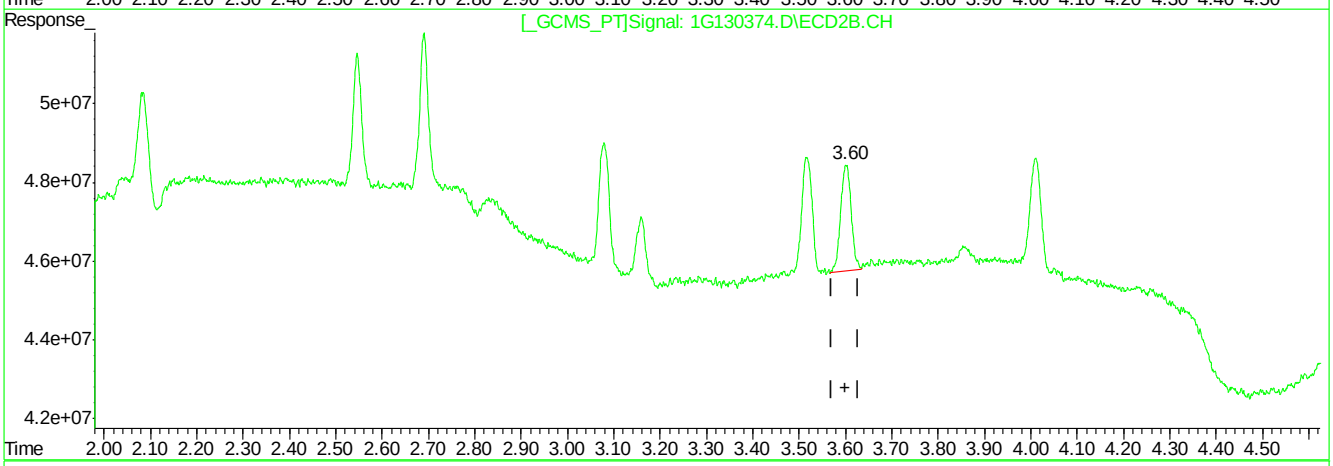
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(6) Heptachlor (MA)

3.07min 0.957PPB

response 6249448

(6) Heptachlor #2 (MA)

3.60min 0.788PPB m

response 42981293

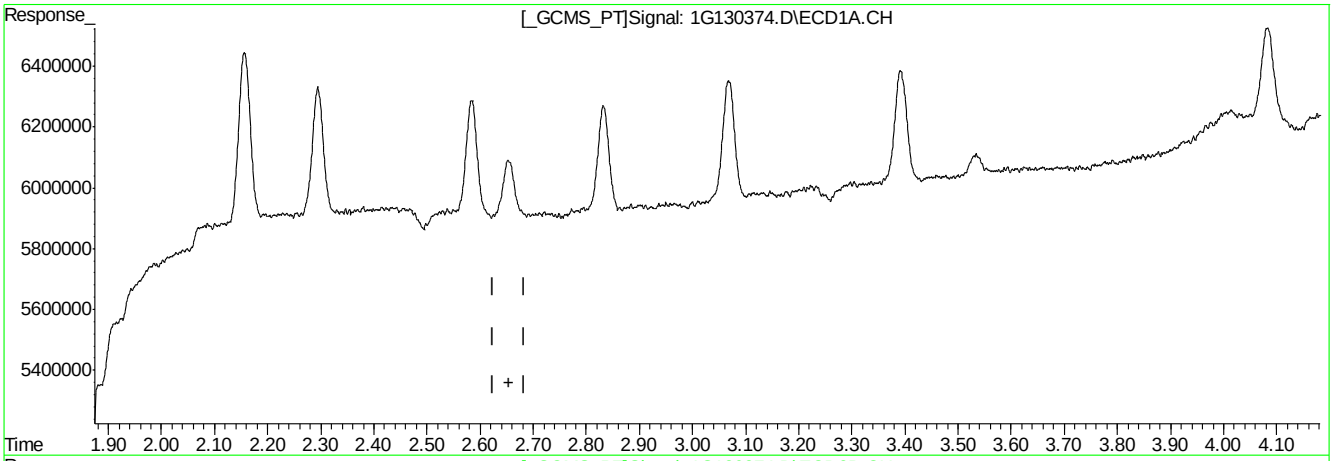
(+) = Expected Retention Time

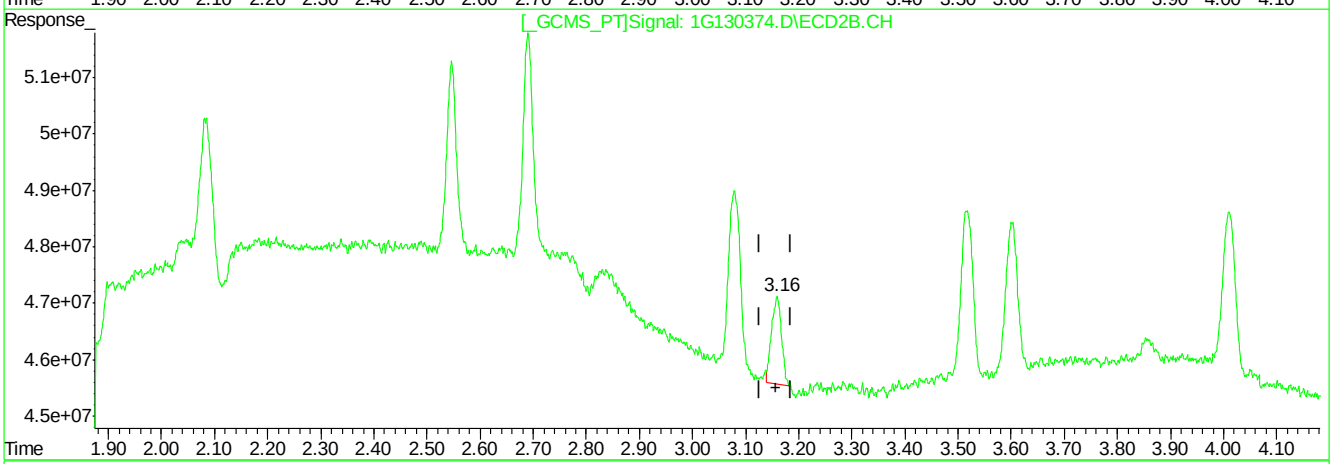
1G130374.D 1PST4166.M Fri Dec 09 13:45:26 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(7) beta-BHC (B)

0.00min 0.000PPB

response 0

(7) beta-BHC #2 (B)

3.16min 0.783PPB

response 20143623

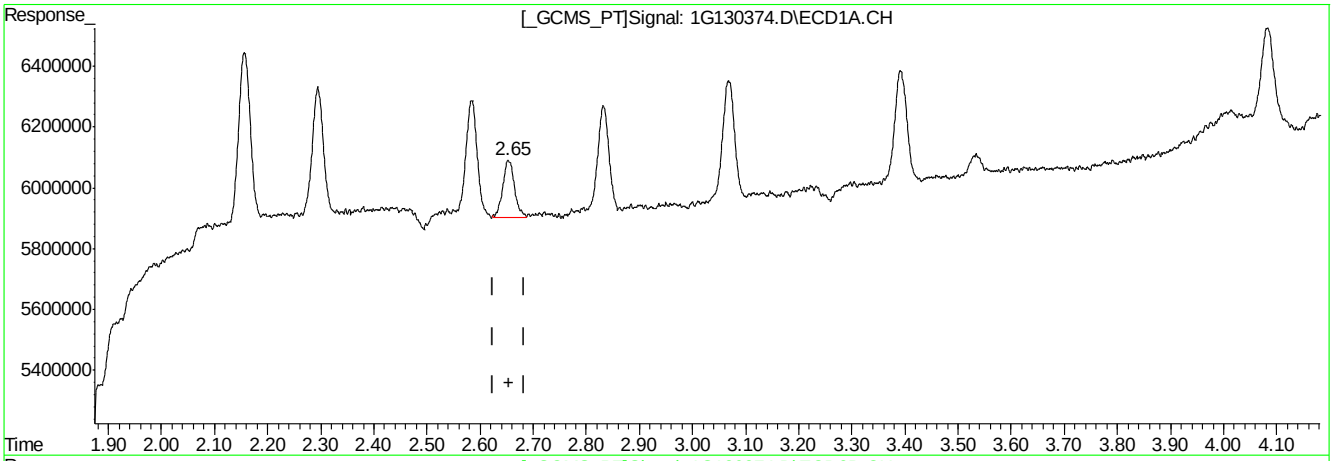
(+) = Expected Retention Time

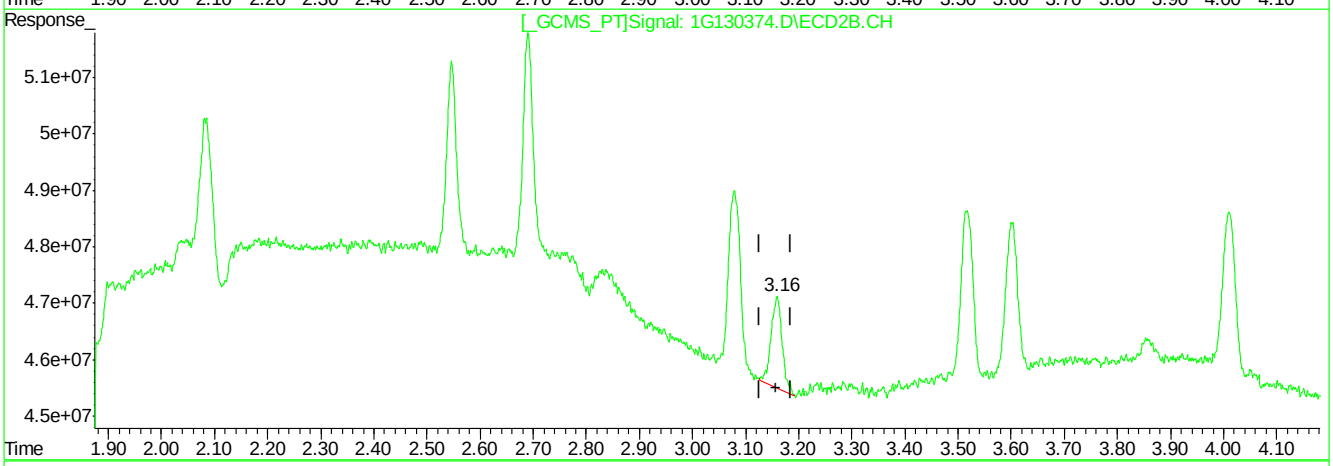
1G130374.D 1PST4166.M Fri Dec 09 13:45:29 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(7) beta-BHC (B)

2.65min 0.993PPB m

response 2884616

(7) beta-BHC #2 (B)

3.16min 0.924PPB m

response 23770177

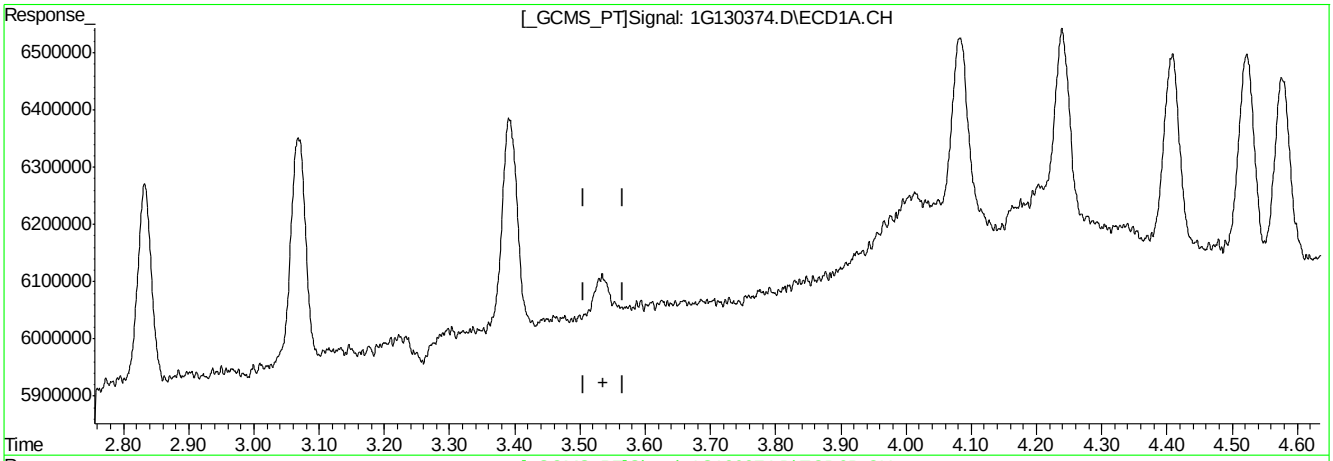
(+) = Expected Retention Time

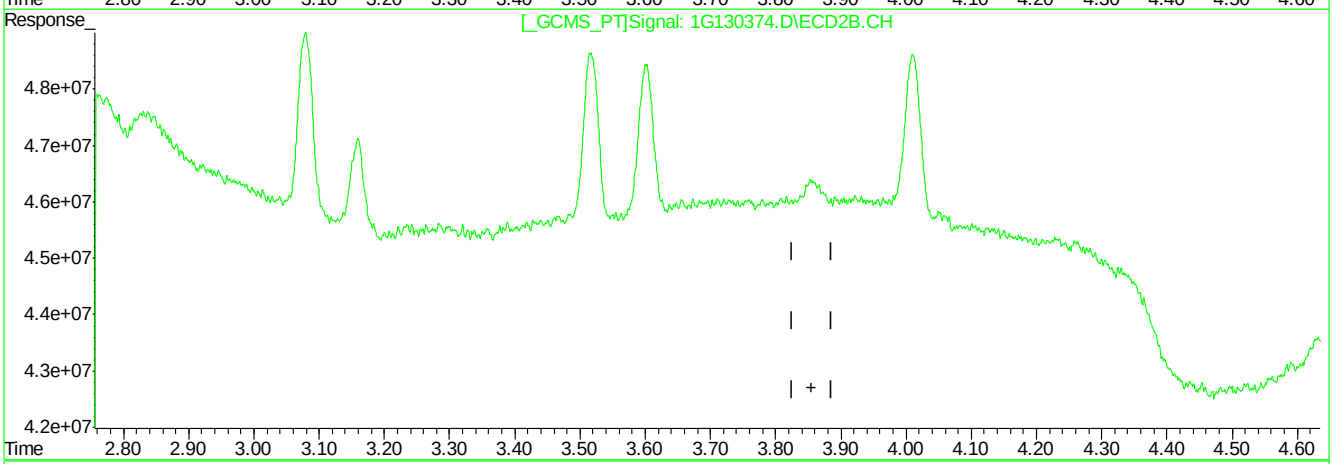
1G130374.D 1PST4166.M Fri Dec 09 13:45:39 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

response 0

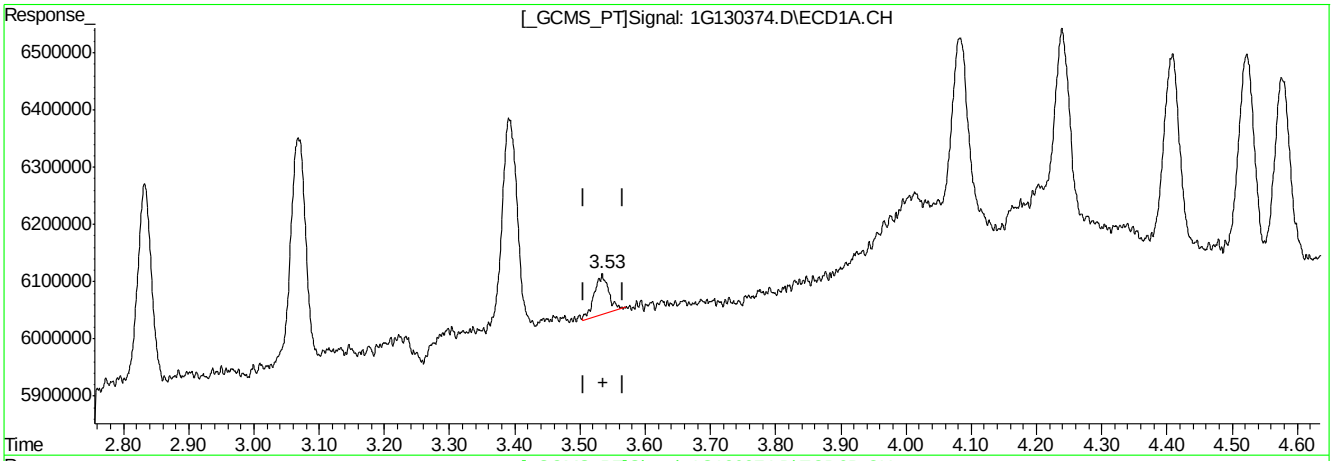
(+) = Expected Retention Time

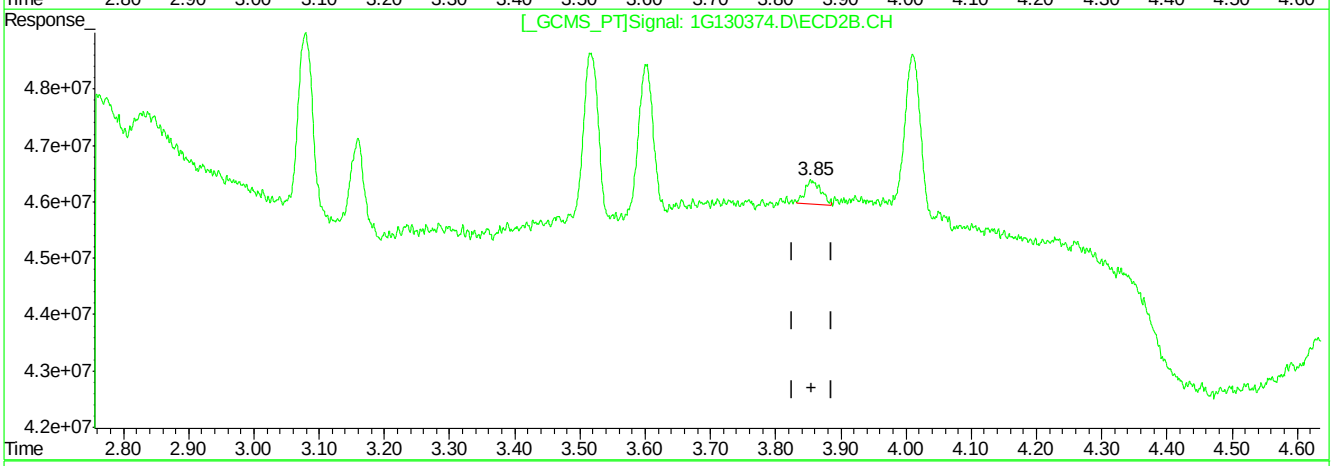
1G130374.D 1PST4166.M Fri Dec 09 13:45:43 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(10) Alachlor

3.53min 1.261PPB m

response 1072933

(10) Alachlor #2

3.85min 1.015PPB m

response 7082120

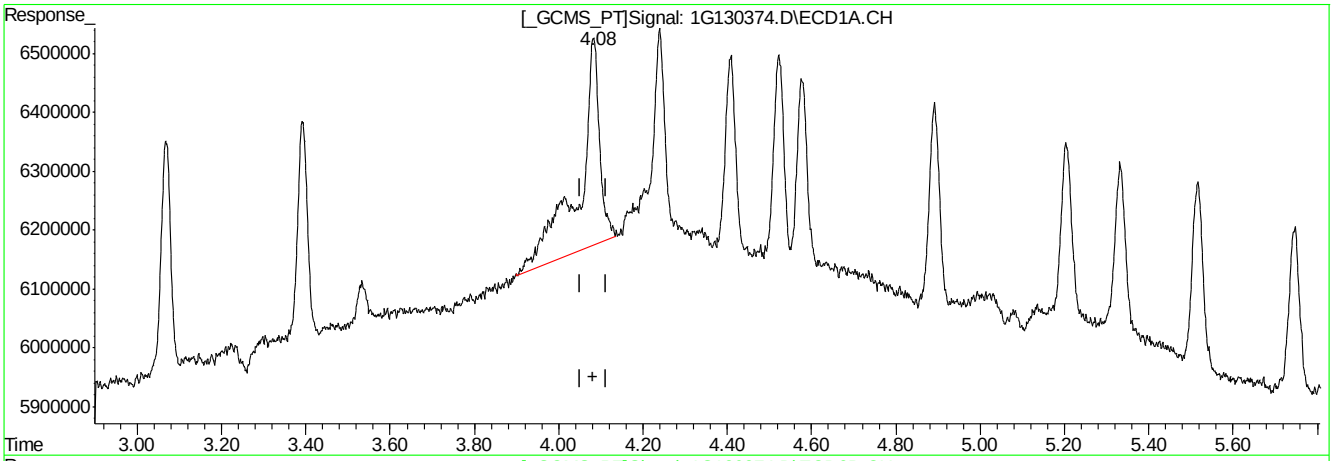
(+) = Expected Retention Time

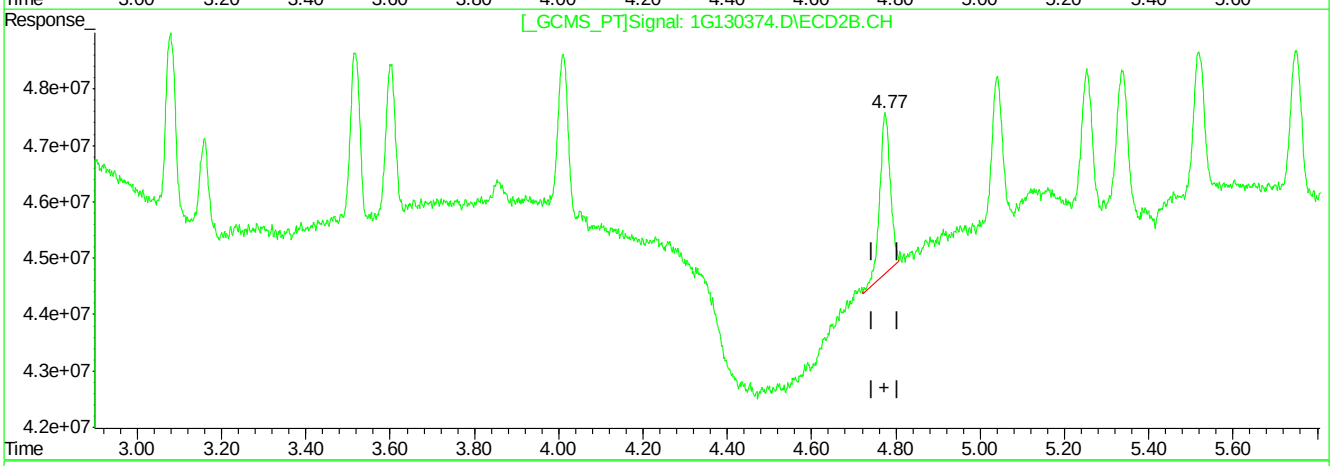
1G130374.D 1PST4166.M Fri Dec 09 13:45:53 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.08min 1.916PPB

response 11915570

(11) Heptachlor Epoxide #2 (B)

4.77min 0.956PPB

response 50330457

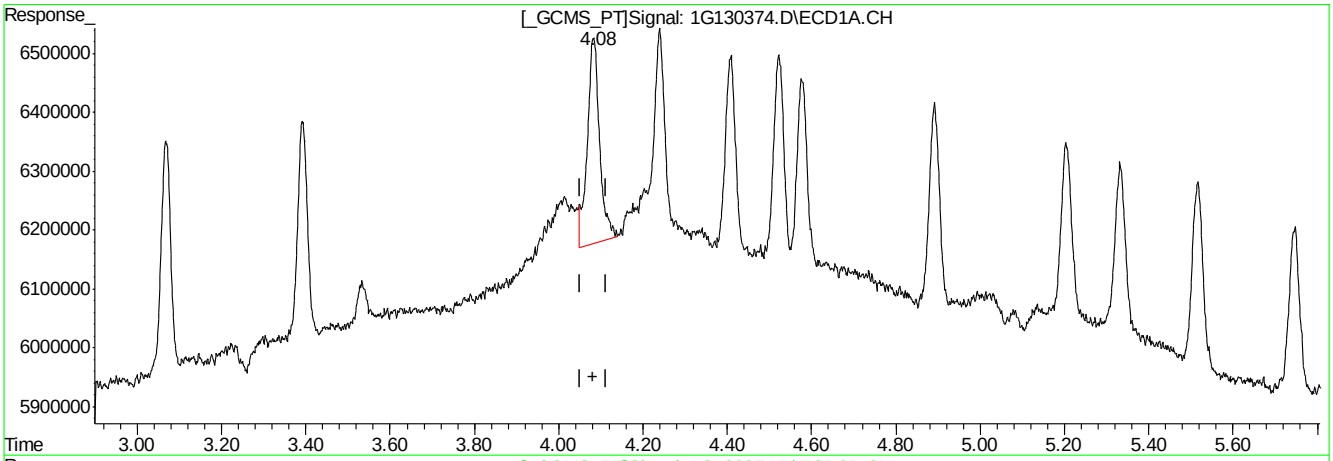
(+) = Expected Retention Time

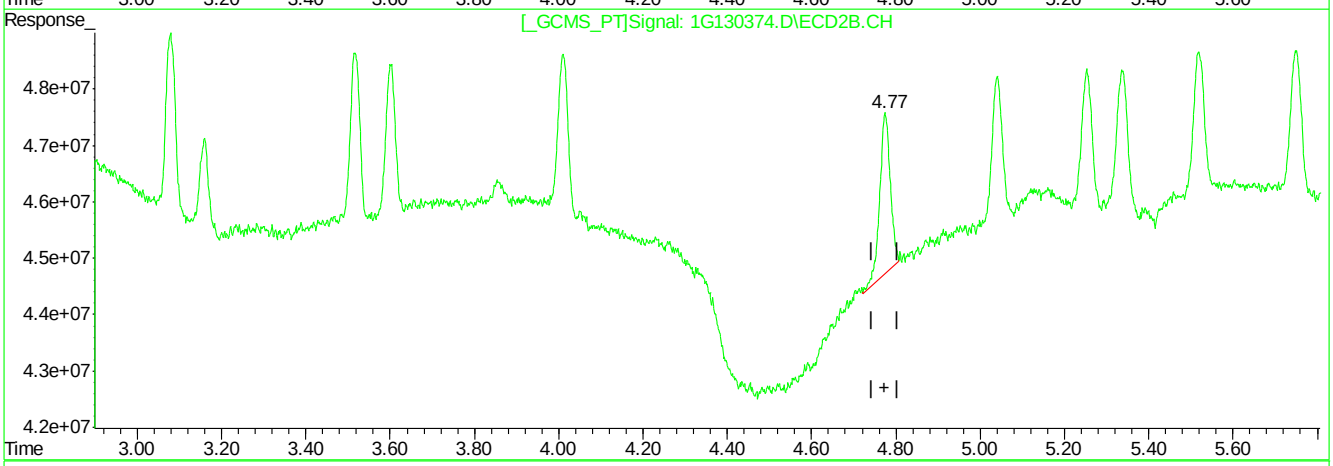
1G130374.D 1PST4166.M Fri Dec 09 13:45:56 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.08min 1.135PPB m

response 7057208

(11) Heptachlor Epoxide #2 (B)

4.77min 0.956PPB

response 50330457

(+) = Expected Retention Time

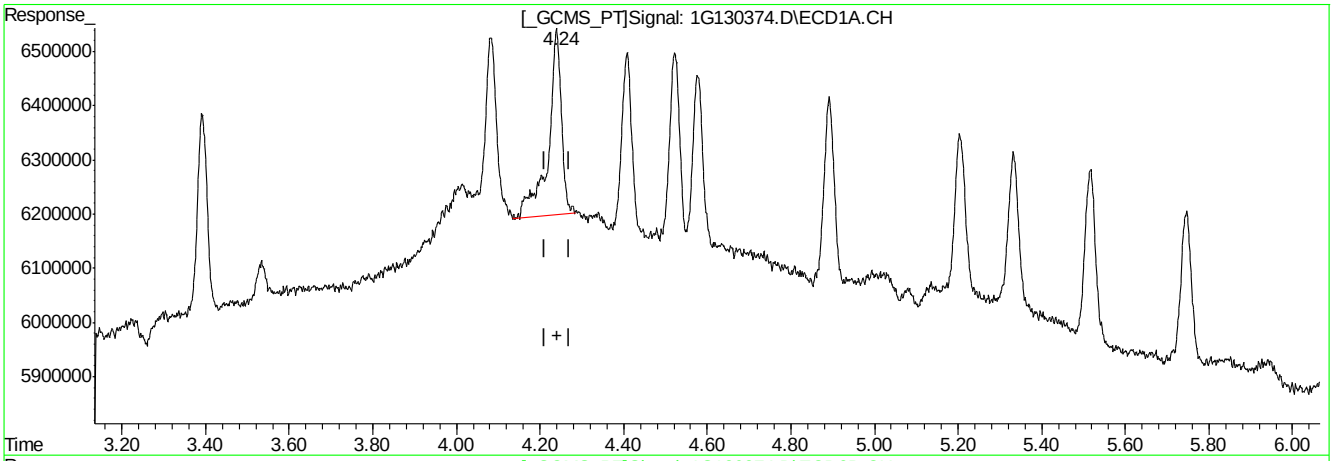
1G130374.D 1PST4166.M Fri Dec 09 13:46:05 2016 RPT1

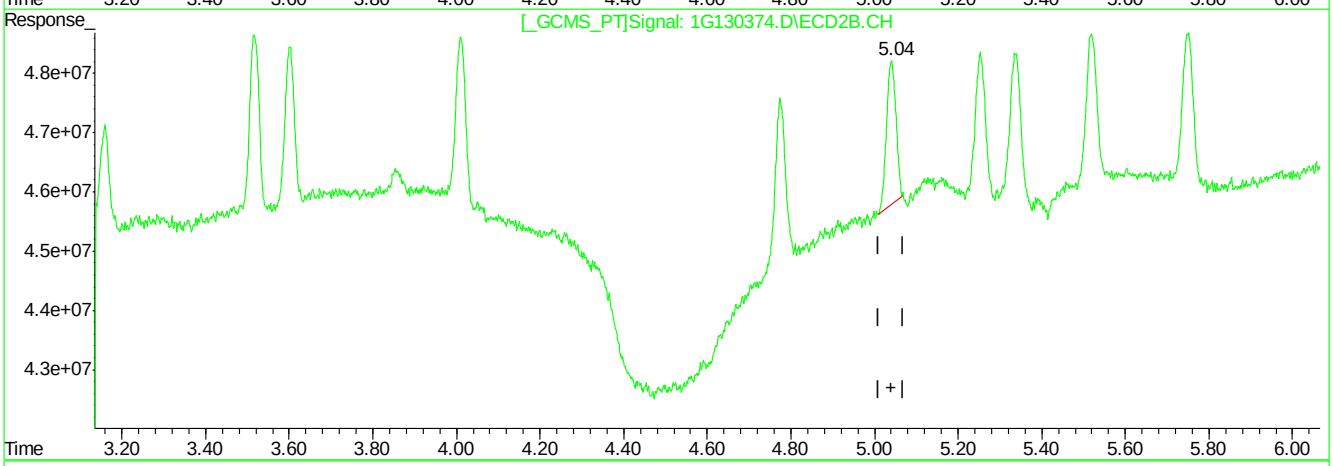
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(12) gamma-Chlordane (B)

4.24min 1.128PPB

response 7445306

(12) gamma-Chlordane #2 (B)

5.04min 0.704PPB

response 38156871

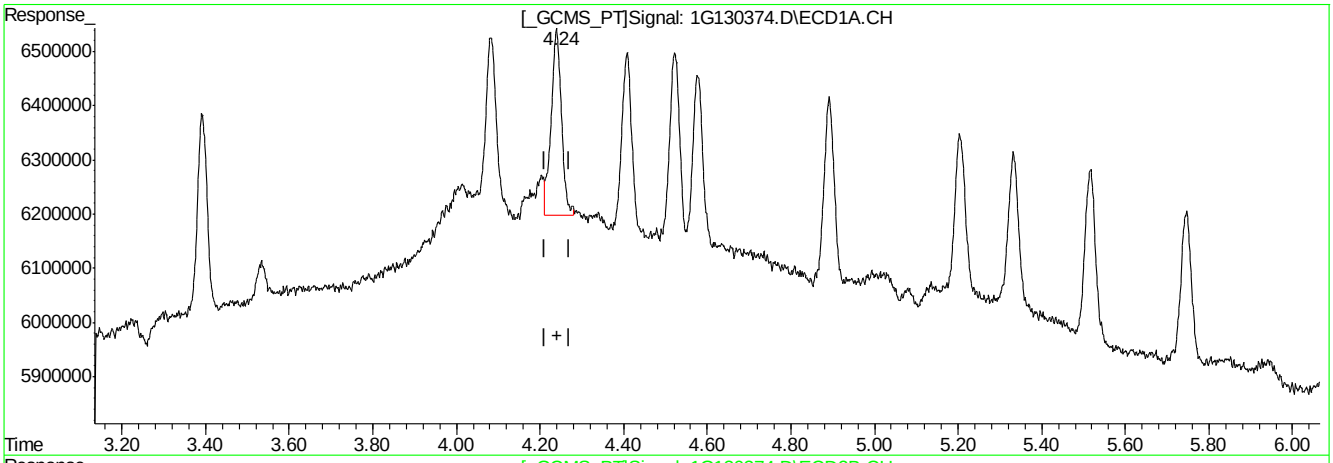
(+) = Expected Retention Time

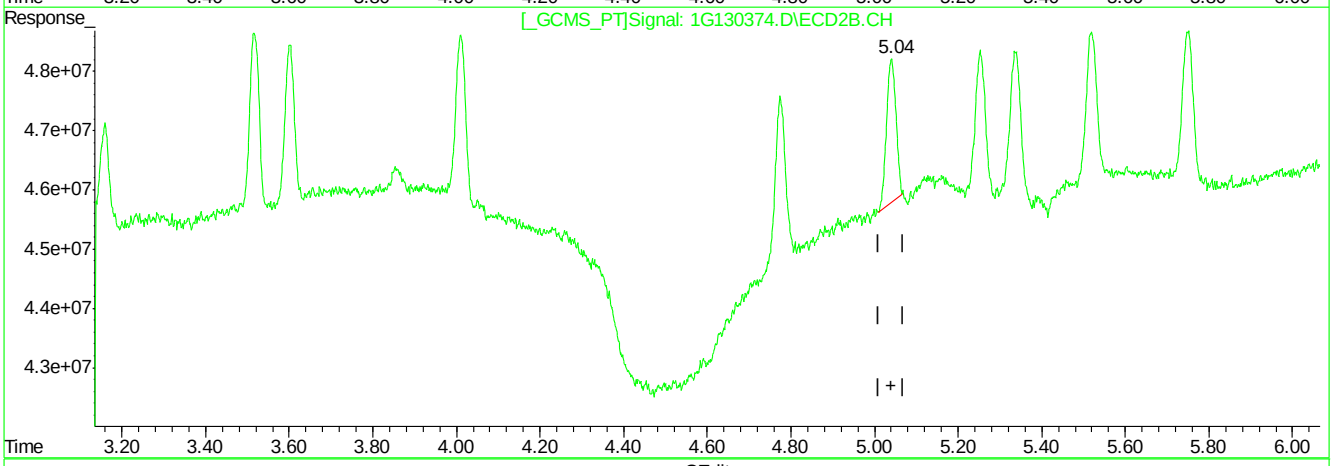
1G130374.D 1PST4166.M Fri Dec 09 13:46:10 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(12) gamma-Chlordane (B)

4.24min 0.901PPB m

response 5945930

(12) gamma-Chlordane #2 (B)

5.04min 0.704PPB

response 38156871

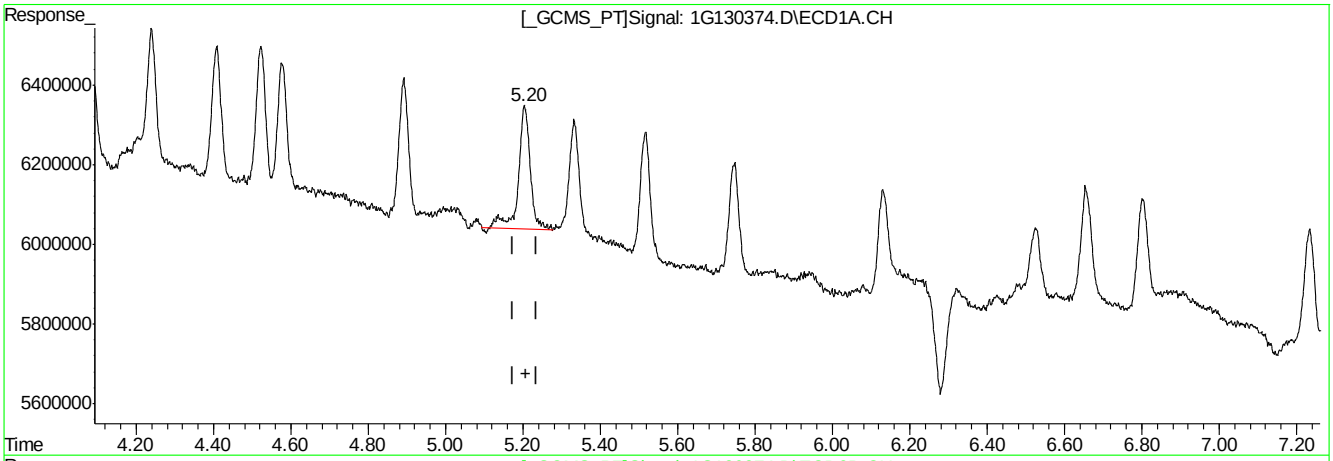
(+) = Expected Retention Time

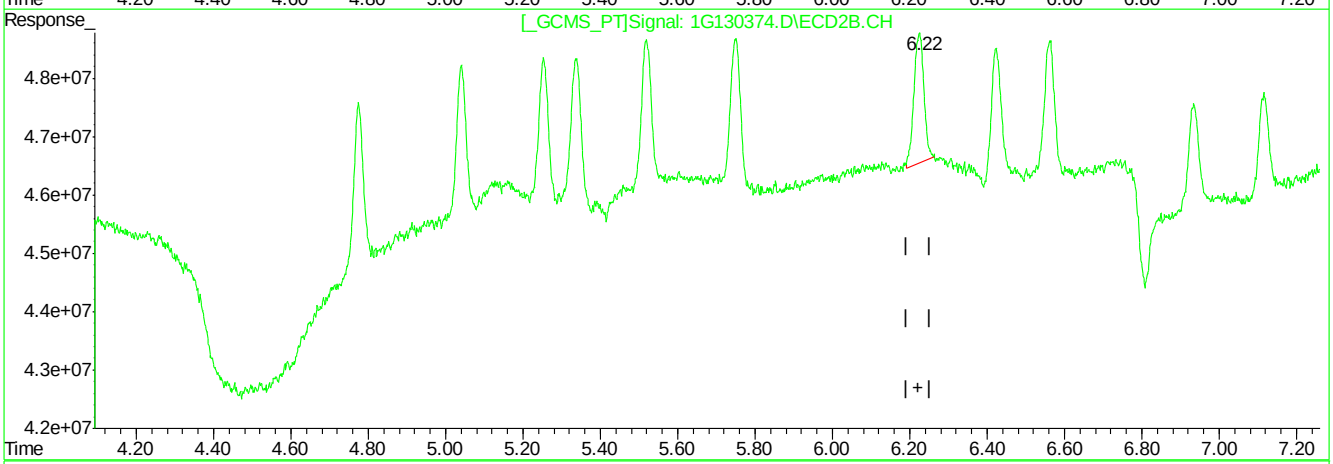
1G130374.D 1PST4166.M Fri Dec 09 13:46:17 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(17) Endrin (MA)

5.20min 1.247PPB

response 6572455

(17) Endrin #2 (MA)

6.23min 0.853PPB

response 40329728

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:46:26 2016 RPT1

13.6.1.18

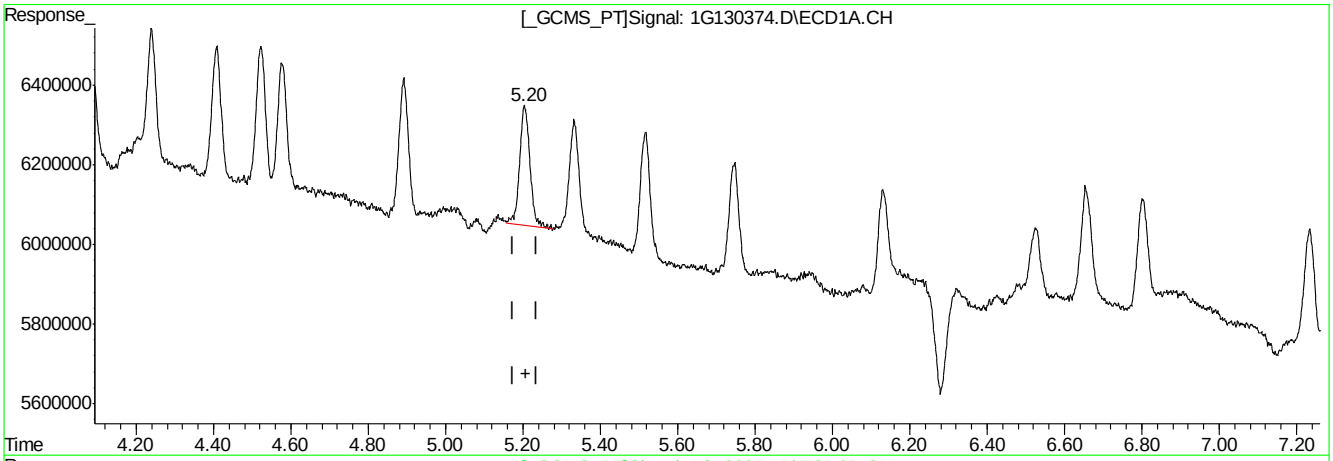
13

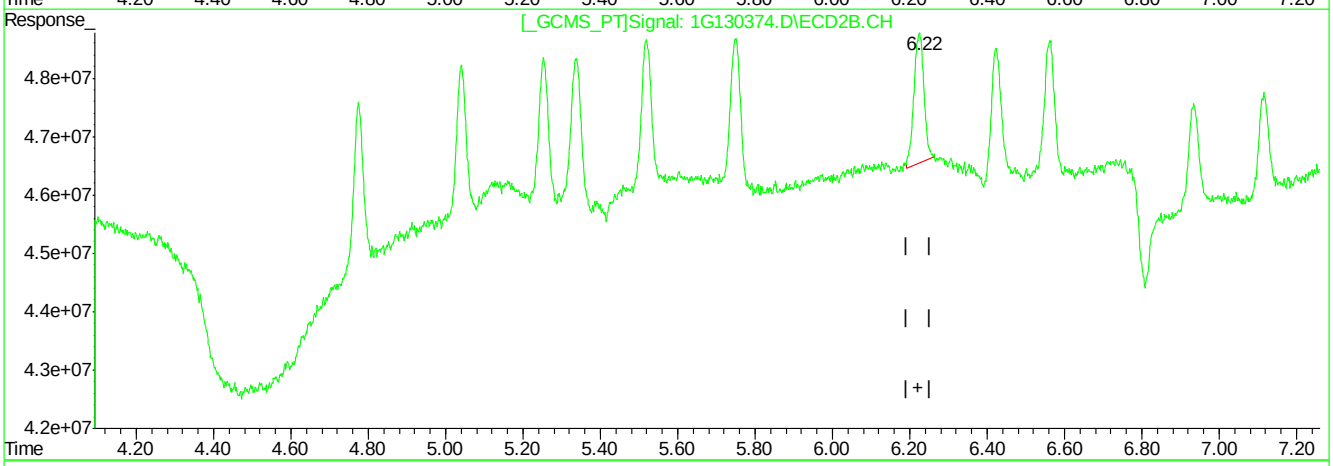
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(17) Endrin (MA)

5.20min 1.053PPB m

response 5547736

(17) Endrin #2 (MA)

6.23min 0.853PPB

response 40329728

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:46:31 2016 RPT1

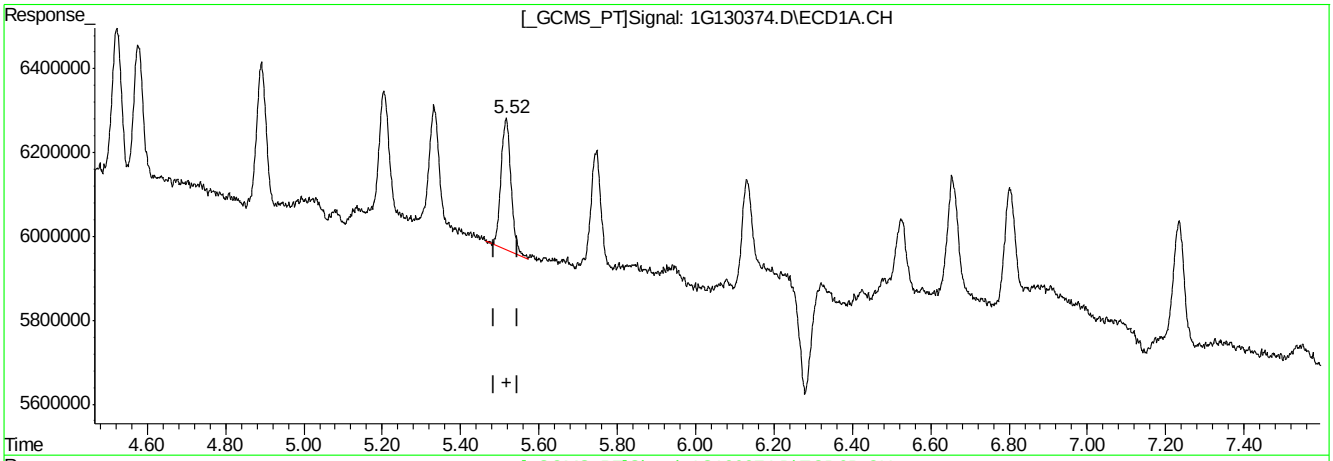
13.6.1.19

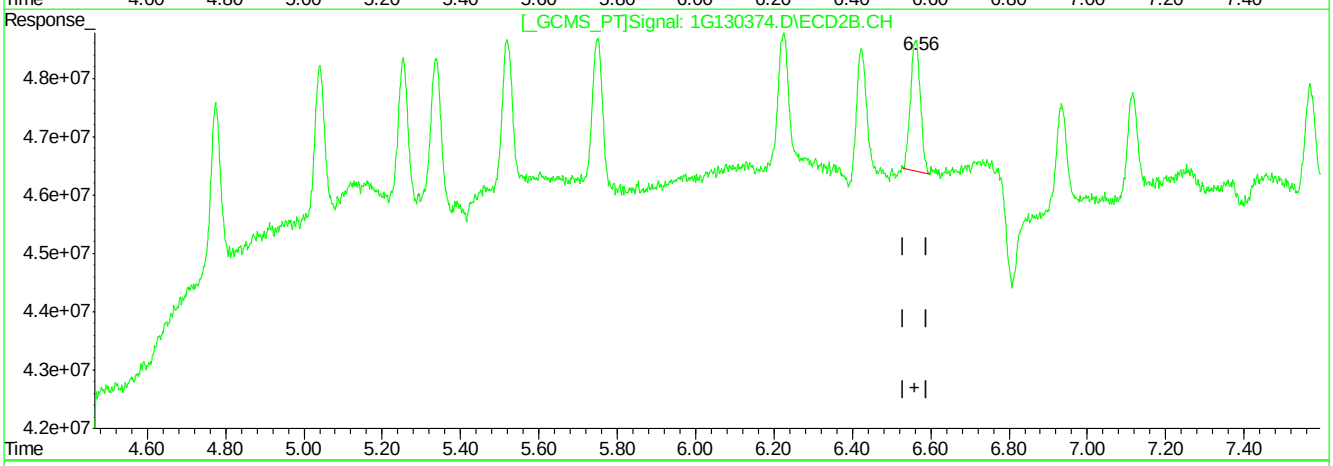
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endosulfan II (B)

5.52min 0.975PPB

response 5568458

(19) Endosulfan II #2 (B)

6.56min 0.811PPB

response 39162610

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:46:37 2016 RPT1

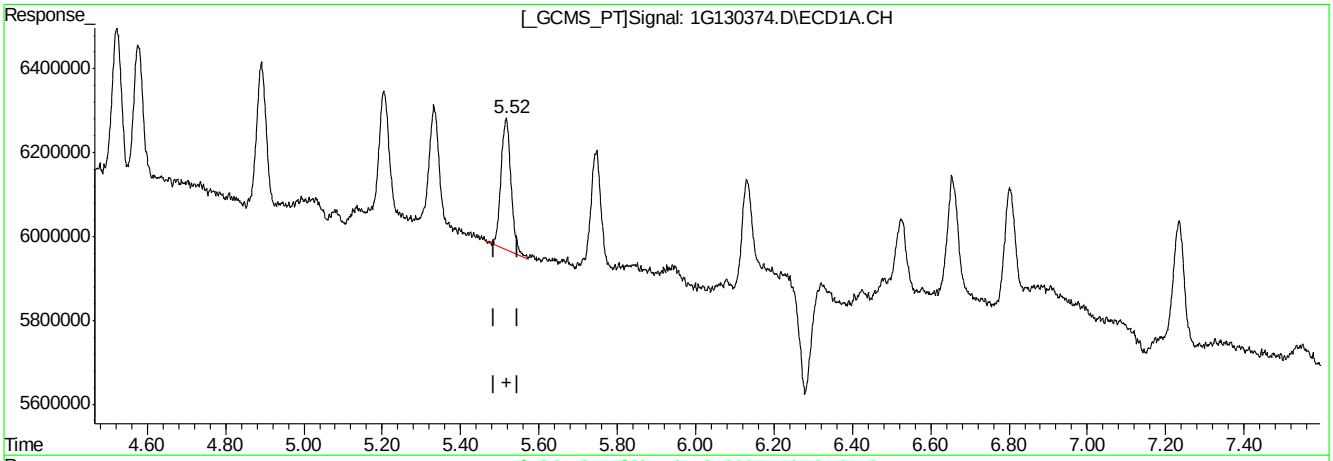
13.6.1.20

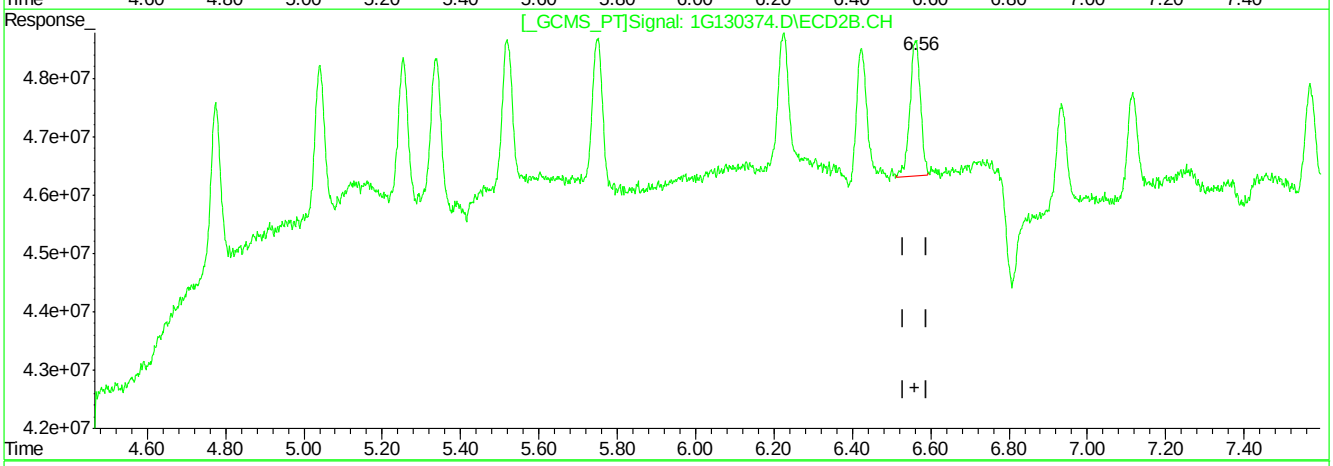
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(19) Endosulfan II (B)

5.52min 0.975PPB

response 5568458

(19) Endosulfan II #2 (B)

6.56min 0.908PPB m

response 43884507

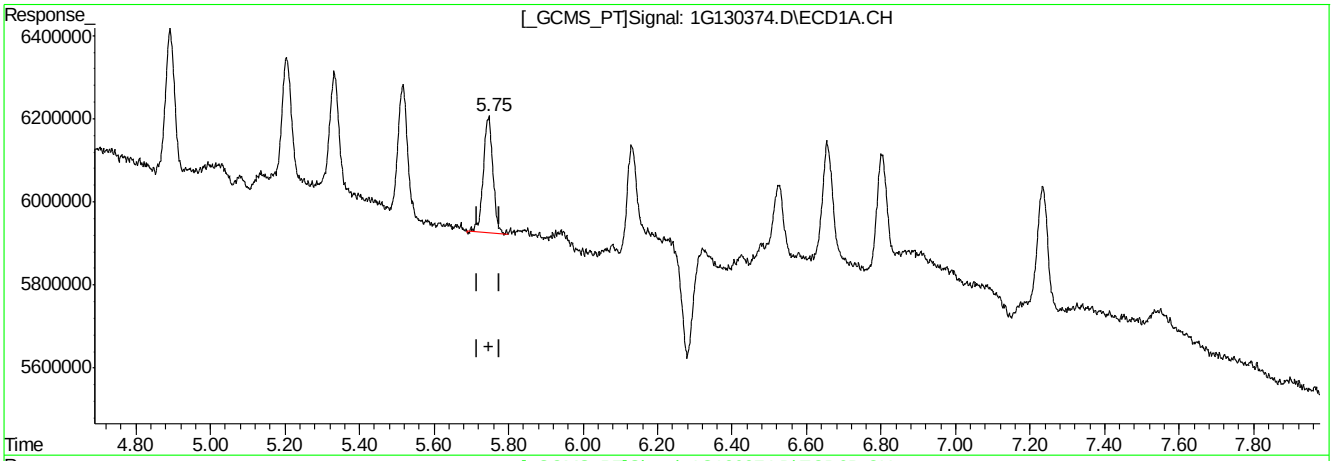
(+) = Expected Retention Time

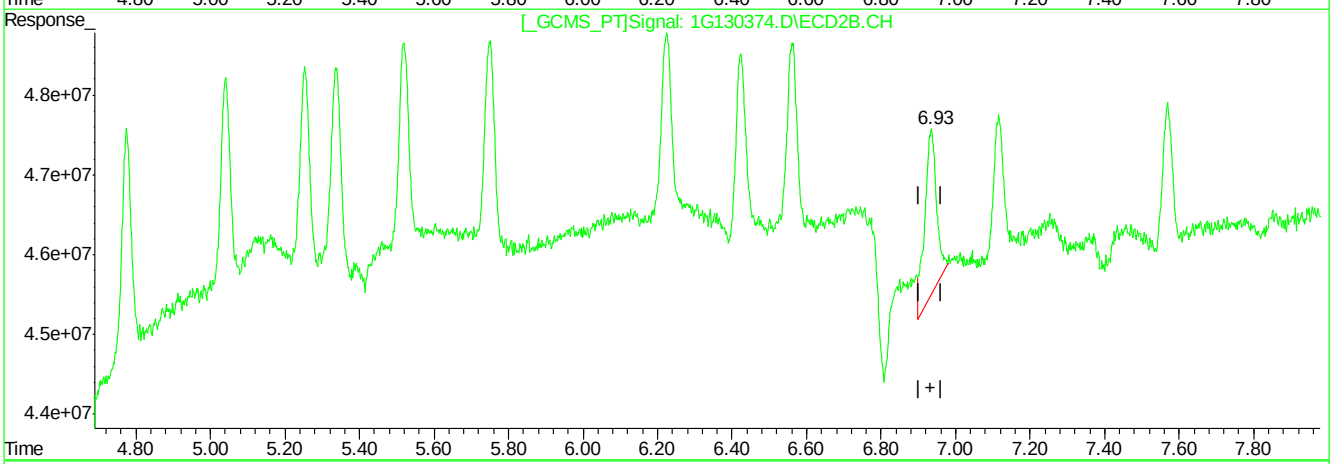
1G130374.D 1PST4166.M Fri Dec 09 13:46:41 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(20) 4,4'-DDT (MA)

