

16C0466

Introduction and Sample Cross Reference.....	3
General Notes Relating to this Report.....	4
Sample Results.....	5
01/LSB-3.....	5
Volatile Organic Compounds by GC/MS.....	5
Semivolatile Organic Compounds by GC/MS.....	8
Organochlorine Pesticides by GC/ECD.....	11
Polychlorinated Biphenyls by GC/ECD.....	12
Polychlorinated Biphenyls by GC/ECD.....	13
Metals by ICP.....	13
Mercury by EPA 7000/200 Series Methods.....	14
Miscellaneous Physical Parameters.....	14
Wet Chemistry Parameters.....	14
02/DUP.....	15
Volatile Organic Compounds by GC/MS.....	15
Semivolatile Organic Compounds by GC/MS.....	18
Organochlorine Pesticides by GC/ECD.....	21
Polychlorinated Biphenyls by GC/ECD.....	22
Polychlorinated Biphenyls by GC/ECD.....	23
Metals by ICP.....	23
Mercury by EPA 7000/200 Series Methods.....	24
Miscellaneous Physical Parameters.....	24
Wet Chemistry Parameters.....	24
03/LSB-3.....	25
Volatile Organic Compounds by GC/MS.....	25
Semivolatile Organic Compounds by GC/MS.....	28
Organochlorine Pesticides by GC/ECD.....	31
Polychlorinated Biphenyls by GC/ECD.....	32
Polychlorinated Biphenyls by GC/ECD.....	33
Metals by ICP.....	33
Mercury by EPA 7000/200 Series Methods.....	34
Miscellaneous Physical Parameters.....	34
Wet Chemistry Parameters.....	34
04/FB20160309.....	35
Volatile Organic Compounds by GC/MS.....	35
Semivolatile Organic Compounds by GC/MS.....	38
Organochlorine Pesticides by GC/ECD.....	41
Polychlorinated Biphenyls by GC/ECD.....	42

Polychlorinated Biphenyls by GC/ECD.....	43
Metals by ICP.....	44
Mercury by EPA 7000/200 Series Methods.....	45
Wet Chemistry Parameters.....	45
05/TB20160309.....	45
Volatile Organic Compounds by GC/MS.....	45
05/TB20160309.....	46
Volatile Organic Compounds by GC/MS.....	46
Case Narrative.....	50
Quality Batch Summary.....	58
QA/QC Summary Data.....	61
Volatile Organic Compounds by GC/MS EPA 8260C.....	61
Semivolatile Organic Compounds by GC/MS EPA 8270D.....	71
Organochlorine Pesticides by GC/ECD EPA 8081B.....	87
Polychlorinated Biphenyls by GC/ECD EPA 8082A.....	90
Metals by ICP EPA 6010C.....	92
Mercury by EPA 7000/200 Series Methods EPA 7473.....	94
Wet Chemistry Parameters EPA 7196A.....	95
Notes and Specific Data Flags.....	97
Chains of Custody.....	99
Volatile Data.....	103
QC Summary Forms.....	107
Sample Forms 1 and Quant Reports.....	138
Initial Calibration and Continuing Calibration Data.....	179
QC Data.....	269
Bench Sheets and Injection Logs.....	313
Semi-Volatile Data.....	319
QC Summary Forms.....	324
Sample Forms 1 and Quant Reports.....	374
Initial Calibration and Continuing Calibration Data.....	457
QC Data.....	582
Bench Sheets and Injection Logs.....	652
Pesticide Data.....	658
QC Summary Forms.....	663
Sample Forms 1 and Quant Reports.....	673
Initial Calibration and Continuing Calibration Data.....	685
QC Data.....	740
Bench Sheets and Injection Logs.....	755
PCB Data.....	765
QC Summary Forms.....	769

Sample Forms 1 and Quant Reports.....	780
Initial Calibration and Continuing Calibration Data.....	793
QC Data.....	844
Bench Sheets and Injection Logs.....	862
Metals Data, excluding Mercury.....	869
Metals Forms, excluding Mercury.....	871
Sequence Log.....	909
Bench Sheets.....	912
Raw Data.....	920
Mercury Data.....	1001
Mercury Forms.....	1003
Sequence Log.....	1016
Raw Data.....	1019
Bench Sheets.....	1033
Sequence Log.....	1035
Raw Data.....	1037
Bench Sheets.....	1049
Hexavalent Chromium Data.....	1050
Hexavalent Chromium Forms.....	1052
Bench Sheets and Logbook Records.....	1064
Total Solids Data.....	1067
Total Solids Forms.....	1069
Bench Sheets and Logbook Records.....	1075



Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)

300 Kimball Drive

Parsipanny NJ, 07054

Attention: Amanda Forsburg

Report Date: 03/28/2016

Client Project ID: 100433202

York Project (SDG) No.: 16C0466

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 03/28/2016
Client Project ID: 100433202
York Project (SDG) No.: 16C0466

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive
Parsipanny NJ, 07054
Attention: Amanda Forsburg

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on March 10, 2016 and listed below. The project was identified as your project: **100433202**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16C0466-01	01/LSB-3	Soil	03/09/2016	03/10/2016
16C0466-02	02/DUP	Soil	03/09/2016	03/10/2016
16C0466-03	03/LSB-3	Soil	03/09/2016	03/10/2016
16C0466-04	04/FB20160309	Water	03/09/2016	03/10/2016
16C0466-05	05/TB20160309	Water	03/09/2016	03/10/2016

General Notes for York Project (SDG) No.: 16C0466

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 03/28/2016





Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0466

100433202

Soil

March 9, 2016 11:15 am

03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.059	0.12	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C	03/15/2016 09:54	03/15/2016 14:33	BK
								Certifications:	NELAC-NY10854,NJDEP		



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-93-3	2-Butanone	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
591-78-6	2-Hexanone	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
67-64-1	Acetone	ND		mg/kg dry	0.0059	0.012	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
107-02-8	Acrolein	ND		mg/kg dry	0.0059	0.012	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
71-43-2	Benzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
108-86-1	Bromobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-25-2	Bromoform	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
74-83-9	Bromomethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-00-3	Chloroethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
67-66-3	Chloroform	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
74-87-3	Chloromethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
110-82-7	Cyclohexane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
79-20-9	Methyl acetate	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-09-2	Methylene chloride	ND		mg/kg dry	0.0059	0.012	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
95-47-6	o-Xylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/15/2016 09:54	03/15/2016 14:33	BK
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0059	0.012	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/15/2016 09:54	03/15/2016 14:33	BK
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
100-42-5	Styrene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0059	0.012	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
108-88-3	Toluene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 14:33	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0029	0.0059	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0088	0.018	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 14:33	BK
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %		77-125							
2037-26-5	Surrogate: Toluene-d8	97.6 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	90.5 %		76-130							

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1'-Biphenyl	0.897	J	mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.943	1.88	20	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 22:34	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 22:34	KH
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 22:34	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.943	1.88	20	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.943	1.88	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-58-7	2-Chloronaphthalene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
91-57-6	2-Methylnaphthalene	2.20		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-48-7	2-Methylphenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.943	1.88	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.943	1.88	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.943	1.88	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.943	1.88	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.943	1.88	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
83-32-9	Acenaphthene	0.573	J	mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
208-96-8	Acenaphthylene	2.41		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
98-86-2	Acetophenone	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP			
62-53-3	Aniline	ND		mg/kg dry	1.89	3.78	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
120-12-7	Anthracene	1.91		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1912-24-9	Atrazine	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP			
100-52-7	Benzaldehyde	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP			
92-87-5	Benzidine	ND		mg/kg dry	1.89	3.78	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854			



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
56-55-3	Benzo(a)anthracene	7.18		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
50-32-8	Benzo(a)pyrene	4.42		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
205-99-2	Benzo(b)fluoranthene	5.87		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
191-24-2	Benzo(g,h,i)perylene	2.66		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
207-08-9	Benzo(k)fluoranthene	5.64		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65-85-0	Benzoic acid	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP			
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
85-68-7	Benzyl butyl phthalate	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-81-7	Bis(2-ethylhexyl)phthalate	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-60-2	Caprolactam	ND		mg/kg dry	0.943	1.88	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP			
86-74-8	Carbazole	2.86		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
218-01-9	Chrysene	8.63		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53-70-3	Dibenzo(a,h)anthracene	1.03		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
132-64-9	Dibenzofuran	5.16		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
84-74-2	Di-n-butyl phthalate	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-84-0	Di-n-octyl phthalate	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
206-44-0	Fluoranthene	25.5		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-73-7	Fluorene	1.89		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D	03/15/2016 07:11	03/16/2016 22:34	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
67-72-1	Hexachloroethane	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
193-39-5	Indeno(1,2,3-cd)pyrene	2.93		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
78-59-1	Isophorone	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
91-20-3	Naphthalene	3.35		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
98-95-3	Nitrobenzene	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 22:34	KH
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
85-01-8	Phenanthrene	29.5		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
108-95-2	Phenol	ND		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
129-00-0	Pyrene	15.7		mg/kg dry	0.473	0.943	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
110-86-1	Pyridine	ND		mg/kg dry	1.89	3.78	20	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 22:34	KH
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	56.1 %									
4165-62-2	Surrogate: Phenol-d5	87.4 %									
4165-60-0	Surrogate: Nitrobenzene-d5	75.7 %									
321-60-8	Surrogate: 2-Fluorobiphenyl	116 %	S-01								
118-79-6	Surrogate: 2,4,6-Tribromophenol	92.8 %									
1718-51-0	Surrogate: Terphenyl-d14	76.0 %									

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	0.0597		mg/kg dry	0.00280	0.00280	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/16/2016 07:30	03/17/2016 10:16	AMC
72-55-9	4,4'-DDE	0.0365		mg/kg dry	0.00280	0.00280	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/16/2016 07:30	03/17/2016 10:16	AMC



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	0.0966		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
309-00-2	Aldrin	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
319-84-6	alpha-BHC	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
5103-71-9	alpha-Chlordane	0.0163		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	NELAC-NY10854,NJDEP			
319-85-7	beta-BHC	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
57-74-9	Chlordane, total	0.167		mg/kg dry	0.112	0.112	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
319-86-8	delta-BHC	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
60-57-1	Dieldrin	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
959-98-8	Endosulfan I	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-20-8	Endrin	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
5566-34-7	gamma-Chlordane	0.0160		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	NELAC-NY10854,NJDEP			
76-44-8	Heptachlor	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00280	0.00280	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-43-5	Methoxychlor	ND		mg/kg dry	0.0140	0.0140	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
8001-35-2	Toxaphene	ND		mg/kg dry	0.142	0.142	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:16	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	57.2 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	50.2 %	30-140								



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
11096-82-5	Aroclor 1260	0.0370		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 21:59	AMC
1336-36-3	* Total PCBs	0.0370		mg/kg dry	0.0283	0.0283	1	EPA 8082A Certifications:	03/16/2016 07:30	03/16/2016 21:59	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	55.7 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	54.6 %	30-140								

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	Aluminum	9550		mg/kg dry	5.65	5.65	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-36-0	Antimony	1.48		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-38-2	Arsenic	5.62		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-39-3	Barium	1210		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.113	0.113	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-43-9	Cadmium	0.892		mg/kg dry	0.339	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-70-2	Calcium	55100		mg/kg dry	0.565	5.65	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-47-3	Chromium	22.6		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-48-4	Cobalt	7.83		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-50-8	Copper	47.6		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7439-89-6	Iron	20600		mg/kg dry	2.26	2.26	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV



Sample Information

Client Sample ID: 01/LSB-3

York Sample ID: 16C0466-01

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	977		mg/kg dry	0.339	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7439-95-4	Magnesium	8220		mg/kg dry	5.65	5.65	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7439-96-5	Manganese	467		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-02-0	Nickel	20.6		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-09-7	Potassium	2290		mg/kg dry	5.65	5.65	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7782-49-2	Selenium	1.85		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-22-4	Silver	ND		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-23-5	Sodium	668		mg/kg dry	11.3	11.3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-28-0	Thallium	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-62-2	Vanadium	35.3		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV
7440-66-6	Zinc	757		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:46	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.446		mg/kg dry	0.0339	0.0339	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/15/2016 05:59	03/15/2016 10:12	ALD

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	88.5		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/11/2016 11:17	03/11/2016 16:08	CLS

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.396	0.565	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/15/2016 09:25	03/15/2016 16:45	CLS



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.056	0.11	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-93-3	2-Butanone	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
591-78-6	2-Hexanone	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
67-64-1	Acetone	0.015		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
107-02-8	Acrolein	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
71-43-2	Benzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
108-86-1	Bromobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-25-2	Bromoform	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
74-83-9	Bromomethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-00-3	Chloroethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
67-66-3	Chloroform	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
74-87-3	Chloromethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
110-82-7	Cyclohexane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
79-20-9	Methyl acetate	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-09-2	Methylene chloride	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
95-47-6	o-Xylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/15/2016 09:54	03/15/2016 15:02	BK
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/15/2016 09:54	03/15/2016 15:02	BK
99-87-6	p-Isopropyltoluene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
100-42-5	Styrene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0056	0.011	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
108-88-3	Toluene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:02	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0028	0.0056	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0085	0.017	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:02	BK
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.7 %			77-125						
2037-26-5	Surrogate: Toluene-d8	99.5 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	88.9 %			76-130						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1'-Biphenyl	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.250	0.499	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 23:05	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 23:05	KH
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 23:05	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.250	0.499	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.250	0.499	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0466

100433202

Soil

March 9, 2016 11:15 am

03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-58-7	2-Chloronaphthalene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
91-57-6	2-Methylnaphthalene	0.280		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-48-7	2-Methylphenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.250	0.499	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.250	0.499	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.250	0.499	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.250	0.499	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.250	0.499	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
83-32-9	Acenaphthene	0.238	J	mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
208-96-8	Acenaphthylene	0.413		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
98-86-2	Acetophenone	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP			
62-53-3	Aniline	ND		mg/kg dry	0.500	1.00	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
120-12-7	Anthracene	0.839		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1912-24-9	Atrazine	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP			
100-52-7	Benzaldehyde	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP			
92-87-5	Benzidine	ND		mg/kg dry	0.500	1.00	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854			



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
56-55-3	Benzo(a)anthracene	2.73		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
50-32-8	Benzo(a)pyrene	1.32		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
205-99-2	Benzo(b)fluoranthene	1.30		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
191-24-2	Benzo(g,h,i)perylene	0.621		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
207-08-9	Benzo(k)fluoranthene	1.99		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65-85-0	Benzoic acid	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP			
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
85-68-7	Benzyl butyl phthalate	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-81-7	Bis(2-ethylhexyl)phthalate	6.27		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-60-2	Caprolactam	ND		mg/kg dry	0.250	0.499	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP			
86-74-8	Carbazole	0.767		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
218-01-9	Chrysene	2.25		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53-70-3	Dibenzo(a,h)anthracene	0.341		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
132-64-9	Dibenzofuran	0.793		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
84-74-2	Di-n-butyl phthalate	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-84-0	Di-n-octyl phthalate	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
206-44-0	Fluoranthene	5.34		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-73-7	Fluorene	0.519		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:05	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
67-72-1	Hexachloroethane	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
193-39-5	Indeno(1,2,3-cd)pyrene	0.747		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
78-59-1	Isophorone	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
91-20-3	Naphthalene	0.425		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
98-95-3	Nitrobenzene	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:05	KH
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
85-01-8	Phenanthrene	5.58		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
108-95-2	Phenol	ND		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
129-00-0	Pyrene	4.39		mg/kg dry	0.125	0.250	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
110-86-1	Pyridine	ND		mg/kg dry	0.500	1.00	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:05	KH
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	57.4 %	20-108								
4165-62-2	Surrogate: Phenol-d5	66.7 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	61.2 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	85.7 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	77.3 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	73.8 %	24-116								

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	0.103		mg/kg dry	0.00296	0.00296	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/16/2016 07:30	03/17/2016 10:31	AMC
72-55-9	4,4'-DDE	0.0465		mg/kg dry	0.00296	0.00296	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/16/2016 07:30	03/17/2016 10:31	AMC



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	0.154		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
309-00-2	Aldrin	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
319-84-6	alpha-BHC	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
5103-71-9	alpha-Chlordane	0.0274		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	NELAC-NY10854,NJDEP			
319-85-7	beta-BHC	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
57-74-9	Chlordane, total	0.255		mg/kg dry	0.119	0.119	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
319-86-8	delta-BHC	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
60-57-1	Dieldrin	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
959-98-8	Endosulfan I	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-20-8	Endrin	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
5566-34-7	gamma-Chlordane	0.0250		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	NELAC-NY10854,NJDEP			
76-44-8	Heptachlor	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-43-5	Methoxychlor	ND		mg/kg dry	0.0148	0.0148	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
8001-35-2	Toxaphene	ND		mg/kg dry	0.150	0.150	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:31	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	62.4 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	59.1 %	30-140								



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
11096-82-5	Aroclor 1260	0.0460		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:28	AMC
1336-36-3	* Total PCBs	0.0460		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications:	03/16/2016 07:30	03/16/2016 22:28	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	65.2 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	60.4 %	30-140								

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	Aluminum	9550		mg/kg dry	5.99	5.99	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-36-0	Antimony	ND		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-38-2	Arsenic	6.47		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-39-3	Barium	1440		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.120	0.120	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-43-9	Cadmium	0.831		mg/kg dry	0.359	0.359	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-70-2	Calcium	40400		mg/kg dry	0.599	5.99	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-47-3	Chromium	28.3		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-48-4	Cobalt	9.01		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-50-8	Copper	45.9		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7439-89-6	Iron	27000		mg/kg dry	2.40	2.40	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV



Sample Information

Client Sample ID: 02/DUP

York Sample ID: 16C0466-02

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:15 am

Date Received
03/10/2016

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	3430		mg/kg dry	0.359	0.359	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7439-95-4	Magnesium	8680		mg/kg dry	5.99	5.99	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7439-96-5	Manganese	509		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-02-0	Nickel	20.0		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-09-7	Potassium	1900		mg/kg dry	5.99	5.99	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7782-49-2	Selenium	2.38		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-22-4	Silver	ND		mg/kg dry	0.599	0.599	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-23-5	Sodium	622		mg/kg dry	12.0	12.0	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-28-0	Thallium	ND		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-62-2	Vanadium	34.7		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV
7440-66-6	Zinc	1070		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 18:54	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.480		mg/kg dry	0.0359	0.0359	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/15/2016 05:59	03/15/2016 10:21	ALD

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	83.5		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/11/2016 11:17	03/11/2016 16:08	CLS

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.419	0.599	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/15/2016 09:25	03/15/2016 16:45	CLS



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0466

100433202

Soil

March 9, 2016 11:50 am

03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
79-34-5	1,1,2,2-Tetrachloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
79-00-5	1,1,2-Trichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
563-58-6	1,1-Dichloropropylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
87-61-6	1,2,3-Trichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
96-18-4	1,2,3-Trichloropropane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
96-12-8	1,2-Dibromo-3-chloropropane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
106-93-4	1,2-Dibromoethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
78-87-5	1,2-Dichloropropane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
142-28-9	1,3-Dichloropropane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.046	0.093	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
594-20-7	2,2-Dichloropropane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-93-3	2-Butanone	0.0042	J	mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-49-8	2-Chlorotoluene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	NELAC-NY10854,NJDEP			
591-78-6	2-Hexanone	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
106-43-4	4-Chlorotoluene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	NELAC-NY10854,NJDEP			
108-10-1	4-Methyl-2-pentanone	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
67-64-1	Acetone	0.045		mg/kg dry	0.0046	0.0093	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
107-02-8	Acrolein	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
107-13-1	Acrylonitrile	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
71-43-2	Benzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-86-1	Bromobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	NELAC-NY10854,NJDEP			
74-97-5	Bromochloromethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	NELAC-NY10854,NJDEP			
75-27-4	Bromodichloromethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-25-2	Bromoform	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-83-9	Bromomethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-15-0	Carbon disulfide	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
75-00-3	Chloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
67-66-3	Chloroform	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
74-87-3	Chloromethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
10061-01-5	cis-1,3-Dichloropropylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
110-82-7	Cyclohexane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	NELAC-NY10854,NJDEP			
124-48-1	Dibromochloromethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C	03/15/2016 09:54	03/15/2016 15:32	BK
							Certifications:	NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0466

100433202

Soil

March 9, 2016 11:50 am

03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-71-8	Dichlorodifluoromethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
98-82-8	Isopropylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
79-20-9	Methyl acetate	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
108-87-2	Methylcyclohexane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-09-2	Methylene chloride	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
95-47-6	o-Xylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/15/2016 09:54	03/15/2016 15:32	BK
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	03/15/2016 09:54	03/15/2016 15:32	BK
99-87-6	p-Isopropyltoluene	0.0037	J	mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
100-42-5	Styrene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-65-0	tert-Butyl alcohol (TBA)	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
127-18-4	Tetrachloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
108-88-3	Toluene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
10061-02-6	trans-1,3-Dichloropropylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
79-01-6	Trichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-69-4	Trichlorofluoromethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 09:54	03/15/2016 15:32	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0070	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 09:54	03/15/2016 15:32	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.8 %	77-125								
2037-26-5	Surrogate: Toluene-d8	101 %	85-120								
460-00-4	Surrogate: p-Bromofluorobenzene	86.0 %	76-130								

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1'-Biphenyl	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		mg/kg dry	0.249	0.498	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
120-82-1	1,2,4-Trichlorobenzene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 23:37	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 23:37	KH
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 07:11	03/16/2016 23:37	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		mg/kg dry	0.249	0.498	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
95-95-4	2,4,5-Trichlorophenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
88-06-2	2,4,6-Trichlorophenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
120-83-2	2,4-Dichlorophenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
105-67-9	2,4-Dimethylphenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
51-28-5	2,4-Dinitrophenol	ND		mg/kg dry	0.249	0.498	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
121-14-2	2,4-Dinitrotoluene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
606-20-2	2,6-Dinitrotoluene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0466

100433202

Soil

March 9, 2016 11:50 am

03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-58-7	2-Chloronaphthalene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
95-57-8	2-Chlorophenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
91-57-6	2-Methylnaphthalene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
95-48-7	2-Methylphenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-74-4	2-Nitroaniline	ND		mg/kg dry	0.249	0.498	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
88-75-5	2-Nitrophenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
91-94-1	3,3'-Dichlorobenzidine	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
99-09-2	3-Nitroaniline	ND		mg/kg dry	0.249	0.498	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
534-52-1	4,6-Dinitro-2-methylphenol	ND		mg/kg dry	0.249	0.498	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
101-55-3	4-Bromophenyl phenyl ether	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
59-50-7	4-Chloro-3-methylphenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
106-47-8	4-Chloroaniline	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
7005-72-3	4-Chlorophenyl phenyl ether	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
100-01-6	4-Nitroaniline	ND		mg/kg dry	0.249	0.498	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
100-02-7	4-Nitrophenol	ND		mg/kg dry	0.249	0.498	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
83-32-9	Acenaphthene	0.255		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
208-96-8	Acenaphthylene	0.323		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
98-86-2	Acetophenone	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP			
62-53-3	Aniline	ND		mg/kg dry	0.499	0.999	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
120-12-7	Anthracene	0.983		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1912-24-9	Atrazine	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP			
100-52-7	Benzaldehyde	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP			
92-87-5	Benzidine	ND		mg/kg dry	0.499	0.999	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854			



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
56-55-3	Benzo(a)anthracene	2.21		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
50-32-8	Benzo(a)pyrene	0.967		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
205-99-2	Benzo(b)fluoranthene	1.12		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
191-24-2	Benzo(g,h,i)perylene	0.524		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
207-08-9	Benzo(k)fluoranthene	1.46		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
65-85-0	Benzoic acid	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP			
100-51-6	Benzyl alcohol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
85-68-7	Benzyl butyl phthalate	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-91-1	Bis(2-chloroethoxy)methane	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
111-44-4	Bis(2-chloroethyl)ether	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
108-60-1	Bis(2-chloroisopropyl)ether	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-81-7	Bis(2-ethylhexyl)phthalate	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
105-60-2	Caprolactam	ND		mg/kg dry	0.249	0.498	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP			
86-74-8	Carbazole	0.714		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
218-01-9	Chrysene	1.90		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53-70-3	Dibenzo(a,h)anthracene	0.345		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
132-64-9	Dibenzofuran	0.590		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
84-66-2	Diethyl phthalate	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
131-11-3	Dimethyl phthalate	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
84-74-2	Di-n-butyl phthalate	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
117-84-0	Di-n-octyl phthalate	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
206-44-0	Fluoranthene	5.17		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
86-73-7	Fluorene	0.445		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	NELAC-NY10854,NJDEP,PADEP			
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D	03/15/2016 07:11	03/16/2016 23:37	KH
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
77-47-4	Hexachlorocyclopentadiene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
67-72-1	Hexachloroethane	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
193-39-5	Indeno(1,2,3-cd)pyrene	0.588		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
78-59-1	Isophorone	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
91-20-3	Naphthalene	0.227	J	mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
98-95-3	Nitrobenzene	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
62-75-9	N-Nitrosodimethylamine	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
621-64-7	N-nitroso-di-n-propylamine	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
86-30-6	N-Nitrosodiphenylamine	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 07:11	03/16/2016 23:37	KH
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
85-01-8	Phenanthrene	5.20		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
108-95-2	Phenol	ND		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
129-00-0	Pyrene	3.32		mg/kg dry	0.125	0.249	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
110-86-1	Pyridine	ND		mg/kg dry	0.499	0.999	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:11	03/16/2016 23:37	KH
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	50.3 %	20-108								
4165-62-2	Surrogate: Phenol-d5	66.3 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	57.6 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	79.9 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	68.5 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	56.4 %	24-116								

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	0.0138		mg/kg dry	0.00296	0.00296	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/16/2016 07:30	03/17/2016 10:46	AMC
72-55-9	4,4'-DDE	0.0147		mg/kg dry	0.00296	0.00296	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/16/2016 07:30	03/17/2016 10:46	AMC



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	0.0769		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
309-00-2	Aldrin	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
319-84-6	alpha-BHC	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
5103-71-9	alpha-Chlordane	0.0105		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	NELAC-NY10854,NJDEP			
319-85-7	beta-BHC	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
57-74-9	Chlordane, total	0.147		mg/kg dry	0.118	0.118	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
319-86-8	delta-BHC	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
60-57-1	Dieldrin	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
959-98-8	Endosulfan I	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-20-8	Endrin	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
7421-93-4	Endrin aldehyde	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
53494-70-5	Endrin ketone	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
5566-34-7	gamma-Chlordane	0.00942		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	NELAC-NY10854,NJDEP			
76-44-8	Heptachlor	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
1024-57-3	Heptachlor epoxide	ND		mg/kg dry	0.00296	0.00296	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
72-43-5	Methoxychlor	ND		mg/kg dry	0.0148	0.0148	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP			
8001-35-2	Toxaphene	ND		mg/kg dry	0.150	0.150	5	EPA 8081B	03/16/2016 07:30	03/17/2016 10:46	AMC
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	59.5 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	55.1 %	30-140								



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/16/2016 07:30	03/16/2016 22:57	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0299	0.0299	1	EPA 8082A Certifications:	03/16/2016 07:30	03/16/2016 22:57	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	52.2 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	50.7 %	30-140								

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	Aluminum	8530		mg/kg dry	5.98	5.98	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-36-0	Antimony	ND		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-38-2	Arsenic	3.44		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-39-3	Barium	207		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.120	0.120	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.359	0.359	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-70-2	Calcium	62100		mg/kg dry	0.598	5.98	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-47-3	Chromium	24.1		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-48-4	Cobalt	7.08		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-50-8	Copper	35.6		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7439-89-6	Iron	14800		mg/kg dry	2.39	2.39	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV



Sample Information

Client Sample ID: 03/LSB-3

York Sample ID: 16C0466-03

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Soil

Collection Date/Time
March 9, 2016 11:50 am

Date Received
03/10/2016

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	206		mg/kg dry	0.359	0.359	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7439-95-4	Magnesium	6840		mg/kg dry	5.98	5.98	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7439-96-5	Manganese	238		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-02-0	Nickel	18.2		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-09-7	Potassium	1470		mg/kg dry	5.98	5.98	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7782-49-2	Selenium	ND		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-22-4	Silver	ND		mg/kg dry	0.598	0.598	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-23-5	Sodium	567		mg/kg dry	12.0	12.0	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-28-0	Thallium	ND		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-62-2	Vanadium	30.8		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV
7440-66-6	Zinc	163		mg/kg dry	1.20	1.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:05	03/14/2016 19:02	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.627		mg/kg dry	0.0359	0.0359	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	03/15/2016 05:59	03/15/2016 10:31	ALD

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	83.6		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	03/11/2016 11:17	03/11/2016 16:08	CLS

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.419	0.598	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854	03/15/2016 09:25	03/15/2016 16:45	CLS



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16C0466

100433202

Water

March 9, 2016 12:55 pm

03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
95-63-6	1,2,4-Trimethylbenzene	2.5		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
108-67-8	1,3,5-Trimethylbenzene	0.58		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
67-64-1	Acetone	5.3	B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
108-87-2	Methylcyclohexane	1.0		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	03/15/2016 08:12	03/15/2016 17:12	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	03/15/2016 08:12	03/15/2016 17:12	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	03/15/2016 08:12	03/15/2016 17:12	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %			69-130						
2037-26-5	Surrogate: Toluene-d8	97.7 %			81-117						
460-00-4	Surrogate: p-Bromofluorobenzene	88.0 %			79-122						

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1'-Biphenyl	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
120-83-2	2,4-Dichlorophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
105-67-9	2,4-Dimethylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
51-28-5	2,4-Dinitrophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 14:32	03/16/2016 15:13	KH
606-20-2	2,6-Dinitrotoluene	16.7		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
91-58-7	2-Chloronaphthalene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
95-57-8	2-Chlorophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-57-6	2-Methylnaphthalene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 14:32	03/16/2016 15:13	KH
95-48-7	2-Methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
88-74-4	2-Nitroaniline	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 14:32	03/16/2016 15:13	KH
88-75-5	2-Nitrophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
91-94-1	3,3'-Dichlorobenzidine	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
99-09-2	3-Nitroaniline	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
106-47-8	4-Chloroaniline	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
100-01-6	4-Nitroaniline	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
100-02-7	4-Nitrophenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
83-32-9	Acenaphthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
98-86-2	Acetophenone	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
62-53-3	Aniline	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
120-12-7	Anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
1912-24-9	Atrazine	ND		ug/L	0.571	0.571	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
100-52-7	Benzaldehyde	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
92-87-5	Benzidine	ND		ug/L	11.4	22.9	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
65-85-0	Benzoic acid	ND		ug/L	28.6	57.1	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
100-51-6	Benzyl alcohol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
85-68-7	Benzyl butyl phthalate	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/L	0.571	0.571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
105-60-2	Caprolactam	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
86-74-8	Carbazole	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
87-68-3	Hexachlorobutadiene	ND		ug/L	0.571	0.571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
218-01-9	Chrysene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
132-64-9	Dibenzofuran	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
84-66-2	Diethyl phthalate	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
131-11-3	Dimethyl phthalate	5.66	J	ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
84-74-2	Di-n-butyl phthalate	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
117-84-0	Di-n-octyl phthalate	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
91-20-3	Naphthalene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
206-44-0	Fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
86-73-7	Fluorene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0229	0.0229	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
77-47-4	Hexachlorocyclopentadiene	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
67-72-1	Hexachloroethane	ND		ug/L	0.571	0.571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
78-59-1	Isophorone	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 14:32	03/16/2016 15:13	KH
98-95-3	Nitrobenzene	ND		ug/L	0.286	0.286	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
62-75-9	N-Nitrosodimethylamine	ND		ug/L	0.571	0.571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
621-64-7	N-nitroso-di-n-propylamine	7.12		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
87-86-5	Pentachlorophenol	ND		ug/L	0.286	0.286	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
85-01-8	Phenanthrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: NELAC-NY10854	03/15/2016 14:32	03/16/2016 12:02	SR
108-95-2	Phenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
129-00-0	Pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 12:02	SR
110-86-1	Pyridine	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 14:32	03/16/2016 15:13	KH
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	15.8 %									
4165-62-2	Surrogate: Phenol-d5	9.72 %	S-08								
4165-60-0	Surrogate: Nitrobenzene-d5	76.8 %									
321-60-8	Surrogate: 2-Fluorobiphenyl	77.5 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	48.7 %									
1718-51-0	Surrogate: Terphenyl-d14	97.1 %									

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
309-00-2	Aldrin	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
319-85-7	beta-BHC	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
57-74-9	Chlordane, total	ND		ug/L	0.0432	0.0432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
319-86-8	delta-BHC	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
60-57-1	Dieldrin	ND		ug/L	0.00216	0.00216	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
72-20-8	Endrin	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
7421-93-4	Endrin aldehyde	ND		ug/L	0.0108	0.0108	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
53494-70-5	Endrin ketone	ND		ug/L	0.0108	0.0108	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
5566-34-7	gamma-Chlordane	ND		ug/L	0.0108	0.0108	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
76-44-8	Heptachlor	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
1024-57-3	Heptachlor epoxide	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
72-43-5	Methoxychlor	ND		ug/L	0.00432	0.00432	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
8001-35-2	Toxaphene	ND		ug/L	0.108	0.108	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 06:25	03/15/2016 11:34	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	48.5 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	70.6 %	30-120								



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/15/2016 06:25	03/15/2016 19:23	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0541	0.0541	1	EPA 8082A Certifications:	03/15/2016 06:25	03/15/2016 19:23	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	43.3 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	50.2 %	30-120								

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	Aluminum	ND		ug/L	56	56	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-36-0	Antimony	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-39-3	Barium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-70-2	Calcium	182		ug/L	56	56	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-48-4	Cobalt	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-50-8	Copper	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7439-89-6	Iron	145		ug/L	22	22	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV



Sample Information

Client Sample ID: 04/FB20160309

York Sample ID: 16C0466-04

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:55 pm

Date Received
03/10/2016

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7439-95-4	Magnesium	ND		ug/L	56	56	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7439-96-5	Manganese	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-09-7	Potassium	ND		ug/L	56	56	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-23-5	Sodium	173		ug/L	111	111	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-28-0	Thallium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-62-2	Vanadium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV
7440-66-6	Zinc	14		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/14/2016 08:11	03/14/2016 16:57	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/15/2016 07:49	03/15/2016 18:35	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-02	mg/L	0.0100	0.0100	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP	03/11/2016 17:03	03/11/2016 17:33	CLS

Sample Information

Client Sample ID: 05/TB20160309

York Sample ID: 16C0466-05

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:00 am

Date Received
03/10/2016



Sample Information

Client Sample ID: 05/TB20160309

York Sample ID: 16C0466-05

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:00 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOO	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
95-63-6	1,2,4-Trimethylbenzene	0.31	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS



Sample Information

Client Sample ID: 05/TB20160309

York Sample ID: 16C0466-05

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:00 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS



Sample Information

Client Sample ID: 05/TB20160309

York Sample ID: 16C0466-05

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:00 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	03/15/2016 08:12	03/15/2016 17:41	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	03/15/2016 08:12	03/15/2016 17:41	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS
108-05-4	Vinyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	03/15/2016 08:12	03/15/2016 17:41	SS



Sample Information

Client Sample ID: 05/TB20160309

York Sample ID: 16C0466-05

York Project (SDG) No.
16C0466

Client Project ID
100433202

Matrix
Water

Collection Date/Time
March 9, 2016 12:00 am

Date Received
03/10/2016

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C	03/15/2016 08:12	03/15/2016 17:41	SS
							Certifications:	CTDOH,NELAC-NY10854,NJDEP			
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C	03/15/2016 08:12	03/15/2016 17:41	SS
							Certifications:	CTDOH,NJDEP			
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	103 %		69-130							
2037-26-5	Surrogate: Toluene-d8	99.1 %		81-117							
460-00-4	Surrogate: p-Bromofluorobenzene	99.0 %		79-122							



Case Narrative

Client: Langan Engineering & Environmental Services (NJ)

Client Project ID: 100433202

Prepared for: Amanda Forsburg

Introduction

This Case Narrative applies only to the following samples submitted to our laboratory on **3/10/2016 7:54:00 PM** :

01/LSB-3	Soil
02/DUP	Soil
03/LSB-3	Soil
04/FB20160309	Water
05/TB20160309	Water

The 5 sample(s) were received intact in a custody-sealed cooler(s) unless otherwise noted. Upon receipt, cooler temperature(s) was determined using a NIST traceable digital infrared thermometer. The cooler temperature(s) was acceptable (2-6oC) and documented as:

Cooler 3 C

Chain-of-custody was maintained from receipt through analysis in the laboratory.

Methodology

All preparation and analyses were conducted according to the methods referenced in the body of the lab report.

Sample and Analysis Qualifiers

01/LSB-3	Soil	Qualifiers
Semi-Volatiles, 8270 - Comprehensive - 2-Fluorobiphenyl - The surrogate recovery for this sample may not be available due to sample dilution required from high analyte concentration and/or matrix interferences.		
02/DUP	Soil	No Qualifiers
03/LSB-3	Soil	No Qualifiers
04/FB20160309	Water	Qualifiers
Chromium, Hexavalent - NON-COMPLIANT-This sample was received outside the EPA recommended holding time.		
Semi-Volatiles, 8270 - Comprehensive - Phenol-d5 - The recovery of this surrogate was outside of QC limits.		
05/TB20160309	Water	No Qualifiers

QC Sample Non-Conformances

Any QC sample (LCS, MS, etc.) non-conformances are detailed on the attached pages to this narrative.



York Project/SDG no.: 16C0466 Statement

We certify that these data are in compliance with SOP requirements both technically and for completeness for other than the conditions stated above. Release of the data contained in the hard copy report and any electronic deliverables has been authorized by the Laboratory Manager as verified by the signature on this laboratory report.

Approved by: Ben Gulizia
Laboratory Director

Date: March 28, 2016

York Analytical Laboratories, Inc.

Formulae Used for Sample Calculations

VOLATILE ORGANICS

1. Volatiles in Air-ppbv

Cx (ppbv) = Compound concentration, ppbv (parts per billion by volume)

$$C_x = \frac{(A_x)(C_{is})(DF)}{(A_{is})(RRF)}$$

2. Volatiles in Air-ug/m3

Cx (ug/m3) = Compound concentration in ug/m3

$$C_x (\text{ug/m}^3) = \frac{(\text{ppbv} \times \text{Molecular wt.})}{(24.040)}$$

3. Volatile Organics (water and soil), ug/L or ug/kG

Soils/Waters

$$C_x = \frac{(A_x)(IS)(DF)}{(A_{is})(RRF)(V)(\% \text{solids})}$$

Medium Level Soils

$$C_x = \frac{(A_x)(IS)(VT)(1000)(DF)}{(A_{is})(RRF)(VA)(V)(\% \text{solids})}$$

4. Semi-Volatiles (waters and soils)

$$C_x = \frac{(A_x)(IS)(VE)(DF)}{(A_{is})(RRF)(\text{Volume injected, uL})(V)(\% \text{solids})}$$



5. Pesticides/PCB (waters and soils), DRO, CTETPH

$$C_x = \frac{(A_x)(V_E)(D_F)}{(C_F)(\text{Volume injected, uL})(V)(\% \text{solids})}$$

WHERE:

C_x = concentration of analyte as ug/L or ug/kg

A_x = Area of the characteristic ion for the compound to be measured, counts.

A_{is} = Area of the characteristic ion for the specific internal standard, counts.

IS = Concentration of the internal standard spiking mixture, ng

RRF = Mean relative response factor from the initial calibration.

DF = Dilution factor calculated as described in section 2. If no dilution is performed, DF = 1

V = Volume for liquids in ml, weight for soils/solids in grams.

V_A = volume of MeOH aliquot for medium level soils

V_E = final volume of concentrated extract

V_T = volume of MeOH for volatiles medium level soils

C_F = calibration factor for external calibration used in GC pest/pcb

C_{is} = Concentration of the internal standard spiking mixture, ppbv



Non-Conformance Data Summary

Laboratory: York Analytical Laboratories, Inc. Client: Langan Engineering & Environmental Services (

Project: 100433202 Lab Project No: 16C0466

Laboratory Sample ID(s): 16C0466-01 - 16C0466-05 Sampling Date(s): 03/09/2016 - 03/09/2016

Review Date(s): 12/30/1899 - 03/28/2016 Laboratory Reviewer(s): MS

QC Sample Nonconformances

Batch ID: BC60766 Affected Samples: See Batch Summary **Volatiles**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BC60766-BS1	Vinyl acetate - 108-05-4	88 ug/L	LCS	175	67-136	High Bias				
BC60766-BSD1	Vinyl acetate - 108-05-4	84 ug/L	LCS Dup	169	67-136	High Bias	3.86	30		

Batch ID: BC60771 Affected Samples: See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BC60771-BS1	Vinyl acetate - 108-05-4	11 ug/L	LCS	109	21-90	High Bias				
BC60771-BSD1	Vinyl acetate - 108-05-4	12 ug/L	LCS Dup	117	21-90	High Bias	7.28	30		

Batch ID: BC60754 Affected Samples: See Batch Summary **Semi-Volatiles**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BC60754-BS1	Acetophenone - 98-86-2	0.887 mg/kg w	LCS	26.6	28-105	Low Bias				
BC60754-BS1	Caprolactam - 105-60-2	0.0533 mg/kg	LCS	1.60	10-123	Low Bias				
BC60754-BSD1	Acetophenone - 98-86-2	0.879 mg/kg w	LCS Dup	26.4	28-105	Low Bias	0.982	30		
BC60754-BSD1	Caprolactam - 105-60-2	0.0493 mg/kg	LCS Dup	1.48	10-123	Low Bias	7.79	30		
BC60754-BSD1	N-Nitrosodimethylamine - 62-75-9	0.476 mg/kg w	LCS Dup	28.6	10-124		30.3	30	Non-dir.	
BC60754-BSD1	Pyridine - 110-86-1	0.433 mg/kg w	LCS Dup	26.0	10-92		30.3	30	Non-dir.	