5.75min 1.013PPB

response 4976631

(20) 4,4'-DDT #2 (MA)

6.94min 1.416PPB

response 45331072

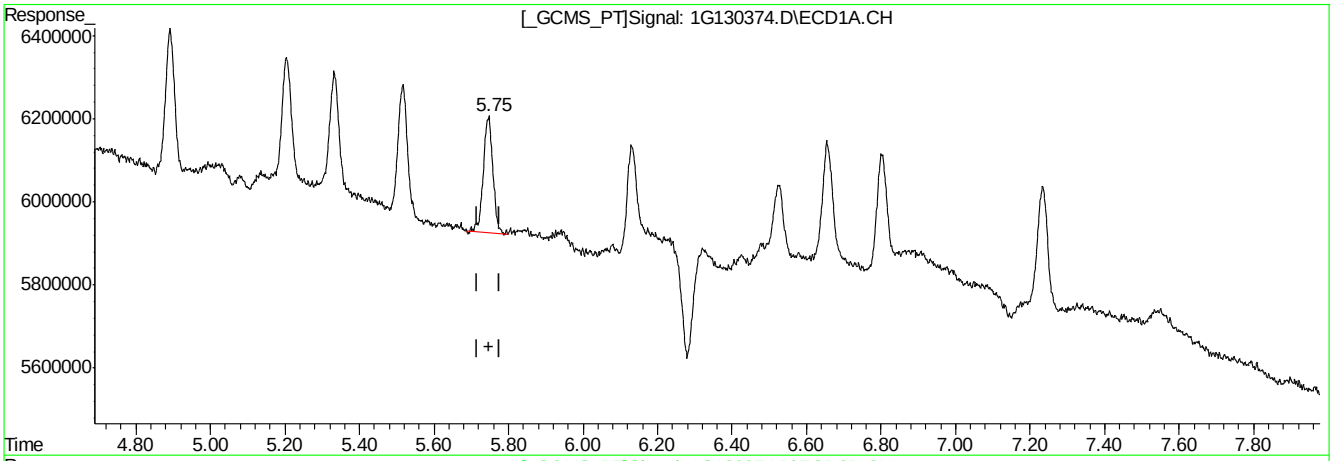
(+) = Expected Retention Time

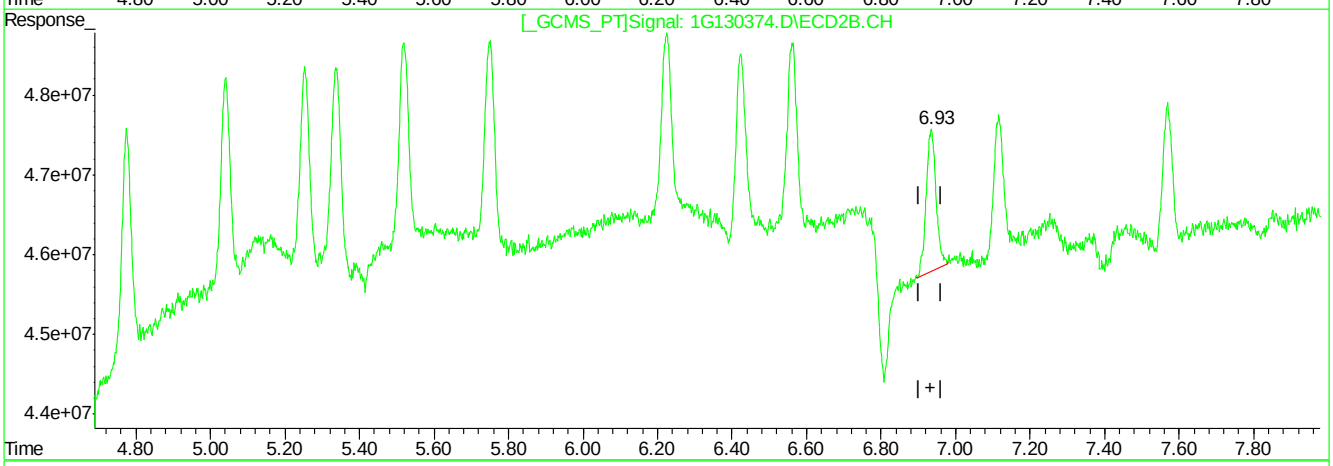
1G130374.D 1PST4166.M Fri Dec 09 13:46:44 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(20) 4,4'-DDT (MA)

5.75min 1.013PPB

response 4976631

(20) 4,4'-DDT #2 (MA)

6.93min 1.027PPB m

response 32886566

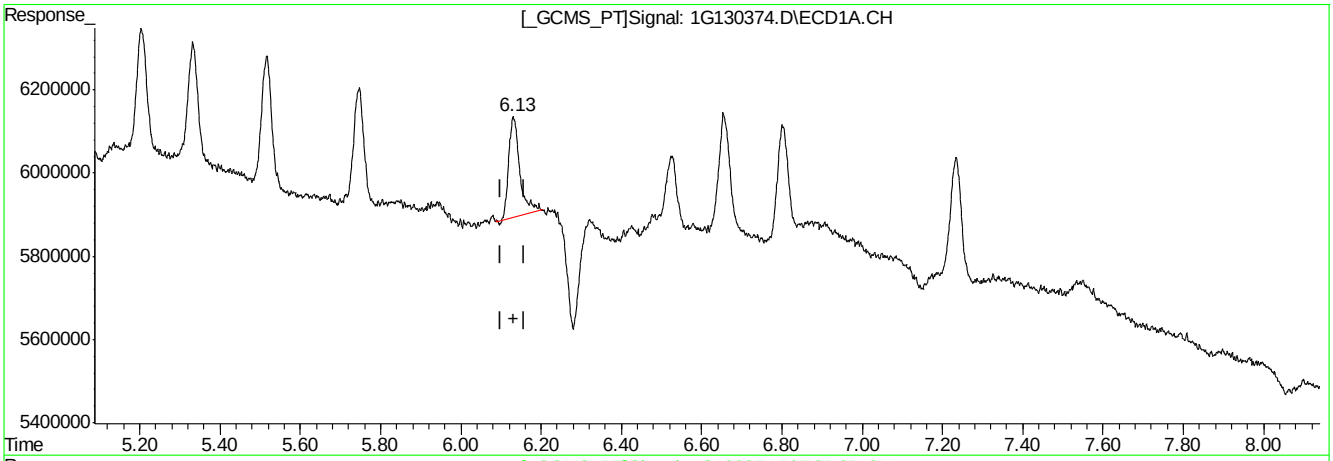
(+) = Expected Retention Time

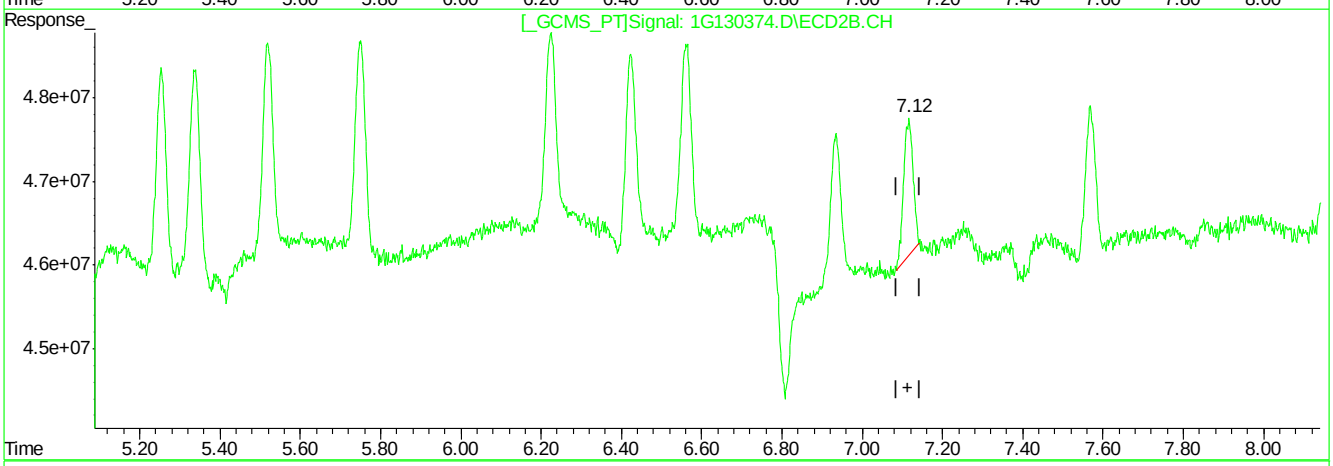
1G130374.D 1PST4166.M Fri Dec 09 13:46:48 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Endrin Aldehyde (B)

6.13min 1.094PPB

response 4648064

(21) Endrin Aldehyde #2 (B)

7.12min 0.725PPB

response 27218943

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:46:55 2016 RPT1

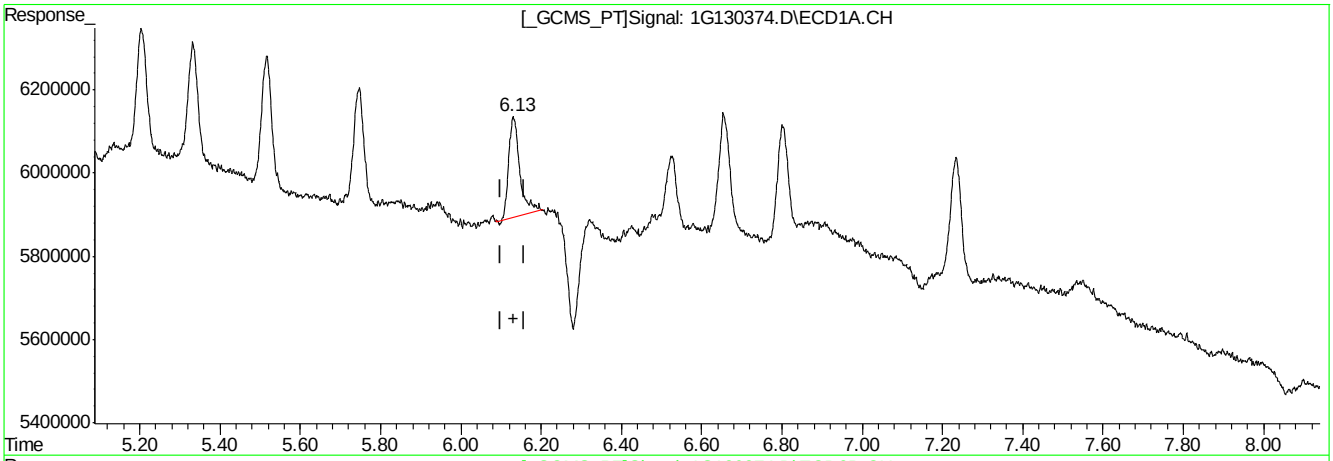
13.6.1.24

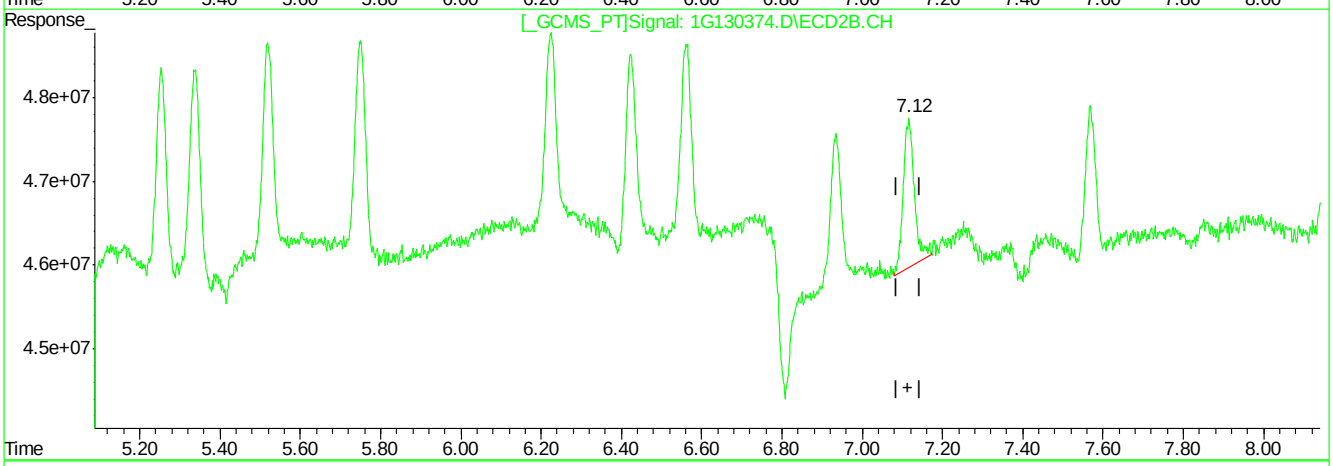
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Endrin Aldehyde (B)

6.13min 1.094PPB

response 4648064

(21) Endrin Aldehyde #2 (B)

7.12min 0.904PPB m

response 33975217

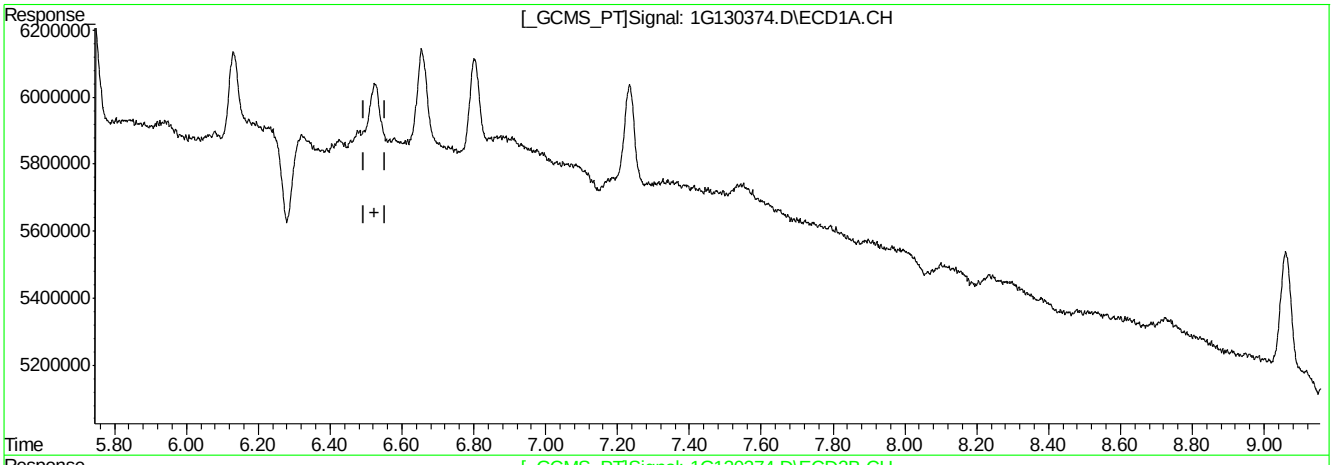
(+) = Expected Retention Time

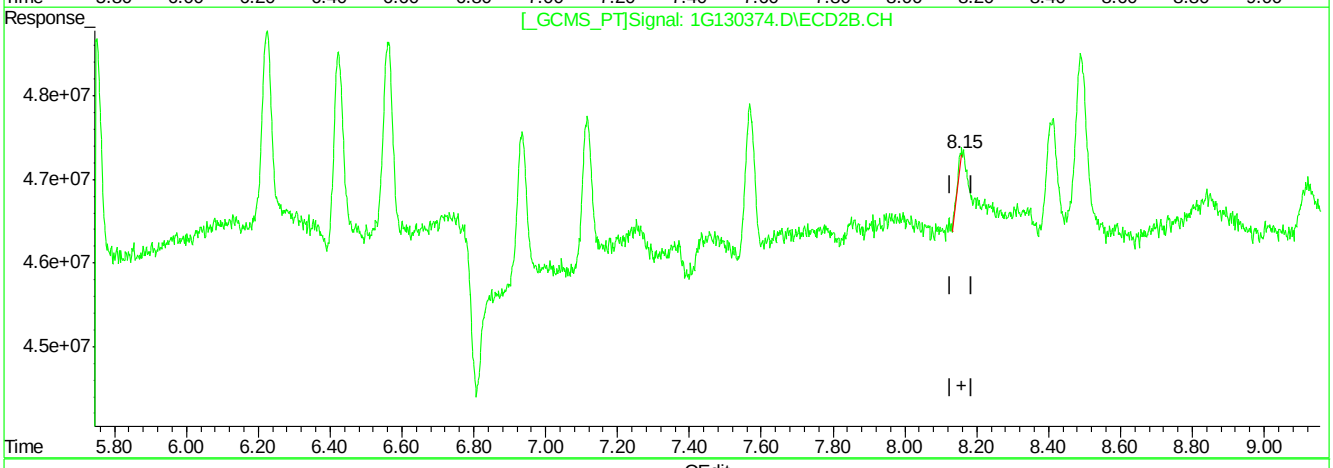
1G130374.D 1PST4166.M Fri Dec 09 13:47:00 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

8.15min 0.035PPB

response 573489

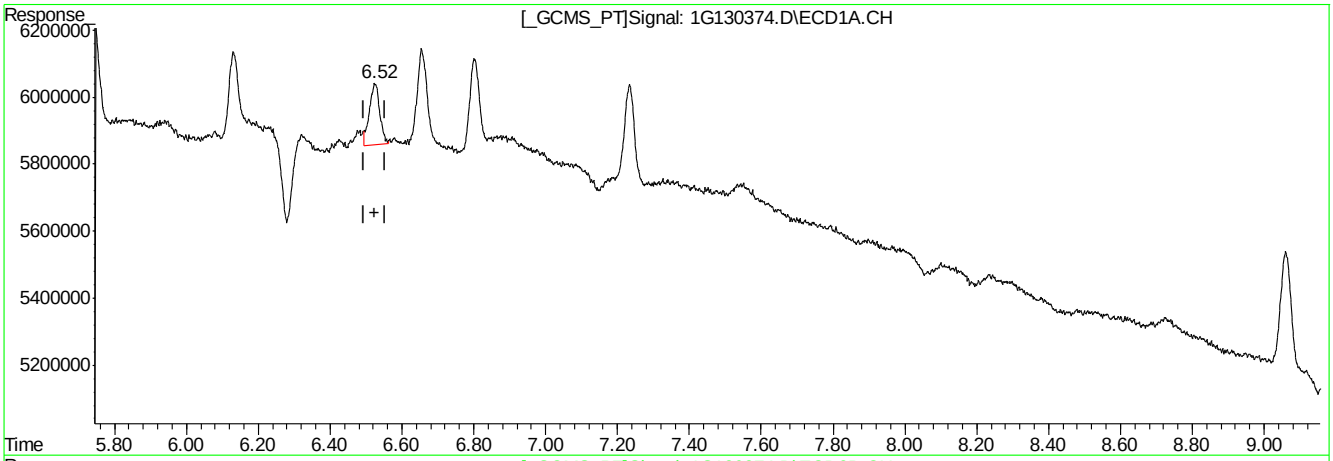
(+) = Expected Retention Time

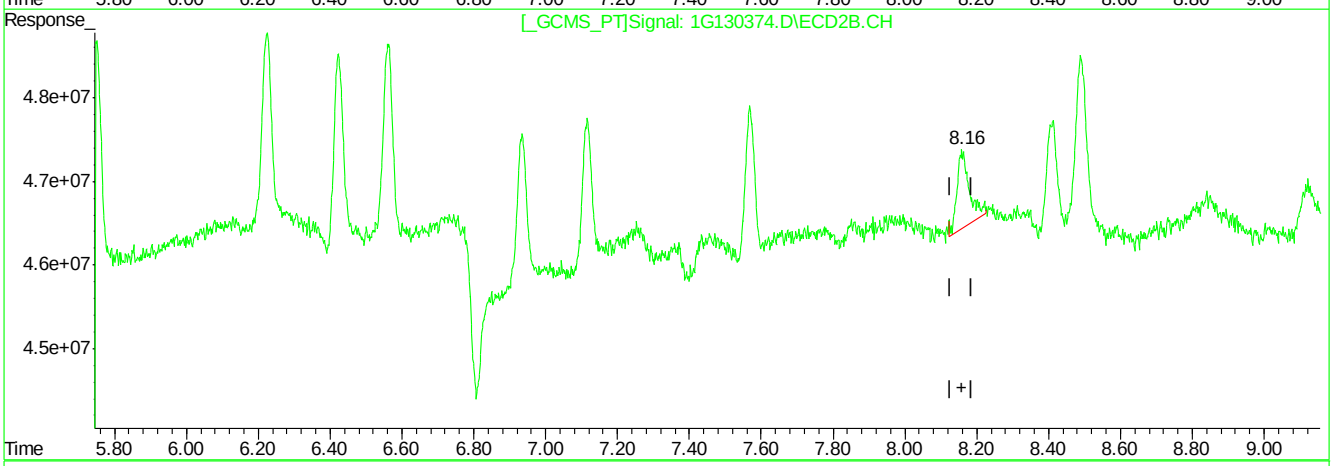
1G130374.D 1PST4166.M Fri Dec 09 13:47:04 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

6.52min 1.262PPB m

response 3746583

(23) Methoxychlor #2 (A)

8.16min 1.347PPB m

response 22073266

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:47:14 2016 RPT1

13.6.1.27

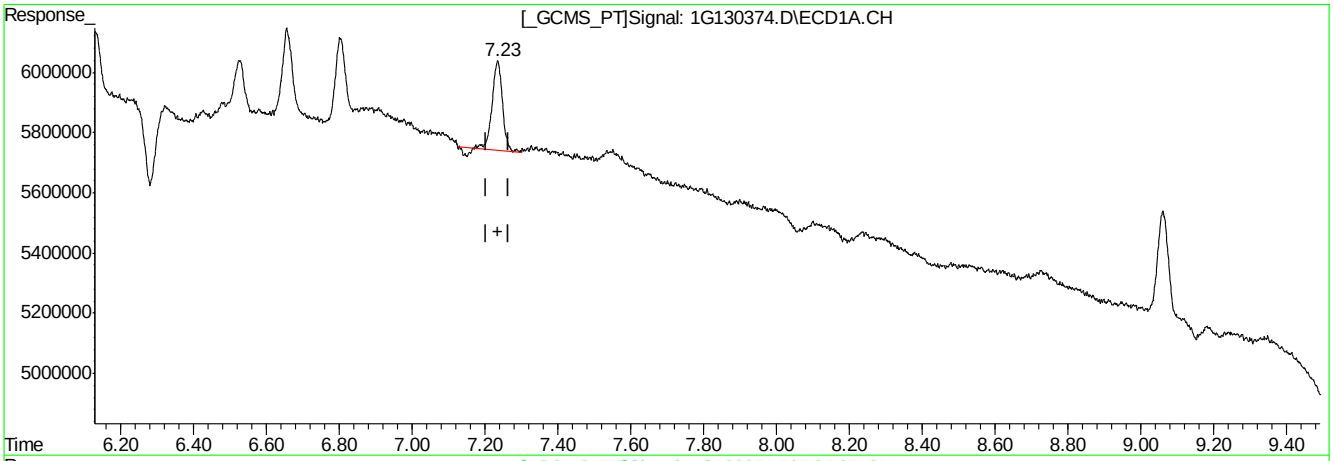
13

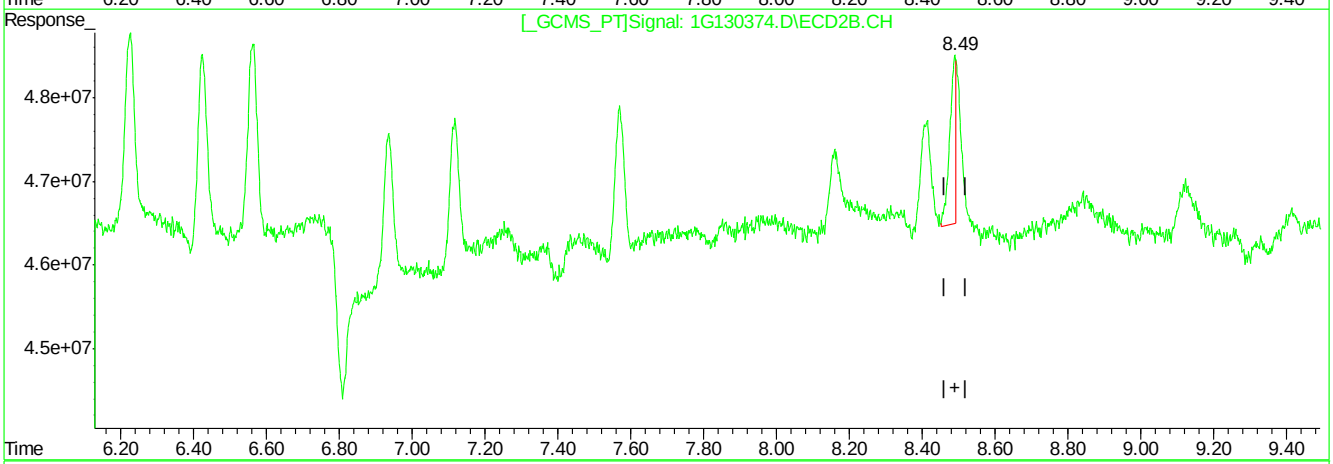
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(25) Endrin Ketone (B)

7.23min 1.006PPB

response 5592218

(25) Endrin Ketone #2 (B)

8.49min 0.497PPB

response 22412543

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:47:19 2016 RPT1

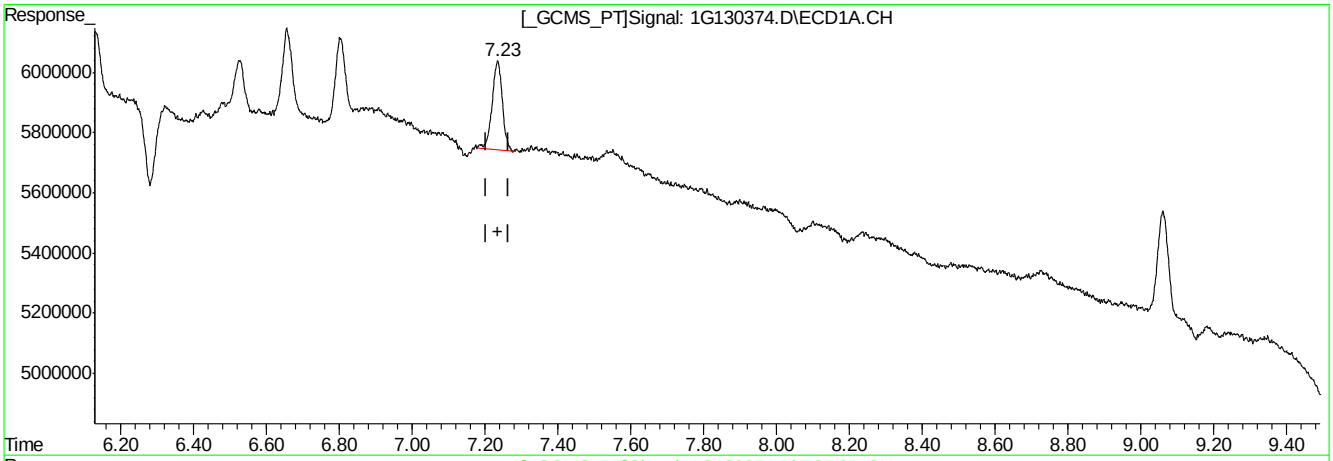
13.6.1.28

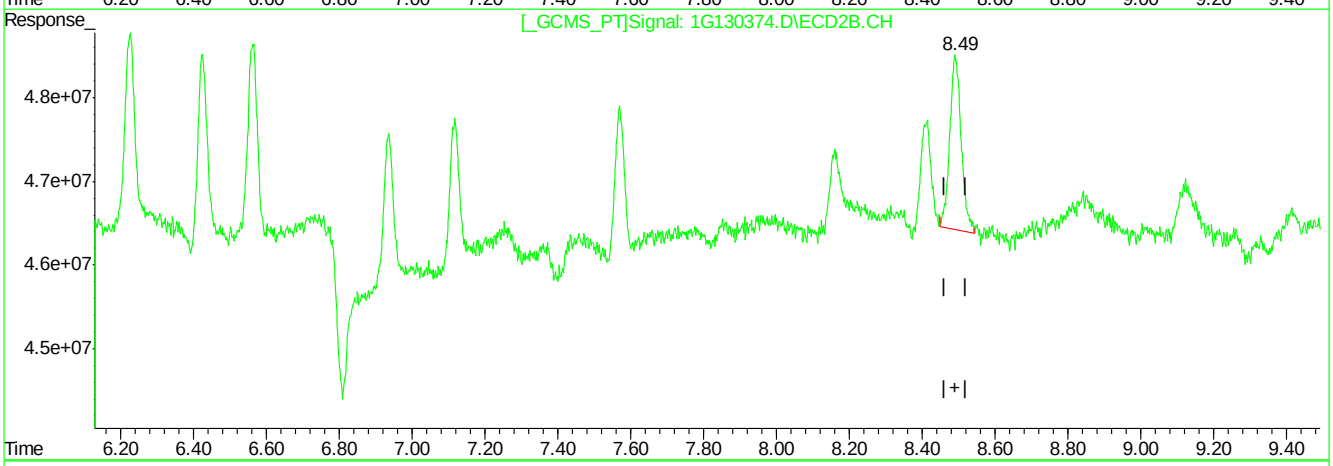
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(25) Endrin Ketone (B)

7.23min 1.045PPB m

response 5813069

(25) Endrin Ketone #2 (B)

8.49min 1.009PPB m

response 45526664

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:47:28 2016 RPT1

13.6.1.29

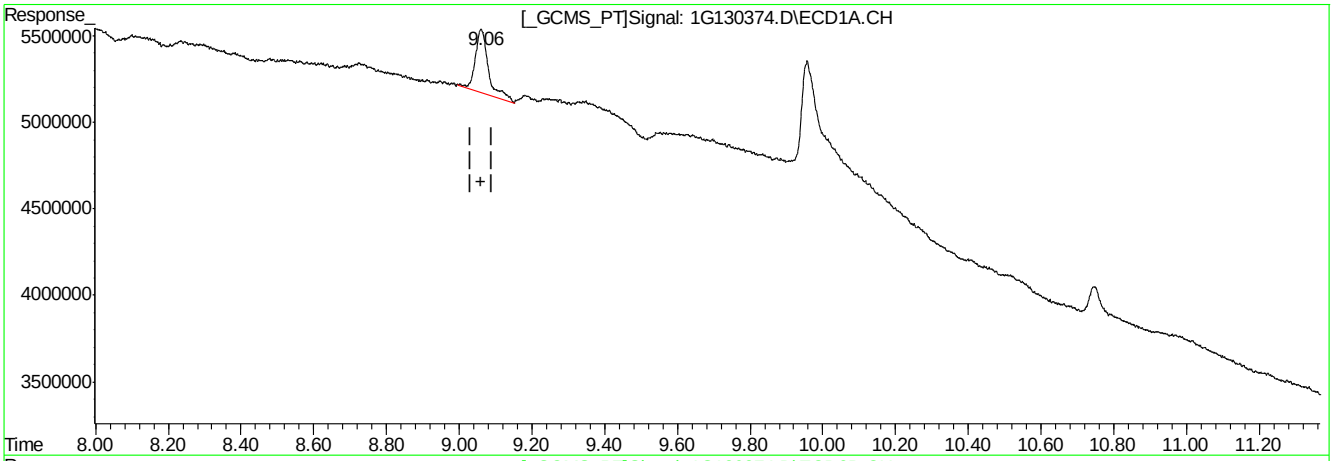
13

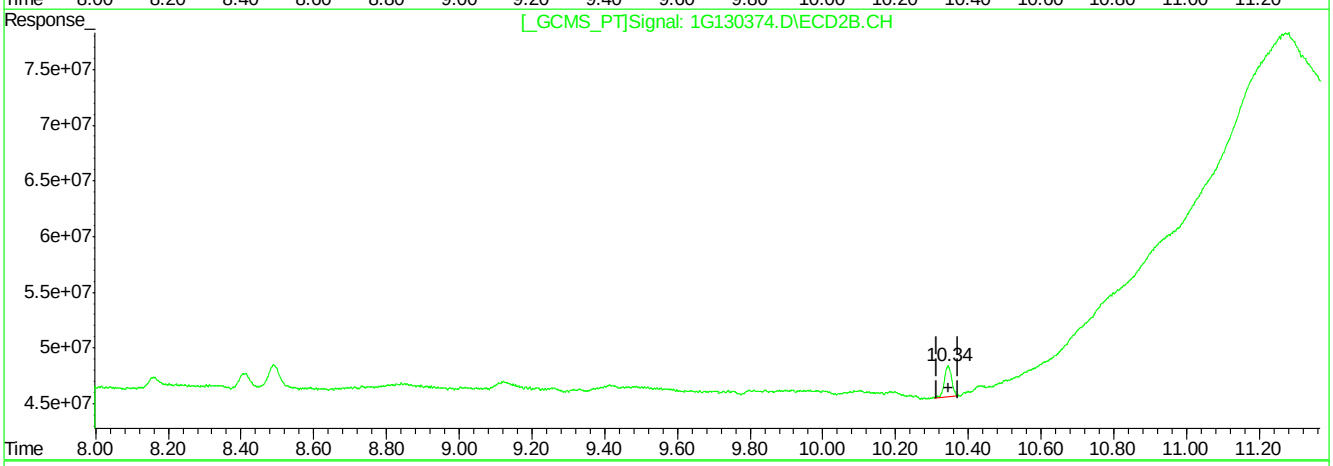
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

9.06min 1.349PPB

response 8939170

(26) Decachlorobiphenyl #2 (SA)

10.34min 1.163PPB

response 37807364

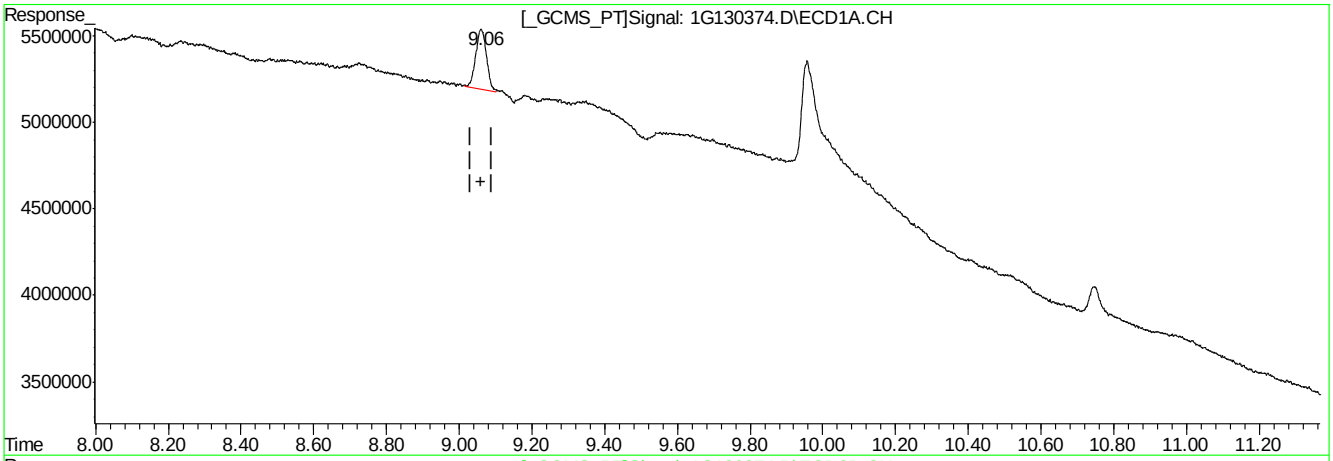
(+) = Expected Retention Time

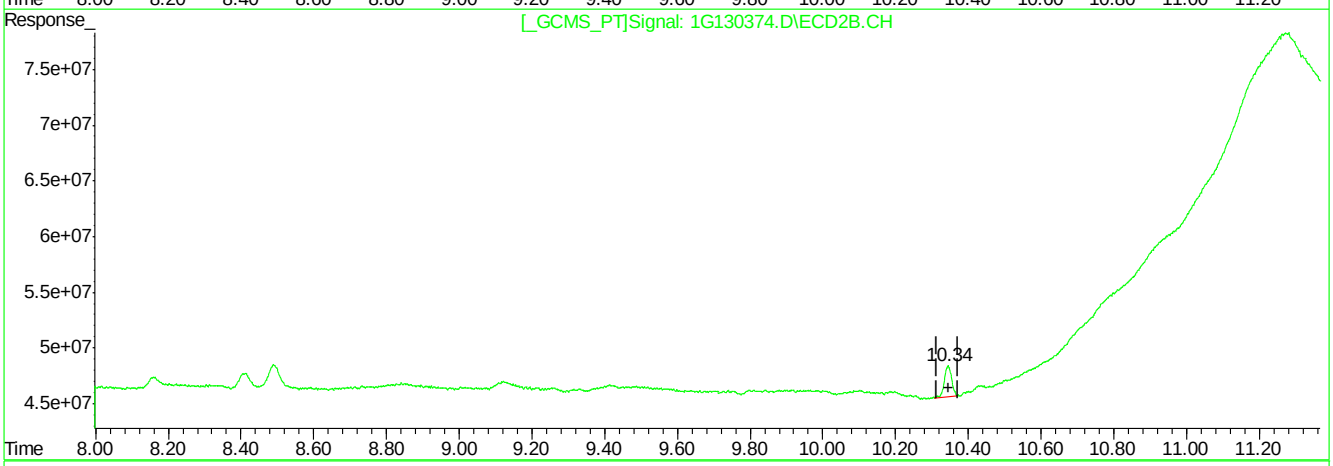
1G130374.D 1PST4166.M Fri Dec 09 13:47:32 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130374.D\ECD2B.CH
Acq On    : 12-8-16 05:05:38 PM                      Operator: rebeccak
Sample    : ic4166-1                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:44 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

9.06min 1.080PPB m

response 7161312

(26) Decachlorobiphenyl #2 (SA)

10.34min 1.163PPB

response 37807364

(+) = Expected Retention Time

1G130374.D 1PST4166.M Fri Dec 09 13:47:37 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On : 12-8-16 05:22:26 PM Operator: rebeccak
Sample : ic4166-2 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:43 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	287.0E6	2947.4E6	50.000	50.000
27)	I	1-bromo-2-nitrob	1.23	1.32	287.0E6	2947.4E6	50.000	50.000
33)	I	1-bromo-2-nitrob	1.23	1.32	287.0E6	2947.4E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	1.83	2.08	8661539	76654922	1.821	1.495
		Spiked Amount 40.000 Range 30 - 150 Recovery =					4.55%#	3.74%#
26)	SA	Decachlorobiphen	9.06	10.34	13683152	73943139	2.059	2.283
		Spiked Amount 40.000 Recovery =					5.15%	5.71%
		Target Compounds						
3)		Hexachlorobenzen	2.16	2.55	16579386	94917309	2.045m	1.633
4)	A	alpha-BHC	2.29	2.69	11822565	117.0E6	1.760	1.668
5)	MA	gamma-BHC	2.58	3.08	11689664	99589319	1.812	1.557
6)	MA	Heptachlor	3.07	3.60	11802819	84615108	1.802	1.558
7)	B	beta-BHC	2.65	3.16	5370287	42101852	1.844	1.644
8)	B	delta-BHC	2.83	3.52	9856632	90609843	1.585	1.465
9)	MB	Aldrin	3.39	4.01	11192760	86492231	1.747	1.483
10)		Alachlor	3.53	3.86	1713189	13136257	2.009m	1.890m
11)	B	Heptachlor Epoxi	4.08	4.77	10050108	89614609	1.611	1.708
12)	B	gamma-Chlordane	4.24	5.04	10773055	84490476	1.628m	1.566
13)	B	alpha-Chlordane	4.41	5.25	10678846	79640003	1.757	1.549
14)	A	Endosulfan I	4.58	5.34	10703390	84820485	1.842	1.635
15)	B	4,4'-DDE	4.52	5.52	11514406	82414548	1.859	1.530
16)	MA	Dieldrin	4.89	5.75	11267780	87703228	1.786	1.572
17)	MA	Endrin	5.20	6.22	10644684	75599966	2.014	1.605
18)	A	4,4'-DDD	5.33	6.42	9198849	69405631	1.798	1.657
19)	B	Endosulfan II	5.52	6.56	10461056	74972600	1.826	1.558
20)	MA	4,4'-DDT	5.75	6.93	9521872	64554017	1.933	2.024
21)	B	Endrin Aldehyde	6.13	7.11	8012847	66655304	1.881m	1.781m
22)	B	Endosulfan Sulfa	6.80	7.57	9075068	66548259	1.805	1.733
23)	A	Methoxychlor	6.52	8.15	6547838	38373086	2.200m	2.350m
24)		Mirex	6.66	8.41	10321876	53269969	2.032	1.700
25)	B	Endrin Ketone	7.23	8.49	10048974	71020286	1.802	1.580

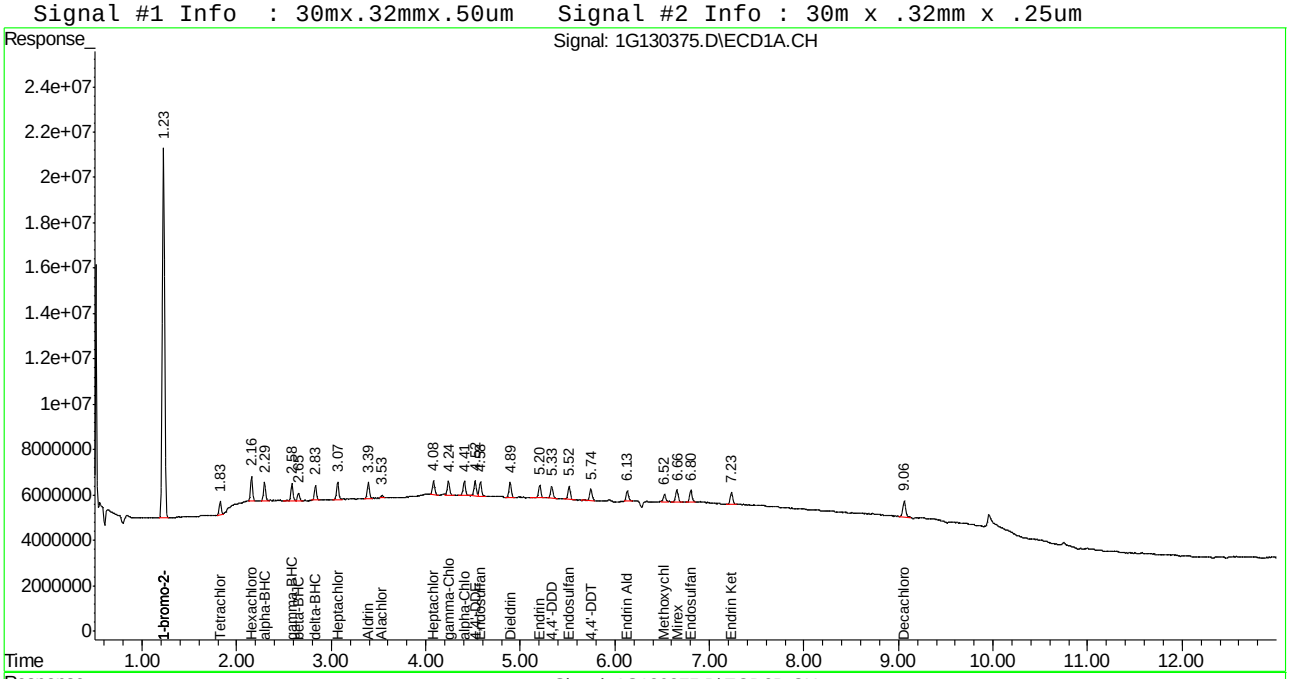
(f)=RT Delta > 1/2 Window (m)=manual int.

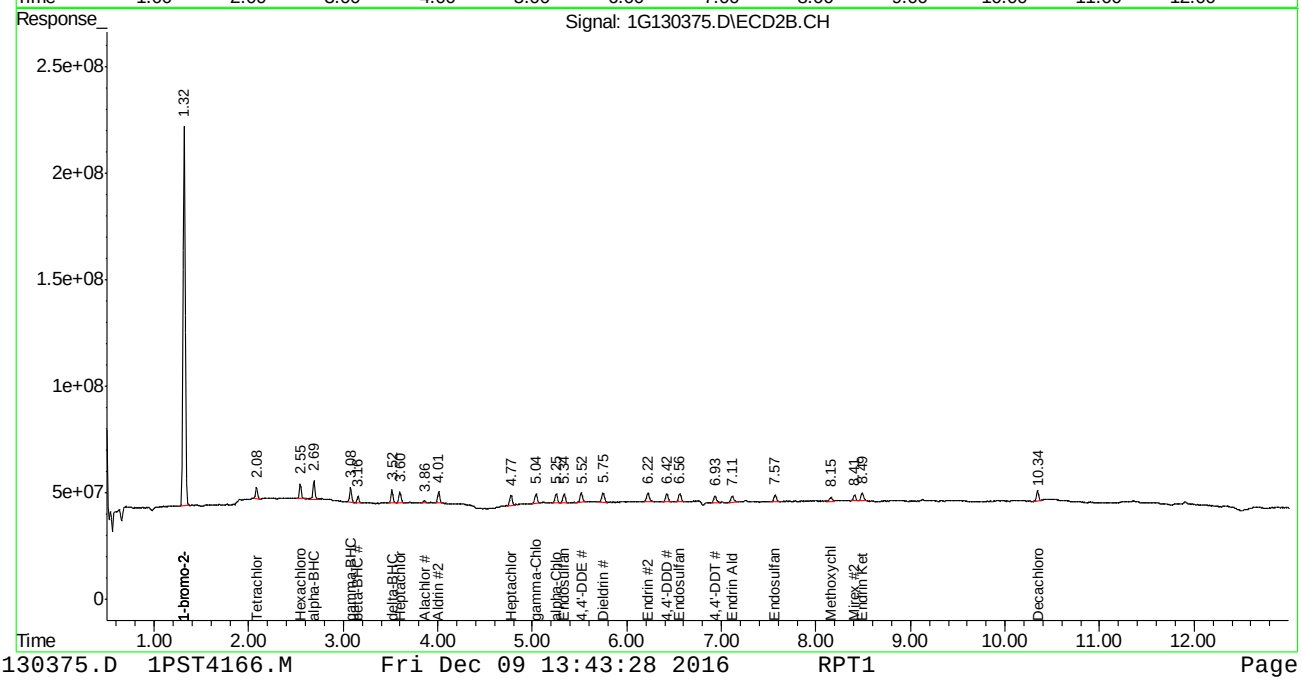
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On : 12-8-16 05:22:26 PM Operator: rebeccak
Sample : ic4166-2 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:43 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

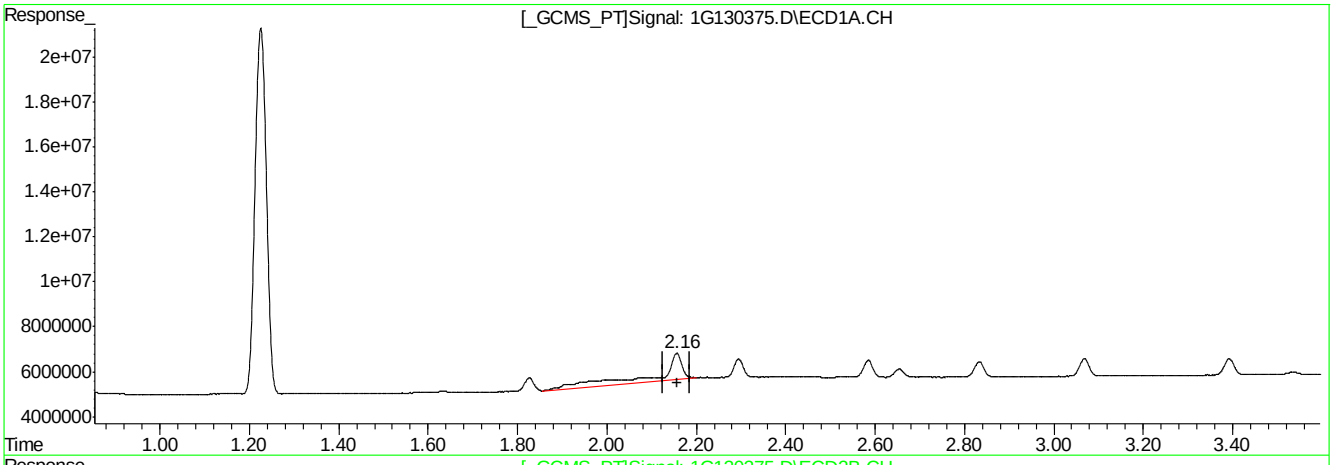
Sample Number:	G1G4166-IC4166	**Method:**	SW846 8081B
Lab FileID:	1G130375.D	**Analyst approved:**	12/09/16 14:06 Rebecca Krug
Injection Time:	12/08/16 17:22	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

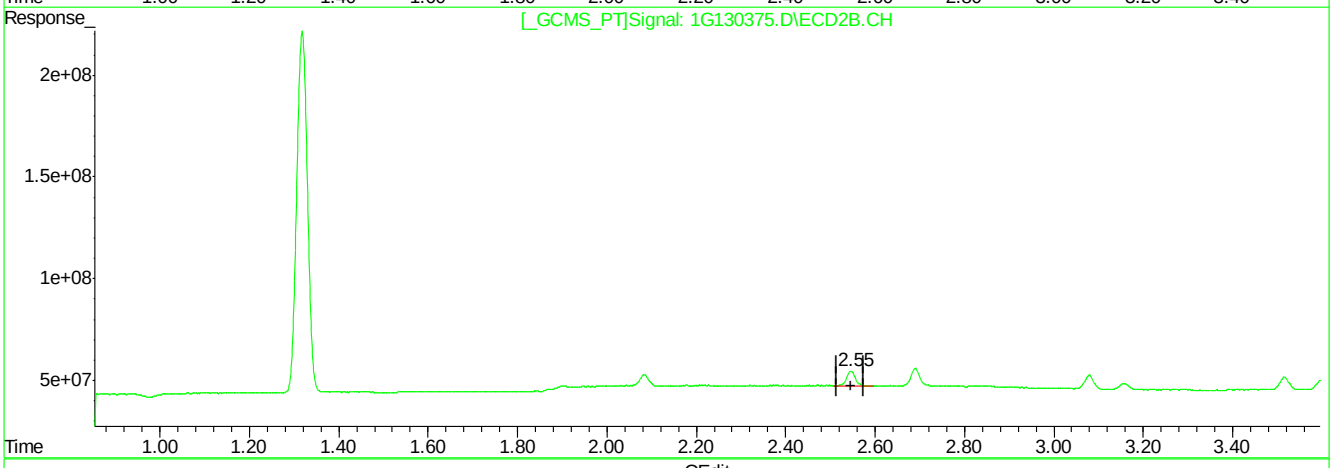
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorobenzene	118-74-1	1	2.16	Poorly defined baseline
Alachlor	15972-60-8	1	3.53	Poorly defined baseline
Alachlor	15972-60-8	2	3.86	Poorly defined baseline
gamma-Chlordane	5103-74-2	1	4.24	Poorly defined baseline
Endrin aldehyde	7421-93-4	1	6.13	Poorly defined baseline
Methoxychlor	72-43-5	1	6.52	Poorly defined baseline
Endrin aldehyde	7421-93-4	2	7.11	Poorly defined baseline
Methoxychlor	72-43-5	2	8.15	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Hexachlorobenzene

2.16min 5.702PPB

response 46229264

(3) Hexachlorobenzene #2

2.55min 1.633PPB

response 94917309

(+) = Expected Retention Time

1G130375.D 1PST4166.M Fri Dec 09 13:41:52 2016 RPT1

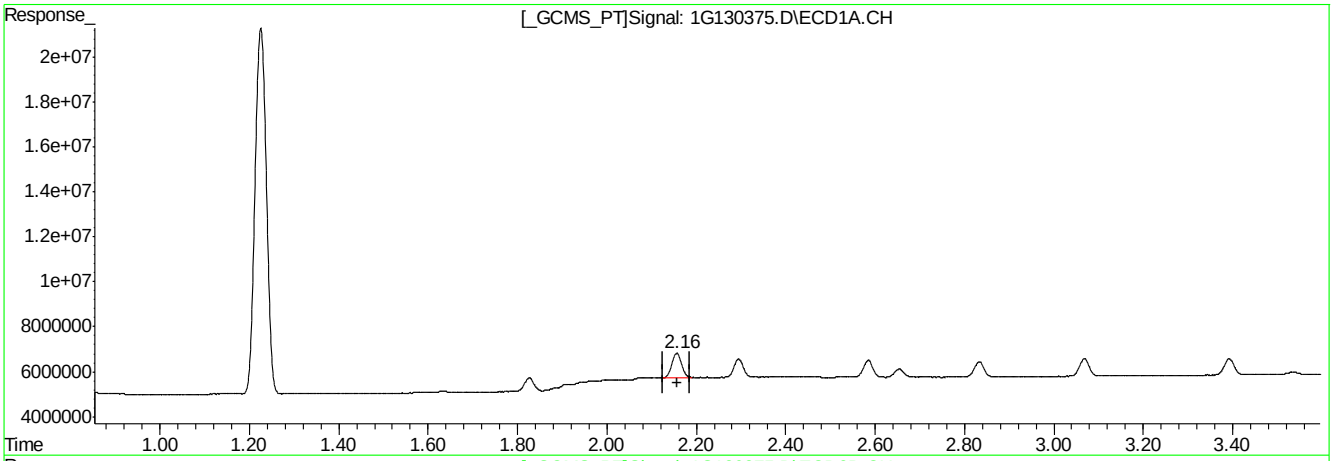
13.6.2.2

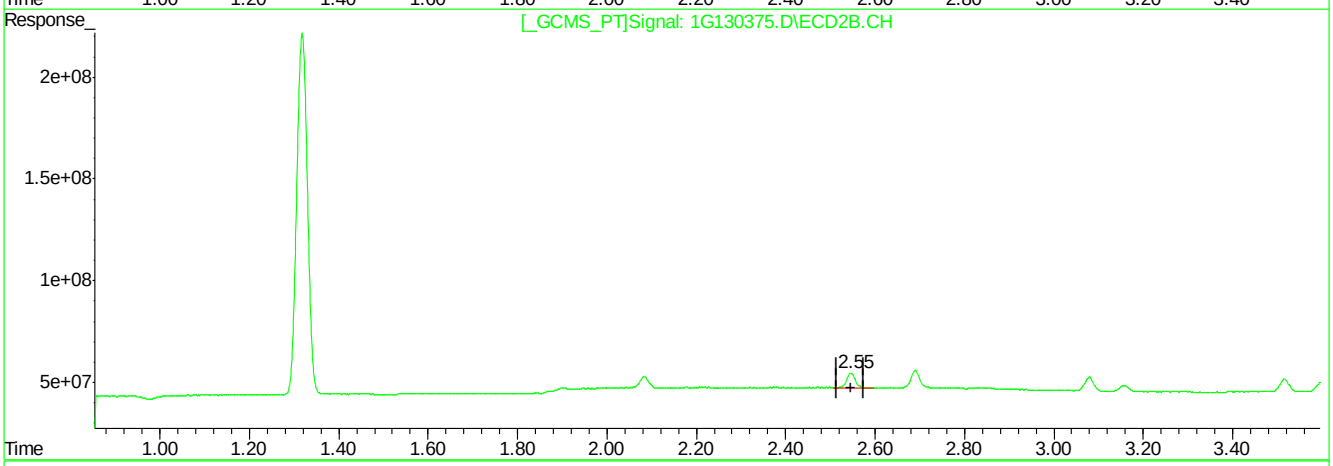
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Hexachlorobenzene

2.16min 2.045PPB m

response 16579386

(3) Hexachlorobenzene #2

2.55min 1.633PPB

response 94917309

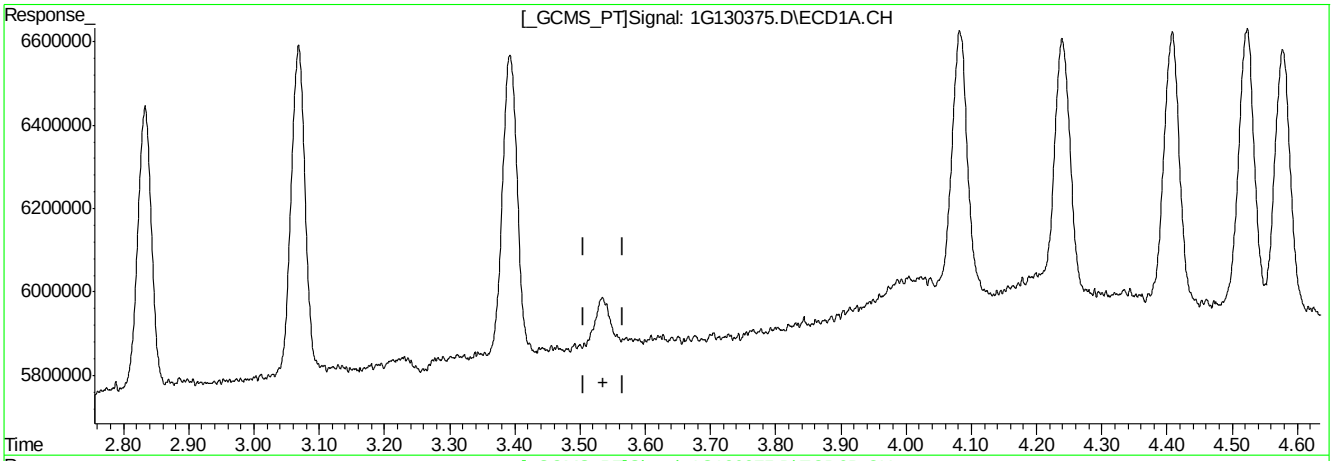
(+) = Expected Retention Time

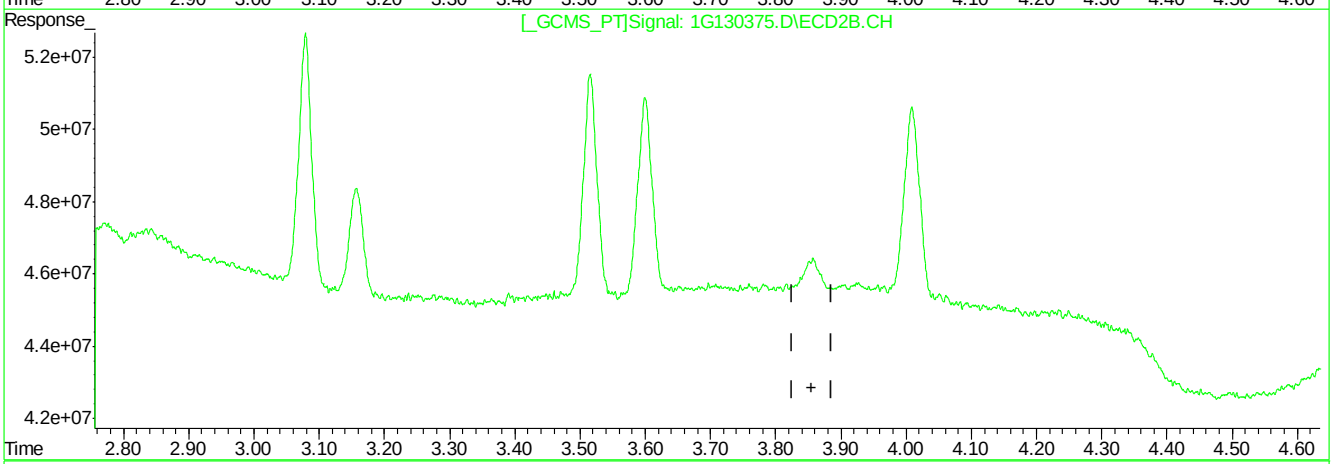
1G130375.D 1PST4166.M Fri Dec 09 13:41:58 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(10) Alachlor

0.00min 0.000PPB

response 0

(10) Alachlor #2

0.00min 0.000PPB

response 0

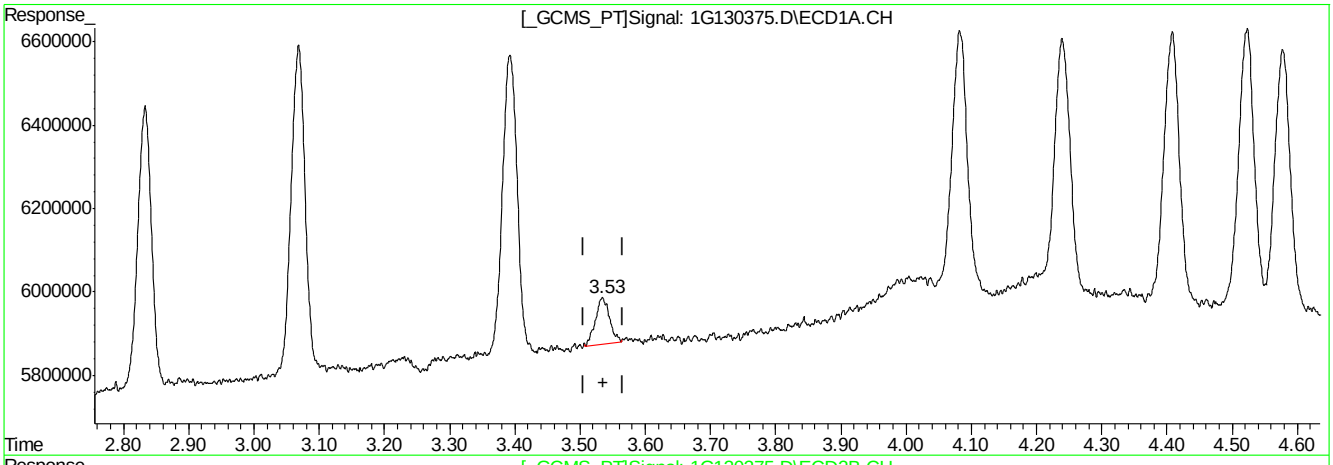
(+) = Expected Retention Time

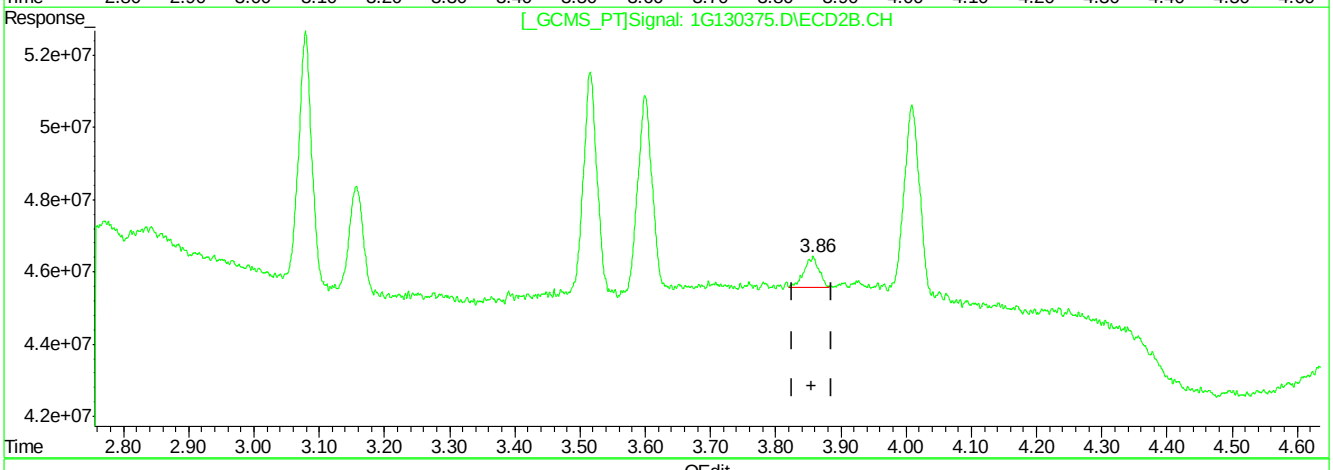
1G130375.D 1PST4166.M Fri Dec 09 13:42:06 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(10) Alachlor

3.53min 2.009PPB m

response 1713189

(10) Alachlor #2

3.86min 1.890PPB m

response 13136257

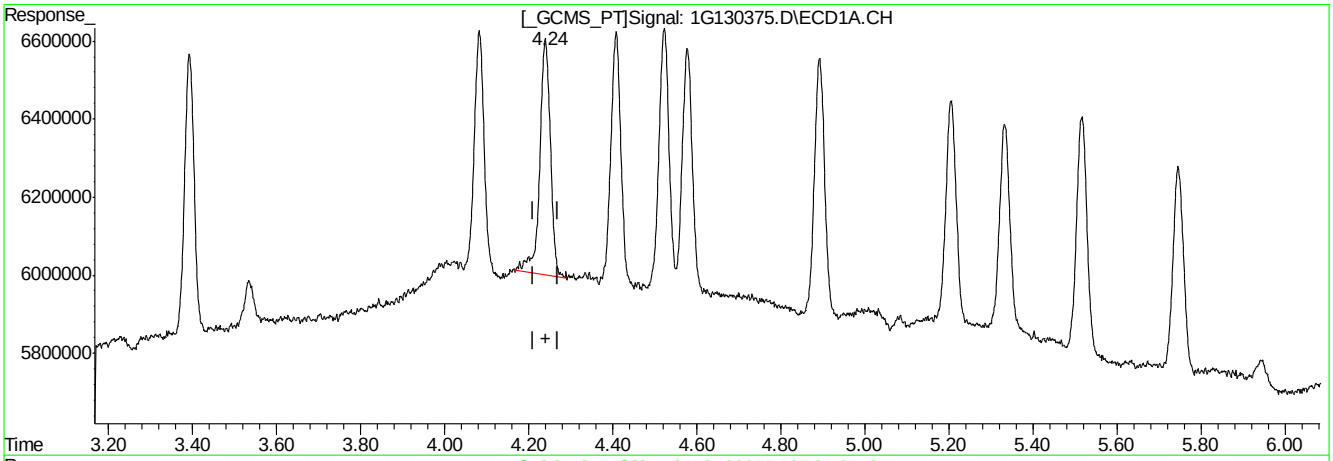
(+) = Expected Retention Time

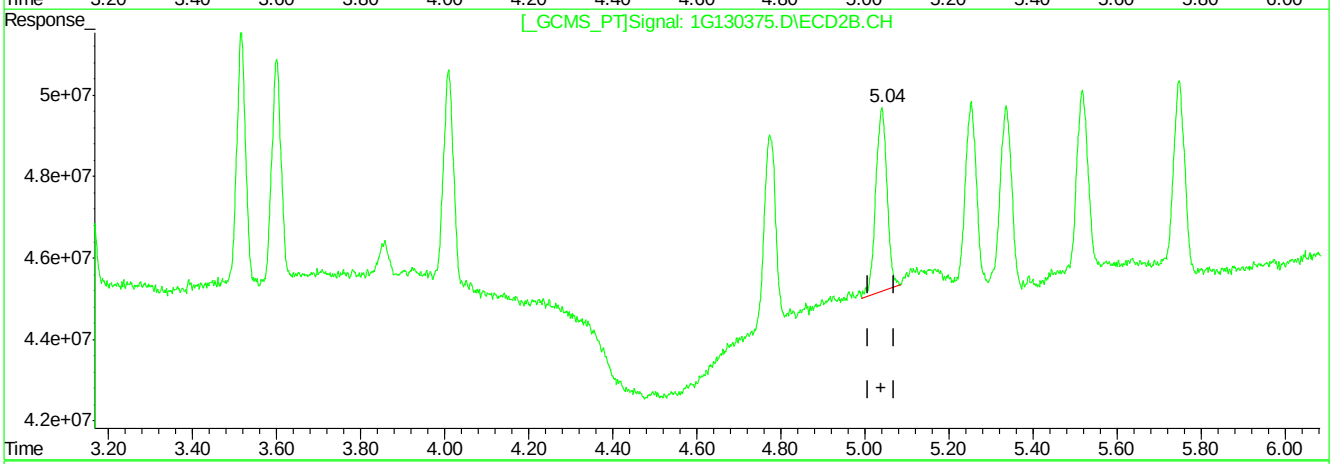
1G130375.D 1PST4166.M Fri Dec 09 13:42:15 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(12) gamma-Chlordane (B)

4.24min 1.604PPB

response 10616459

(12) gamma-Chlordane #2 (B)

5.04min 1.566PPB

response 84490476

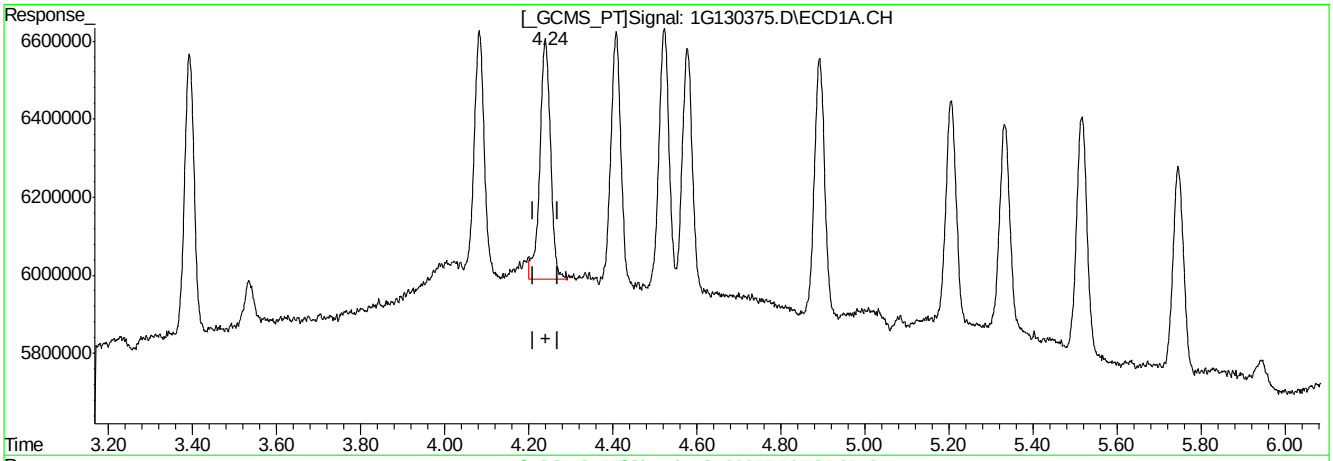
(+) = Expected Retention Time

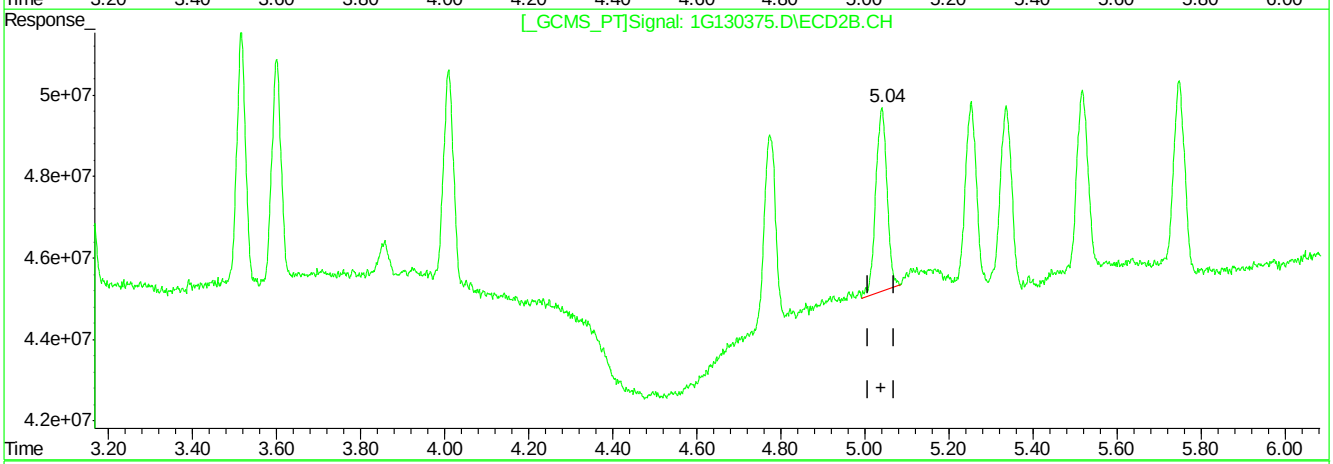
1G130375.D 1PST4166.M Fri Dec 09 13:42:23 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On : 12-8-16 05:22:26 PM Operator: rebeccak
Sample : ic4166-2 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:41 2016 Quant Results File: 1PST4166.RES

Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration





QEdit

(12) gamma-Chlordane (B)

4.24min 1.628PPB m

response 10773055

(12) gamma-Chlordane #2 (B)

5.04min 1.566PPB

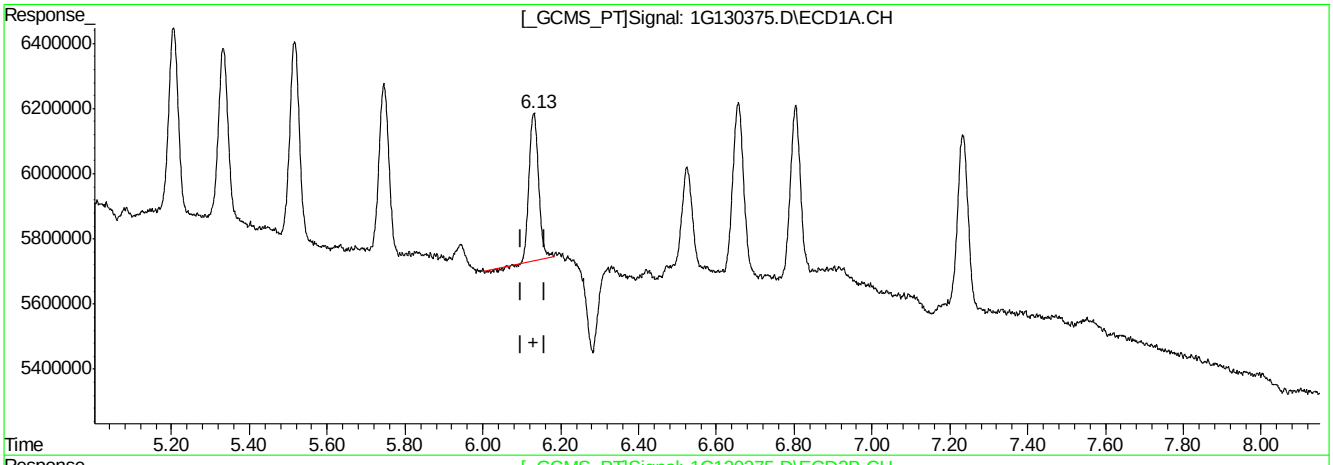
response 84490476

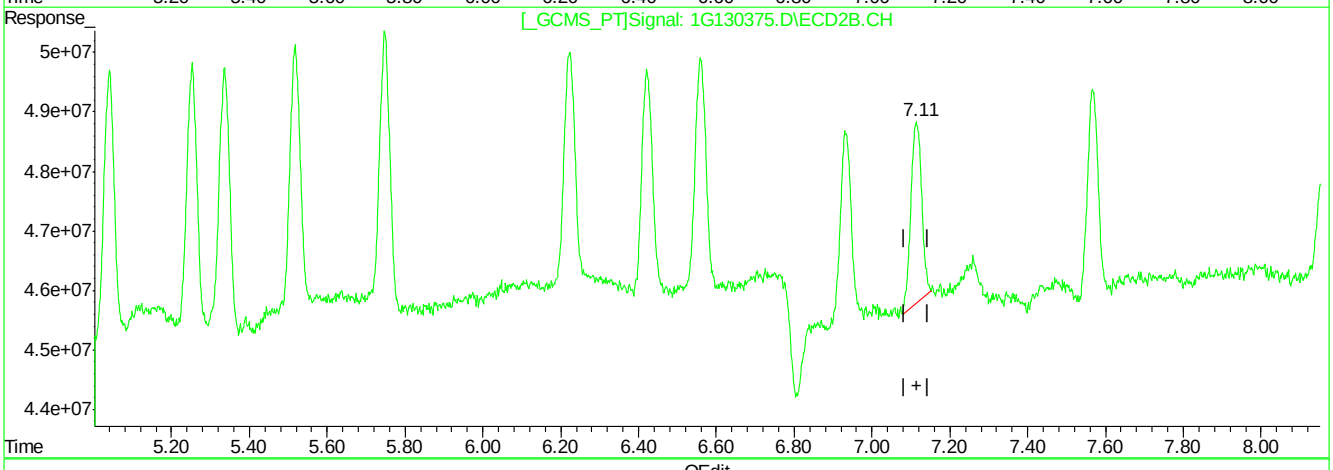
(+) = Expected Retention Time
1G130375.D 1PST4166.M Fri Dec 09 13:42:30 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Endrin Aldehyde (B)

6.13min 1.773PPB

response 7552707

(21) Endrin Aldehyde #2 (B)

7.11min 1.572PPB

response 58823448

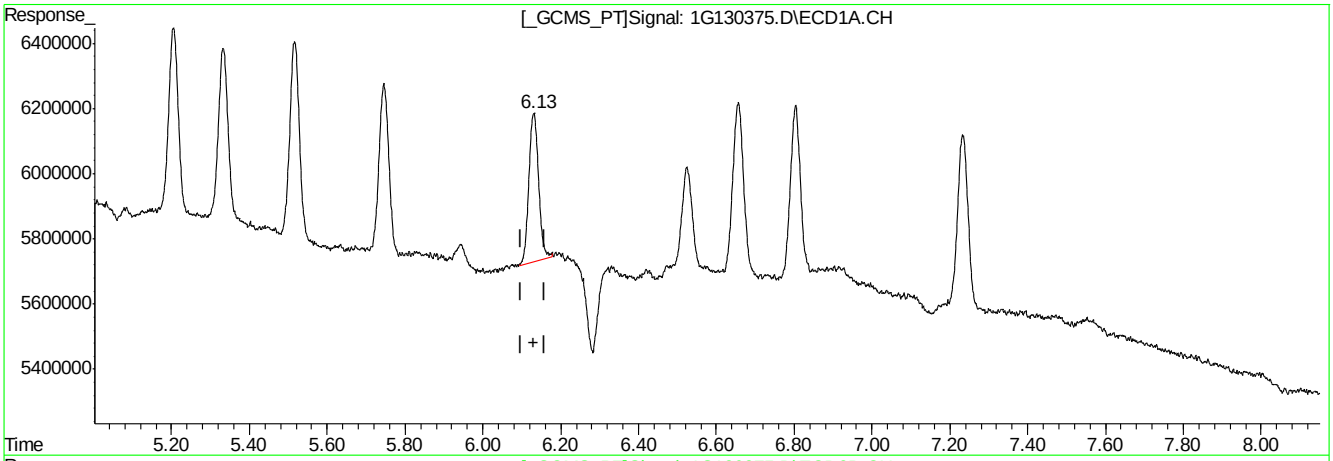
(+) = Expected Retention Time

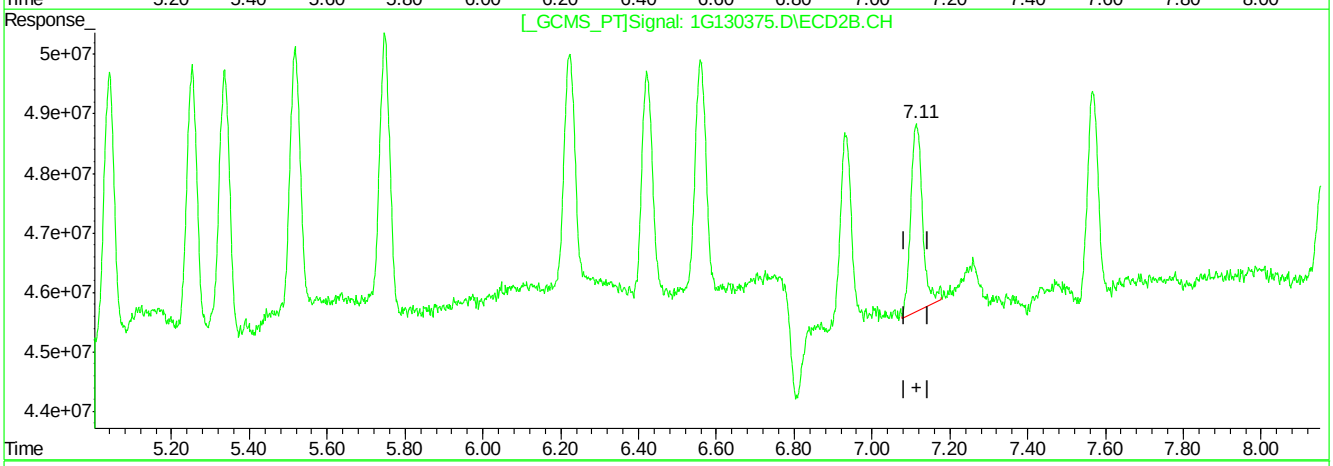
1G130375.D 1PST4166.M Fri Dec 09 13:42:43 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(21) Endrin Aldehyde (B)

6.13min 1.881PPB m

response 8012847

(21) Endrin Aldehyde #2 (B)

7.11min 1.781PPB m

response 66655304

(+) = Expected Retention Time

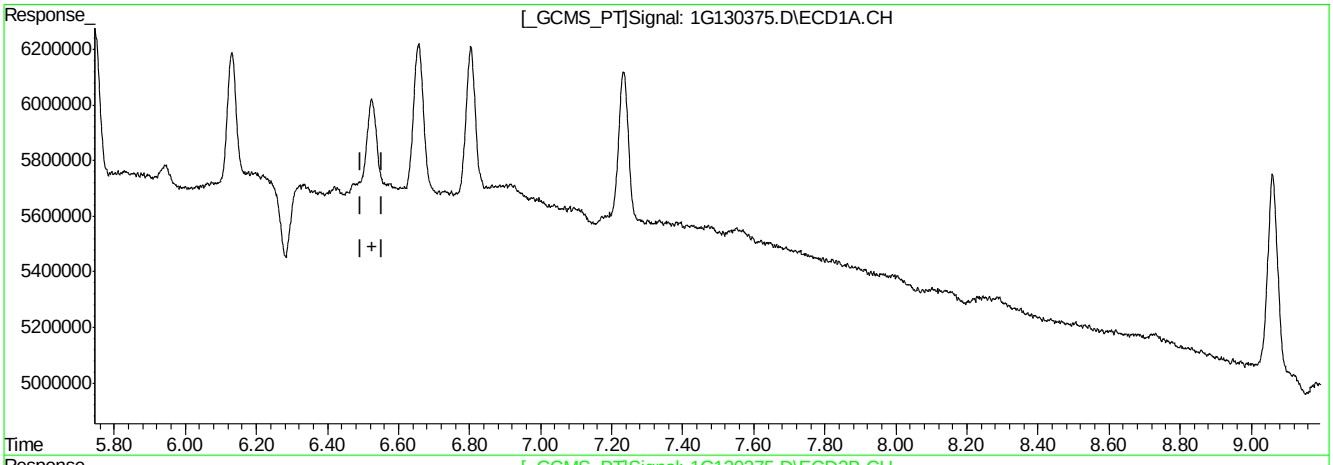
1G130375.D 1PST4166.M Fri Dec 09 13:42:51 2016 RPT1

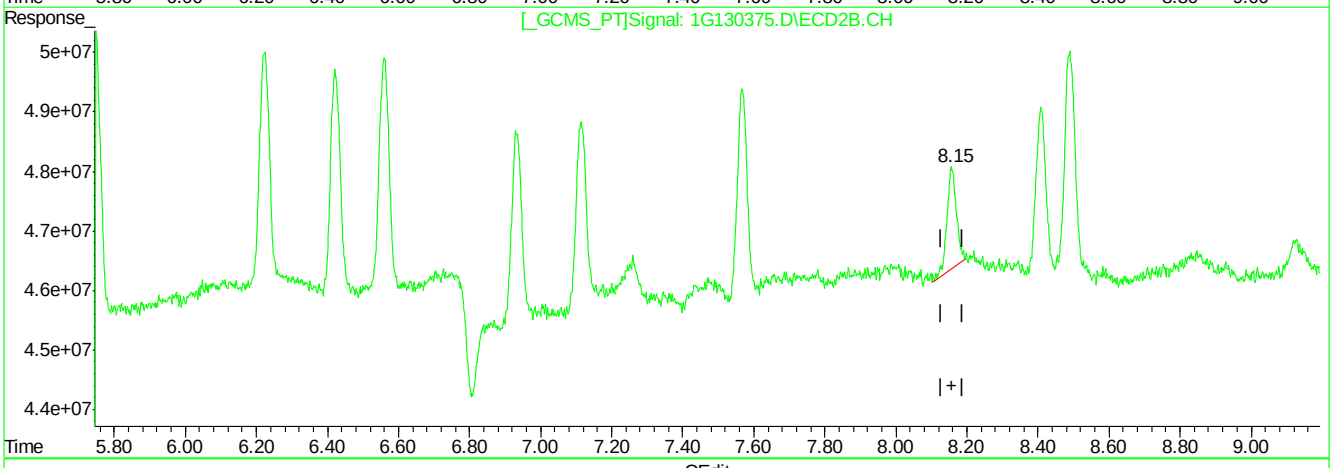
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

8.16min 1.940PPB

response 31665098

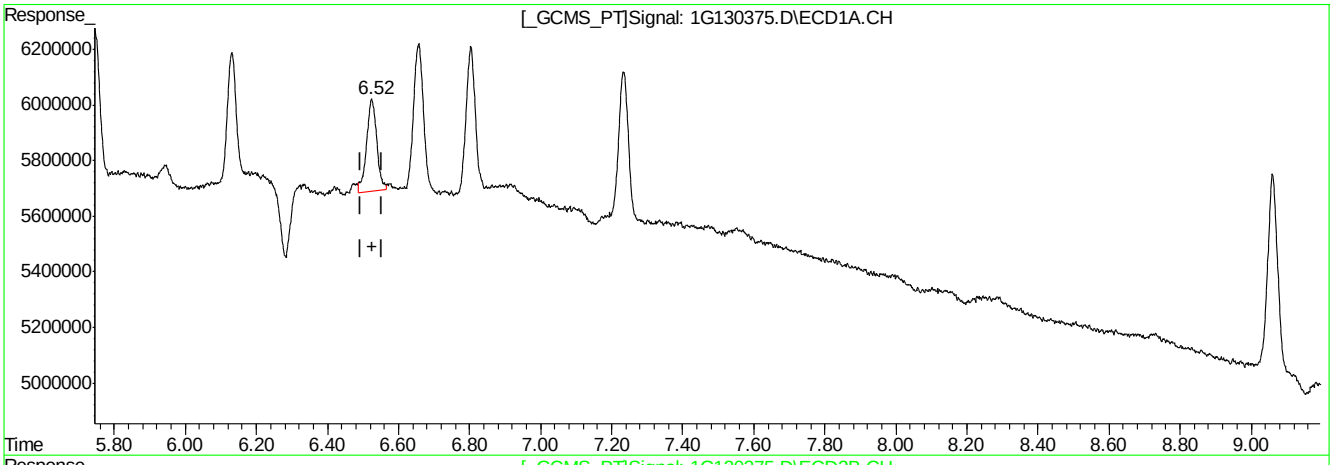
(+) = Expected Retention Time

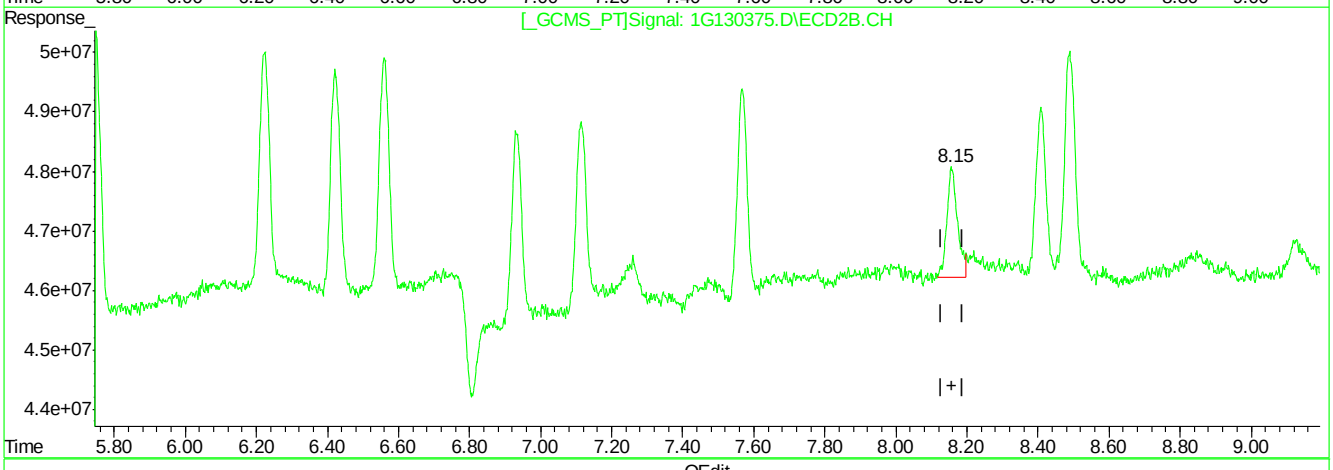
1G130375.D 1PST4166.M Fri Dec 09 13:42:54 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130375.D\ECD2B.CH
Acq On    : 12-8-16 05:22:26 PM                      Operator: rebeccak
Sample    : ic4166-2                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:41 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

6.52min 2.200PPB m

response 6547838

(23) Methoxychlor #2 (A)

8.15min 2.350PPB m

response 38373086

(+) = Expected Retention Time

1G130375.D 1PST4166.M Fri Dec 09 13:43:17 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On : 12-8-16 05:39:12 PM Operator: rebeccak
Sample : ic4166-5 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:39 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	249.6E6	2561.9E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	249.6E6	2561.9E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	249.6E6	2561.9E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.83	2.08	21280852	203.7E6	5.143	4.572
Spiked Amount	40.000 Range	30 - 150	Recovery	=		12.86%#	11.43%#
26) SA	Decachlorobiphen	9.06	10.34	31436275	152.3E6	5.438m	5.409m
Spiked Amount	40.000		Recovery	=		13.59%	13.52%
	Target Compounds						
3)	Hexachlorobenzen	2.16	2.55	40099467	248.9E6	5.687	4.926
4) A	alpha-BHC	2.30	2.69	27727204	293.2E6	4.746	4.807
5) MA	gamma-BHC	2.58	3.08	25435338	242.8E6	4.534	4.368
6) MA	Heptachlor	3.07	3.60	27310045	220.0E6	4.794	4.661
7) B	beta-BHC	2.65	3.16	12380468	97293108	4.888	4.370
8) B	delta-BHC	2.83	3.52	23300198	232.0E6	4.310	4.315
9) MB	Aldrin	3.39	4.01	26101211	212.6E6	4.686	4.192
10)	Alachlor	3.53	3.86	4133068	29587063	5.572m	4.897
11) B	Heptachlor Epoxi	4.08	4.77	23042926	199.4E6	4.248	4.373
12) B	gamma-Chlordane	4.24	5.04	24544732	197.6E6	4.264	4.214
13) B	alpha-Chlordane	4.41	5.25	24285087	189.5E6	4.594	4.240
14) A	Endosulfan I	4.58	5.34	24416871	192.7E6	4.832	4.275
15) B	4,4'-DDE	4.52	5.52	25632080	213.7E6	4.759	4.565
16) MA	Dieldrin	4.89	5.75	25664316	215.5E6	4.678	4.444
17) MA	Endrin	5.20	6.22	23059276	179.8E6	5.018m	4.393
18) A	4,4'-DDD	5.33	6.42	21534631	168.8E6	4.840	4.635
19) B	Endosulfan II	5.52	6.56	25136541	191.6E6	5.045	4.581
20) MA	4,4'-DDT	5.75	6.93	21508443	139.4E6	5.022	5.026m
21) B	Endrin Aldehyde	6.13	7.12	18638266	136.6E6	5.031	4.198
22) B	Endosulfan Sulfa	6.80	7.57	21718257	150.5E6	4.967	4.509
23) A	Methoxychlor	6.53	8.16	13870763	79139345	5.358	5.577m
24)	Mirex	6.66	8.41	23428956	122.2E6	5.303	4.486
25) B	Endrin Ketone	7.23	8.49	23520493	165.2E6	4.851	4.228

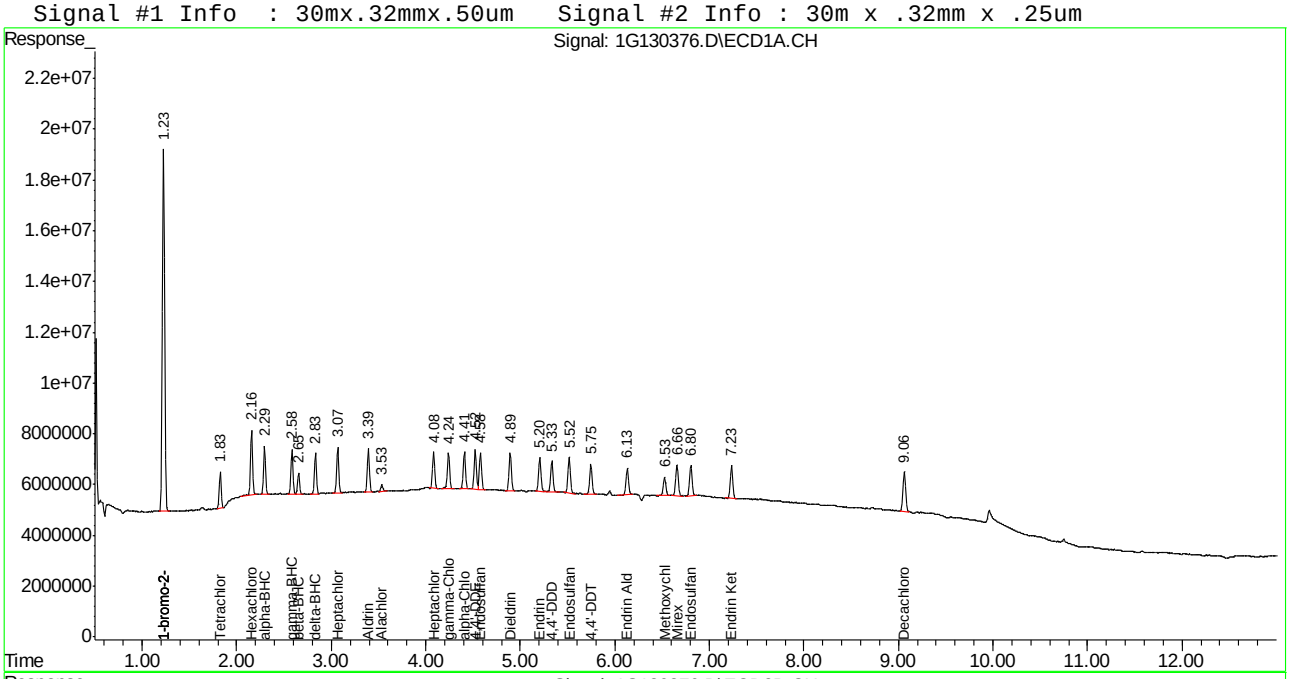
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130376.D 1PST4166.M Fri Dec 09 13:39:58 2016 RPT1 Page 1

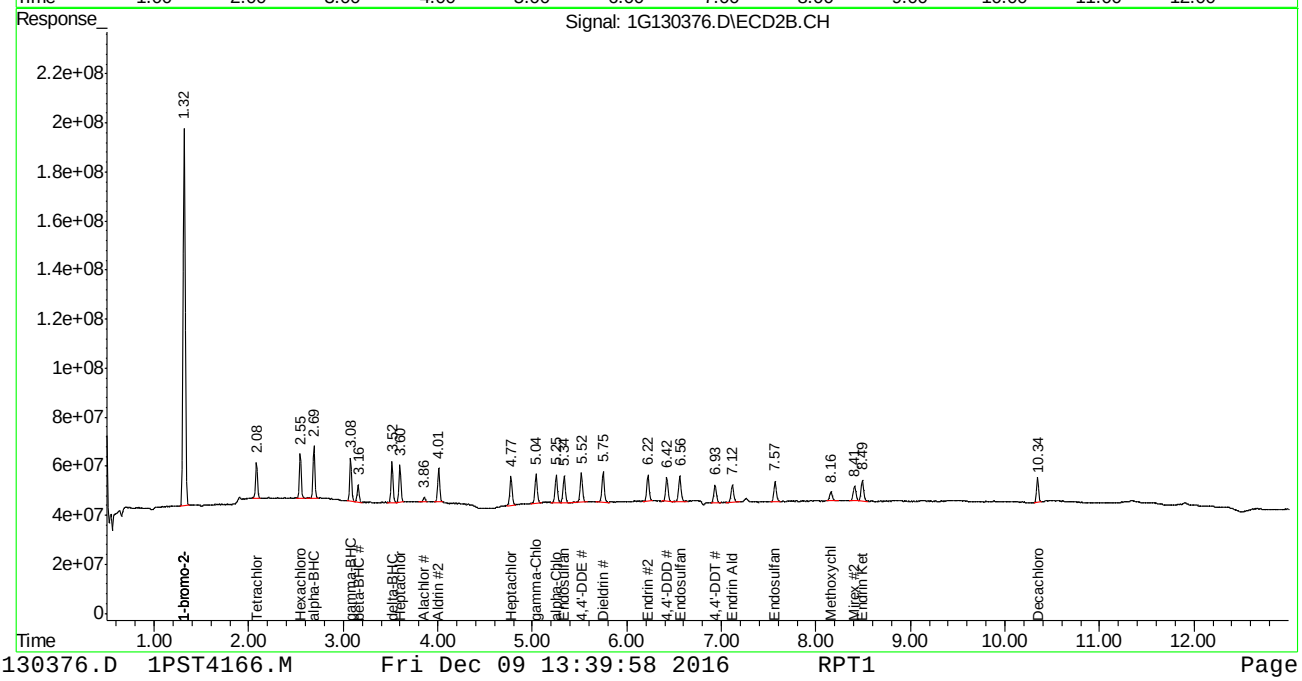
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On : 12-8-16 05:39:12 PM Operator: rebeccak
Sample : ic4166-5 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:39 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

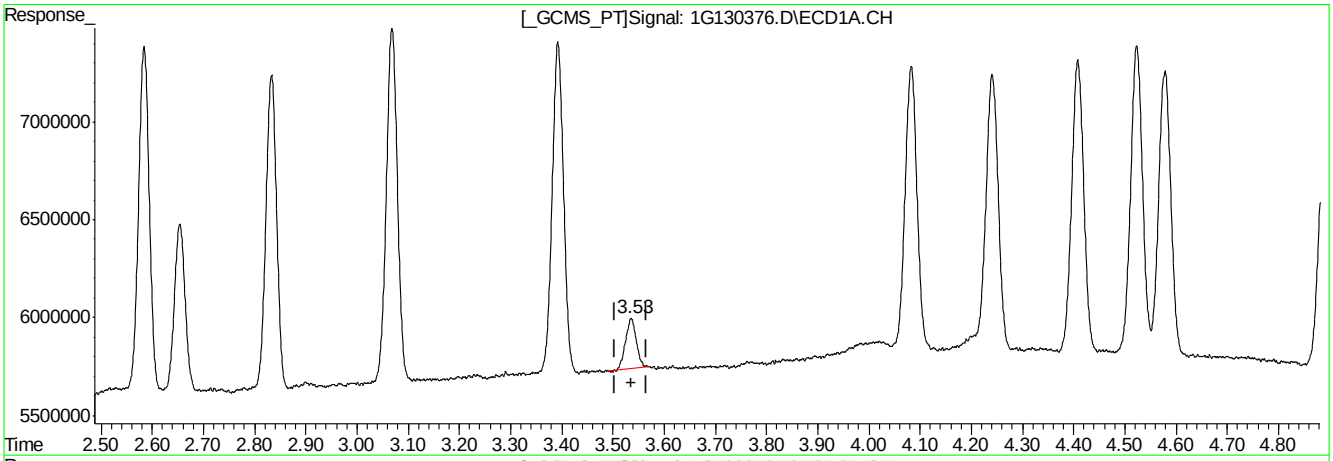
Sample Number:	G1G4166-IC4166	**Method:**	SW846 8081B
Lab FileID:	1G130376.D	**Analyst approved:**	12/09/16 14:06 Rebecca Krug
Injection Time:	12/08/16 17:39	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

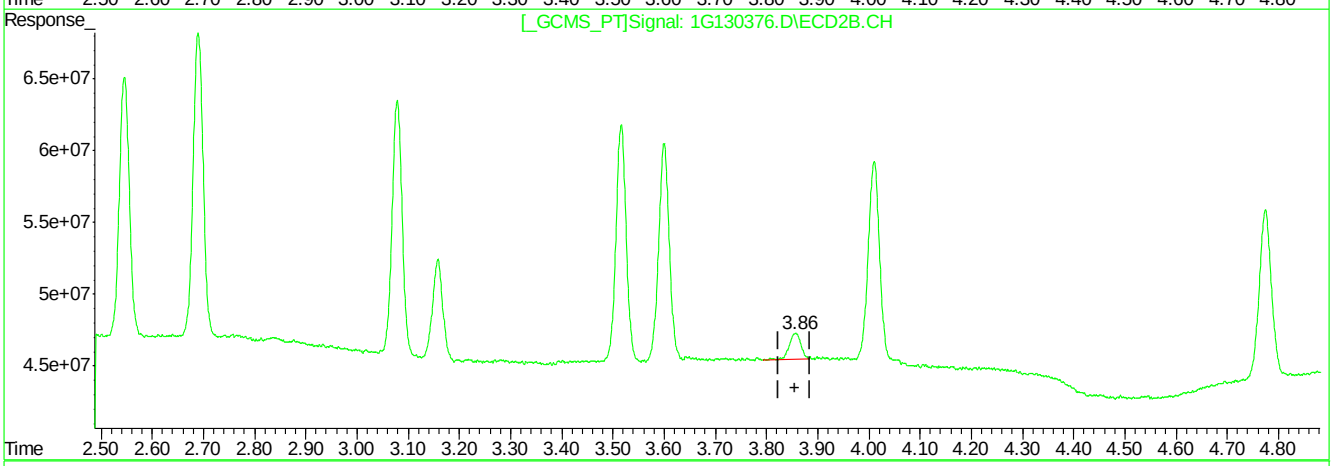
Parameter	CAS	Sig#	R.T. (min.)	Reason
Alachlor	15972-60-8	1	3.53	Poorly defined baseline
Endrin	72-20-8	1	5.20	Poorly defined baseline
4,4'-DDT	50-29-3	2	6.93	Poorly defined baseline
Methoxychlor	72-43-5	2	8.16	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	9.06	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	10.34	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On : 12-8-16 05:39:12 PM Operator: rebeccak
Sample : ic4166-5 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:38 2016 Quant Results File: 1PST4166.RES

Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration





QEdit

(10) Alachlor

3.54min 5.044PPB

response 3741622

(10) Alachlor #2

3.86min 4.897PPB

response 29587063

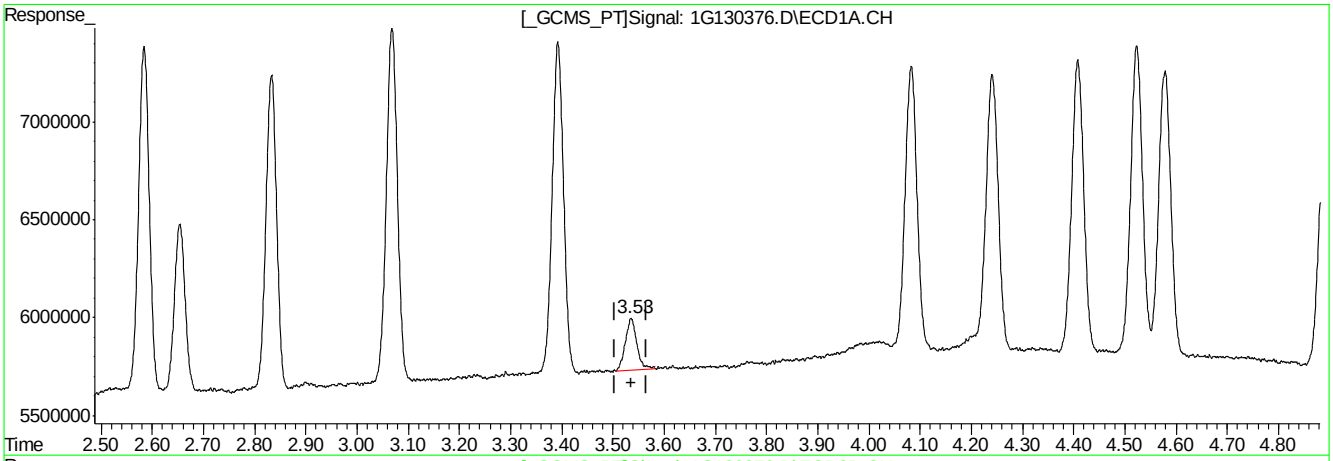
(+) = Expected Retention Time

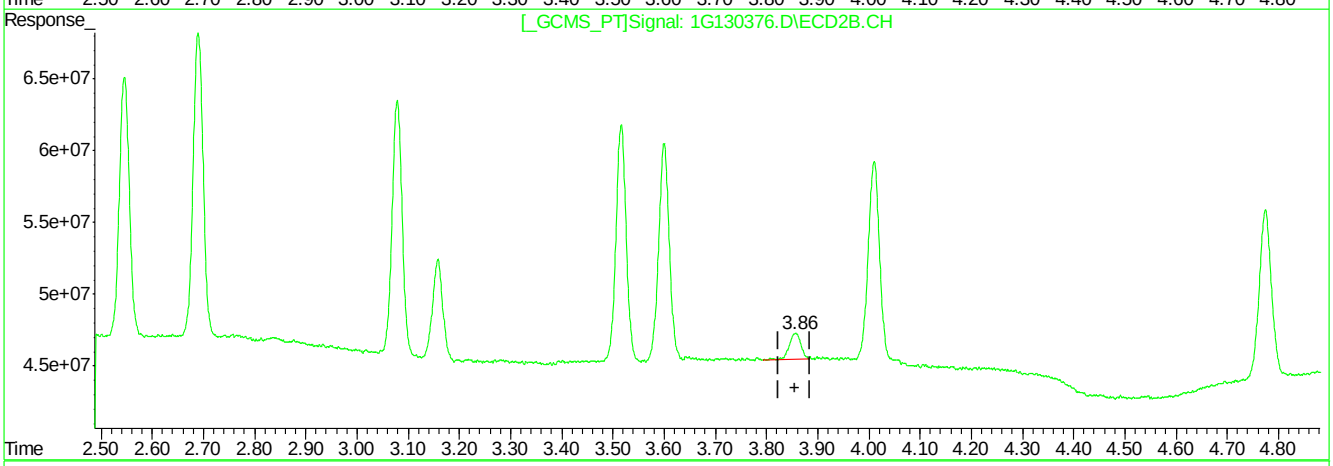
1G130376.D 1PST4166.M Fri Dec 09 13:38:56 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(10) Alachlor

3.53min 5.572PPB m

response 4133068

(10) Alachlor #2

3.86min 4.897PPB

response 29587063

(+) = Expected Retention Time

1G130376.D 1PST4166.M Fri Dec 09 13:39:02 2016 RPT1

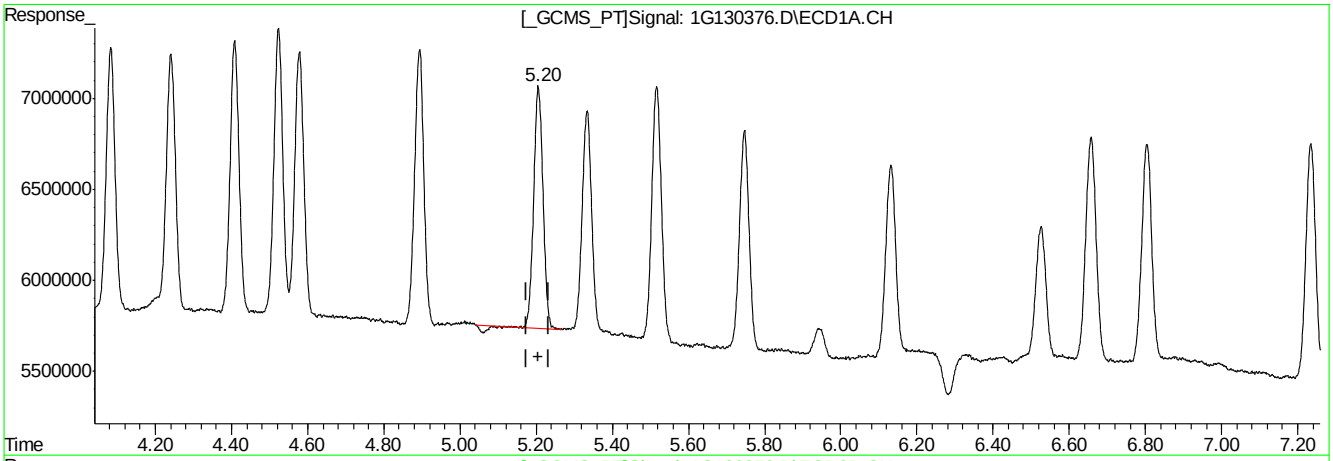
13.6.3.3

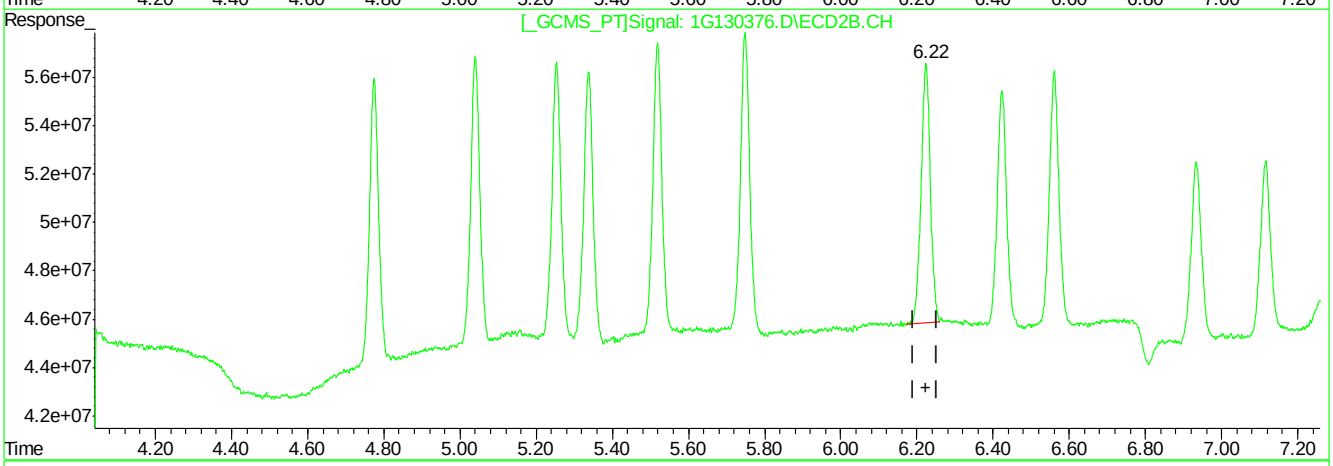
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(17) Endrin (MA)