**Batch ID:** BC60798**Affected Samples:****See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BC60798-BS1	2,3,4,6-Tetrachlorophenol - 58-90-2	69.2 ug/L	LCS	138	30-130	High Bias				
BC60798-BS1	4-Nitrophenol - 100-02-7	2.52 ug/L	LCS	5.04	10-112	Low Bias				
BC60798-BS1	Acetophenone - 98-86-2	40.4 ug/L	LCS	40.4	47-92	Low Bias				
BC60798-BS1	Atrazine - 1912-24-9	42.9 ug/L	LCS	42.9	43-101	Low Bias				
BC60798-BS1	Caprolactam - 105-60-2	5.38 ug/L	LCS	5.38	10-29	Low Bias				
BC60798-BS1	Surrogate: Nitrobenzene-d5	49.9 ug/L	Surrogate	99.3	12-96	High Bias				
BC60798-BS1	Surrogate: 2-Fluorobiphenyl	51.9 ug/L	Surrogate	103	16-84	High Bias				
BC60798-BS1	Surrogate: Terphenyl-d14	60.9 ug/L	Surrogate	122	15-106	High Bias				
BC60798-BSD1	1,1'-Biphenyl - 92-52-4	44.6 ug/L	LCS Dup		21-102	Low Bias	20.9	20	Non-dir.	
BC60798-BSD1	2,3,4,6-Tetrachlorophenol - 58-90-2	81.9 ug/L	LCS Dup	164	30-130	High Bias	16.9	20		
BC60798-BSD1	4,6-Dinitro-2-methylphenol - 534-52-1	50.6 ug/L	LCS Dup	101	10-135		28.9	20	Non-dir.	
BC60798-BSD1	4-Nitrophenol - 100-02-7	3.93 ug/L	LCS Dup	7.86	10-112	Low Bias	43.7	20	Non-dir.	
BC60798-BSD1	Benzo(g,h,i)perylene - 191-24-2	21.6 ug/L	LCS Dup	43.3	10-163		26.2	20	Non-dir.	
BC60798-BSD1	Bis(2-chloroisopropyl)ether - 108-60-1	62.5 ug/L	LCS Dup	125	21-124	High Bias	5.59	20		
BC60798-BSD1	Caprolactam - 105-60-2	6.41 ug/L	LCS Dup	6.41	10-29	Low Bias	17.5	20		
BC60798-BSD1	Hexachlorocyclopentadiene - 77-47-4	21.6 ug/L	LCS Dup	43.3	10-99		44.5	20	Non-dir.	
BC60798-BSD1	N-Nitrosodiphenylamine - 86-30-6	53.9 ug/L	LCS Dup	108	27-145		21.6	20	Non-dir.	
BC60798-BSD1	Surrogate: Nitrobenzene-d5	50.5 ug/L	Surrogate	101	12-96	High Bias				
BC60798-BSD1	Surrogate: 2-Fluorobiphenyl	52.5 ug/L	Surrogate	105	16-84	High Bias				
BC60798-BSD1	Surrogate: Terphenyl-d14	57.6 ug/L	Surrogate	115	15-106	High Bias				

Batch ID: BC60702**Affected Samples:****See Batch Summary Metals**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BC60702-SRM1	Aluminum - 7429-90-5	0.654 ug/mL	Reference	121	79.6-120.4	High Bias				

Batch ID: Y6C1501**Affected Samples:****See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y6C1501-CCV2	Potassium - 7440-09-7	5.72 ug/mL	Calibration Check	114	90-110	High Bias				
Y6C1501-CCV4	Potassium - 7440-09-7	5.53 ug/mL	Calibration Check	111	90-110	High Bias				
Y6C1501-CRL1	Zinc - 7440-66-6	0.025 ug/mL	Instrument RL Check	495	70-130	High Bias				
Y6C1501-CRL2	Aluminum - 7429-90-5	0.097 ug/mL	Instrument RL Check	194	70-130	High Bias				
Y6C1501-CRL2	Calcium - 7440-70-2	0.159 ug/mL	Instrument RL Check	159	70-130	High Bias				



Batch ID: Y6C1502

Affected Samples:

See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y6C1502-CCV4	Potassium - 7440-09-7	5.53 ug/mL	Calibration Check	111	90-110	High Bias				
Y6C1502-CCV5	Potassium - 7440-09-7	5.51 ug/mL	Calibration Check	110	90-110	High Bias				
Y6C1502-CRL1	Zinc - 7440-66-6	0.025 ug/mL	Instrument RL Check	495	70-130	High Bias				
Y6C1502-CRL2	Aluminum - 7429-90-5	0.097 ug/mL	Instrument RL Check	194	70-130	High Bias				
Y6C1502-CRL2	Calcium - 7440-70-2	0.159 ug/mL	Instrument RL Check	159	70-130	High Bias				



Batch ID: BC60702

General Method: Metals by ICP

YORK Sample ID

Client Sample ID

16C0466-04	04/FB20160309
BC60702-BLK1	Blank
BC60702-SRM1	Reference

Batch ID: BC60754

General Method: Semivolatile Organic Compounds by GC/MS

YORK Sample ID

Client Sample ID

16C0466-01	01/LSB-3
16C0466-02	02/DUP
16C0466-03	03/LSB-3
BC60754-BLK1	Blank
BC60754-BS1	LCS
BC60754-BSD1	LCS Dup

Batch ID: BC60766

General Method: Volatile Organic Compounds by GC/MS

YORK Sample ID

Client Sample ID

16C0466-01	01/LSB-3
16C0466-02	02/DUP
16C0466-03	03/LSB-3
BC60766-BLK1	Blank
BC60766-BS1	LCS
BC60766-BSD1	LCS Dup

Batch ID: BC60771

General Method: Volatile Organic Compounds by GC/MS

YORK Sample ID

Client Sample ID

16C0466-04	04/FB20160309
16C0466-05	05/TB20160309
BC60771-BLK1	Blank
BC60771-BS1	LCS
BC60771-BSD1	LCS Dup

Batch ID: BC60798

General Method: Semivolatile Organic Compounds by GC/MS

YORK Sample ID

Client Sample ID

16C0466-04	04/FB20160309
BC60798-BLK1	Blank
BC60798-BLK2	Blank
BC60798-BS1	LCS
BC60798-BS2	LCS
BC60798-BSD1	LCS Dup



Laboratory: York Analytical Laboratories, Inc.
Project: 100433202
Laboratory Sample ID(s): 16C0466-01 - 16C0466-05
Review Date(s): 12/30/1899 - 03/28/2016

Client: Langan Engineering & Environmental Services (L)
Lab Project No: 16C0466
Sampling Date(s): 03/09/2016 - 03/09/2016
Laboratory Reviewer(s): MS

Sample Nonconformances Semivolatile Organic Compounds by GC/MS

Sample ID	Analyte	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Comments
16C0466-01 (01/LSB-3)	Surrogate: 2-Fluorobiphenyl	2.20 mg/kg dry	Surrogate	116	21-113	High Bias				The surrogate recovery for this sample may not be available due to sample dilution required from high analyte concentration and/or matrix interferences.

Sample ID	Analyte	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Comments
16C0466-04 (04/FB20160309)	Surrogate: Phenol-d5	8.34 ug/L	Surrogate	9.72	10-82	Low Bias				The recovery of this surrogate was outside of QC limits.

Notes: Other RCP nonconformances, if any, are detailed in the Data Quality Assessment worksheets.

For multiple surrogate analyses such as semi-volatiles, volatiles, etc, single surrogate excursions do not necessarily indicate a bias in the sample. Samples with multiple surrogate excursions may exhibit a bias in the results.

Definitions: LCS - Laboratory Control Sample
LCS dup - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
BS - Blank Spike also called LCS
BSD - Blank Spike Duplicate also called LCS dup
SRM - Standard Reference Material
DUP - Duplicate



Analytical Batch Summary

Batch ID: BC60641 **Preparation Method:** % Solids Prep **Prepared By:** CLS

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/11/16
16C0466-02	02/DUP	03/11/16
16C0466-03	03/LSB-3	03/11/16

Batch ID: BC60662 **Preparation Method:** Analysis Preparation **Prepared By:** CLS

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-04	04/FB20160309	03/11/16
BC60662-BLK1	Blank	03/11/16
BC60662-BS1	LCS	03/11/16

Batch ID: BC60698 **Preparation Method:** EPA 3050B **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/14/16
16C0466-02	02/DUP	03/14/16
16C0466-03	03/LSB-3	03/14/16
BC60698-BLK1	Blank	03/14/16
BC60698-SRM1	Reference	03/14/16

Batch ID: BC60702 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-04	04/FB20160309	03/14/16
BC60702-BLK1	Blank	03/14/16
BC60702-SRM1	Reference	03/14/16

Batch ID: BC60748 **Preparation Method:** EPA 7473 soil **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/15/16
16C0466-02	02/DUP	03/15/16
16C0466-03	03/LSB-3	03/15/16
BC60748-BLK1	Blank	03/15/16
BC60748-SRM1	Reference	03/15/16

Batch ID: BC60750 **Preparation Method:** EPA SW846-3510C Low Level **Prepared By:** TFD

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-04	04/FB20160309	03/15/16
16C0466-04	04/FB20160309	03/15/16
BC60750-BLK1	Blank	03/15/16



BC60750-BLK2	Blank	03/15/16
BC60750-BS1	LCS	03/15/16
BC60750-BS2	LCS	03/15/16
BC60750-BSD1	LCS Dup	03/15/16
BC60750-BSD2	LCS Dup	03/15/16

Batch ID: BC60754 **Preparation Method:** EPA 3550C **Prepared By:** TB

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/15/16
16C0466-02	02/DUP	03/15/16
16C0466-03	03/LSB-3	03/15/16
BC60754-BLK1	Blank	03/15/16
BC60754-BS1	LCS	03/15/16
BC60754-BSD1	LCS Dup	03/15/16

Batch ID: BC60762 **Preparation Method:** EPA 7473 water **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-04	04/FB20160309	03/15/16
BC60762-BLK1	Blank	03/15/16
BC60762-DUP1	Duplicate	03/15/16
BC60762-MS1	Matrix Spike	03/15/16
BC60762-SRM1	Reference	03/15/16

Batch ID: BC60766 **Preparation Method:** EPA 5035A **Prepared By:** BGS

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/15/16
16C0466-02	02/DUP	03/15/16
16C0466-03	03/LSB-3	03/15/16
BC60766-BLK1	Blank	03/15/16
BC60766-BS1	LCS	03/15/16
BC60766-BSD1	LCS Dup	03/15/16

Batch ID: BC60771 **Preparation Method:** EPA 5030B **Prepared By:** BGS

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-04	04/FB20160309	03/15/16
16C0466-05	05/TB20160309	03/15/16
BC60771-BLK1	Blank	03/15/16
BC60771-BS1	LCS	03/15/16
BC60771-BSD1	LCS Dup	03/15/16

Batch ID: BC60777 **Preparation Method:** EPA SW846-3060 **Prepared By:** SC

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/15/16



16C0466-02	02/DUP	03/15/16
16C0466-03	03/LSB-3	03/15/16
BC60777-BLK1	Blank	03/15/16
BC60777-SRM1	Reference	03/15/16

Batch ID: BC60798 **Preparation Method:** EPA 3510C **Prepared By:** RDS

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-04	04/FB20160309	03/15/16
BC60798-BLK1	Blank	03/15/16
BC60798-BLK2	Blank	03/15/16
BC60798-BS1	LCS	03/15/16
BC60798-BS2	LCS	03/15/16
BC60798-BSD1	LCS Dup	03/15/16

Batch ID: BC60827 **Preparation Method:** EPA 3545A **Prepared By:** KNN

YORK Sample ID	Client Sample ID	Preparation Date
16C0466-01	01/LSB-3	03/16/16
16C0466-01	01/LSB-3	03/16/16
16C0466-02	02/DUP	03/16/16
16C0466-02	02/DUP	03/16/16
16C0466-03	03/LSB-3	03/16/16
16C0466-03	03/LSB-3	03/16/16
BC60827-BLK1	Blank	03/16/16
BC60827-BLK2	Blank	03/16/16
BC60827-BS1	LCS	03/16/16
BC60827-BS3	LCS	03/16/16
BC60827-BSD3	LCS Dup	03/16/16



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60766 - EPA 5035A

Blank (BC60766-BLK1)

Prepared & Analyzed: 03/15/2016

1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,1-Trichloroethane	ND	0.0050	"
1,1,2,2-Tetrachloroethane	ND	0.0050	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0050	"
1,1,2-Trichloroethane	ND	0.0050	"
1,1-Dichloroethane	ND	0.0050	"
1,1-Dichloroethylene	ND	0.0050	"
1,1-Dichloropropylene	ND	0.0050	"
1,2,3-Trichlorobenzene	ND	0.0050	"
1,2,3-Trichloropropane	ND	0.0050	"
1,2,4-Trichlorobenzene	ND	0.0050	"
1,2,4-Trimethylbenzene	ND	0.0050	"
1,2-Dibromo-3-chloropropane	ND	0.0050	"
1,2-Dibromoethane	ND	0.0050	"
1,2-Dichlorobenzene	ND	0.0050	"
1,2-Dichloroethane	ND	0.0050	"
1,2-Dichloropropane	ND	0.0050	"
1,3,5-Trimethylbenzene	ND	0.0050	"
1,3-Dichlorobenzene	ND	0.0050	"
1,3-Dichloropropane	ND	0.0050	"
1,4-Dichlorobenzene	ND	0.0050	"
1,4-Dioxane	ND	0.10	"
2,2-Dichloropropane	ND	0.0050	"
2-Butanone	ND	0.0050	"
2-Chlorotoluene	ND	0.0050	"
2-Hexanone	ND	0.0050	"
4-Chlorotoluene	ND	0.0050	"
4-Methyl-2-pentanone	ND	0.0050	"
Acetone	ND	0.010	"
Acrolein	ND	0.010	"
Acrylonitrile	ND	0.0050	"
Benzene	ND	0.0050	"
Bromobenzene	ND	0.0050	"
Bromochloromethane	ND	0.0050	"
Bromodichloromethane	ND	0.0050	"
Bromoform	ND	0.0050	"
Bromomethane	ND	0.0050	"
Carbon disulfide	ND	0.0050	"
Carbon tetrachloride	ND	0.0050	"
Chlorobenzene	ND	0.0050	"
Chloroethane	ND	0.0050	"
Chloroform	ND	0.0050	"
Chloromethane	ND	0.0050	"
cis-1,2-Dichloroethylene	ND	0.0050	"
cis-1,3-Dichloropropylene	ND	0.0050	"
Cyclohexane	ND	0.0050	"
Dibromochloromethane	ND	0.0050	"
Dibromomethane	ND	0.0050	"
Dichlorodifluoromethane	ND	0.0050	"
Ethyl Benzene	ND	0.0050	"



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60766 - EPA 5035A

Blank (BC60766-BLK1)

Prepared & Analyzed: 03/15/2016

Hexachlorobutadiene	ND	0.0050	mg/kg wet
Isopropylbenzene	ND	0.0050	"
Methyl acetate	ND	0.0050	"
Methyl tert-butyl ether (MTBE)	ND	0.0050	"
Methylcyclohexane	ND	0.0050	"
Methylene chloride	ND	0.010	"
n-Butylbenzene	ND	0.0050	"
n-Propylbenzene	ND	0.0050	"
o-Xylene	ND	0.0050	"
p- & m- Xylenes	ND	0.010	"
p-Isopropyltoluene	ND	0.0050	"
sec-Butylbenzene	ND	0.0050	"
Styrene	ND	0.0050	"
tert-Butyl alcohol (TBA)	ND	0.010	"
tert-Butylbenzene	ND	0.0050	"
Tetrachloroethylene	ND	0.0050	"
Toluene	ND	0.0050	"
trans-1,2-Dichloroethylene	ND	0.0050	"
trans-1,3-Dichloropropylene	ND	0.0050	"
Trichloroethylene	ND	0.0050	"
Trichlorofluoromethane	ND	0.0050	"
Vinyl acetate	ND	0.0050	"
Vinyl Chloride	ND	0.0050	"
Xylenes, Total	ND	0.015	"

Surrogate: 1,2-Dichloroethane-d4	50.4	ug/L	50.0	101	77-125
Surrogate: Toluene-d8	49.2	"	50.0	98.4	85-120
Surrogate: p-Bromofluorobenzene	44.3	"	50.0	88.5	76-130



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60766 - EPA 5035A											
LCS (BC60766-BS1)						Prepared & Analyzed: 03/15/2016					
1,1,1,2-Tetrachloroethane	54		ug/L	50.0		107	75-129				
1,1,1-Trichloroethane	51		"	50.0		102	71-137				
1,1,2,2-Tetrachloroethane	56		"	50.0		113	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	54		"	50.0		108	58-146				
1,1,2-Trichloroethane	56		"	50.0		111	83-123				
1,1-Dichloroethane	56		"	50.0		111	75-130				
1,1-Dichloroethylene	49		"	50.0		97.5	64-137				
1,1-Dichloropropylene	54		"	50.0		108	77-127				
1,2,3-Trichlorobenzene	55		"	50.0		110	81-140				
1,2,3-Trichloropropane	53		"	50.0		106	81-126				
1,2,4-Trichlorobenzene	55		"	50.0		110	80-141				
1,2,4-Trimethylbenzene	50		"	50.0		99.5	84-125				
1,2-Dibromo-3-chloropropane	55		"	50.0		111	74-142				
1,2-Dibromoethane	54		"	50.0		108	86-123				
1,2-Dichlorobenzene	54		"	50.0		109	85-122				
1,2-Dichloroethane	51		"	50.0		102	71-133				
1,2-Dichloropropane	53		"	50.0		106	81-122				
1,3,5-Trimethylbenzene	49		"	50.0		98.9	82-126				
1,3-Dichlorobenzene	53		"	50.0		107	84-124				
1,3-Dichloropropane	55		"	50.0		111	83-123				
1,4-Dichlorobenzene	52		"	50.0		103	84-124				
1,4-Dioxane	1600		"	1000		165	10-228				
2,2-Dichloropropane	51		"	50.0		103	67-136				
2-Butanone	58		"	50.0		116	58-147				
2-Chlorotoluene	50		"	50.0		101	78-127				
2-Hexanone	60		"	50.0		120	70-139				
4-Chlorotoluene	49		"	50.0		97.8	79-125				
4-Methyl-2-pentanone	61		"	50.0		121	72-132				
Acetone	54		"	50.0		108	36-155				
Acrolein	100		"	50.0		202	10-238				
Acrylonitrile	60		"	50.0		121	66-141				
Benzene	54		"	50.0		109	77-127				
Bromobenzene	49		"	50.0		97.7	77-129				
Bromochloromethane	56		"	50.0		111	74-129				
Bromodichloromethane	52		"	50.0		103	81-124				
Bromoform	53		"	50.0		107	80-136				
Bromomethane	44		"	50.0		87.6	32-177				
Carbon disulfide	53		"	50.0		105	10-136				
Carbon tetrachloride	49		"	50.0		98.1	66-143				
Chlorobenzene	54		"	50.0		109	86-120				
Chloroethane	54		"	50.0		108	51-142				
Chloroform	53		"	50.0		107	76-131				
Chloromethane	52		"	50.0		104	49-132				
cis-1,2-Dichloroethylene	54		"	50.0		108	74-132				
cis-1,3-Dichloropropylene	52		"	50.0		104	81-129				
Cyclohexane	58		"	50.0		116	70-130				
Dibromochloromethane	54		"	50.0		108	10-200				
Dibromomethane	53		"	50.0		106	83-124				
Dichlorodifluoromethane	45		"	50.0		89.8	28-158				
Ethyl Benzene	50		"	50.0		99.9	84-125				
Hexachlorobutadiene	50		"	50.0		99.8	83-133				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60766 - EPA 5035A

LCS (BC60766-BS1)

Prepared & Analyzed: 03/15/2016

Isopropylbenzene	51		ug/L	50.0		102	81-127				
Methyl acetate	62		"	50.0		125	41-143				
Methyl tert-butyl ether (MTBE)	53		"	50.0		106	74-131				
Methylcyclohexane	56		"	50.0		112	70-130				
Methylene chloride	51		"	50.0		101	57-141				
n-Butylbenzene	50		"	50.0		101	80-130				
n-Propylbenzene	51		"	50.0		103	74-136				
o-Xylene	51		"	50.0		103	83-123				
p- & m- Xylenes	98		"	100		98.2	82-128				
p-Isopropyltoluene	50		"	50.0		99.9	85-125				
sec-Butylbenzene	52		"	50.0		104	83-125				
Styrene	52		"	50.0		104	86-126				
tert-Butyl alcohol (TBA)	64		"	50.0		128	70-130				
tert-Butylbenzene	51		"	50.0		103	80-127				
Tetrachloroethylene	52		"	50.0		104	80-129				
Toluene	52		"	50.0		104	85-121				
trans-1,2-Dichloroethylene	54		"	50.0		108	72-132				
trans-1,3-Dichloropropylene	51		"	50.0		101	78-132				
Trichloroethylene	54		"	50.0		107	84-123				
Trichlorofluoromethane	48		"	50.0		96.5	62-140				
Vinyl acetate	88		"	50.0		175	67-136	High Bias			
Vinyl Chloride	52		"	50.0		104	52-130				

Surrogate: 1,2-Dichloroethane-d4

47.6

"

50.0

95.2

77-125

Surrogate: Toluene-d8

48.1

"

50.0

96.3

85-120

Surrogate: p-Bromofluorobenzene

48.6

"

50.0

97.2

76-130

LCS Dup (BC60766-BS1)

Prepared & Analyzed: 03/15/2016

1,1,1,2-Tetrachloroethane	54		ug/L	50.0		108	75-129		1.17	30
1,1,1-Trichloroethane	49		"	50.0		98.2	71-137		3.87	30
1,1,2,2-Tetrachloroethane	57		"	50.0		113	79-129		0.513	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	54		"	50.0		107	58-146		0.633	30
1,1,2-Trichloroethane	56		"	50.0		112	83-123		0.788	30
1,1-Dichloroethane	54		"	50.0		108	75-130		2.46	30
1,1-Dichloroethylene	48		"	50.0		96.4	64-137		1.13	30
1,1-Dichloropropylene	54		"	50.0		109	77-127		1.22	30
1,2,3-Trichlorobenzene	54		"	50.0		108	81-140		1.96	30
1,2,3-Trichloropropane	54		"	50.0		108	81-126		1.27	30
1,2,4-Trichlorobenzene	53		"	50.0		107	80-141		3.05	30
1,2,4-Trimethylbenzene	50		"	50.0		99.7	84-125		0.221	30
1,2-Dibromo-3-chloropropane	54		"	50.0		108	74-142		2.08	30
1,2-Dibromoethane	54		"	50.0		108	86-123		0.0743	30
1,2-Dichlorobenzene	54		"	50.0		109	85-122		0.0735	30
1,2-Dichloroethane	51		"	50.0		102	71-133		0.452	30
1,2-Dichloropropane	55		"	50.0		110	81-122		3.15	30
1,3,5-Trimethylbenzene	49		"	50.0		98.8	82-126		0.121	30
1,3-Dichlorobenzene	54		"	50.0		107	84-124		0.485	30
1,3-Dichloropropane	55		"	50.0		111	83-123		0.0903	30
1,4-Dichlorobenzene	53		"	50.0		106	84-124		2.35	30
1,4-Dioxane	1600		"	1000		159	10-228		3.76	30
2,2-Dichloropropane	51		"	50.0		101	67-136		1.59	30
2-Butanone	55		"	50.0		109	58-147		5.78	30
2-Chlorotoluene	50		"	50.0		101	78-127		0.258	30



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60766 - EPA 5035A											
LCS Dup (BC60766-BSD1)						Prepared & Analyzed: 03/15/2016					
2-Hexanone	58		ug/L	50.0		115	70-139		4.07	30	
4-Chlorotoluene	49		"	50.0		98.7	79-125		0.855	30	
4-Methyl-2-pentanone	56		"	50.0		112	72-132		7.97	30	
Acetone	49		"	50.0		97.2	36-155		10.7	30	
Acrolein	97		"	50.0		193	10-238		4.39	30	
Acrylonitrile	57		"	50.0		114	66-141		5.44	30	
Benzene	54		"	50.0		108	77-127		1.27	30	
Bromobenzene	50		"	50.0		100	77-129		2.43	30	
Bromochloromethane	54		"	50.0		109	74-129		2.07	30	
Bromodichloromethane	54		"	50.0		108	81-124		4.08	30	
Bromoform	53		"	50.0		106	80-136		0.507	30	
Bromomethane	46		"	50.0		91.7	32-177		4.64	30	
Carbon disulfide	50		"	50.0		99.2	10-136		5.72	30	
Carbon tetrachloride	48		"	50.0		96.2	66-143		2.00	30	
Chlorobenzene	55		"	50.0		111	86-120		1.82	30	
Chloroethane	53		"	50.0		106	51-142		2.60	30	
Chloroform	52		"	50.0		103	76-131		3.18	30	
Chloromethane	50		"	50.0		100	49-132		3.12	30	
cis-1,2-Dichloroethylene	56		"	50.0		111	74-132		3.09	30	
cis-1,3-Dichloropropylene	53		"	50.0		107	81-129		2.77	30	
Cyclohexane	53		"	50.0		106	70-130		9.48	30	
Dibromochloromethane	54		"	50.0		108	10-200		0.575	30	
Dibromomethane	53		"	50.0		107	83-124		1.15	30	
Dichlorodifluoromethane	40		"	50.0		80.5	28-158		10.9	30	
Ethyl Benzene	50		"	50.0		101	84-125		0.956	30	
Hexachlorobutadiene	51		"	50.0		101	83-133		1.21	30	
Isopropylbenzene	52		"	50.0		104	81-127		1.75	30	
Methyl acetate	60		"	50.0		120	41-143		3.78	30	
Methyl tert-butyl ether (MTBE)	51		"	50.0		103	74-131		2.90	30	
Methylcyclohexane	56		"	50.0		112	70-130		0.268	30	
Methylene chloride	49		"	50.0		98.0	57-141		3.27	30	
n-Butylbenzene	50		"	50.0		100	80-130		0.577	30	
n-Propylbenzene	52		"	50.0		104	74-136		1.30	30	
o-Xylene	52		"	50.0		104	83-123		1.30	30	
p- & m- Xylenes	99		"	100		98.6	82-128		0.335	30	
p-Isopropyltoluene	51		"	50.0		102	85-125		2.47	30	
sec-Butylbenzene	52		"	50.0		105	83-125		0.806	30	
Styrene	53		"	50.0		105	86-126		1.57	30	
tert-Butyl alcohol (TBA)	57		"	50.0		114	70-130		11.5	30	
tert-Butylbenzene	52		"	50.0		103	80-127		0.738	30	
Tetrachloroethylene	52		"	50.0		103	80-129		1.02	30	
Toluene	52		"	50.0		103	85-121		0.174	30	
trans-1,2-Dichloroethylene	53		"	50.0		106	72-132		1.52	30	
trans-1,3-Dichloropropylene	50		"	50.0		101	78-132		0.673	30	
Trichloroethylene	53		"	50.0		105	84-123		1.68	30	
Trichlorofluoromethane	47		"	50.0		93.3	62-140		3.35	30	
Vinyl acetate	84		"	50.0		169	67-136	High Bias	3.86	30	
Vinyl Chloride	52		"	50.0		104	52-130		0.0578	30	
Surrogate: 1,2-Dichloroethane-d4	46.6		"	50.0		93.3	77-125				
Surrogate: Toluene-d8	48.9		"	50.0		97.8	85-120				
Surrogate: p-Bromofluorobenzene	49.2		"	50.0		98.3	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60771 - EPA 5030B

Blank (BC60771-BLK1)

Prepared & Analyzed: 03/15/2016

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L
1,1,1-Trichloroethane	ND	0.50	"
1,1,2,2-Tetrachloroethane	ND	0.50	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"
1,1,2-Trichloroethane	ND	0.50	"
1,1-Dichloroethane	ND	0.50	"
1,1-Dichloroethylene	ND	0.50	"
1,1-Dichloropropylene	ND	0.50	"
1,2,3-Trichlorobenzene	ND	0.50	"
1,2,3-Trichloropropane	ND	0.50	"
1,2,4-Trichlorobenzene	ND	0.50	"
1,2,4-Trimethylbenzene	ND	0.50	"
1,2-Dibromo-3-chloropropane	ND	2.0	"
1,2-Dibromoethane	ND	0.50	"
1,2-Dichlorobenzene	ND	0.50	"
1,2-Dichloroethane	ND	0.50	"
1,2-Dichloropropane	ND	0.50	"
1,3,5-Trimethylbenzene	ND	0.50	"
1,3-Dichlorobenzene	ND	0.50	"
1,3-Dichloropropane	ND	0.50	"
1,4-Dichlorobenzene	ND	0.50	"
1,4-Dioxane	ND	80	"
2,2-Dichloropropane	ND	0.50	"
2-Butanone	ND	0.50	"
2-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	2.0	"
4-Chlorotoluene	ND	0.50	"
4-Methyl-2-pentanone	ND	0.50	"
Acetone	2.2	2.0	"
Acrolein	ND	0.50	"
Acrylonitrile	ND	2.0	"
Benzene	ND	0.50	"
Bromobenzene	ND	0.50	"
Bromochloromethane	ND	0.50	"
Bromodichloromethane	ND	0.50	"
Bromoform	ND	0.50	"
Bromomethane	ND	0.50	"
Carbon disulfide	ND	0.50	"
Carbon tetrachloride	ND	0.50	"
Chlorobenzene	ND	0.50	"
Chloroethane	ND	0.50	"
Chloroform	ND	0.50	"
Chloromethane	ND	0.50	"
cis-1,2-Dichloroethylene	ND	0.50	"
cis-1,3-Dichloropropylene	ND	0.50	"
Cyclohexane	ND	0.50	"
Dibromochloromethane	ND	0.50	"
Dibromomethane	ND	0.50	"
Dichlorodifluoromethane	ND	0.50	"
Ethyl Benzene	ND	0.50	"
Hexachlorobutadiene	ND	0.50	"



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60771 - EPA 5030B

Blank (BC60771-BLK1)

Prepared & Analyzed: 03/15/2016

Isopropylbenzene	ND	0.50	ug/L
Methyl acetate	ND	0.50	"
Methyl tert-butyl ether (MTBE)	ND	0.50	"
Methylcyclohexane	ND	0.50	"
Methylene chloride	ND	2.0	"
n-Butylbenzene	ND	0.50	"
n-Propylbenzene	ND	0.50	"
o-Xylene	ND	0.50	"
p- & m- Xylenes	ND	1.0	"
p-Isopropyltoluene	ND	0.50	"
sec-Butylbenzene	ND	0.50	"
Styrene	ND	0.50	"
tert-Butyl alcohol (TBA)	ND	2.0	"
tert-Butylbenzene	ND	0.50	"
Tetrachloroethylene	ND	0.50	"
Toluene	ND	0.50	"
trans-1,2-Dichloroethylene	ND	0.50	"
trans-1,3-Dichloropropylene	ND	0.50	"
Trichloroethylene	ND	0.50	"
Trichlorofluoromethane	ND	0.50	"
Vinyl acetate	ND	0.50	"
Vinyl Chloride	ND	0.50	"
Xylenes, Total	ND	1.5	"

Surrogate: 1,2-Dichloroethane-d4

10.7

"

10.0

107

69-130

Surrogate: Toluene-d8

9.76

"

10.0

97.6

81-117

Surrogate: p-Bromofluorobenzene

9.93

"

10.0

99.3

79-122

LCS (BC60771-BS1)

Prepared & Analyzed: 03/15/2016

1,1,1,2-Tetrachloroethane	11		ug/L	10.0	113	82-126
1,1,1-Trichloroethane	12		"	10.0	125	78-136
1,1,2,2-Tetrachloroethane	9.4		"	10.0	94.0	76-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12		"	10.0	123	54-165
1,1,2-Trichloroethane	9.9		"	10.0	99.3	82-123
1,1-Dichloroethane	11		"	10.0	115	82-129
1,1-Dichloroethylene	12		"	10.0	120	68-138
1,1-Dichloropropylene	12		"	10.0	117	83-133
1,2,3-Trichlorobenzene	9.6		"	10.0	96.0	76-136
1,2,3-Trichloropropane	9.9		"	10.0	98.9	77-128
1,2,4-Trichlorobenzene	10		"	10.0	105	76-137
1,2,4-Trimethylbenzene	11		"	10.0	110	82-132
1,2-Dibromo-3-chloropropane	8.5		"	10.0	85.1	45-147
1,2-Dibromoethane	9.9		"	10.0	99.1	83-124
1,2-Dichlorobenzene	11		"	10.0	109	79-123
1,2-Dichloroethane	12		"	10.0	118	73-132
1,2-Dichloropropane	10		"	10.0	103	78-126
1,3,5-Trimethylbenzene	11		"	10.0	110	80-131
1,3-Dichlorobenzene	12		"	10.0	116	86-122
1,3-Dichloropropane	10		"	10.0	101	81-125
1,4-Dichlorobenzene	12		"	10.0	115	85-124
1,4-Dioxane	140		"	200	72.3	10-349
2,2-Dichloropropane	13		"	10.0	129	56-150
2-Butanone	6.5		"	10.0	65.2	49-152



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60771 - EPA 5030B											
LCS (BC60771-BS1)						Prepared & Analyzed: 03/15/2016					
2-Chlorotoluene	12		ug/L	10.0		117	79-130				
2-Hexanone	6.8		"	10.0		67.5	51-146				
4-Chlorotoluene	12		"	10.0		119	79-128				
4-Methyl-2-pentanone	9.8		"	10.0		97.6	57-145				
Acetone	10		"	10.0		101	14-150				
Acrolein	8.7		"	10.0		87.0	10-153				
Acrylonitrile	8.4		"	10.0		83.6	51-150				
Benzene	11		"	10.0		114	85-126				
Bromobenzene	10		"	10.0		102	78-129				
Bromochloromethane	11		"	10.0		113	77-128				
Bromodichloromethane	11		"	10.0		106	79-128				
Bromoform	9.8		"	10.0		97.5	78-133				
Bromomethane	5.7		"	10.0		57.1	43-168				
Carbon disulfide	11		"	10.0		113	68-146				
Carbon tetrachloride	13		"	10.0		126	77-141				
Chlorobenzene	11		"	10.0		114	88-120				
Chloroethane	12		"	10.0		116	65-136				
Chloroform	12		"	10.0		117	82-128				
Chloromethane	10		"	10.0		101	43-155				
cis-1,2-Dichloroethylene	12		"	10.0		118	83-129				
cis-1,3-Dichloropropylene	10		"	10.0		104	80-131				
Cyclohexane	12		"	10.0		118	63-149				
Dibromochloromethane	11		"	10.0		107	80-130				
Dibromomethane	10		"	10.0		99.6	72-134				
Dichlorodifluoromethane	14		"	10.0		140	44-144				
Ethyl Benzene	11		"	10.0		111	80-131				
Hexachlorobutadiene	11		"	10.0		114	67-146				
Isopropylbenzene	12		"	10.0		118	76-140				
Methyl acetate	10		"	10.0		102	51-139				
Methyl tert-butyl ether (MTBE)	11		"	10.0		110	76-135				
Methylcyclohexane	11		"	10.0		106	72-143				
Methylene chloride	11		"	10.0		115	55-137				
n-Butylbenzene	11		"	10.0		111	79-132				
n-Propylbenzene	12		"	10.0		118	78-133				
o-Xylene	12		"	10.0		117	78-130				
p- & m- Xylenes	23		"	20.0		116	77-133				
p-Isopropyltoluene	11		"	10.0		114	81-136				
sec-Butylbenzene	12		"	10.0		120	79-137				
Styrene	10		"	10.0		105	67-132				
tert-Butyl alcohol (TBA)	8.3		"	10.0		83.4	25-162				
tert-Butylbenzene	12		"	10.0		117	77-138				
Tetrachloroethylene	11		"	10.0		110	82-131				
Toluene	11		"	10.0		108	80-127				
trans-1,2-Dichloroethylene	12		"	10.0		117	80-132				
trans-1,3-Dichloropropylene	10		"	10.0		103	78-131				
Trichloroethylene	11		"	10.0		108	82-128				
Trichlorofluoromethane	13		"	10.0		132	67-139				
Vinyl acetate	11		"	10.0		109	21-90	High Bias			
Vinyl Chloride	11		"	10.0		114	58-145				
Surrogate: 1,2-Dichloroethane-d4	10.6		"	10.0		106	69-130				
Surrogate: Toluene-d8	9.79		"	10.0		97.9	81-117				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60771 - EPA 5030B											
LCS (BC60771-BS1)						Prepared & Analyzed: 03/15/2016					
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.0</i>		<i>ug/L</i>	<i>10.0</i>		<i>100</i>	<i>79-122</i>				
LCS Dup (BC60771-BS1)						Prepared & Analyzed: 03/15/2016					
1,1,1,2-Tetrachloroethane	12		ug/L	10.0		119	82-126		5.17	30	
1,1,1-Trichloroethane	13		"	10.0		128	78-136		2.14	30	
1,1,2,2-Tetrachloroethane	10		"	10.0		104	76-129		9.72	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	13		"	10.0		126	54-165		2.49	30	
1,1,2-Trichloroethane	11		"	10.0		110	82-123		9.86	30	
1,1-Dichloroethane	12		"	10.0		119	82-129		3.68	30	
1,1-Dichloroethylene	12		"	10.0		124	68-138		2.86	30	
1,1-Dichloropropylene	12		"	10.0		119	83-133		1.78	30	
1,2,3-Trichlorobenzene	11		"	10.0		113	76-136		16.3	30	
1,2,3-Trichloropropane	11		"	10.0		109	77-128		9.62	30	
1,2,4-Trichlorobenzene	11		"	10.0		114	76-137		7.96	30	
1,2,4-Trimethylbenzene	11		"	10.0		110	82-132		0.365	30	
1,2-Dibromo-3-chloropropane	9.1		"	10.0		90.6	45-147		6.26	30	
1,2-Dibromoethane	11		"	10.0		110	83-124		10.2	30	
1,2-Dichlorobenzene	11		"	10.0		113	79-123		3.59	30	
1,2-Dichloroethane	12		"	10.0		124	73-132		5.29	30	
1,2-Dichloropropane	11		"	10.0		107	78-126		4.47	30	
1,3,5-Trimethylbenzene	11		"	10.0		111	80-131		1.08	30	
1,3-Dichlorobenzene	12		"	10.0		117	86-122		1.12	30	
1,3-Dichloropropane	11		"	10.0		109	81-125		7.63	30	
1,4-Dichlorobenzene	12		"	10.0		117	85-124		1.98	30	
1,4-Dioxane	180		"	200		89.4	10-349		21.1	30	
2,2-Dichloropropane	13		"	10.0		130	56-150		0.542	30	
2-Butanone	8.2		"	10.0		81.5	49-152		22.2	30	
2-Chlorotoluene	12		"	10.0		117	79-130		0.342	30	
2-Hexanone	8.1		"	10.0		80.6	51-146		17.7	30	
4-Chlorotoluene	12		"	10.0		120	79-128		1.09	30	
4-Methyl-2-pentanone	11		"	10.0		110	57-145		12.2	30	
Acetone	11		"	10.0		113	14-150		10.7	30	
Acrolein	10		"	10.0		100	10-153		14.0	30	
Acrylonitrile	8.8		"	10.0		88.4	51-150		5.58	30	
Benzene	12		"	10.0		119	85-126		3.95	30	
Bromobenzene	11		"	10.0		106	78-129		4.23	30	
Bromochloromethane	12		"	10.0		120	77-128		5.49	30	
Bromodichloromethane	11		"	10.0		112	79-128		6.06	30	
Bromoform	11		"	10.0		109	78-133		10.9	30	
Bromomethane	7.4		"	10.0		74.1	43-168		25.9	30	
Carbon disulfide	11		"	10.0		115	68-146		1.76	30	
Carbon tetrachloride	13		"	10.0		129	77-141		2.66	30	
Chlorobenzene	12		"	10.0		119	88-120		4.73	30	
Chloroethane	12		"	10.0		120	65-136		3.74	30	
Chloroform	12		"	10.0		125	82-128		5.95	30	
Chloromethane	10		"	10.0		102	43-155		0.791	30	
cis-1,2-Dichloroethylene	12		"	10.0		122	83-129		3.35	30	
cis-1,3-Dichloropropylene	11		"	10.0		112	80-131		7.22	30	
Cyclohexane	12		"	10.0		120	63-149		2.27	30	
Dibromochloromethane	12		"	10.0		115	80-130		7.75	30	
Dibromomethane	11		"	10.0		110	72-134		9.47	30	
Dichlorodifluoromethane	14		"	10.0		137	44-144		2.45	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60771 - EPA 5030B

LCS Dup (BC60771-BSD1)						Prepared & Analyzed: 03/15/2016					
Ethyl Benzene	12		ug/L	10.0		115	80-131		3.45	30	
Hexachlorobutadiene	12		"	10.0		121	67-146		5.94	30	
Isopropylbenzene	12		"	10.0		117	76-140		0.682	30	
Methyl acetate	11		"	10.0		109	51-139		6.44	30	
Methyl tert-butyl ether (MTBE)	12		"	10.0		119	76-135		8.02	30	
Methylcyclohexane	11		"	10.0		110	72-143		3.90	30	
Methylene chloride	12		"	10.0		121	55-137		5.01	30	
n-Butylbenzene	11		"	10.0		111	79-132		0.00	30	
n-Propylbenzene	12		"	10.0		118	78-133		0.169	30	
o-Xylene	12		"	10.0		121	78-130		3.53	30	
p- & m- Xylenes	24		"	20.0		121	77-133		4.27	30	
p-Isopropyltoluene	11		"	10.0		112	81-136		1.77	30	
sec-Butylbenzene	12		"	10.0		120	79-137		0.00	30	
Styrene	11		"	10.0		109	67-132		4.11	30	
tert-Butyl alcohol (TBA)	9.5		"	10.0		94.7	25-162		12.7	30	
tert-Butylbenzene	12		"	10.0		117	77-138		0.512	30	
Tetrachloroethylene	11		"	10.0		115	82-131		4.19	30	
Toluene	11		"	10.0		110	80-127		1.83	30	
trans-1,2-Dichloroethylene	12		"	10.0		122	80-132		3.60	30	
trans-1,3-Dichloropropylene	12		"	10.0		115	78-131		11.3	30	
Trichloroethylene	11		"	10.0		112	82-128		3.46	30	
Trichlorofluoromethane	13		"	10.0		134	67-139		1.81	30	
Vinyl acetate	12		"	10.0		117	21-90	High Bias	7.28	30	
Vinyl Chloride	12		"	10.0		117	58-145		2.78	30	
Surrogate: 1,2-Dichloroethane-d4	11.1		"	10.0		111	69-130				
Surrogate: Toluene-d8	9.81		"	10.0		98.1	81-117				
Surrogate: p-Bromofluorobenzene	9.87		"	10.0		98.7	79-122				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60754 - EPA 3550C

Blank (BC60754-BLK1)

Prepared & Analyzed: 03/15/2016

1,1'-Biphenyl	ND	0.0417	mg/kg wet
1,2,4,5-Tetrachlorobenzene	ND	0.0833	"
1,2,4-Trichlorobenzene	ND	0.0417	"
1,2-Dichlorobenzene	ND	0.0417	"
1,2-Diphenylhydrazine (as Azobenzene)	ND	0.0417	"
1,3-Dichlorobenzene	ND	0.0417	"
1,4-Dichlorobenzene	ND	0.0417	"
2,3,4,6-Tetrachlorophenol	ND	0.0833	"
2,4,5-Trichlorophenol	ND	0.0417	"
2,4,6-Trichlorophenol	ND	0.0417	"
2,4-Dichlorophenol	ND	0.0417	"
2,4-Dimethylphenol	ND	0.0417	"
2,4-Dinitrophenol	ND	0.0833	"
2,4-Dinitrotoluene	ND	0.0417	"
2,6-Dinitrotoluene	ND	0.0417	"
2-Chloronaphthalene	ND	0.0417	"
2-Chlorophenol	ND	0.0417	"
2-Methylnaphthalene	ND	0.0417	"
2-Methylphenol	ND	0.0417	"
2-Nitroaniline	ND	0.0833	"
2-Nitrophenol	ND	0.0417	"
3- & 4-Methylphenols	ND	0.0417	"
3,3'-Dichlorobenzidine	ND	0.0417	"
3-Nitroaniline	ND	0.0833	"
4,6-Dinitro-2-methylphenol	ND	0.0833	"
4-Bromophenyl phenyl ether	ND	0.0417	"
4-Chloro-3-methylphenol	ND	0.0417	"
4-Chloroaniline	ND	0.0417	"
4-Chlorophenyl phenyl ether	ND	0.0417	"
4-Nitroaniline	ND	0.0833	"
4-Nitrophenol	ND	0.0833	"
Acenaphthene	ND	0.0417	"
Acenaphthylene	ND	0.0417	"
Acetophenone	ND	0.0417	"
Aniline	ND	0.167	"
Anthracene	ND	0.0417	"
Atrazine	ND	0.0417	"
Benzaldehyde	ND	0.0417	"
Benzidine	ND	0.167	"
Benzo(a)anthracene	ND	0.0417	"
Benzo(a)pyrene	ND	0.0417	"
Benzo(b)fluoranthene	ND	0.0417	"
Benzo(g,h,i)perylene	ND	0.0417	"
Benzo(k)fluoranthene	ND	0.0417	"
Benzoic acid	ND	0.0417	"
Benzyl alcohol	ND	0.0417	"
Benzyl butyl phthalate	ND	0.0417	"
Bis(2-chloroethoxy)methane	ND	0.0417	"
Bis(2-chloroethyl)ether	ND	0.0417	"
Bis(2-chloroisopropyl)ether	ND	0.0417	"
Bis(2-ethylhexyl)phthalate	ND	0.0417	"



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60754 - EPA 3550C

Blank (BC60754-BLK1)

Prepared & Analyzed: 03/15/2016

Caprolactam	ND	0.0833	mg/kg wet
Carbazole	ND	0.0417	"
Chrysene	ND	0.0417	"
Dibenzo(a,h)anthracene	ND	0.0417	"
Dibenzofuran	ND	0.0417	"
Diethyl phthalate	ND	0.0417	"
Dimethyl phthalate	ND	0.0417	"
Di-n-butyl phthalate	ND	0.0417	"
Di-n-octyl phthalate	ND	0.0417	"
Fluoranthene	ND	0.0417	"
Fluorene	ND	0.0417	"
Hexachlorobenzene	ND	0.0417	"
Hexachlorobutadiene	ND	0.0417	"
Hexachlorocyclopentadiene	ND	0.0417	"
Hexachloroethane	ND	0.0417	"
Indeno(1,2,3-cd)pyrene	ND	0.0417	"
Isophorone	ND	0.0417	"
Naphthalene	ND	0.0417	"
Nitrobenzene	ND	0.0417	"
N-Nitrosodimethylamine	ND	0.0417	"
N-nitroso-di-n-propylamine	ND	0.0417	"
N-Nitrosodiphenylamine	ND	0.0417	"
Pentachlorophenol	ND	0.0417	"
Phenanthrene	ND	0.0417	"
Phenol	ND	0.0417	"
Pyrene	ND	0.0417	"
Pyridine	ND	0.167	"

Surrogate: 2-Fluorophenol	0.774	"	2.51	30.9	20-108
Surrogate: Phenol-d5	0.853	"	2.50	34.1	23-114
Surrogate: Nitrobenzene-d5	0.582	"	1.67	34.8	22-108
Surrogate: 2-Fluorobiphenyl	0.593	"	1.67	35.4	21-113
Surrogate: 2,4,6-Tribromophenol	0.645	"	2.51	25.7	19-110
Surrogate: Terphenyl-d14	0.518	"	1.67	31.1	24-116