5.21min 4.878PPB

response 22417616

(17) Endrin #2 (MA)

6.22min 4.393PPB

response 179807633

(+) = Expected Retention Time

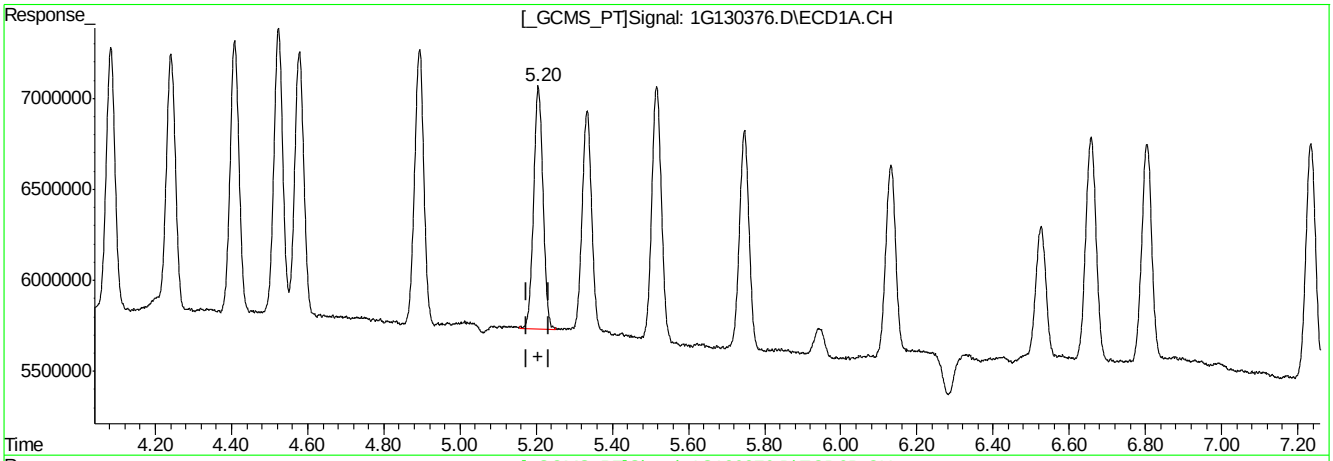
1G130376.D 1PST4166.M Fri Dec 09 13:39:10 2016 RPT1

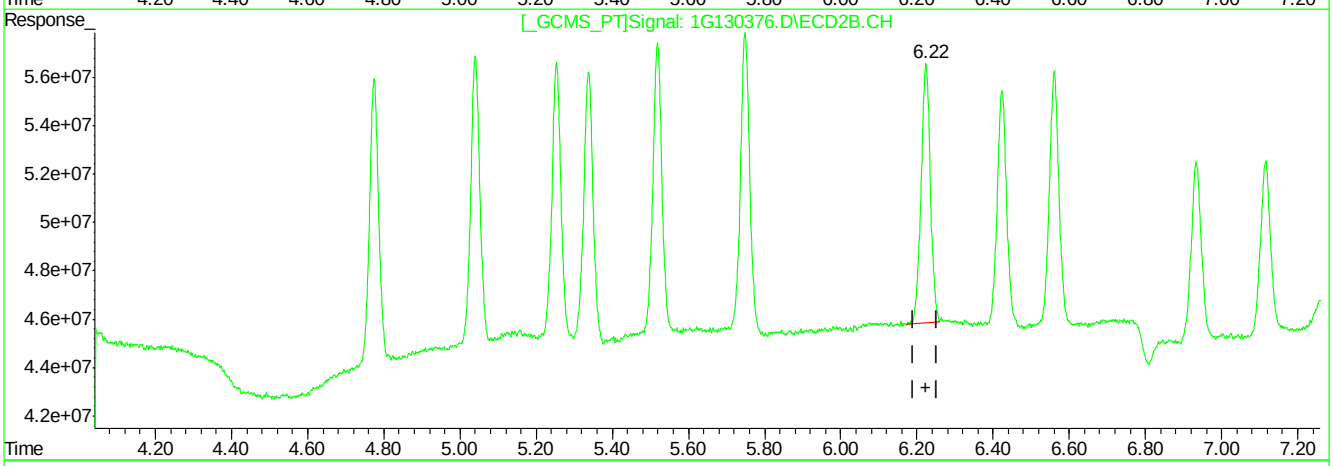
13.6.3.4 13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(17) Endrin (MA)

5.20min 5.018PPB m

response 23059276

(17) Endrin #2 (MA)

6.22min 4.393PPB

response 179807633

(+) = Expected Retention Time

1G130376.D 1PST4166.M Fri Dec 09 13:39:18 2016 RPT1

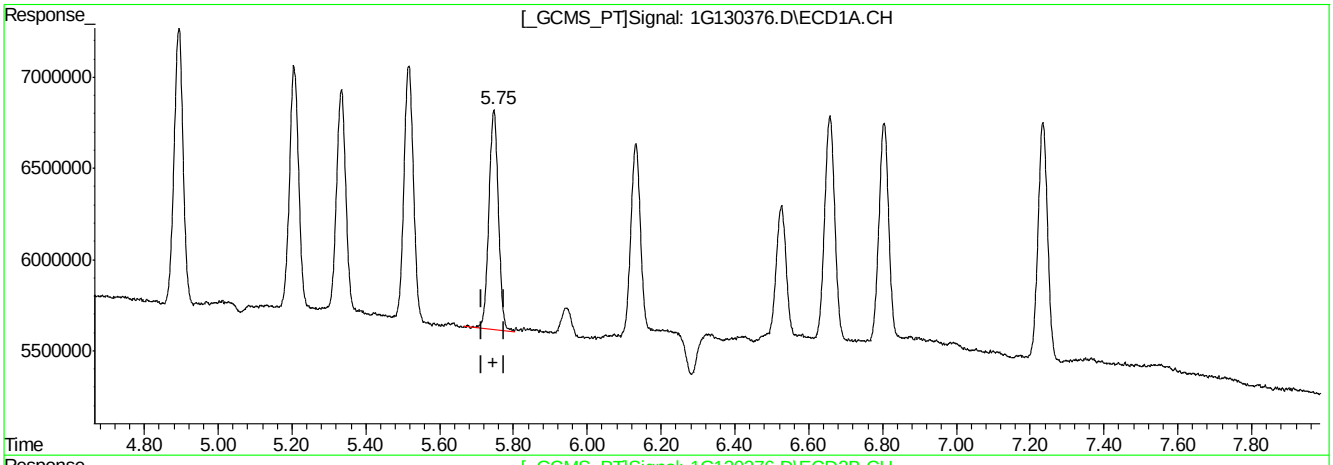
13.6.3.5

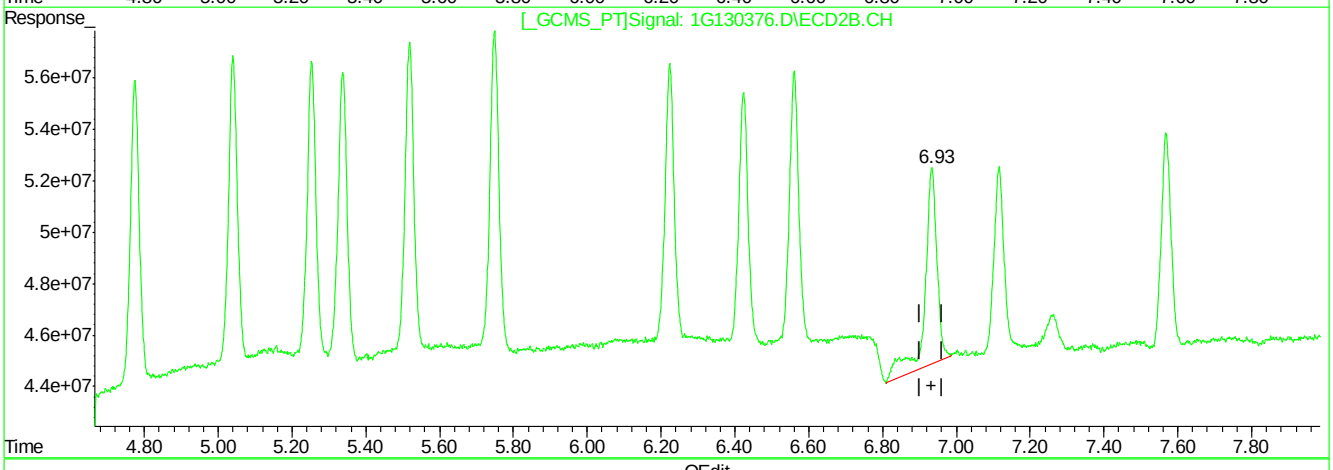
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(20) 4,4'-DDT (MA)

5.75min 5.022PPB

response 21508443

(20) 4,4'-DDT #2 (MA)

6.93min 6.342PPB

response 175828240

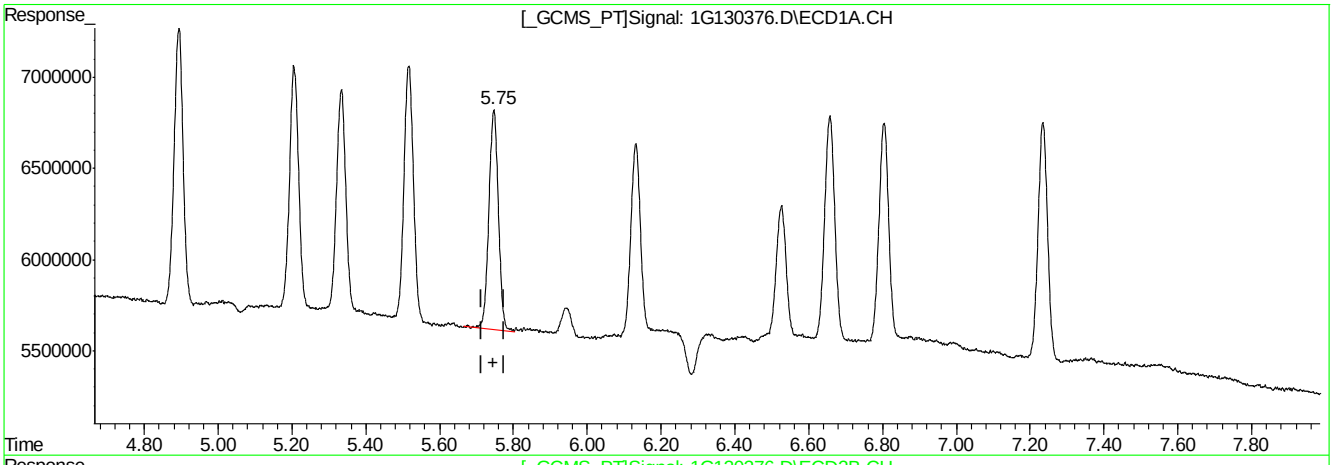
(+) = Expected Retention Time

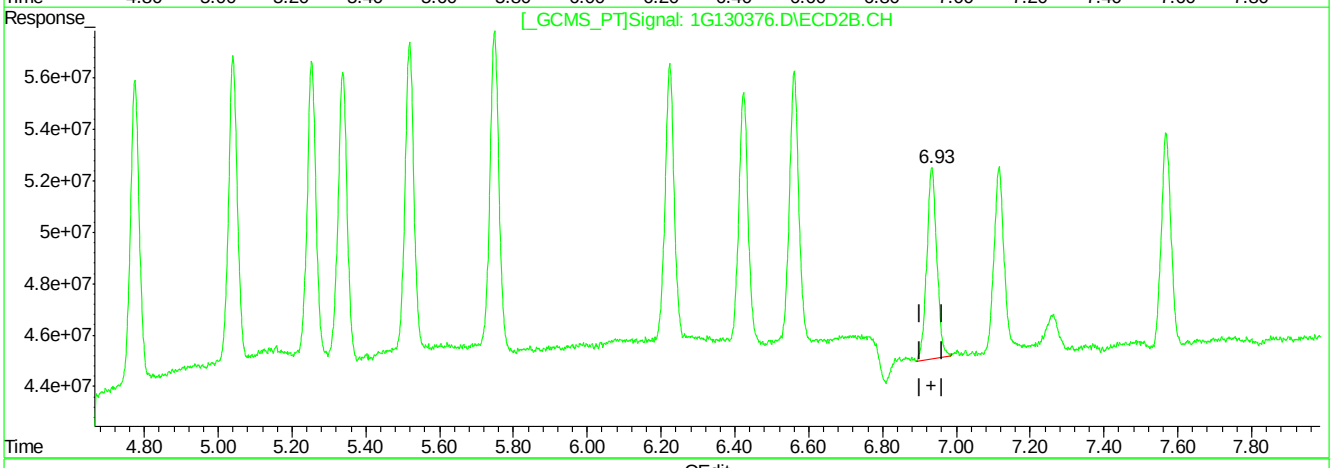
1G130376.D 1PST4166.M Fri Dec 09 13:39:22 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(20) 4,4'-DDT (MA)

5.75min 5.022PPB

response 21508443

(20) 4,4'-DDT #2 (MA)

6.93min 5.026PPB m

response 139350199

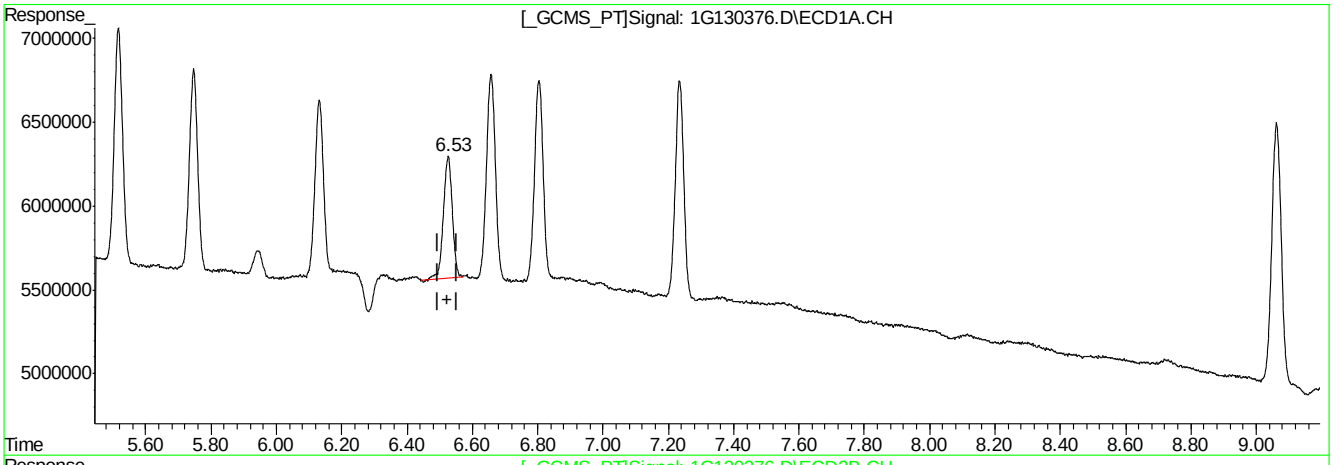
(+) = Expected Retention Time

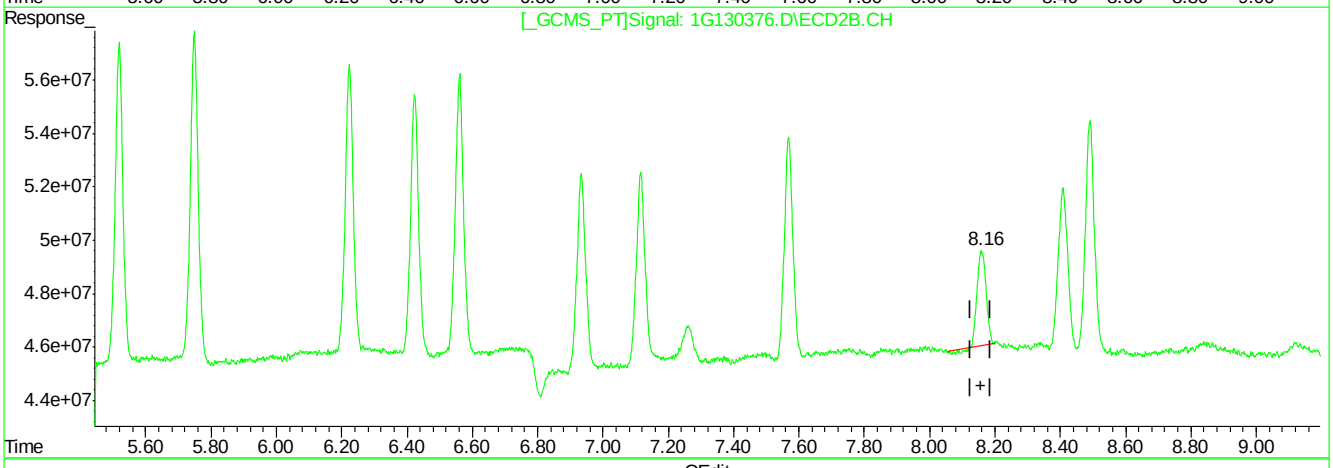
1G130376.D 1PST4166.M Fri Dec 09 13:39:28 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

6.53min 5.358PPB

response 13870763

(23) Methoxychlor #2 (A)

8.16min 4.666PPB

response 66210843

(+) = Expected Retention Time

1G130376.D 1PST4166.M Fri Dec 09 13:39:34 2016 RPT1

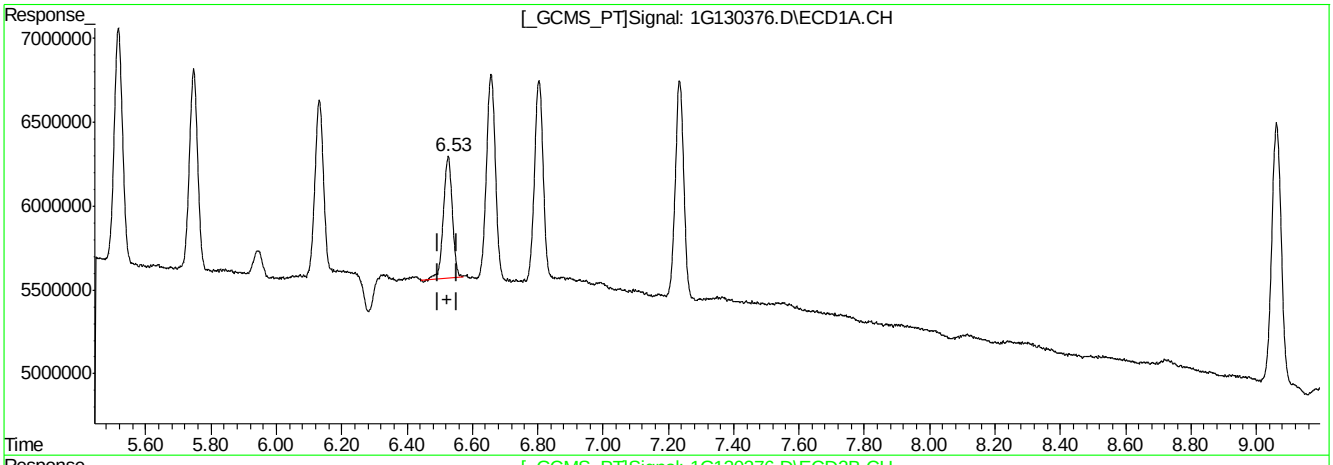
13.6.3.8

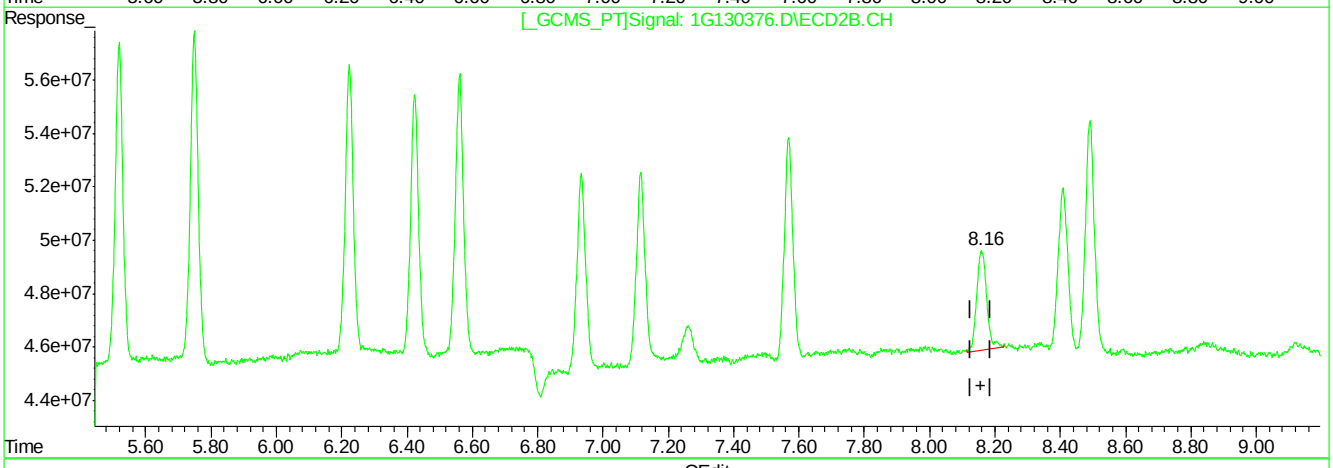
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

6.53min 5.358PPB

response 13870763

(23) Methoxychlor #2 (A)

8.16min 5.577PPB m

response 79139345

(+) = Expected Retention Time

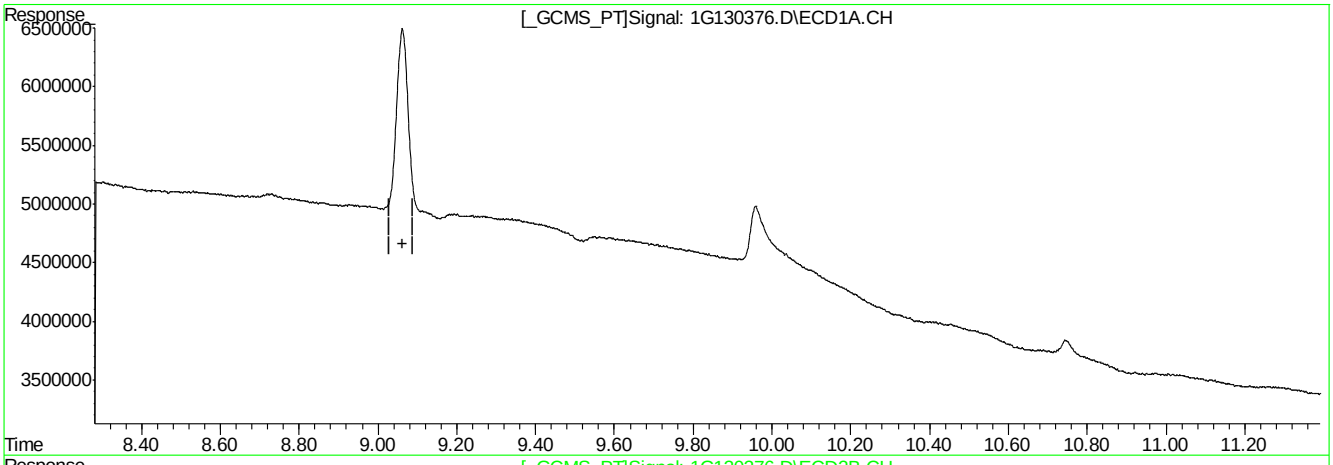
1G130376.D 1PST4166.M Fri Dec 09 13:39:39 2016 RPT1

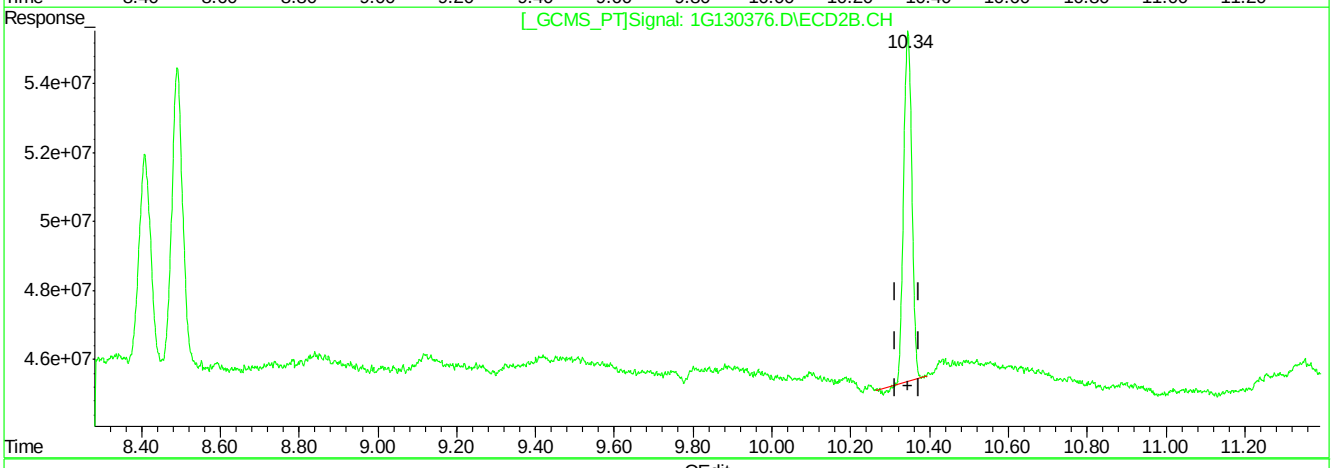
13.6.3.9 13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES


Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

0.00min 0.000PPB

response 0

(26) Decachlorobiphenyl #2 (SA)

10.35min 5.178PPB

response 145792054

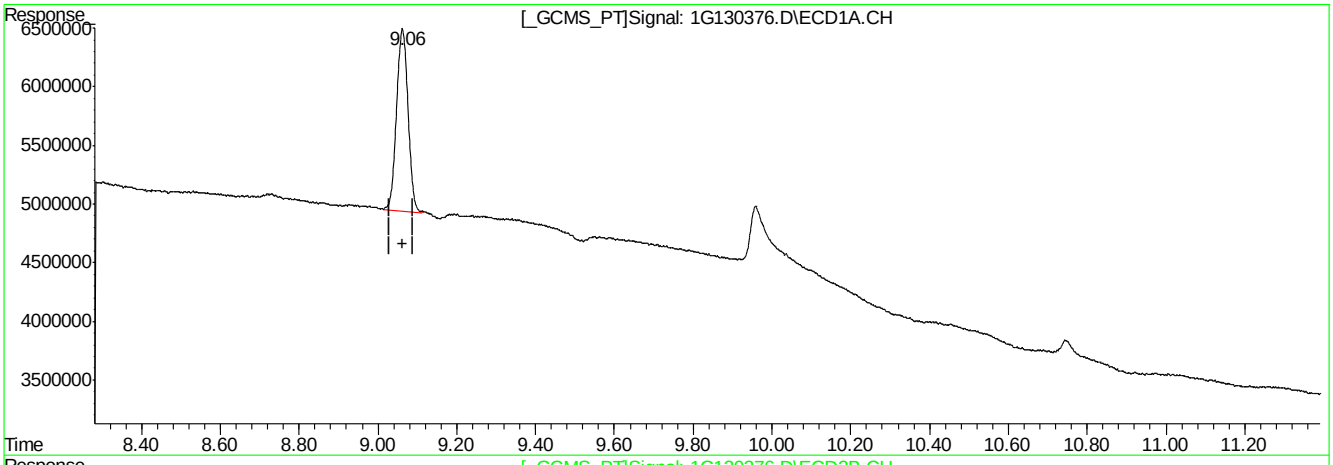
(+) = Expected Retention Time

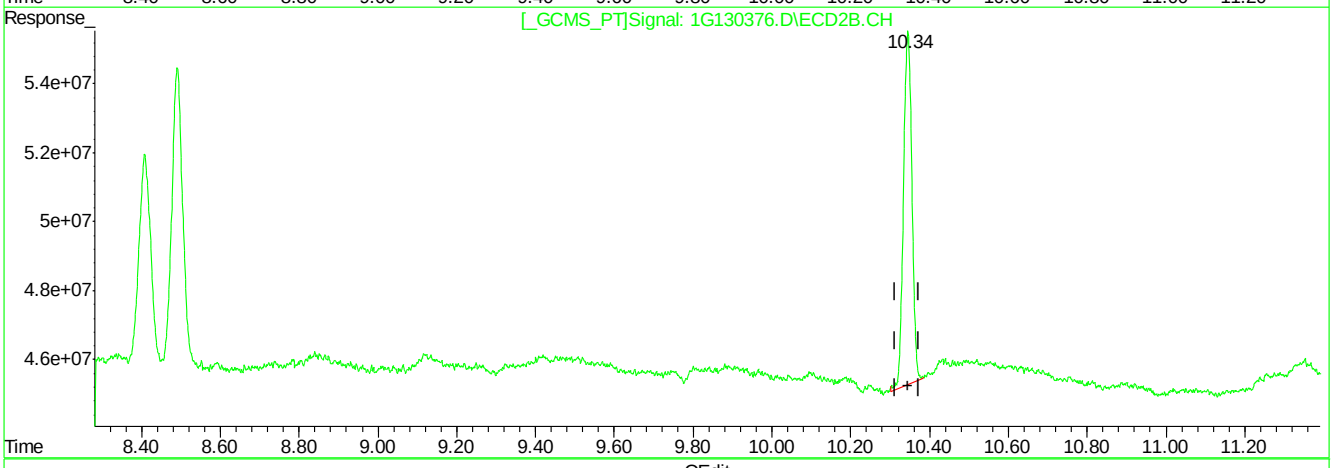
1G130376.D 1PST4166.M Fri Dec 09 13:39:44 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130376.D\ECD2B.CH
Acq On    : 12-8-16 05:39:12 PM                      Operator: rebeccak
Sample    : ic4166-5                                 Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:38 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

9.06min 5.438PPB m

response 31436275

(26) Decachlorobiphenyl #2 (SA)

10.34min 5.409PPB m

response 152292992

(+) = Expected Retention Time

1G130376.D 1PST4166.M Fri Dec 09 13:39:52 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD2B.CH
Acq On : 12-8-16 05:55:58 PM Operator: rebeccak
Sample : ic4166-10 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:37 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	304.9E6	3150.5E6	50.000	50.000
27)	I	1-bromo-2-nitrob	1.23	1.32	304.9E6	3150.5E6	50.000	50.000
33)	I	1-bromo-2-nitrob	1.23	1.32	304.9E6	3150.5E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	1.83	2.08	48948636	480.4E6	9.684	8.767
		Spiked Amount 40.000 Range 30 - 150 Recovery =					24.21%#	21.92%#
26)	SA	Decachlorobiphen	9.06	10.34	69255729	336.7E6	9.808	9.723
		Spiked Amount 40.000 Recovery =					24.52%	24.31%
		Target Compounds						
3)		Hexachlorobenzen	2.16	2.54	83956100	574.1E6	9.748	9.238
4)	A	alpha-BHC	2.29	2.69	65168811	685.3E6	9.131	9.136
5)	MA	gamma-BHC	2.58	3.08	59676366	586.1E6	8.707	8.573
6)	MA	Heptachlor	3.07	3.60	62950108	538.7E6	9.046	9.281
7)	B	beta-BHC	2.65	3.16	28045924	236.1E6	9.064	8.623
8)	B	delta-BHC	2.83	3.52	54941248	551.7E6	8.319	8.344
9)	MB	Aldrin	3.39	4.01	60461704	526.8E6	8.885	8.449
10)		Alachlor	3.54	3.86	8728814	66379296	9.633	8.934
11)	B	Heptachlor Epoxi	4.08	4.77	54426118	462.2E6	8.214	8.243m
12)	B	gamma-Chlordane	4.24	5.04	54459088	471.5E6	7.744	8.174m
13)	B	alpha-Chlordane	4.41	5.25	56234997	452.8E6	8.708	8.241
14)	A	Endosulfan I	4.58	5.34	56203065	455.1E6	9.105	8.209
15)	B	4,4'-DDE	4.52	5.52	58820687	480.3E6	8.940	8.343
16)	MA	Dieldrin	4.89	5.75	59764383	509.2E6	8.917	8.538
17)	MA	Endrin	5.21	6.22	52513487	449.4E6	9.354	8.928
18)	A	4,4'-DDD	5.33	6.42	48165053	402.7E6	8.861	8.992
19)	B	Endosulfan II	5.52	6.56	56583422	443.0E6	9.297	8.612
20)	MA	4,4'-DDT	5.75	6.93	49224977	335.8E6	9.408	9.847
21)	B	Endrin Aldehyde	6.13	7.11	42813765	325.4E6	9.461	8.136
22)	B	Endosulfan Sulfa	6.80	7.57	49793838	367.1E6	9.322	8.943
23)	A	Methoxychlor	6.53	8.16	30550875	161.6E6	9.660	9.261
24)		Mirex	6.66	8.41	52377825	292.6E6	9.705	8.737
25)	B	Endrin Ketone	7.23	8.49	54058338	387.9E6	9.127	8.074

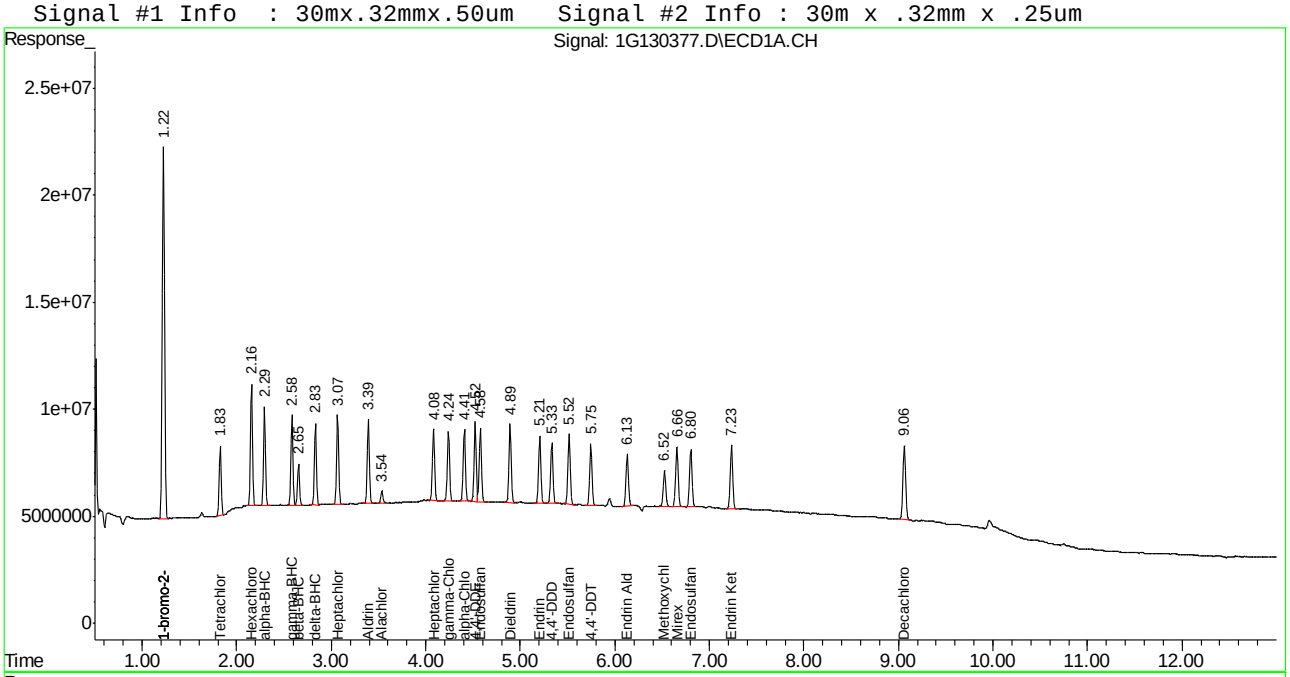
(f)=RT Delta > 1/2 Window (m)=manual int.

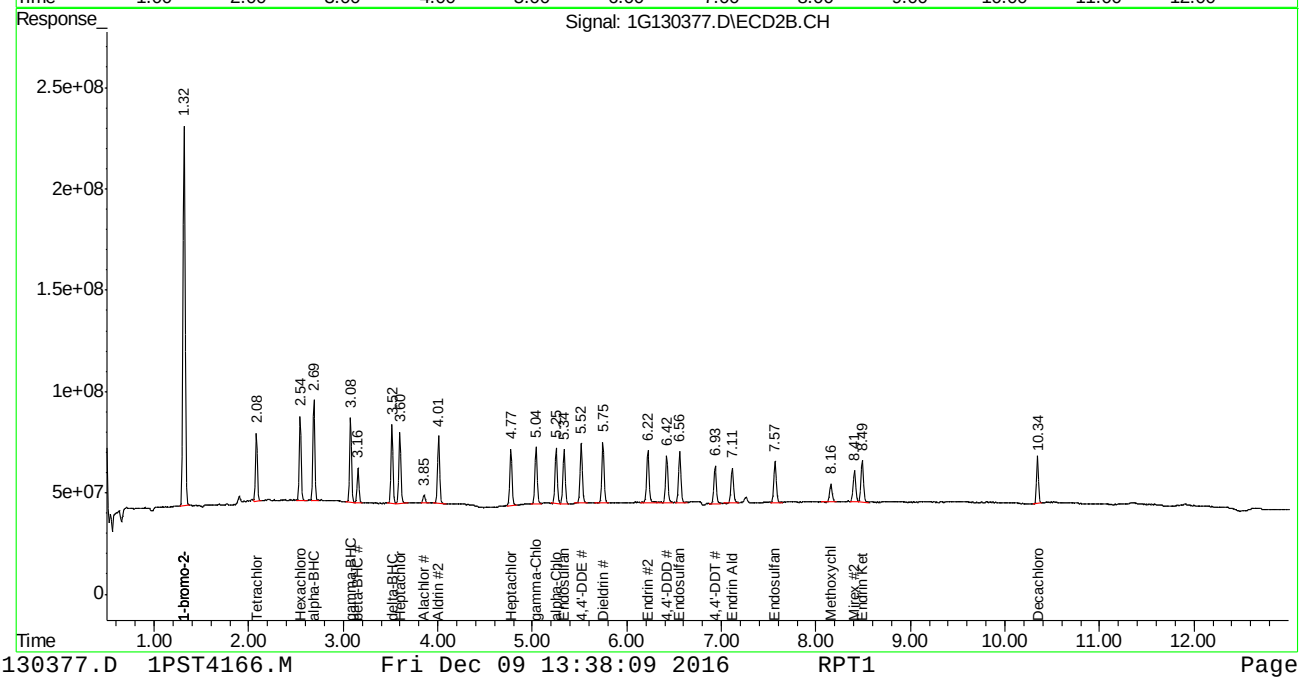
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD2B.CH
Acq On : 12-8-16 05:55:58 PM Operator: rebeccak
Sample : ic4166-10 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:37 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

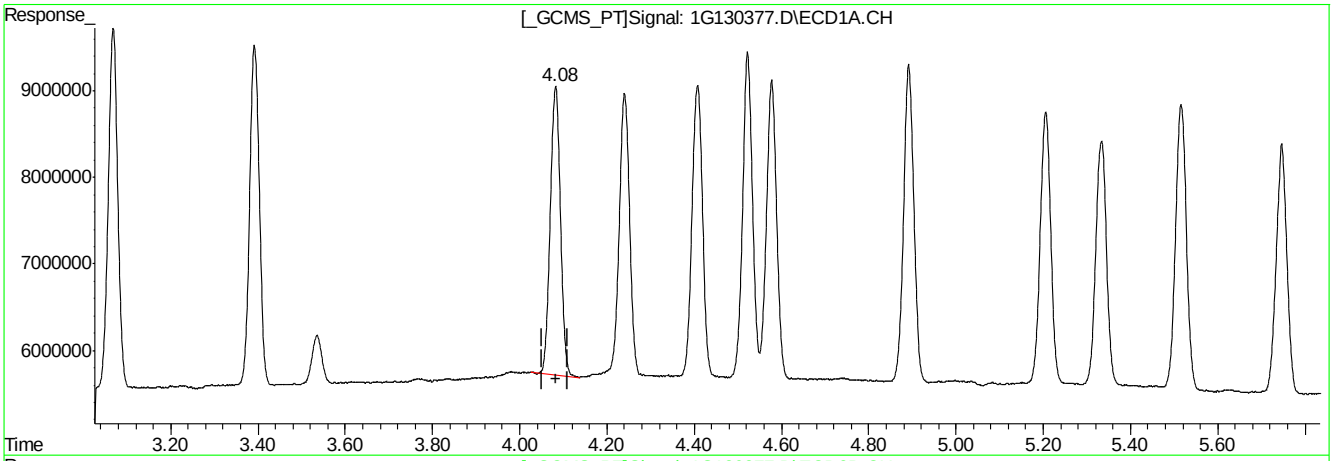
Sample Number:	G1G4166-IC4166	**Method:**	SW846 8081B
Lab FileID:	1G130377.D	**Analyst approved:**	12/09/16 14:06 Rebecca Krug
Injection Time:	12/08/16 17:55	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

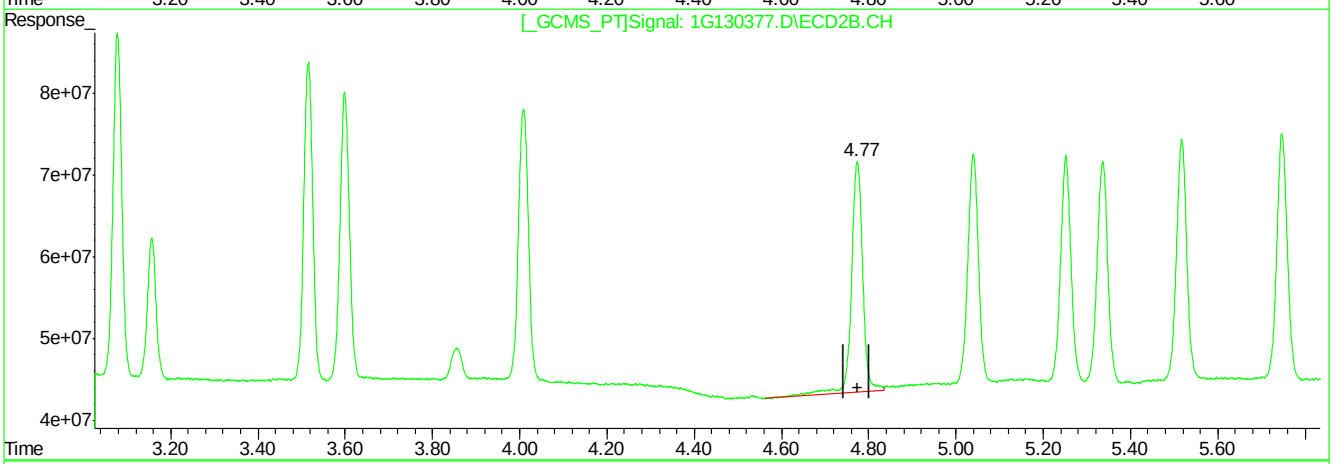
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	2	4.77	Poorly defined baseline
gamma-Chlordane	5103-74-2	2	5.04	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD2B.CH
Acq On    : 12-8-16 05:55:58 PM                      Operator: rebeccak
Sample    : ic4166-10                                Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:37 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.08min 8.214PPB

response 54426118

(11) Heptachlor Epoxide #2 (B)

4.77min 8.983PPB

response 503663701

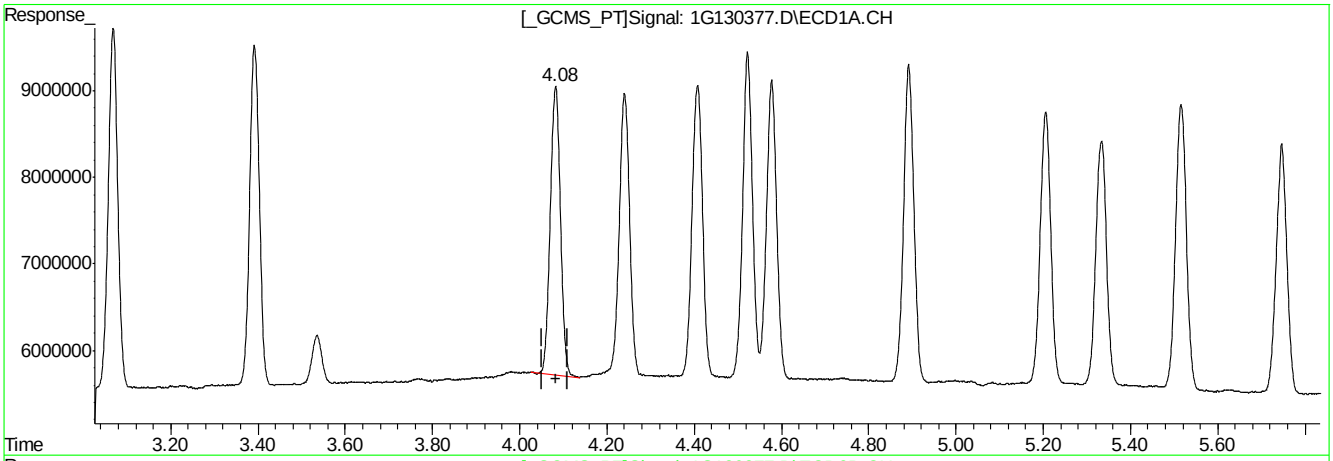
(+) = Expected Retention Time

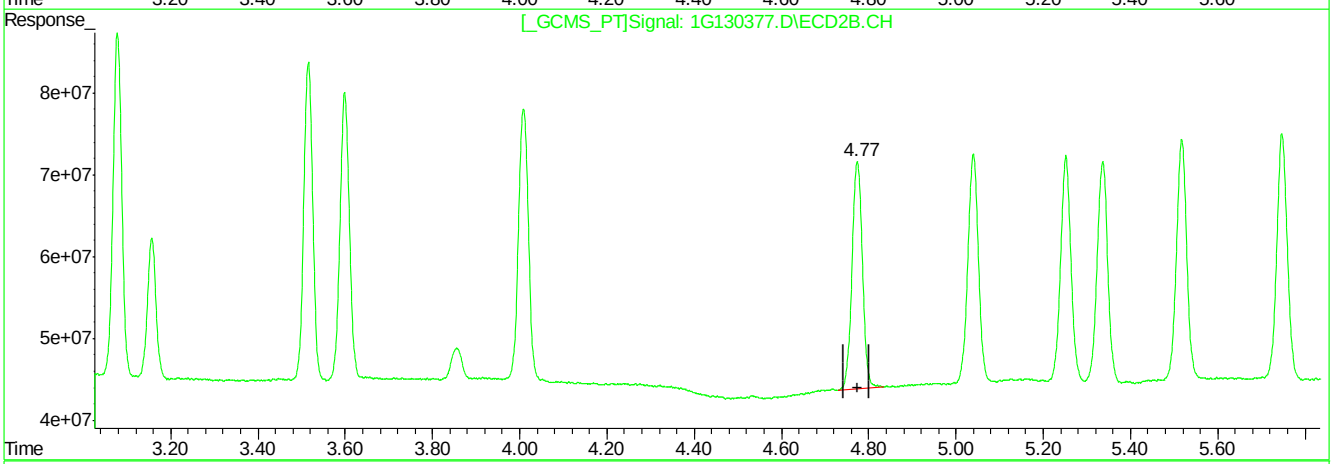
1G130377.D 1PST4166.M Fri Dec 09 13:37:35 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD2B.CH
Acq On    : 12-8-16 05:55:58 PM                      Operator: rebeccak
Sample    : ic4166-10                                Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:37 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.08min 8.214PPB

response 54426118

(11) Heptachlor Epoxide #2 (B)

4.77min 8.243PPB m

response 462157602

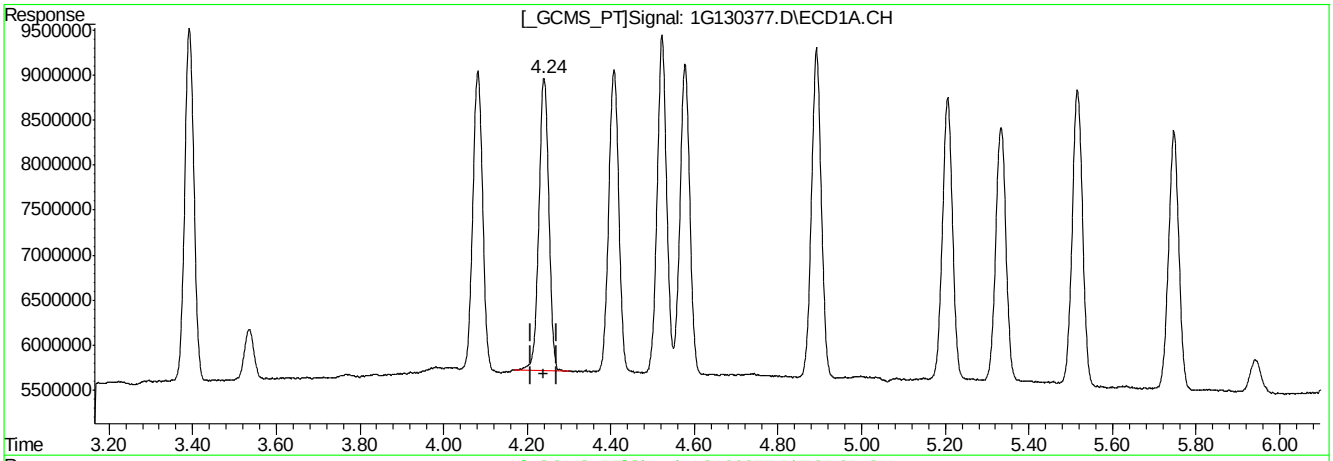
(+) = Expected Retention Time

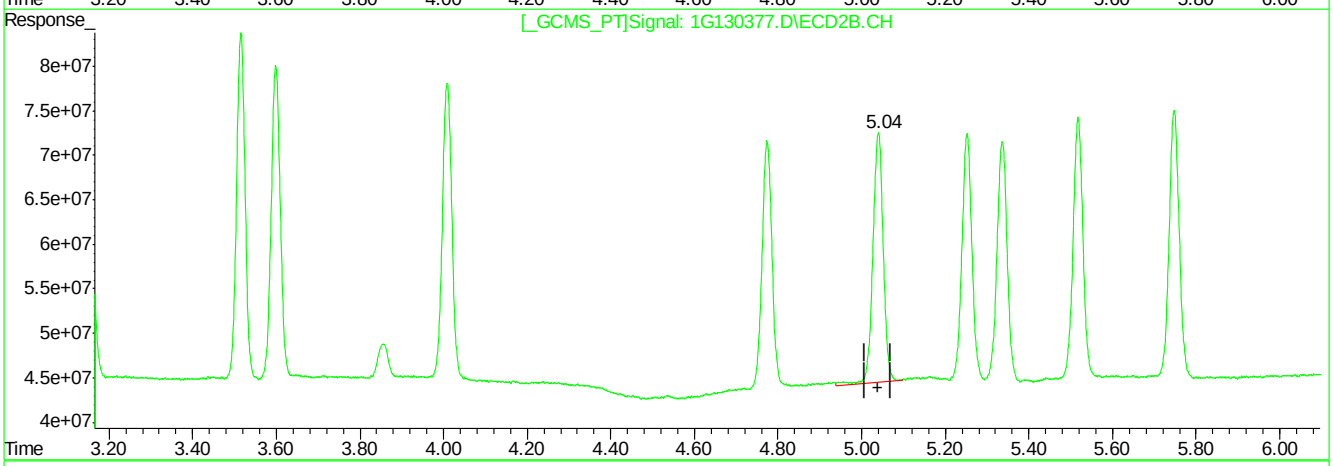
1G130377.D 1PST4166.M Fri Dec 09 13:37:40 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD2B.CH
Acq On : 12-8-16 05:55:58 PM Operator: rebeccak
Sample : ic4166-10 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:37 2016 Quant Results File: 1PST4166.RES

Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration





QEdit

(12) gamma-Chlordane (B)

4.24min 7.744PPB

response 54459088

(12) gamma-Chlordane #2 (B)

5.04min 8.430PPB

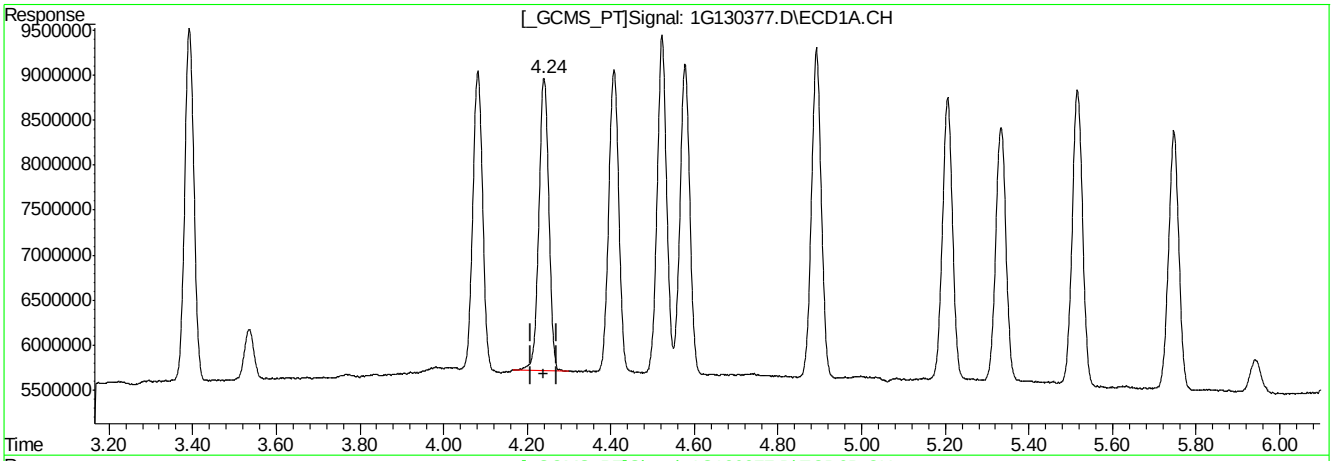
response 486246693

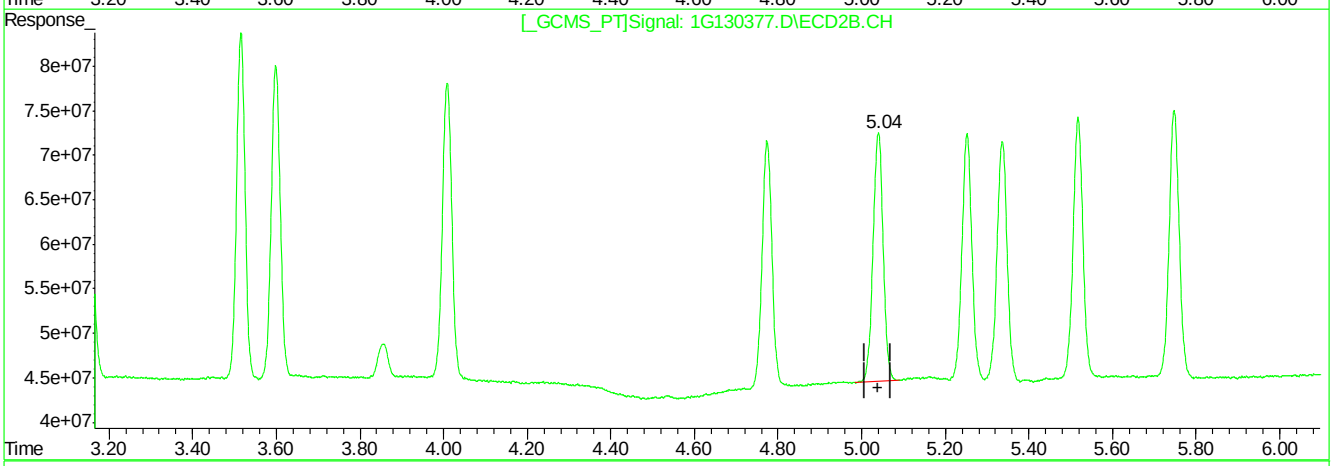
(+) = Expected Retention Time
1G130377.D 1PST4166.M Fri Dec 09 13:37:44 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130377.D\ECD2B.CH
Acq On    : 12-8-16 05:55:58 PM                      Operator: rebeccak
Sample    : ic4166-10                                Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:37 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(12) gamma-Chlordane (B)

4.24min 7.744PPB

response 54459088

(12) gamma-Chlordane #2 (B)

5.04min 8.174PPB m

response 471479132

(+) = Expected Retention Time

1G130377.D 1PST4166.M Fri Dec 09 13:37:49 2016 RPT1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\1G4166\1G130378.D\ECD1A.CH Vial: 2
Acq On : 12-8-16 06:12:45 PM Operator: rebeccak
Sample : icc4166-25 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4166\1G130378.D\ECD2B.CH Vial: 2
Acq On : 12-8-16 06:12:44 PM Operator: rebeccak
Sample : icc4166-25 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile : autoint2.e
Quant Time: Dec 9 13:34 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	321.1E6	3328.3E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	321.1E6	3328.3E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	321.1E6	3328.3E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.83	2.08	133.6E6	1251.7E6	25.093	21.623
Spiked Amount	40.000	Range	30 - 150	Recovery	=	62.73%	54.06%
26) SA	Decachlorobiphen	9.06	10.34	179.1E6	860.0E6	24.078	23.509
Spiked Amount	40.000			Recovery	=	60.20%	58.77%
	Target Compounds						
3)	Hexachlorobenzen	2.16	2.55	220.0E6	1556.0E6	24.259	23.701
4) A	alpha-BHC	2.30	2.69	184.8E6	1895.0E6	24.586	23.912
5) MA	gamma-BHC	2.58	3.08	168.3E6	1623.6E6	23.319	22.479
6) MA	Heptachlor	3.07	3.60	172.3E6	1439.1E6	23.506	23.470
7) B	beta-BHC	2.65	3.16	74398100	645.3E6	22.832	22.309
8) B	delta-BHC	2.83	3.52	155.7E6	1530.1E6	22.387	21.909
9) MB	Aldrin	3.39	4.01	167.6E6	1465.6E6	23.386	22.252
10)	Alachlor	3.54	3.86	22565710	170.8E6	23.648	21.766
11) B	Heptachlor Epoxi	4.08	4.77	150.2E6	1279.9E6	21.527	21.608
12) B	gamma-Chlordane	4.24	5.04	148.1E6	1311.9E6	20.002	21.529
13) B	alpha-Chlordane	4.41	5.25	153.8E6	1246.4E6	22.616	21.473
14) A	Endosulfan I	4.58	5.34	153.0E6	1234.9E6	23.541	21.086
15) B	4,4'-DDE	4.52	5.52	161.7E6	1327.1E6	23.332	21.821
16) MA	Dieldrin	4.89	5.75	165.4E6	1379.1E6	23.436	21.887
17) MA	Endrin	5.21	6.22	142.8E6	1215.3E6	24.162	22.854
18) A	4,4'-DDD	5.33	6.42	133.6E6	1101.6E6	23.345	23.288
19) B	Endosulfan II	5.52	6.56	153.0E6	1198.0E6	23.872	22.049
20) MA	4,4'-DDT	5.75	6.93	136.5E6	946.7E6	24.764	26.283
21) B	Endrin Aldehyde	6.13	7.12	116.4E6	870.8E6	24.431	20.609
22) B	Endosulfan Sulfa	6.80	7.57	133.6E6	1004.0E6	23.750	23.154
23) A	Methoxychlor	6.53	8.16	80150142	470.6E6	24.065	25.528
24)	Mirex	6.66	8.41	135.9E6	806.3E6	23.920	22.789
25) B	Endrin Ketone	7.23	8.49	145.0E6	1034.5E6	23.248	20.385

(f)=RT Delta > 1/2 Window (m)=manual int.