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60754 - EPA 3550C											
LCS (BC60754-BS1)						Prepared & Analyzed: 03/15/2016					
1,1'-Biphenyl	0.828	0.0417	mg/kg wet				22-103				
1,2,4,5-Tetrachlorobenzene	0.837	0.0833	"	1.67		50.2	10-144				
1,2,4-Trichlorobenzene	0.971	0.0417	"	1.67		58.3	23-130				
1,2-Dichlorobenzene	0.912	0.0417	"	1.67		54.7	26-113				
1,2-Diphenylhydrazine (as Azobenzene)	0.870	0.0417	"	1.67		52.2	10-140				
1,3-Dichlorobenzene	0.866	0.0417	"	1.67		52.0	32-113				
1,4-Dichlorobenzene	0.931	0.0417	"	1.67		55.8	28-111				
2,3,4,6-Tetrachlorophenol	1.61	0.0833	"	1.67		96.5	30-130				
2,4,5-Trichlorophenol	0.899	0.0417	"	1.67		54.0	14-138				
2,4,6-Trichlorophenol	1.02	0.0417	"	1.67		61.4	27-122				
2,4-Dichlorophenol	1.05	0.0417	"	1.67		63.1	23-133				
2,4-Dimethylphenol	0.831	0.0417	"	1.67		49.9	15-131				
2,4-Dinitrophenol	1.37	0.0833	"	1.67		82.2	10-149				
2,4-Dinitrotoluene	1.13	0.0417	"	1.67		68.0	30-123				
2,6-Dinitrotoluene	1.22	0.0417	"	1.67		73.2	30-125				
2-Chloronaphthalene	0.950	0.0417	"	1.67		57.0	22-115				
2-Chlorophenol	0.900	0.0417	"	1.67		54.0	25-121				
2-Methylnaphthalene	0.831	0.0417	"	1.67		49.8	16-127				
2-Methylphenol	0.831	0.0417	"	1.67		49.9	10-146				
2-Nitroaniline	1.04	0.0833	"	1.67		62.3	24-126				
2-Nitrophenol	0.895	0.0417	"	1.67		53.7	17-129				
3- & 4-Methylphenols	0.786	0.0417	"	1.67		47.2	20-109				
3,3'-Dichlorobenzidine	1.23	0.0417	"	1.67		74.0	10-147				
3-Nitroaniline	1.06	0.0833	"	1.67		63.8	23-123				
4,6-Dinitro-2-methylphenol	0.773	0.0833	"	1.67		46.4	10-149				
4-Bromophenyl phenyl ether	0.819	0.0417	"	1.67		49.2	30-138				
4-Chloro-3-methylphenol	0.972	0.0417	"	1.67		58.3	16-138				
4-Chloroaniline	1.07	0.0417	"	1.67		64.1	10-117				
4-Chlorophenyl phenyl ether	0.892	0.0417	"	1.67		53.5	18-132				
4-Nitroaniline	0.791	0.0833	"	1.67		47.4	14-125				
4-Nitrophenol	0.928	0.0833	"	1.67		55.7	10-136				
Acenaphthene	0.919	0.0417	"	1.67		55.1	17-124				
Acenaphthylene	0.901	0.0417	"	1.67		54.1	16-124				
Acetophenone	0.887	0.0417	"	3.33		26.6	28-105	Low Bias			
Aniline	0.628	0.167	"	1.67		37.7	10-111				
Anthracene	0.869	0.0417	"	1.67		52.2	24-124				
Atrazine	0.933	0.0417	"	3.33		28.0	22-120				
Benzaldehyde	0.826	0.0417	"	3.33		24.8	21-100				
Benzo(a)anthracene	1.17	0.0417	"	1.67		70.1	25-134				
Benzo(a)pyrene	1.24	0.0417	"	1.67		74.5	29-144				
Benzo(b)fluoranthene	1.02	0.0417	"	1.67		61.1	20-151				
Benzo(g,h,i)perylene	1.11	0.0417	"	1.67		66.4	10-153				
Benzo(k)fluoranthene	1.05	0.0417	"	1.67		62.9	10-148				
Benzoic acid	0.633	0.0417	"	1.67		38.0	10-116				
Benzyl alcohol	0.848	0.0417	"	1.67		50.9	17-128				
Benzyl butyl phthalate	1.40	0.0417	"	1.67		84.0	10-132				
Bis(2-chloroethoxy)methane	0.859	0.0417	"	1.67		51.5	10-129				
Bis(2-chloroethyl)ether	0.834	0.0417	"	1.67		50.0	14-125				
Bis(2-chloroisopropyl)ether	0.879	0.0417	"	1.67		52.7	14-122				
Bis(2-ethylhexyl)phthalate	1.11	0.0417	"	1.67		66.9	10-141				
Caprolactam	0.0533	0.0833	"	3.33		1.60	10-123	Low Bias			



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60754 - EPA 3550C

LCS (BC60754-BS1)

Prepared & Analyzed: 03/15/2016

Carbazole	0.867	0.0417	mg/kg wet	1.67		52.0	31-120				
Chrysene	1.16	0.0417	"	1.67		69.4	24-116				
Dibenzo(a,h)anthracene	1.04	0.0417	"	1.67		62.3	17-147				
Dibenzofuran	0.954	0.0417	"	1.67		57.3	23-123				
Diethyl phthalate	1.06	0.0417	"	1.67		63.3	23-122				
Dimethyl phthalate	1.13	0.0417	"	1.67		68.1	28-127				
Di-n-butyl phthalate	0.934	0.0417	"	1.67		56.0	19-123				
Di-n-octyl phthalate	1.35	0.0417	"	1.67		81.0	10-132				
Fluoranthene	0.916	0.0417	"	1.67		54.9	36-125				
Fluorene	0.944	0.0417	"	1.67		56.7	16-130				
Hexachlorobenzene	0.899	0.0417	"	1.67		54.0	10-129				
Hexachlorobutadiene	0.958	0.0417	"	1.67		57.5	22-153				
Hexachlorocyclopentadiene	0.748	0.0417	"	1.67		44.9	10-134				
Hexachloroethane	0.874	0.0417	"	1.67		52.4	20-112				
Indeno(1,2,3-cd)pyrene	1.04	0.0417	"	1.67		62.1	10-155				
Isophorone	0.927	0.0417	"	1.67		55.6	14-131				
Naphthalene	0.857	0.0417	"	1.67		51.4	20-121				
Nitrobenzene	0.918	0.0417	"	1.67		55.1	20-121				
N-Nitrosodimethylamine	0.647	0.0417	"	1.67		38.8	10-124				
N-nitroso-di-n-propylamine	0.800	0.0417	"	1.67		48.0	21-119				
N-Nitrosodiphenylamine	0.887	0.0417	"	1.67		53.2	10-163				
Pentachlorophenol	0.635	0.0417	"	1.67		38.1	10-143				
Phenanthrene	0.902	0.0417	"	1.67		54.1	24-123				
Phenol	0.770	0.0417	"	1.67		46.2	15-123				
Pyrene	1.35	0.0417	"	1.67		80.9	24-132				
Pyridine	0.588	0.167	"	1.67		35.3	10-92				
<i>Surrogate: 2-Fluorophenol</i>	<i>1.43</i>		<i>"</i>	<i>2.51</i>		<i>57.2</i>	<i>20-108</i>				
<i>Surrogate: Phenol-d5</i>	<i>1.25</i>		<i>"</i>	<i>2.50</i>		<i>50.0</i>	<i>23-114</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.962</i>		<i>"</i>	<i>1.67</i>		<i>57.5</i>	<i>22-108</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.868</i>		<i>"</i>	<i>1.67</i>		<i>51.9</i>	<i>21-113</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.944</i>		<i>"</i>	<i>2.51</i>		<i>37.6</i>	<i>30-130</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>1.11</i>		<i>"</i>	<i>1.67</i>		<i>66.8</i>	<i>24-116</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60754 - EPA 3550C											
LCS Dup (BC60754-BSD1)						Prepared & Analyzed: 03/15/2016					
1,1'-Biphenyl	0.801	0.0417	mg/kg wet				22-103		3.32	30	
1,2,4,5-Tetrachlorobenzene	0.815	0.0833	"	1.67		48.9	10-144		2.62	30	
1,2,4-Trichlorobenzene	0.886	0.0417	"	1.67		53.2	23-130		9.12	30	
1,2-Dichlorobenzene	0.838	0.0417	"	1.67		50.3	26-113		8.45	30	
1,2-Diphenylhydrazine (as Azobenzene)	0.786	0.0417	"	1.67		47.2	10-140		10.1	30	
1,3-Dichlorobenzene	0.794	0.0417	"	1.67		47.6	32-113		8.67	30	
1,4-Dichlorobenzene	0.847	0.0417	"	1.67		50.8	28-111		9.41	30	
2,3,4,6-Tetrachlorophenol	1.49	0.0833	"	1.67		89.7	30-130		7.37	30	
2,4,5-Trichlorophenol	0.822	0.0417	"	1.67		49.3	14-138		9.03	30	
2,4,6-Trichlorophenol	0.935	0.0417	"	1.67		56.1	27-122		9.02	30	
2,4-Dichlorophenol	0.936	0.0417	"	1.67		56.2	23-133		11.7	30	
2,4-Dimethylphenol	0.745	0.0417	"	1.67		44.7	15-131		11.0	30	
2,4-Dinitrophenol	1.16	0.0833	"	1.67		69.7	10-149		16.5	30	
2,4-Dinitrotoluene	1.04	0.0417	"	1.67		62.5	30-123		8.37	30	
2,6-Dinitrotoluene	1.09	0.0417	"	1.67		65.3	30-125		11.5	30	
2-Chloronaphthalene	0.852	0.0417	"	1.67		51.1	22-115		10.8	30	
2-Chlorophenol	0.817	0.0417	"	1.67		49.0	25-121		9.75	30	
2-Methylnaphthalene	0.788	0.0417	"	1.67		47.3	16-127		5.27	30	
2-Methylphenol	0.736	0.0417	"	1.67		44.2	10-146		12.1	30	
2-Nitroaniline	0.912	0.0833	"	1.67		54.7	24-126		12.9	30	
2-Nitrophenol	0.828	0.0417	"	1.67		49.7	17-129		7.74	30	
3- & 4-Methylphenols	0.723	0.0417	"	1.67		43.4	20-109		8.39	30	
3,3'-Dichlorobenzidine	1.21	0.0417	"	1.67		72.4	10-147		2.21	30	
3-Nitroaniline	0.926	0.0833	"	1.67		55.6	23-123		13.8	30	
4,6-Dinitro-2-methylphenol	0.765	0.0833	"	1.67		45.9	10-149		1.04	30	
4-Bromophenyl phenyl ether	0.760	0.0417	"	1.67		45.6	30-138		7.51	30	
4-Chloro-3-methylphenol	0.879	0.0417	"	1.67		52.8	16-138		10.0	30	
4-Chloroaniline	1.03	0.0417	"	1.67		61.9	10-117		3.52	30	
4-Chlorophenyl phenyl ether	0.832	0.0417	"	1.67		49.9	18-132		7.00	30	
4-Nitroaniline	0.699	0.0833	"	1.67		42.0	14-125		12.3	30	
4-Nitrophenol	0.818	0.0833	"	1.67		49.1	10-136		12.6	30	
Acenaphthene	0.830	0.0417	"	1.67		49.8	17-124		10.2	30	
Acenaphthylene	0.813	0.0417	"	1.67		48.8	16-124		10.3	30	
Acetophenone	0.879	0.0417	"	3.33		26.4	28-105	Low Bias	0.982	30	
Aniline	0.582	0.167	"	1.67		34.9	10-111		7.60	30	
Anthracene	0.808	0.0417	"	1.67		48.5	24-124		7.31	30	
Atrazine	0.911	0.0417	"	3.33		27.3	22-120		2.35	30	
Benzaldehyde	0.795	0.0417	"	3.33		23.8	21-100		3.78	30	
Benzo(a)anthracene	0.991	0.0417	"	1.67		59.5	25-134		16.4	30	
Benzo(a)pyrene	1.20	0.0417	"	1.67		72.3	29-144		3.08	30	
Benzo(b)fluoranthene	1.15	0.0417	"	1.67		68.7	20-151		11.7	30	
Benzo(g,h,i)perylene	0.927	0.0417	"	1.67		55.6	10-153		17.6	30	
Benzo(k)fluoranthene	1.04	0.0417	"	1.67		62.6	10-148		0.414	30	
Benzoic acid	0.708	0.0417	"	1.67		42.5	10-116		11.1	30	
Benzyl alcohol	0.761	0.0417	"	1.67		45.7	17-128		10.7	30	
Benzyl butyl phthalate	1.19	0.0417	"	1.67		71.3	10-132		16.3	30	
Bis(2-chloroethoxy)methane	0.757	0.0417	"	1.67		45.4	10-129		12.6	30	
Bis(2-chloroethyl)ether	0.766	0.0417	"	1.67		46.0	14-125		8.50	30	
Bis(2-chloroisopropyl)ether	0.785	0.0417	"	1.67		47.1	14-122		11.3	30	
Bis(2-ethylhexyl)phthalate	0.930	0.0417	"	1.67		55.8	10-141		18.0	30	
Caprolactam	0.0493	0.0833	"	3.33		1.48	10-123	Low Bias	7.79	30	



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60754 - EPA 3550C											
LCS Dup (BC60754-BSD1)						Prepared & Analyzed: 03/15/2016					
Carbazole	0.808	0.0417	mg/kg wet	1.67		48.5	31-120		7.01	30	
Chrysene	1.02	0.0417	"	1.67		61.1	24-116		12.8	30	
Dibenzo(a,h)anthracene	0.888	0.0417	"	1.67		53.3	17-147		15.5	30	
Dibenzofuran	0.853	0.0417	"	1.67		51.2	23-123		11.3	30	
Diethyl phthalate	0.954	0.0417	"	1.67		57.3	23-122		10.1	30	
Dimethyl phthalate	1.01	0.0417	"	1.67		60.7	28-127		11.4	30	
Di-n-butyl phthalate	0.866	0.0417	"	1.67		51.9	19-123		7.59	30	
Di-n-octyl phthalate	1.19	0.0417	"	1.67		71.5	10-132		12.5	30	
Fluoranthene	0.878	0.0417	"	1.67		52.7	36-125		4.16	30	
Fluorene	0.868	0.0417	"	1.67		52.1	16-130		8.42	30	
Hexachlorobenzene	0.825	0.0417	"	1.67		49.5	10-129		8.62	30	
Hexachlorobutadiene	0.887	0.0417	"	1.67		53.2	22-153		7.73	30	
Hexachlorocyclopentadiene	0.710	0.0417	"	1.67		42.6	10-134		5.26	30	
Hexachloroethane	0.818	0.0417	"	1.67		49.1	20-112		6.58	30	
Indeno(1,2,3-cd)pyrene	0.884	0.0417	"	1.67		53.1	10-155		15.7	30	
Isophorone	0.824	0.0417	"	1.67		49.4	14-131		11.8	30	
Naphthalene	0.779	0.0417	"	1.67		46.7	20-121		9.54	30	
Nitrobenzene	0.819	0.0417	"	1.67		49.1	20-121		11.4	30	
N-Nitrosodimethylamine	0.476	0.0417	"	1.67		28.6	10-124		30.3	30	Non-dir.
N-nitroso-di-n-propylamine	0.727	0.0417	"	1.67		43.6	21-119		9.47	30	
N-Nitrosodiphenylamine	0.832	0.0417	"	1.67		49.9	10-163		6.36	30	
Pentachlorophenol	0.650	0.0417	"	1.67		39.0	10-143		2.34	30	
Phenanthrene	0.850	0.0417	"	1.67		51.0	24-123		5.86	30	
Phenol	0.713	0.0417	"	1.67		42.8	15-123		7.60	30	
Pyrene	1.16	0.0417	"	1.67		69.5	24-132		15.2	30	
Pyridine	0.433	0.167	"	1.67		26.0	10-92		30.3	30	Non-dir.
Surrogate: 2-Fluorophenol	1.29		"	2.51		51.3	20-108				
Surrogate: Phenol-d5	1.15		"	2.50		46.0	23-114				
Surrogate: Nitrobenzene-d5	0.891		"	1.67		53.2	22-108				
Surrogate: 2-Fluorobiphenyl	0.787		"	1.67		47.1	21-113				
Surrogate: 2,4,6-Tribromophenol	0.856		"	2.51		34.1	30-130				
Surrogate: Terphenyl-d14	0.966		"	1.67		58.0	24-116				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

Blank (BC60798-BLK1)

Prepared: 03/15/2016 Analyzed: 03/16/2016

1,1'-Biphenyl	ND	5.00	ug/L
1,2,4,5-Tetrachlorobenzene	ND	5.00	"
1,2-Diphenylhydrazine (as Azobenzene)	ND	5.00	"
2,3,4,6-Tetrachlorophenol	ND	5.00	"
2,4,5-Trichlorophenol	ND	5.00	"
2,4,6-Trichlorophenol	ND	5.00	"
1,2,4-Trichlorobenzene	ND	5.00	"
2,4-Dichlorophenol	ND	5.00	"
2,4-Dimethylphenol	ND	5.00	"
2,4-Dinitrophenol	ND	5.00	"
2,4-Dinitrotoluene	ND	5.00	"
1,2-Dichlorobenzene	ND	5.00	"
2,6-Dinitrotoluene	ND	5.00	"
2-Chloronaphthalene	ND	5.00	"
2-Chlorophenol	ND	5.00	"
2-Methylnaphthalene	ND	5.00	"
1,3-Dichlorobenzene	ND	5.00	"
2-Methylphenol	ND	5.00	"
2-Nitroaniline	ND	5.00	"
1,4-Dichlorobenzene	ND	5.00	"
2-Nitrophenol	ND	5.00	"
3- & 4-Methylphenols	ND	5.00	"
3,3'-Dichlorobenzidine	ND	5.00	"
3-Nitroaniline	ND	5.00	"
4,6-Dinitro-2-methylphenol	ND	5.00	"
4-Bromophenyl phenyl ether	ND	5.00	"
4-Chloro-3-methylphenol	ND	5.00	"
4-Chloroaniline	ND	5.00	"
4-Chlorophenyl phenyl ether	ND	5.00	"
4-Nitroaniline	ND	5.00	"
4-Nitrophenol	ND	5.00	"
Acenaphthene	ND	0.0500	"
Acenaphthylene	ND	0.0500	"
Acetophenone	ND	5.00	"
Aniline	ND	5.00	"
Anthracene	ND	0.0500	"
Atrazine	ND	0.500	"
Benzaldehyde	ND	5.00	"
Benzidine	ND	20.0	"
Benzo(a)anthracene	ND	0.0500	"
Benzo(a)pyrene	ND	0.0500	"
Benzo(b)fluoranthene	ND	0.0500	"
Benzo(g,h,i)perylene	ND	0.0500	"
Benzo(k)fluoranthene	ND	0.0500	"
Benzoic acid	ND	50.0	"
Benzyl alcohol	ND	5.00	"
Benzyl butyl phthalate	ND	5.00	"
Bis(2-chloroethoxy)methane	ND	5.00	"
Bis(2-chloroethyl)ether	ND	5.00	"
Bis(2-chloroisopropyl)ether	ND	5.00	"
Bis(2-ethylhexyl)phthalate	ND	0.500	"



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

Blank (BC60798-BLK1)

Prepared: 03/15/2016 Analyzed: 03/16/2016

Caprolactam	ND	5.00	ug/L
Carbazole	ND	5.00	"
Hexachlorobutadiene	ND	0.500	"
Chrysene	ND	0.0500	"
Dibenzo(a,h)anthracene	ND	0.0500	"
Dibenzofuran	ND	5.00	"
Diethyl phthalate	ND	5.00	"
Dimethyl phthalate	ND	5.00	"
Di-n-butyl phthalate	ND	5.00	"
Di-n-octyl phthalate	ND	5.00	"
Naphthalene	ND	0.0500	"
Fluoranthene	ND	0.0500	"
Fluorene	ND	0.0500	"
Hexachlorobenzene	ND	0.0200	"
Hexachlorocyclopentadiene	ND	5.00	"
Hexachloroethane	ND	0.500	"
Indeno(1,2,3-cd)pyrene	ND	0.0500	"
Isophorone	ND	5.00	"
Nitrobenzene	ND	0.250	"
N-Nitrosodimethylamine	ND	0.500	"
N-nitroso-di-n-propylamine	ND	5.00	"
N-Nitrosodiphenylamine	ND	5.00	"
Pentachlorophenol	ND	0.250	"
Phenanthrene	ND	0.0500	"
Phenol	ND	5.00	"
Pyrene	ND	0.0500	"
Pyridine	ND	5.00	"

Surrogate: 2-Fluorophenol	12.3	"	75.2	16.3	12-64
Surrogate: Phenol-d5	7.58	"	75.1	10.1	10-82
Surrogate: Nitrobenzene-d5	34.3	"	50.2	68.3	12-96
Surrogate: 2-Fluorobiphenyl	35.9	"	50.2	71.4	16-84
Surrogate: 2,4,6-Tribromophenol	33.7	"	75.2	44.8	15-104
Surrogate: Terphenyl-d14	44.1	"	50.0	88.2	15-106



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

Blank (BC60798-BLK2)

Prepared: 03/15/2016 Analyzed: 03/16/2016

1,1'-Biphenyl	ND	5.00	ug/L
1,2,4,5-Tetrachlorobenzene	ND	5.00	"
1,2-Diphenylhydrazine (as Azobenzene)	ND	5.00	"
2,3,4,6-Tetrachlorophenol	ND	5.00	"
2,4,5-Trichlorophenol	ND	5.00	"
2,4,6-Trichlorophenol	ND	5.00	"
1,2,4-Trichlorobenzene	ND	5.00	"
2,4-Dichlorophenol	ND	5.00	"
2,4-Dimethylphenol	ND	5.00	"
2,4-Dinitrophenol	ND	5.00	"
2,4-Dinitrotoluene	ND	5.00	"
1,2-Dichlorobenzene	ND	5.00	"
2,6-Dinitrotoluene	ND	5.00	"
2-Chloronaphthalene	ND	5.00	"
2-Chlorophenol	ND	5.00	"
2-Methylnaphthalene	ND	5.00	"
1,3-Dichlorobenzene	ND	5.00	"
2-Methylphenol	ND	5.00	"
2-Nitroaniline	ND	5.00	"
1,4-Dichlorobenzene	ND	5.00	"
2-Nitrophenol	ND	5.00	"
3- & 4-Methylphenols	ND	5.00	"
3,3'-Dichlorobenzidine	ND	5.00	"
3-Nitroaniline	ND	5.00	"
4,6-Dinitro-2-methylphenol	ND	5.00	"
4-Bromophenyl phenyl ether	ND	5.00	"
4-Chloro-3-methylphenol	ND	5.00	"
4-Chloroaniline	ND	5.00	"
4-Chlorophenyl phenyl ether	ND	5.00	"
4-Nitroaniline	ND	5.00	"
4-Nitrophenol	ND	5.00	"
Acenaphthene	ND	0.0500	"
Acenaphthylene	ND	0.0500	"
Acetophenone	ND	5.00	"
Aniline	ND	5.00	"
Anthracene	ND	0.0500	"
Atrazine	ND	0.500	"
Benzaldehyde	ND	5.00	"
Benzidine	ND	20.0	"
Benzo(a)anthracene	ND	0.0500	"
Benzo(a)pyrene	ND	0.0500	"
Benzo(b)fluoranthene	ND	0.0500	"
Benzo(g,h,i)perylene	ND	0.0500	"
Benzo(k)fluoranthene	ND	0.0500	"
Benzoic acid	ND	50.0	"
Benzyl alcohol	ND	5.00	"
Benzyl butyl phthalate	ND	5.00	"
Bis(2-chloroethoxy)methane	ND	5.00	"
Bis(2-chloroethyl)ether	ND	5.00	"
Bis(2-chloroisopropyl)ether	ND	5.00	"
Bis(2-ethylhexyl)phthalate	ND	0.500	"



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

Blank (BC60798-BLK2)

Prepared: 03/15/2016 Analyzed: 03/16/2016

Caprolactam	ND	5.00	ug/L
Carbazole	ND	5.00	"
Hexachlorobutadiene	ND	0.500	"
Chrysene	ND	0.0500	"
Dibenzo(a,h)anthracene	ND	0.0500	"
Dibenzofuran	ND	5.00	"
Diethyl phthalate	ND	5.00	"
Dimethyl phthalate	ND	5.00	"
Di-n-butyl phthalate	ND	5.00	"
Di-n-octyl phthalate	ND	5.00	"
Naphthalene	ND	0.0500	"
Fluoranthene	ND	0.0500	"
Fluorene	ND	0.0500	"
Hexachlorobenzene	ND	0.0200	"
Hexachlorocyclopentadiene	ND	5.00	"
Hexachloroethane	ND	0.500	"
Indeno(1,2,3-cd)pyrene	ND	0.0500	"
Isophorone	ND	5.00	"
Nitrobenzene	ND	0.250	"
N-Nitrosodimethylamine	ND	0.500	"
N-nitroso-di-n-propylamine	ND	5.00	"
N-Nitrosodiphenylamine	ND	5.00	"
Pentachlorophenol	ND	0.250	"
Phenanthrene	ND	0.0500	"
Phenol	ND	5.00	"
Pyrene	ND	0.0500	"
Pyridine	ND	5.00	"

Surrogate: 2-Fluorophenol	0.00	"	75.2	12-64
Surrogate: Phenol-d5	0.00	"	75.1	10-82
Surrogate: Nitrobenzene-d5	0.00	"	50.2	12-96
Surrogate: 2-Fluorobiphenyl	0.00	"	50.2	16-84
Surrogate: 2,4,6-Tribromophenol	0.00	"	75.2	15-104
Surrogate: Terphenyl-d14	0.00	"	50.0	15-106



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60798 - EPA 3510C											
LCS (BC60798-BS1)						Prepared: 03/15/2016 Analyzed: 03/16/2016					
1,1'-Biphenyl	36.1	5.00	ug/L				21-102				
1,2,4,5-Tetrachlorobenzene	40.4	5.00	"	50.0		80.9	28-105				
1,2-Diphenylhydrazine (as Azobenzene)	43.5	5.00	"	50.0		87.0	16-137				
2,3,4,6-Tetrachlorophenol	69.2	5.00	"	50.0		138	30-130	High Bias			
2,4,5-Trichlorophenol	33.4	5.00	"	50.0		66.7	36-112				
2,4,6-Trichlorophenol	30.9	5.00	"	50.0		61.8	41-107				
1,2,4-Trichlorobenzene	30.2	5.00	"	50.0		60.3	35-91				
2,4-Dichlorophenol	27.5	5.00	"	50.0		55.0	43-92				
2,4-Dimethylphenol	28.1	5.00	"	50.0		56.3	25-92				
2,4-Dinitrophenol	34.5	5.00	"	50.0		69.1	10-149				
2,4-Dinitrotoluene	37.5	5.00	"	50.0		75.0	41-114				
1,2-Dichlorobenzene	30.7	5.00	"	50.0		61.4	42-85				
2,6-Dinitrotoluene	39.5	5.00	"	50.0		79.0	49-106				
2-Chloronaphthalene	33.1	5.00	"	50.0		66.1	40-96				
2-Chlorophenol	21.9	5.00	"	50.0		43.8	35-84				
2-Methylnaphthalene	38.2	5.00	"	50.0		76.4	33-101				
1,3-Dichlorobenzene	28.9	5.00	"	50.0		57.9	45-80				
2-Methylphenol	16.8	5.00	"	50.0		33.6	10-90				
2-Nitroaniline	39.4	5.00	"	50.0		78.7	31-122				
1,4-Dichlorobenzene	31.0	5.00	"	50.0		62.1	42-82				
2-Nitrophenol	31.3	5.00	"	50.0		62.6	37-97				
3- & 4-Methylphenols	13.2	5.00	"	50.0		26.4	10-101				
3,3'-Dichlorobenzidine	60.0	5.00	"	50.0		120	25-155				
3-Nitroaniline	37.3	5.00	"	50.0		74.6	29-128				
4,6-Dinitro-2-methylphenol	37.8	5.00	"	50.0		75.6	10-135				
4-Bromophenyl phenyl ether	35.0	5.00	"	50.0		70.1	38-116				
4-Chloro-3-methylphenol	29.9	5.00	"	50.0		59.9	28-101				
4-Chloroaniline	39.6	5.00	"	50.0		79.1	10-154				
4-Chlorophenyl phenyl ether	35.0	5.00	"	50.0		70.0	34-112				
4-Nitroaniline	35.0	5.00	"	50.0		70.0	15-143				
4-Nitrophenol	2.52	5.00	"	50.0		5.04	10-112	Low Bias			
Acenaphthene	40.2	0.0500	"	50.0		80.5	24-114				
Acenaphthylene	36.6	0.0500	"	50.0		73.1	26-112				
Acetophenone	40.4	5.00	"	100		40.4	47-92	Low Bias			
Aniline	25.4	5.00	"	50.0		50.7	10-107				
Anthracene	38.0	0.0500	"	50.0		75.9	35-114				
Atrazine	42.9	0.500	"	100		42.9	43-101	Low Bias			
Benzaldehyde	41.4	5.00	"	100		41.4	17-117				
Benzo(a)anthracene	41.7	0.0500	"	50.0		83.5	38-127				
Benzo(a)pyrene	38.1	0.0500	"	50.0		76.1	30-146				
Benzo(b)fluoranthene	35.0	0.0500	"	50.0		69.9	36-145				
Benzo(g,h,i)perylene	28.2	0.0500	"	50.0		56.4	10-163				
Benzo(k)fluoranthene	37.3	0.0500	"	50.0		74.6	16-149				
Benzoic acid	ND	5.00	"	50.0			30-130	Low Bias			
Benzyl alcohol	19.5	5.00	"	50.0		38.9	18-75				
Benzyl butyl phthalate	41.8	5.00	"	50.0		83.6	28-129				
Bis(2-chloroethoxy)methane	41.1	5.00	"	50.0		82.3	27-112				
Bis(2-chloroethyl)ether	39.8	5.00	"	50.0		79.5	24-114				
Bis(2-chloroisopropyl)ether	59.1	5.00	"	50.0		118	21-124				
Bis(2-ethylhexyl)phthalate	42.5	0.500	"	50.0		85.1	10-171				
Caprolactam	5.38	5.00	"	100		5.38	10-29	Low Bias			



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

LCS (BC60798-BS1)

Prepared: 03/15/2016 Analyzed: 03/16/2016

Carbazole	37.5	5.00	ug/L	50.0		75.0	49-116				
Hexachlorobutadiene	30.0	0.500	"	50.0		60.1	25-106				
Chrysene	39.7	0.0500	"	50.0		79.5	33-120				
Dibenzo(a,h)anthracene	31.5	0.0500	"	50.0		63.0	10-149				
Dibenzofuran	36.8	5.00	"	50.0		73.6	42-105				
Diethyl phthalate	37.7	5.00	"	50.0		75.3	38-112				
Dimethyl phthalate	36.2	5.00	"	50.0		72.3	49-106				
Di-n-butyl phthalate	38.8	5.00	"	50.0		77.5	36-110				
Di-n-octyl phthalate	44.3	5.00	"	50.0		88.6	12-149				
Naphthalene	37.2	0.0500	"	50.0		74.5	30-99				
Fluoranthene	39.2	0.0500	"	50.0		78.5	33-126				
Fluorene	38.0	0.0500	"	50.0		76.0	28-117				
Hexachlorobenzene	35.6	0.0200	"	50.0		71.3	27-120				
Hexachlorocyclopentadiene	13.8	5.00	"	50.0		27.5	10-99				
Hexachloroethane	30.5	0.500	"	50.0		61.1	33-84				
Indeno(1,2,3-cd)pyrene	30.4	0.0500	"	50.0		60.7	10-150				
Isophorone	39.9	5.00	"	50.0		79.7	29-115				
Nitrobenzene	35.5	0.250	"	50.0		70.9	32-113				
N-Nitrosodimethylamine	12.5	0.500	"	50.0		24.9	10-63				
N-nitroso-di-n-propylamine	43.6	5.00	"	50.0		87.2	36-118				
N-Nitrosodiphenylamine	43.4	5.00	"	50.0		86.8	27-145				
Pentachlorophenol	24.6	0.250	"	50.0		49.3	19-127				
Phenanthrene	39.7	0.0500	"	50.0		79.3	31-112				
Phenol	8.32	5.00	"	50.0		16.6	10-37				
Pyrene	39.8	0.0500	"	50.0		79.6	42-125				
Pyridine	11.9	5.00	"	50.0		23.7	10-46				
<i>Surrogate: 2-Fluorophenol</i>	<i>19.1</i>		<i>"</i>	<i>75.2</i>		<i>25.4</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>11.3</i>		<i>"</i>	<i>75.1</i>		<i>15.0</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>49.9</i>		<i>"</i>	<i>50.2</i>		<i>99.3</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>51.9</i>		<i>"</i>	<i>50.2</i>		<i>103</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>58.9</i>		<i>"</i>	<i>75.2</i>		<i>78.4</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>60.9</i>		<i>"</i>	<i>50.0</i>		<i>122</i>	<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60798 - EPA 3510C											
LCS (BC60798-BS2)						Prepared: 03/15/2016 Analyzed: 03/16/2016					
1,1'-Biphenyl	ND	5.00	ug/L				21-102				
1,2,4,5-Tetrachlorobenzene	ND	5.00	"				28-105				
1,2-Diphenylhydrazine (as Azobenzene)	ND	5.00	"				16-137				
2,3,4,6-Tetrachlorophenol	ND	5.00	"				30-130				
2,4,5-Trichlorophenol	ND	5.00	"				36-112				
2,4,6-Trichlorophenol	ND	5.00	"				41-107				
1,2,4-Trichlorobenzene	ND	5.00	"				35-91				
2,4-Dichlorophenol	ND	5.00	"				43-92				
2,4-Dimethylphenol	ND	5.00	"				25-92				
2,4-Dinitrophenol	ND	5.00	"				10-149				
2,4-Dinitrotoluene	ND	5.00	"				41-114				
1,2-Dichlorobenzene	ND	5.00	"				42-85				
2,6-Dinitrotoluene	ND	5.00	"				49-106				
2-Chloronaphthalene	ND	5.00	"				40-96				
2-Chlorophenol	ND	5.00	"				35-84				
2-Methylnaphthalene	ND	5.00	"				33-101				
1,3-Dichlorobenzene	ND	5.00	"				45-80				
2-Methylphenol	ND	5.00	"				10-90				
2-Nitroaniline	ND	5.00	"				31-122				
1,4-Dichlorobenzene	ND	5.00	"				42-82				
2-Nitrophenol	ND	5.00	"				37-97				
3- & 4-Methylphenols	ND	5.00	"				10-101				
3,3'-Dichlorobenzidine	ND	5.00	"				25-155				
3-Nitroaniline	ND	5.00	"				29-128				
4,6-Dinitro-2-methylphenol	ND	5.00	"				10-135				
4-Bromophenyl phenyl ether	ND	5.00	"				38-116				
4-Chloro-3-methylphenol	ND	5.00	"				28-101				
4-Chloroaniline	ND	5.00	"				10-154				
4-Chlorophenyl phenyl ether	ND	5.00	"				34-112				
4-Nitroaniline	ND	5.00	"				15-143				
4-Nitrophenol	ND	5.00	"				10-112				
Acenaphthene	0.580	0.0500	"	1.00		58.0	24-114				
Acenaphthylene	0.580	0.0500	"	1.00		58.0	26-112				
Acetophenone	ND	5.00	"				47-92				
Aniline	ND	5.00	"				10-107				
Anthracene	0.610	0.0500	"	1.00		61.0	35-114				
Atrazine	ND	0.500	"				43-101				
Benzaldehyde	ND	5.00	"				17-117				
Benzo(a)anthracene	0.620	0.0500	"	1.00		62.0	38-127				
Benzo(a)pyrene	0.680	0.0500	"	1.00		68.0	30-146				
Benzo(b)fluoranthene	0.660	0.0500	"	1.00		66.0	36-145				
Benzo(g,h,i)perylene	0.700	0.0500	"	1.00		70.0	10-163				
Benzo(k)fluoranthene	0.800	0.0500	"	1.00		80.0	16-149				
Benzoic acid	ND	50.0	"				30-130				
Benzyl alcohol	ND	5.00	"				18-75				
Benzyl butyl phthalate	ND	5.00	"				28-129				
Bis(2-chloroethoxy)methane	ND	5.00	"				27-112				
Bis(2-chloroethyl)ether	ND	5.00	"				24-114				
Bis(2-chloroisopropyl)ether	ND	5.00	"				21-124				
Bis(2-ethylhexyl)phthalate	ND	0.500	"				10-171				
Caprolactam	ND	5.00	"				10-29				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

LCS (BC60798-BS2)

Prepared: 03/15/2016 Analyzed: 03/16/2016

Carbazole	ND	5.00	ug/L				49-116				
Hexachlorobutadiene	ND	0.500	"				25-106				
Chrysene	0.630	0.0500	"	1.00		63.0	33-120				
Dibenzo(a,h)anthracene	0.740	0.0500	"	1.00		74.0	10-149				
Dibenzofuran	ND	5.00	"				42-105				
Diethyl phthalate	ND	5.00	"				38-112				
Dimethyl phthalate	ND	5.00	"				49-106				
Di-n-butyl phthalate	ND	5.00	"				36-110				
Di-n-octyl phthalate	ND	5.00	"				12-149				
Naphthalene	0.570	0.0500	"	1.00		57.0	30-99				
Fluoranthene	0.690	0.0500	"	1.00		69.0	33-126				
Fluorene	0.590	0.0500	"	1.00		59.0	28-117				
Hexachlorobenzene	ND	0.0200	"				27-120				
Hexachlorocyclopentadiene	ND	5.00	"				10-99				
Hexachloroethane	ND	0.500	"				33-84				
Indeno(1,2,3-cd)pyrene	0.730	0.0500	"	1.00		73.0	10-150				
Isophorone	ND	5.00	"				29-115				
Nitrobenzene	ND	0.250	"				32-113				
N-Nitrosodimethylamine	ND	0.500	"				10-63				
N-nitroso-di-n-propylamine	ND	5.00	"				36-118				
N-Nitrosodiphenylamine	ND	5.00	"				27-145				
Pentachlorophenol	ND	0.250	"				19-127				
Phenanthrene	0.540	0.0500	"	1.00		54.0	31-112				
Phenol	ND	5.00	"				10-37				
Pyrene	0.610	0.0500	"	1.00		61.0	42-125				
Pyridine	ND	5.00	"				10-46				
<i>Surrogate: 2-Fluorophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>0.00</i>		<i>"</i>	<i>75.1</i>			<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.00</i>		<i>"</i>	<i>50.2</i>			<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.00</i>		<i>"</i>	<i>50.2</i>			<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.00</i>		<i>"</i>	<i>50.0</i>			<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC60798 - EPA 3510C											
LCS Dup (BC60798-BSD1)						Prepared: 03/15/2016 Analyzed: 03/16/2016					
1,1'-Biphenyl	44.6	5.00	ug/L				21-102		20.9	20	Non-dir.
1,2,4,5-Tetrachlorobenzene	47.8	5.00	"	50.0		95.6	28-105		16.7	20	
1,2-Diphenylhydrazine (as Azobenzene)	47.8	5.00	"	50.0		95.7	16-137		9.48	20	
2,3,4,6-Tetrachlorophenol	81.9	5.00	"	50.0		164	30-130	High Bias	16.9	20	
2,4,5-Trichlorophenol	38.2	5.00	"	50.0		76.3	36-112		13.4	20	
2,4,6-Trichlorophenol	33.8	5.00	"	50.0		67.6	41-107		9.00	20	
1,2,4-Trichlorobenzene	33.4	5.00	"	50.0		66.8	35-91		10.1	20	
2,4-Dichlorophenol	31.3	5.00	"	50.0		62.5	43-92		12.8	20	
2,4-Dimethylphenol	32.0	5.00	"	50.0		64.0	25-92		12.9	20	
2,4-Dinitrophenol	42.0	5.00	"	50.0		84.1	10-149		19.6	20	
2,4-Dinitrotoluene	40.3	5.00	"	50.0		80.5	41-114		7.18	20	
1,2-Dichlorobenzene	32.9	5.00	"	50.0		65.8	42-85		6.98	20	
2,6-Dinitrotoluene	45.7	5.00	"	50.0		91.5	49-106		14.7	20	
2-Chloronaphthalene	35.4	5.00	"	50.0		70.8	40-96		6.78	20	
2-Chlorophenol	24.2	5.00	"	50.0		48.3	35-84		9.77	20	
2-Methylnaphthalene	41.9	5.00	"	50.0		83.8	33-101		9.16	20	
1,3-Dichlorobenzene	31.0	5.00	"	50.0		62.1	45-80		7.00	20	
2-Methylphenol	19.0	5.00	"	50.0		38.0	10-90		12.1	20	
2-Nitroaniline	43.3	5.00	"	50.0		86.7	31-122		9.60	20	
1,4-Dichlorobenzene	32.6	5.00	"	50.0		65.1	42-82		4.75	20	
2-Nitrophenol	35.9	5.00	"	50.0		71.8	37-97		13.7	20	
3- & 4-Methylphenols	15.6	5.00	"	50.0		31.3	10-101		16.9	20	
3,3'-Dichlorobenzidine	58.7	5.00	"	50.0		117	25-155		2.21	20	
3-Nitroaniline	41.4	5.00	"	50.0		82.8	29-128		10.4	20	
4,6-Dinitro-2-methylphenol	50.6	5.00	"	50.0		101	10-135		28.9	20	Non-dir.
4-Bromophenyl phenyl ether	42.7	5.00	"	50.0		85.5	38-116		19.8	20	
4-Chloro-3-methylphenol	34.2	5.00	"	50.0		68.4	28-101		13.3	20	
4-Chloroaniline	44.2	5.00	"	50.0		88.4	10-154		11.1	20	
4-Chlorophenyl phenyl ether	41.8	5.00	"	50.0		83.5	34-112		17.7	20	
4-Nitroaniline	42.1	5.00	"	50.0		84.1	15-143		18.4	20	
4-Nitrophenol	3.93	5.00	"	50.0		7.86	10-112	Low Bias	43.7	20	Non-dir.
Acenaphthene	45.1	0.0500	"	50.0		90.1	24-114		11.3	20	
Acenaphthylene	40.9	0.0500	"	50.0		81.9	26-112		11.3	20	
Acetophenone	47.4	5.00	"	100		47.4	47-92		15.9	20	
Aniline	27.7	5.00	"	50.0		55.5	10-107		8.97	20	
Anthracene	43.8	0.0500	"	50.0		87.7	35-114		14.4	20	
Atrazine	50.8	0.500	"	100		50.8	43-101		16.8	20	
Benzaldehyde	46.6	5.00	"	100		46.6	17-117		11.6	20	
Benzo(a)anthracene	41.2	0.0500	"	50.0		82.3	38-127		1.40	20	
Benzo(a)pyrene	38.1	0.0500	"	50.0		76.2	30-146		0.0525	20	
Benzo(b)fluoranthene	36.2	0.0500	"	50.0		72.4	36-145		3.49	20	
Benzo(g,h,i)perylene	21.6	0.0500	"	50.0		43.3	10-163		26.2	20	Non-dir.
Benzo(k)fluoranthene	37.8	0.0500	"	50.0		75.5	16-149		1.23	20	
Benzoic acid	ND	5.00	"	50.0			30-130	Low Bias		20	
Benzyl alcohol	22.5	5.00	"	50.0		44.9	18-75		14.3	20	
Benzyl butyl phthalate	45.5	5.00	"	50.0		91.0	28-129		8.45	20	
Bis(2-chloroethoxy)methane	45.9	5.00	"	50.0		91.8	27-112		10.9	20	
Bis(2-chloroethyl)ether	42.3	5.00	"	50.0		84.6	24-114		6.12	20	
Bis(2-chloroisopropyl)ether	62.5	5.00	"	50.0		125	21-124	High Bias	5.59	20	
Bis(2-ethylhexyl)phthalate	35.5	0.500	"	50.0		71.0	10-171		18.0	20	
Caprolactam	6.41	5.00	"	100		6.41	10-29	Low Bias	17.5	20	



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60798 - EPA 3510C

LCS Dup (BC60798-BSD1)

Prepared: 03/15/2016 Analyzed: 03/16/2016

Carbazole	42.3	5.00	ug/L	50.0		84.7	49-116		12.1	20	
Hexachlorobutadiene	32.9	0.500	"	50.0		65.8	25-106		9.18	20	
Chrysene	41.6	0.0500	"	50.0		83.1	33-120		4.48	20	
Dibenzo(a,h)anthracene	28.1	0.0500	"	50.0		56.2	10-149		11.3	20	
Dibenzofuran	39.4	5.00	"	50.0		78.9	42-105		6.95	20	
Diethyl phthalate	40.1	5.00	"	50.0		80.1	38-112		6.17	20	
Dimethyl phthalate	39.1	5.00	"	50.0		78.1	49-106		7.68	20	
Di-n-butyl phthalate	42.5	5.00	"	50.0		85.0	36-110		9.28	20	
Di-n-octyl phthalate	44.3	5.00	"	50.0		88.5	12-149		0.0452	20	
Naphthalene	40.3	0.0500	"	50.0		80.6	30-99		7.94	20	
Fluoranthene	45.6	0.0500	"	50.0		91.2	33-126		14.9	20	
Fluorene	42.6	0.0500	"	50.0		85.3	28-117		11.5	20	
Hexachlorobenzene	41.4	0.0200	"	50.0		82.9	27-120		15.1	20	
Hexachlorocyclopentadiene	21.6	5.00	"	50.0		43.3	10-99		44.5	20	Non-dir.
Hexachloroethane	32.8	0.500	"	50.0		65.5	33-84		7.02	20	
Indeno(1,2,3-cd)pyrene	26.3	0.0500	"	50.0		52.6	10-150		14.4	20	
Isophorone	43.7	5.00	"	50.0		87.4	29-115		9.17	20	
Nitrobenzene	39.6	0.250	"	50.0		79.3	32-113		11.1	20	
N-Nitrosodimethylamine	15.0	0.500	"	50.0		29.9	10-63		18.2	20	
N-nitroso-di-n-propylamine	47.4	5.00	"	50.0		94.7	36-118		8.31	20	
N-Nitrosodiphenylamine	53.9	5.00	"	50.0		108	27-145		21.6	20	Non-dir.
Pentachlorophenol	29.4	0.250	"	50.0		58.9	19-127		17.7	20	
Phenanthrene	47.4	0.0500	"	50.0		94.8	31-112		17.8	20	
Phenol	9.55	5.00	"	50.0		19.1	10-37		13.8	20	
Pyrene	43.0	0.0500	"	50.0		86.1	42-125		7.85	20	
Pyridine	11.5	5.00	"	50.0		23.0	10-46		2.99	20	
Surrogate: 2-Fluorophenol	19.9		"	75.2		26.5	12-64				
Surrogate: Phenol-d5	11.9		"	75.1		15.9	10-82				
Surrogate: Nitrobenzene-d5	50.5		"	50.2		101	12-96				
Surrogate: 2-Fluorobiphenyl	52.5		"	50.2		105	16-84				
Surrogate: 2,4,6-Tribromophenol	62.9		"	75.2		83.6	15-104				
Surrogate: Terphenyl-d14	57.6		"	50.0		115	15-106				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60750 - EPA SW846-3510C Low Level

Blank (BC60750-BLK1)

Prepared & Analyzed: 03/15/2016

4,4'-DDD	ND	0.00400	ug/L								
4,4'-DDE	ND	0.00400	"								
4,4'-DDT	ND	0.00400	"								
Aldrin	ND	0.00400	"								
alpha-BHC	ND	0.00400	"								
alpha-Chlordane	ND	0.00400	"								
beta-BHC	ND	0.00400	"								
Chlordane, total	ND	0.0400	"								
delta-BHC	ND	0.00400	"								
Dieldrin	ND	0.00200	"								
Endosulfan I	ND	0.00400	"								
Endosulfan II	ND	0.00400	"								
Endosulfan sulfate	ND	0.00400	"								
Endrin	ND	0.00400	"								
Endrin aldehyde	ND	0.0100	"								
Endrin ketone	ND	0.0100	"								
gamma-BHC (Lindane)	ND	0.00400	"								
gamma-Chlordane	ND	0.0100	"								
Heptachlor	ND	0.00400	"								
Heptachlor epoxide	ND	0.00400	"								
Methoxychlor	ND	0.00400	"								
Toxaphene	ND	0.100	"								
Surrogate: Tetrachloro-m-xylene	0.0930		"	0.201		46.3	30-120				
Surrogate: Decachlorobiphenyl	0.116		"	0.207		56.1	30-120				

LCS (BC60750-BS1)

Prepared & Analyzed: 03/15/2016

4,4'-DDD	0.0958	0.00400	ug/L	0.100		95.8	40-120				
4,4'-DDE	0.0892	0.00400	"	0.100		89.2	40-120				
4,4'-DDT	0.0786	0.00400	"	0.100		78.6	40-120				
Aldrin	0.0572	0.00400	"	0.100		57.2	40-120				
alpha-BHC	0.0671	0.00400	"	0.100		67.1	40-120				
alpha-Chlordane	0.0739	0.00400	"	0.100		73.9	40-120				
beta-BHC	0.0704	0.00400	"	0.100		70.4	40-120				
delta-BHC	0.0720	0.00400	"	0.100		72.0	40-120				
Dieldrin	0.0768	0.00200	"	0.100		76.8	40-120				
Endosulfan I	0.0751	0.00400	"	0.100		75.1	40-120				
Endosulfan II	0.0869	0.00400	"	0.100		86.9	40-120				
Endosulfan sulfate	0.0734	0.00400	"	0.100		73.4	40-120				
Endrin	0.0936	0.00400	"	0.100		93.6	40-120				
Endrin aldehyde	0.0800	0.0100	"	0.100		80.0	40-120				
Endrin ketone	0.0885	0.0100	"	0.100		88.5	40-120				
gamma-BHC (Lindane)	0.0706	0.00400	"	0.100		70.6	40-120				
gamma-Chlordane	0.0728	0.0100	"	0.100		72.8	40-120				
Heptachlor	0.0653	0.00400	"	0.100		65.3	40-120				
Heptachlor epoxide	0.0752	0.00400	"	0.100		75.2	40-120				
Methoxychlor	0.0989	0.00400	"	0.100		98.9	40-120				
Surrogate: Tetrachloro-m-xylene	0.0899		"	0.201		44.7	30-120				
Surrogate: Decachlorobiphenyl	0.0984		"	0.207		47.5	30-120				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60750 - EPA SW846-3510C Low Level

LCS Dup (BC60750-BSD1)

Prepared & Analyzed: 03/15/2016

4,4'-DDD	0.0710	0.00400	ug/L	0.100		71.0	40-120		29.7	30	
4,4'-DDE	0.0801	0.00400	"	0.100		80.1	40-120		10.8	30	
4,4'-DDT	0.0744	0.00400	"	0.100		74.4	40-120		5.59	30	
Aldrin	0.0574	0.00400	"	0.100		57.4	40-120		0.195	30	
alpha-BHC	0.0687	0.00400	"	0.100		68.7	40-120		2.34	30	
alpha-Chlordane	0.0701	0.00400	"	0.100		70.1	40-120		5.29	30	
beta-BHC	0.0685	0.00400	"	0.100		68.5	40-120		2.77	30	
delta-BHC	0.0696	0.00400	"	0.100		69.6	40-120		3.44	30	
Dieldrin	0.0724	0.00200	"	0.100		72.4	40-120		5.95	30	
Endosulfan I	0.0713	0.00400	"	0.100		71.3	40-120		5.10	30	
Endosulfan II	0.0741	0.00400	"	0.100		74.1	40-120		15.9	30	
Endosulfan sulfate	0.0717	0.00400	"	0.100		71.7	40-120		2.37	30	
Endrin	0.0799	0.00400	"	0.100		79.9	40-120		15.7	30	
Endrin aldehyde	0.0750	0.0100	"	0.100		75.0	40-120		6.47	30	
Endrin ketone	0.0855	0.0100	"	0.100		85.5	40-120		3.47	30	
gamma-BHC (Lindane)	0.0716	0.00400	"	0.100		71.6	40-120		1.45	30	
gamma-Chlordane	0.0684	0.0100	"	0.100		68.4	40-120		6.30	30	
Heptachlor	0.0660	0.00400	"	0.100		66.0	40-120		0.976	30	
Heptachlor epoxide	0.0712	0.00400	"	0.100		71.2	40-120		5.53	30	
Methoxychlor	0.0834	0.00400	"	0.100		83.4	40-120		16.9	30	
Surrogate: Tetrachloro-m-xylene	0.0929		"	0.201		46.2	30-120				
Surrogate: Decachlorobiphenyl	0.101		"	0.207		49.0	30-120				

Batch BC60827 - EPA 3545A

Blank (BC60827-BLK1)

Prepared & Analyzed: 03/16/2016

4,4'-DDD	ND	0.000495	mg/kg wet								
4,4'-DDE	ND	0.000495	"								
4,4'-DDT	ND	0.000495	"								
Aldrin	ND	0.000495	"								
alpha-BHC	ND	0.000495	"								
alpha-Chlordane	ND	0.000495	"								
beta-BHC	ND	0.000495	"								
Chlordane, total	ND	0.0198	"								
delta-BHC	ND	0.000495	"								
Dieldrin	ND	0.000495	"								
Endosulfan I	ND	0.000495	"								
Endosulfan II	ND	0.000495	"								
Endosulfan sulfate	ND	0.000495	"								
Endrin	ND	0.000495	"								
Endrin aldehyde	ND	0.000495	"								
Endrin ketone	ND	0.000495	"								
gamma-BHC (Lindane)	ND	0.000495	"								
gamma-Chlordane	ND	0.000495	"								
Heptachlor	ND	0.000495	"								
Heptachlor epoxide	ND	0.000495	"								
Methoxychlor	ND	0.00248	"								
Toxaphene	ND	0.0250	"								
Surrogate: Tetrachloro-m-xylene	0.110		"	0.100		110	30-140				
Surrogate: Decachlorobiphenyl	0.0837		"	0.104		80.9	30-140				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60827 - EPA 3545A

LCS (BC60827-BS1)							Prepared & Analyzed: 03/16/2016				
4,4'-DDD	0.0611	0.000495	mg/kg wet	0.0500		122	40-140				
4,4'-DDE	0.0644	0.000495	"	0.0500		129	40-140				
4,4'-DDT	0.0610	0.000495	"	0.0500		122	40-140				
Aldrin	0.0605	0.000495	"	0.0500		121	40-140				
alpha-BHC	0.0614	0.000495	"	0.0500		123	40-140				
alpha-Chlordane	0.0591	0.000495	"	0.0500		118	40-140				
beta-BHC	0.0637	0.000495	"	0.0500		127	40-140				
delta-BHC	0.0627	0.000495	"	0.0500		125	40-140				
Dieldrin	0.0618	0.000495	"	0.0500		124	40-140				
Endosulfan I	0.0588	0.000495	"	0.0500		118	40-140				
Endosulfan II	0.0605	0.000495	"	0.0500		121	40-140				
Endosulfan sulfate	0.0594	0.000495	"	0.0500		119	40-140				
Endrin	0.0614	0.000495	"	0.0500		123	40-140				
Endrin aldehyde	0.0573	0.000495	"	0.0500		115	40-140				
Endrin ketone	0.0631	0.000495	"	0.0500		126	40-140				
gamma-BHC (Lindane)	0.0647	0.000495	"	0.0500		129	40-140				
gamma-Chlordane	0.0603	0.000495	"	0.0500		121	40-140				
Heptachlor	0.0606	0.000495	"	0.0500		121	40-140				
Heptachlor epoxide	0.0609	0.000495	"	0.0500		122	40-140				
Methoxychlor	0.0602	0.00248	"	0.0500		120	40-140				
Surrogate: Tetrachloro-m-xylene	0.112		"	0.100		111	30-140				
Surrogate: Decachlorobiphenyl	0.0879		"	0.104		84.9	30-140				



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60750 - EPA SW846-3510C Low Level

Blank (BC60750-BLK2)

Prepared & Analyzed: 03/15/2016

Aroclor 1016	ND	0.0500	ug/L								
Aroclor 1221	ND	0.0500	"								
Aroclor 1232	ND	0.0500	"								
Aroclor 1242	ND	0.0500	"								
Aroclor 1248	ND	0.0500	"								
Aroclor 1254	ND	0.0500	"								
Aroclor 1260	ND	0.0500	"								
Total PCBs	ND	0.0500	"								

Surrogate: Tetrachloro-m-xylene	0.0870		"	0.201		43.3	30-120				
Surrogate: Decachlorobiphenyl	0.108		"	0.207		52.2	30-120				

LCS (BC60750-BS2)

Prepared & Analyzed: 03/15/2016

Aroclor 1016	0.590	0.0500	ug/L	1.00		59.0	40-120				
Aroclor 1260	0.630	0.0500	"	1.00		63.0	40-120				
Surrogate: Tetrachloro-m-xylene	0.0740		"	0.201		36.8	30-120				
Surrogate: Decachlorobiphenyl	0.105		"	0.207		50.7	30-120				

LCS Dup (BC60750-BS2)

Prepared & Analyzed: 03/15/2016

Aroclor 1016	0.609	0.0500	ug/L	1.00		60.9	40-120	3.20	30		
Aroclor 1260	0.604	0.0500	"	1.00		60.4	40-120	4.21	30		
Surrogate: Tetrachloro-m-xylene	0.0780		"	0.201		38.8	30-120				
Surrogate: Decachlorobiphenyl	0.0980		"	0.207		47.3	30-120				

Batch BC60827 - EPA 3545A

Blank (BC60827-BLK2)

Prepared & Analyzed: 03/16/2016

Aroclor 1016	ND	0.0250	mg/kg wet								
Aroclor 1221	ND	0.0250	"								
Aroclor 1232	ND	0.0250	"								
Aroclor 1242	ND	0.0250	"								
Aroclor 1248	ND	0.0250	"								
Aroclor 1254	ND	0.0250	"								
Aroclor 1260	ND	0.0250	"								
Total PCBs	ND	0.0250	"								

Surrogate: Tetrachloro-m-xylene	0.0935		"	0.100		93.0	30-140				
Surrogate: Decachlorobiphenyl	0.0830		"	0.104		80.2	30-140				



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60827 - EPA 3545A

LCS (BC60827-BS3)

Prepared & Analyzed: 03/16/2016

Aroclor 1016	0.556	0.0250	mg/kg wet	0.500		111	40-130				
Aroclor 1260	0.535	0.0250	"	0.500		107	40-130				
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.0990</i>		<i>"</i>	<i>0.100</i>		<i>98.5</i>	<i>30-140</i>				
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.0940</i>		<i>"</i>	<i>0.104</i>		<i>90.8</i>	<i>30-140</i>				

LCS Dup (BC60827-BSD3)

Prepared & Analyzed: 03/16/2016

Aroclor 1016	0.557	0.0250	mg/kg wet	0.500		111	40-130		0.234	25	
Aroclor 1260	0.562	0.0250	"	0.500		112	40-130		5.03	25	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.0995</i>		<i>"</i>	<i>0.100</i>		<i>99.0</i>	<i>30-140</i>				
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.0910</i>		<i>"</i>	<i>0.104</i>		<i>87.9</i>	<i>30-140</i>				



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60698 - EPA 3050B

Blank (BC60698-BLK1)

Prepared & Analyzed: 03/14/2016

Aluminum	ND	5.00	mg/kg wet
Antimony	ND	0.500	"
Arsenic	ND	1.00	"
Barium	ND	1.00	"
Beryllium	ND	0.100	"
Cadmium	ND	0.300	"
Calcium	ND	5.00	"
Chromium	ND	0.500	"
Cobalt	ND	0.500	"
Copper	ND	0.500	"
Iron	ND	2.00	"
Lead	ND	0.300	"
Magnesium	ND	5.00	"
Manganese	ND	0.500	"
Nickel	ND	0.500	"
Potassium	ND	5.00	"
Selenium	ND	1.00	"
Silver	ND	0.500	"
Sodium	ND	10.0	"
Thallium	ND	1.00	"
Vanadium	ND	1.00	"
Zinc	ND	1.00	"

Reference (BC60698-SRM1)

Prepared & Analyzed: 03/14/2016

Aluminum	9300	5.00	mg/kg wet	8060	115	38.9-160
Antimony	59.2	0.500	"	94.0	63.0	22.8-257.5
Arsenic	107	1.00	"	113	95.0	69.7-142.5
Barium	167	1.00	"	155	108	72.9-127.1
Beryllium	108	0.100	"	109	99.5	74.7-124.8
Cadmium	65.0	0.300	"	67.5	96.3	73.2-126.8
Calcium	6100	5.00	"	5850	104	73.7-126.5
Chromium	170	0.500	"	164	104	70.7-129.9
Cobalt	104	0.500	"	100	104	74.4-126
Copper	138	0.500	"	128	108	75.2-125.8
Iron	17600	2.00	"	15200	116	37.4-162.5
Lead	87.6	0.300	"	90.1	97.2	70.1-129.9
Magnesium	3030	5.00	"	2790	108	65.2-135.1
Manganese	393	0.500	"	363	108	75.8-124.5
Nickel	101	0.500	"	89.3	114	72-127.7
Potassium	3080	5.00	"	2770	111	61.7-138.3
Selenium	149	1.00	"	156	95.8	67.3-132.1
Silver	49.2	0.500	"	52.6	93.6	66.7-133.5
Sodium	778	10.0	"	686	113	55.8-144.2
Thallium	96.1	1.00	"	116	82.8	67.4-131.9
Vanadium	79.4	1.00	"	73.0	109	59.7-139.7
Zinc	166	1.00	"	168	98.6	69-131.5



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60702 - EPA 3015A

Blank (BC60702-BLK1)

Prepared & Analyzed: 03/14/2016

Aluminum	ND	50	ug/L
Antimony	ND	5	"
Arsenic	ND	4	"
Barium	ND	10	"
Beryllium	ND	1	"
Cadmium	ND	3	"
Calcium	ND	50	"
Chromium	ND	5	"
Cobalt	ND	5	"
Copper	ND	3	"
Iron	ND	20	"
Lead	ND	3	"
Magnesium	ND	50	"
Manganese	ND	5	"
Nickel	ND	5	"
Potassium	ND	50	"
Selenium	ND	10	"
Silver	ND	5	"
Sodium	ND	100	"
Thallium	ND	5	"
Vanadium	ND	10	"
Zinc	ND	10	"

Reference (BC60702-SRM1)

Prepared & Analyzed: 03/14/2016

Aluminum	0.654	ug/mL	0.540	121	79.6-120.4	High Bias
Antimony	0.236	"	0.210	112	75.2-121	
Arsenic	0.569	"	0.580	98.2	83.9-114.7	
Barium	0.508	"	0.480	106	85-115	
Beryllium	0.303	"	0.300	101	85-115	
Cadmium	0.457	"	0.470	97.2	85.1-115.1	
Calcium	110	"	107	103	86-114	
Chromium	0.686	"	0.639	107	84.9-115	
Cobalt	0.114	"	0.110	104	85-115.4	
Copper	0.728	"	0.659	111	84.9-115	
Iron	0.607	"	0.570	106	85.1-115.1	
Lead	0.467	"	0.490	95.3	85.1-115.1	
Magnesium	19.3	"	17.9	108	86-114	
Manganese	0.336	"	0.320	105	85-115	
Nickel	1.22	"	1.17	104	88.2-112.2	
Potassium	30.3	"	29.1	104	84.9-115	
Selenium	0.805	"	0.839	96.0	84.9-115	
Silver	0.618	"	0.600	103	85-115	
Sodium	105	"	99.8	105	85-115	
Thallium	0.356	"	0.370	96.1	81.4-116.8	
Vanadium	0.310	"	0.310	100	85.1-115.1	
Zinc	0.695	"	0.699	99.4	84.9-115	



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60748 - EPA 7473 soil

Blank (BC60748-BLK1)

Prepared & Analyzed: 03/15/2016

Mercury ND 0.0300 mg/kg wet

Reference (BC60748-SRM1)

Prepared & Analyzed: 03/15/2016

Mercury 6.8761 mg/kg 5.76 119 71.2-129

Batch BC60762 - EPA 7473 water

Blank (BC60762-BLK1)

Prepared & Analyzed: 03/15/2016

Mercury ND 0.20 ug/L

Duplicate (BC60762-DUP1) *Source sample: 16C0466-04 (04/FB20160309)

Prepared & Analyzed: 03/15/2016

Mercury ND 0.20 ug/L ND 20

Matrix Spike (BC60762-MS1) *Source sample: 16C0466-04 (04/FB20160309)

Prepared & Analyzed: 03/15/2016

Mercury 0.00176 mg/kg 0.00200 ND 88.0 75-125

Reference (BC60762-SRM1)

Prepared & Analyzed: 03/15/2016

Mercury 0.00250 mg/kg 0.00230 109 61.3-135



Wet Chemistry Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BC60662 - Analysis Preparation

Blank (BC60662-BLK1)

Prepared & Analyzed: 03/11/2016

Chromium, Hexavalent ND 0.0100 mg/L

LCS (BC60662-BS1)

Prepared & Analyzed: 03/11/2016

Chromium, Hexavalent 0.507 0.0100 mg/L 0.500 101 80-120

Batch BC60777 - EPA SW846-3060

Blank (BC60777-BLK1)

Prepared & Analyzed: 03/15/2016

Chromium, Hexavalent ND 0.500 mg/kg wet

Reference (BC60777-SRM1)

Prepared & Analyzed: 03/15/2016

Chromium, Hexavalent 95.2 mg/L 110 86.5 30.3-201



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
16C0466-01	01/LSB-3	40mL Vial with Stir Bar-Cool 4° C
16C0466-02	02/DUP	40mL Vial with Stir Bar-Cool 4° C
16C0466-03	03/LSB-3	40mL Vial with Stir Bar-Cool 4° C
16C0466-04	04/FB20160309	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16C0466-05	05/TB20160309	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Notes and Definitions

S-08	The recovery of this surrogate was outside of QC limits.
S-01	The surrogate recovery for this sample may not be available due to sample dilution required from high analyte concentration and/or matrix interferences.
QLM-01	This LCS analyte is slightly above the Laboratory Recovery Upper limit This analyte is commonly biased high due to its ubiquitous nature.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-CCVO	CCV Out. Samples bracketed by acceptable CCVs.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
HT-02	NON-COMPLIANT-This sample was received outside the EPA recommended holding time.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.
*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.



If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



Laboratory Chain-of-Custody Record

York Project (SDG) No.: 16C0466

Samples Received: 03/10/2016 19:54 By: Paul Grace Logged In: 03/11/2016 9:31 By: Paul Grace

Sample Conditions:

☒	Custody Seals	☒	Chain of Custody Form Received
☒	Containers Intact	☒	Appropriate Sample Volumes Received
☒	COC/Labels Agree	☒	Appropriate Sample Containers Submitted
☒	Preservation Confirmed	☐	Samples Submitted within Holding Times
☒	Cooler Temperature Confirmed	☐	Corrective Action Form Required
☒	COC Complete		

Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
16C0466-01	% Solids Prep	03/11/2016 11:17	03/11/2016 11:17	Carlos L. Santos
16C0466-02	% Solids Prep	03/11/2016 11:17	03/11/2016 11:17	Carlos L. Santos
16C0466-03	% Solids Prep	03/11/2016 11:17	03/11/2016 11:17	Carlos L. Santos
16C0466-04	Analysis Preparation	03/11/2016 17:03	03/11/2016 17:03	Carlos L. Santos
16C0466-04	EPA 3015A	03/14/2016 8:11	03/14/2016 8:11	Amanda DeBiase
16C0466-01	EPA 3050B	03/14/2016 8:05	03/14/2016 8:05	Amanda DeBiase
16C0466-02	EPA 3050B	03/14/2016 8:05	03/14/2016 8:05	Amanda DeBiase
16C0466-03	EPA 3050B	03/14/2016 8:05	03/14/2016 8:05	Amanda DeBiase
16C0466-04	EPA 3510C	03/15/2016 14:32	03/15/2016 14:32	Ryan D. Soracco
16C0466-04	EPA 3510C	03/15/2016 14:32	03/15/2016 14:32	Ryan D. Soracco
16C0466-01	EPA 3545A	03/16/2016 7:30	03/16/2016 7:30	Kevin N. Nelson
16C0466-01	EPA 3545A	03/16/2016 7:30	03/16/2016 7:30	Kevin N. Nelson
16C0466-02	EPA 3545A	03/16/2016 7:30	03/16/2016 7:30	Kevin N. Nelson
16C0466-02	EPA 3545A	03/16/2016 7:30	03/16/2016 7:30	Kevin N. Nelson
16C0466-03	EPA 3545A	03/16/2016 7:30	03/16/2016 7:30	Kevin N. Nelson
16C0466-03	EPA 3545A	03/16/2016 7:30	03/16/2016 7:30	Kevin N. Nelson
16C0466-01	EPA 3550C	03/15/2016 7:11	03/15/2016 7:11	Tonesha Boyd
16C0466-02	EPA 3550C	03/15/2016 7:11	03/15/2016 7:11	Tonesha Boyd
16C0466-03	EPA 3550C	03/15/2016 7:11	03/15/2016 7:11	Tonesha Boyd
16C0466-04	EPA 5030B	03/15/2016 8:12	03/15/2016 8:12	Bryan G. Slight
16C0466-05	EPA 5030B	03/15/2016 8:12	03/15/2016 8:12	Bryan G. Slight
16C0466-01	EPA 5035A	03/15/2016 9:54	03/15/2016 9:54	Bryan G. Slight
16C0466-02	EPA 5035A	03/15/2016 9:54	03/15/2016 9:54	Bryan G. Slight
16C0466-03	EPA 5035A	03/15/2016 9:54	03/15/2016 9:54	Bryan G. Slight
16C0466-01	EPA 7473 soil	03/15/2016 5:59	03/15/2016 5:59	Amanda DeBiase
16C0466-02	EPA 7473 soil	03/15/2016 5:59	03/15/2016 5:59	Amanda DeBiase
16C0466-03	EPA 7473 soil	03/15/2016 5:59	03/15/2016 5:59	Amanda DeBiase
16C0466-04	EPA 7473 water	03/15/2016 7:49	03/15/2016 7:49	Amanda DeBiase



Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
16C0466-01	EPA SW846-3060	03/15/2016 9:25	03/15/2016 9:25	Stephanie Couture
16C0466-02	EPA SW846-3060	03/15/2016 9:25	03/15/2016 9:25	Stephanie Couture
16C0466-03	EPA SW846-3060	03/15/2016 9:25	03/15/2016 9:25	Stephanie Couture
16C0466-04	EPA SW846-3510C Low Level	03/15/2016 6:25	03/15/2016 6:25	Terri DeCarlo
16C0466-04	EPA SW846-3510C Low Level	03/15/2016 6:25	03/15/2016 6:25	Terri DeCarlo

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
16C0466-01	Chromium, Hexavalent	03/15/2016 9:25	03/15/2016 16:45	Carlos L. Santos
16C0466-02	Chromium, Hexavalent	03/15/2016 9:25	03/15/2016 16:45	Carlos L. Santos
16C0466-03	Chromium, Hexavalent	03/15/2016 9:25	03/15/2016 16:45	Carlos L. Santos
16C0466-04	Chromium, Hexavalent	03/11/2016 17:03	03/11/2016 17:33	Carlos L. Santos
16C0466-01	Mercury by 7473	03/15/2016 5:59	03/15/2016 10:12	Amanda DeBiase
16C0466-02	Mercury by 7473	03/15/2016 5:59	03/15/2016 10:21	Amanda DeBiase
16C0466-03	Mercury by 7473	03/15/2016 5:59	03/15/2016 10:31	Amanda DeBiase
16C0466-04	Mercury by 7473	03/15/2016 7:49	03/15/2016 18:35	Amanda DeBiase
16C0466-01	Metals, Target Analyte	03/14/2016 8:05	03/14/2016 18:46	Kassandra Velez
16C0466-02	Metals, Target Analyte	03/14/2016 8:05	03/14/2016 18:54	Kassandra Velez
16C0466-03	Metals, Target Analyte	03/14/2016 8:05	03/14/2016 19:02	Kassandra Velez
16C0466-04	Metals, Target Analyte	03/14/2016 8:11	03/14/2016 16:57	Kassandra Velez
16C0466-01	Pesticides, 8081 target list	03/16/2016 7:30	03/17/2016 10:16	Amanda M Caminiti
16C0466-02	Pesticides, 8081 target list	03/16/2016 7:30	03/17/2016 10:31	Amanda M Caminiti
16C0466-03	Pesticides, 8081 target list	03/16/2016 7:30	03/17/2016 10:46	Amanda M Caminiti
16C0466-04	Pesticides, 8081 target list	03/15/2016 6:25	03/15/2016 11:34	Amanda M Caminiti
16C0466-01	Polychlorinated Biphenyls (PCB)	03/16/2016 7:30	03/16/2016 21:59	Amanda M Caminiti
16C0466-02	Polychlorinated Biphenyls (PCB)	03/16/2016 7:30	03/16/2016 22:28	Amanda M Caminiti
16C0466-03	Polychlorinated Biphenyls (PCB)	03/16/2016 7:30	03/16/2016 22:57	Amanda M Caminiti
16C0466-04	Polychlorinated Biphenyls (PCB)	03/15/2016 6:25	03/15/2016 19:23	Amanda M Caminiti
16C0466-01	Semi-Volatiles, 8270 - Comprehensive	03/15/2016 7:11	03/16/2016 22:34	Kimberly Holbrook
16C0466-02	Semi-Volatiles, 8270 - Comprehensive	03/15/2016 7:11	03/16/2016 23:05	Kimberly Holbrook
16C0466-03	Semi-Volatiles, 8270 - Comprehensive	03/15/2016 7:11	03/16/2016 23:37	Kimberly Holbrook
16C0466-04	Semi-Volatiles, 8270 - Comprehensive	03/15/2016 14:32	03/16/2016 15:13	Kimberly Holbrook
16C0466-04	Semi-Volatiles, 8270 - Comprehensive	03/15/2016 14:32	03/16/2016 15:13	Sal Rianna
16C0466-01	Total Solids	03/11/2016 11:17	03/11/2016 16:08	Carlos L. Santos
16C0466-02	Total Solids	03/11/2016 11:17	03/11/2016 16:08	Carlos L. Santos
16C0466-03	Total Solids	03/11/2016 11:17	03/11/2016 16:08	Carlos L. Santos
16C0466-01	Volatile Organics, 8260 - Comprehensive	03/15/2016 9:54	03/15/2016 14:33	Barbara Kostrzewska
16C0466-02	Volatile Organics, 8260 - Comprehensive	03/15/2016 9:54	03/15/2016 15:02	Barbara Kostrzewska



Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
16C0466-03	Volatile Organics, 8260 - Comprehens	03/15/2016 9:54	03/15/2016 15:32	Barbara Kostrzewska
16C0466-04	Volatile Organics, 8260 - Comprehens	03/15/2016 8:12	03/15/2016 17:12	Steve Swift
16C0466-05	Volatile Organics, 8260 - Comprehens	03/15/2016 8:12	03/15/2016 17:41	Steve Swift

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: VOA

METHOD: EPA 8260C

DATA PACKAGE COVER PAGE

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

05/TB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

16C0466-05

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1524Instrument: MS VOA 2Matrix: SoilCalibration: UNASSIGNED

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (BC60766-BS1) Lab File ID: V2567205.D Analyzed: 03/15/16 08:56								
1,2-Dichloroethane-d4	50.0	95.2	77 - 125	5.46				
Toluene-d8	50.0	96.3	85 - 120	7.3				
p-Bromofluorobenzene	50.0	97.2	76 - 130	10.04				
LCS Dup (BC60766-BSD1) Lab File ID: V2567206.D Analyzed: 03/15/16 09:26								
1,2-Dichloroethane-d4	50.0	93.3	77 - 125	5.46				
Toluene-d8	50.0	97.8	85 - 120	7.3				
p-Bromofluorobenzene	50.0	98.3	76 - 130	10.04				
Blank (BC60766-BLK1) Lab File ID: V2567207.D Analyzed: 03/15/16 09:56								
1,2-Dichloroethane-d4	50.0	101	77 - 125	5.46				
Toluene-d8	50.0	98.4	85 - 120	7.3				
p-Bromofluorobenzene	50.0	88.5	76 - 130	10.03				
01/LSB-3 (16C0466-01) Lab File ID: V2567216.D Analyzed: 03/15/16 14:33								
1,2-Dichloroethane-d4	50.0	101	77 - 125	5.46				
Toluene-d8	50.0	97.6	85 - 120	7.3				
p-Bromofluorobenzene	50.0	90.5	76 - 130	10.04				
02/DUP (16C0466-02) Lab File ID: V2567217.D Analyzed: 03/15/16 15:02								
1,2-Dichloroethane-d4	50.0	99.7	77 - 125	5.46				
Toluene-d8	50.0	99.5	85 - 120	7.3				
p-Bromofluorobenzene	50.0	88.9	76 - 130	10.04				
03/LSB-3 (16C0466-03) Lab File ID: V2567218.D Analyzed: 03/15/16 15:32								
1,2-Dichloroethane-d4	50.0	99.8	77 - 125	5.46				
Toluene-d8	50.0	101	85 - 120	7.3				
p-Bromofluorobenzene	50.0	86.0	76 - 130	10.04				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1622Instrument: MSVOA6Matrix: WaterCalibration: UNASSIGNED

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (BC60771-BS1) Lab File ID: V6017794.D Analyzed: 03/15/16 09:54								
1,2-Dichloroethane-d4	10.0	106	69 - 130	5.227				
Toluene-d8	10.0	97.9	81 - 117	7.033				
p-Bromofluorobenzene	10.0	100	79 - 122	9.793				
LCS Dup (BC60771-BSD1) Lab File ID: V6017795.D Analyzed: 03/15/16 10:24								
1,2-Dichloroethane-d4	10.0	111	69 - 130	5.227				
Toluene-d8	10.0	98.1	81 - 117	7.027				
p-Bromofluorobenzene	10.0	98.7	79 - 122	9.79				
Blank (BC60771-BLK1) Lab File ID: V6017797.D Analyzed: 03/15/16 11:22								
1,2-Dichloroethane-d4	10.0	107	69 - 130	5.222				
Toluene-d8	10.0	97.6	81 - 117	7.027				
p-Bromofluorobenzene	10.0	99.3	79 - 122	9.787				
04/FB20160309 (16C0466-04) Lab File ID: V6017809.D Analyzed: 03/15/16 17:12								
1,2-Dichloroethane-d4	10.0	105	69 - 130	5.216				
Toluene-d8	10.0	97.7	81 - 117	7.019				
p-Bromofluorobenzene	10.0	88.0	79 - 122	9.782				
05/TB20160309 (16C0466-05) Lab File ID: V6017810.D Analyzed: 03/15/16 17:41								
1,2-Dichloroethane-d4	10.0	103	69 - 130	5.213				
Toluene-d8	10.0	99.1	81 - 117	7.019				
p-Bromofluorobenzene	10.0	99.0	79 - 122	9.784				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BS1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	50.0	54	107	75 - 129
1,1,1-Trichloroethane	50.0	51	102	71 - 137
1,1,2,2-Tetrachloroethane	50.0	56	113	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	50.0	54	108	58 - 146
1,1,2-Trichloroethane	50.0	56	111	83 - 123
1,1-Dichloroethane	50.0	56	111	75 - 130
1,1-Dichloroethylene	50.0	49	97.5	64 - 137
1,1-Dichloropropylene	50.0	54	108	77 - 127
1,2,3-Trichlorobenzene	50.0	55	110	81 - 140
1,2,3-Trichloropropane	50.0	53	106	81 - 126
1,2,4-Trichlorobenzene	50.0	55	110	80 - 141
1,2,4-Trimethylbenzene	50.0	50	99.5	84 - 125
1,2-Dibromo-3-chloropropane	50.0	55	111	74 - 142
1,2-Dibromoethane	50.0	54	108	86 - 123
1,2-Dichlorobenzene	50.0	54	109	85 - 122
1,2-Dichloroethane	50.0	51	102	71 - 133
1,2-Dichloropropane	50.0	53	106	81 - 122
1,3,5-Trimethylbenzene	50.0	49	98.9	82 - 126
1,3-Dichlorobenzene	50.0	53	107	84 - 124
1,3-Dichloropropane	50.0	55	111	83 - 123
1,4-Dichlorobenzene	50.0	52	103	84 - 124
1,4-Dioxane	1000	1600	165	10 - 228
2,2-Dichloropropane	50.0	51	103	67 - 136
2-Butanone	50.0	58	116	58 - 147
2-Chlorotoluene	50.0	50	101	78 - 127
2-Hexanone	50.0	60	120	70 - 139
4-Chlorotoluene	50.0	49	97.8	79 - 125
4-Methyl-2-pentanone	50.0	61	121	72 - 132
Acetone	50.0	54	108	36 - 155
Acrolein	50.0	100	202	10 - 238

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BS1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Acrylonitrile	50.0	60	121	66 - 141
Benzene	50.0	54	109	77 - 127
Bromobenzene	50.0	49	97.7	77 - 129
Bromochloromethane	50.0	56	111	74 - 129
Bromodichloromethane	50.0	52	103	81 - 124
Bromoform	50.0	53	107	80 - 136
Bromomethane	50.0	44	87.6	32 - 177
Carbon disulfide	50.0	53	105	10 - 136
Carbon tetrachloride	50.0	49	98.1	66 - 143
Chlorobenzene	50.0	54	109	86 - 120
Chloroethane	50.0	54	108	51 - 142
Chloroform	50.0	53	107	76 - 131
Chloromethane	50.0	52	104	49 - 132
cis-1,2-Dichloroethylene	50.0	54	108	74 - 132
cis-1,3-Dichloropropylene	50.0	52	104	81 - 129
Cyclohexane	50.0	58	116	70 - 130
Dibromochloromethane	50.0	54	108	10 - 200
Dibromomethane	50.0	53	106	83 - 124
Dichlorodifluoromethane	50.0	45	89.8	28 - 158
Ethyl Benzene	50.0	50	99.9	84 - 125
Hexachlorobutadiene	50.0	50	99.8	83 - 133
Isopropylbenzene	50.0	51	102	81 - 127
Methyl acetate	50.0	62	125	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	53	106	74 - 131
Methylcyclohexane	50.0	56	112	70 - 130
Methylene chloride	50.0	51	101	57 - 141
n-Butylbenzene	50.0	50	101	80 - 130
n-Propylbenzene	50.0	51	103	74 - 136
o-Xylene	50.0	51	103	83 - 123
p- & m- Xylenes	100	98	98.2	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Batch: BC60766

Laboratory ID: BC60766-BS1

Preparation: EPA 5035A

Initial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
p-Isopropyltoluene	50.0	50	99.9	85 - 125
sec-Butylbenzene	50.0	52	104	83 - 125
Styrene	50.0	52	104	86 - 126
tert-Butyl alcohol (TBA)	50.0	64	128	70 - 130
tert-Butylbenzene	50.0	51	103	80 - 127
Tetrachloroethylene	50.0	52	104	80 - 129
Toluene	50.0	52	104	85 - 121
trans-1,2-Dichloroethylene	50.0	54	108	72 - 132
trans-1,3-Dichloropropylene	50.0	51	101	78 - 132
Trichloroethylene	50.0	54	107	84 - 123
Trichlorofluoromethane	50.0	48	96.5	62 - 140
Vinyl acetate	50.0	88	175 *	67 - 136
Vinyl Chloride	50.0	52	104	52 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BSD1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	50.0	54	108	1.17	30	75 - 129
1,1,1-Trichloroethane	50.0	49	98.2	3.87	30	71 - 137
1,1,2,2-Tetrachloroethane	50.0	57	113	0.513	30	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54	107	0.633	30	58 - 146
1,1,2-Trichloroethane	50.0	56	112	0.788	30	83 - 123
1,1-Dichloroethane	50.0	54	108	2.46	30	75 - 130
1,1-Dichloroethylene	50.0	48	96.4	1.13	30	64 - 137
1,1-Dichloropropylene	50.0	54	109	1.22	30	77 - 127
1,2,3-Trichlorobenzene	50.0	54	108	1.96	30	81 - 140
1,2,3-Trichloropropane	50.0	54	108	1.27	30	81 - 126
1,2,4-Trichlorobenzene	50.0	53	107	3.05	30	80 - 141
1,2,4-Trimethylbenzene	50.0	50	99.7	0.221	30	84 - 125
1,2-Dibromo-3-chloropropane	50.0	54	108	2.08	30	74 - 142
1,2-Dibromoethane	50.0	54	108	0.0743	30	86 - 123
1,2-Dichlorobenzene	50.0	54	109	0.0735	30	85 - 122
1,2-Dichloroethane	50.0	51	102	0.452	30	71 - 133
1,2-Dichloropropane	50.0	55	110	3.15	30	81 - 122
1,3,5-Trimethylbenzene	50.0	49	98.8	0.121	30	82 - 126
1,3-Dichlorobenzene	50.0	54	107	0.485	30	84 - 124
1,3-Dichloropropane	50.0	55	111	0.0903	30	83 - 123
1,4-Dichlorobenzene	50.0	53	106	2.35	30	84 - 124
1,4-Dioxane	1000	1600	159	3.76	30	10 - 228
2,2-Dichloropropane	50.0	51	101	1.59	30	67 - 136
2-Butanone	50.0	55	109	5.78	30	58 - 147
2-Chlorotoluene	50.0	50	101	0.258	30	78 - 127
2-Hexanone	50.0	58	115	4.07	30	70 - 139
4-Chlorotoluene	50.0	49	98.7	0.855	30	79 - 125
4-Methyl-2-pentanone	50.0	56	112	7.97	30	72 - 132
Acetone	50.0	49	97.2	10.7	30	36 - 155
Acrolein	50.0	97	193	4.39	30	10 - 238

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BSD1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Acrylonitrile	50.0	57	114	5.44	30	66 - 141
Benzene	50.0	54	108	1.27	30	77 - 127
Bromobenzene	50.0	50	100	2.43	30	77 - 129
Bromochloromethane	50.0	54	109	2.07	30	74 - 129
Bromodichloromethane	50.0	54	108	4.08	30	81 - 124
Bromoform	50.0	53	106	0.507	30	80 - 136
Bromomethane	50.0	46	91.7	4.64	30	32 - 177
Carbon disulfide	50.0	50	99.2	5.72	30	10 - 136
Carbon tetrachloride	50.0	48	96.2	2.00	30	66 - 143
Chlorobenzene	50.0	55	111	1.82	30	86 - 120
Chloroethane	50.0	53	106	2.60	30	51 - 142
Chloroform	50.0	52	103	3.18	30	76 - 131
Chloromethane	50.0	50	100	3.12	30	49 - 132
cis-1,2-Dichloroethylene	50.0	56	111	3.09	30	74 - 132
cis-1,3-Dichloropropylene	50.0	53	107	2.77	30	81 - 129
Cyclohexane	50.0	53	106	9.48	30	70 - 130
Dibromochloromethane	50.0	54	108	0.575	30	10 - 200
Dibromomethane	50.0	53	107	1.15	30	83 - 124
Dichlorodifluoromethane	50.0	40	80.5	10.9	30	28 - 158
Ethyl Benzene	50.0	50	101	0.956	30	84 - 125
Hexachlorobutadiene	50.0	51	101	1.21	30	83 - 133
Isopropylbenzene	50.0	52	104	1.75	30	81 - 127
Methyl acetate	50.0	60	120	3.78	30	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	51	103	2.90	30	74 - 131
Methylcyclohexane	50.0	56	112	0.268	30	70 - 130
Methylene chloride	50.0	49	98.0	3.27	30	57 - 141
n-Butylbenzene	50.0	50	100	0.577	30	80 - 130
n-Propylbenzene	50.0	52	104	1.30	30	74 - 136
o-Xylene	50.0	52	104	1.30	30	83 - 123
p- & m- Xylenes	100	99	98.6	0.335	30	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BSD1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
p-Isopropyltoluene	50.0	51	102	2.47	30	85 - 125
sec-Butylbenzene	50.0	52	105	0.806	30	83 - 125
Styrene	50.0	53	105	1.57	30	86 - 126
tert-Butyl alcohol (TBA)	50.0	57	114	11.5	30	70 - 130
tert-Butylbenzene	50.0	52	103	0.738	30	80 - 127
Tetrachloroethylene	50.0	52	103	1.02	30	80 - 129
Toluene	50.0	52	103	0.174	30	85 - 121
trans-1,2-Dichloroethylene	50.0	53	106	1.52	30	72 - 132
trans-1,3-Dichloropropylene	50.0	50	101	0.673	30	78 - 132
Trichloroethylene	50.0	53	105	1.68	30	84 - 123
Trichlorofluoromethane	50.0	47	93.3	3.35	30	62 - 140
Vinyl acetate	50.0	84	169 *	3.86	30	67 - 136
Vinyl Chloride	50.0	52	104	0.0578	30	52 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BS1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	10.0	11	113	82 - 126
1,1,1-Trichloroethane	10.0	12	125	78 - 136
1,1,2,2-Tetrachloroethane	10.0	9.4	94.0	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	12	123	54 - 165
1,1,2-Trichloroethane	10.0	9.9	99.3	82 - 123
1,1-Dichloroethane	10.0	11	115	82 - 129
1,1-Dichloroethylene	10.0	12	120	68 - 138
1,1-Dichloropropylene	10.0	12	117	83 - 133
1,2,3-Trichlorobenzene	10.0	9.6	96.0	76 - 136
1,2,3-Trichloropropane	10.0	9.9	98.9	77 - 128
1,2,4-Trichlorobenzene	10.0	10	105	76 - 137
1,2,4-Trimethylbenzene	10.0	11	110	82 - 132
1,2-Dibromo-3-chloropropane	10.0	8.5	85.1	45 - 147
1,2-Dibromoethane	10.0	9.9	99.1	83 - 124
1,2-Dichlorobenzene	10.0	11	109	79 - 123
1,2-Dichloroethane	10.0	12	118	73 - 132
1,2-Dichloropropane	10.0	10	103	78 - 126
1,3,5-Trimethylbenzene	10.0	11	110	80 - 131
1,3-Dichlorobenzene	10.0	12	116	86 - 122
1,3-Dichloropropane	10.0	10	101	81 - 125
1,4-Dichlorobenzene	10.0	12	115	85 - 124
1,4-Dioxane	200	140	72.3	10 - 349
2,2-Dichloropropane	10.0	13	129	56 - 150
2-Butanone	10.0	6.5	65.2	49 - 152
2-Chlorotoluene	10.0	12	117	79 - 130
2-Hexanone	10.0	6.8	67.5	51 - 146
4-Chlorotoluene	10.0	12	119	79 - 128
4-Methyl-2-pentanone	10.0	9.8	97.6	57 - 145
Acetone	10.0	10	101	14 - 150
Acrolein	10.0	8.7	87.0	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BS1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Acrylonitrile	10.0	8.4	83.6	51 - 150
Benzene	10.0	11	114	85 - 126
Bromobenzene	10.0	10	102	78 - 129
Bromochloromethane	10.0	11	113	77 - 128
Bromodichloromethane	10.0	11	106	79 - 128
Bromoform	10.0	9.8	97.5	78 - 133
Bromomethane	10.0	5.7	57.1	43 - 168
Carbon disulfide	10.0	11	113	68 - 146
Carbon tetrachloride	10.0	13	126	77 - 141
Chlorobenzene	10.0	11	114	88 - 120
Chloroethane	10.0	12	116	65 - 136
Chloroform	10.0	12	117	82 - 128
Chloromethane	10.0	10	101	43 - 155
cis-1,2-Dichloroethylene	10.0	12	118	83 - 129
cis-1,3-Dichloropropylene	10.0	10	104	80 - 131
Cyclohexane	10.0	12	118	63 - 149
Dibromochloromethane	10.0	11	107	80 - 130
Dibromomethane	10.0	10	99.6	72 - 134
Dichlorodifluoromethane	10.0	14	140	44 - 144
Ethyl Benzene	10.0	11	111	80 - 131
Hexachlorobutadiene	10.0	11	114	67 - 146
Isopropylbenzene	10.0	12	118	76 - 140
Methyl acetate	10.0	10	102	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	11	110	76 - 135
Methylcyclohexane	10.0	11	106	72 - 143
Methylene chloride	10.0	11	115	55 - 137
n-Butylbenzene	10.0	11	111	79 - 132
n-Propylbenzene	10.0	12	118	78 - 133
o-Xylene	10.0	12	117	78 - 130
p- & m- Xylenes	20.0	23	116	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BS1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
p-Isopropyltoluene	10.0	11	114	81 - 136
sec-Butylbenzene	10.0	12	120	79 - 137
Styrene	10.0	10	105	67 - 132
tert-Butyl alcohol (TBA)	10.0	8.3	83.4	25 - 162
tert-Butylbenzene	10.0	12	117	77 - 138
Tetrachloroethylene	10.0	11	110	82 - 131
Toluene	10.0	11	108	80 - 127
trans-1,2-Dichloroethylene	10.0	12	117	80 - 132
trans-1,3-Dichloropropylene	10.0	10	103	78 - 131
Trichloroethylene	10.0	11	108	82 - 128
Trichlorofluoromethane	10.0	13	132	67 - 139
Vinyl acetate	10.0	11	109 *	21 - 90
Vinyl Chloride	10.0	11	114	58 - 145