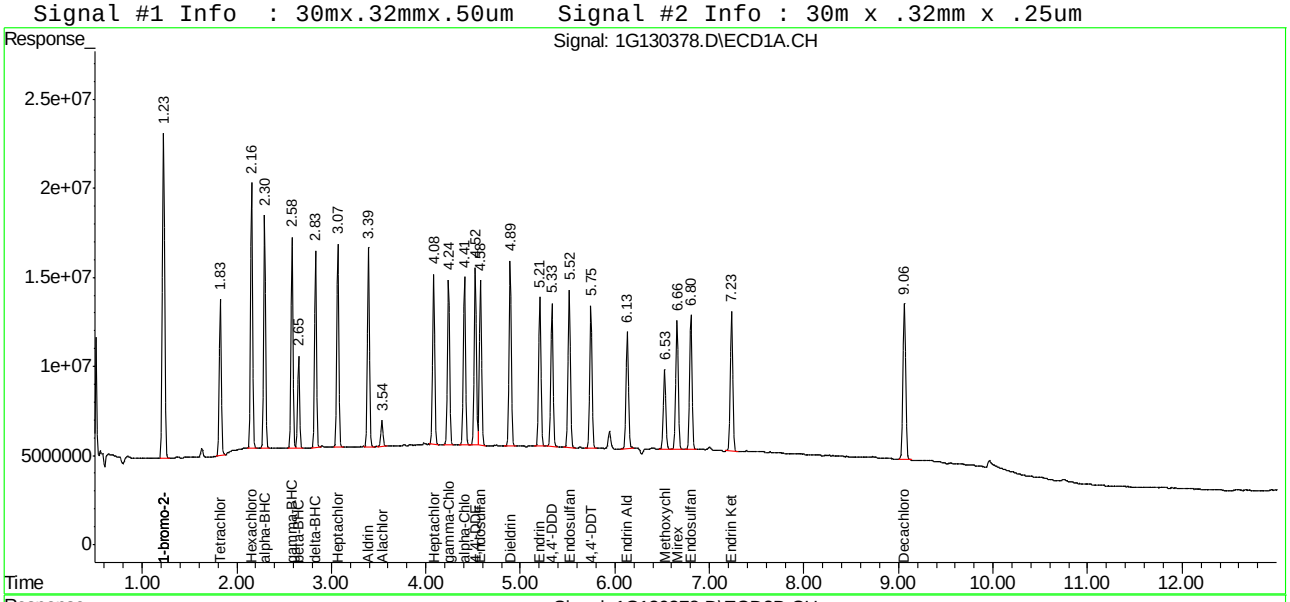
Quantitation Report (QT Reviewed)

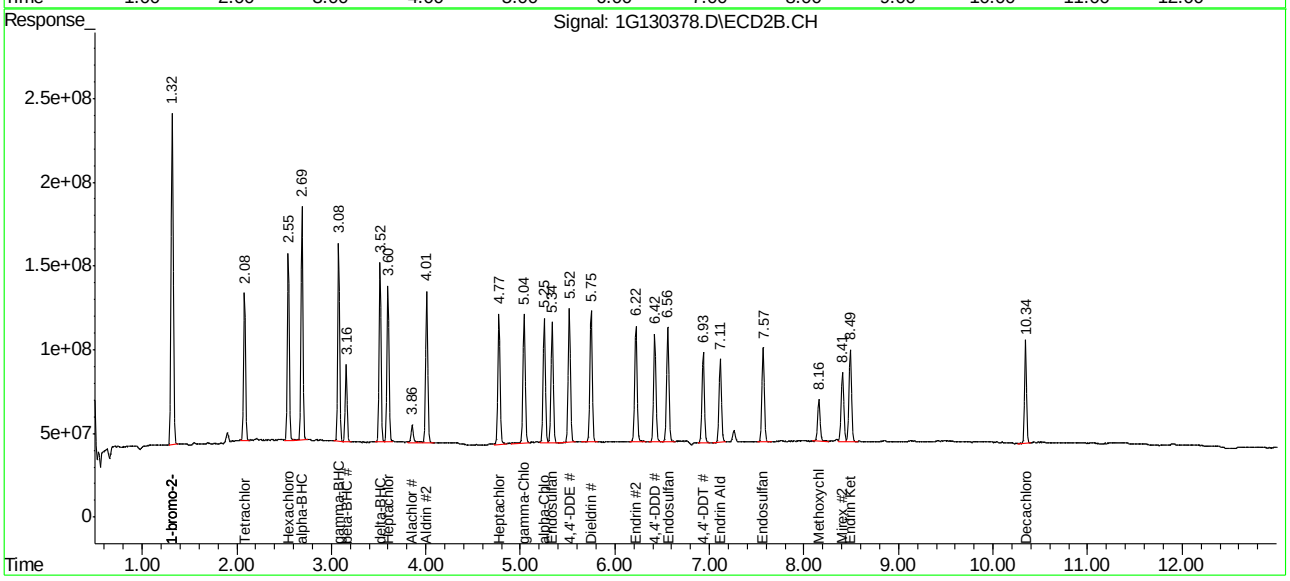
```
Data File : C:\MSDCHEM\1\DATA\1G4166\1G130378.D\ECD1A.CH Vial: 2
Acq On    : 12-8-16 06:12:45 PM                          Operator: rebeccak
Sample    : icc4166-25                                   Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1                  Multiplr: 1.00
IntFile   : autoint1.e

Data File : C:\MSDCHEM\1\DATA\1G4166\1G130378.D\ECD2B.CH Vial: 2
Acq On    : 12-8-16 06:12:44 PM                          Operator: rebeccak
Sample    : icc4166-25                                   Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1                  Multiplr: 1.00
IntFile   : autoint2.e
Quant Time: Dec  9 13:34 2016  Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj.     : 1ul/column
Signal #1 Phase : RTXCLP I          Signal #2 Phase: RTX-CLP II
Signal #1 Info  : 30mx.32mmx.50um   Signal #2 Info : 30m x .32mm x .25um
```





SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD2B.CH
Acq On : 12-8-16 06:30:10 PM Operator: rebeccak
Sample : ic4166-50 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:35 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	313.0E6	3204.7E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	313.0E6	3204.7E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	313.0E6	3204.7E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.83	2.08	264.0E6	2392.2E6	50.876	42.920
Spiked Amount	40.000 Range	30 - 150	Recovery	=		127.19%	107.30%
26) SA	Decachlorobiphen	9.06	10.34	338.6E6	1657.0E6	46.716	47.045m
Spiked Amount	40.000		Recovery	=		116.79%	117.61%
	Target Compounds						
3)	Hexachlorobenzen	2.16	2.55	418.4E6	3002.6E6	47.323	47.497
4) A	alpha-BHC	2.30	2.69	375.8E6	3717.9E6	51.289	48.723
5) MA	gamma-BHC	2.59	3.08	337.9E6	3190.5E6	48.034	45.875
6) MA	Heptachlor	3.07	3.60	340.7E6	2859.9E6	47.687	48.440
7) B	beta-BHC	2.66	3.16	144.9E6	1249.6E6	45.611	44.869
8) B	delta-BHC	2.84	3.52	321.9E6	3079.1E6	47.472	45.787
9) MB	Aldrin	3.40	4.01	335.4E6	2807.9E6	48.016	44.276
10)	Alachlor	3.54	3.86	41793512	316.9E6	44.932	41.929
11) B	Heptachlor Epoxi	4.09	4.77	296.7E6	2489.8E6	43.622	43.655
12) B	gamma-Chlordane	4.24	5.04	296.7E6	2564.9E6	41.101	43.714
13) B	alpha-Chlordane	4.41	5.25	305.5E6	2434.4E6	46.079	43.557
14) A	Endosulfan I	4.58	5.34	301.1E6	2388.8E6	47.520	42.362
15) B	4,4'-DDE	4.53	5.52	321.0E6	2584.8E6	47.521	44.142
16) MA	Dieldrin	4.90	5.75	330.8E6	2712.3E6	48.076	44.706
17) MA	Endrin	5.21	6.22	278.5E6	2313.5E6	48.322	45.184
18) A	4,4'-DDD	5.34	6.42	267.7E6	2155.5E6	47.982	47.325
19) B	Endosulfan II	5.52	6.56	300.6E6	2315.1E6	48.112	44.252
20) MA	4,4'-DDT	5.75	6.93	270.6E6	1905.1E6	50.385	54.931
21) B	Endrin Aldehyde	6.13	7.11	230.5E6	1755.2E6	49.626	43.140
22) B	Endosulfan Sulfa	6.81	7.57	261.9E6	1987.8E6	47.763	47.607
23) A	Methoxychlor	6.53	8.16	150.9E6	910.2E6	46.479	51.278
24)	Mirex	6.66	8.41	255.0E6	1550.5E6	46.031	45.512
25) B	Endrin Ketone	7.24	8.49	283.4E6	2002.0E6	46.604	40.972

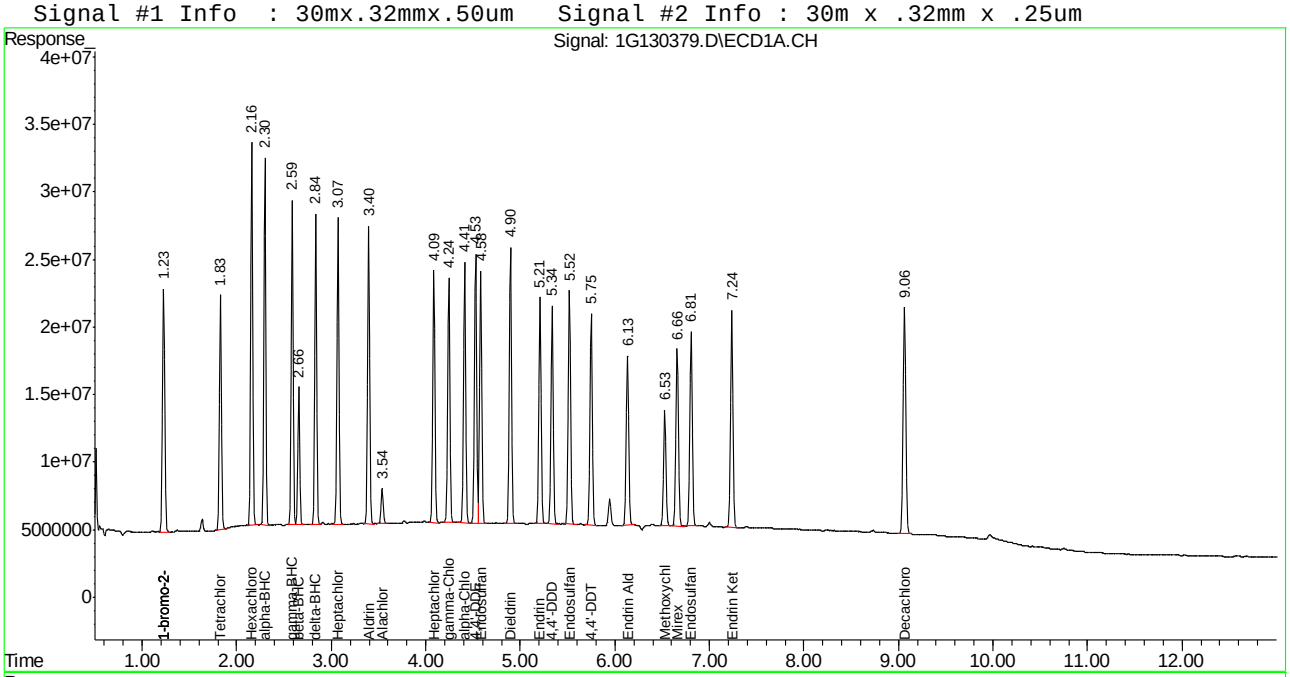
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130379.D 1PST4166.M Fri Dec 09 13:35:35 2016 RPT1 Page 1

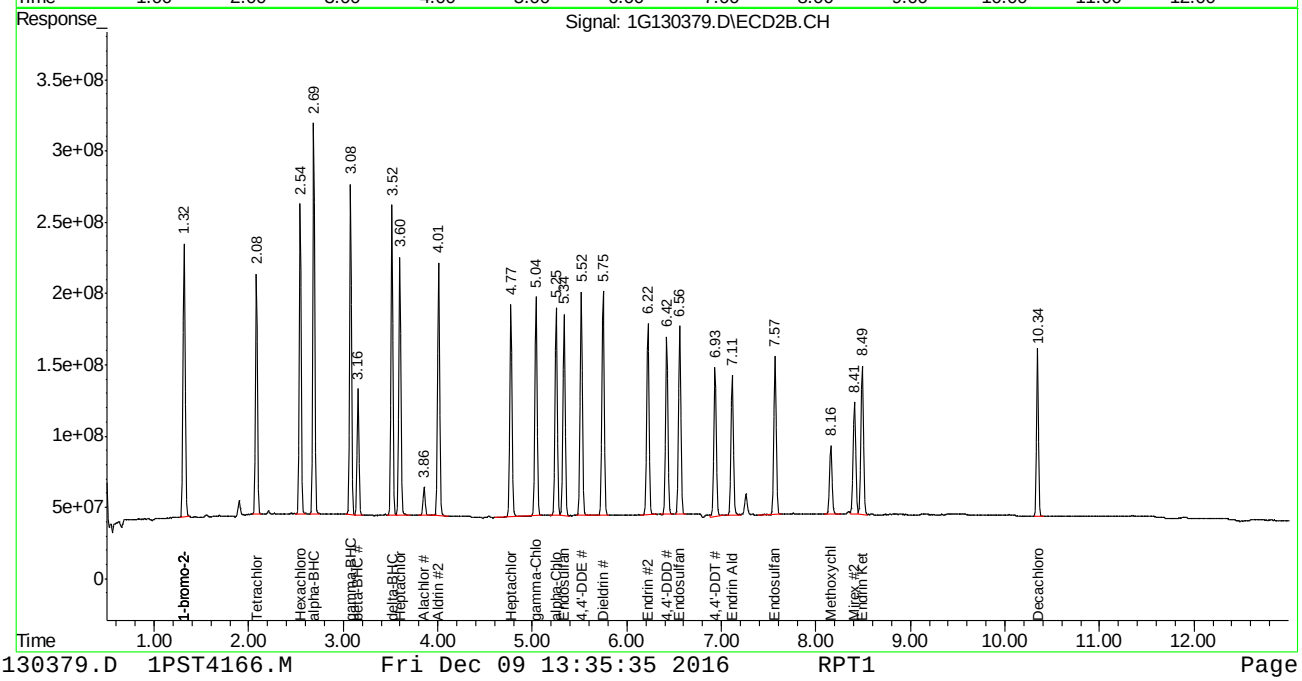
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD2B.CH
Acq On : 12-8-16 06:30:10 PM Operator: rebeccak
Sample : ic4166-50 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:35 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

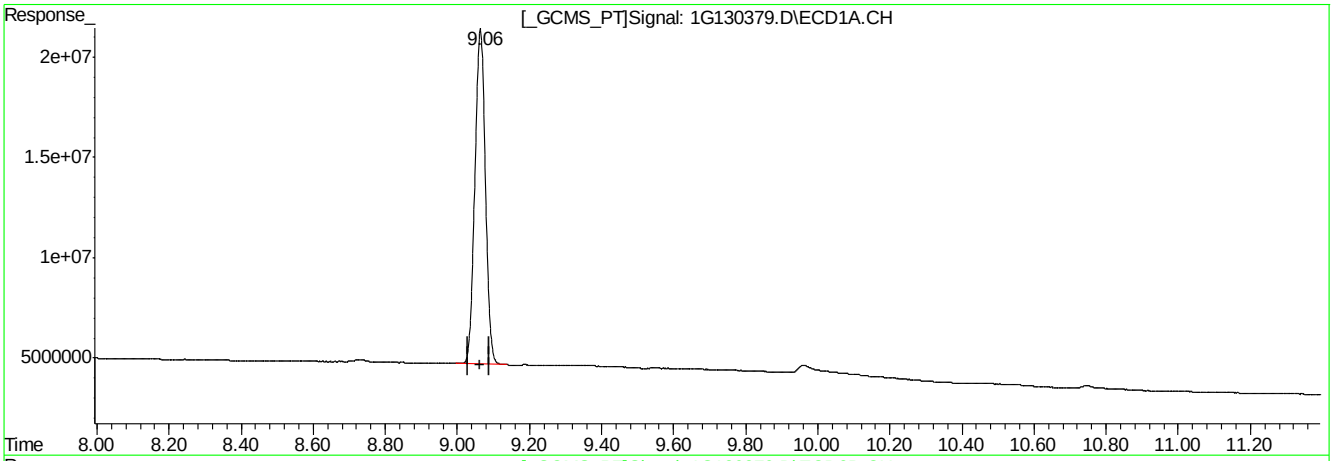
Sample Number:	G1G4166-IC4166	**Method:**	SW846 8081B
Lab FileID:	1G130379.D	**Analyst approved:**	12/09/16 14:06 Rebecca Krug
Injection Time:	12/08/16 18:30	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

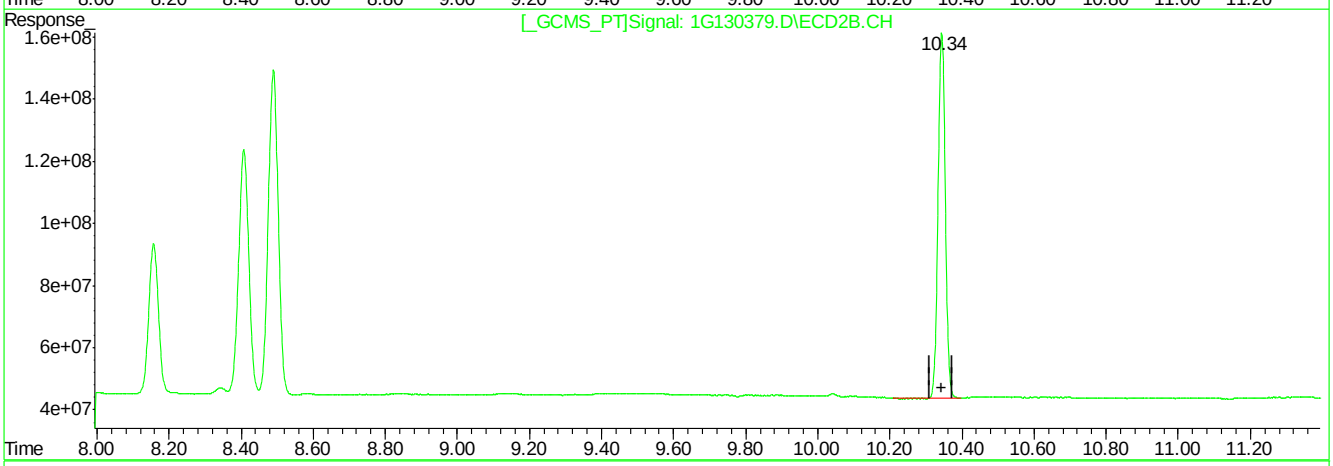
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	2	10.34	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD2B.CH
Acq On    : 12-8-16 06:30:10 PM                      Operator: rebeccak
Sample    : ic4166-50                                Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:35 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

9.06min 46.716PPB

response 338635304

(26) Decachlorobiphenyl #2 (SA)

10.34min 46.534PPB

response 1638995494

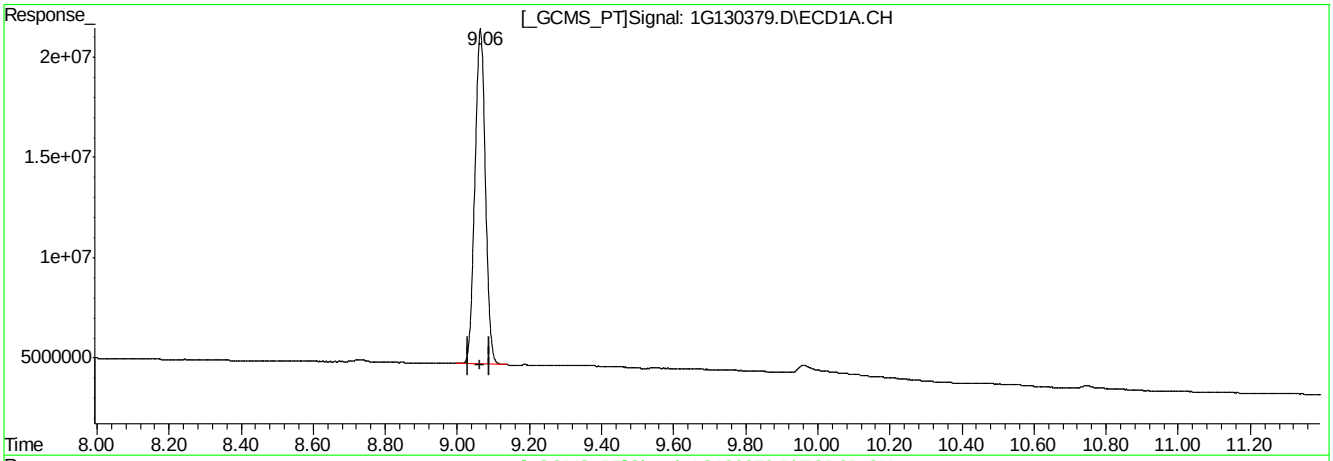
(+) = Expected Retention Time

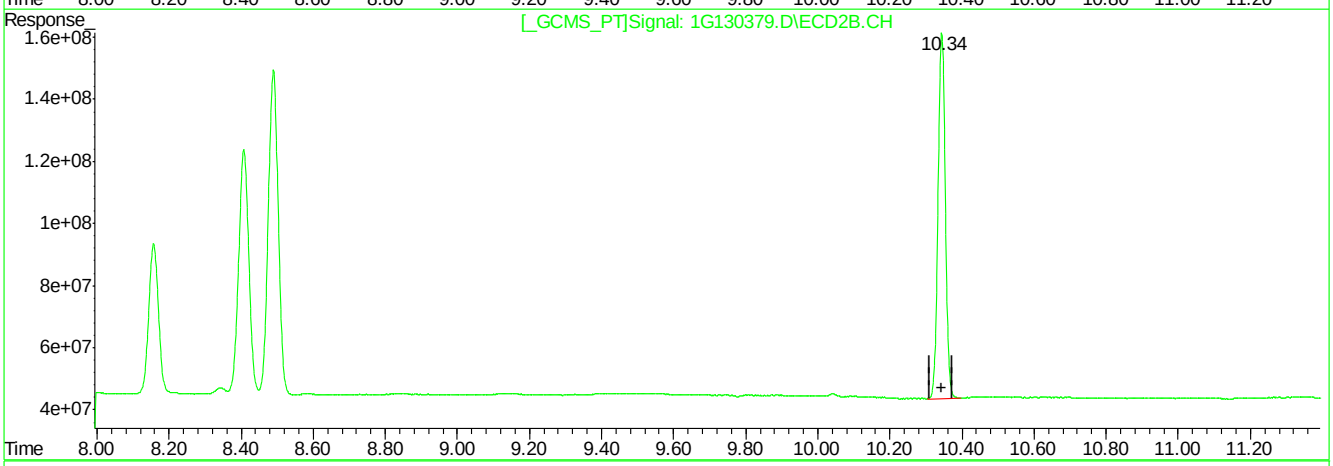
1G130379.D 1PST4166.M Fri Dec 09 13:35:26 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130379.D\ECD2B.CH
Acq On    : 12-8-16 06:30:10 PM                      Operator: rebeccak
Sample    : ic4166-50                                Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:35 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

9.06min 46.716PPB

response 338635304

(26) Decachlorobiphenyl #2 (SA)

10.34min 47.045PPB m

response 1657014521

(+) = Expected Retention Time

1G130379.D 1PST4166.M Fri Dec 09 13:35:31 2016 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130380.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130380.D\ECD2B.CH
Acq On : 12-8-16 06:46:58 PM Operator: rebeccak
Sample : ic4166-75 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:36 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	309.8E6	3189.8E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	309.8E6	3189.8E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	309.8E6	3189.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.83	2.08	393.2E6	3560.6E6	76.566	64.182
Spiked Amount	40.000 Range	30 - 150	Recovery	=		191.41%#	160.46%#
26) SA	Decachlorobiphen	9.06	10.34	495.2E6	2478.7E6	69.021	70.703
Spiked Amount	40.000		Recovery	=		172.55%	176.76%
	Target Compounds						
3)	Hexachlorobenzen	2.16	2.55	615.6E6	4512.6E6	70.353	71.718
4) A	alpha-BHC	2.30	2.69	571.1E6	5598.9E6	78.761	73.716
5) MA	gamma-BHC	2.59	3.08	517.5E6	4873.5E6	74.318	70.401
6) MA	Heptachlor	3.07	3.60	506.3E6	4261.4E6	71.604	72.515
7) B	beta-BHC	2.65	3.16	215.8E6	1880.9E6	68.651	67.849
8) B	delta-BHC	2.83	3.52	494.7E6	4715.9E6	73.724	70.455
9) MB	Aldrin	3.39	4.01	505.4E6	4259.4E6	73.102	67.476
10)	Alachlor	3.54	3.86	60346045	454.8E6	65.552	60.464
11) B	Heptachlor Epoxi	4.08	4.77	451.9E6	3703.5E6	67.122	65.239
12) B	gamma-Chlordane	4.24	5.04	451.4E6	3849.3E6	63.185	65.911
13) B	alpha-Chlordane	4.41	5.25	458.6E6	3665.0E6	69.907	65.881
14) A	Endosulfan I	4.58	5.34	450.7E6	3574.8E6	71.860	63.691
15) B	4,4'-DDE	4.52	5.52	481.7E6	3890.3E6	72.068	66.746
16) MA	Dieldrin	4.89	5.75	499.6E6	4055.8E6	73.373	67.163
17) MA	Endrin	5.21	6.22	414.6E6	3426.6E6	72.694	67.237
18) A	4,4'-DDD	5.33	6.42	405.7E6	3246.6E6	73.462	71.612
19) B	Endosulfan II	5.52	6.56	449.9E6	3471.6E6	72.761	66.668
20) MA	4,4'-DDT	5.75	6.93	404.4E6	2786.2E6	76.074	80.711
21) B	Endrin Aldehyde	6.13	7.11	346.2E6	2609.8E6	75.292	64.446
22) B	Endosulfan Sulfa	6.81	7.57	390.2E6	2960.1E6	71.908	71.225
23) A	Methoxychlor	6.53	8.16	217.8E6	1334.7E6	67.792	75.542
24)	Mirex	6.66	8.41	373.3E6	2303.9E6	68.085	67.942
25) B	Endrin Ketone	7.24	8.49	416.3E6	2931.4E6	69.182	60.272

(f)=RT Delta > 1/2 Window (m)=manual int.

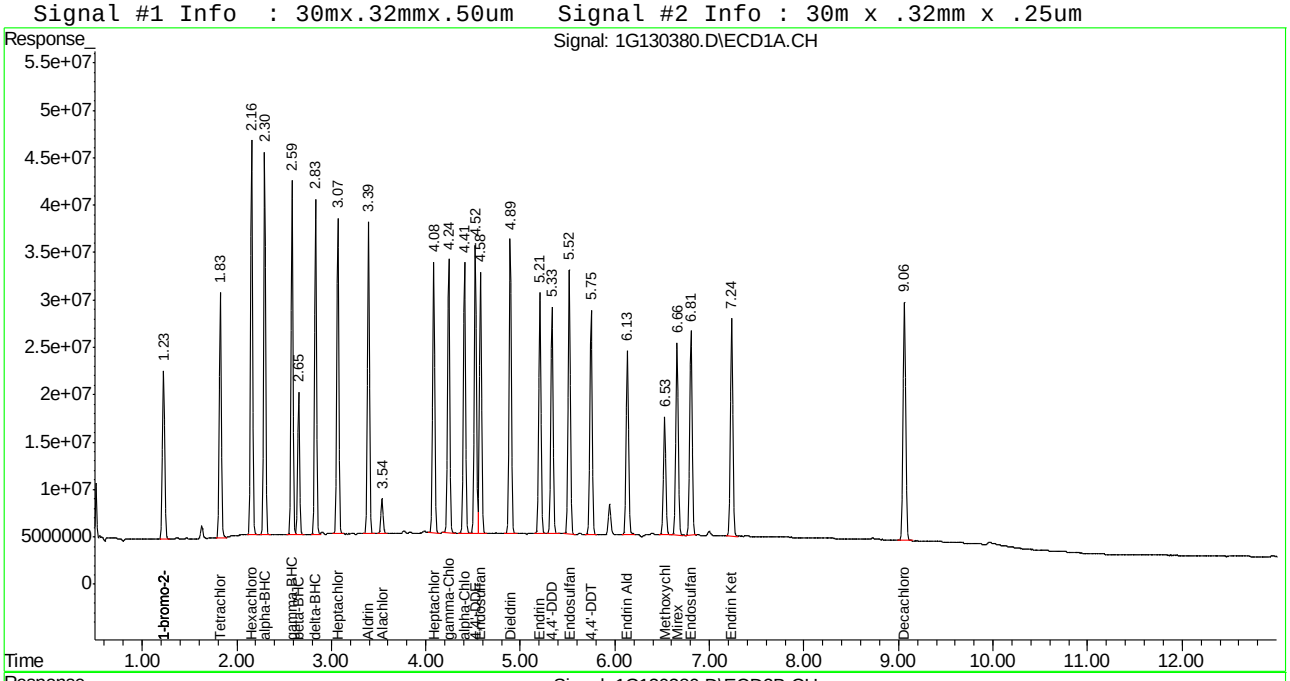
SGS ACCUTEST JC33175

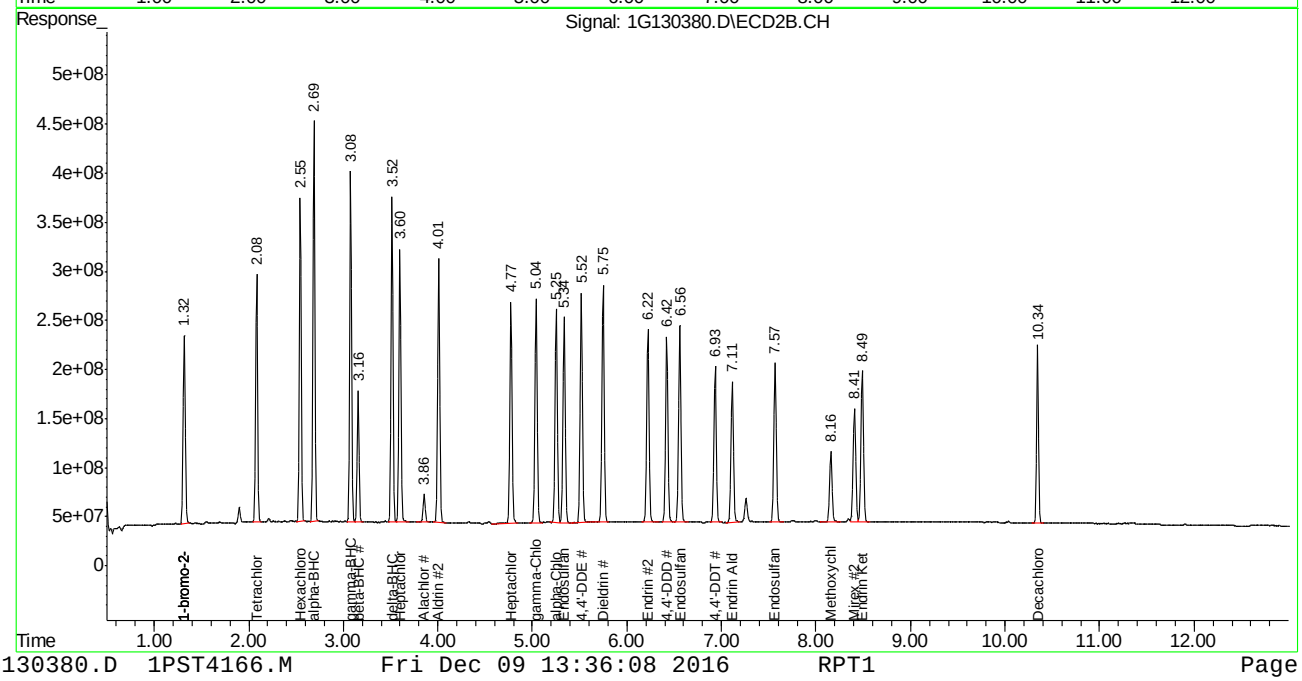
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130380.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130380.D\ECD2B.CH
Acq On : 12-8-16 06:46:58 PM Operator: rebeccak
Sample : ic4166-75 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:36 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130381.D\ECD1A.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130381.D\ECD2B.CH
Acq On : 12-8-16 07:03:48 PM Operator: rebeccak
Sample : ic4166-100 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:36 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	315.1E6	3253.4E6	50.000	50.000
27)	I	1-bromo-2-nitrob	1.23	1.32	315.1E6	3253.4E6	50.000	50.000
33)	I	1-bromo-2-nitrob	1.23	1.32	315.1E6	3253.4E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	1.83	2.08	535.1E6	4927.3E6	102.444	87.080
		Spiked Amount 40.000 Range 30 - 150 Recovery =					256.11%#	217.70%#
26)	SA	Decachlorobiphen	9.06	10.34	665.4E6	3454.9E6	91.178	96.620
		Spiked Amount 40.000 Recovery =					227.94%	241.55%
		Target Compounds						
3)		Hexachlorobenzen	2.16	2.55	837.9E6	6283.0E6	94.133	97.901
4)	A	alpha-BHC	2.30	2.69	792.7E6	7831.5E6	107.480	101.093
5)	MA	gamma-BHC	2.59	3.08	717.6E6	6803.9E6	101.321	96.364
6)	MA	Heptachlor	3.07	3.60	697.3E6	5868.5E6	96.953	97.910
7)	B	beta-BHC	2.66	3.16	295.2E6	2616.2E6	92.305	92.526
8)	B	delta-BHC	2.83	3.52	693.5E6	6619.7E6	101.608	96.962
9)	MB	Aldrin	3.39	4.01	696.9E6	5877.9E6	99.101	91.296
10)		Alachlor	3.54	3.86	80318994	616.1E6	85.773	80.305
11)	B	Heptachlor Epoxi	4.08	4.77	623.5E6	5066.3E6	91.048	87.499
12)	B	gamma-Chlordane	4.24	5.04	626.0E6	5335.5E6	86.139	89.572
13)	B	alpha-Chlordane	4.41	5.25	630.7E6	5079.6E6	94.504	89.523
14)	A	Endosulfan I	4.58	5.34	616.6E6	4906.4E6	96.654	85.706
15)	B	4,4'-DDE	4.53	5.52	663.0E6	5361.3E6	97.508	90.184
16)	MA	Dieldrin	4.89	5.75	687.5E6	5588.8E6	99.254	90.738
17)	MA	Endrin	5.21	6.22	569.9E6	4694.5E6	98.229	90.314
18)	A	4,4'-DDD	5.34	6.42	559.6E6	4461.3E6	99.618	96.480
19)	B	Endosulfan II	5.52	6.56	613.9E6	4759.7E6	97.597	89.614
20)	MA	4,4'-DDT	5.75	6.93	561.6E6	3889.4E6	103.871	110.465
21)	B	Endrin Aldehyde	6.13	7.12	471.1E6	3573.3E6	100.735	86.511
22)	B	Endosulfan Sulfa	6.80	7.57	532.0E6	4093.8E6	96.377	96.577
23)	A	Methoxychlor	6.53	8.16	296.0E6	1837.1E6	90.576	101.944
24)		Mirex	6.66	8.41	502.8E6	3157.6E6	90.155	91.295
25)	B	Endrin Ketone	7.24	8.49	563.0E6	3980.0E6	91.980	80.231

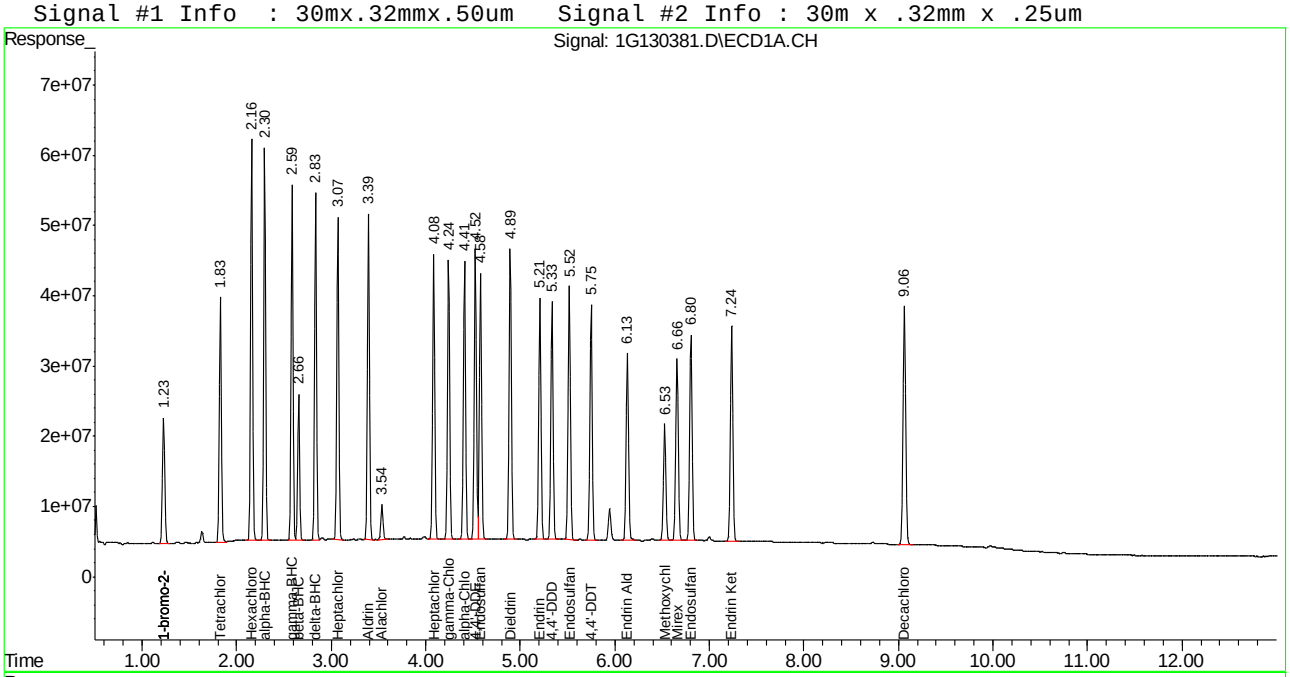
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130381.D 1PST4166.M Fri Dec 09 13:36:42 2016 RPT1 Page 1

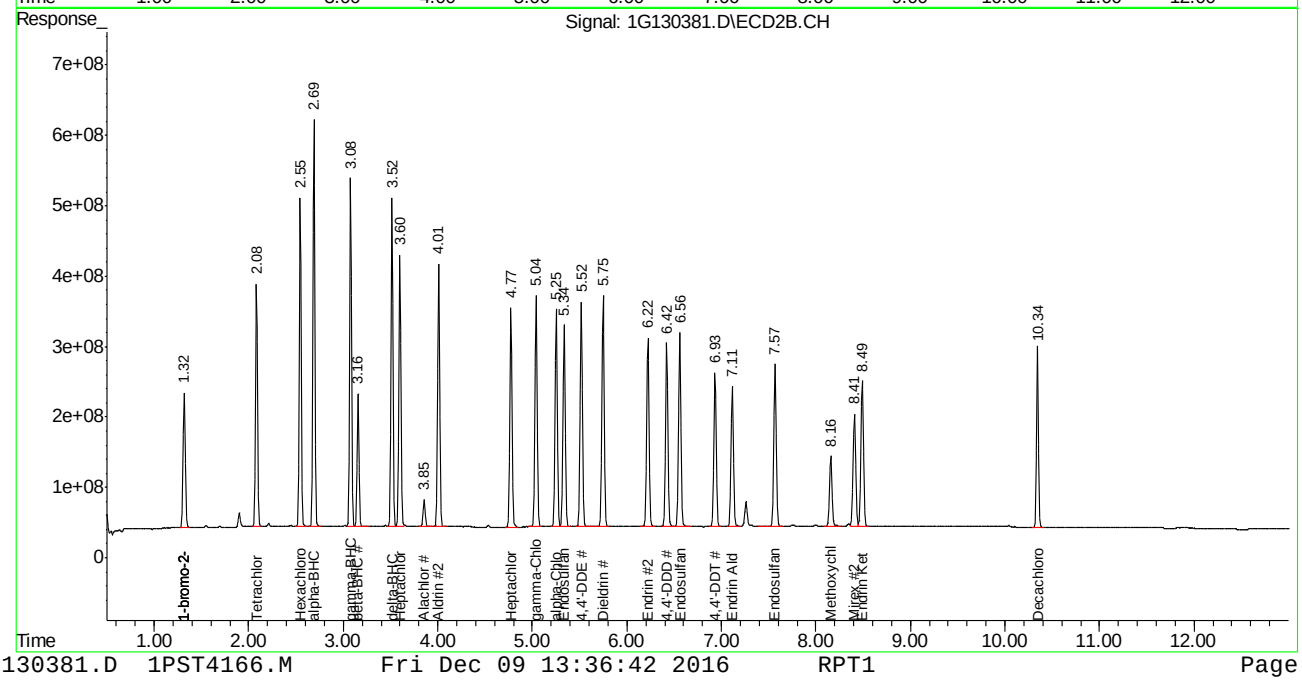
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130381.D\ECD1A.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130381.D\ECD2B.CH
Acq On : 12-8-16 07:03:48 PM Operator: rebeccak
Sample : ic4166-100 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:36 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:33:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integrations
APPROVED
(compounds with "m" flag)
Gwendolyn Burns
12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD2B.CH
Acq On : 12-8-16 07:20:37 PM Operator: rebeccak
Sample : ic4166-500 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:55 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:54:22 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	289.1E6	3007.8E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	289.1E6	3007.8E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	289.1E6	3007.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.83	2.08	272.7E6	2517.8E6	56.922	48.130
Spiked Amount	40.000 Range 30 - 150 Recovery =					142.31%	120.33%
26) SA	Decachlorobiphen	9.06	10.34	340.1E6	1735.7E6	50.806	52.505
Spiked Amount	40.000 Recovery =					127.01%	131.26%
	Target Compounds						
34)	Chlordane {A}	3.07	3.60	161.1E6	1429.0E6	490.252	479.870
35)	Chlordane {B}	3.53	4.19	133.2E6	982.5E6	507.807	469.049
36)	Chlordane {C}	4.24	5.04	417.5E6	3335.4E6	464.530	466.845
37)	Chlordane {D}	4.40	5.25	671.6E6	5388.7E6	477.975	464.758m
38)	Chlordane {E}	5.43	6.63	120.4E6	981.8E6	499.207	504.141

13.6.9
13

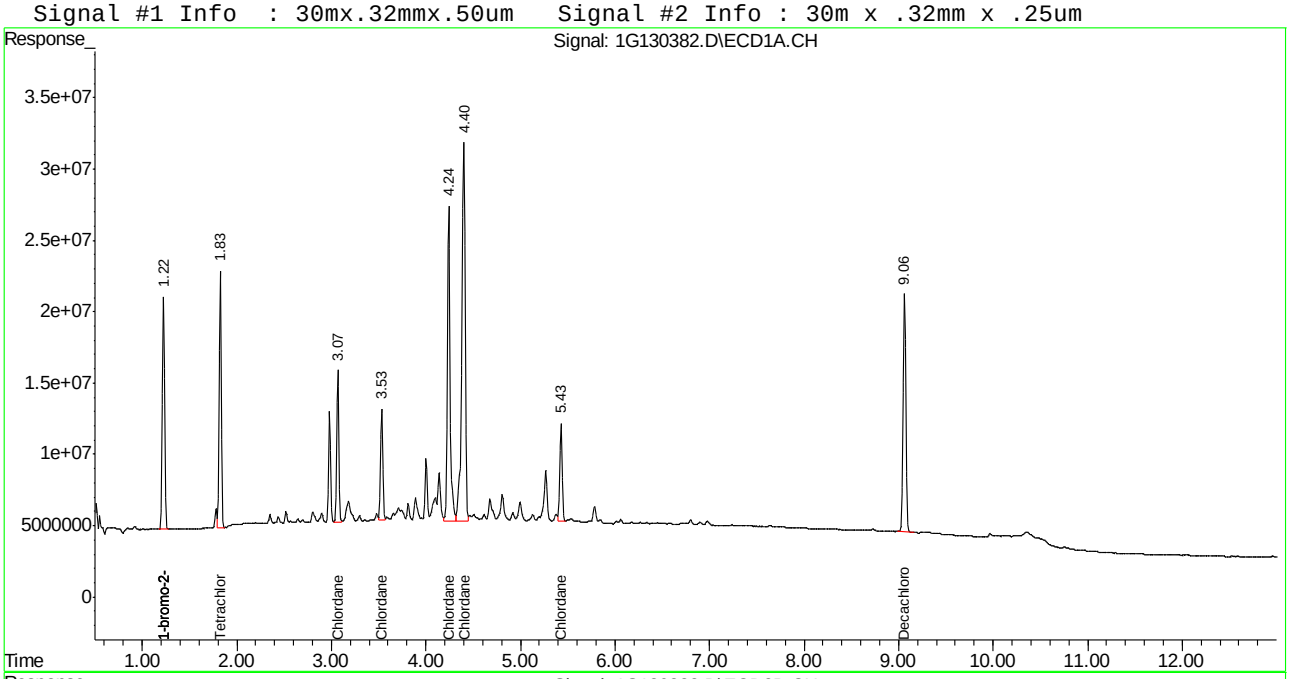
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130382.D 1PST4166.M Fri Dec 09 13:55:57 2016 RPT1 Page 1

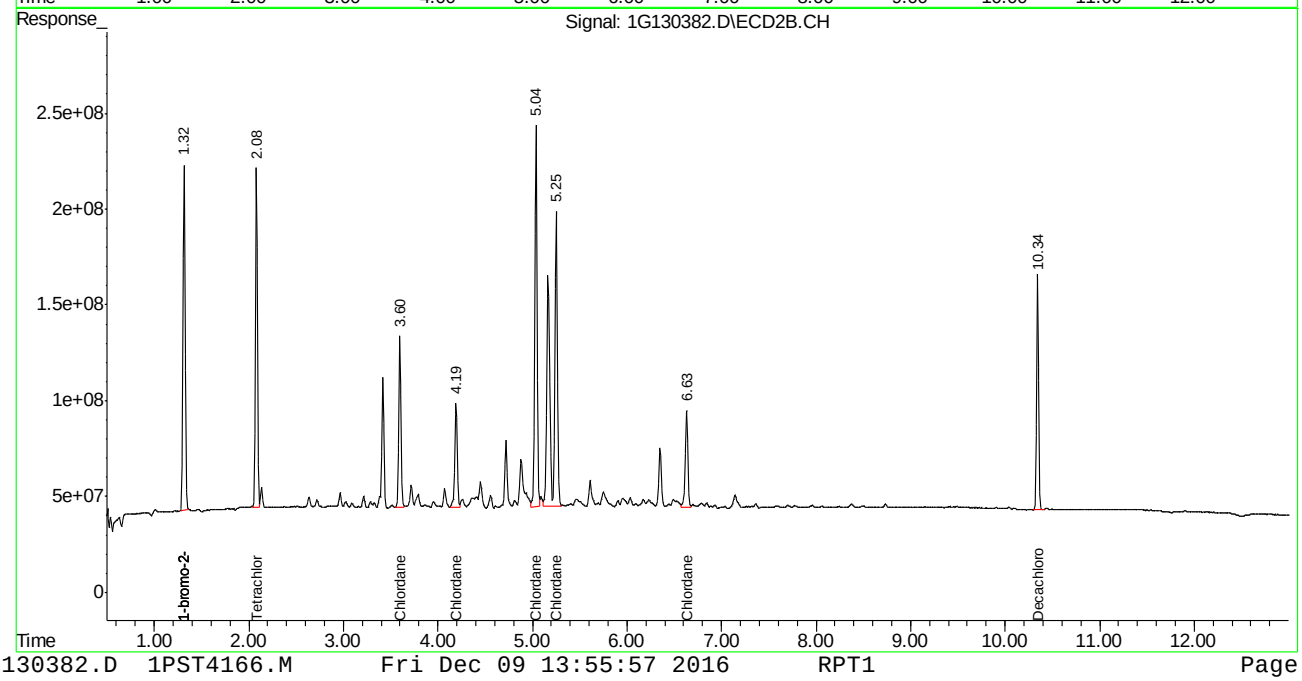
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD2B.CH
Acq On : 12-8-16 07:20:37 PM Operator: rebeccak
Sample : ic4166-500 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:55 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:54:22 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

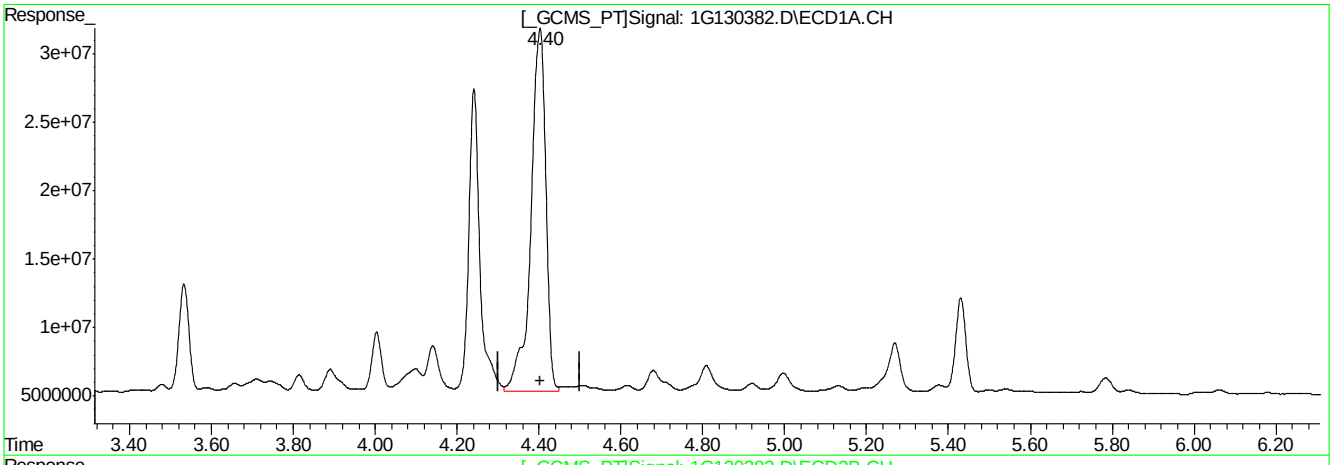
Sample Number:	G1G4166-IC4166	**Method:**	SW846 8081B
Lab FileID:	1G130382.D	**Analyst approved:**	12/09/16 14:06 Rebecca Krug
Injection Time:	12/08/16 19:20	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

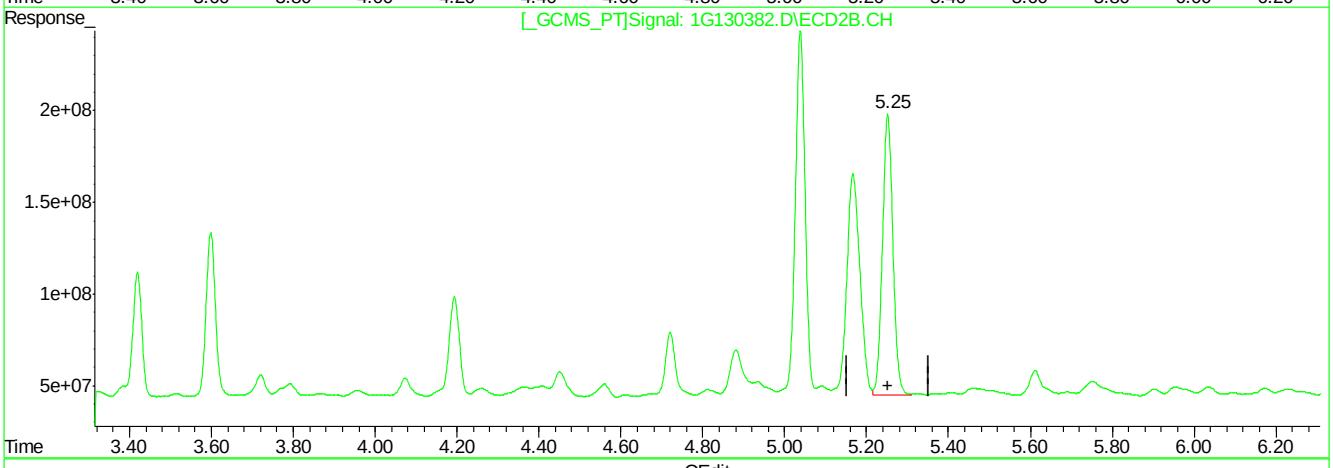
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.25	Split peak

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD2B.CH
Acq On    : 12-8-16 07:20:37 PM                      Operator: rebeccak
Sample    : ic4166-500                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:55 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:54:22 2016
Response via : Multiple Level Calibration
```





QEdit

(37) Chlordane {D}

4.40min 477.975PPB

response 671582690

(37) Chlordane {D} #2

5.25min 233.561PPB

response 2708049881

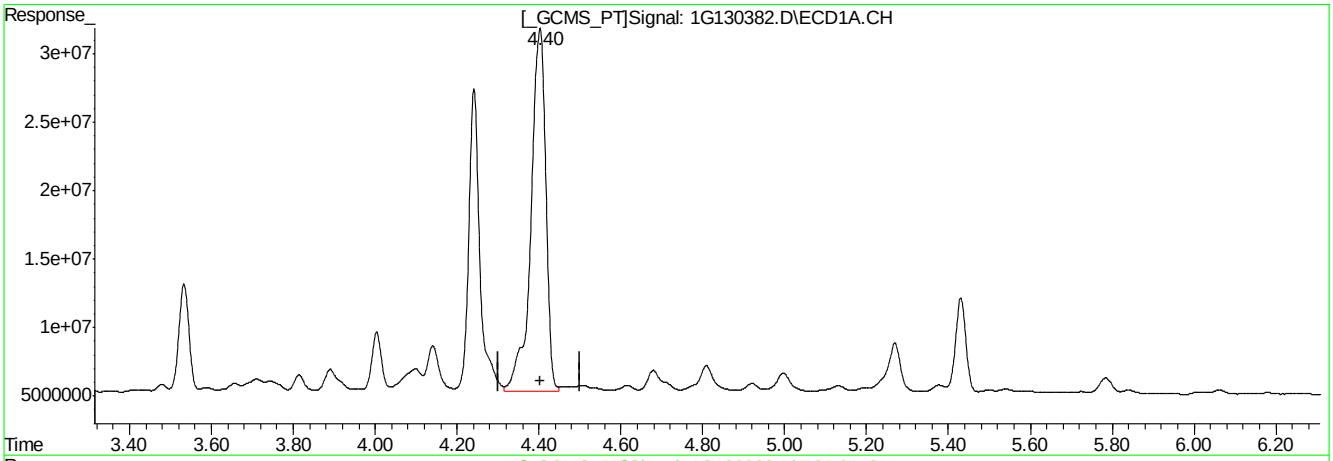
(+) = Expected Retention Time

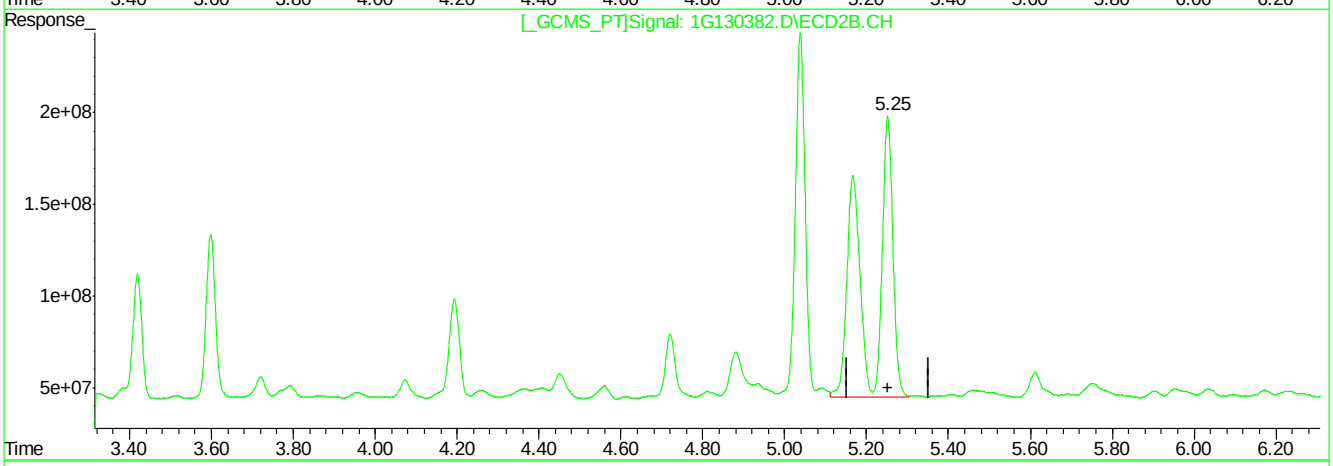
1G130382.D 1PST4166.M Fri Dec 09 13:55:45 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130382.D\ECD2B.CH
Acq On    : 12-8-16 07:20:37 PM                      Operator: rebeccak
Sample    : ic4166-500                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:55 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:54:22 2016
Response via : Multiple Level Calibration
```





QEdit

(37) Chlordane {D}

4.40min 477.975PPB

response 671582690

(37) Chlordane {D} #2

5.25min 464.758PPB m

response 5388700915

(+) = Expected Retention Time

1G130382.D 1PST4166.M Fri Dec 09 13:55:52 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD2B.CH
Acq On : 12-8-16 07:37:24 PM Operator: rebeccak
Sample : ic4166-500 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:58 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:57:58 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.23	1.32	283.4E6	2912.6E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.23	1.32	283.4E6	2912.6E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.23	1.32	283.4E6	2912.6E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.83	2.08	267.5E6	2445.3E6	56.969	48.273
Spiked Amount	40.000	Range	30 - 150	Recovery	=	142.42%	120.68%
26) SA	Decachlorobiphen	9.06	10.35	334.0E6	1698.9E6	50.904	53.072
Spiked Amount	40.000			Recovery	=	127.26%	132.68%
	Target Compounds						
28) L8	Toxaphene{A}	4.90	5.72	49790481	566.4E6	439.442	507.577m
29) L8	Toxaphene{B}	5.51	6.53	142.0E6	706.7E6	438.299	493.132
30) L8	Toxaphene{C}	5.68	6.69	94360898	1103.5E6	396.257	513.947
31) L8	Toxaphene{D}	6.02	7.12	77423765	730.3E6	436.069	500.148
32) L8	Toxaphene{E}	6.65	7.98	85894971	569.5E6	410.214	544.155

13.6.10 13

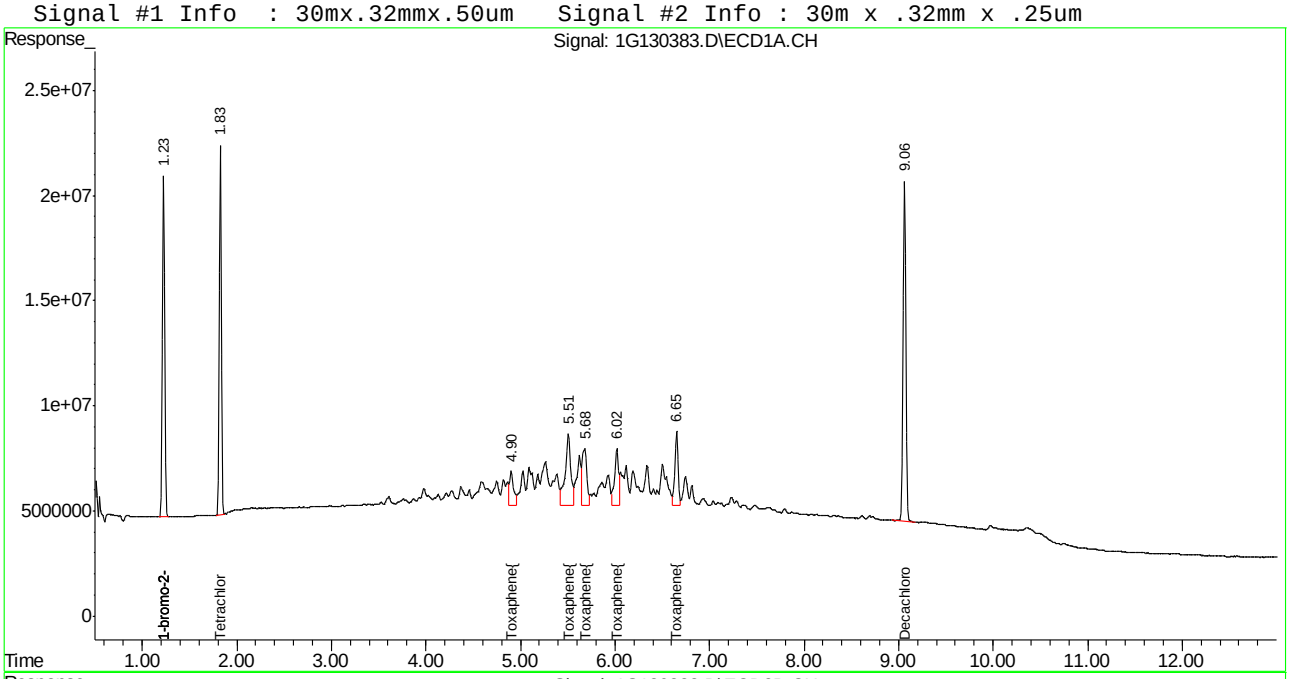
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130383.D 1PST4166.M Fri Dec 09 13:58:46 2016 RPT1 Page 1

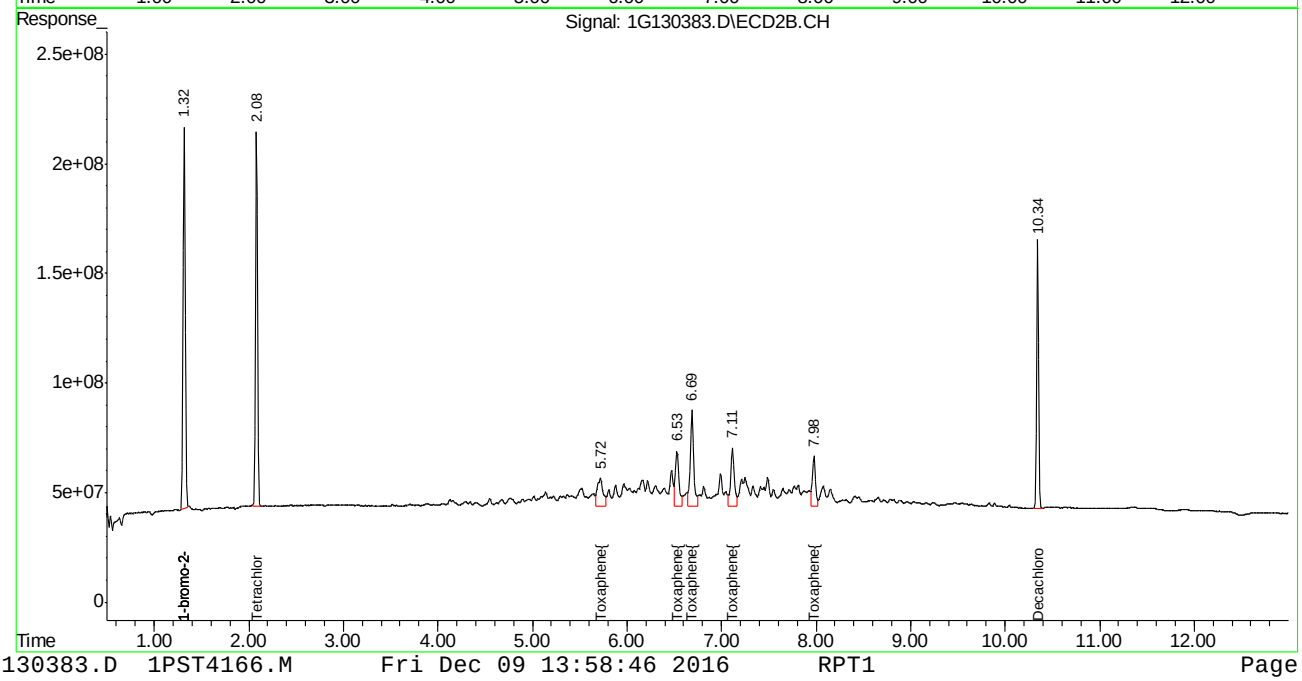
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD2B.CH
Acq On : 12-8-16 07:37:24 PM Operator: rebeccak
Sample : ic4166-500 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:58 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:57:58 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

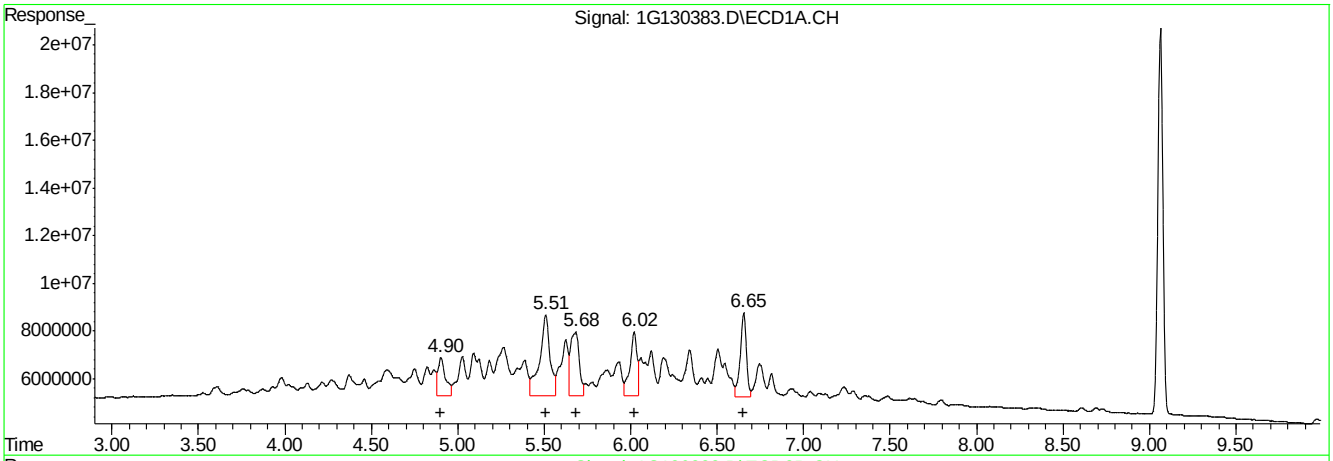
Sample Number:	G1G4166-IC4166	**Method:**	SW846 8081B
Lab FileID:	1G130383.D	**Analyst approved:**	12/09/16 14:06 Rebecca Krug
Injection Time:	12/08/16 19:37	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