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BSD1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	10.0	12	119	5.17	30	82 - 126
1,1,1-Trichloroethane	10.0	13	128	2.14	30	78 - 136
1,1,2,2-Tetrachloroethane	10.0	10	104	9.72	30	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	13	126	2.49	30	54 - 165
1,1,2-Trichloroethane	10.0	11	110	9.86	30	82 - 123
1,1-Dichloroethane	10.0	12	119	3.68	30	82 - 129
1,1-Dichloroethylene	10.0	12	124	2.86	30	68 - 138
1,1-Dichloropropylene	10.0	12	119	1.78	30	83 - 133
1,2,3-Trichlorobenzene	10.0	11	113	16.3	30	76 - 136
1,2,3-Trichloropropane	10.0	11	109	9.62	30	77 - 128
1,2,4-Trichlorobenzene	10.0	11	114	7.96	30	76 - 137
1,2,4-Trimethylbenzene	10.0	11	110	0.365	30	82 - 132
1,2-Dibromo-3-chloropropane	10.0	9.1	90.6	6.26	30	45 - 147
1,2-Dibromoethane	10.0	11	110	10.2	30	83 - 124
1,2-Dichlorobenzene	10.0	11	113	3.59	30	79 - 123
1,2-Dichloroethane	10.0	12	124	5.29	30	73 - 132
1,2-Dichloropropane	10.0	11	107	4.47	30	78 - 126
1,3,5-Trimethylbenzene	10.0	11	111	1.08	30	80 - 131
1,3-Dichlorobenzene	10.0	12	117	1.12	30	86 - 122
1,3-Dichloropropane	10.0	11	109	7.63	30	81 - 125
1,4-Dichlorobenzene	10.0	12	117	1.98	30	85 - 124
1,4-Dioxane	200	180	89.4	21.1	30	10 - 349
2,2-Dichloropropane	10.0	13	130	0.542	30	56 - 150
2-Butanone	10.0	8.2	81.5	22.2	30	49 - 152
2-Chlorotoluene	10.0	12	117	0.342	30	79 - 130
2-Hexanone	10.0	8.1	80.6	17.7	30	51 - 146
4-Chlorotoluene	10.0	12	120	1.09	30	79 - 128
4-Methyl-2-pentanone	10.0	11	110	12.2	30	57 - 145
Acetone	10.0	11	113	10.7	30	14 - 150
Acrolein	10.0	10	100	14.0	30	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BSD1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Acrylonitrile	10.0	8.8	88.4	5.58	30	51 - 150
Benzene	10.0	12	119	3.95	30	85 - 126
Bromobenzene	10.0	11	106	4.23	30	78 - 129
Bromochloromethane	10.0	12	120	5.49	30	77 - 128
Bromodichloromethane	10.0	11	112	6.06	30	79 - 128
Bromoform	10.0	11	109	10.9	30	78 - 133
Bromomethane	10.0	7.4	74.1	25.9	30	43 - 168
Carbon disulfide	10.0	11	115	1.76	30	68 - 146
Carbon tetrachloride	10.0	13	129	2.66	30	77 - 141
Chlorobenzene	10.0	12	119	4.73	30	88 - 120
Chloroethane	10.0	12	120	3.74	30	65 - 136
Chloroform	10.0	12	125	5.95	30	82 - 128
Chloromethane	10.0	10	102	0.791	30	43 - 155
cis-1,2-Dichloroethylene	10.0	12	122	3.35	30	83 - 129
cis-1,3-Dichloropropylene	10.0	11	112	7.22	30	80 - 131
Cyclohexane	10.0	12	120	2.27	30	63 - 149
Dibromochloromethane	10.0	12	115	7.75	30	80 - 130
Dibromomethane	10.0	11	110	9.47	30	72 - 134
Dichlorodifluoromethane	10.0	14	137	2.45	30	44 - 144
Ethyl Benzene	10.0	12	115	3.45	30	80 - 131
Hexachlorobutadiene	10.0	12	121	5.94	30	67 - 146
Isopropylbenzene	10.0	12	117	0.682	30	76 - 140
Methyl acetate	10.0	11	109	6.44	30	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	12	119	8.02	30	76 - 135
Methylcyclohexane	10.0	11	110	3.90	30	72 - 143
Methylene chloride	10.0	12	121	5.01	30	55 - 137
n-Butylbenzene	10.0	11	111	0.00	30	79 - 132
n-Propylbenzene	10.0	12	118	0.169	30	78 - 133
o-Xylene	10.0	12	121	3.53	30	78 - 130
p- & m- Xylenes	20.0	24	121	4.27	30	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BSD1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
p-Isopropyltoluene	10.0	11	112	1.77	30	81 - 136
sec-Butylbenzene	10.0	12	120	0.00	30	79 - 137
Styrene	10.0	11	109	4.11	30	67 - 132
tert-Butyl alcohol (TBA)	10.0	9.5	94.7	12.7	30	25 - 162
tert-Butylbenzene	10.0	12	117	0.512	30	77 - 138
Tetrachloroethylen	10.0	11	115	4.19	30	82 - 131
Toluene	10.0	11	110	1.83	30	80 - 127
trans-1,2-Dichloroethylene	10.0	12	122	3.60	30	80 - 132
trans-1,3-Dichloropropylene	10.0	12	115	11.3	30	78 - 131
Trichloroethylene	10.0	11	112	3.46	30	82 - 128
Trichlorofluoromethane	10.0	13	134	1.81	30	67 - 139
Vinyl acetate	10.0	12	117 *	7.28	30	21 - 90
Vinyl Chloride	10.0	12	117	2.78	30	58 - 145

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60766-BLK1 File ID: V2567207.D
 Prepared: 03/15/16 08:49 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/15/16 09:56 Instrument: MS VOA 2
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.0050	U
71-55-6	1,1,1-Trichloroethane	0.0050	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0050	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0050	U
79-00-5	1,1,2-Trichloroethane	0.0050	U
75-34-3	1,1-Dichloroethane	0.0050	U
75-35-4	1,1-Dichloroethylene	0.0050	U
563-58-6	1,1-Dichloropropylene	0.0050	U
87-61-6	1,2,3-Trichlorobenzene	0.0050	U
96-18-4	1,2,3-Trichloropropane	0.0050	U
120-82-1	1,2,4-Trichlorobenzene	0.0050	U
95-63-6	1,2,4-Trimethylbenzene	0.0050	U
96-12-8	1,2-Dibromo-3-chloropropane	0.0050	U
106-93-4	1,2-Dibromoethane	0.0050	U
95-50-1	1,2-Dichlorobenzene	0.0050	U
107-06-2	1,2-Dichloroethane	0.0050	U
78-87-5	1,2-Dichloropropane	0.0050	U
108-67-8	1,3,5-Trimethylbenzene	0.0050	U
541-73-1	1,3-Dichlorobenzene	0.0050	U
142-28-9	1,3-Dichloropropane	0.0050	U
106-46-7	1,4-Dichlorobenzene	0.0050	U
123-91-1	1,4-Dioxane	0.10	U
594-20-7	2,2-Dichloropropane	0.0050	U
78-93-3	2-Butanone	0.0050	U
95-49-8	2-Chlorotoluene	0.0050	U
591-78-6	2-Hexanone	0.0050	U
106-43-4	4-Chlorotoluene	0.0050	U
108-10-1	4-Methyl-2-pentanone	0.0050	U
67-64-1	Acetone	0.010	U
107-02-8	Acrolein	0.010	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60766-BLK1 File ID: V2567207.D
 Prepared: 03/15/16 08:49 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/15/16 09:56 Instrument: MS VOA 2
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
107-13-1	Acrylonitrile	0.0050	U
71-43-2	Benzene	0.0050	U
108-86-1	Bromobenzene	0.0050	U
74-97-5	Bromochloromethane	0.0050	U
75-27-4	Bromodichloromethane	0.0050	U
75-25-2	Bromoform	0.0050	U
74-83-9	Bromomethane	0.0050	U
75-15-0	Carbon disulfide	0.0050	U
56-23-5	Carbon tetrachloride	0.0050	U
108-90-7	Chlorobenzene	0.0050	U
75-00-3	Chloroethane	0.0050	U
67-66-3	Chloroform	0.0050	U
74-87-3	Chloromethane	0.0050	U
156-59-2	cis-1,2-Dichloroethylene	0.0050	U
10061-01-5	cis-1,3-Dichloropropylene	0.0050	U
110-82-7	Cyclohexane	0.0050	U
124-48-1	Dibromochloromethane	0.0050	U
74-95-3	Dibromomethane	0.0050	U
75-71-8	Dichlorodifluoromethane	0.0050	U
100-41-4	Ethyl Benzene	0.0050	U
87-68-3	Hexachlorobutadiene	0.0050	U
98-82-8	Isopropylbenzene	0.0050	U
79-20-9	Methyl acetate	0.0050	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.0050	U
108-87-2	Methylcyclohexane	0.0050	U
75-09-2	Methylene chloride	0.010	U
104-51-8	n-Butylbenzene	0.0050	U
103-65-1	n-Propylbenzene	0.0050	U
95-47-6	o-Xylene	0.0050	U
179601-23-1	p- & m- Xylenes	0.010	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60766-BLK1 File ID: V2567207.D
 Prepared: 03/15/16 08:49 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/15/16 09:56 Instrument: MS VOA 2
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
99-87-6	p-Isopropyltoluene	0.0050	U
135-98-8	sec-Butylbenzene	0.0050	U
100-42-5	Styrene	0.0050	U
75-65-0	tert-Butyl alcohol (TBA)	0.010	U
98-06-6	tert-Butylbenzene	0.0050	U
127-18-4	Tetrachloroethylene	0.0050	U
108-88-3	Toluene	0.0050	U
156-60-5	trans-1,2-Dichloroethylene	0.0050	U
10061-02-6	trans-1,3-Dichloropropylene	0.0050	U
79-01-6	Trichloroethylene	0.0050	U
75-69-4	Trichlorofluoromethane	0.0050	U
108-05-4	Vinyl acetate	0.0050	U
75-01-4	Vinyl Chloride	0.0050	U
1330-20-7	Xylenes, Total	0.015	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	50.4	101	77 - 125	
Toluene-d8	50.0	49.2	98.4	85 - 120	
p-Bromofluorobenzene	50.0	44.3	88.5	76 - 130	

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60771-BLK1 File ID: V6017797.D
 Prepared: 03/15/16 08:12 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/15/16 11:22 Instrument: MSVOA6
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
75-35-4	1,1-Dichloroethylene	0.50	U
563-58-6	1,1-Dichloropropylene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
95-63-6	1,2,4-Trimethylbenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
106-93-4	1,2-Dibromoethane	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
108-67-8	1,3,5-Trimethylbenzene	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
123-91-1	1,4-Dioxane	80	U
594-20-7	2,2-Dichloropropane	0.50	U
78-93-3	2-Butanone	0.50	U
95-49-8	2-Chlorotoluene	0.50	U
591-78-6	2-Hexanone	2.0	U
106-43-4	4-Chlorotoluene	0.50	U
108-10-1	4-Methyl-2-pentanone	0.50	U
67-64-1	Acetone	2.2	
107-02-8	Acrolein	0.50	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60771-BLK1 File ID: V6017797.D
 Prepared: 03/15/16 08:12 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/15/16 11:22 Instrument: MSVOA6
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
107-13-1	Acrylonitrile	2.0	U
71-43-2	Benzene	0.50	U
108-86-1	Bromobenzene	0.50	U
74-97-5	Bromochloromethane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
75-25-2	Bromoform	0.50	U
74-83-9	Bromomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
108-90-7	Chlorobenzene	0.50	U
75-00-3	Chloroethane	0.50	U
67-66-3	Chloroform	0.50	U
74-87-3	Chloromethane	0.50	U
156-59-2	cis-1,2-Dichloroethylene	0.50	U
10061-01-5	cis-1,3-Dichloropropylene	0.50	U
110-82-7	Cyclohexane	0.50	U
124-48-1	Dibromochloromethane	0.50	U
74-95-3	Dibromomethane	0.50	U
75-71-8	Dichlorodifluoromethane	0.50	U
100-41-4	Ethyl Benzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-20-9	Methyl acetate	0.50	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.50	U
108-87-2	Methylcyclohexane	0.50	U
75-09-2	Methylene chloride	2.0	U
104-51-8	n-Butylbenzene	0.50	U
103-65-1	n-Propylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	p- & m- Xylenes	1.0	U

FORM I

METHOD BLANK DATA SHEET

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60771-BLK1 File ID: V6017797.D
 Prepared: 03/15/16 08:12 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/15/16 11:22 Instrument: MSVOA6
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
99-87-6	p-Isopropyltoluene	0.50	U
135-98-8	sec-Butylbenzene	0.50	U
100-42-5	Styrene	0.50	U
75-65-0	tert-Butyl alcohol (TBA)	2.0	U
98-06-6	tert-Butylbenzene	0.50	U
127-18-4	Tetrachloroethylene	0.50	U
108-88-3	Toluene	0.50	U
156-60-5	trans-1,2-Dichloroethylene	0.50	U
10061-02-6	trans-1,3-Dichloropropylene	0.50	U
79-01-6	Trichloroethylene	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
108-05-4	Vinyl acetate	0.50	U
75-01-4	Vinyl Chloride	0.50	U
1330-20-7	Xylenes, Total	1.5	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	10.0	10.7	107	69 - 130	
Toluene-d8	10.0	9.76	97.6	81 - 117	
p-Bromofluorobenzene	10.0	9.93	99.3	79 - 122	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8260C**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60766 Batch Matrix: Soil Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01	V2567216.D	03/15/16 09:54	
02/DUP	16C0466-02	V2567217.D	03/15/16 09:54	
03/LSB-3	16C0466-03	V2567218.D	03/15/16 09:54	
Blank	BC60766-BLK1	V2567207.D	03/15/16 08:49	
LCS	BC60766-BS1	V2567205.D	03/15/16 08:49	
LCS Dup	BC60766-BSD1	V2567206.D	03/15/16 08:49	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8260C**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60771 Batch Matrix: Water Preparation: EPA 5030B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04	V6017809.D	03/15/16 08:12	
05/TB20160309	16C0466-05	V6017810.D	03/15/16 08:12	
Blank	BC60771-BLK1	V6017797.D	03/15/16 08:12	
LCS	BC60771-BS1	V6017794.D	03/15/16 08:12	
LCS Dup	BC60771-BSD1	V6017795.D	03/15/16 08:12	

Form 5A
Volatile Organic Instrument Performance Check
Bromofluorobenzene (BFB)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: V255508C.D
 Instrument ID: VOA No. 2
 Calibration: V2C00371

SDG: 16C0466
 Project: 100433202
 BFB Injection Date: 01/14/16
 BFB Injection Time: 09:07
 Sequence: QBV2011416A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	19.3	
75	30.0-60.0% of mass 95	40.1	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	7.2	
173	Less than 2.0% of mass 174	0.0	72.4 1
174	50.0-100.0% of mass 95	72.4	
175	5.0-9.0% of mass 174	6.9	72.4 1
176	95.0-101.0% of mass 174	95.0	72.4 1
177	5.0-9.0% of mass 176	6.9	95.0 2

1- Value is % mass 174

2-Value is % mass 176

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		5 ppb VOA CALIBRATION STD	V255513C.D	01/14/16	12:35
2		10 ppb VOA CALIBRATION STD	V255514C.D	01/14/16	13:04
3		20 ppb VOA CALIBRATION STD	V255515C.D	01/14/16	13:34
4		50 ppb VOA CALIBRATION STD	V255516C.D	01/14/16	14:03
5		100 ppb VOA CALIBRATION STD	V255517C.D	01/14/16	14:33
6		200 ppb VOA CALIBRATION STD	V255518C.D	01/14/16	15:02
7		50 ppb VOA ICV STD	V255520C.D	01/14/16	16:01
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5A
Volatile Organic Instrument Performance Check
Bromofluorobenzene (BFB)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: V6017462.D
 Instrument ID: VOA No. 6
 Calibration: V6LO0083

SDG: 16C0466
 Project: 100433202
 BFB Injection Date: 03/03/16
 BFB Injection Time: 12:09
 Sequence: QBV6030316A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	17.8	
75	30.0-60.0% of mass 95	47.3	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	7.0	
173	Less than 2.0% of mass 174	0.0	77.0 1
174	50.0-100.0% of mass 95	77.0	
175	5.0-9.0% of mass 174	7.6	77 1
176	95.0-101.0% of mass 174	98.6	77 1
177	5.0-9.0% of mass 176	7.4	98.6 2

1- Value is % mass 174

2-Value is % mass 176

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		VOA CALIBRATION CURVE LEVEL 1	V6017466.D	03/03/16	14:12
2		VOA CALIBRATION CURVE LEVEL 2	V6017467.D	03/03/16	14:41
3		VOA CALIBRATION CURVE LEVEL 3	V6017468.D	03/03/16	15:10
4		VOA CALIBRATION CURVE LEVEL 4	V6017469.D	03/03/16	15:41
5		VOA CALIBRATION CURVE LEVEL 5	V6017470.D	03/03/16	16:10
6		VOA CALIBRATION CURVE LEVEL 6	V6017471.D	03/03/16	16:40
7		VOA CALIBRATION CURVE LEVEL 7	V6017472.D	03/03/16	17:09
8		VOA CALIBRATION CURVE LEVEL 8	V6017473.D	03/03/16	17:39
9		VOA CALIBRATION CURVE LEVEL 9	V6017474.D	03/03/16	18:08
10		ICV	V6017476.D	03/03/16	19:07
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5A
Volatile Organic Instrument Performance Check
Bromofluorobenzene (BFB)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: V2567203.D
 Instrument ID: VOA No. 2
 Calibration: V2C00371

SDG: 16C0466
 Project: 100433202
 BFB Injection Date: 03/15/16
 BFB Injection Time: 07:48
 Sequence: QBV2031516A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	18.0	
75	30.0-60.0% of mass 95	40.5	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	6.8	
173	Less than 2.0% of mass 174	0.0	73.3 1
174	50.0-100.0% of mass 95	73.3	
175	5.0-9.0% of mass 174	7.5	73.3 1
176	95.0-101.0% of mass 174	100.0	73.3 1
177	5.0-9.0% of mass 176	5.9	2

1- Value is % mass 174

2-Value is % mass 176

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		50ppb VOA CAL CHECK	V2567204.D	03/15/16	08:20
2		BC60766-BS1	V2567205.D	3/15/2016	8:56
3		BC60766-BSD1	V2567206.D	3/15/2016	9:26
4		BC60766-BLK1	V2567207.D	3/15/2016	9:56
5	01/LSB-3	16C0466-01	V2567216.D	3/15/2016	14:33
6	02/DUP	16C0466-02	V2567217.D	3/15/2016	15:02
7	03/LSB-3	16C0466-03	V2567218.D	3/15/2016	15:32
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5A
Volatile Organic Instrument Performance Check
Bromofluorobenzene (BFB)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: V6017792.D
 Instrument ID: VOA No. 6
 Calibration: V6LO0083

SDG: 16C0466
 Project: 100433202
 BFB Injection Date: 03/15/16
 BFB Injection Time: 08:44
 Sequence: QBV6031516A

m/e	Ion Abundance Criteria	% Relative Abundance	
50	15.0-40.0% of mass 95	20.7	
75	30.0-60.0% of mass 95	50.9	
95	Base peak, 100% relative abundance	100.0	
96	5.0-9.0% of mass 95	6.8	
173	Less than 2.0% of mass 174	0.2	78.2 1
174	50.0-100.0% of mass 95	78.2	
175	5.0-9.0% of mass 174	7.5	78.2 1
176	95.0-101.0% of mass 174	97.6	78.2 1
177	5.0-9.0% of mass 176	6.4	97.6 2

1- Value is % mass 174

2-Value is % mass 176

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		10ppb VOA CAL CHECK	V6017793.D	3/15/2016	09:15
2		BC60771-BS1	V6017794.D	3/15/2016	9:54
3		BC60771-BSD1	V6017795.D	3/15/2016	10:24
4		BC60771-BLK1	V6017797.D	3/15/2016	10:53
5	04/FB20160309	16C0466-04	V6017809.D	3/15/2016	17:12
6	05/TB20160309	16C0466-05	V6017810.D	3/15/2016	17:41
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 8A

SDG: 16C0466
Project: 100433202
Instrument ID: VOA No. 2
Injection Date: 10/23/15
Injection Time: 08:20

[illegible]

1S 1 (FBZ) = Fluorobenzene
1S 2 (CBZ) = Chlorobenzene-d5
1S 3 (DCB) = 1,2-Dichlorobenzene-d4

Area Upper Limit	+100% of internal standard area
Area Lower Limit	-50% of internal standard area
RT Upper Limit	+0.50 minutes of internal standard RT
RT Upper Limit	-0.50 minutes of internal standard RT

* = Values outside of QC limits

Form 8A

Lab Name: York Analytical Laboratories, Inc.
Client: Langan Engineering & Environmental Services (NJ)
Sequence: QBV6031516A
Calibration: V6LO0083
Lab File ID: V6017793.D

SDG: 16C0466
Project: 100433202
Instrument ID: VOA No. 6
Injection Date: 03/15/16
Injection Time: 09:15

[illegible]

IS 1 (FBZ) = Fluorobenzene

IS 2 (CBZ) = Chlorobenzene-d5

IS 3 (DCB) = 1,2-Dichlorobenzene-d4

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* = Values outside of QC limits

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: MS VOA 2

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.0025	0.0050	mg/kg
1,1,1-Trichloroethane	0.0025	0.0050	mg/kg
1,1,2,2-Tetrachloroethane	0.0025	0.0050	mg/kg
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0025	0.0050	mg/kg
1,1,2-Trichloroethane	0.0025	0.0050	mg/kg
1,1-Dichloroethane	0.0025	0.0050	mg/kg
1,1-Dichloroethylene	0.0025	0.0050	mg/kg
1,1-Dichloropropylene	0.0025	0.0050	mg/kg
1,2,3-Trichlorobenzene	0.0025	0.0050	mg/kg
1,2,3-Trichloropropane	0.0025	0.0050	mg/kg
1,2,4-Trichlorobenzene	0.0025	0.0050	mg/kg
1,2,4-Trimethylbenzene	0.0025	0.0050	mg/kg
1,2-Dibromo-3-chloropropane	0.0025	0.0050	mg/kg
1,2-Dibromoethane	0.0025	0.0050	mg/kg
1,2-Dichlorobenzene	0.0025	0.0050	mg/kg
1,2-Dichloroethane	0.0025	0.0050	mg/kg
1,2-Dichloropropane	0.0025	0.0050	mg/kg
1,3,5-Trimethylbenzene	0.0025	0.0050	mg/kg
1,3-Dichlorobenzene	0.0025	0.0050	mg/kg
1,3-Dichloropropane	0.0025	0.0050	mg/kg
1,4-Dichlorobenzene	0.0025	0.0050	mg/kg
1,4-Dioxane	0.050	0.10	mg/kg
2,2-Dichloropropane	0.0025	0.0050	mg/kg
2-Butanone	0.0025	0.0050	mg/kg
2-Chlorotoluene	0.0025	0.0050	mg/kg
2-Hexanone	0.0025	0.0050	mg/kg
4-Chlorotoluene	0.0025	0.0050	mg/kg
4-Methyl-2-pentanone	0.0025	0.0050	mg/kg
Acetone	0.0050	0.010	mg/kg
Acrolein	0.0050	0.010	mg/kg
Acrylonitrile	0.0025	0.0050	mg/kg
Benzene	0.0025	0.0050	mg/kg
Bromobenzene	0.0025	0.0050	mg/kg
Bromochloromethane	0.0025	0.0050	mg/kg
Bromodichloromethane	0.0025	0.0050	mg/kg
Bromoform	0.0025	0.0050	mg/kg
Bromomethane	0.0025	0.0050	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: MS VOA 2

Analyte	LOD	LOQ	Units
Carbon disulfide	0.0025	0.0050	mg/kg
Carbon tetrachloride	0.0025	0.0050	mg/kg
Chlorobenzene	0.0025	0.0050	mg/kg
Chloroethane	0.0025	0.0050	mg/kg
Chloroform	0.0025	0.0050	mg/kg
Chloromethane	0.0025	0.0050	mg/kg
cis-1,2-Dichloroethylene	0.0025	0.0050	mg/kg
cis-1,3-Dichloropropylene	0.0025	0.0050	mg/kg
Cyclohexane	0.0025	0.0050	mg/kg
Dibromochloromethane	0.0025	0.0050	mg/kg
Dibromomethane	0.0025	0.0050	mg/kg
Dichlorodifluoromethane	0.0025	0.0050	mg/kg
Ethyl Benzene	0.0025	0.0050	mg/kg
Hexachlorobutadiene	0.0025	0.0050	mg/kg
Isopropylbenzene	0.0025	0.0050	mg/kg
Methyl acetate	0.0025	0.0050	mg/kg
Methyl tert-butyl ether (MTBE)	0.0025	0.0050	mg/kg
Methyleyclohexane	0.0025	0.0050	mg/kg
Methylene chloride	0.0050	0.010	mg/kg
n-Butylbenzene	0.0025	0.0050	mg/kg
n-Propylbenzene	0.0025	0.0050	mg/kg
o-Xylene	0.0025	0.0050	mg/kg
p- & m- Xylenes	0.0050	0.010	mg/kg
p-Isopropyltoluene	0.0025	0.0050	mg/kg
sec-Butylbenzene	0.0025	0.0050	mg/kg
Styrene	0.0025	0.0050	mg/kg
tert-Butyl alcohol (TBA)	0.0025	0.0050	mg/kg
tert-Butylbenzene	0.0025	0.0050	mg/kg
Tetrachloroethylene	0.0025	0.0050	mg/kg
Toluene	0.0025	0.0050	mg/kg
trans-1,2-Dichloroethylene	0.0025	0.0050	mg/kg
trans-1,3-Dichloropropylene	0.0025	0.0050	mg/kg
Trichloroethylene	0.0025	0.0050	mg/kg
Trichlorofluoromethane	0.0025	0.0050	mg/kg
Vinyl acetate	0.0025	0.0050	mg/kg
Vinyl Chloride	0.0025	0.0050	mg/kg
Xylenes, Total	0.0075	0.015	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: MSVOA6

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.20	0.50	ug/L
1,1,1-Trichloroethane	0.20	0.50	ug/L
1,1,2,2-Tetrachloroethane	0.20	0.50	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.20	0.50	ug/L
1,1,2-Trichloroethane	0.20	0.50	ug/L
1,1-Dichloroethane	0.20	0.50	ug/L
1,1-Dichloroethylene	0.20	0.50	ug/L
1,1-Dichloropropylene	0.20	0.50	ug/L
1,2,3-Trichlorobenzene	0.20	0.50	ug/L
1,2,3-Trichloropropane	0.20	0.50	ug/L
1,2,4-Trichlorobenzene	0.20	0.50	ug/L
1,2,4-Trimethylbenzene	0.20	0.50	ug/L
1,2-Dibromo-3-chloropropane	0.20	0.50	ug/L
1,2-Dibromoethane	0.20	0.50	ug/L
1,2-Dichlorobenzene	0.20	0.50	ug/L
1,2-Dichloroethane	0.20	0.50	ug/L
1,2-Dichloropropane	0.20	0.50	ug/L
1,3,5-Trimethylbenzene	0.20	0.50	ug/L
1,3-Dichlorobenzene	0.20	0.50	ug/L
1,3-Dichloropropane	0.20	0.50	ug/L
1,4-Dichlorobenzene	0.20	0.50	ug/L
1,4-Dioxane	40	40	ug/L
2,2-Dichloropropane	0.20	0.50	ug/L
2-Butanone	0.20	0.50	ug/L
2-Chlorotoluene	0.20	0.50	ug/L
2-Hexanone	0.20	0.50	ug/L
4-Chlorotoluene	0.20	0.50	ug/L
4-Methyl-2-pentanone	0.20	0.50	ug/L
Acetone	1.0	2.0	ug/L
Acrolein	0.20	0.50	ug/L
Acrylonitrile	0.20	0.50	ug/L
Benzene	0.20	0.50	ug/L
Bromobenzene	0.20	0.50	ug/L
Bromochloromethane	0.20	0.50	ug/L
Bromodichloromethane	0.20	0.50	ug/L
Bromoform	0.20	0.50	ug/L
Bromomethane	0.20	0.50	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: MSVOA6

Analyte	LOD	LOQ	Units
Carbon disulfide	0.20	0.50	ug/L
Carbon tetrachloride	0.20	0.50	ug/L
Chlorobenzene	0.20	0.50	ug/L
Chloroethane	0.20	0.50	ug/L
Chloroform	0.20	0.50	ug/L
Chloromethane	0.20	0.50	ug/L
cis-1,2-Dichloroethylene	0.20	0.50	ug/L
cis-1,3-Dichloropropylene	0.20	0.50	ug/L
Cyclohexane	0.20	0.50	ug/L
Dibromochloromethane	0.20	0.50	ug/L
Dibromomethane	0.20	0.50	ug/L
Dichlorodifluoromethane	0.20	0.50	ug/L
Ethyl Benzene	0.20	0.50	ug/L
Hexachlorobutadiene	0.20	0.50	ug/L
Isopropylbenzene	0.20	0.50	ug/L
Methyl acetate	0.20	0.50	ug/L
Methyl tert-butyl ether (MTBE)	0.20	0.50	ug/L
Methyleyclohexane	0.20	0.50	ug/L
Methylene chloride	1.0	2.0	ug/L
n-Butylbenzene	0.20	0.50	ug/L
n-Propylbenzene	0.20	0.50	ug/L
o-Xylene	0.20	0.50	ug/L
p- & m- Xylenes	0.50	1.0	ug/L
p-Isopropyltoluene	0.20	0.50	ug/L
sec-Butylbenzene	0.20	0.50	ug/L
Styrene	0.20	0.50	ug/L
tert-Butyl alcohol (TBA)	0.50	1.0	ug/L
tert-Butylbenzene	0.20	0.50	ug/L
Tetrachloroethylene	0.20	0.50	ug/L
Toluene	0.20	0.50	ug/L
trans-1,2-Dichloroethylene	0.20	0.50	ug/L
trans-1,3-Dichloropropylene	0.20	0.50	ug/L
Trichloroethylene	0.20	0.50	ug/L
Trichlorofluoromethane	0.20	0.50	ug/L
Vinyl acetate	0.20	0.50	ug/L
Vinyl Chloride	0.20	0.50	ug/L
Xylenes, Total	0.60	1.5	ug/L

HOLDING TIME SUMMARY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/15/16 09:54	5.94	14.00	03/15/16 14:33	6.14	14.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/15/16 09:54	5.94	14.00	03/15/16 15:02	6.16	14.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/15/16 09:54	5.92	14.00	03/15/16 15:32	6.15	14.00	
04/FB20160309	03/09/16 12:55	03/10/16 19:54	03/15/16 08:12	5.80	14.00	03/15/16 17:12	6.18	14.00	
05/TB20160309	03/09/16 00:00	03/10/16 19:54	03/15/16 08:12	6.34	14.00	03/15/16 17:41	6.74	14.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-01 File ID: V2567216.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 09:54 Analyzed: 03/15/16 14:33
 Solids: 88.45 Preparation: EPA 5035A Initial/Final: 4.8 g / 5 ml
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED Instrument: MS VOA 2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0059	U
71-55-6	1,1,1-Trichloroethane	1	0.0059	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0059	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0059	U
79-00-5	1,1,2-Trichloroethane	1	0.0059	U
75-34-3	1,1-Dichloroethane	1	0.0059	U
75-35-4	1,1-Dichloroethylene	1	0.0059	U
563-58-6	1,1-Dichloropropylene	1	0.0059	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0059	U
96-18-4	1,2,3-Trichloropropane	1	0.0059	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0059	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0059	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0059	U
106-93-4	1,2-Dibromoethane	1	0.0059	U
95-50-1	1,2-Dichlorobenzene	1	0.0059	U
107-06-2	1,2-Dichloroethane	1	0.0059	U
78-87-5	1,2-Dichloropropane	1	0.0059	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0059	U
541-73-1	1,3-Dichlorobenzene	1	0.0059	U
142-28-9	1,3-Dichloropropane	1	0.0059	U
106-46-7	1,4-Dichlorobenzene	1	0.0059	U
123-91-1	1,4-Dioxane	1	0.12	U
594-20-7	2,2-Dichloropropane	1	0.0059	U
78-93-3	2-Butanone	1	0.0059	U
95-49-8	2-Chlorotoluene	1	0.0059	U
591-78-6	2-Hexanone	1	0.0059	U
106-43-4	4-Chlorotoluene	1	0.0059	U
108-10-1	4-Methyl-2-pentanone	1	0.0059	U
67-64-1	Acetone	1	0.012	U
107-02-8	Acrolein	1	0.012	U
107-13-1	Acrylonitrile	1	0.0059	U
71-43-2	Benzene	1	0.0059	U
108-86-1	Bromobenzene	1	0.0059	U
74-97-5	Bromochloromethane	1	0.0059	U
75-27-4	Bromodichloromethane	1	0.0059	U
75-25-2	Bromoform	1	0.0059	U
74-83-9	Bromomethane	1	0.0059	U
75-15-0	Carbon disulfide	1	0.0059	U
56-23-5	Carbon tetrachloride	1	0.0059	U
108-90-7	Chlorobenzene	1	0.0059	U

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-01 File ID: V2567216.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 09:54 Analyzed: 03/15/16 14:33
 Solids: 88.45 Preparation: EPA 5035A Initial/Final: 4.8 g / 5 ml
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED Instrument: MS VOA 2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0059	U
67-66-3	Chloroform	1	0.0059	U
74-87-3	Chloromethane	1	0.0059	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0059	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0059	U
110-82-7	Cyclohexane	1	0.0059	U
124-48-1	Dibromochloromethane	1	0.0059	U
74-95-3	Dibromomethane	1	0.0059	U
75-71-8	Dichlorodifluoromethane	1	0.0059	U
100-41-4	Ethyl Benzene	1	0.0059	U
87-68-3	Hexachlorobutadiene	1	0.0059	U
98-82-8	Isopropylbenzene	1	0.0059	U
79-20-9	Methyl acetate	1	0.0059	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0059	U
108-87-2	Methylcyclohexane	1	0.0059	U
75-09-2	Methylene chloride	1	0.012	U
104-51-8	n-Butylbenzene	1	0.0059	U
103-65-1	n-Propylbenzene	1	0.0059	U
95-47-6	o-Xylene	1	0.0059	U
179601-23-1	p- & m- Xylenes	1	0.012	U
99-87-6	p-Isopropyltoluene	1	0.0059	U
135-98-8	sec-Butylbenzene	1	0.0059	U
100-42-5	Styrene	1	0.0059	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.012	U
98-06-6	tert-Butylbenzene	1	0.0059	U
127-18-4	Tetrachloroethylene	1	0.0059	U
108-88-3	Toluene	1	0.0059	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0059	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0059	U
79-01-6	Trichloroethylene	1	0.0059	U
75-69-4	Trichlorofluoromethane	1	0.0059	U
108-05-4	Vinyl acetate	1	0.0059	U
75-01-4	Vinyl Chloride	1	0.0059	U
1330-20-7	Xylenes, Total	1	0.018	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	50.3	101	77 - 125	
Toluene-d8	50.0	48.8	97.6	85 - 120	
p-Bromofluorobenzene	50.0	45.3	90.5	76 - 130	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567216.D Vial: 14
 Acq On : 15 Mar 2016 2:33 pm Operator: BK
 Sample : 16C0466-01 Inst : MS VOA 2
 Misc : QBV2031516A 8260 COMP B 4.80g Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 16 12:24 2016 Quant Results File: V2C00371.RES

Quant Method : G:\MSVOAM~1\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.77	70	171609	50.00	ppb	0.02
35) CHLOROBENZENE-d5(ISTD)	8.78	117	656952	50.00	ppb	0.03
64) 1,2-DICHLOROBENZENE-d4(IST	11.74	152	287723	50.00	ppb	0.03

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR	5.46	65	218197	50.29	ppb	0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	100.58%
47) Toluene-d8(SURR)	7.30	98	787460	48.81	ppb	0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	97.62%
66) p-Bromofluorobenzene(SURR)	10.04	174	241839	45.27	ppb	0.02
Spiked Amount	50.000	Range	63 - 166	Recovery	=	90.54%

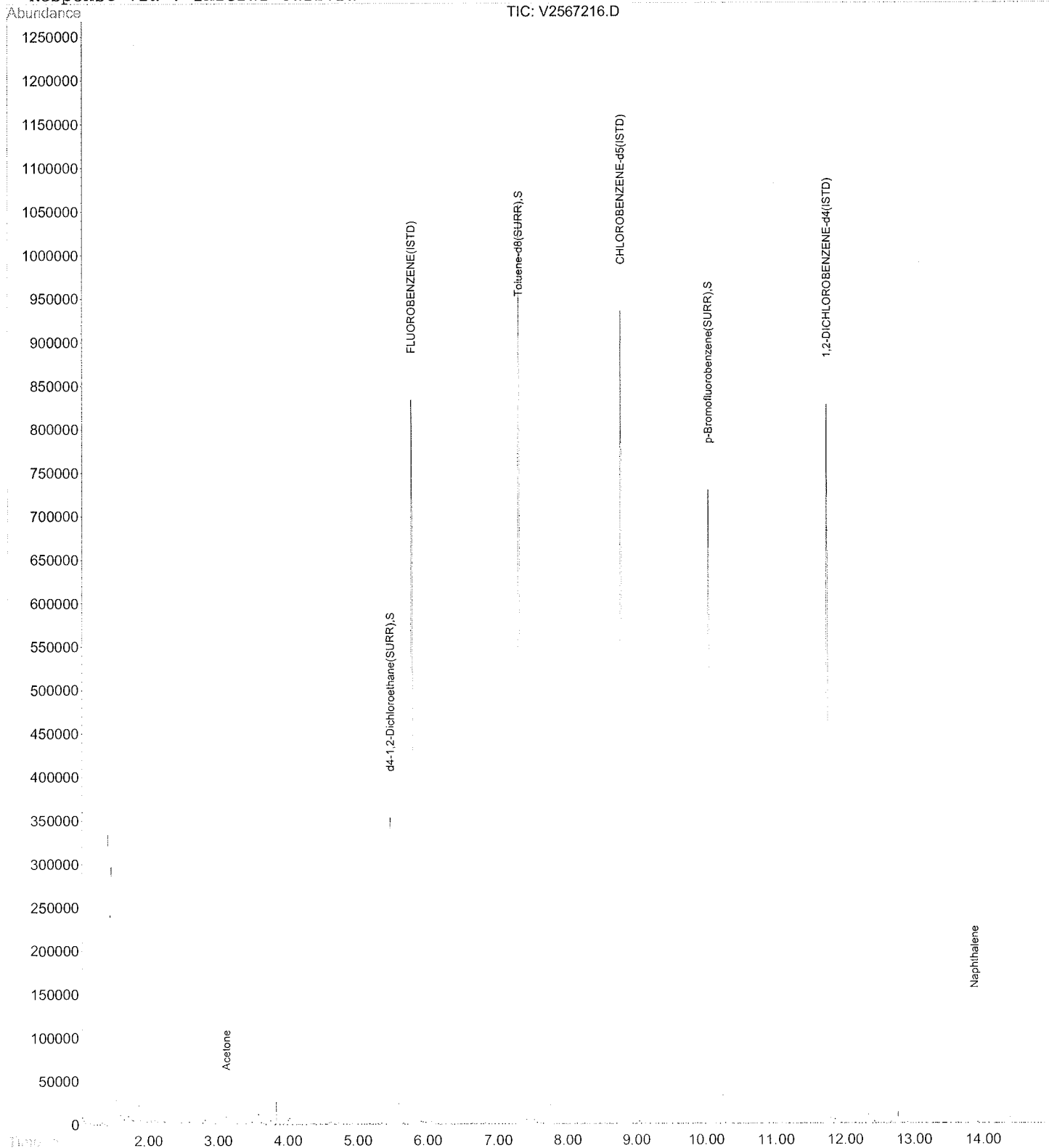
Target Compounds

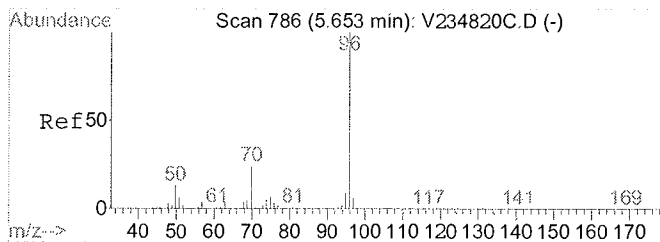
	R.T.	QIon	Response	Conc	Units	Qvalue
20) Acetone	3.11	43	10752	4.92	ppb	98
87) Naphthalene	13.87	128	100841	8.38	ppb	# 100

Quantitation Report

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567216.D Vial: 14
 Acq On : 15 Mar 2016 2:33 pm Operator: BK
 Sample : 16C0466-01 Inst : MS VOA 2
 Misc : QBV2031516A 8260 COMP B 4.80g Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 16 12:24 2016 Quant Results File: V2C00371.RES

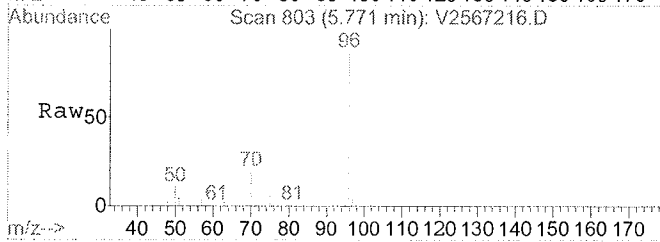
Method : G:\MSVOA METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Thu Jan 14 15:20:23 2016
 Response via : Initial Calibration