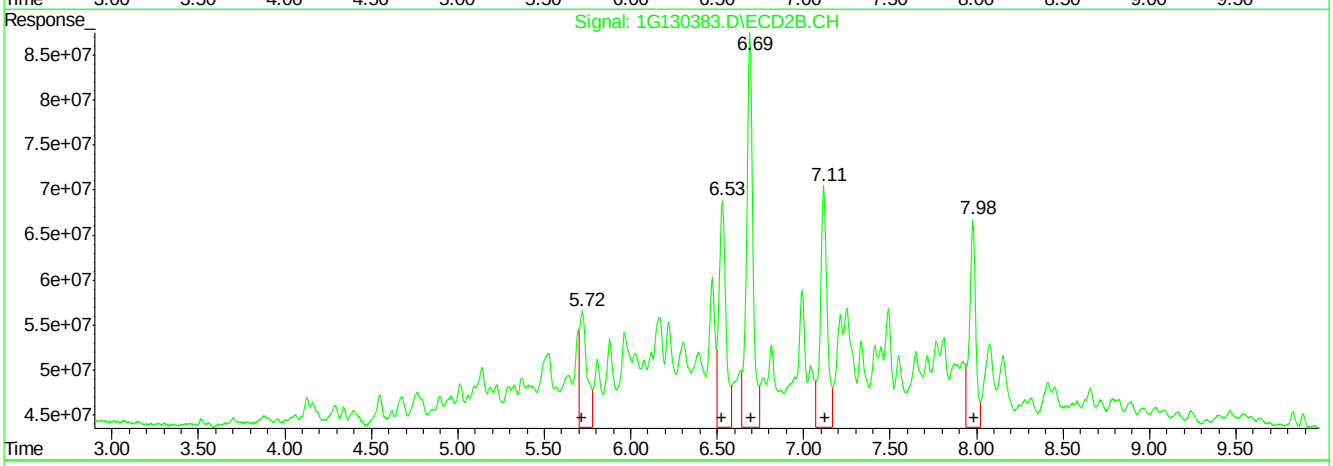
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		2	5.72	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD2B.CH
Acq On    : 12-8-16 07:37:24 PM                      Operator: rebeccak
Sample    : ic4166-500                               Inst    : GC1G
Misc      : op98969,g1g4166,16.6,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec  9 13:58 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 09 13:57:58 2016
Response via : Multiple Level Calibration
```





QEdit

(28) Toxaphene{A} (L8)

R.T.	Response	Conc
4.90	49790481	439.44
5.51	142027226	438.30
5.68	94360898	396.26
6.02	77423765	436.07
6.65	85894971	410.21

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
5.72	409130372	366.63
6.53	706749166	493.13
6.69	1103484342	513.95
7.12	730254306	500.15
7.98	569499320	544.16

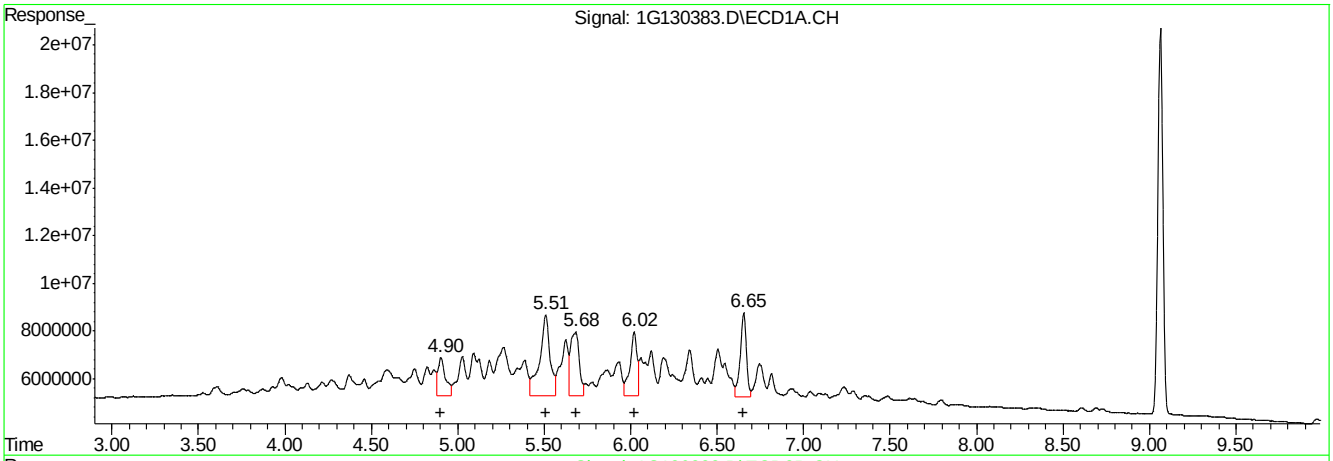
(+) = Expected Retention Time

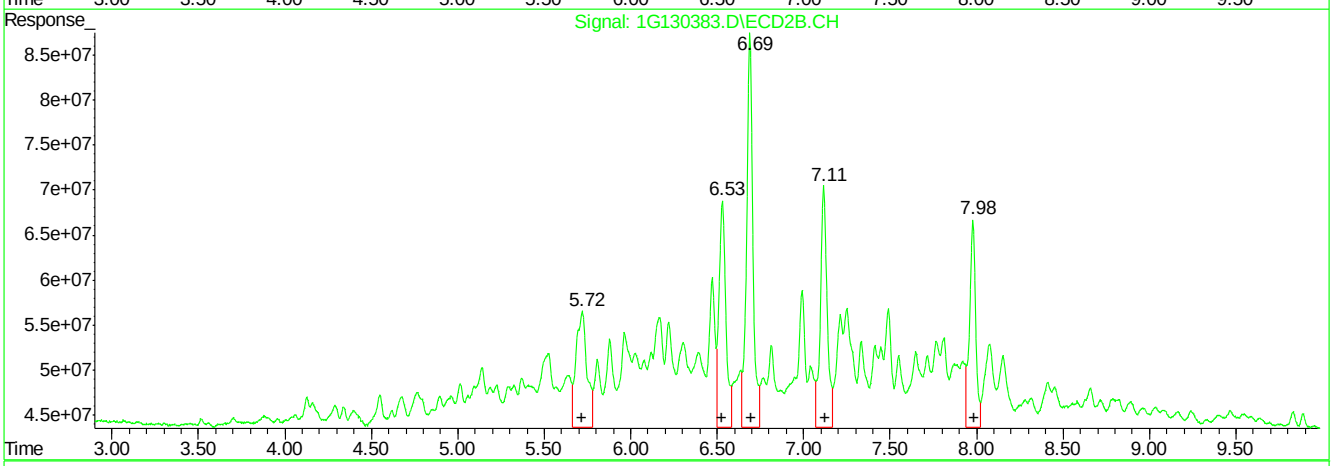
1G130383.D 1PST4166.M Fri Dec 09 13:58:14 2016 RPT1

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD1A.CH Vial: 35
Signal #2 : C:\MSDCHEM\1\DATA\1G4166\1G130383.D\ECD2B.CH
Acq On : 12-8-16 07:37:24 PM Operator: rebeccak
Sample : ic4166-500 Inst : GC1G
Misc : op98969,g1g4166,16.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 9 13:58 2016 Quant Results File: 1PST4166.RES

Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Fri Dec 09 13:57:58 2016
Response via : Multiple Level Calibration





QEdit

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
4.90	49790481	439.44
5.51	142027226	438.30
5.68	94360898	396.26
6.02	77423765	436.07
6.65	85894971	410.21

(28) Toxaphene{A} #2 (L8)

R.T.	Response	Conc
5.72	566423480	507.58
6.53	706749166	493.13
6.69	1103484342	513.95
7.12	730254306	500.15
7.98	569499320	544.16

(+) = Expected Retention Time

1G130383.D 1PST4166.M Fri Dec 09 13:58:38 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130384.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 7:54 pm
Operator : rebeccak
Sample : icv4166-25
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:06:49 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.226	1.317	291.5E6	3062.8E6	50.000	50.000
27) I	1-bromo-2...	1.226	1.317	291.5E6	3062.8E6	50.000	50.000
33) I	1-bromo-2...	1.226	1.317	291.5E6	3062.8E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.826	2.083	126.4E6	1171.6E6	26.593	25.381
Spiked Amount		40.000 Range	30 - 150	Recovery	=	66.48%	63.45%
26) SA	Decachlor...	9.062	10.345	178.6E6	907.4E6	26.765	26.467
Spiked Amount		40.000		Recovery	=	66.91%	66.17%
	Target Compounds						
4) A	alpha-BHC	2.296	2.689	177.8E6	1850.9E6	26.791	27.625
5) MA	gamma-BHC	2.586	3.078	167.2E6	1639.3E6	27.330	28.234
6) MA	Heptachlor	3.070	3.599	165.6E6	1435.5E6	26.416	27.952
7) B	beta-BHC	2.655	3.156	74593598	658.5E6	27.037	27.867
8) B	delta-BHC	2.835	3.515	152.5E6	1549.0E6	26.742	27.930
9) MB	Aldrin	3.394	4.009	163.1E6	1469.2E6	26.814	28.519
11) B	Heptachlo...	4.085	4.774	157.8E6	1318.6E6	27.867	27.682
12) B	gamma-Chl...	4.242	5.040	153.5E6	1345.6E6	27.400	28.837
13) B	alpha-Chl...	4.409	5.252	154.7E6	1287.4E6	27.526	28.329
14) A	Endosulfan I	4.580	5.336	148.8E6	1249.0E6	26.911	27.148
15) B	4,4'-DDE	4.525	5.517	160.8E6	1366.1E6	27.262	28.522
16) MA	Dieldrin	4.894	5.748	164.5E6	1424.7E6	27.471	28.561
17) MA	Endrin	5.208	6.222	133.9E6	1165.6E6	25.323	27.049
18) A	4,4'-DDD	5.335	6.422	133.6E6	1140.5E6	26.833	28.564
19) B	Endosulfa...	5.518	6.559	146.7E6	1190.0E6	26.233	27.134
20) MA	4,4'-DDT	5.750	6.934	125.9E6	898.8E6	25.244	25.950
21) B	Endrin Al...	6.134	7.115	112.2E6	877.4E6	26.037	26.316
22) B	Endosulfa...	6.806	7.568	125.3E6	976.3E6	25.923	27.015
23) A	Methoxychlor	6.527	8.157	72549295	445.0E6	23.701	24.299
25) B	Endrin Ke...	7.236	8.490	123.3E6	920.2E6	23.126	23.553

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

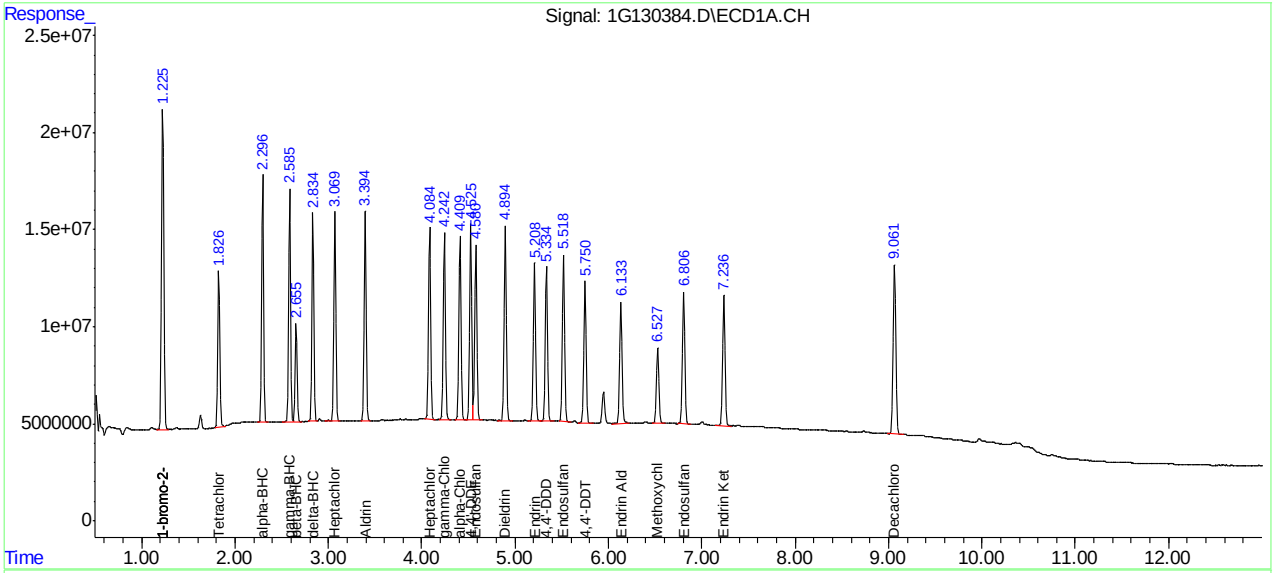
SGS ACCUTEST JC33175

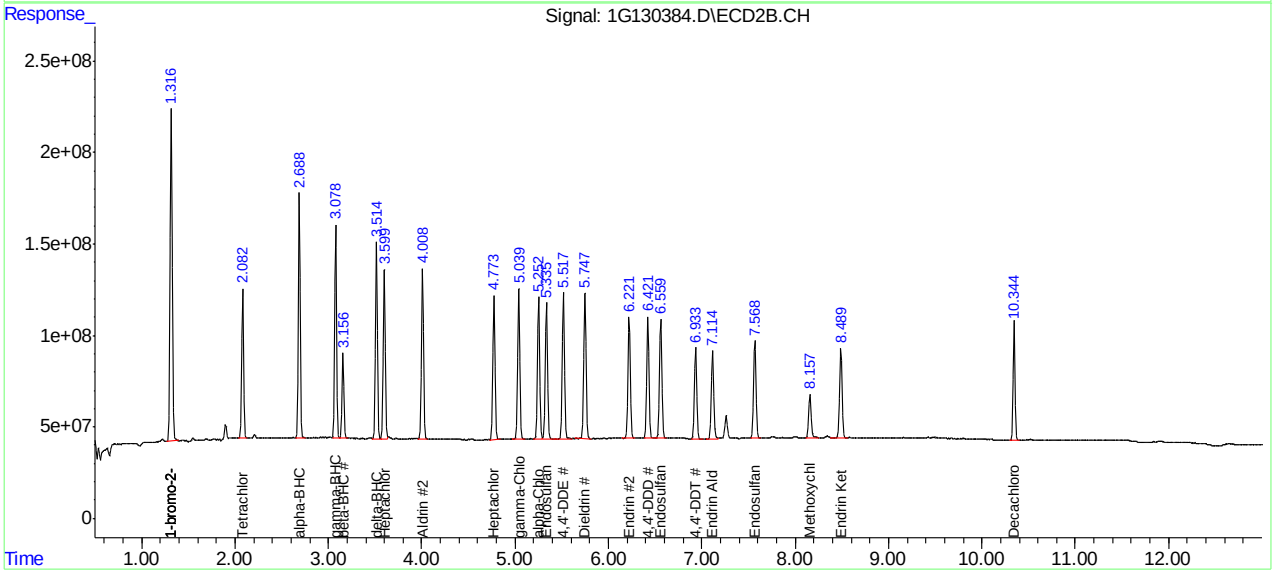
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130384.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 7:54 pm
Operator : rebeccak
Sample : icv4166-25
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:06:49 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/13/16 16:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130385.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:11 pm
Operator : rebeccak
Sample : icv4166-500
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:57:25 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.226	1.317	312.2E6	3315.9E6	50.000	50.000
27) I	1-bromo-2...	1.226	1.317	312.2E6	3315.9E6	50.000	50.000
33) I	1-bromo-2...	1.226	1.317	312.2E6	3315.9E6	50.000	50.000
	System Monitoring Compounds						
2)	SAB Tetrachlo...	1.827	2.083	242.0E6	2278.2E6	47.526	45.588
	Spiked Amount	40.000	Range	30 - 150	Recovery	= 118.82%	113.97%
26)	SA Decachlor...	9.064	10.345	348.1E6	1814.7E6	48.716	48.889
	Spiked Amount	40.000			Recovery	= 121.79%	122.22%
	Target Compounds						
34)	Chlordane...	3.070	3.599	168.2E6	1470.3E6	483.319	466.638
35)	Chlordane...	3.534	4.194	132.2E6	962.9E6	459.665	444.480
36)	Chlordane...	4.243	5.039	433.6E6	3427.3E6	480.893	466.033
37)	Chlordane...	4.403	5.252	690.4E6	5567.0E6	475.966	468.550m
38)	Chlordane...	5.432	6.633	110.7E6	885.2E6	425.567	408.950

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.6.12 13

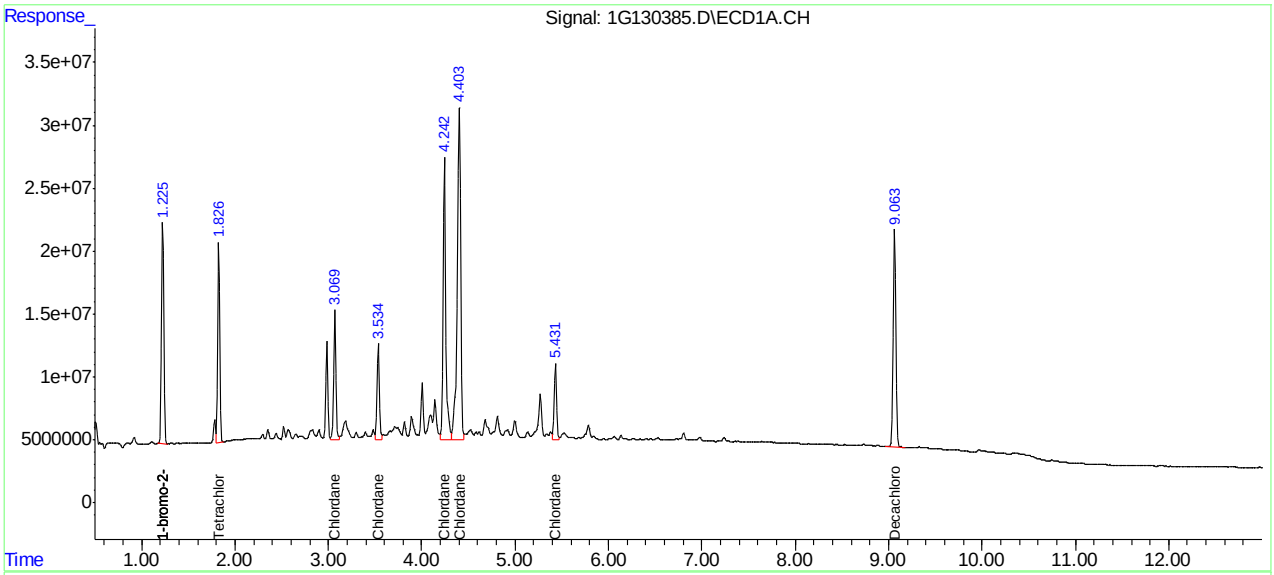
SGS ACCUTEST JC33175

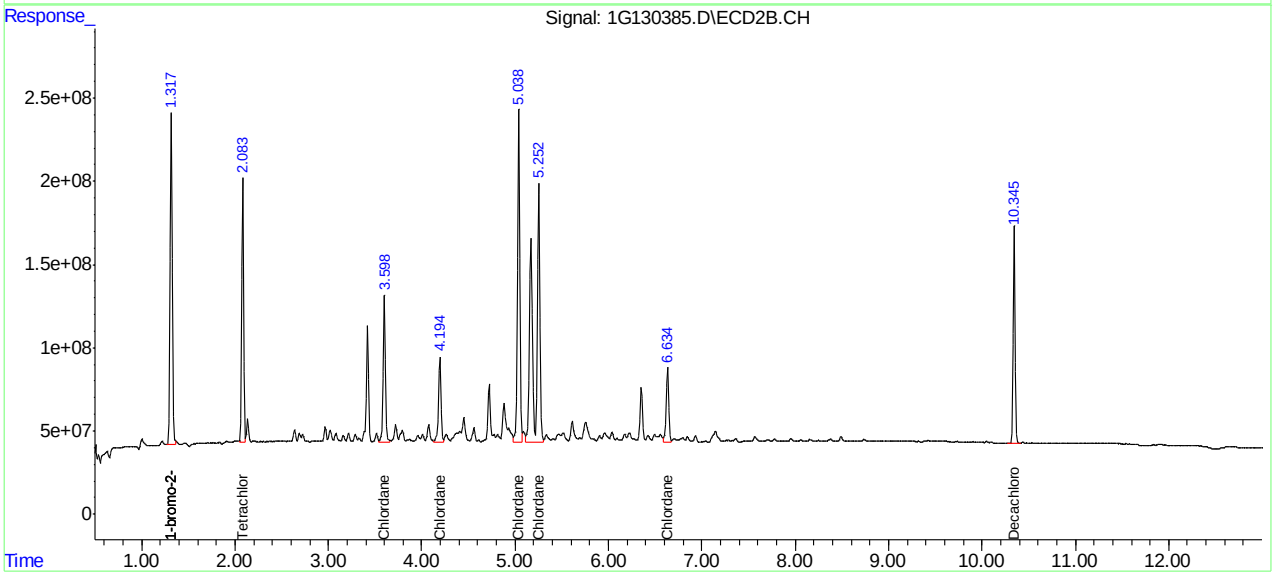
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130385.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:11 pm
Operator : rebeccak
Sample : icv4166-500
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:57:25 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Manual Integration Approval Summary

Sample Number:	G1G4166-ICV4166	**Method:**	SW846 8081B
Lab FileID:	1G130385.D	**Analyst approved:**	12/09/16 16:17 Dhara Saparia
Injection Time:	12/08/16 20:11	**Supervisor approved:**	12/13/16 16:42 Gwendolyn Burns

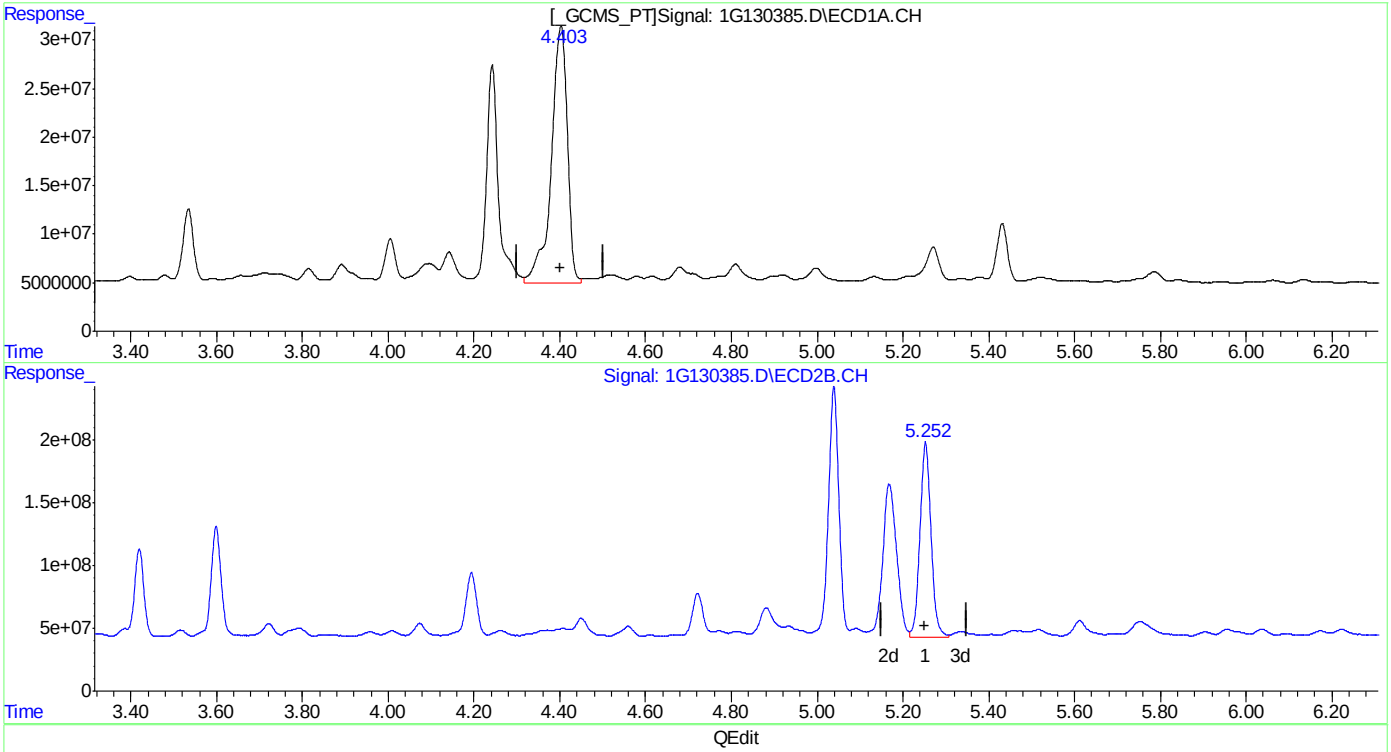
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-D		2	5.25	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130385.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:11 pm
Operator : rebeccak
Sample : icv4166-500
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:56:12 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(37) Chlordane {D}
4.403min 475.966 PPB
response 690385007

(37) Chlordane {D} #2
5.253min 234.181 PPB
response 2782385168

(+) = Expected Retention Time
1PST4166.M Fri Dec 09 15:56:50 2016

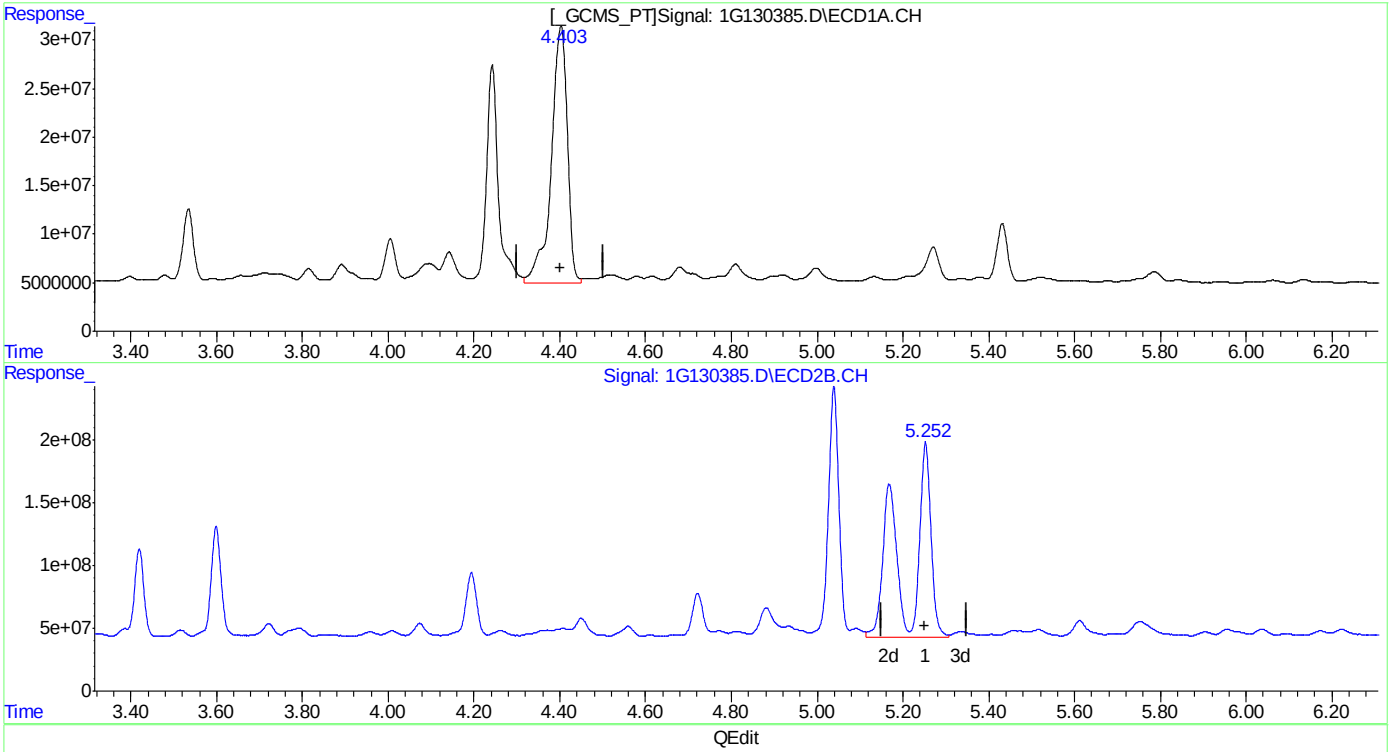
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130385.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:11 pm
Operator : rebeccak
Sample : icv4166-500
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 15:56:12 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



QEdit

(37) Chlordane {D}
4.403min 475.966 PPB
response 690385007

(37) Chlordane {D} #2
5.252min 468.550 PPB m
response 5566993449

(+) = Expected Retention Time
1PST4166.M Fri Dec 09 15:57:33 2016

SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130386.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:27 pm
Operator : rebeccak
Sample : icv4166-500
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:00:09 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.226	1.318	302.6E6	3172.4E6	50.000	50.000
27) I	1-bromo-2...	1.226	1.318	302.6E6	3172.4E6	50.000	50.000
33) I	1-bromo-2...	1.226	1.318	302.6E6	3172.4E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachlo...	1.827	2.083	236.5E6	2200.5E6	47.918	46.025
Spiked Amount		40.000	Range	30 - 150	Recovery	= 119.80%	115.06%
26) SA	Decachlor...	9.065	10.344	337.2E6	1761.5E6	48.677	49.602
Spiked Amount		40.000			Recovery	= 121.69%	124.00%
	Target Compounds						
28) L8	Toxaphene{A}	4.903	5.722	50478544	575.4E6	474.602	466.342
29) L8	Toxaphene{B}	5.509	6.531	134.7E6	691.7E6	443.835	449.282
30) L8	Toxaphene{C}	5.682	6.689	95950483	1083.4E6	476.019	450.700
31) L8	Toxaphene{D}	6.020	7.116	81092698	740.4E6	490.316	465.456
32) L8	Toxaphene{E}	6.653	7.978	94921429	587.4E6	517.327	473.503
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.6.13 13

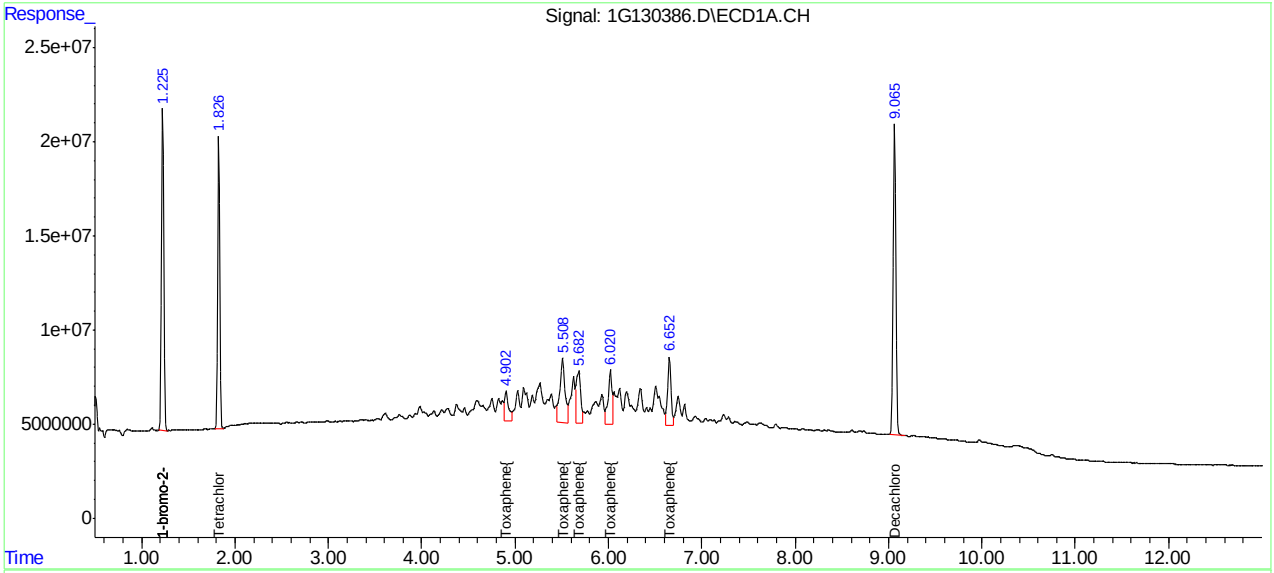
SGS ACCUTEST JC33175

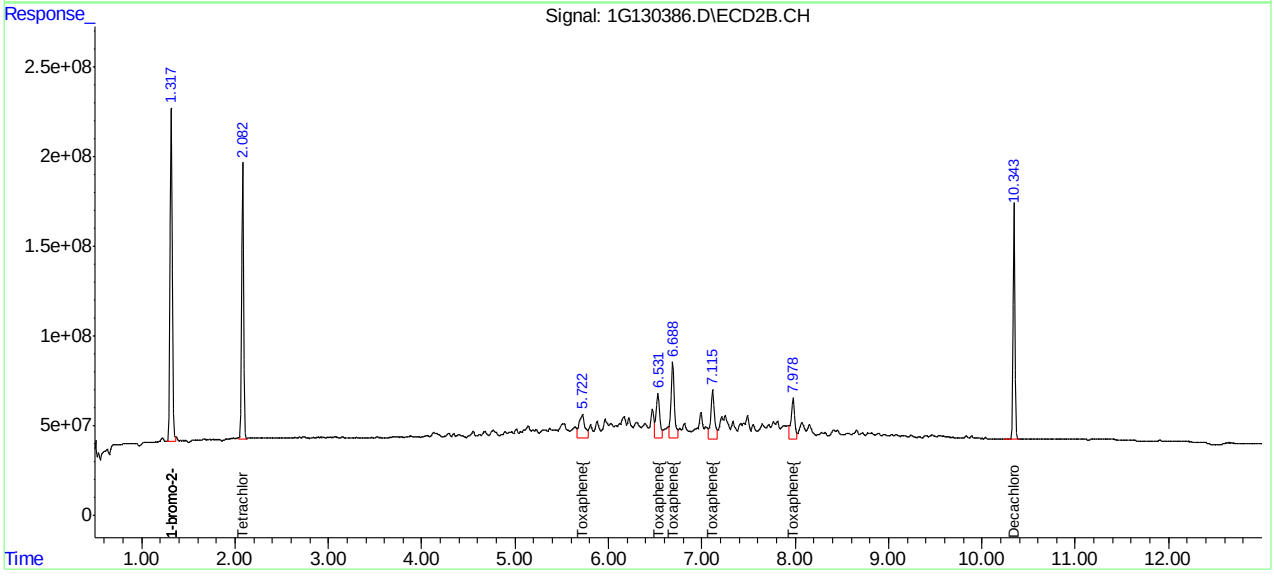
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130386.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:27 pm
Operator : rebeccak
Sample : icv4166-500
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:00:09 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130387.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:44 pm
Operator : rebeccak
Sample : icv4166-50
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:02:00 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.226	1.317	295.8E6	3165.1E6	50.000	50.000
27) I	1-bromo-2...	1.226	1.317	295.8E6	3165.1E6	50.000	50.000
33) I	1-bromo-2...	1.226	1.317	295.8E6	3165.1E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
10)	Alachlor	3.538	3.856	43903892	338.9E6	50.453	50.787
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.6.14 13

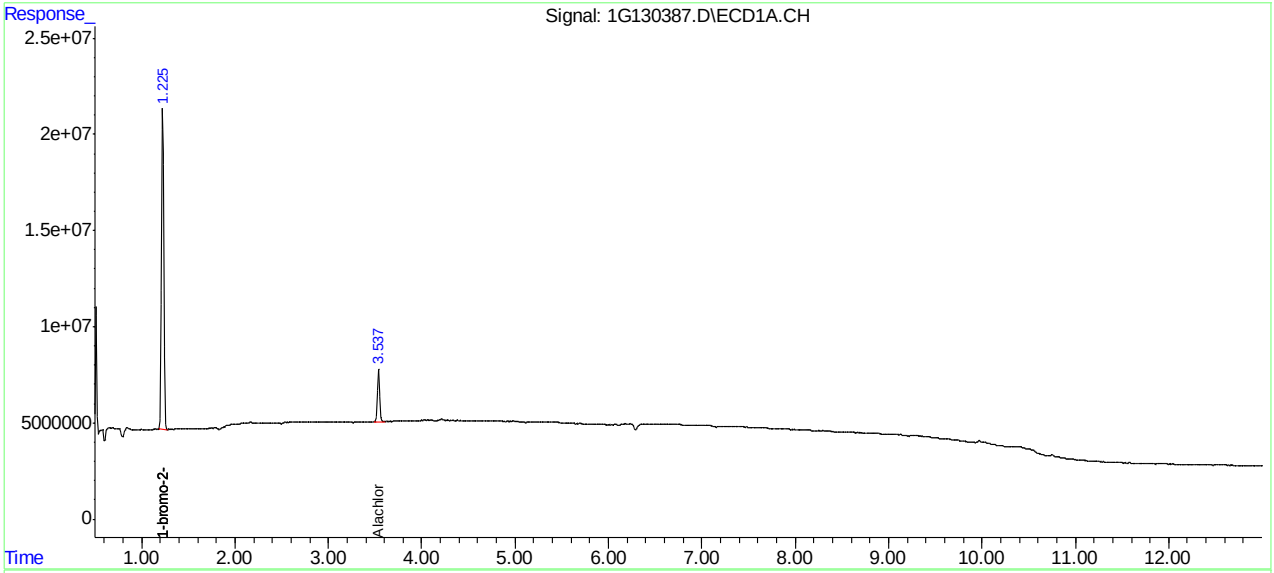
SGS ACCUTEST JC33175

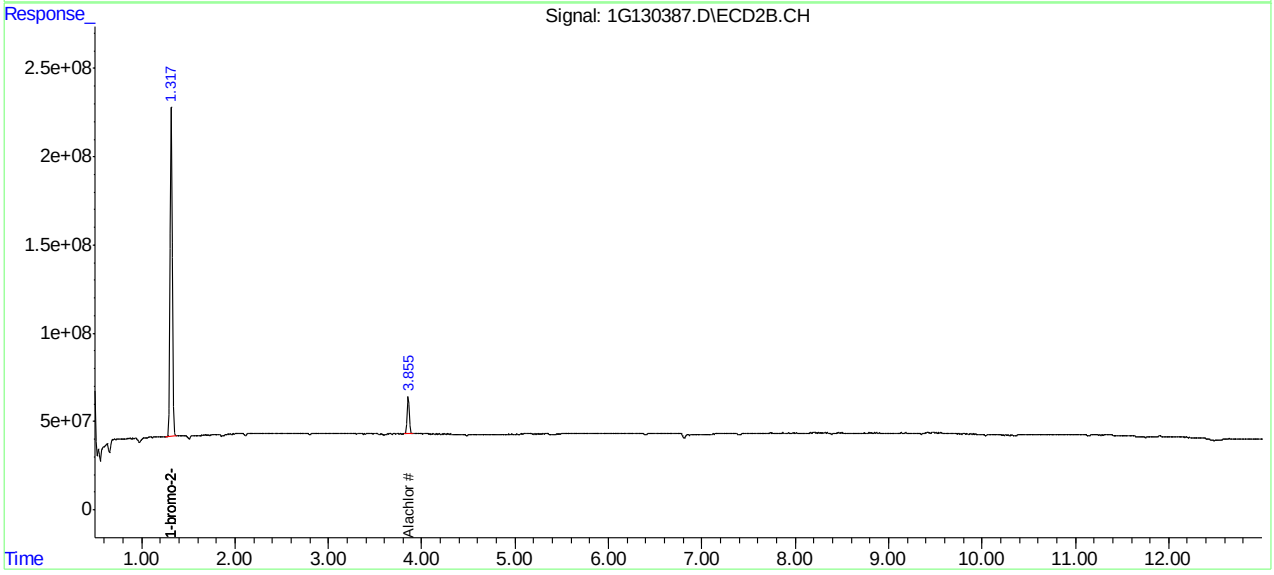
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130387.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 8:44 pm
Operator : rebeccak
Sample : icv4166-50
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:02:00 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130388.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 9:01 pm
Operator : rebeccak
Sample : icv4166-50
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 40 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:03:47 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.225	1.318	298.8E6	3239.1E6	50.000	50.000
27) I	1-bromo-2...	1.225	1.318	298.8E6	3239.1E6	50.000	50.000
33) I	1-bromo-2...	1.225	1.318	298.8E6	3239.1E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
3)	Hexachlor...	2.158	2.546	447.8E6	3254.5E6	52.736	55.305
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.6.15 13

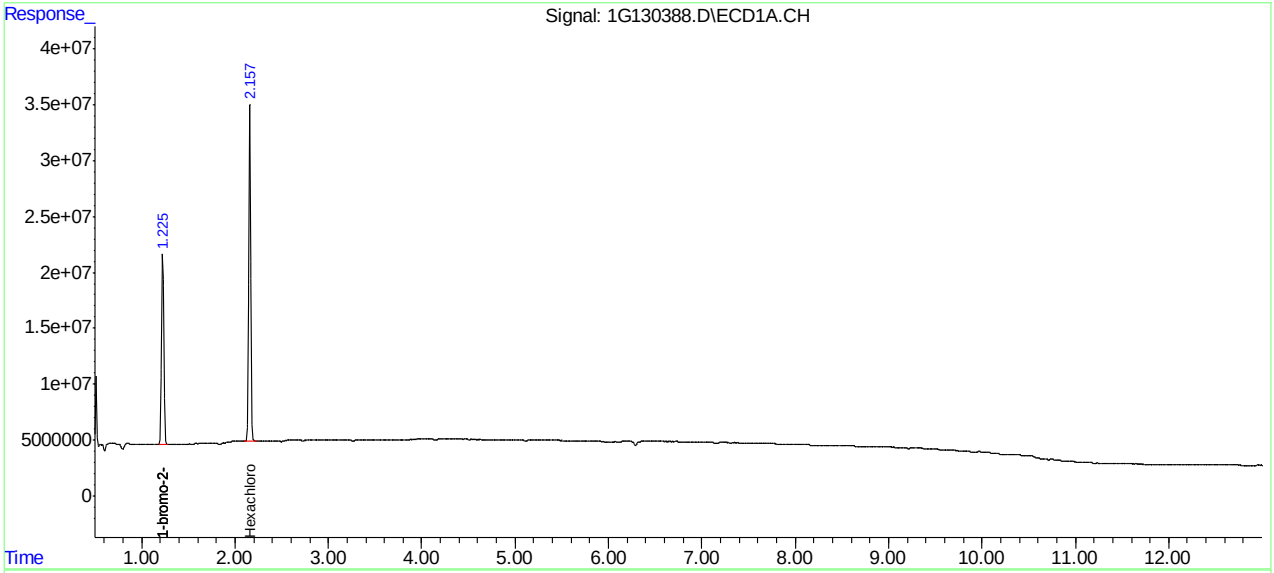
SGS ACCUTEST JC33175

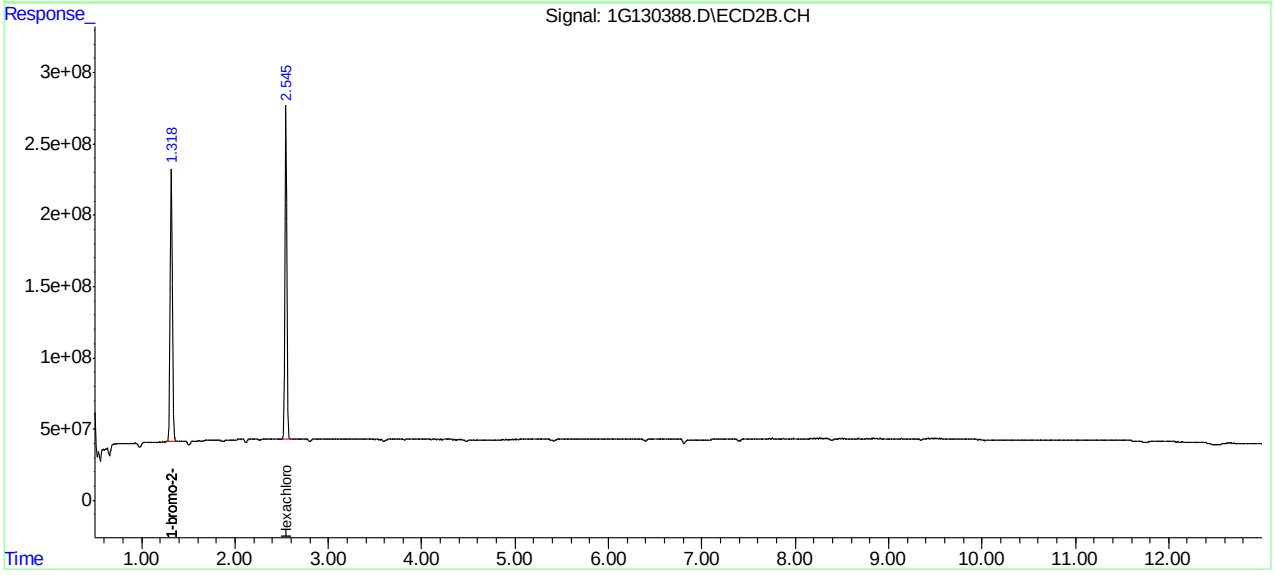
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130388.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 9:01 pm
Operator : rebeccak
Sample : icv4166-50
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 40 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:03:47 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130389.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 9:18 pm
Operator : rebeccak
Sample : icv4166-25
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 41 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:09:53 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	Internal Standards						
1) I	1-bromo-2...	1.227	1.319	238.1E6	2565.0E6	50.000	50.000
27) I	1-bromo-2...	1.227	1.319	238.1E6	2565.0E6	50.000	50.000
33) I	1-bromo-2...	1.227	1.319	238.1E6	2565.0E6	50.000	50.000
	System Monitoring Compounds						
	Target Compounds						
24)	Mirex	6.660	8.407	121.5E6	738.2E6	29.350	30.674
	SemiQuant Compounds - Not Calibrated on this Instrument						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.6.16

13

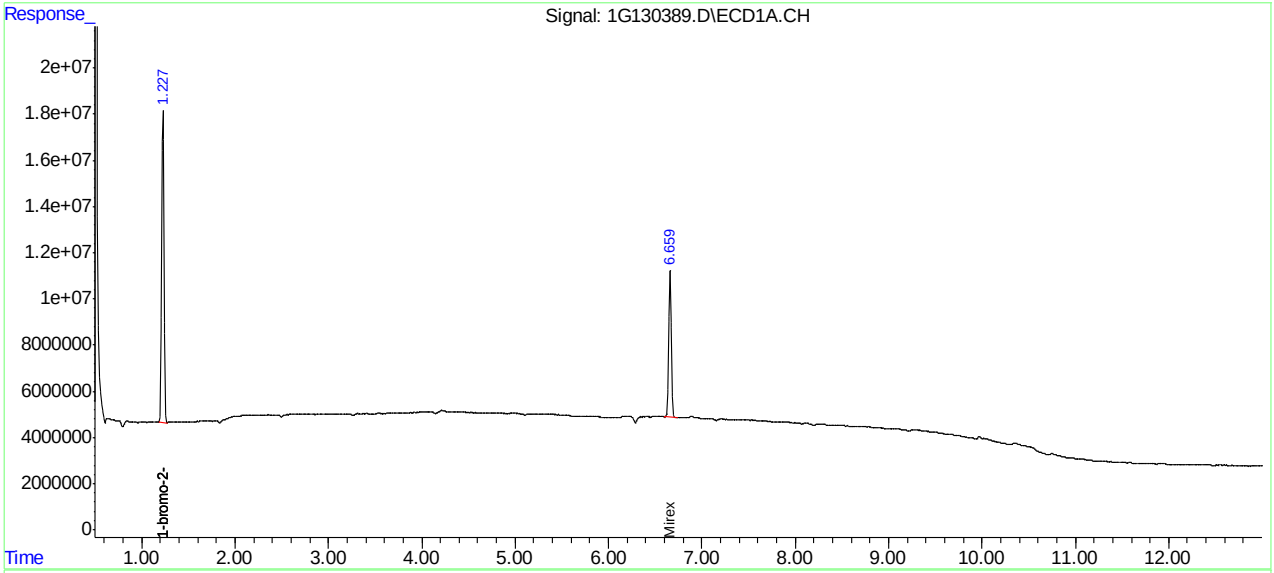
SGS ACCUTEST JC33175

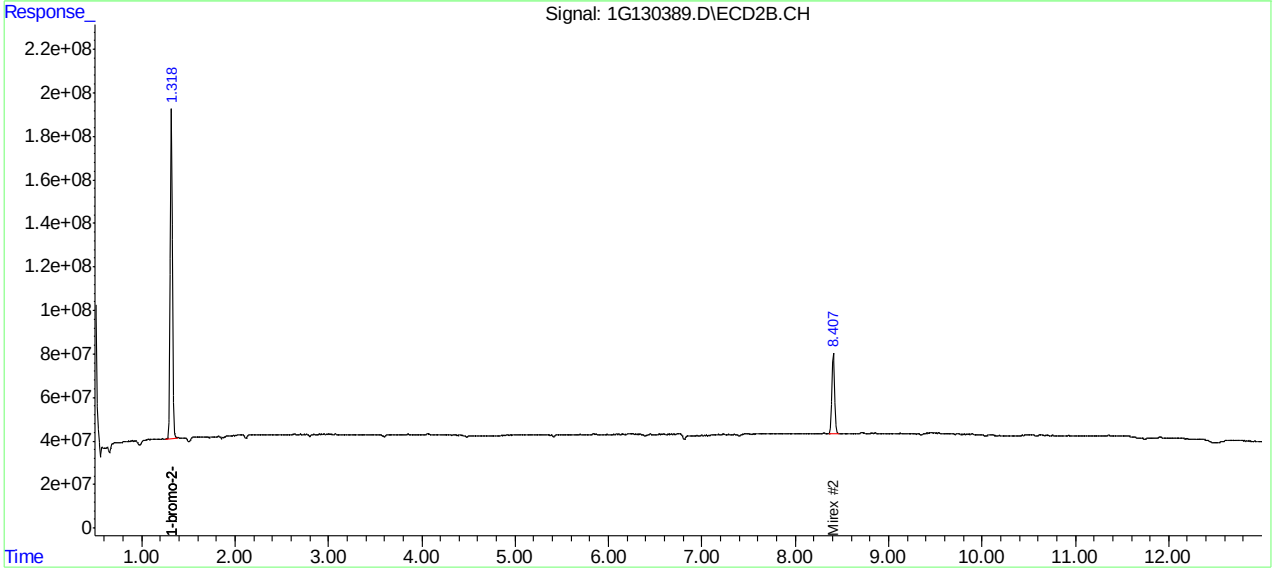
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\1g\1g4166\
Data File : 1G130389.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Dec 2016 9:18 pm
Operator : rebeccak
Sample : icv4166-25
Misc : op98969,g1g4166,16.6,,,10,1
ALS Vial : 41 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 16:09:53 2016
Quant Method : C:\msdchem\1\methods\1PST4166.M
Quant Title : PEST/PCB
QLast Update : Fri Dec 09 14:02:34 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/20/16 07:36

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD2B.CH
Acq On : 12-14-16 09:38:16 AM Operator: kristend
Sample : cc4166-25 Inst : GC1G
Misc : op99062,g1g4171,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 19 13:13 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Dec 13 09:42:13 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.22	1.33	260.0E6	2489.2E6	50.000	50.000
27)	I	1-bromo-2-nitrob	1.22	1.33	260.0E6	2489.2E6	50.000	50.000
33)	I	1-bromo-2-nitrob	1.22	1.33	260.0E6	2489.2E6	50.000	50.000
		System Monitoring Compounds						
2)	SAB	Tetrachloro-m-xy	1.81	2.09	119.9E6	1050.8E6	28.261	28.010
		Spiked Amount 40.000 Range 30 - 150 Recovery =					70.65%	70.03%
26)	SA	Decachlorobiphen	8.98	10.35	138.2E6	699.3E6	23.219	25.098
		Spiked Amount 40.000 Recovery =					58.05%	62.74%
		Target Compounds						
3)		Hexachlorobenzen	2.14	2.55	196.8E6	1336.1E6	26.624	29.544
4)	A	alpha-BHC	2.27	2.69	163.7E6	1617.7E6	27.658	29.707
5)	MA	gamma-BHC	2.56	3.08	149.2E6	1415.6E6	27.340	29.999
6)	MA	Heptachlor	3.03	3.60	159.5E6	1296.1E6	28.523	31.052
7)	B	beta-BHC	2.63	3.16	66783564	576.1E6	27.134	29.998
8)	B	delta-BHC	2.80	3.52	146.1E6	1388.8E6	28.714	30.811
9)	MB	Aldrin	3.35	4.01	147.7E6	1221.5E6	27.224	29.174
10)		Alachlor	3.49	3.86	18923379	137.4E6	24.740	26.187
11)	B	Heptachlor Epoxi	4.04	4.77	130.4E6	1047.9E6	25.815m	27.068
12)	B	gamma-Chlordane	4.19	5.04	133.0E6	1081.5E6	26.612	28.518
13)	B	alpha-Chlordane	4.36	5.25	132.9E6	1045.5E6	26.517	28.308
14)	A	Endosulfan I	4.53	5.34	131.5E6	1031.3E6	26.661	27.583
15)	B	4,4'-DDE	4.47	5.52	138.2E6	1093.6E6	26.267	28.095
16)	MA	Dieldrin	4.84	5.75	140.8E6	1142.1E6	26.356	28.169
17)	MA	Endrin	5.15	6.22	127.2E6	1028.8E6	26.959	29.376
18)	A	4,4'-DDD	5.28	6.42	112.2E6	914.3E6	25.252	28.174
19)	B	Endosulfan II	5.46	6.56	128.0E6	979.3E6	25.653	27.476
20)	MA	4,4'-DDT	5.69	6.93	117.1E6	761.0E6	26.333	27.033
21)	B	Endrin Aldehyde	6.07	7.11	98525099	728.4E6	25.635	26.882
22)	B	Endosulfan Sulfa	6.74	7.57	115.4E6	843.6E6	26.767	28.723
23)	A	Methoxychlor	6.46	8.16	70206439	354.1E6	25.709	23.791
24)		Mirex	6.59	8.41	108.8E6	618.9E6	24.063	26.500
25)	B	Endrin Ketone	7.16	8.49	122.6E6	877.3E6	25.771	27.627

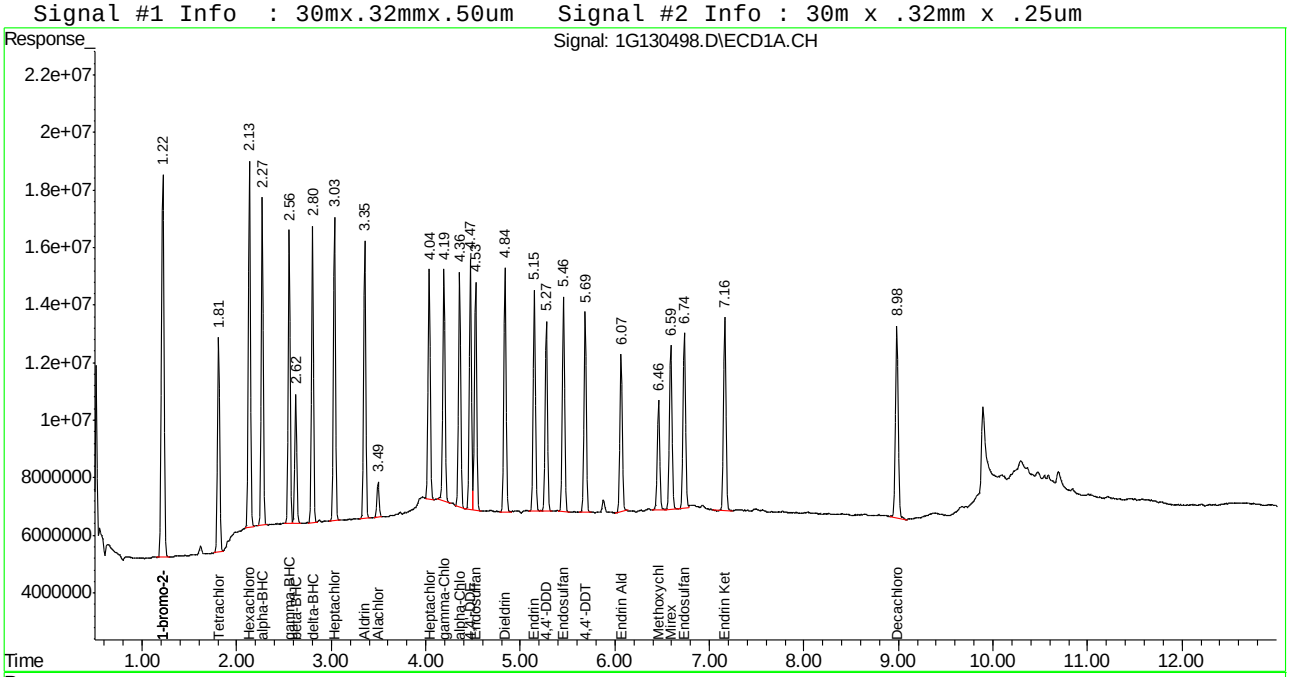
(f)=RT Delta > 1/2 Window (m)=manual int.

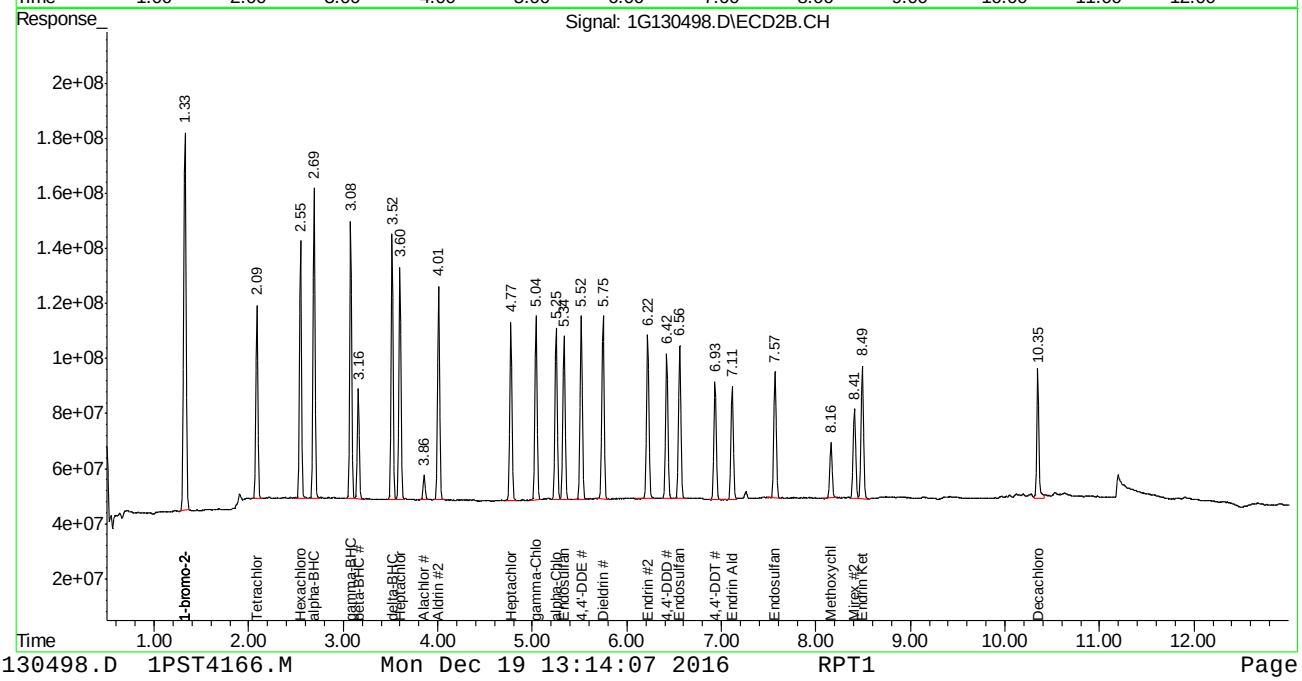
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD2B.CH
Acq On : 12-14-16 09:38:16 AM Operator: kristend
Sample : cc4166-25 Inst : GC1G
Misc : op99062,g1g4171,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 19 13:13 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

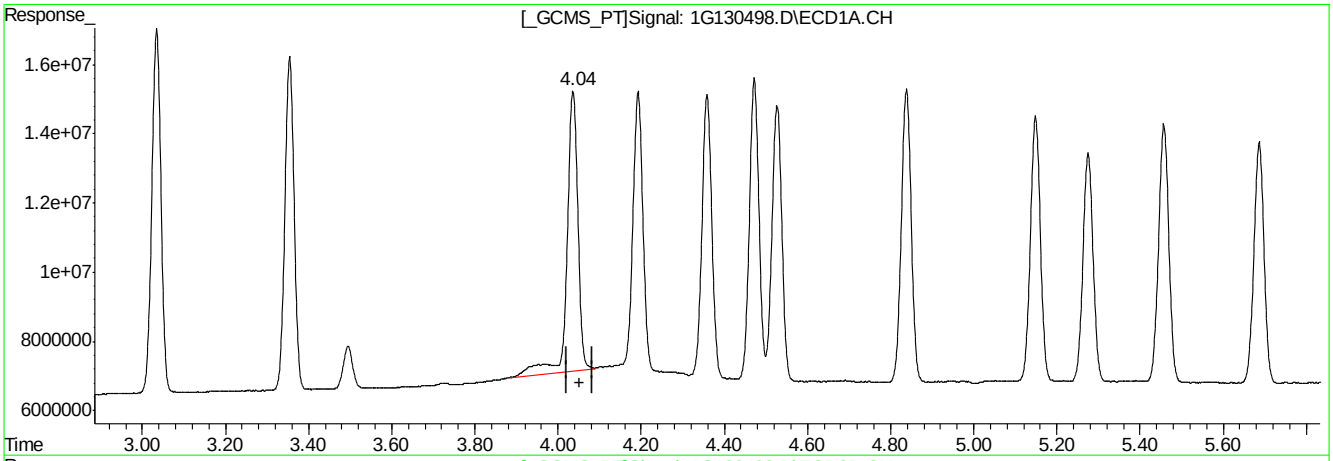
Sample Number:	G1G4171-CC4166	**Method:**	SW846 8081B
Lab FileID:	1G130498.D	**Analyst approved:**	12/19/16 13:16 Kristen Drake
Injection Time:	12/14/16 09:38	**Supervisor approved:**	12/20/16 07:36 Gwendolyn Burns

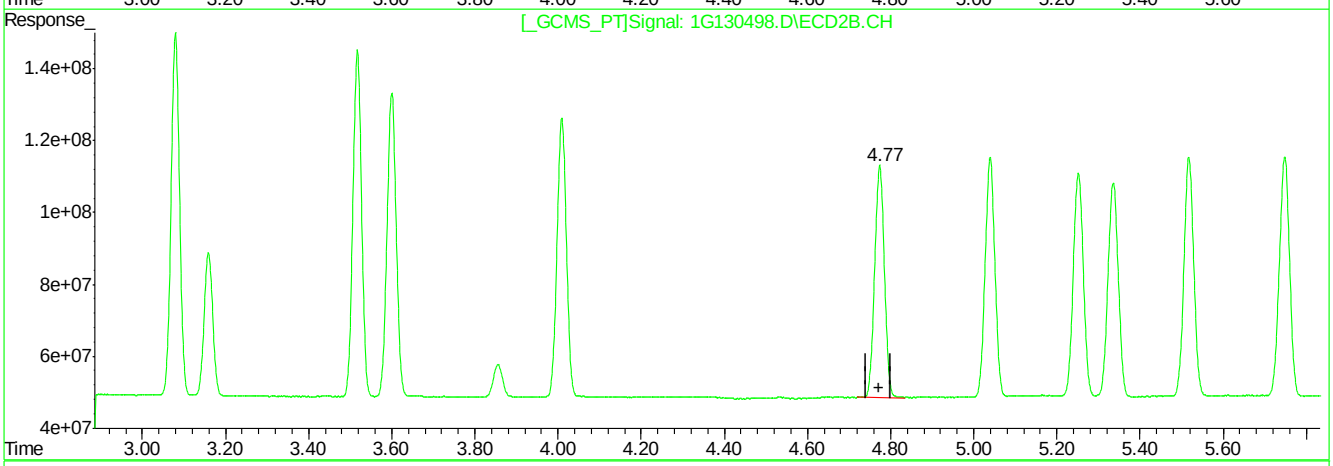
Parameter	CAS	Sig#	R.T. (min.)	Reason
Heptachlor epoxide	1024-57-3	1	4.04	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD2B.CH
Acq On    : 12-14-16 09:38:16 AM                    Operator: kristend
Sample    : cc4166-25                               Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 14  9:59 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 16 10:25:23 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.04min 29.282PPB

response 147877031

(11) Heptachlor Epoxide #2 (B)

4.77min 27.068PPB

response 1047862435

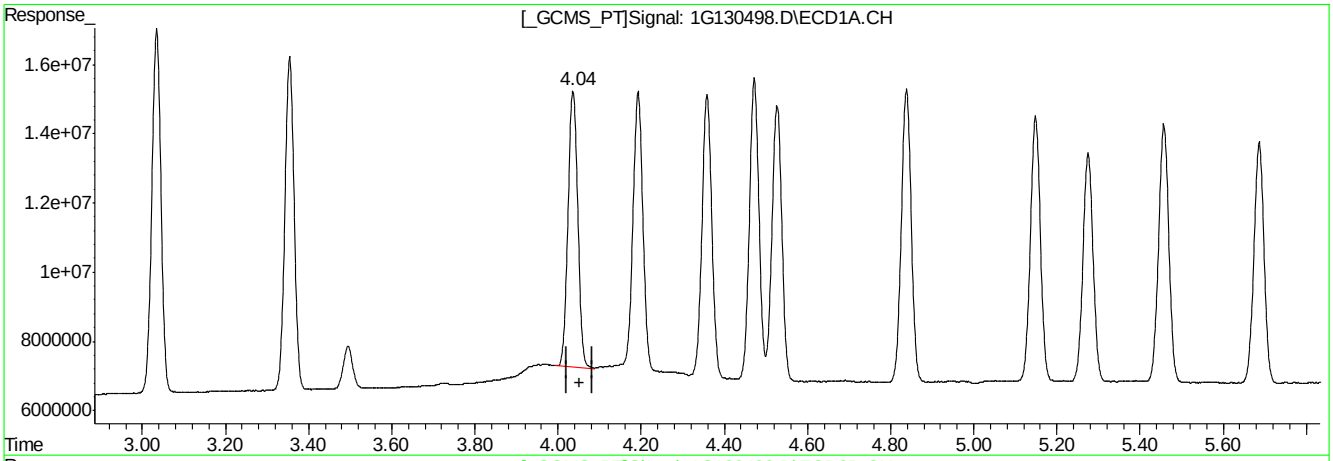
(+) = Expected Retention Time

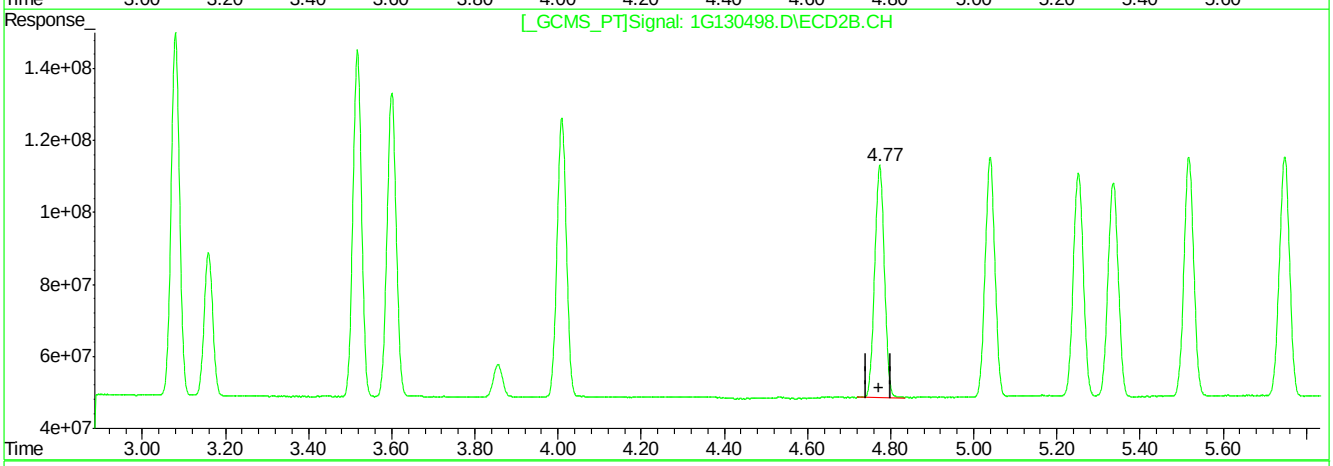
1G130498.D 1PST4166.M Mon Dec 19 13:13:46 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130498.D\ECD2B.CH
Acq On    : 12-14-16 09:38:16 AM                    Operator: kristend
Sample    : cc4166-25                               Inst    : GC1G
Misc      : op99062,g1g4171,15.4,,,10,1             Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 14  9:59 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Fri Dec 16 10:25:23 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.04min 25.815PPB m

response 130370731

(11) Heptachlor Epoxide #2 (B)

4.77min 27.068PPB

response 1047862435

(+) = Expected Retention Time

1G130498.D 1PST4166.M Mon Dec 19 13:13:57 2016 RPT1

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 12/15/16 12:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On : 12-14-16 05:09:38 PM Operator: kristend
Sample : cc4166-50 Inst : GC1G
Misc : op99152,g1g4171,980,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 15 8:36 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Dec 13 09:42:13 2016
Response via : Initial Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um 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-nitrob	1.21	1.32	255.5E6	2467.0E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.21	1.32	255.5E6	2467.0E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.21	1.32	255.5E6	2467.0E6	50.000	50.000
	System Monitoring Compounds						
2) SAB	Tetrachloro-m-xy	1.80	2.08	225.8E6	2094.3E6	54.185	56.327
Spiked Amount	40.000 Range	30 - 150	Recovery	=		135.46%	140.82%
26) SA	Decachlorobiphen	8.98f	10.35	253.9E6	1362.4E6	43.429m	49.333
Spiked Amount	40.000		Recovery	=		108.57%	123.33%
	Target Compounds						
3)	Hexachlorobenzen	2.13	2.54	365.5E6	2537.0E6	50.343m	56.604
4) A	alpha-BHC	2.27	2.69	319.5E6	3105.3E6	54.941	57.538
5) MA	gamma-BHC	2.55	3.08	290.5E6	2740.5E6	54.167	58.599
6) MA	Heptachlor	3.03	3.60	297.1E6	2521.2E6	54.079	60.945
7) B	beta-BHC	2.62	3.16	125.7E6	1101.1E6	51.987	57.849
8) B	delta-BHC	2.80	3.51	274.2E6	2668.5E6	54.855	59.732
9) MB	Aldrin	3.35	4.01	282.0E6	2420.4E6	52.898	58.330
10)	Alachlor	3.49	3.85	33499742	271.3E6	44.581	52.165
11) B	Heptachlor Epoxi	4.03	4.77	246.5E6	2105.8E6	49.681m	54.885
12) B	gamma-Chlordane	4.19	5.04	246.6E6	2153.9E6	50.220	57.303
13) B	alpha-Chlordane	4.35	5.25	247.5E6	2063.4E6	50.254	56.370
14) A	Endosulfan I	4.52	5.33	245.2E6	2031.4E6	50.612	54.818
15) B	4,4'-DDE	4.47	5.52	259.5E6	2184.1E6	50.198	56.614
16) MA	Dieldrin	4.83	5.75	264.8E6	2269.8E6	50.443	56.488
17) MA	Endrin	5.14	6.22	233.4E6	2022.0E6	50.365	58.256
18) A	4,4'-DDD	5.27	6.42	211.3E6	1818.4E6	48.432	56.537
19) B	Endosulfan II	5.45	6.56	236.8E6	1952.1E6	48.319	55.259
20) MA	4,4'-DDT	5.68	6.93	206.2E6	1422.0E6	47.193	50.970
21) B	Endrin Aldehyde	6.06	7.11	186.1E6	1498.5E6	49.280	55.795
22) B	Endosulfan Sulfa	6.73f	7.57	196.4E6	1581.7E6	46.357m	54.338
23) A	Methoxychlor	6.46f	8.16	118.4E6	750.0E6	44.116m	50.840
24)	Mirex	6.59f	8.41	194.3E6	1288.2E6	43.736m	55.657
25) B	Endrin Ketone	7.16f	8.49	215.0E6	1676.8E6	46.003m	53.281

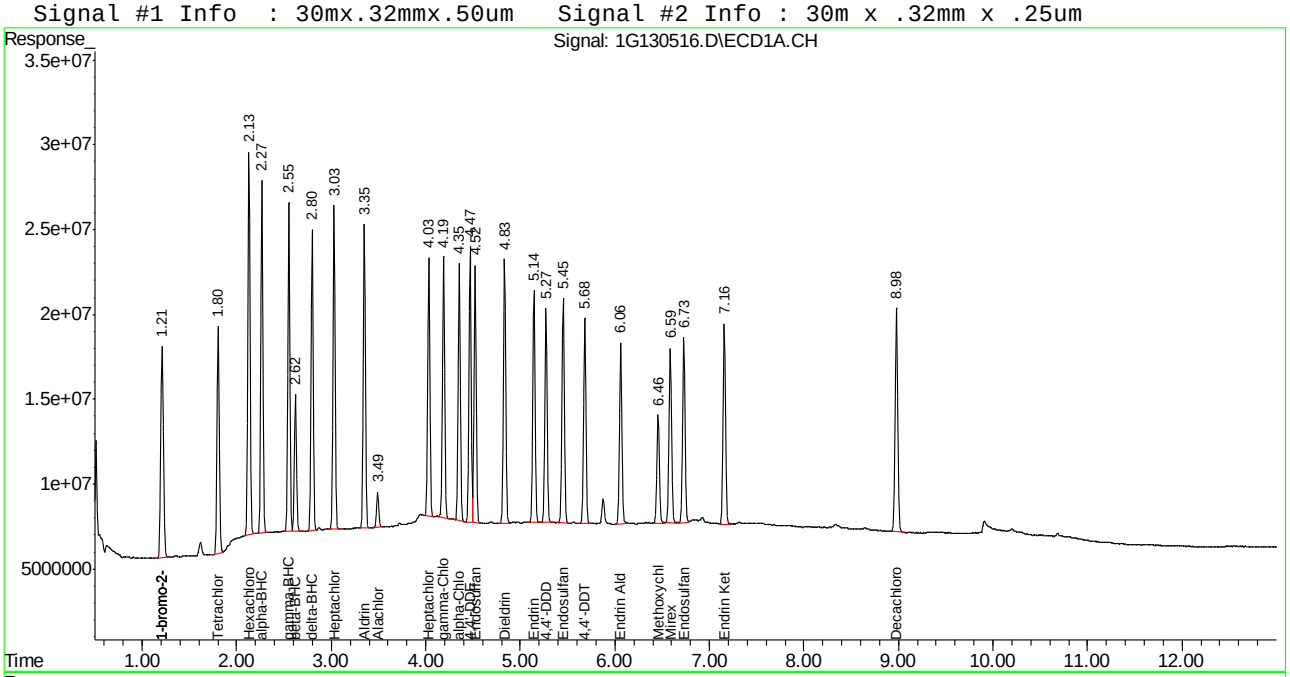
(f)=RT Delta > 1/2 Window (m)=manual int.
1G130516.D 1PST4166.M Thu Dec 15 08:36:21 2016 RPT1 Page 1

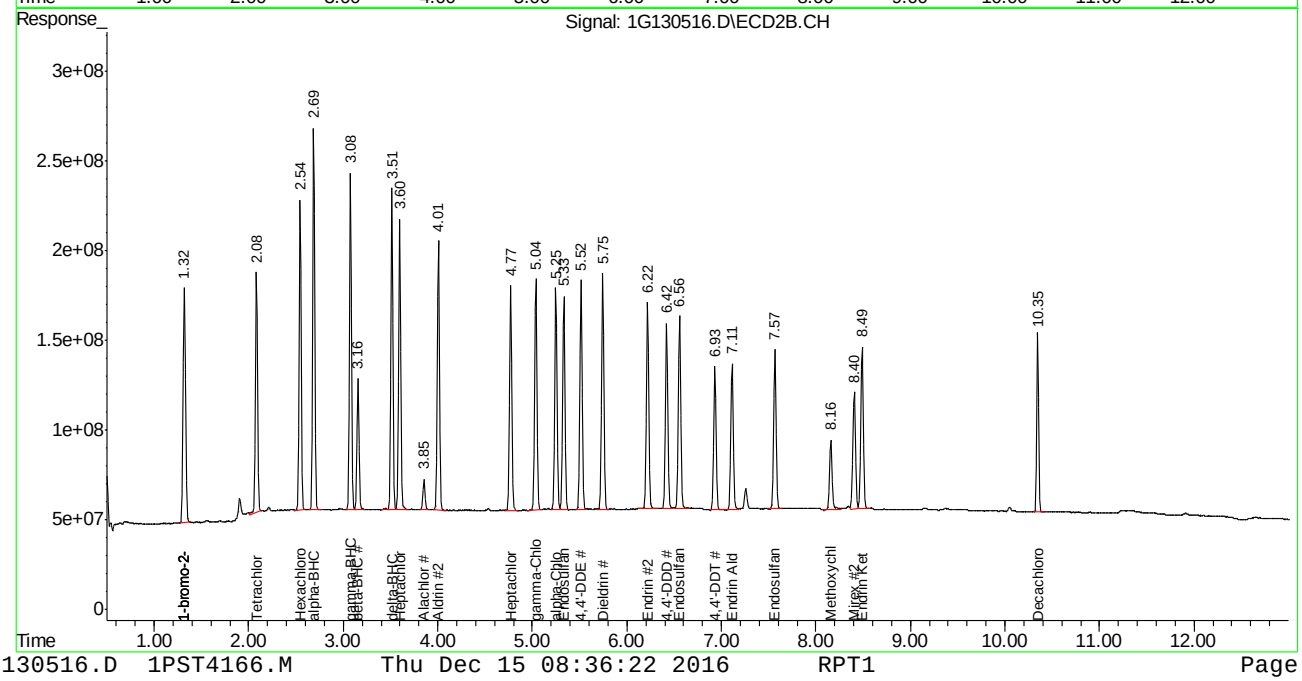
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On : 12-14-16 05:09:38 PM Operator: kristend
Sample : cc4166-50 Inst : GC1G
Misc : op99152,g1g4171,980,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: Dec 15 8:36 2016 Quant Results File: 1PST4166.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4166.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um





SGS ACCUTEST JC33175

Manual Integration Approval Summary

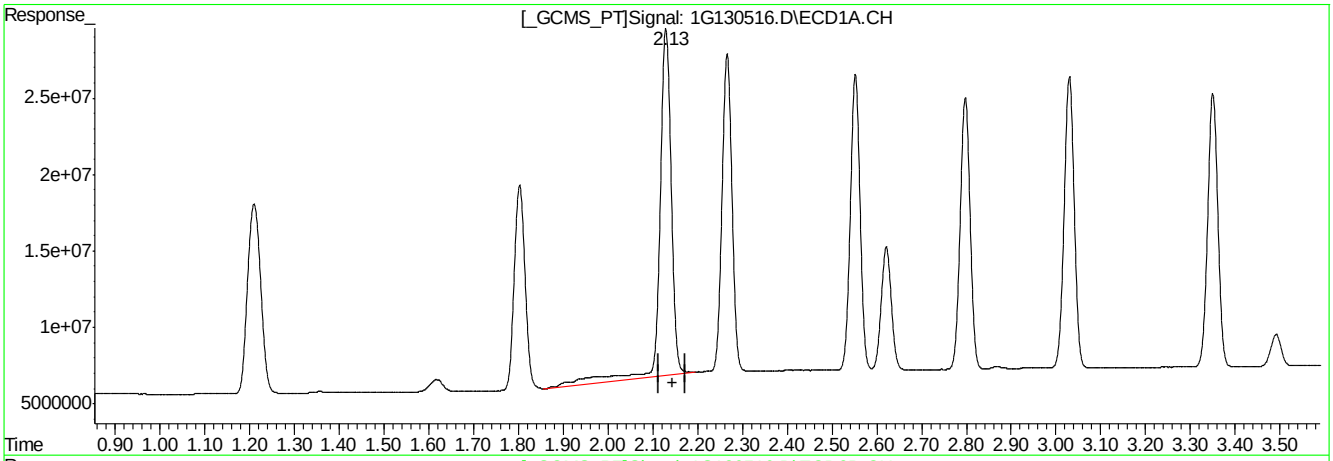
Sample Number:	G1G4171-CC4166	**Method:**	SW846 8081B
Lab FileID:	1G130516.D	**Analyst approved:**	12/15/16 08:39 Christine Phillips
Injection Time:	12/14/16 17:09	**Supervisor approved:**	12/15/16 12:10 Gwendolyn Burns

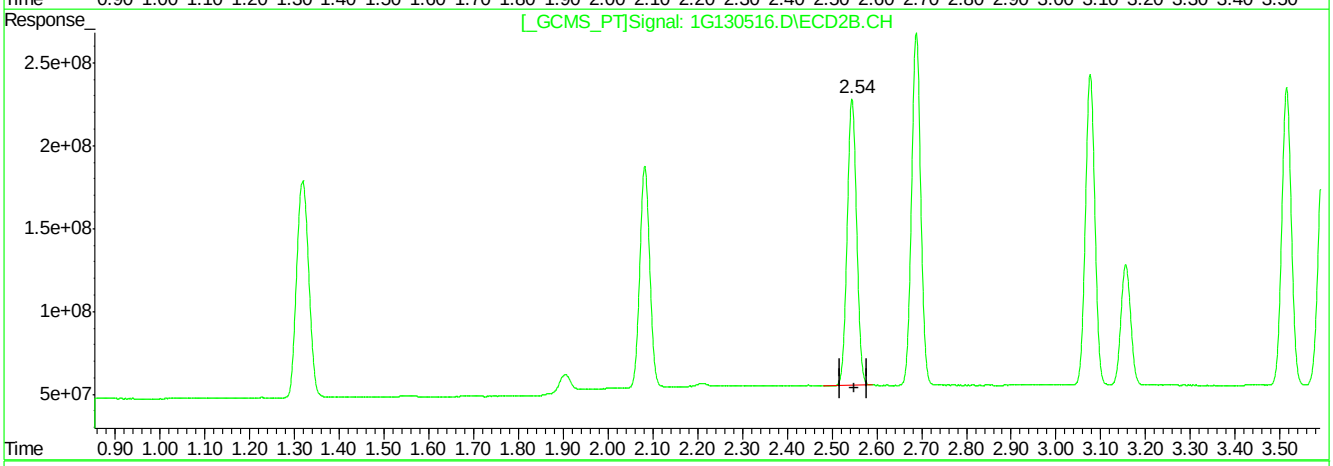
Parameter	CAS	Sig#	R.T. (min.)	Reason
Hexachlorobenzene	118-74-1	1	2.13	Poorly defined baseline
Heptachlor epoxide	1024-57-3	1	4.03	Poorly defined baseline
Methoxychlor	72-43-5	1	6.46	Poorly defined baseline
Mirex	2385-85-5	1	6.59	Poorly defined baseline
Endosulfan sulfate	1031-07-8	1	6.73	Poorly defined baseline
Endrin ketone	53494-70-5	1	7.16	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	1	8.98	Poorly defined baseline

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Hexachlorobenzene

2.13min 56.097PPB

response 407275088

(3) Hexachlorobenzene #2

2.54min 56.604PPB

response 2537041738

(+) = Expected Retention Time

1G130516.D 1PST4166.M Thu Dec 15 08:32:54 2016 RPT1

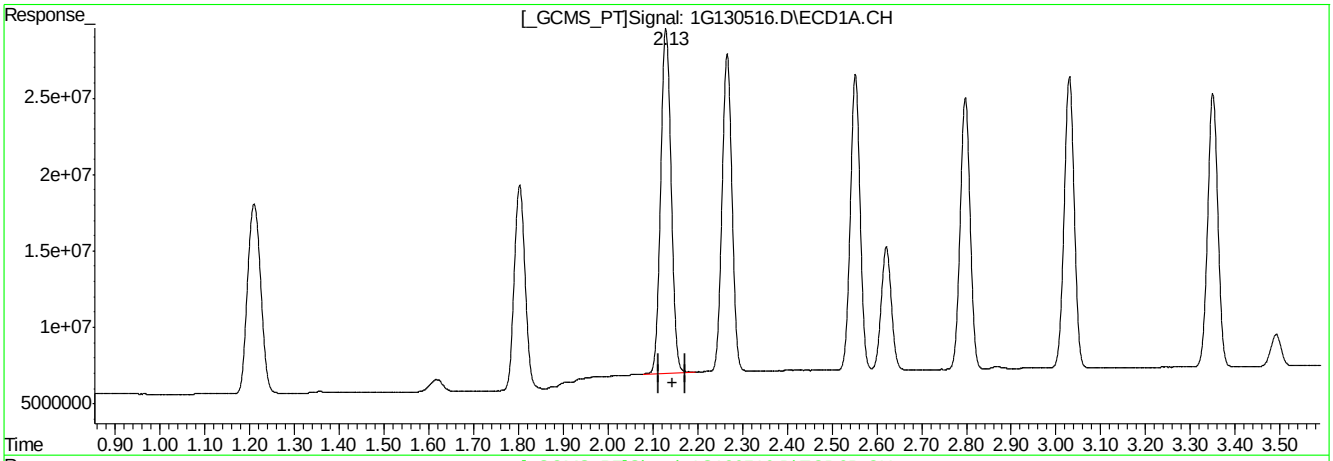
13.6.18.2

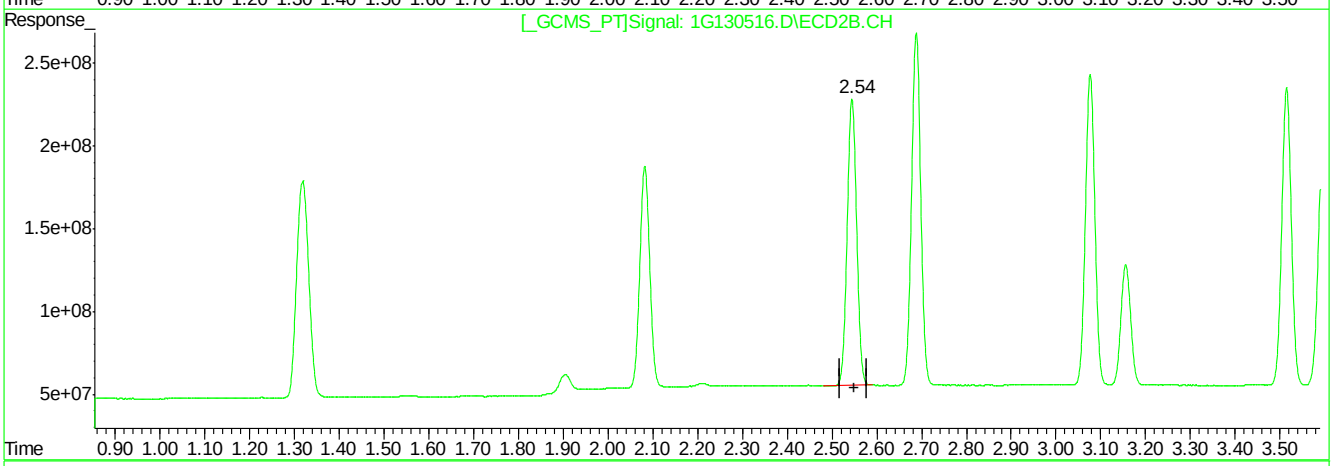
13

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(3) Hexachlorobenzene

2.13min 50.343PPB m

response 365496470

(3) Hexachlorobenzene #2

2.54min 56.604PPB

response 2537041738

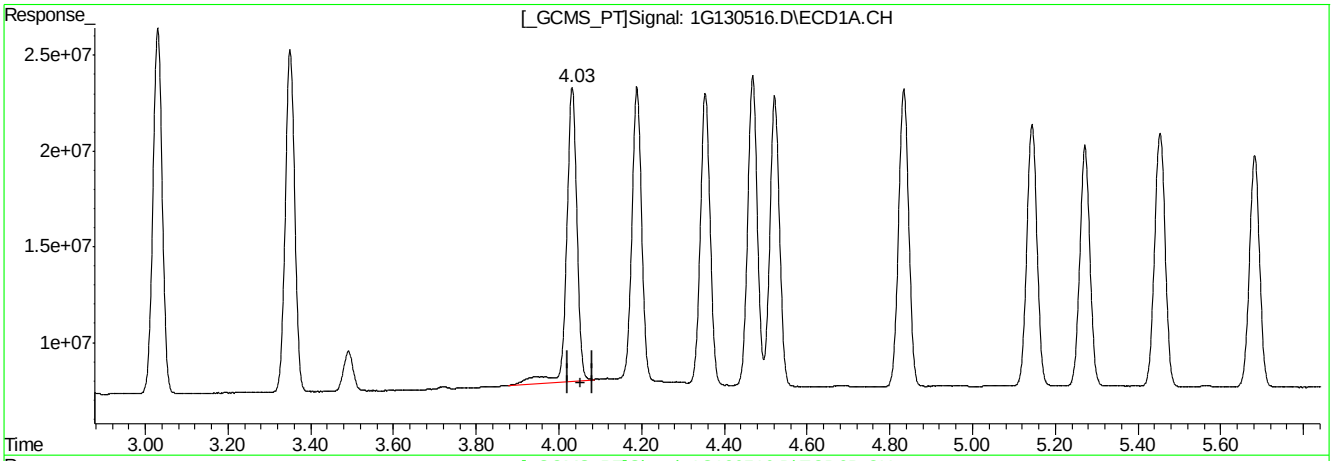
(+) = Expected Retention Time

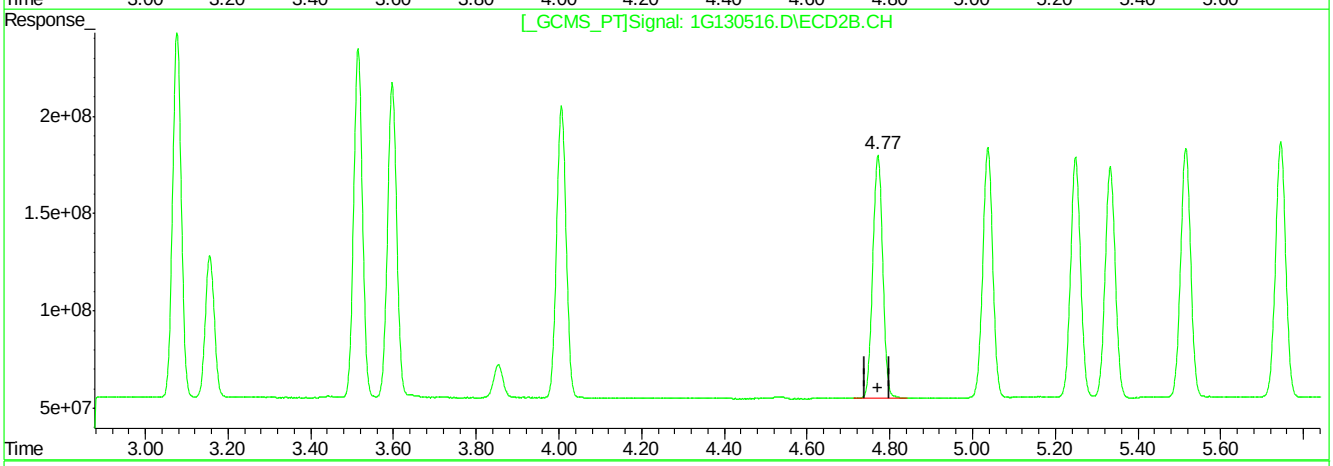
1G130516.D 1PST4166.M Thu Dec 15 08:33:07 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.03min 53.624PPB

response 266039752

(11) Heptachlor Epoxide #2 (B)

4.77min 54.885PPB

response 2105841659

(+) = Expected Retention Time

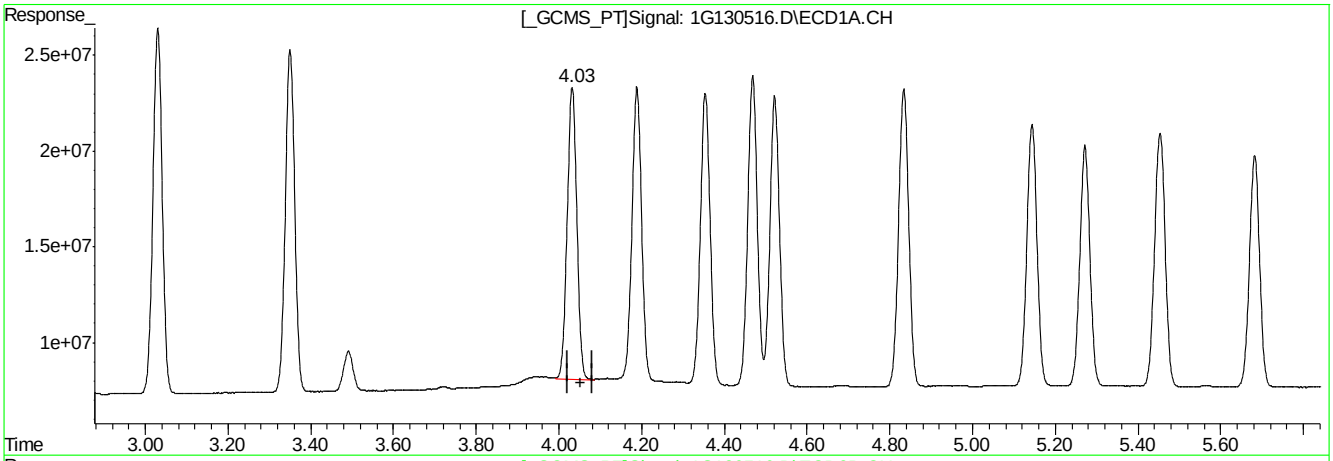
1G130516.D 1PST4166.M Thu Dec 15 08:33:23 2016 RPT1

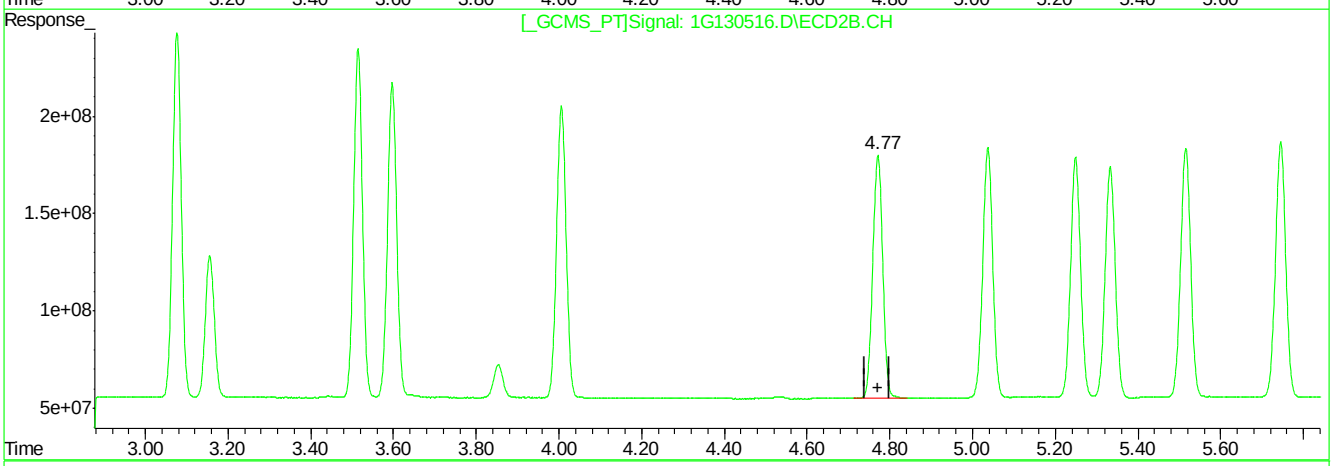
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(11) Heptachlor Epoxide (B)

4.03min 49.681PPB m

response 246478283

(11) Heptachlor Epoxide #2 (B)

4.77min 54.885PPB

response 2105841659

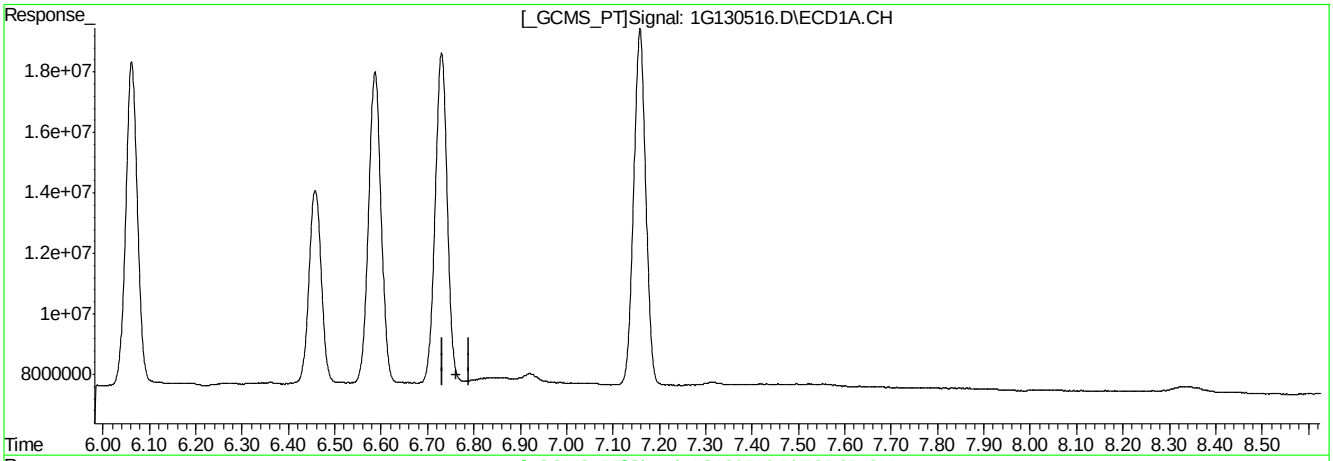
(+) = Expected Retention Time

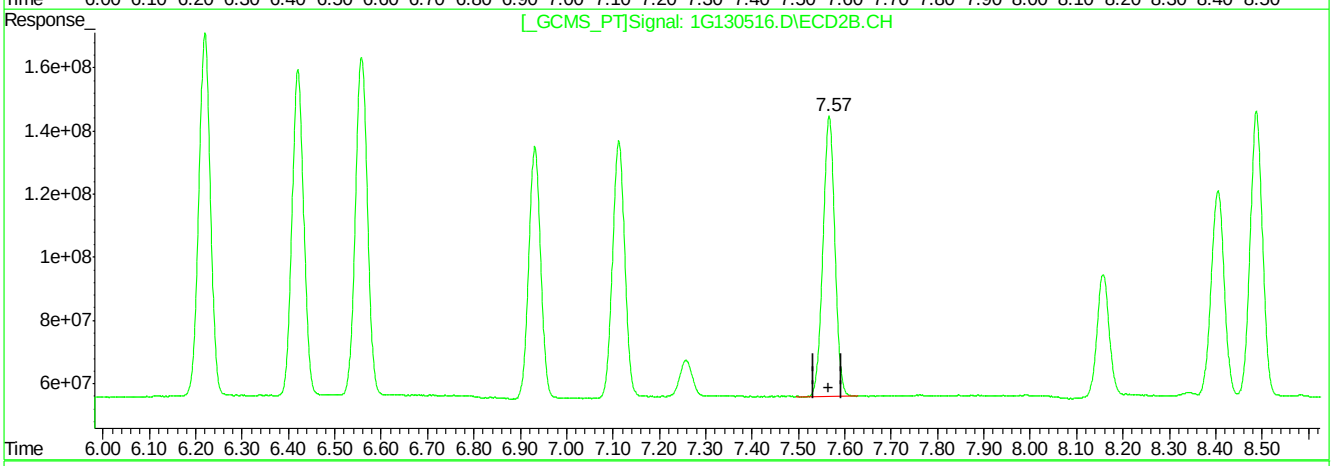
1G130516.D 1PST4166.M Thu Dec 15 08:33:33 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(22) Endosulfan Sulfate (B)

0.00min 0.000PPB

response 0

(22) Endosulfan Sulfate #2 (B)

7.57min 54.338PPB

response 1581731005

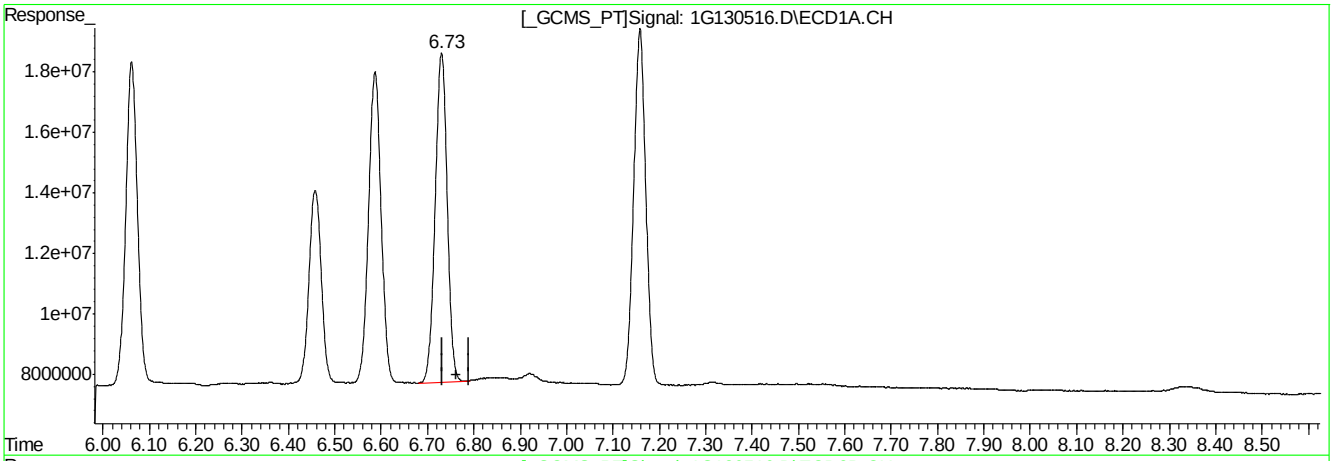
(+) = Expected Retention Time

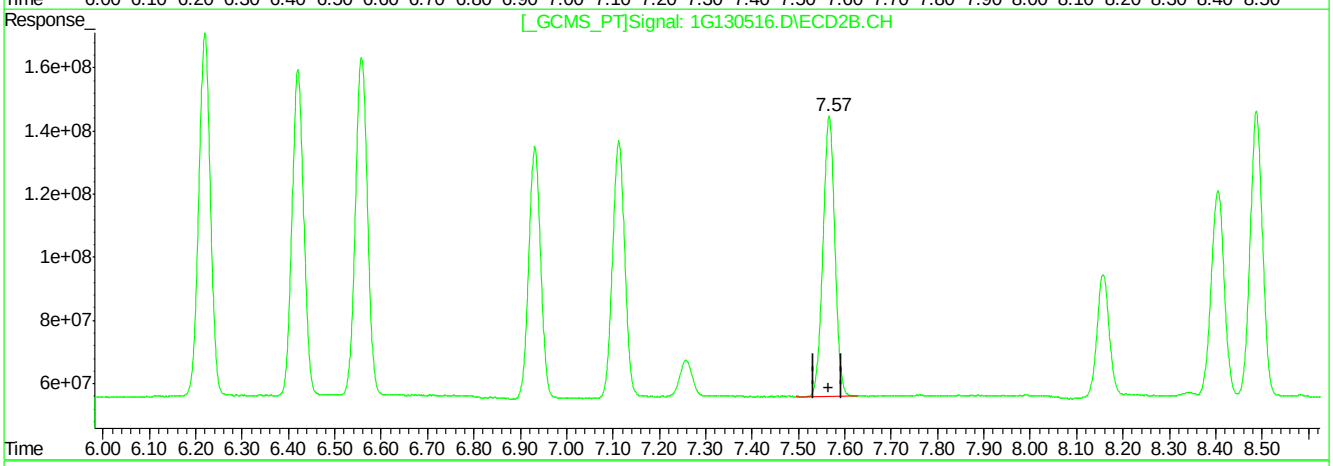
1G130516.D 1PST4166.M Thu Dec 15 08:33:53 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(22) Endosulfan Sulfate (B)

6.73min 46.357PPB m

response 196366189

(22) Endosulfan Sulfate #2 (B)

7.57min 54.338PPB

response 1581731005

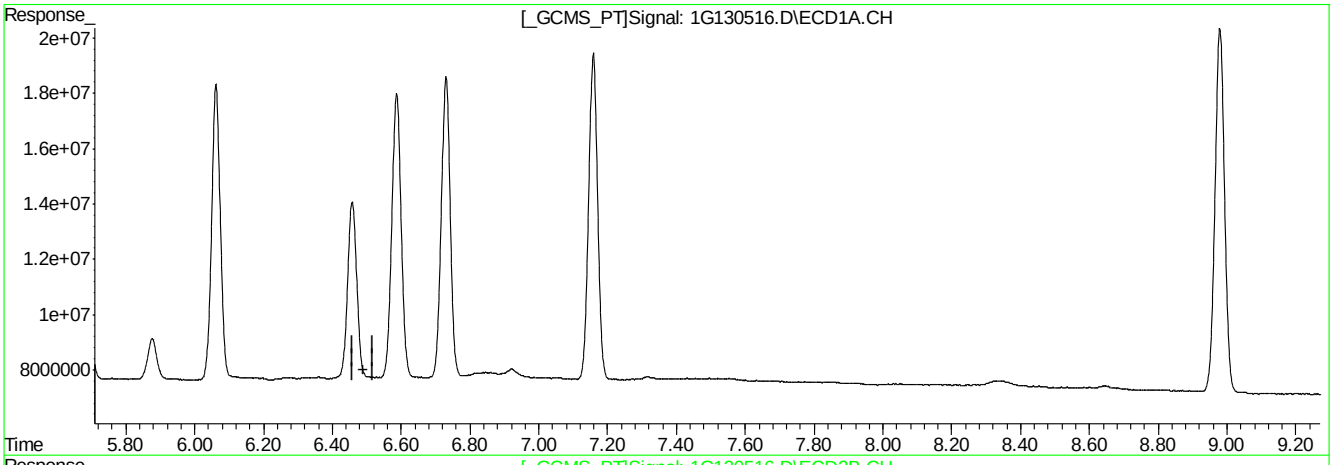
(+) = Expected Retention Time

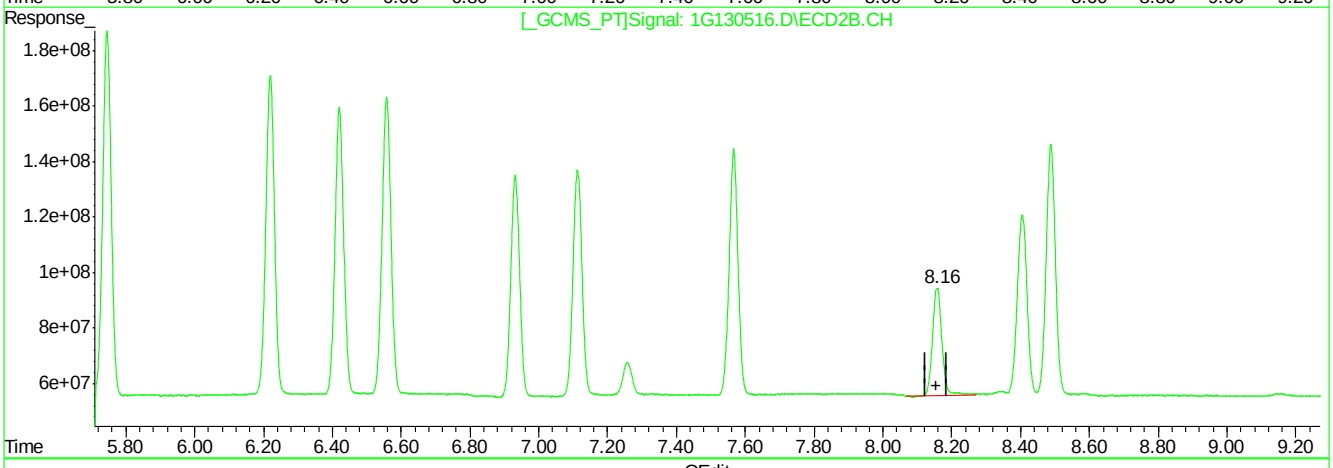
1G130516.D 1PST4166.M Thu Dec 15 08:34:08 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

0.00min 0.000PPB

response 0

(23) Methoxychlor #2 (A)

8.16min 50.840PPB

response 750027934

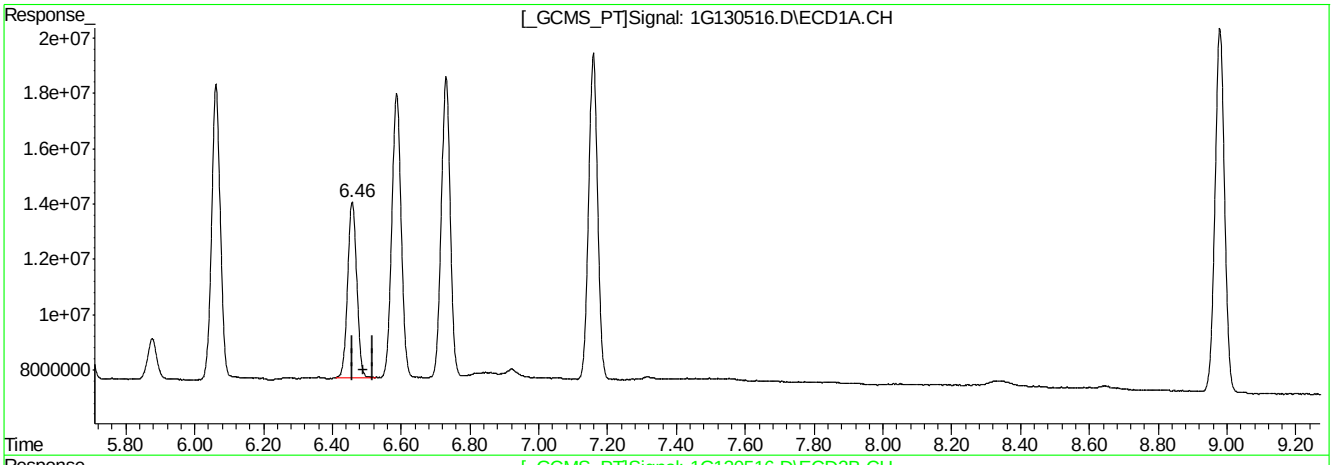
(+) = Expected Retention Time

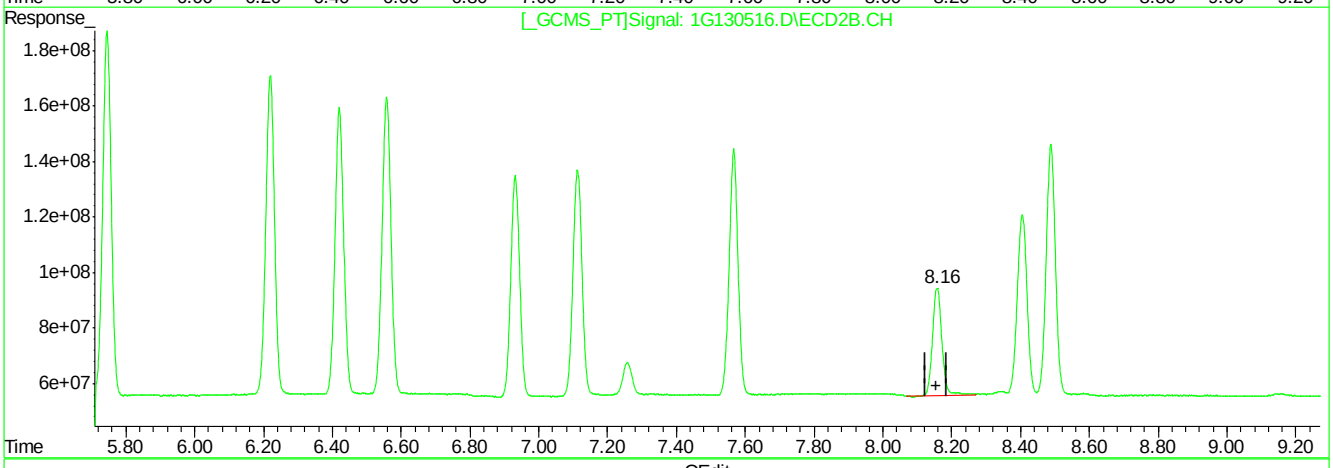
1G130516.D 1PST4166.M Thu Dec 15 08:34:13 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(23) Methoxychlor (A)

6.46min 44.116PPB m

response 118351789

(23) Methoxychlor #2 (A)

8.16min 50.840PPB

response 750027934

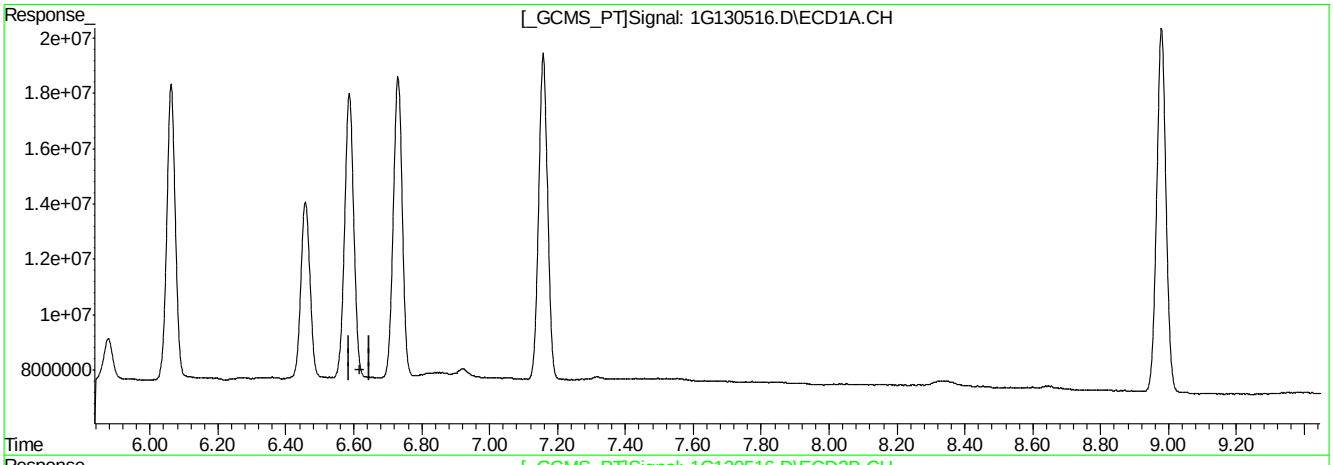
(+) = Expected Retention Time

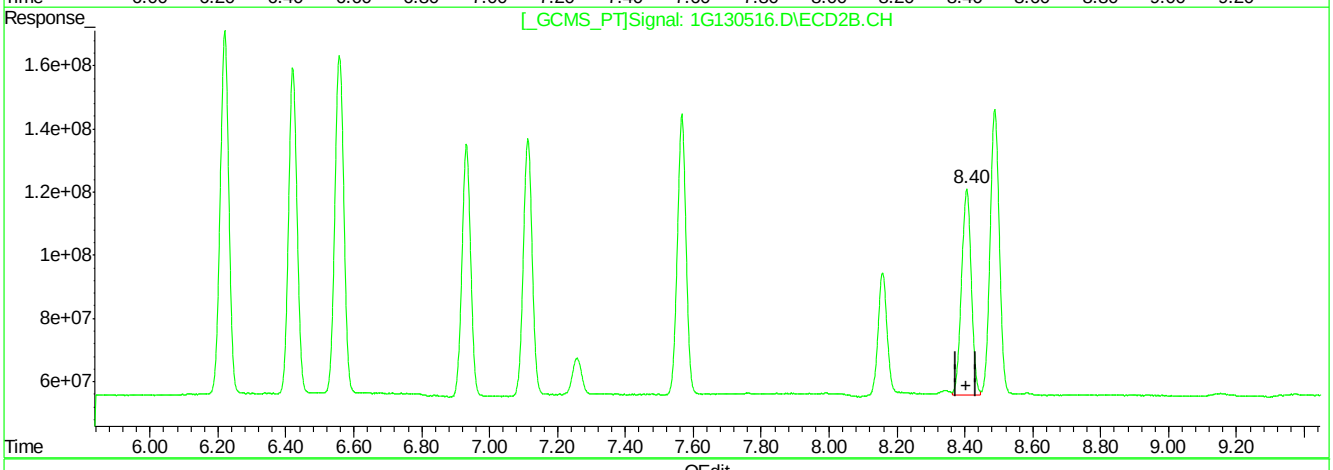
1G130516.D 1PST4166.M Thu Dec 15 08:34:28 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(24) Mirex

0.00min 0.000PPB

response 0

(24) Mirex #2

8.41min 55.657PPB

response 1288213524

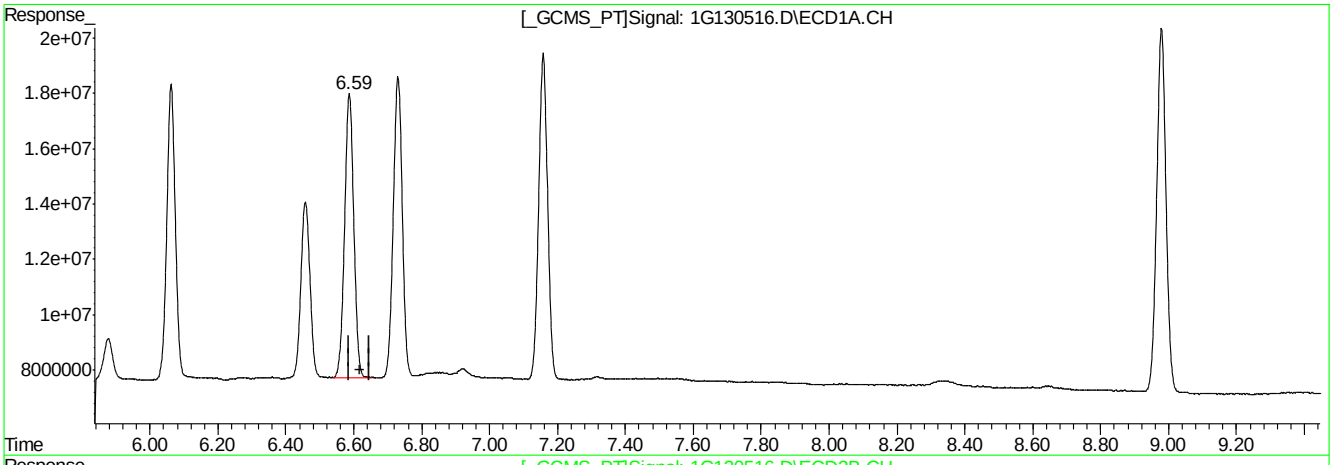
(+) = Expected Retention Time

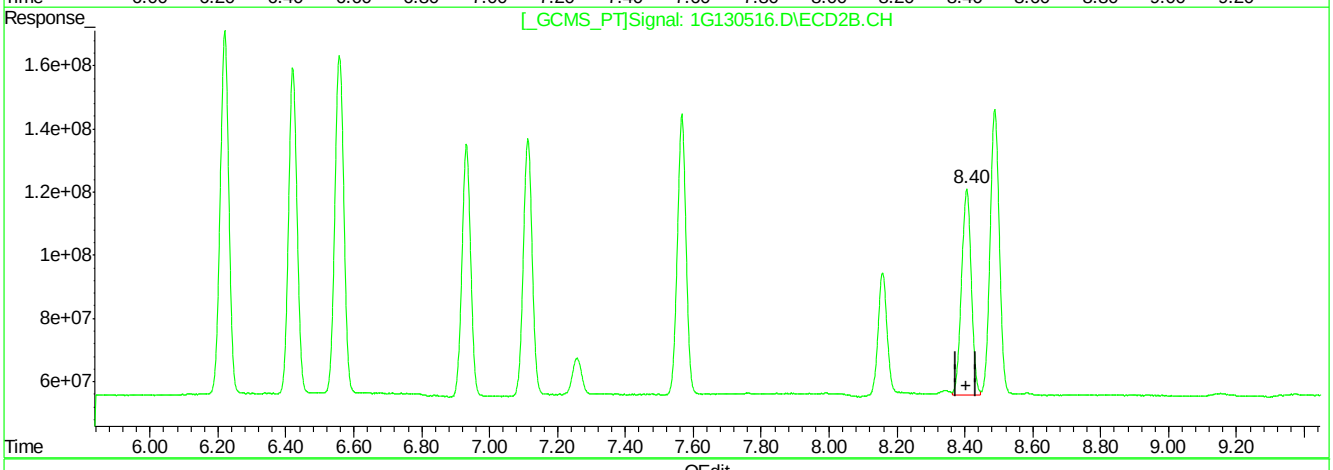
1G130516.D 1PST4166.M Thu Dec 15 08:34:35 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(24) Mirex

6.59min 43.736PPB m

response 194290608

(24) Mirex #2

8.41min 55.657PPB

response 1288213524

(+) = Expected Retention Time

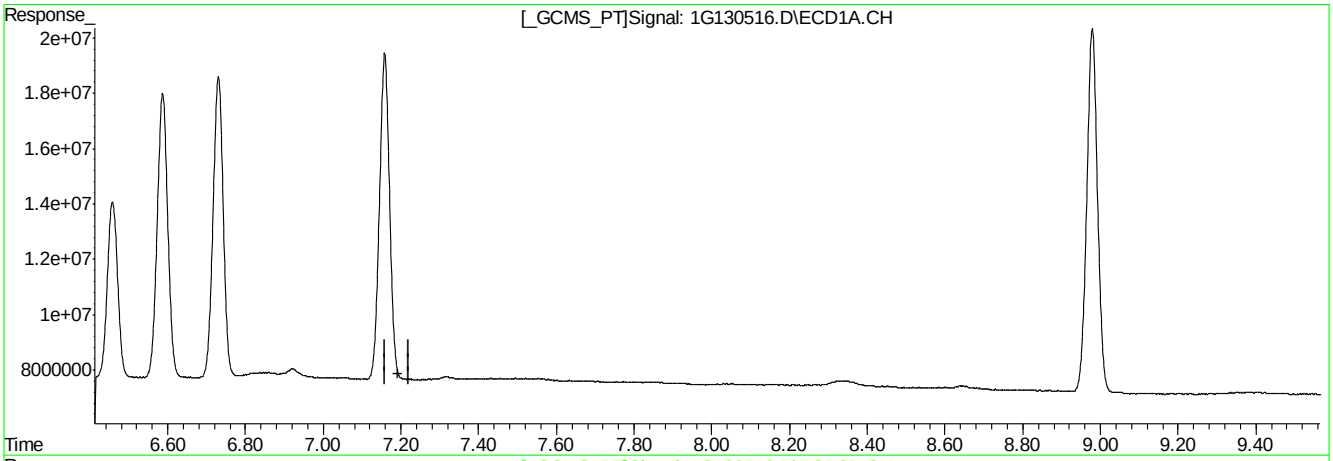
1G130516.D 1PST4166.M Thu Dec 15 08:35:01 2016 RPT1

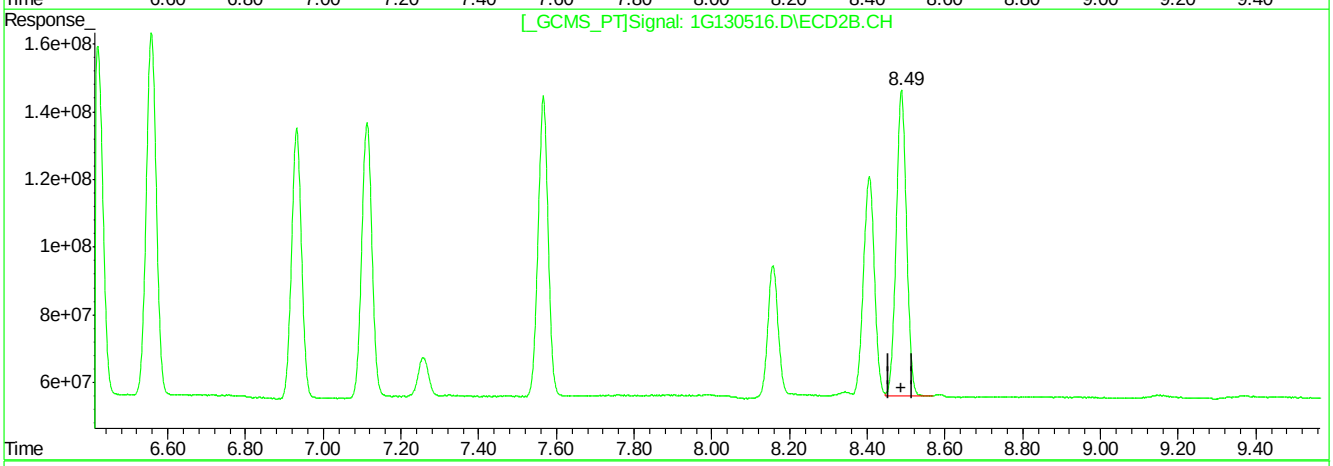
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(25) Endrin Ketone (B)

0.00min 0.000PPB

response 0

(25) Endrin Ketone #2 (B)

8.49min 53.281PPB

response 1676793779

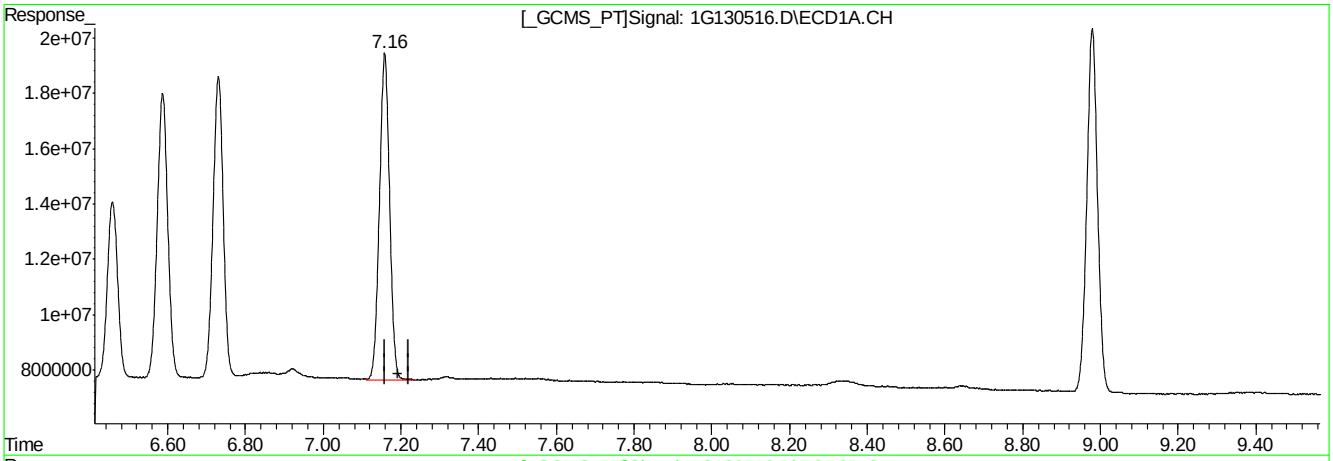
(+) = Expected Retention Time

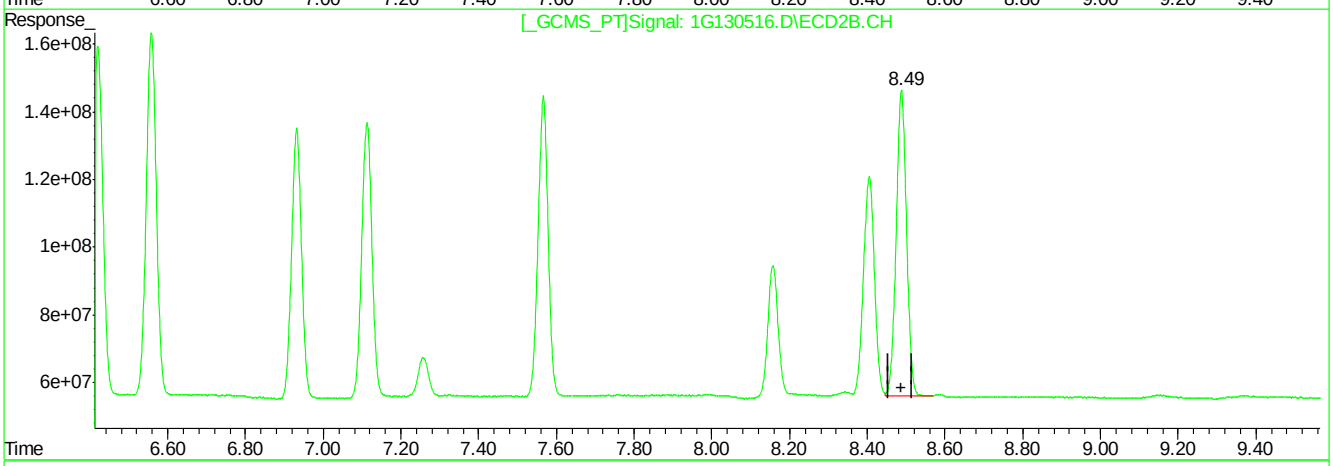
1G130516.D 1PST4166.M Thu Dec 15 08:35:06 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(25) Endrin Ketone (B)

7.16min 46.003PPB m

response 214951243

(25) Endrin Ketone #2 (B)

8.49min 53.281PPB

response 1676793779

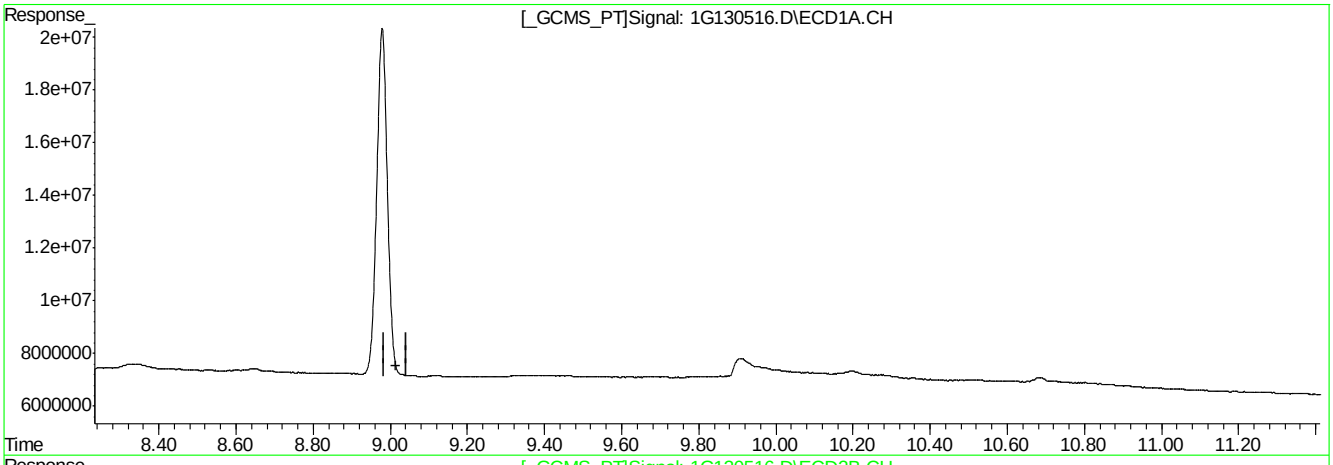
(+) = Expected Retention Time

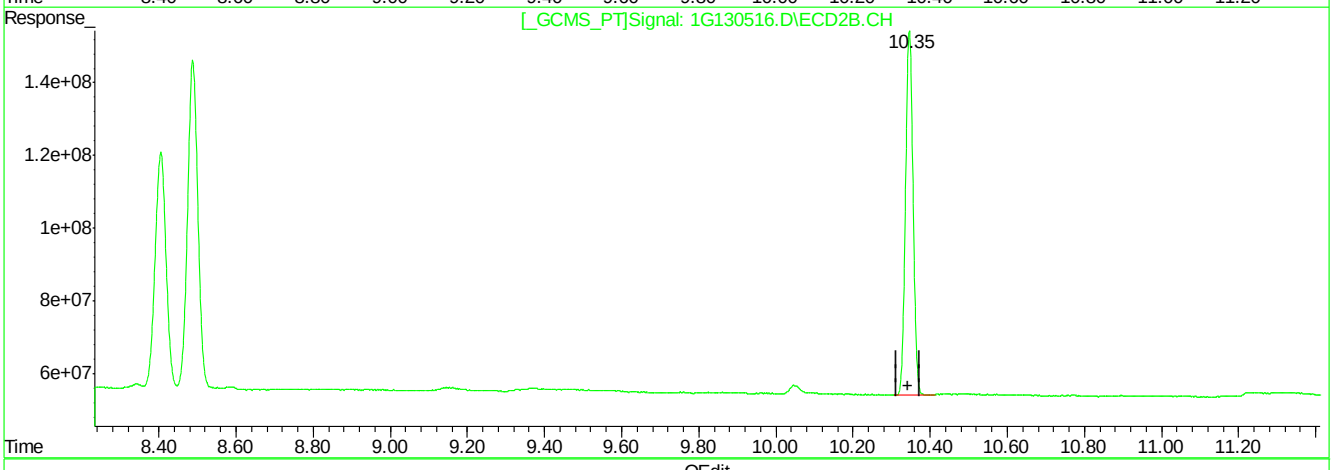
1G130516.D 1PST4166.M Thu Dec 15 08:35:18 2016 RPT1

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

0.00min 0.000PPB

response 0

(26) Decachlorobiphenyl #2 (SA)

10.35min 49.333PPB

response 1362384377

(+) = Expected Retention Time

1G130516.D 1PST4166.M Thu Dec 15 08:35:29 2016 RPT1

13.6.18.14

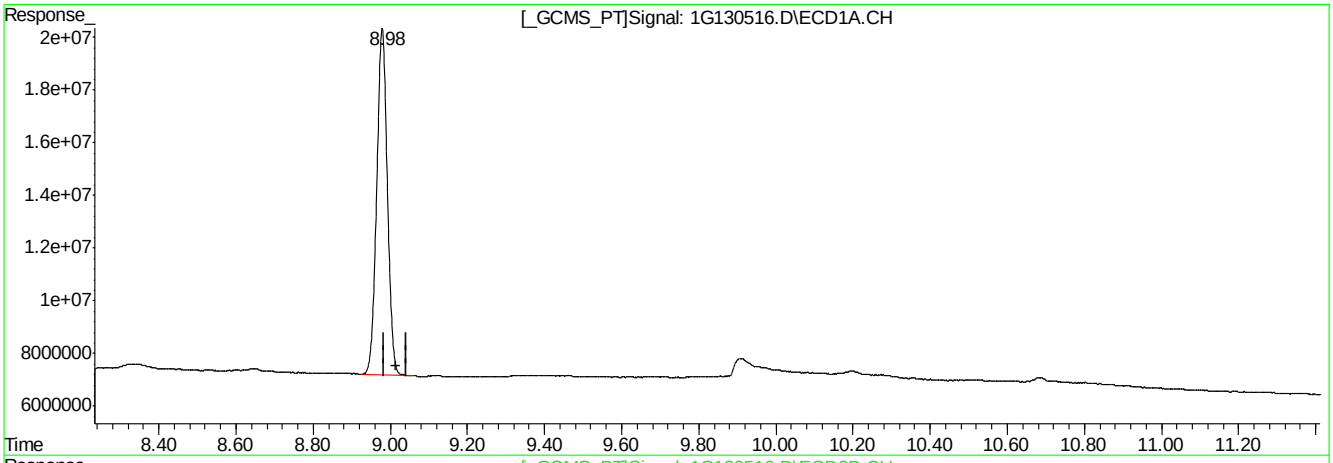
13

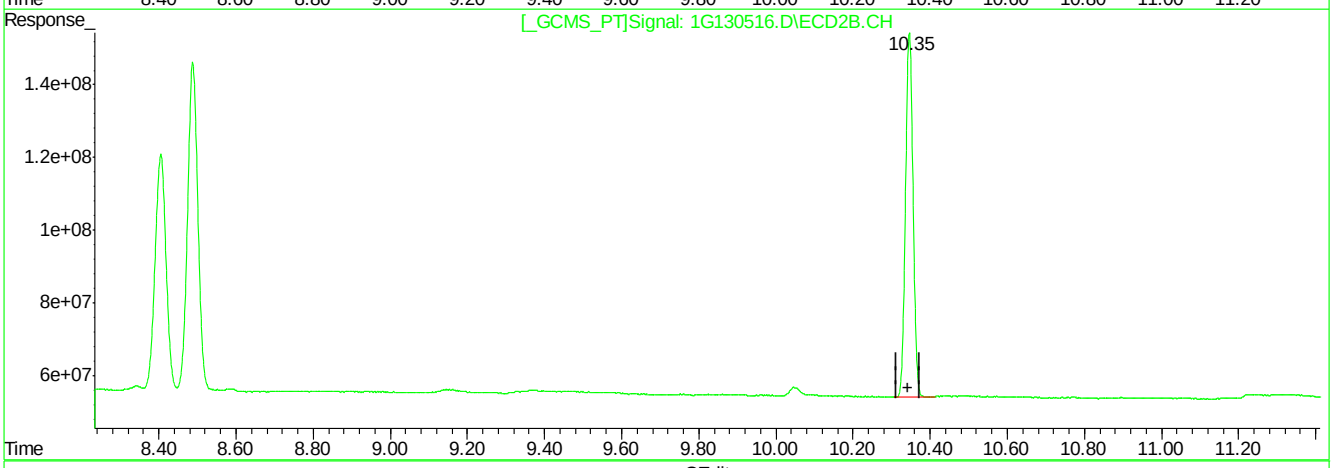
SGS ACCUTEST JC33175

Quantitation Report (Qedit)