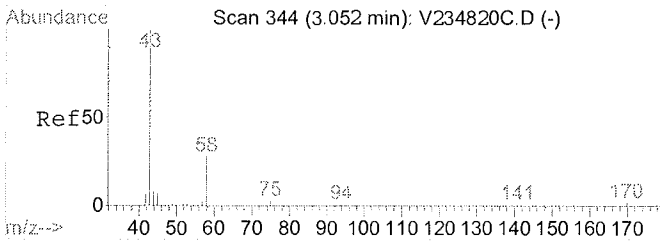
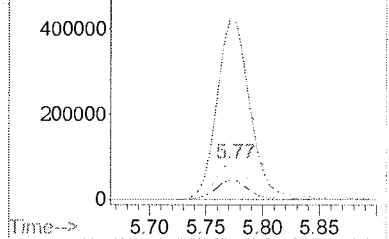
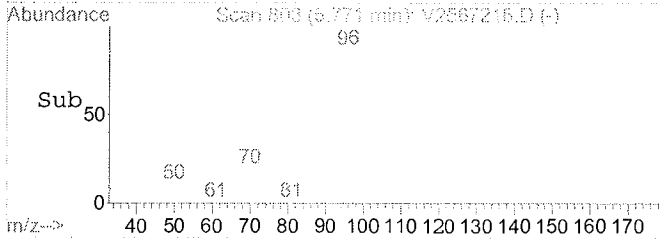


#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.77 min Scan# 803
 Delta R.T. 0.02 min
 Lab File: V2567216.D
 Acq: 15 Mar 2016 2:33 pm

Tgt Ion: 70 Resp: 171609
 Ion Ratio Lower Upper
 70 100
 96 509.3 388.6 582.8
 70 100.0 80.0 120.0
 50 0.0 0.0 0.0

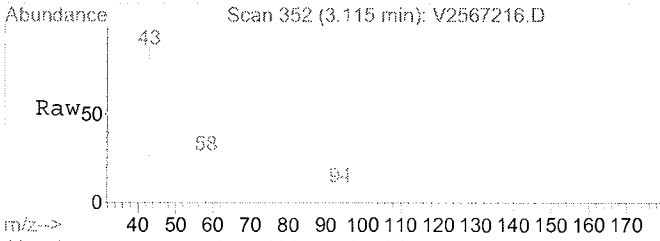


Abundance Ion 70.00 (69.70 to 70.70): V2
 Ion 96.00 (95.70 to 96.70): V2
 Ion 70.00 (69.70 to 70.70): V2
 Ion 50.00 (49.70 to 50.70): V2

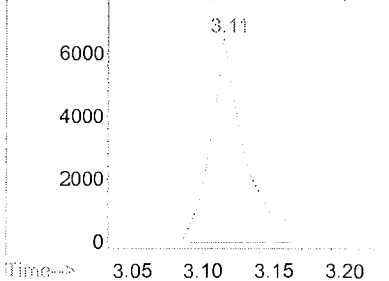
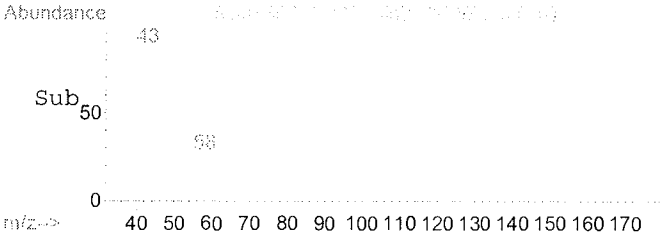


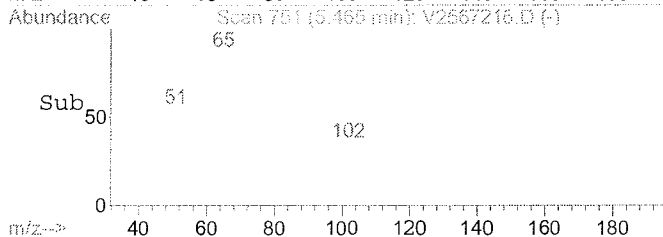
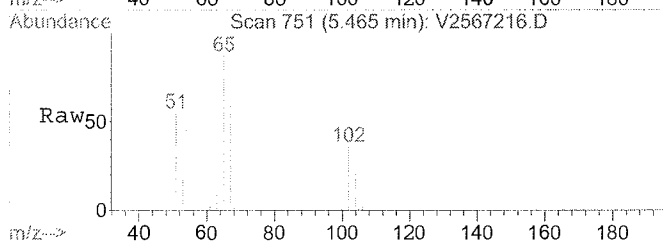
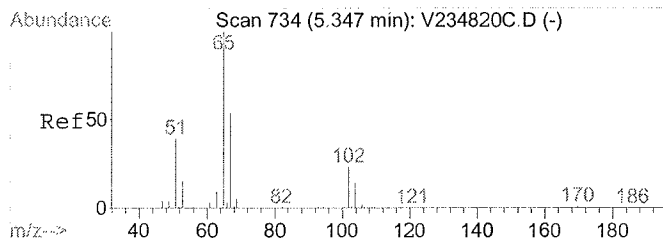
#20
 Acetone
 Concen: 4.92 ppb
 RT: 3.11 min Scan# 352
 Delta R.T. 0.02 min
 Lab File: V2567216.D
 Acq: 15 Mar 2016 2:33 pm

Tgt Ion: 43 Resp: 10752
 Ion Ratio Lower Upper
 43 100
 43 100.0 0.0 200.0
 58 26.9 0.0 64.2



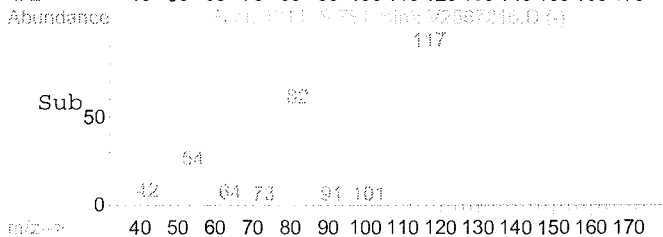
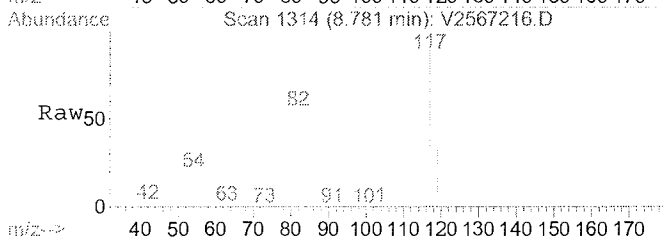
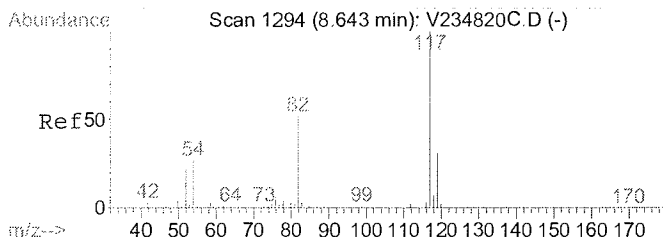
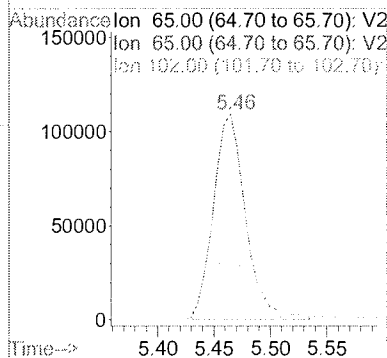
Abundance Ion 43.00 (42.70 to 43.70): V2
 Ion 43.00 (42.70 to 43.70): V2
 Ion 58.00 (57.70 to 58.70): V2





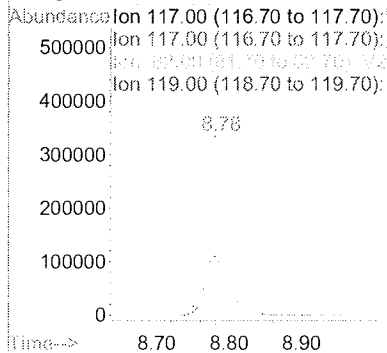
#31
d4-1,2-Dichloroethane (SURR)
Concen: N.D. ppb
RT: 5.46 min Scan# 751
Delta R.T. 0.03 min
Lab File: V2567216.D
Acq: 15 Mar 2016 2:33 pm

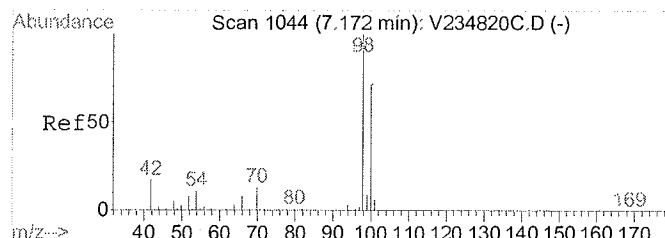
Tgt Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
102	35.2	24.8	37.2



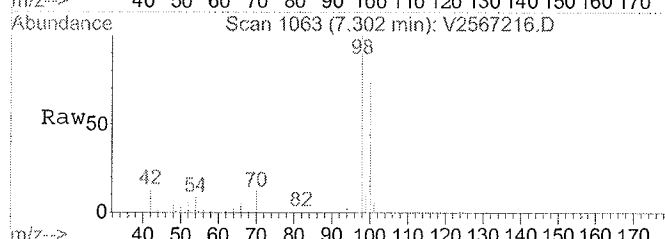
#35
CHLORO BENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.78 min Scan# 1314
Delta R.T. 0.03 min
Lab File: V2567216.D
Acq: 15 Mar 2016 2:33 pm

Tgt Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0
82	0.0	0.0	0.0
119	32.4	26.1	39.1





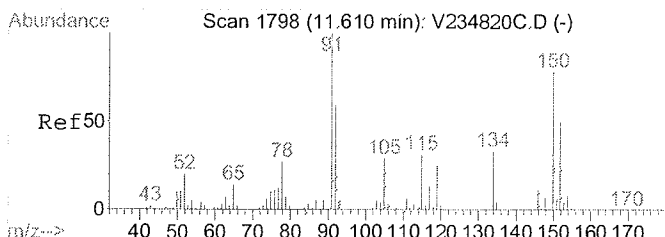
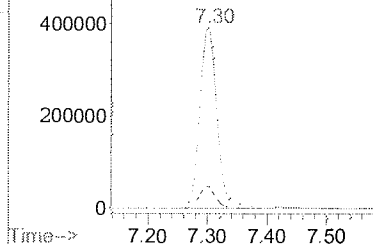
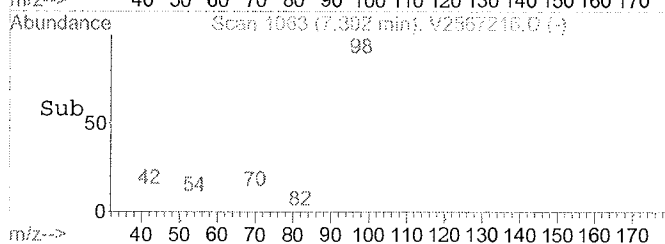
#47
Toluene-d8 (Surr)
Concen: Below ppb
RT: 7.30 min Scan# 1063
Delta R.T. 0.03 min
Lab File: V2567216.D
Acq: 15 Mar 2016 2:33 pm



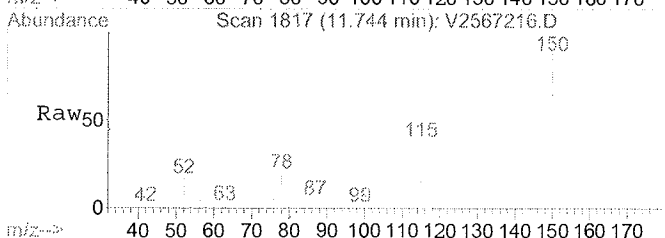
Tgt Ion: 98 Resp: 787460

Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	73.5	59.5	89.3
70	0.0	0.0	0.0

Abundance Ion 98.00 (97.70 to 98.70): V2
600000 Ion 98.00 (97.70 to 98.70): V2
Ion 100.00 (99.70 to 100.70): V2
Ion 70.00 (69.70 to 70.70): V2



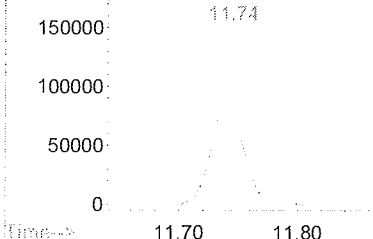
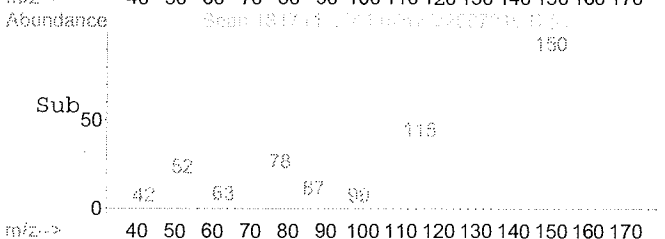
#64
1,2-DICHLOROBENZENE-d4 (Istd)
Concen: 50.00 ppb
RT: 11.74 min Scan# 1817
Delta R.T. 0.03 min
Lab File: V2567216.D
Acq: 15 Mar 2016 2:33 pm

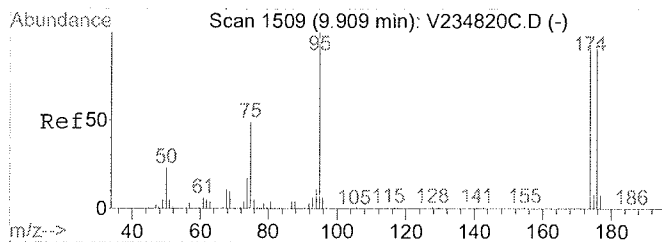


Tgt Ion: 152 Resp: 287723

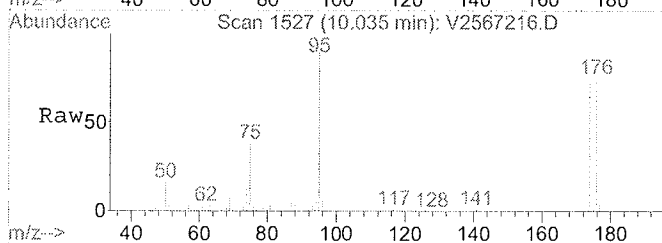
Ion	Ratio	Lower	Upper
152	100		
152	100.0	80.0	120.0
152	100.0	80.0	120.0
115	0.0	65.1	97.7#

Abundance Ion 152.00 (151.70 to 152.70):
Ion 152.00 (151.70 to 152.70):
Ion 115.00 (114.70 to 115.70):

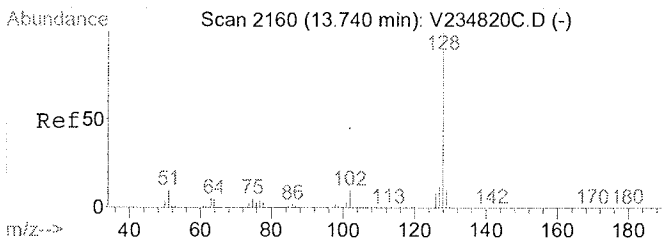
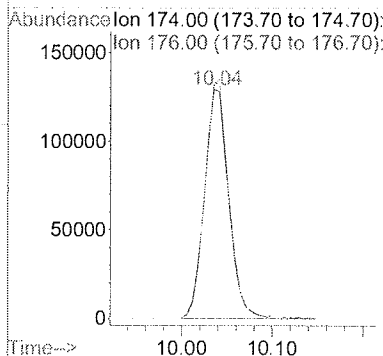
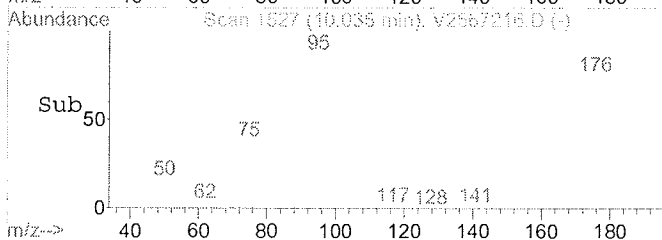




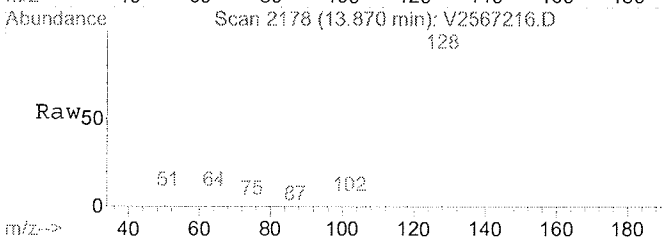
#66
p-Bromofluorobenzene(SURR)
Concen: N.D. ppb
RT: 10.04 min Scan# 1527
Delta R.T. 0.02 min
Lab File: V2567216.D
Acq: 15 Mar 2016 2:33 pm



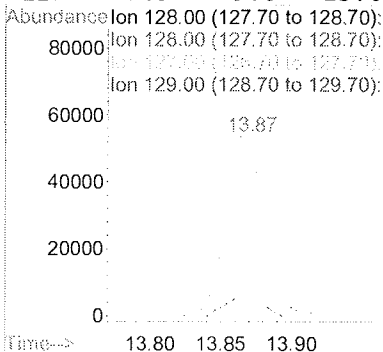
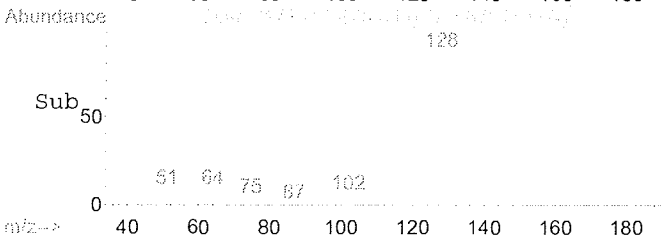
Tgt Ion:174 Resp: 241839
Ion Ratio Lower Upper
174 100
176 102.0 78.6 118.0



#87
Naphthalene
Concen: 8.38 ppb
RT: 13.87 min Scan# 2178
Delta R.T. 0.03 min
Lab File: V2567216.D
Acq: 15 Mar 2016 2:33 pm



Tgt Ion:128 Resp: 100841
Ion Ratio Lower Upper
128 100
128 100.0 80.0 120.0
127 11.4 0.0 0.0#
129 9.9 9.0 13.6



FORM I

ORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-02 File ID: V2567217.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 09:54 Analyzed: 03/15/16 15:02
 Solids: 83.47 Preparation: EPA 5035A Initial/Final: 5.31 g / 5 ml
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED Instrument: MS VOA 2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0056	U
71-55-6	1,1,1-Trichloroethane	1	0.0056	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0056	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0056	U
79-00-5	1,1,2-Trichloroethane	1	0.0056	U
75-34-3	1,1-Dichloroethane	1	0.0056	U
75-35-4	1,1-Dichloroethylene	1	0.0056	U
563-58-6	1,1-Dichloropropylene	1	0.0056	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0056	U
96-18-4	1,2,3-Trichloropropane	1	0.0056	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0056	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0056	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0056	U
106-93-4	1,2-Dibromoethane	1	0.0056	U
95-50-1	1,2-Dichlorobenzene	1	0.0056	U
107-06-2	1,2-Dichloroethane	1	0.0056	U
78-87-5	1,2-Dichloropropane	1	0.0056	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0056	U
541-73-1	1,3-Dichlorobenzene	1	0.0056	U
142-28-9	1,3-Dichloropropane	1	0.0056	U
106-46-7	1,4-Dichlorobenzene	1	0.0056	U
123-91-1	1,4-Dioxane	1	0.11	U
594-20-7	2,2-Dichloropropane	1	0.0056	U
78-93-3	2-Butanone	1	0.0056	U
95-49-8	2-Chlorotoluene	1	0.0056	U
591-78-6	2-Hexanone	1	0.0056	U
106-43-4	4-Chlorotoluene	1	0.0056	U
108-10-1	4-Methyl-2-pentanone	1	0.0056	U
67-64-1	Acetone	1	0.015	
107-02-8	Acrolein	1	0.011	U
107-13-1	Acrylonitrile	1	0.0056	U
71-43-2	Benzene	1	0.0056	U
108-86-1	Bromobenzene	1	0.0056	U
74-97-5	Bromochloromethane	1	0.0056	U
75-27-4	Bromodichloromethane	1	0.0056	U
75-25-2	Bromoform	1	0.0056	U
74-83-9	Bromomethane	1	0.0056	U
75-15-0	Carbon disulfide	1	0.0056	U
56-23-5	Carbon tetrachloride	1	0.0056	U
108-90-7	Chlorobenzene	1	0.0056	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 8260C

02/DUP

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-02 File ID: V2567217.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 09:54 Analyzed: 03/15/16 15:02
 Solids: 83.47 Preparation: EPA 5035A Initial/Final: 5.31 g / 5 ml
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED Instrument: MS VOA 2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0056	U
67-66-3	Chloroform	1	0.0056	U
74-87-3	Chloromethane	1	0.0056	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0056	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0056	U
110-82-7	Cyclohexane	1	0.0056	U
124-48-1	Dibromochloromethane	1	0.0056	U
74-95-3	Dibromomethane	1	0.0056	U
75-71-8	Dichlorodifluoromethane	1	0.0056	U
100-41-4	Ethyl Benzene	1	0.0056	U
87-68-3	Hexachlorobutadiene	1	0.0056	U
98-82-8	Isopropylbenzene	1	0.0056	U
79-20-9	Methyl acetate	1	0.0056	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0056	U
108-87-2	Methyleyclohexane	1	0.0056	U
75-09-2	Methylene chloride	1	0.011	U
104-51-8	n-Butylbenzene	1	0.0056	U
103-65-1	n-Propylbenzene	1	0.0056	U
95-47-6	o-Xylene	1	0.0056	U
179601-23-1	p- & m- Xylenes	1	0.011	U
99-87-6	p-Isopropyltoluene	1	0.0056	U
135-98-8	sec-Butylbenzene	1	0.0056	U
100-42-5	Styrene	1	0.0056	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.011	U
98-06-6	tert-Butylbenzene	1	0.0056	U
127-18-4	Tetrachloroethylene	1	0.0056	U
108-88-3	Toluene	1	0.0056	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0056	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0056	U
79-01-6	Trichloroethylene	1	0.0056	U
75-69-4	Trichlorofluoromethane	1	0.0056	U
108-05-4	Vinyl acetate	1	0.0056	U
75-01-4	Vinyl Chloride	1	0.0056	U
1330-20-7	Xylenes, Total	1	0.017	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	49.9	99.7	77 - 125	
Toluene-d8	50.0	49.8	99.5	85 - 120	
p-Bromofluorobenzene	50.0	44.5	88.9	76 - 130	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567217.D Vial: 15
 Acq On : 15 Mar 2016 3:02 pm Operator: BK
 Sample : 16C0466-02 Inst : MS VOA 2
 Misc : QBV2031516A 8260 COMP B 5.31g Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 16 12:24 2016 Quant Results File: V2C00371.RES

Quant Method : G:\MSVOAM~1\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.78	70	176768	50.00	ppb	0.03
35) CHLOROBENZENE-d5(ISTD)	8.79	117	655086	50.00	ppb	0.03
64) 1,2-DICHLOROBENZENE-d4(IST	11.74	152	290814	50.00	ppb	0.03

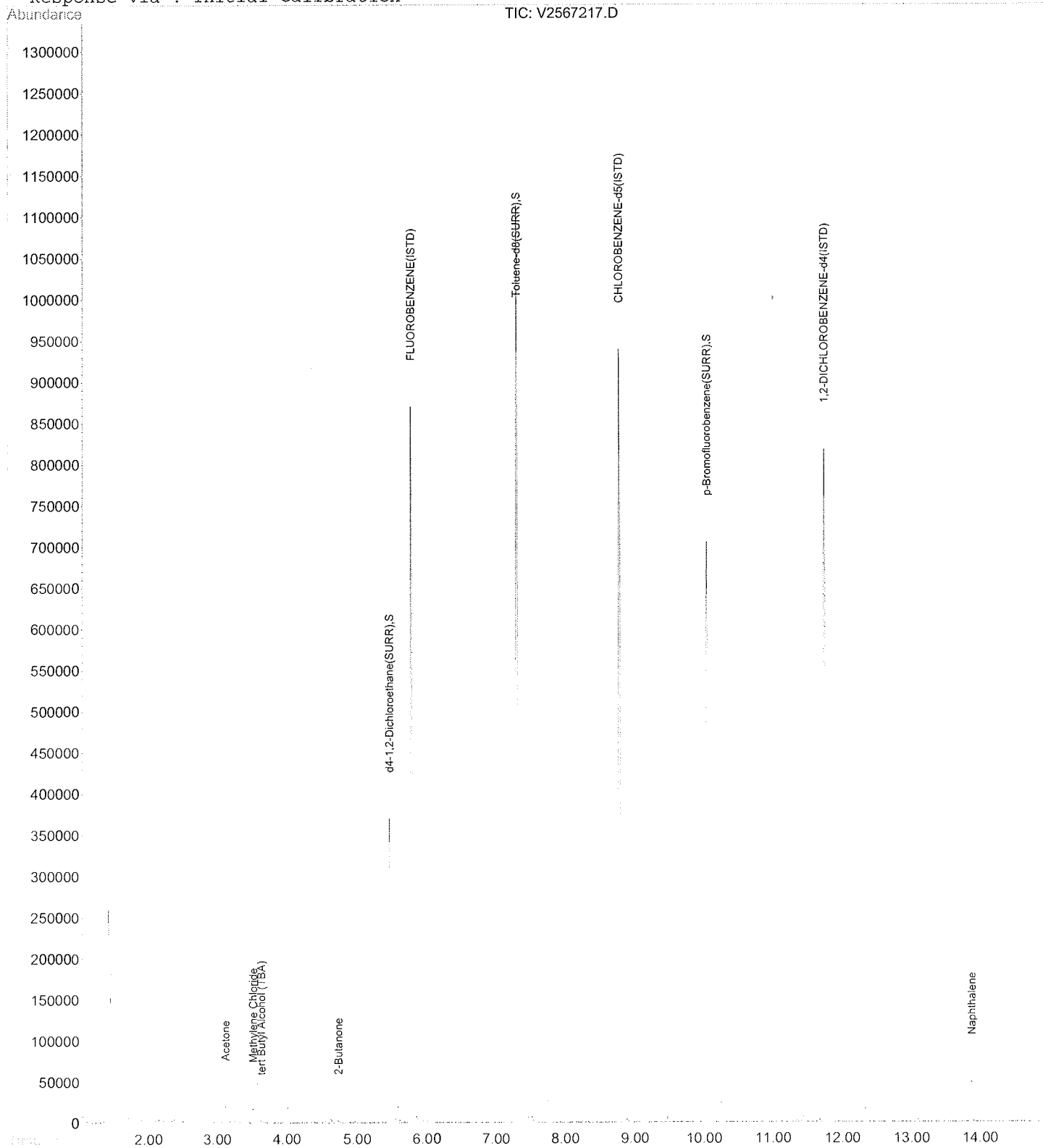
System Monitoring Compounds						
31) d4-1,2-Dichloroethane(SURR	5.46	65	222824	49.86	ppb	0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	99.72%
47) Toluene-d8(SURR)	7.30	98	800702	49.77	ppb	0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	99.54%
66) p-Bromofluorobenzene(SURR)	10.04	174	240097	44.47	ppb	0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	88.94%

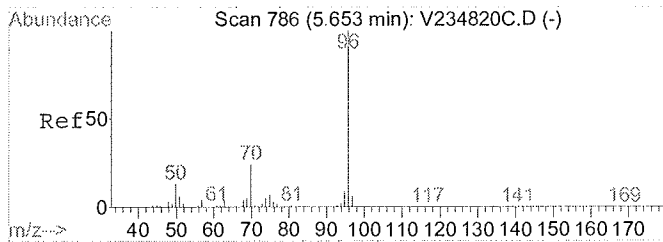
Target Compounds						Qvalue
14) tert Butyl Alcohol (TBA)	3.63	59	1863	3.04	ppb	# 100
18) Methylene Chloride	3.51	49	11712	1.49	ppb	99
20) Acetone	3.12	43	29668	13.18	ppb	99
24) 2-Butanone	4.73	43	3487	1.17	ppb	94
87) Naphthalene	13.87	128	50185	4.13	ppb	# 100

Quantitation Report

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567217.D Vial: 15
Acq On : 15 Mar 2016 3:02 pm Operator: BK
Sample : 16C0466-02 Inst : MS VOA 2
Misc : QBV2031516A 8260 COMP B 5.31g Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 12:24 2016 Quant Results File: V2C00371.RES

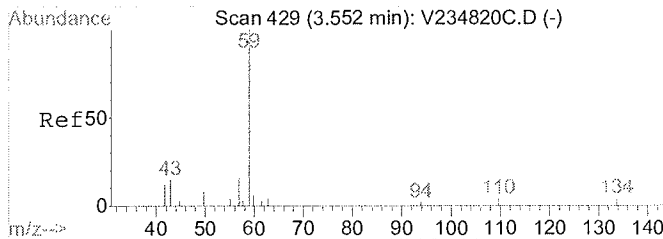
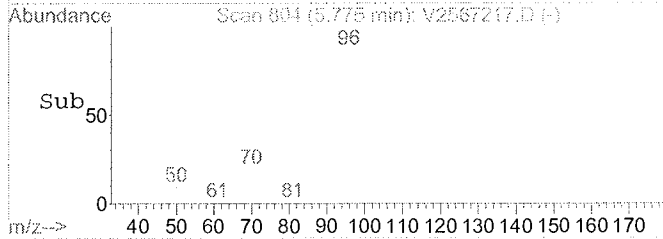
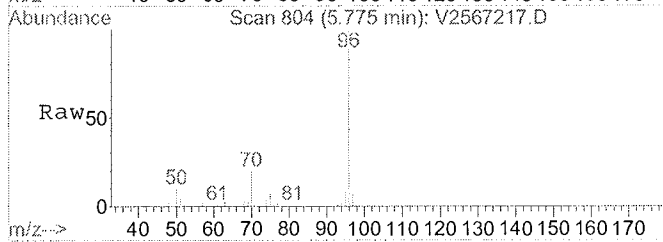
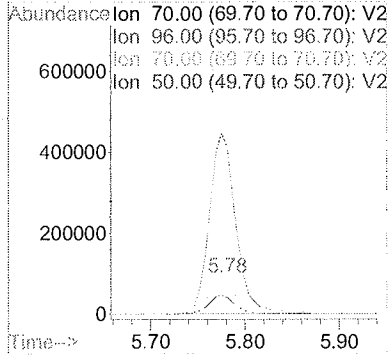
Method : G:\MSVOA METHODS\V2C00371.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Thu Jan 14 15:20:23 2016
Response via : Initial Calibration





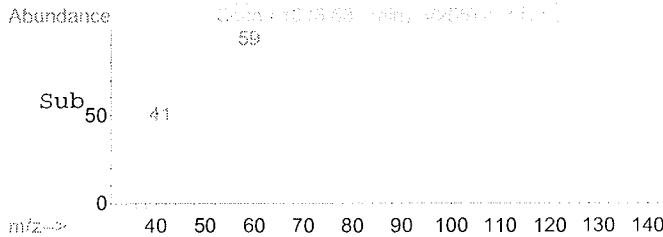
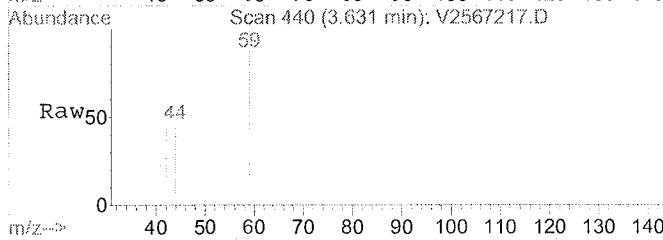
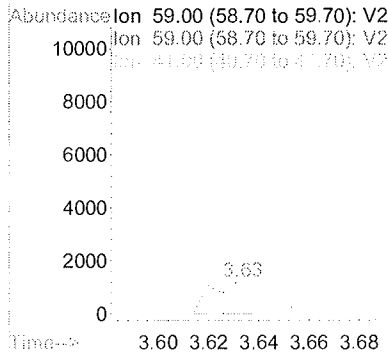
#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.78 min Scan# 804
 Delta R.T. 0.03 min
 Lab File: V2567217.D
 Acq: 15 Mar 2016 3:02 pm

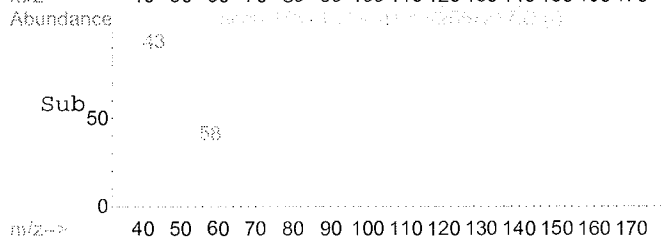
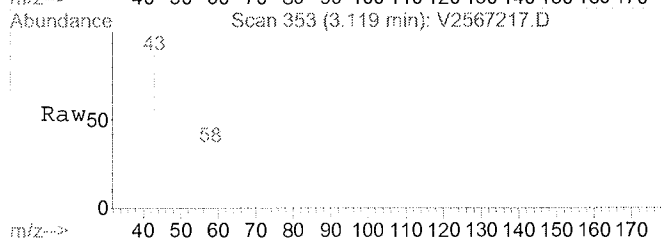
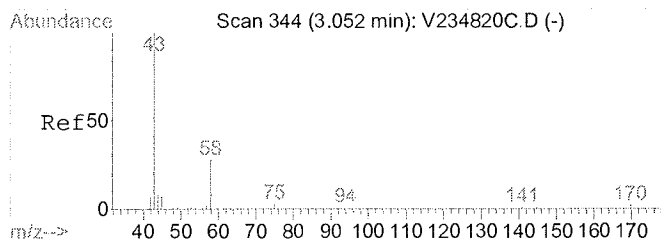
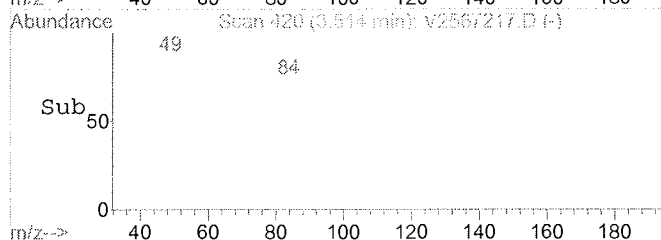
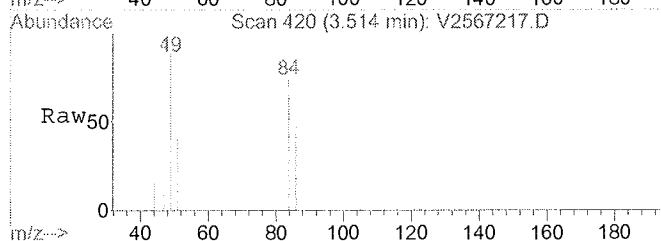
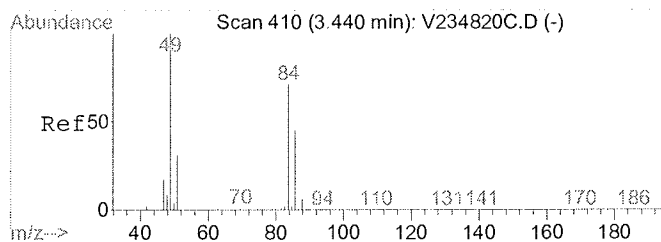
Tgt Ion: 70 Resp: 176768
 Ion Ratio Lower Upper
 70 100
 96 499.5 388.6 582.8
 70 100.0 80.0 120.0
 50 0.0 0.0 0.0



#14
 tert Butyl Alcohol (TBA)
 Concen: 3.04 ppb
 RT: 3.63 min Scan# 440
 Delta R.T. 0.02 min
 Lab File: V2567217.D
 Acq: 15 Mar 2016 3:02 pm

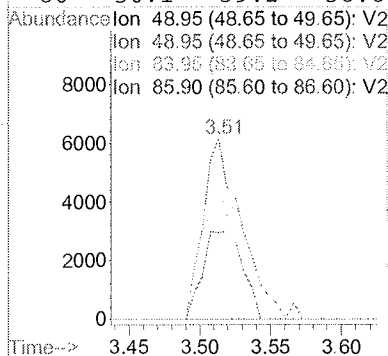
Tgt Ion: 59 Resp: 1863
 Ion Ratio Lower Upper
 59 100
 59 100.0 60.0 140.0
 41 0.0 0.0 0.0





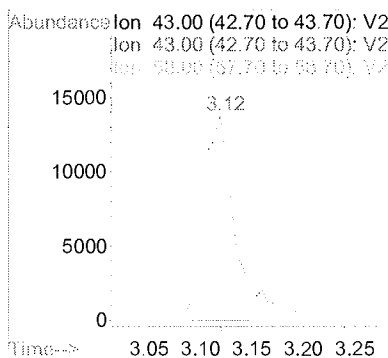
#18
Methylene Chloride
Concen: 1.49 ppb
RT: 3.51 min Scan# 420
Delta R.T. 0.02 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

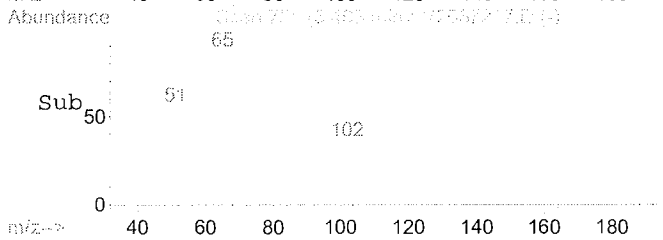
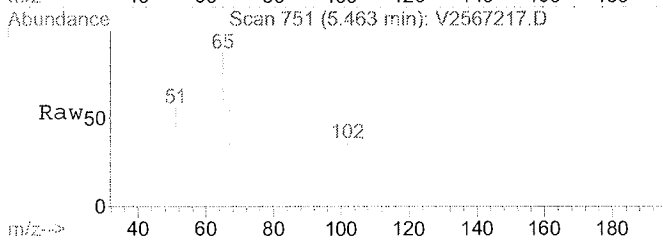
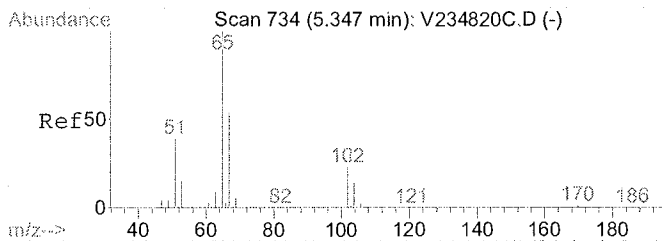
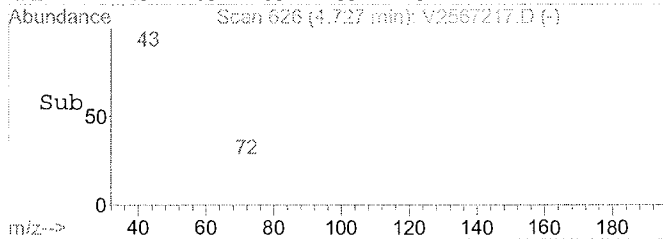
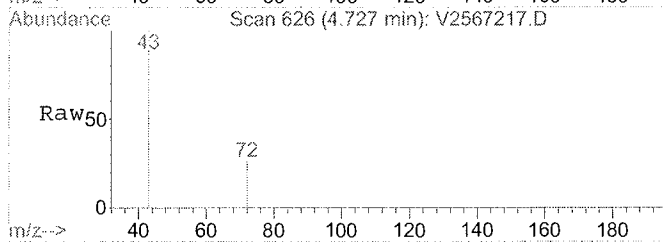
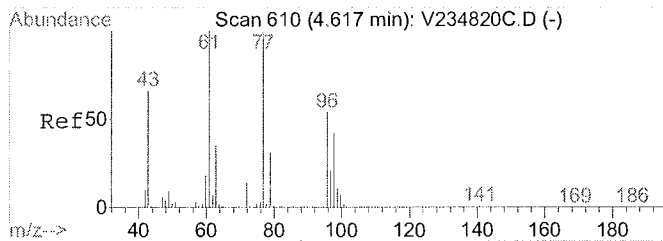
Tgt Ion	Ratio	Lower	Upper
49	100		
49	100.0	80.0	120.0
84	76.8	59.8	89.8
86	50.1	39.2	58.8



#20
Acetone
Concen: 13.18 ppb
RT: 3.12 min Scan# 353
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

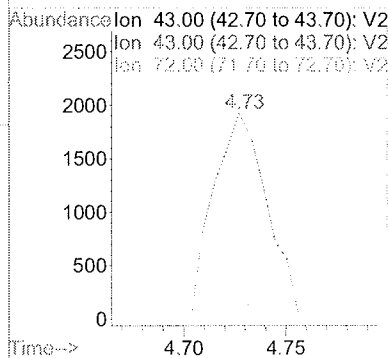
Tgt Ion	Ratio	Lower	Upper
43	100		
43	100.0	0.0	200.0
58	34.8	0.0	64.2





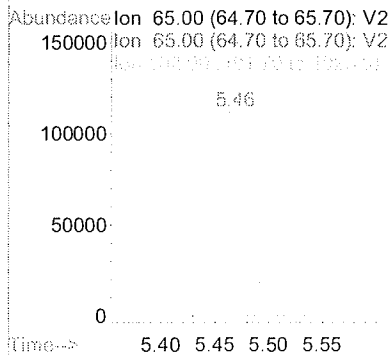
#24
2-Butanone
Concen: 1.17 ppb
RT: 4.73 min Scan# 626
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

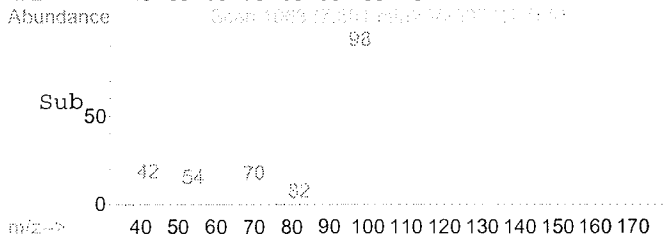
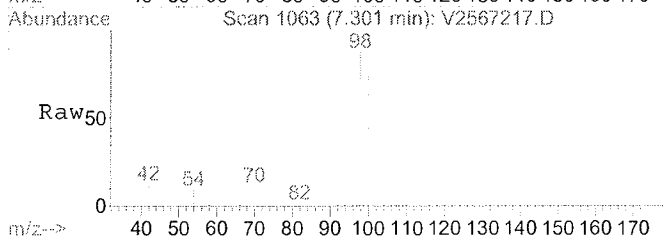
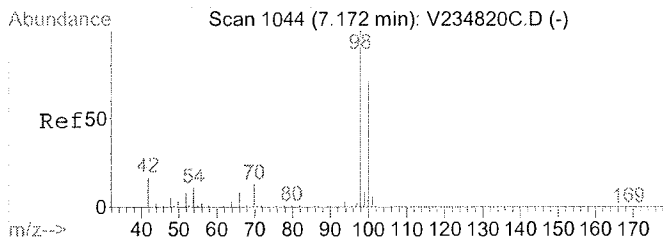
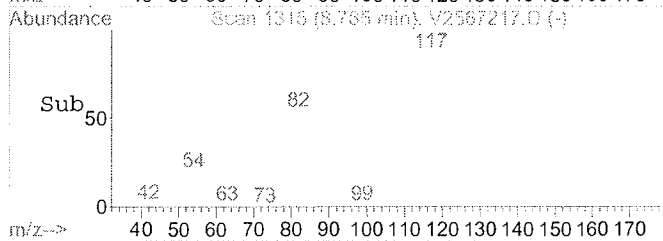
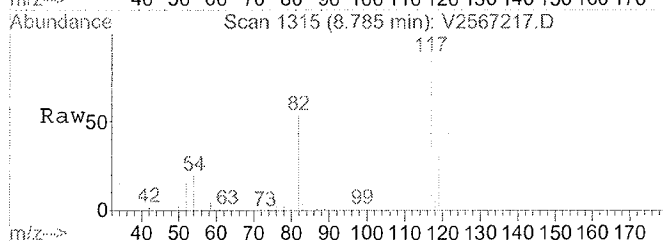
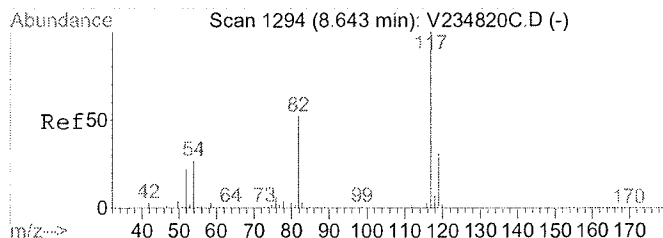
Tgt Ion: 43 Resp: 3487
Ion Ratio Lower Upper
43 100
43 100.0 60.0 140.0
72 5.1 0.0 43.2



#31
d4-1,2-Dichloroethane (SURR)
Concen: N.D. ppb
RT: 5.46 min Scan# 751
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

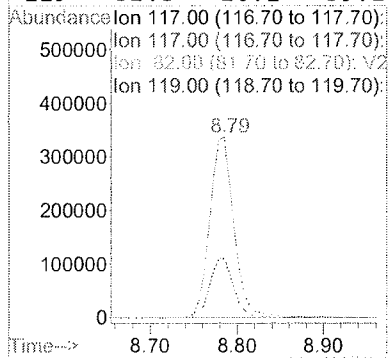
Tgt Ion: 65 Resp: 222824
Ion Ratio Lower Upper
65 100
65 100.0 80.0 120.0
102 34.8 24.8 37.2





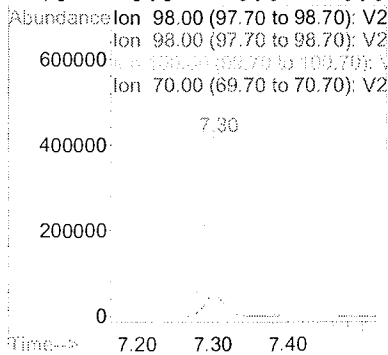
#35
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.79 min Scan# 1315
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

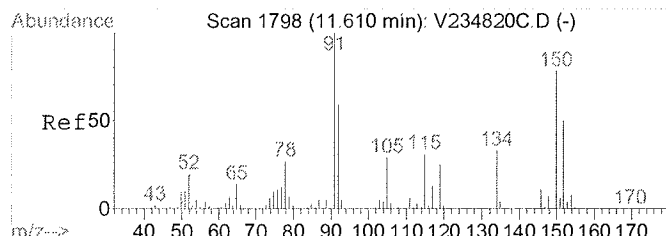
Tgt Ion: 117 Resp: 655086
Ion Ratio Lower Upper
117 100
117 100.0 80.0 120.0
82 0.0 0.0 0.0
119 32.5 26.1 39.1



#47
Toluene-d8 (SURR)
Concen: Below ppb
RT: 7.30 min Scan# 1063
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

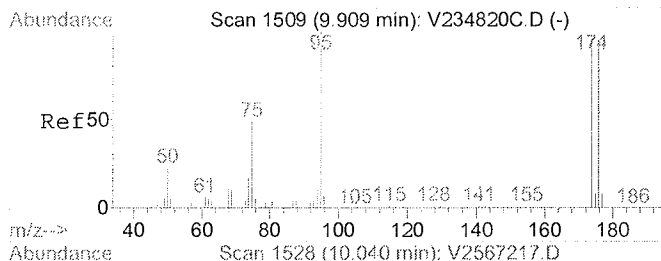
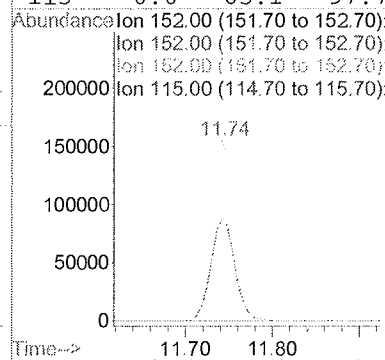
Tgt Ion: 98 Resp: 800702
Ion Ratio Lower Upper
98 100
98 100.0 80.0 120.0
100 74.1 59.5 89.3
70 0.0 0.0 0.0





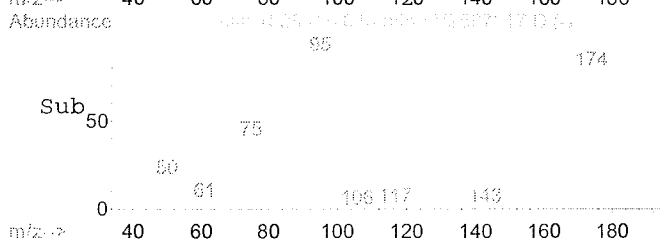
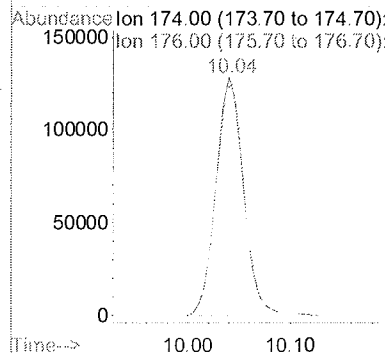
#64
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.74 min Scan# 1817
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

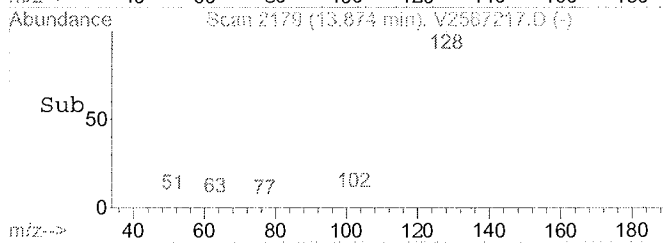
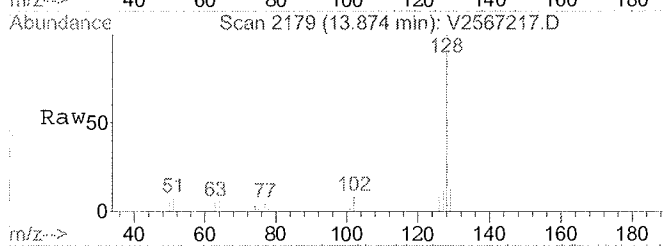
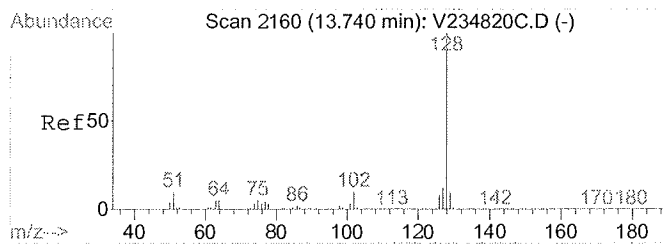
Tgt Ion	Ratio	Lower	Upper
152	100		
152	100.0	80.0	120.0
152	100.0	80.0	120.0
115	0.0	65.1	97.7#



#66
p-Bromofluorobenzene (SURR)
Concen: N.D. ppb
RT: 10.04 min Scan# 1528
Delta R.T. 0.03 min
Lab File: V2567217.D
Acq: 15 Mar 2016 3:02 pm

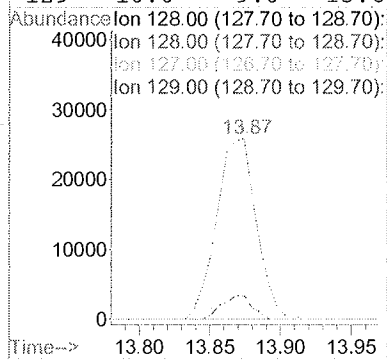
Tgt Ion	Ratio	Lower	Upper
174	100		
176	96.2	78.6	118.0





#87
 Naphthalene
 Concen: 4.13 ppb
 RT: 13.87 min Scan# 2179
 Delta R.T. 0.04 min
 Lab File: V2567217.D
 Acq: 15 Mar 2016 3:02 pm

Tgt Ion: 128 Resp: 50185
 Ion Ratio Lower Upper
 128 100
 128 100.0 80.0 120.0
 127 11.1 0.0 0.0#
 129 10.0 9.0 13.6



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-03 File ID: V2567218.D
 Sampled: 03/09/16 11:50 Prepared: 03/15/16 09:54 Analyzed: 03/15/16 15:32
 Solids: 83.60 Preparation: EPA 5035A Initial/Final: 6.44 g / 5 ml
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED Instrument: MS VOA 2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0046	U
71-55-6	1,1,1-Trichloroethane	1	0.0046	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0046	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.0046	U
79-00-5	1,1,2-Trichloroethane	1	0.0046	U
75-34-3	1,1-Dichloroethane	1	0.0046	U
75-35-4	1,1-Dichloroethylene	1	0.0046	U
563-58-6	1,1-Dichloropropylene	1	0.0046	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0046	U
96-18-4	1,2,3-Trichloropropane	1	0.0046	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0046	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0046	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0046	U
106-93-4	1,2-Dibromoethane	1	0.0046	U
95-50-1	1,2-Dichlorobenzene	1	0.0046	U
107-06-2	1,2-Dichloroethane	1	0.0046	U
78-87-5	1,2-Dichloropropane	1	0.0046	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0046	U
541-73-1	1,3-Dichlorobenzene	1	0.0046	U
142-28-9	1,3-Dichloropropane	1	0.0046	U
106-46-7	1,4-Dichlorobenzene	1	0.0046	U
123-91-1	1,4-Dioxane	1	0.093	U
594-20-7	2,2-Dichloropropane	1	0.0046	U
78-93-3	2-Butanone	1	0.0042	J
95-49-8	2-Chlorotoluene	1	0.0046	U
591-78-6	2-Hexanone	1	0.0046	U
106-43-4	4-Chlorotoluene	1	0.0046	U
108-10-1	4-Methyl-2-pentanone	1	0.0046	U
67-64-1	Acetone	1	0.045	
107-02-8	Acrolein	1	0.0093	U
107-13-1	Acrylonitrile	1	0.0046	U
71-43-2	Benzene	1	0.0046	U
108-86-1	Bromobenzene	1	0.0046	U
74-97-5	Bromochloromethane	1	0.0046	U
75-27-4	Bromodichloromethane	1	0.0046	U
75-25-2	Bromoform	1	0.0046	U
74-83-9	Bromomethane	1	0.0046	U
75-15-0	Carbon disulfide	1	0.0046	U
56-23-5	Carbon tetrachloride	1	0.0046	U
108-90-7	Chlorobenzene	1	0.0046	U

FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-03 File ID: V2567218.D
 Sampled: 03/09/16 11:50 Prepared: 03/15/16 09:54 Analyzed: 03/15/16 15:32
 Solids: 83.60 Preparation: EPA 5035A Initial/Final: 6.44 g / 5 ml
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED Instrument: MS VOA 2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
75-00-3	Chloroethane	1	0.0046	U
67-66-3	Chloroform	1	0.0046	U
74-87-3	Chloromethane	1	0.0046	U
156-59-2	cis-1,2-Dichloroethylene	1	0.0046	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.0046	U
110-82-7	Cyclohexane	1	0.0046	U
124-48-1	Dibromochloromethane	1	0.0046	U
74-95-3	Dibromomethane	1	0.0046	U
75-71-8	Dichlorodifluoromethane	1	0.0046	U
100-41-4	Ethyl Benzene	1	0.0046	U
87-68-3	Hexachlorobutadiene	1	0.0046	U
98-82-8	Isopropylbenzene	1	0.0046	U
79-20-9	Methyl acetate	1	0.0046	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.0046	U
108-87-2	Methyleyclohexane	1	0.0046	U
75-09-2	Methylene chloride	1	0.0093	U
104-51-8	n-Butylbenzene	1	0.0046	U
103-65-1	n-Propylbenzene	1	0.0046	U
95-47-6	o-Xylene	1	0.0046	U
179601-23-1	p- & m- Xylenes	1	0.0093	U
99-87-6	p-Isopropyltoluene	1	0.0037	J
135-98-8	sec-Butylbenzene	1	0.0046	U
100-42-5	Styrene	1	0.0046	U
75-65-0	tert-Butyl alcohol (TBA)	1	0.0093	U
98-06-6	tert-Butylbenzene	1	0.0046	U
127-18-4	Tetrachloroethylene	1	0.0046	U
108-88-3	Toluene	1	0.0046	U
156-60-5	trans-1,2-Dichloroethylene	1	0.0046	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.0046	U
79-01-6	Trichloroethylene	1	0.0046	U
75-69-4	Trichlorofluoromethane	1	0.0046	U
108-05-4	Vinyl acetate	1	0.0046	U
75-01-4	Vinyl Chloride	1	0.0046	U
1330-20-7	Xylenes, Total	1	0.014	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	49.9	99.8	77 - 125	
Toluene-d8	50.0	50.7	101	85 - 120	
p-Bromofluorobenzene	50.0	43.0	86.0	76 - 130	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567218.D Vial: 16
 Acq On : 15 Mar 2016 3:32 pm Operator: BK
 Sample : 16C0466-03 Inst : MS VOA 2
 Misc : QBV2031516A 8260 COMP B 6.44g Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 16 12:25 2016 Quant Results File: V2C00371.RES

Quant Method : G:\MSVOAM-1\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.77	70	174094	50.00	ppb	0.03
35) CHLOROBENZENE-d5(ISTD)	8.78	117	635372	50.00	ppb	0.03
64) 1,2-DICHLOROBENZENE-d4(IST	11.74	152	287676	50.00	ppb	0.03

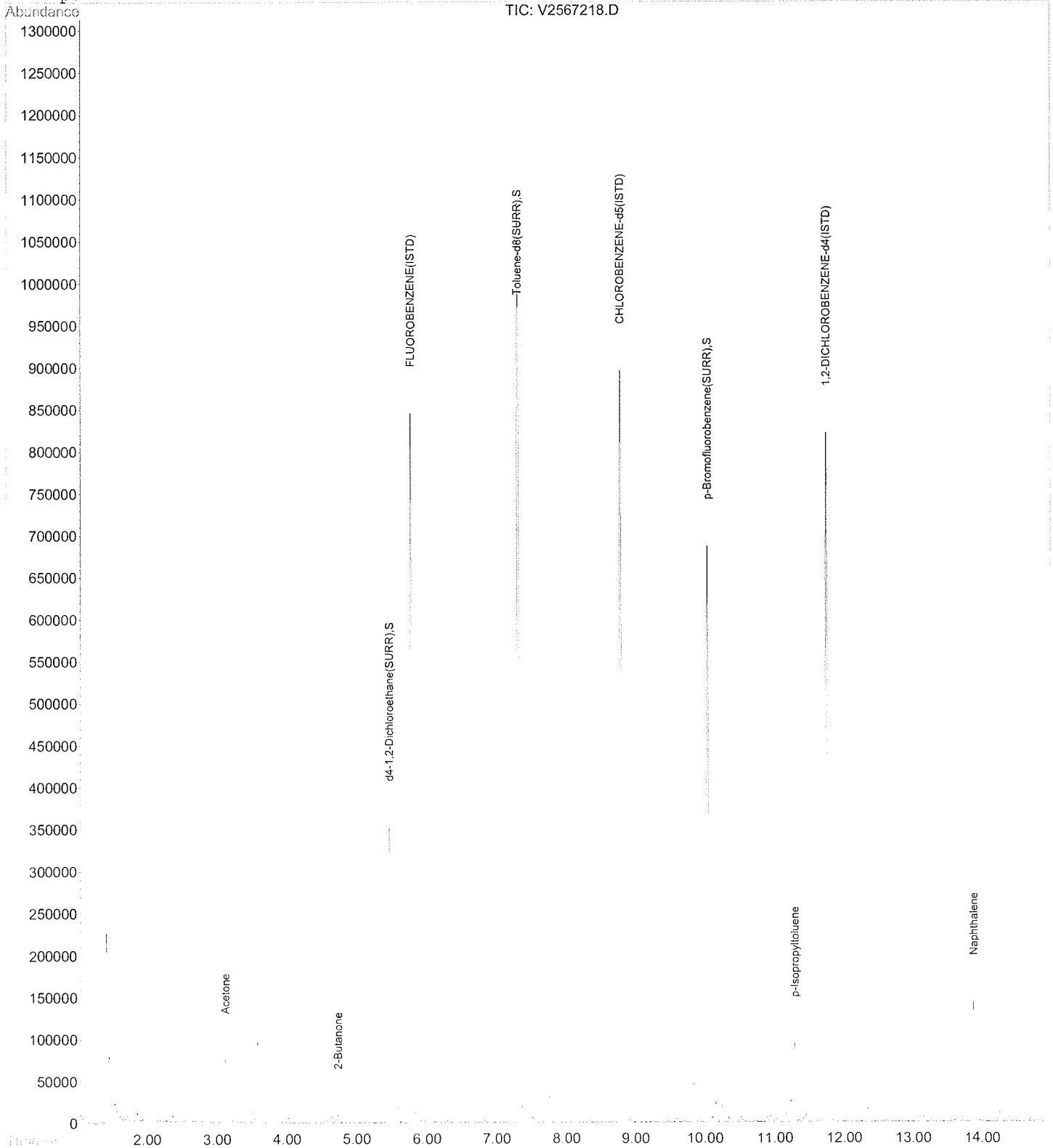
System Monitoring Compounds						
31) d4-1,2-Dichloroethane(SURR)	5.46	65	219687	49.92	ppb	0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	99.84%
47) Toluene-d8(SURR)	7.30	98	791482	50.73	ppb	0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	101.46%
66) p-Bromofluorobenzene(SURR)	10.04	174	229586	42.98	ppb	0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	85.96%

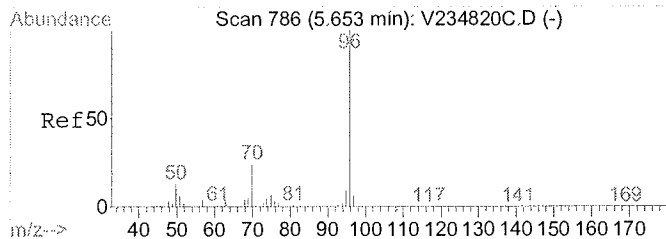
Target Compounds						Qvalue
20) Acetone	3.11	43	107609	48.52	ppb	99
24) 2-Butanone	4.72	43	13392	4.57	ppb	98
82) p-Isopropyltoluene	11.28	119	66917	3.94	ppb	# 100
87) Naphthalene	13.87	128	135968	11.30	ppb	# 100

Quantitation Report

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567218.D Vial: 16
 Acq On : 15 Mar 2016 3:32 pm Operator: BK
 Sample : 16C0466-03 Inst : MS VOA 2
 Misc : QBV2031516A 8260 COMP B 6.44g Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 16 12:25 2016 Quant Results File: V2C00371.RES

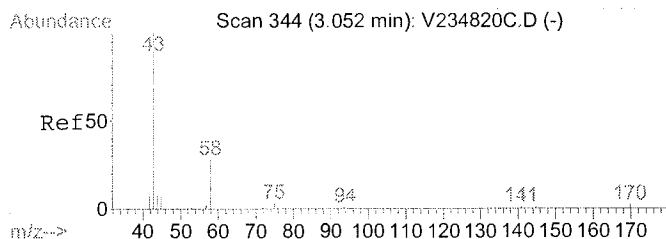
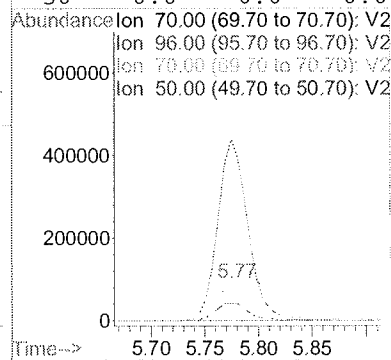
Method : G:\MSVOA METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Thu Jan 14 15:20:23 2016
 Response via : Initial Calibration





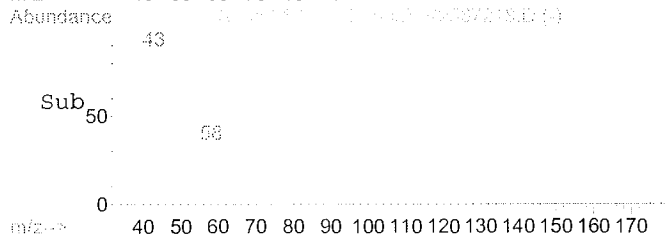
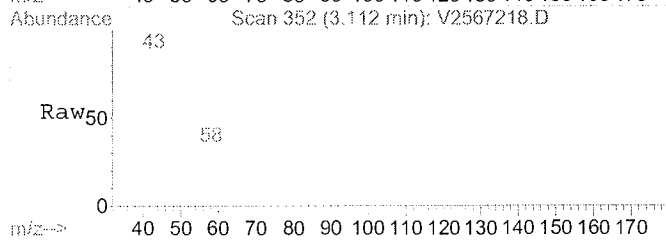
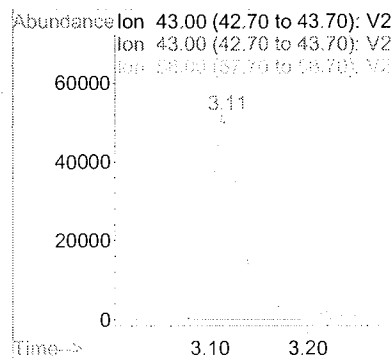
#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.77 min Scan# 804
 Delta R.T. 0.03 min
 Lab File: V2567218.D
 Acq: 15 Mar 2016 3:32 pm

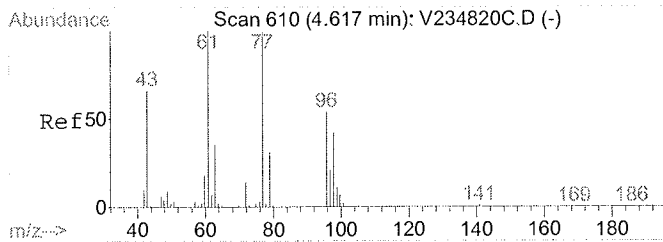
Tgt Ion	Ratio	Lower	Upper
70	100		
96	0.0	388.6	582.8#
70	100.0	80.0	120.0
50	0.0	0.0	0.0



#20
 Acetone
 Concen: 48.52 ppb
 RT: 3.11 min Scan# 352
 Delta R.T. 0.02 min
 Lab File: V2567218.D
 Acq: 15 Mar 2016 3:32 pm

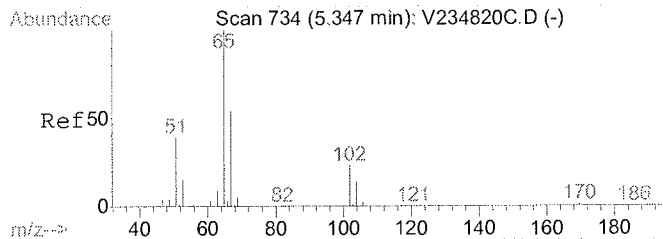
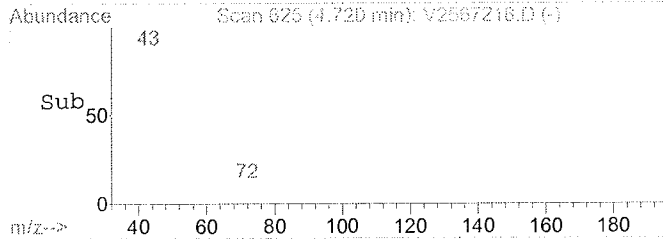
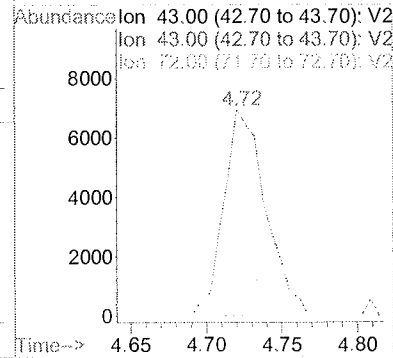
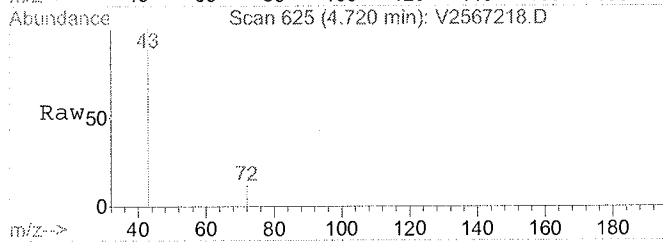
Tgt Ion	Ratio	Lower	Upper
43	100		
43	100.0	0.0	200.0
58	34.0	0.0	64.2





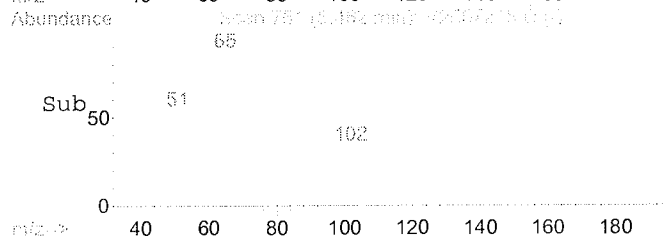
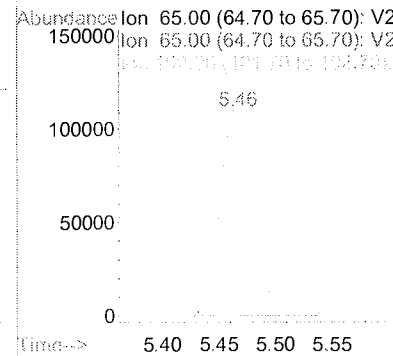
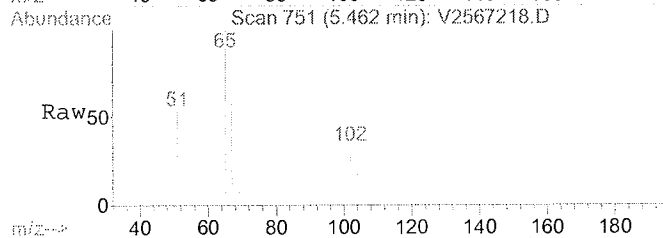
#24
2-Butanone
Concen: 4.57 ppb
RT: 4.72 min Scan# 625
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

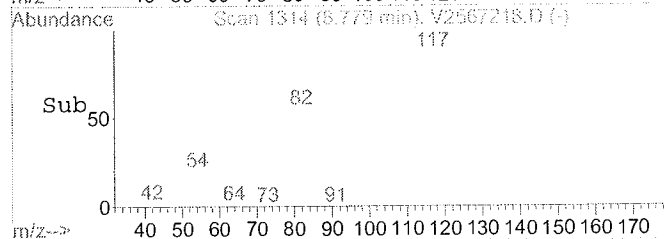
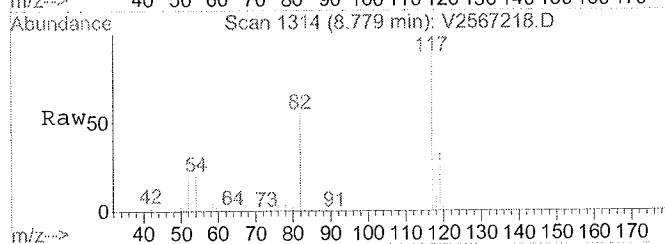
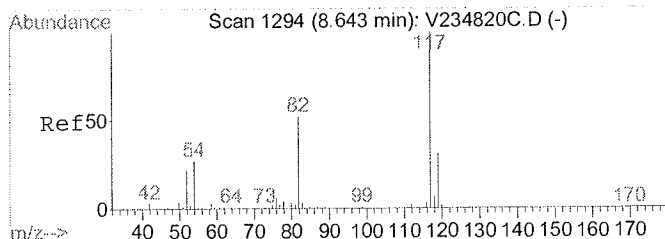
Tgt Ion: 43 Resp: 13392
Ion Ratio Lower Upper
43 100
43 100.0 60.0 140.0
72 17.0 0.0 43.2



#31
d4-1,2-Dichloroethane (SURR)
Concen: N.D. ppb
RT: 5.46 min Scan# 751
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

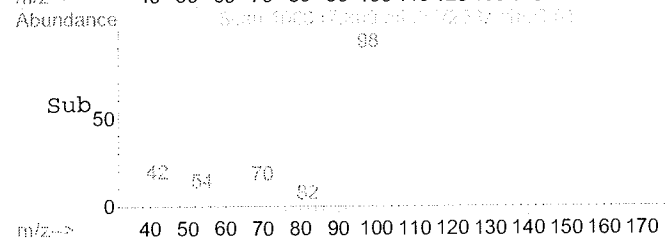
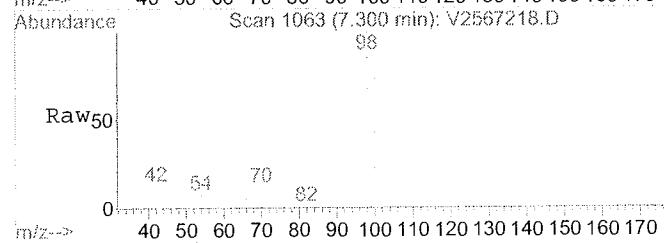
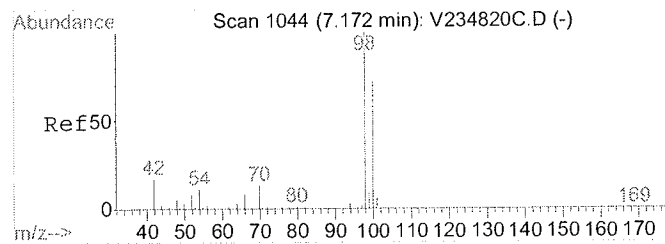
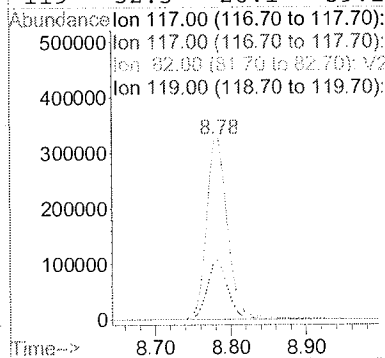
Tgt Ion: 65 Resp: 219687
Ion Ratio Lower Upper
65 100
65 100.0 80.0 120.0
102 34.6 24.8 37.2





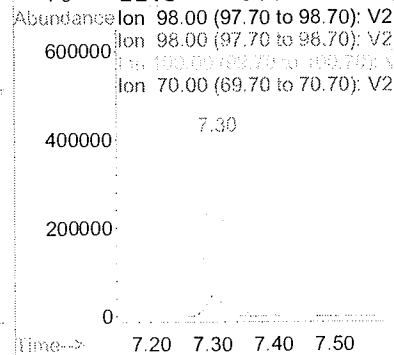
#35
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.78 min Scan# 1314
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

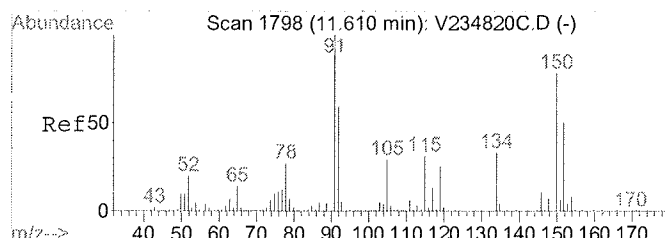
Tgt Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0
82	0.0	0.0	0.0
119	32.3	26.1	39.1



#47
Toluene-d8 (SURRE)
Concen: Below ppb
RT: 7.30 min Scan# 1063
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

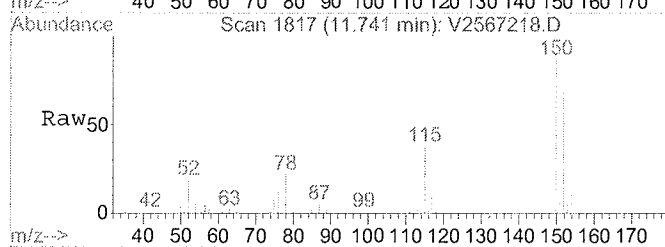
Tgt Ion	Ratio	Lower	Upper
98	100		
98	100.0	80.0	120.0
100	0.0	59.5	89.3#
70	11.3	0.0	0.0#



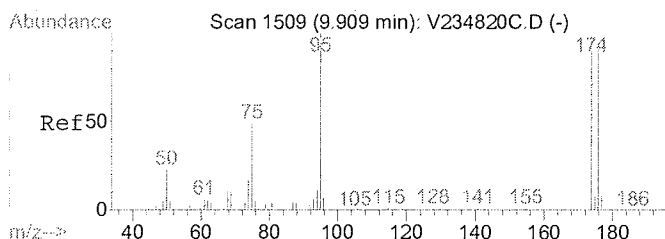
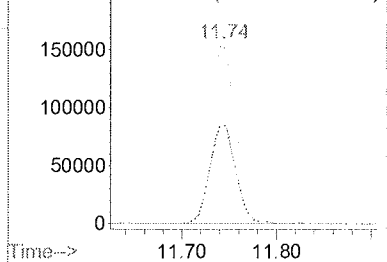
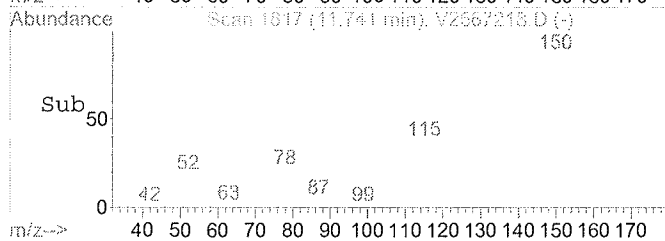


#64
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.74 min Scan# 1817
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

Tgt Ion:152 Resp: 287676
Ion Ratio Lower Upper
152 100
152 100.0 80.0 120.0
152 100.0 80.0 120.0
115 0.0 65.1 97.7#

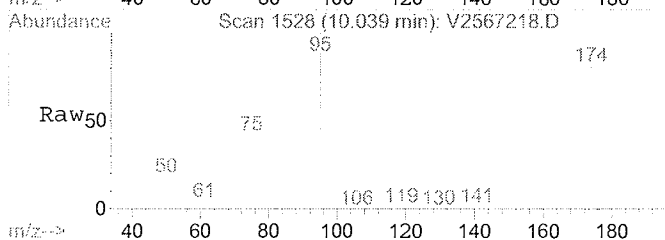


Abundance Ion 152.00 (151.70 to 152.70):
Ion 152.00 (151.70 to 152.70):
Ion 152.00 (151.70 to 152.70):
Ion 115.00 (114.70 to 115.70):

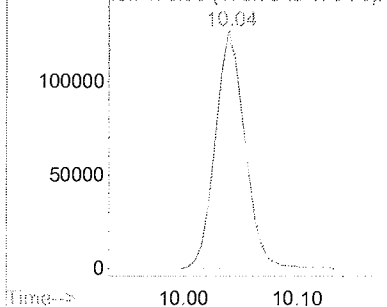
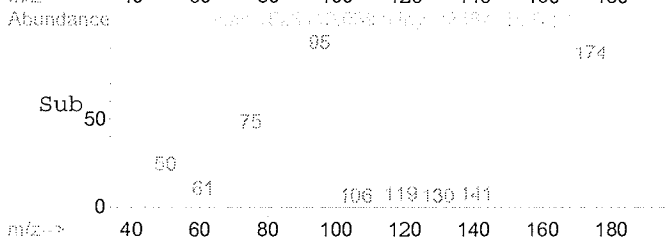


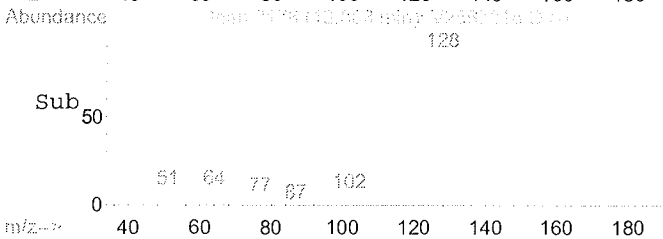
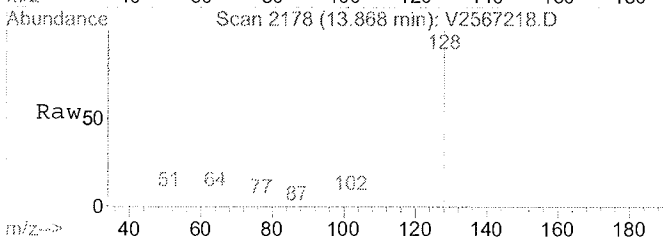
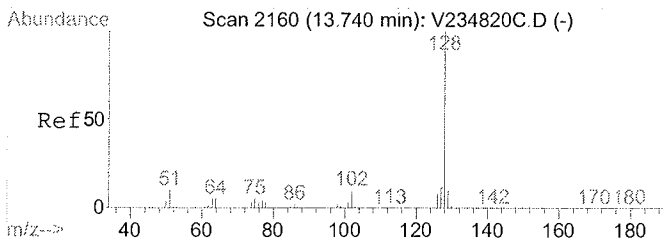
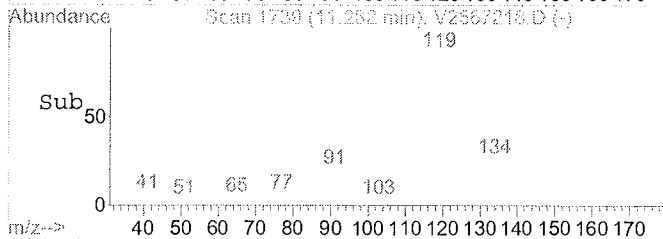
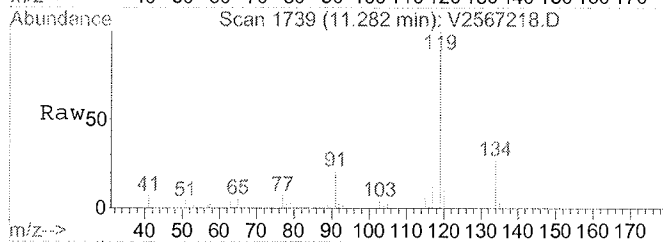
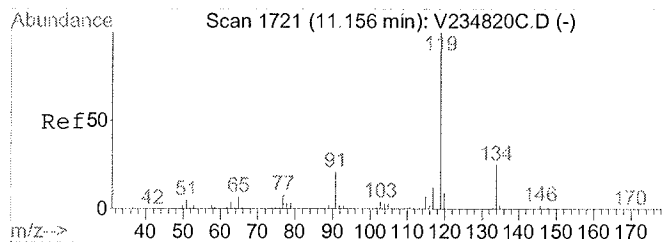
#66
p-Bromofluorobenzene (SURR)
Concen: N.D. ppb
RT: 10.04 min Scan# 1528
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

Tgt Ion:174 Resp: 229586
Ion Ratio Lower Upper
174 100
176 96.4 78.6 118.0



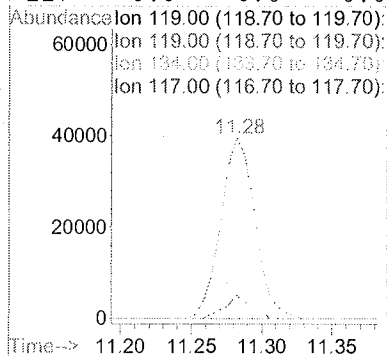
Abundance Ion 174.00 (173.70 to 174.70):
Ion 176.00 (175.70 to 176.70):





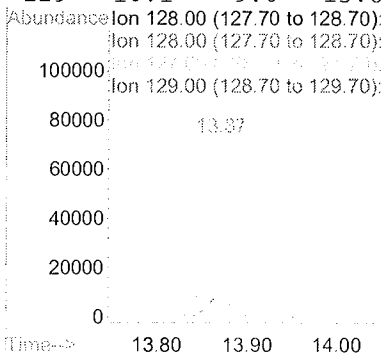
#82
p-Isopropyltoluene
Concen: 3.94 ppb
RT: 11.28 min Scan# 1739
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

Tgt Ion: 119 Resp: 66917
Ion Ratio Lower Upper
119 100
119 100.0 80.0 120.0
134 26.9 21.2 31.8
117 0.0 0.0 0.0



#87
Naphthalene
Concen: 11.30 ppb
RT: 13.87 min Scan# 2178
Delta R.T. 0.03 min
Lab File: V2567218.D
Acq: 15 Mar 2016 3:32 pm

Tgt Ion: 128 Resp: 135968
Ion Ratio Lower Upper
128 100
128 100.0 80.0 120.0
127 0.0 0.0 0.0
129 10.1 9.0 13.6



FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-04 File ID: V6017809.D
 Sampled: 03/09/16 12:55 Prepared: 03/15/16 08:12 Analyzed: 03/15/16 17:12
 Solids: Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED Instrument: MSVOA6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.50	U
75-34-3	1,1-Dichloroethane	1	0.50	U
75-35-4	1,1-Dichloroethylene	1	0.50	U
563-58-6	1,1-Dichloropropylene	1	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	2.5	
96-12-8	1,2-Dibromo-3-chloropropane	1	2.0	U
106-93-4	1,2-Dibromoethane	1	0.50	U
95-50-1	1,2-Dichlorobenzene	1	0.50	U
107-06-2	1,2-Dichloroethane	1	0.50	U
78-87-5	1,2-Dichloropropane	1	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.58	
541-73-1	1,3-Dichlorobenzene	1	0.50	U
142-28-9	1,3-Dichloropropane	1	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.50	U
123-91-1	1,4-Dioxane	1	80	U
594-20-7	2,2-Dichloropropane	1	0.50	U
78-93-3	2-Butanone	1	0.50	U
95-49-8	2-Chlorotoluene	1	0.50	U
591-78-6	2-Hexanone	1	2.0	U
106-43-4	4-Chlorotoluene	1	0.50	U
108-10-1	4-Methyl-2-pentanone	1	0.50	U
67-64-1	Acetone	1	5.3	B
107-02-8	Acrolein	1	0.50	U
107-13-1	Acrylonitrile	1	2.0	U
71-43-2	Benzene	1	0.50	U
108-86-1	Bromobenzene	1	0.50	U
74-97-5	Bromochloromethane	1	0.50	U
75-27-4	Bromodichloromethane	1	0.50	U
75-25-2	Bromoform	1	0.50	U
74-83-9	Bromomethane	1	0.50	U
75-15-0	Carbon disulfide	1	0.50	U
56-23-5	Carbon tetrachloride	1	0.50	U
108-90-7	Chlorobenzene	1	0.50	U

FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-04 File ID: V6017809.D
 Sampled: 03/09/16 12:55 Prepared: 03/15/16 08:12 Analyzed: 03/15/16 17:12
 Solids: Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED Instrument: MSVOA6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
75-00-3	Chloroethane	1	0.50	U
67-66-3	Chloroform	1	0.50	U
74-87-3	Chloromethane	1	0.50	U
156-59-2	cis-1,2-Dichloroethylene	1	0.50	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.50	U
110-82-7	Cyclohexane	1	0.50	U
124-48-1	Dibromochloromethane	1	0.50	U
74-95-3	Dibromomethane	1	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.50	U
100-41-4	Ethyl Benzene	1	0.50	U
87-68-3	Hexachlorobutadiene	1	0.50	U
98-82-8	Isopropylbenzene	1	0.50	U
79-20-9	Methyl acetate	1	0.50	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.50	U
108-87-2	Methyleyclohexane	1	1.0	
75-09-2	Methylene chloride	1	2.0	U
104-51-8	n-Butylbenzene	1	0.50	U
103-65-1	n-Propylbenzene	1	0.50	U
95-47-6	o-Xylene	1	0.50	U
179601-23-1	p- & m- Xylenes	1	1.0	U
99-87-6	p-Isopropyltoluene	1	0.50	U
135-98-8	sec-Butylbenzene	1	0.50	U
100-42-5	Styrene	1	0.50	U
75-65-0	tert-Butyl alcohol (TBA)	1	2.0	U
98-06-6	tert-Butylbenzene	1	0.50	U
127-18-4	Tetrachloroethylene	1	0.50	U
108-88-3	Toluene	1	0.50	U
156-60-5	trans-1,2-Dichloroethylene	1	0.50	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.50	U
79-01-6	Trichloroethylene	1	0.50	U
75-69-4	Trichlorofluoromethane	1	0.50	U
108-05-4	Vinyl acetate	1	0.50	U
75-01-4	Vinyl Chloride	1	0.50	U
1330-20-7	Xylenes, Total	1	1.5	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	10.0	10.5	105	69 - 130	
Toluene-d8	10.0	9.77	97.7	81 - 117	
p-Bromofluorobenzene	10.0	8.80	88.0	79 - 122	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017809.D
 Acq On : 15 Mar 2016 5:12 pm
 InstName : MSVOA6
 Operator : SS
 Sample : 16C0466-04
 Misc : QBV6031516A 8260 COMP A
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 12:39:42 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