```
Signal #1 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4171\1G130516.D\ECD2B.CH
Acq On    : 12-14-16 05:09:38 PM                    Operator: kristend
Sample    : cc4166-50                               Inst    : GC1G
Misc      : op99152,g1g4171,980,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e     IntFile Signal #2: autoint2.e
Quant Time: Dec 15  8:32 2016  Quant Results File: 1PST4166.RES

Method       : C:\MSDCHEM\1\METHODS\1PST4166.M (Chemstation Integrator)
Title        : PEST/PCB
Last Update  : Tue Dec 13 09:42:13 2016
Response via : Multiple Level Calibration
```





QEdit

(26) Decachlorobiphenyl (SA)

8.98min 43.429PPB m

response 253931412

(26) Decachlorobiphenyl #2 (SA)

10.35min 49.333PPB

response 1362384377

(+) = Expected Retention Time

1G130516.D 1PST4166.M Thu Dec 15 08:35:49 2016 RPT1

13.6.18.15 13

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4166

Print Analyst Name: Rebecca Kruse

Analyst Signature: RK

Date: 12/8/16

Columns: ZBCLPI / ZBCLPII

Method 8081

Initial Cal. Method IPST4166 RK 12/8/16

Injection Volume: 1.0 uL

Date Archived:

Standard Data

	Lot #	Description	Conc.
SV	16.2087.02	Pest Mix	1 ppb
	.03	Pest Mix	2 ppb
	.04	Pest Mix	5 ppb
	.05	Pest Mix	10 ppb
	.06	Pest Mix	25 ppb
	.07	Pest Mix	50 ppb
	.08	Pest Mix	75 ppb

Standard Data

	Lot #	Description	Conc.
SV	16.2087.09	Pest Mix	100 ppb
SV	16.2002.14AE	Chlordane Std	500 ppb
	.146	Toxaphene Std	500 ppb
	.126	IB	20 ppb
	.147	PEM	10-250 ppb
	.142	Pest ISTD	5 ppm
	1632358	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: 12/22/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1g130372	dclt				1			✓	OK	
	373	IB				3			✓	OK	
	374	IC4166-1				26			✓	OK	
	375	-2				27			✓	OK	
	376	-5				28			✓	OK	
	377	-10				29			✓	OK	
	378	ICC4166-25				2			✓	OK	
	379	IC4166 -50				4			✓	OK	
	380	-75				32			✓	OK	
	381	-100				33			✓	OK	
	382	-500				34			✓	OK	
	383	-500				35			✓	OK	
	384	ICV4166-25	Pest			36			✓	OK	SV lot# SV 16.2002.58
	385	-500	Chlordane			37			✓	OK	lot# SV 16.2002.59
	386	-500	Toxaphene			38			✓	OK	lot # SV 16.2002.60
	387	-50	Alachlor			39			✓	OK	lot # SV 16.2087.19
	388	-50	Hexachlorobenzene			40			✓	OK	lot # SV 16.2087.20
	389	-25	Mirex			41			✓	OK	lot # OP 16.1845.67

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

173

Form: OR016-08
Rev. Date: 1/19/16

13.7.1 13

SGS ACCUTEST

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: G1G4171

Print Analyst Name: Kristen Drake

Analyst Signature: KD

Date: 12/14/16

Columns: ZBCLPI/ZBCLPII

Method 8081,608

Initial Cal. Method IPST4166

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV1602706	PestMix	25ppb
007	PestMix	50ppb
SV1602018	IB	20ppb
017	PCM	10-250ppb
012	PCT 1254	50ppm
163237	hexane (GC/MS)	—

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: 12/19/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	1g130497	ddt				1			✓	OK	
	498	CC4166-25				2			✓	OK	heptachlor dBHCs 1st
	499	IB				3			✓	OK	
	500	gp99172-mbl	99172	8081	W	5		✓	✓	OK	
	501	-bsl				6		✓	✓	OK	
	502	jc33175-1		tcl		7		✓	✓	OK	
	503	gp99172-ms				8		✓	✓	OK	
	504	-msd				9		✓	✓	OK	
	505	jc33375-1		diellrin		10		✓	✓	OK	
	506	-2				11		✓	✓	OK	
	507	jc33384-1		tcl		12		✓	✓	OK	
	508	-2				13		✓	✓	OK	
	509	-3				14		✓	✓	OK	
	510	gp99152-mbl	99152			15		✓	✓	OK	hcd TBA
	511	-bsl				16		✓	✓	OK	
	512	-ms				17		✓	✓	OK	
	513	-msd				18		✓	✓	OK	
	514	jc32913-6				19		✓	✓	OK	RR 1.5
	515	ddt				1		✓	✓	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: G1G4171

Print Analyst Name: CHRISTINE PHILLIPS

Date: 12/14/16

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

	Lot #	Description	Conc.
SV	16-2087-06	PEST MIX	25ppb
	-07	PESTMIX	50ppb
SV	16-2002-148	IB	20ppb
	-147	PEM	10-250ppb
	-142	PEST STD	5ppm
	163237	HEXANE (FISHER)	—

Columns: ZB CLP I / ZB CLP II

Method 8081, 608

Initial Cal. Method IPST 4166

Injection Volume: 1.0ul

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible] Date: 12/9/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	16130516	CC4166-50				4				OK	
	517	IB				3				OK	HEPTACHLOR ↑ 2nd
	518	op 99207-MB1	99207	8081 tcl pp1, tcl11	S	20				OK	
	519	-BS1				21				OK	
	520	-MB11				22				OK	
	521	jc 33478-1				23				OK	LL
	522	op 99207-MS				24				OK	
	523	-MSD				25				OK	
	524	jc 32913-10				26				not using	LL need tba
	525	op 99207-MS2				27				not using	LL
	526	-MSD2				28				not using	LL
	527	jc 33134-1				29				OK	
	528	jc 32913-1				30				not using	LL NEED TBA
	529	-3				31				not	
	530	-8				32				not using	
	531	-9				33				not using	
	532	-18				34				not run	computer went offline
	533	jc 33096-14				35				not run	
	534	jc 33111-1				36				not run	LL

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: G1G 4171

Print Analyst Name: CHRISTINE PHILLIPS

Date: 12/14/16

Analyst Signature: CNP

Standard Data

Lot #	Description	Conc.

Standard Data

	Lot #	Description	Conc.
SV	16-2087-06	PEST MIX	25 ppb
	-07	PEST MIX	50 ppb
SV	16-2002-148	IB	20 ppb
	-147	PEM	10-250 ppb
	-142	PEST ISTD	5 ppm
	163237	HEXANE (FISHER)	—

Columns: ZB CLP I / ZB CLP II

Method 8081, 608

Initial Cal. Method IPST 4166

Injection Volume: 1.0 ul

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible] Date: 12/14/16

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	G130535	jc 33374-1	99207	8081 tcl	S	37				not run	compactor went offline
	536	-2				38				not run	
	537	HEXANE				100				not run	
	538	CC4166-25				2				not run	
	539	IB				3				not run	
	540	jc 33374-3	99207	8081 tcl		39				not run	
	541	-4				40				not run	
	542	jc 33102-1				41				not run	

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

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13.7.2 13

LOGBOOK ID: 6-1843

Pest/PCB Extraction Log - Aqueous

Date Started: 12/13/16 Time Started: 1830
Date Finished: 12/14/16 Time Finished: 0043

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Separatory Funnel: SW846 3510C/CLP/other_____
Continuous Liquid Liquid: SW846 3520C/CLP/other_____

BATCH # GC 99172	RACK# PEST-1
Set-up by:	YB, NJF
Extracted by:	YB, NJF
Concentrated by:	ZH, HDC, YB
Final Vol. Top-up:	YB
Vialed by:	YB
Supervisor Review:	12/14/16

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	KMnO4	Comments
MB1	~~Pest~~			DI H2O	1000	clear	10		/				
BS1				DI H2O	1000	clear	10		/				
JC33175-1 MS		3		Yellow	475	clear	10		/				
MSD		3		Yellow	475	clear	10		/				
BS													
MS													
MSD													
1 LA28361-1	8081												
2 LA28361-2	8081												
3 LA28361-3	8081												
4 LA28361-4	8081												
5 LA28361-5	8081												
6 LA28361-6	8081												
7 LA28361-7	8081												
8 LA28361-8	8081												
9 LA28361-9	8081												
10 LA28361-10	8081												
11 LA28361-13	8081												
12 LA28361-14	8081												
13 LA28361-15	8081												
14 LA28361-16	8081												
15 JC33175-1	8081	6		Yellow	950	clear	10		/				
16 JC33375-1	8081	3		lt yellow	960	clear	10		/				
17 JC33375-2	8081	3		lt yellow	940	clear	10		/				
18 JC33384-1	8081	3		lt yellow	910	clear	10		/				
19 JC33384-2	8081	3		yellow	910	clear	10		/				
20 JC33384-3	8081	2		lt yellow	1000	clear	10		/				

Comments: OK on 40 split MS/MSD

MP 12/13/16 post QVI

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD: JC33175-1

Final Volume:

Other:

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	2	65	/	/	ok
Buchi Chiller	B2	11	/	/	ok
Waterbath (70-80°C)	3, 7	74.1, 74.2	-1.0, 0.9	73, 73	NA
Waterbath Chiller (GPM)	F3	3	/	/	2
NEVAP (32-38°C, LPM)					

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PPCB	16184568	400ppb	1.0mL

WITNESS SIGN: NJF SPIKE SIGN: YB

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST	16184558C	250ppb	1.0mL
PCB			

WITNESS SIGN: NJF SPIKE SIGN: YB

SOLVENT	LOT #	BRAND	AMT (mL)
METH CHLOR	166552	Fisher	60x3
HEXANE	163236	Fisher	50x1

REAGENT	LOT #	BRAND
Sodium Sulfate	165114	Fisher
Glass Wool	05Q30-1	Lab
Filter Paper		
Copper	16184576	Aldrich
Florisil		
1:1 Sulfuric Acid		
Chlorine Strips		

SGS ACCUTEST INC.
Form: OP021A-08
Rev Date: 9/22/16

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