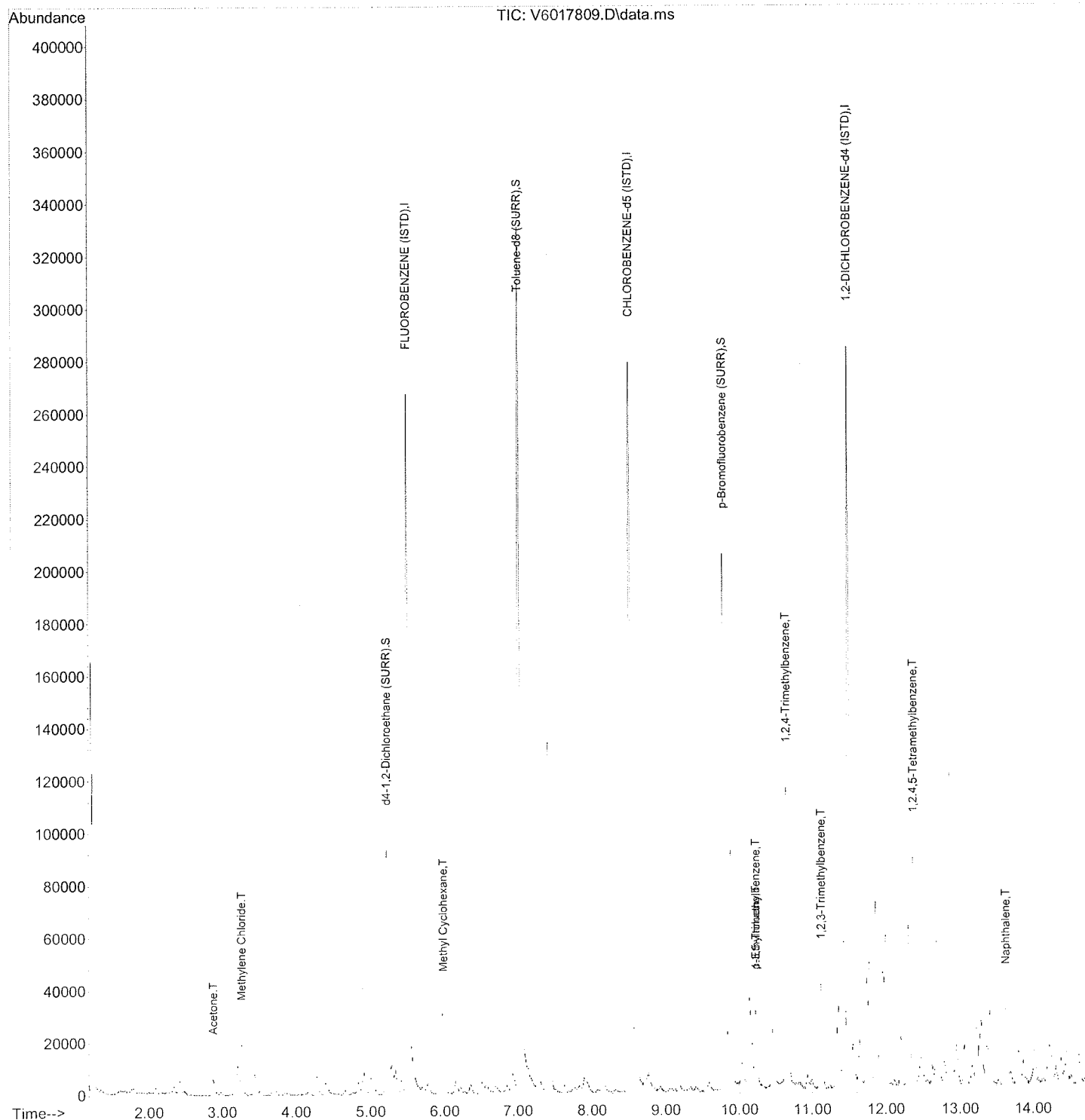
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

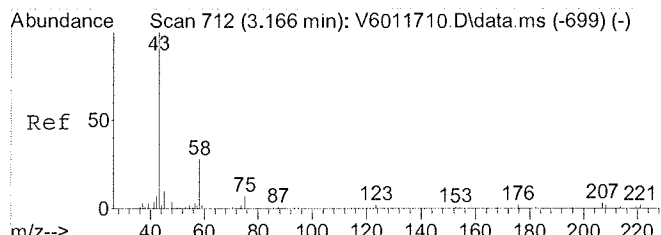
Internal Standards						
1) FLUOROBENZENE (ISTD)	5.497	70	55006	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.518	117	216408	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.487	152	95010	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.216	65	70761	10.47	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	104.70%	
51) Toluene-d8 (SURR)	7.019	98	285526	9.77	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.70%	
70) p-Bromofluorobenzene (...)	9.782	95	104281	8.80	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	88.00%	
Target Compounds						
						Qvalue
12) Acetone	2.876	43	9263	5.33	ppb	99
17) Methylene Chloride	3.257	49	11483	0.91	ppb	94
42) Methyl Cyclohexane	5.984	83	15077m	1.00	ppb	
68) p-Ethyltoluene	10.227	105	20858	0.57	ppb	99
78) 1,3,5-Trimethylbenzene	10.227	105	20858	0.58	ppb	98
80) 1,2,4-Trimethylbenzene	10.647	105	91024	2.53	ppb	# 84
85) 1,2,3-Trimethylbenzene	11.120	105	28010	0.99	ppb	# 88
90) 1,2,4,5-Tetramethylben...	12.369	119	58029	1.91	ppb	96
93) Naphthalene	13.621	128	32429	2.64	ppb	95

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

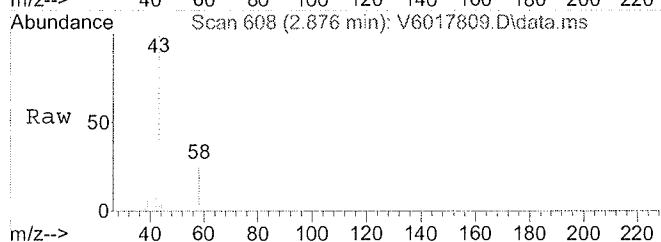
Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017809.D
Acq On : 15 Mar 2016 5:12 pm
InstName : MSVOA6
Operator : SS
Sample : 16C0466-04
Misc : QBV6031516A 8260 COMP A
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 12:39:42 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration



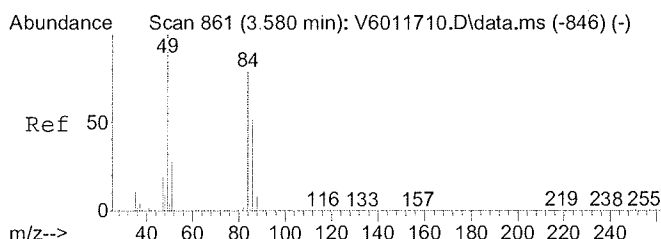
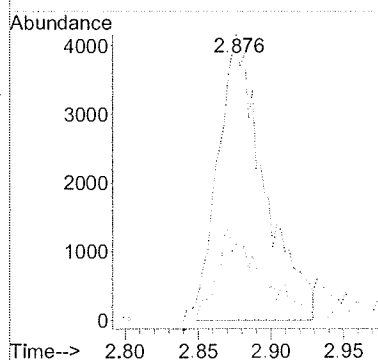
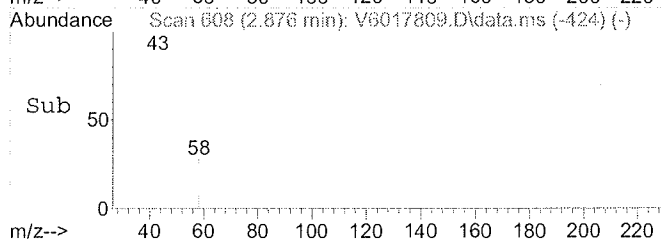


#12
Acetone
Concen: 5.33 ppb
RT: 2.876 min Scan# 608
Delta R.T. 0.011 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm

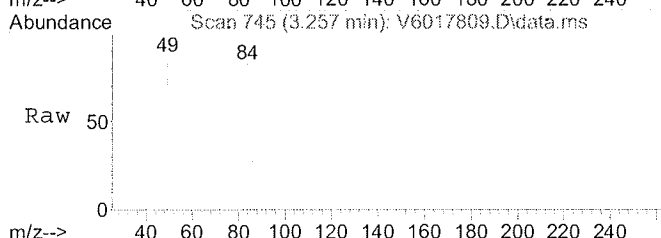


Tgt Ion: 43 Resp: 9263

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
58	25.8	13.9	41.6

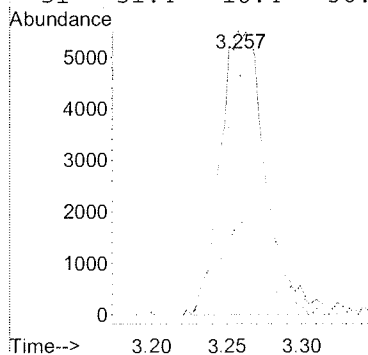
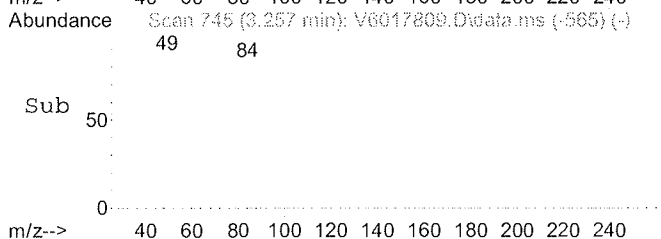


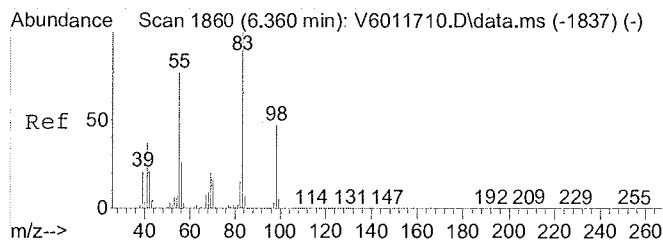
#17
Methylene Chloride
Concen: 0.91 ppb
RT: 3.257 min Scan# 745
Delta R.T. 0.000 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm



Tgt Ion: 49 Resp: 11483

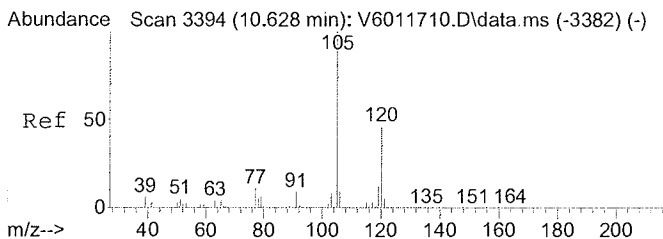
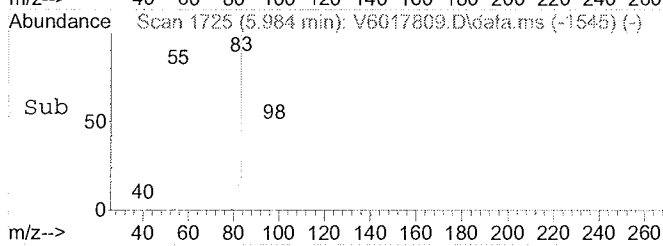
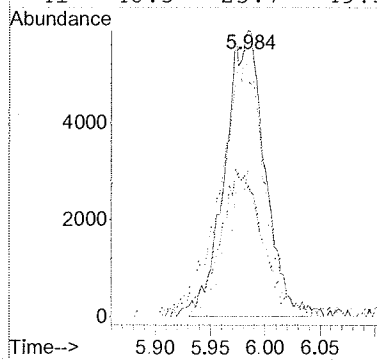
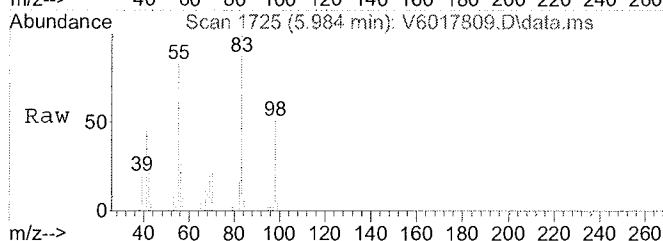
Ion	Ratio	Lower	Upper
49	100		
84	78.0	51.5	107.1
86	44.3	34.1	70.7
51	31.4	18.4	38.2





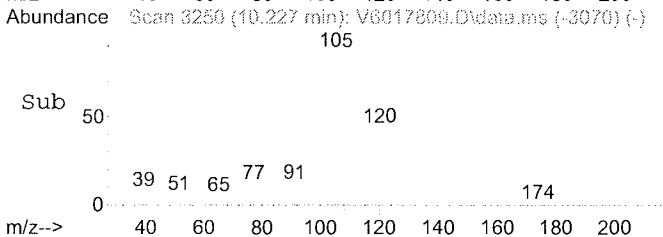
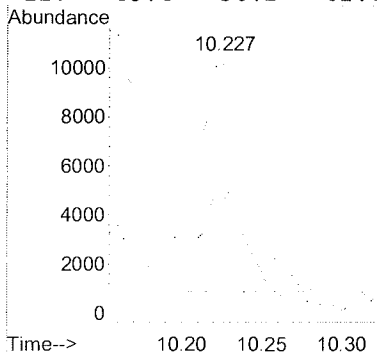
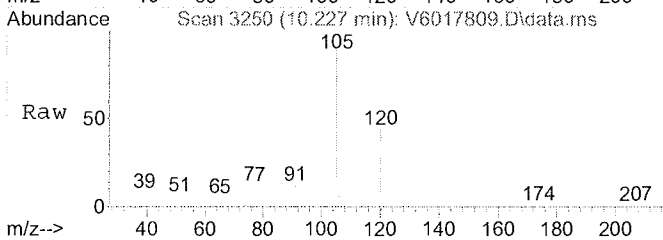
#42
Methyl Cyclohexane
Concen: 1.00 ppb m
RT: 5.984 min Scan# 1725
Delta R.T. 0.000 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm

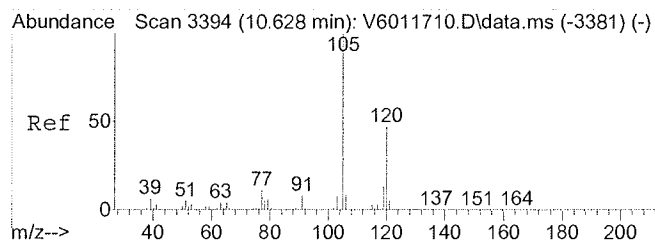
Tgt Ion: 83 Resp: 15077
Ion Ratio Lower Upper
83 100
55 98.6 49.9 103.5
98 44.8 30.4 63.0
41 46.3 23.7 49.3



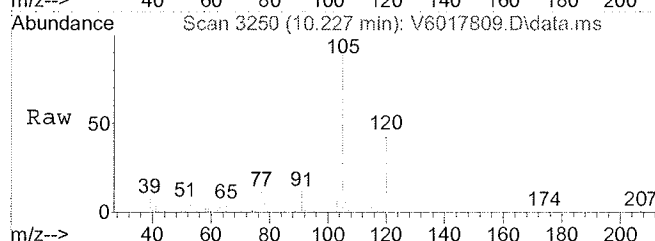
#68
p-Ethyltoluene
Concen: 0.57 ppb
RT: 10.227 min Scan# 3250
Delta R.T. 0.000 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm

Tgt Ion: 105 Resp: 20858
Ion Ratio Lower Upper
105 100
105 100.0 80.0 120.0
91 10.0 5.7 11.9
120 48.4 30.2 62.6

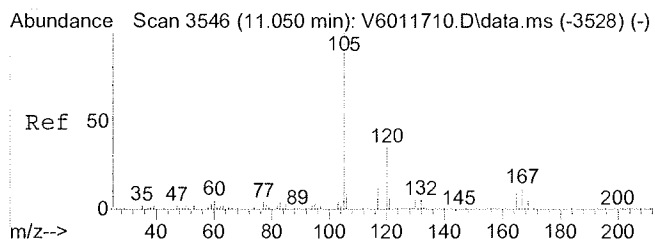
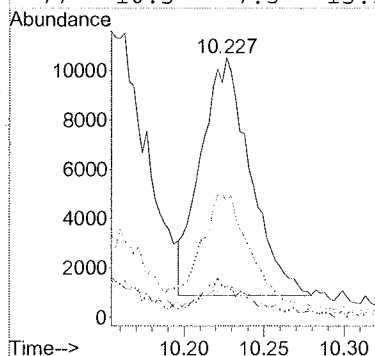
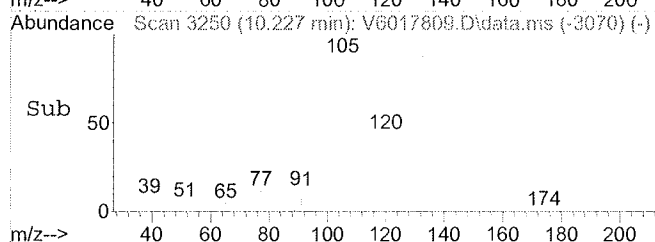




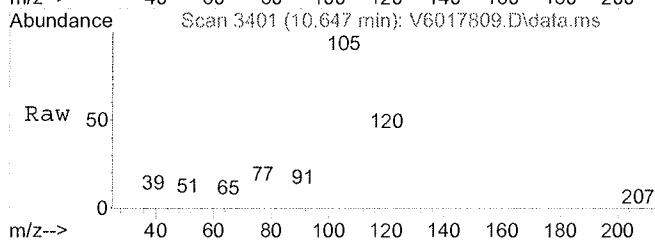
#78
1,3,5-Trimethylbenzene
Concen: 0.58 ppb
RT: 10.227 min Scan# 3250
Delta R.T. 0.000 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm



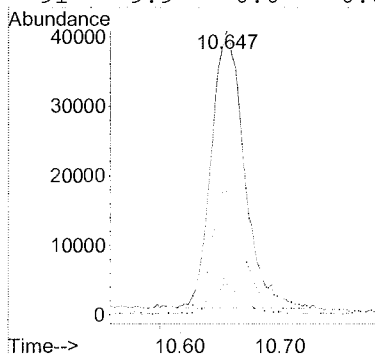
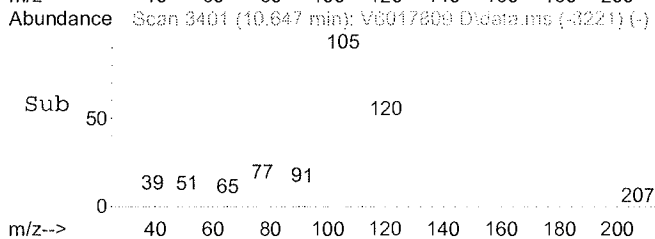
Tgt Ion:105 Resp: 20858
Ion Ratio Lower Upper
105 100
91 10.0 5.0 10.4
120 48.4 30.6 63.6
77 10.5 7.3 15.3

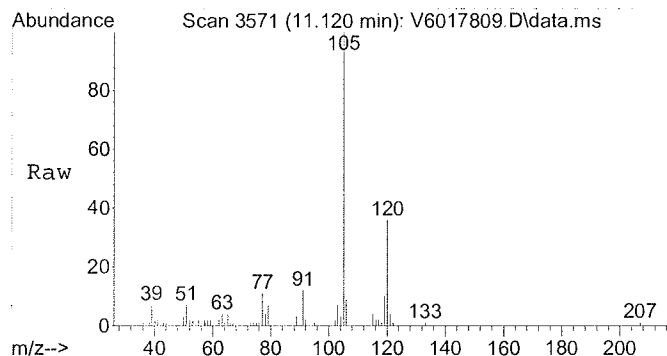


#80
1,2,4-Trimethylbenzene
Concen: 2.53 ppb
RT: 10.647 min Scan# 3401
Delta R.T. 0.000 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm



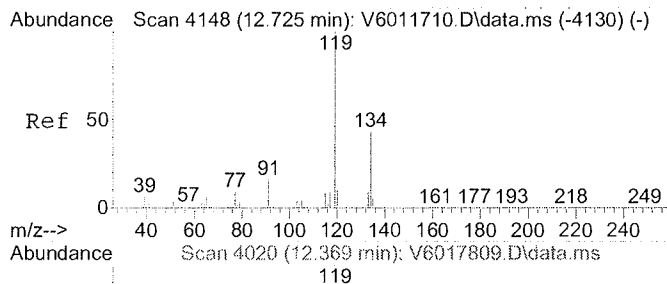
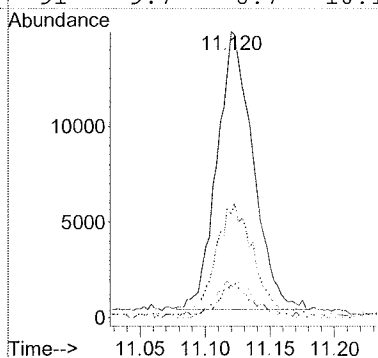
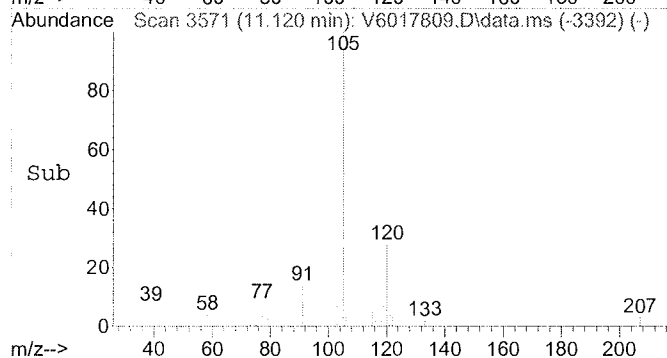
Tgt Ion:105 Resp: 91024
Ion Ratio Lower Upper
105 100
120 43.3 22.6 46.8
77 11.9 2.3 4.9#
91 9.9 0.0 0.0#





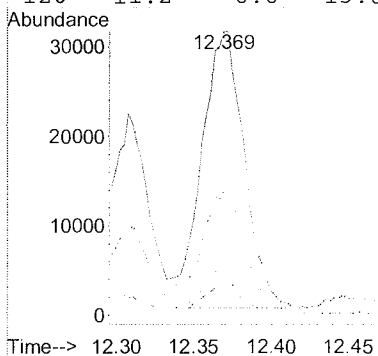
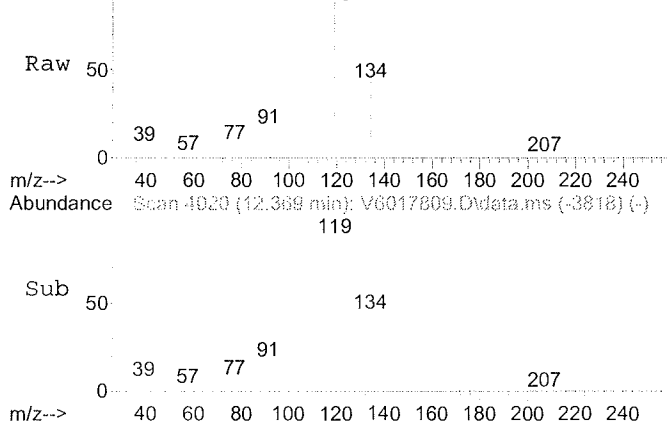
#85
 1,2,3-Trimethylbenzene
 Concen: 0.99 ppb
 RT: 11.120 min Scan# 3571
 Delta R.T. -0.003 min
 Lab File: V6017809.D
 Acq: 15 Mar 2016 5:12 pm

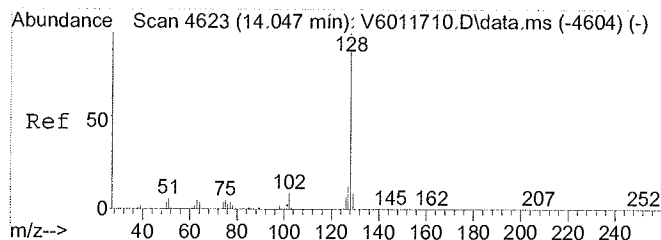
Tgt Ion	Ratio	Lower	Upper
105	100		
120	42.0	27.0	40.6#
77	6.1	8.4	12.6#
91	9.7	6.7	10.1



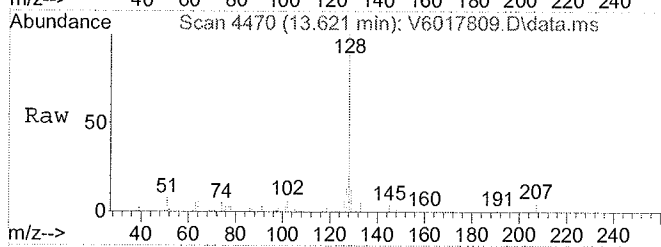
#90
 1,2,4,5-Tetramethylbenzene
 Concen: 1.91 ppb
 RT: 12.369 min Scan# 4020
 Delta R.T. 0.061 min
 Lab File: V6017809.D
 Acq: 15 Mar 2016 5:12 pm

Tgt Ion	Ratio	Lower	Upper
119	100		
134	46.2	27.8	57.6
91	15.9	10.3	21.3
120	11.2	6.6	13.6

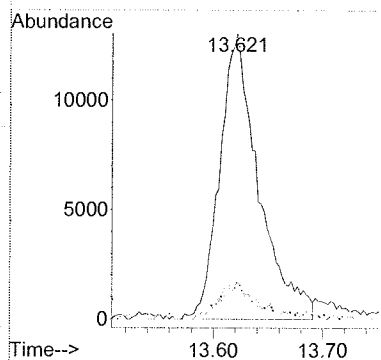
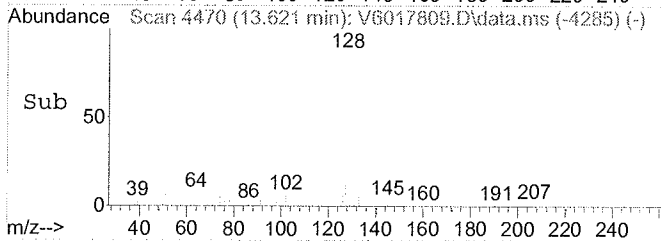




#93
Naphthalene
Concen: 2.64 ppb
RT: 13.621 min Scan# 4470
Delta R.T. 0.014 min
Lab File: V6017809.D
Acq: 15 Mar 2016 5:12 pm



Tgt Ion: 128 Resp: 32429
Ion Ratio Lower Upper
128 100
127 10.3 8.5 17.6
129 10.3 6.1 12.7



FORM I

ORGANIC ANALYSIS DATA SHEET

05/TB20160309

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-05 File ID: V6017810.D
 Sampled: 03/09/16 00:00 Prepared: 03/15/16 08:12 Analyzed: 03/15/16 17:41
 Solids: Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED Instrument: MSVOA6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.50	U
75-34-3	1,1-Dichloroethane	1	0.50	U
75-35-4	1,1-Dichloroethylene	1	0.50	U
563-58-6	1,1-Dichloropropylene	1	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.31	J
96-12-8	1,2-Dibromo-3-chloropropane	1	2.0	U
106-93-4	1,2-Dibromoethane	1	0.50	U
95-50-1	1,2-Dichlorobenzene	1	0.50	U
107-06-2	1,2-Dichloroethane	1	0.50	U
78-87-5	1,2-Dichloropropane	1	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.50	U
142-28-9	1,3-Dichloropropane	1	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.50	U
123-91-1	1,4-Dioxane	1	80	U
594-20-7	2,2-Dichloropropane	1	0.50	U
78-93-3	2-Butanone	1	0.50	U
95-49-8	2-Chlorotoluene	1	0.50	U
591-78-6	2-Hexanone	1	2.0	U
106-43-4	4-Chlorotoluene	1	0.50	U
108-10-1	4-Methyl-2-pentanone	1	0.50	U
67-64-1	Acetone	1	2.0	U
107-02-8	Acrolein	1	0.50	U
107-13-1	Acrylonitrile	1	2.0	U
71-43-2	Benzene	1	0.50	U
108-86-1	Bromobenzene	1	0.50	U
74-97-5	Bromochloromethane	1	0.50	U
75-27-4	Bromodichloromethane	1	0.50	U
75-25-2	Bromoform	1	0.50	U
74-83-9	Bromomethane	1	0.50	U
75-15-0	Carbon disulfide	1	0.50	U
56-23-5	Carbon tetrachloride	1	0.50	U
108-90-7	Chlorobenzene	1	0.50	U

FORM I

ORGANIC ANALYSIS DATA SHEET

05/TB20160309

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-05 File ID: V6017810.D
 Sampled: 03/09/16 00:00 Prepared: 03/15/16 08:12 Analyzed: 03/15/16 17:41
 Solids: Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED Instrument: MSVOA6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
75-00-3	Chloroethane	1	0.50	U
67-66-3	Chloroform	1	0.50	U
74-87-3	Chloromethane	1	0.50	U
156-59-2	cis-1,2-Dichloroethylene	1	0.50	U
10061-01-5	cis-1,3-Dichloropropylene	1	0.50	U
110-82-7	Cyclohexane	1	0.50	U
124-48-1	Dibromochloromethane	1	0.50	U
74-95-3	Dibromomethane	1	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.50	U
100-41-4	Ethyl Benzene	1	0.50	U
87-68-3	Hexachlorobutadiene	1	0.50	U
98-82-8	Isopropylbenzene	1	0.50	U
79-20-9	Methyl acetate	1	0.50	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1	0.50	U
108-87-2	Methylcyclohexane	1	0.50	U
75-09-2	Methylene chloride	1	2.0	U
104-51-8	n-Butylbenzene	1	0.50	U
103-65-1	n-Propylbenzene	1	0.50	U
95-47-6	o-Xylene	1	0.50	U
179601-23-1	p- & m- Xylenes	1	1.0	U
99-87-6	p-Isopropyltoluene	1	0.50	U
135-98-8	sec-Butylbenzene	1	0.50	U
100-42-5	Styrene	1	0.50	U
75-65-0	tert-Butyl alcohol (TBA)	1	2.0	U
98-06-6	tert-Butylbenzene	1	0.50	U
127-18-4	Tetrachloroethylene	1	0.50	U
108-88-3	Toluene	1	0.50	U
156-60-5	trans-1,2-Dichloroethylene	1	0.50	U
10061-02-6	trans-1,3-Dichloropropylene	1	0.50	U
79-01-6	Trichloroethylene	1	0.50	U
75-69-4	Trichlorofluoromethane	1	0.50	U
108-05-4	Vinyl acetate	1	0.50	U
75-01-4	Vinyl Chloride	1	0.50	U
1330-20-7	Xylenes, Total	1	1.5	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	10.0	10.3	103	69 - 130	
Toluene-d8	10.0	9.91	99.1	81 - 117	
p-Bromofluorobenzene	10.0	9.90	99.0	79 - 122	

* Values outside of QC limits

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017810.D
 Acq On : 15 Mar 2016 5:41 pm
 InstName : MSVOA6
 Operator : SS
 Sample : 16C0466-05
 Misc : QBV6031516A 8260 COMP A
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 16 12:40:32 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

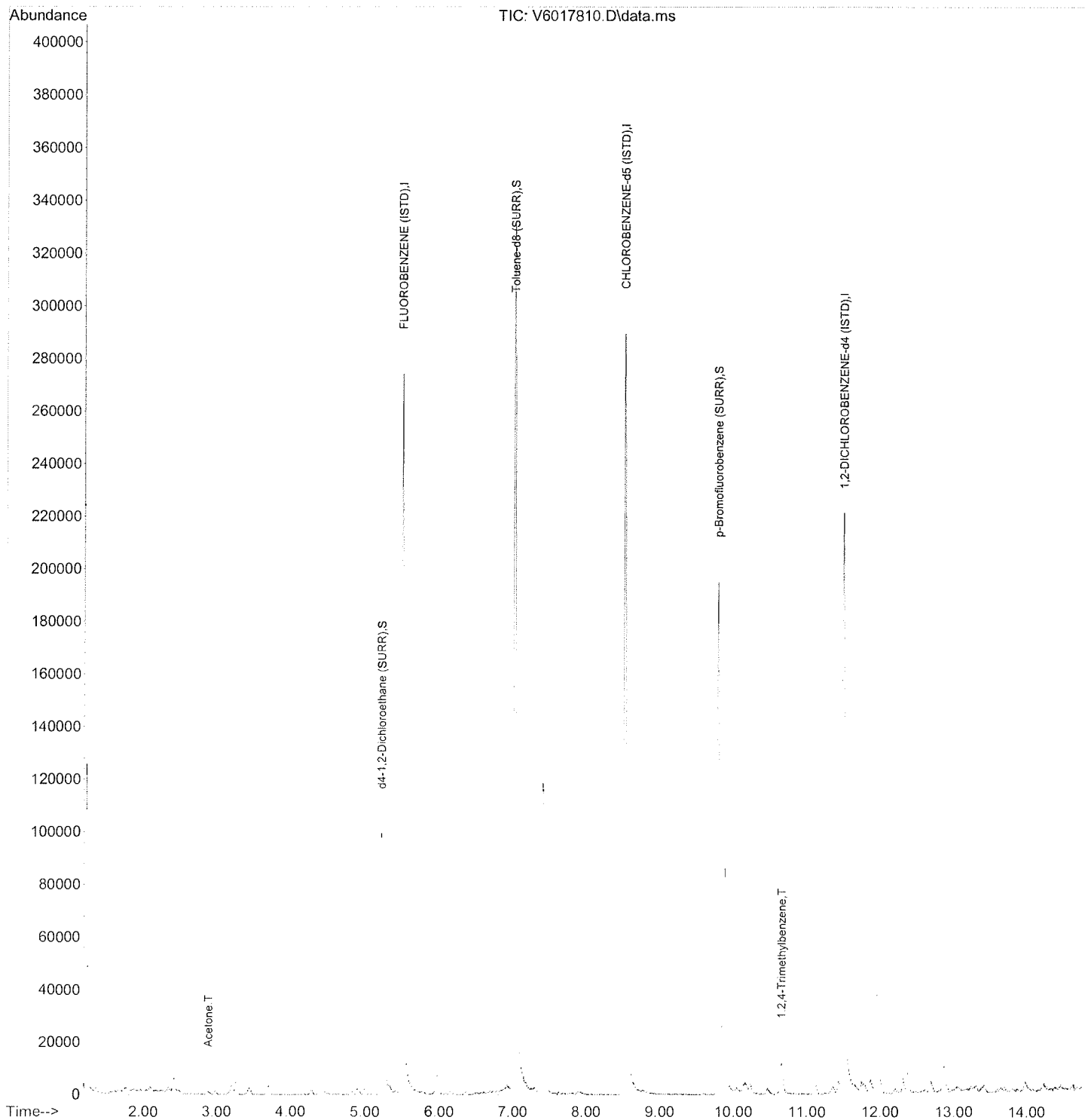
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

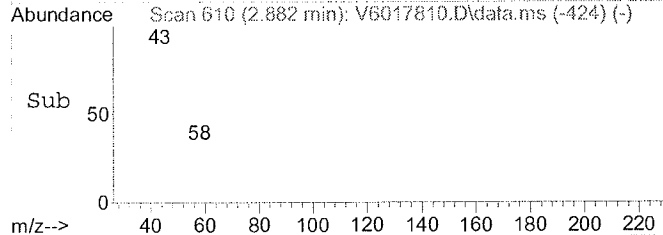
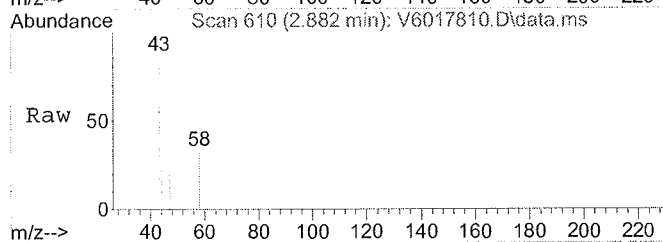
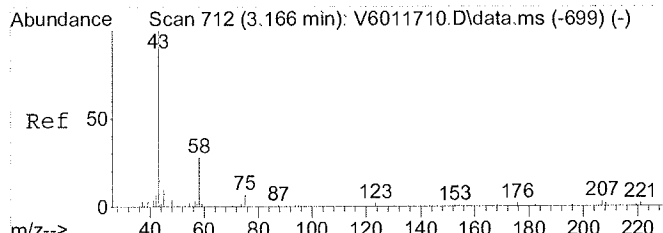
Internal Standards						
1) FLUOROBENZENE (ISTD)	5.497	70	56874	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.516	117	219794	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.493	152	85222	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.213	65	72239	10.34	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	103.40%	
51) Toluene-d8 (SURR)	7.019	98	294247	9.91	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.10%	
70) p-Bromofluorobenzene (...)	9.784	95	105258	9.90	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.00%	
Target Compounds						Qvalue
12) Acetone	2.882	43	1668m	0.93	ppb	
80) 1,2,4-Trimethylbenzene	10.652	105	9901	0.31	ppb	# 76

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

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017810.D
Acq On : 15 Mar 2016 5:41 pm
InstName : MSVOA6
Operator : SS
Sample : 16C0466-05
Misc : QBV6031516A 8260 COMP A
ALS Vial : 19 Sample Multiplier: 1

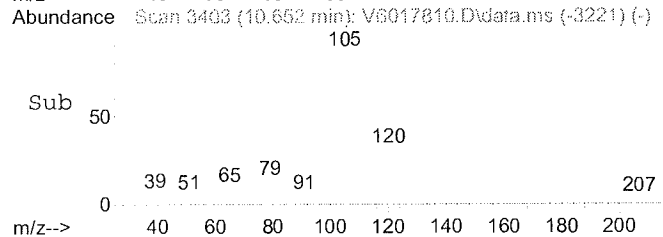
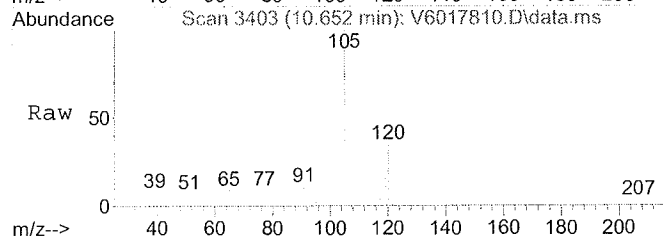
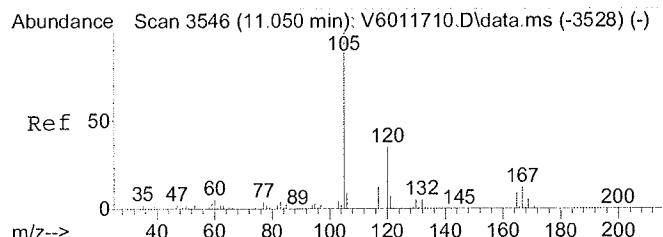
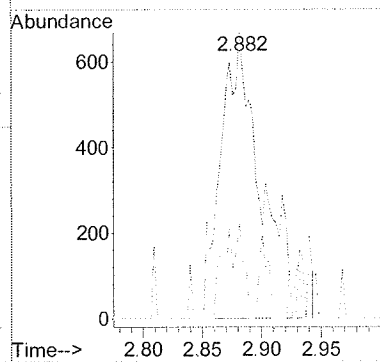
Quant Time: Mar 16 12:40:32 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration





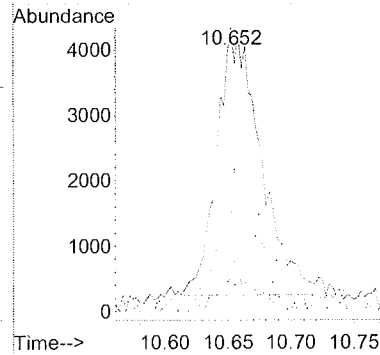
#12
Acetone
Concen: 0.93 ppb m
RT: 2.882 min Scan# 610
Delta R.T. 0.017 min
Lab File: V6017810.D
Acq: 15 Mar 2016 5:41 pm

Tgt Ion: 43 Resp: 1668
Ion Ratio Lower Upper
43 100
43 33.3 80.0 120.0#
58 8.6 13.9 41.6#



#80
1,2,4-Trimethylbenzene
Concen: 0.31 ppb
RT: 10.652 min Scan# 3403
Delta R.T. 0.006 min
Lab File: V6017810.D
Acq: 15 Mar 2016 5:41 pm

Tgt Ion: 105 Resp: 9901
Ion Ratio Lower Upper
105 100
120 19.5 22.6 46.8#
77 1.5 2.3 4.9#
91 0.0 0.0 0.0



Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Thu Jan 14 15:20:23 2016
 Response via : Initial Calibration

Calibration Files

20 =V255515C.D 50 =V255516C.D 100 =V255517C.D
 200 =V255518C.D 5 =V255513C.D 10 =V255514C.D

Compound		20	50	100	200	5	10	Avg	%RSD

1)	FLUOROBENZENE (ISTD)	-----ISTD-----							
2)	Dichlorodifluoromet	1.503	1.526	1.405	1.405	1.453	1.567	1.476	4.52
3) P	Chloromethane	1.997	1.974	1.906	1.772	2.196	2.023	1.978	7.05
4) C	Vinyl Chloride	1.370	1.334	1.248	1.163	1.278	1.408	1.300	6.84#
5)	Bromomethane	0.634	0.589	0.605	0.619	0.974	0.735	0.693	21.24
6)	Chloroethane	0.600	0.594	0.570	0.542	0.612	0.613	0.589	4.68
7)	Trichlorofluorometh	1.392	1.417	1.311	1.352	1.390	1.461	1.387	3.74
8)	Ethyl Ether	1.191	1.218	1.128	1.101	1.029	1.144	1.135	5.92
9)	Freon-113	1.298	1.234	1.102	1.070	1.241	1.295	1.207	8.09
10) C,M	1,1-Dichloroethylen	1.996	1.877	1.676	1.595	1.912	2.093	1.858	10.20#
11)	Acrolein	0.168	0.205	0.199	0.211		0.198	0.196	8.49
12)	Iodomethane	1.132	1.405	1.341	1.278	0.483	0.885	1.087	32.12
13)	Methyl Acetate	1.185	1.204	1.123	1.113	1.176	1.353	1.192	7.26
14)	tert Butyl Alcohol	0.160	0.192	0.171	0.183		0.161	0.173	7.93
15)	Acrylonitrile	0.538	0.611	0.543	0.526	0.556	0.589	0.561	5.87
16)	trans-1,2-Dichloroe	1.924	1.849	1.638	1.544	1.793	2.100	1.808	11.03
17)	Carbon Disulfide	4.482	4.370	3.888	3.742	4.564	4.874	4.320	9.90
18)	Methylene Chloride	2.290	2.188	1.903	1.824	2.534	2.619	2.226	14.50
19)	tert-Butyl Methyl E	3.482	3.563	3.244	3.090	3.500	3.874	3.459	7.84
20)	Acetone	0.634	0.583	0.604	0.518		0.845	0.637	19.48
21) P	1,1-Dichloroethane	2.583	2.636	2.399	2.277	2.553	2.817	2.544	7.39
22)	Vinyl Acetate	2.264	2.306	2.207	2.130	2.002	2.301	2.202	5.37
23)	cis-1,2-Dichloroeth	1.626	1.599	1.429	1.392	1.551	1.676	1.546	7.30
24)	2-Butanone	0.819	0.824	0.756	0.681	1.038	0.936	0.843	15.14
25)	2,2-Dichloropropane	1.890	1.878	1.661	1.615	1.887	2.048	1.830	8.86
26)	Bromochloromethane	1.359	1.365	1.208	1.129	1.241	1.403	1.284	8.40
27) C	Chloroform	2.262	2.272	2.052	2.002	2.312	2.403	2.217	7.05#
28)	1,1,1-Trichloroetha	1.838	1.854	1.667	1.622	1.769	1.910	1.777	6.34
29)	Cyclohexane	2.574	2.522	2.208	2.017	2.626	2.621	2.428	10.49
30)	1,1-Dichloropropyle	1.828	1.729	1.517	1.415	1.733	1.968	1.698	11.90
31) S	d4-1,2-Dichloroetha	1.242	1.258	1.230	1.240	1.307	1.307	1.264	2.72
32)	Carbon Tetrachlorid	1.413	1.406	1.254	1.245	1.383	1.590	1.382	9.14
33)	1,2-Dichloroethane	1.436	1.510	1.353	1.356	1.430	1.585	1.445	6.24
34) M	Benzene	5.184	5.057	4.365	4.101	5.208	5.466	4.897	10.98
35)	CHLOROBENZENE-d5 (ISTD)	-----ISTD-----							
36)	Tetrahydrofuran	0.156	0.144	0.138	0.126	0.206	0.171	0.157	18.13
37) M	Trichloroethylene	0.374	0.377	0.339	0.328	0.356	0.394	0.361	6.91
38)	Methyl Cyclohexane	0.638	0.629	0.552	0.546	0.585	0.643	0.599	7.32
39)	Methyl Methacrylat	0.280	0.302	0.269	0.266	0.297	0.299	0.285	5.57
40)	Dibromomethane	0.226	0.235	0.217	0.210	0.213	0.242	0.224	5.78
41)	Bromodichloromethan	0.487	0.522	0.468	0.456	0.442	0.494	0.478	6.05
42) C	1,2-Dichloropropane	0.399	0.400	0.357	0.346	0.404	0.406	0.385	6.94#

(#) = Out of Range

V2C00371.M

Thu Jan 14 15:20:37 2016

Page 1

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Thu Jan 14 15:20:23 2016
 Response via : Initial Calibration

Calibration Files

20 =V255515C.D 50 =V255516C.D 100 =V255517C.D
 200 =V255518C.D 5 =V255513C.D 10 =V255514C.D

	Compound	20	50	100	200	5	10	Avg	%RSD
43)	1,4-Dioxane	0.003	0.003	0.003	0.003	0.003	0.003	0.003#	6.38
44)	2-Chloroethyl vinyl							0.000#	-1.00
45)	cis-1,3-Dichloropro	0.664	0.679	0.622	0.598	0.617	0.666	0.641	5.10
46)	2-Hexanone	0.321	0.353	0.323	0.316	0.365	0.350	0.338	6.05
47) S	Toluene-d8 (SURR)	1.205	1.235	1.227	1.226	1.239	1.236	1.228	1.02
48) C,M	Toluene	1.395	1.384	1.233	1.161	1.367	1.462	1.334	8.47#
49)	trans-1,3-Dichlorop	0.571	0.606	0.568	0.542	0.521	0.569	0.563	5.14
50)	1,1,2-Trichloroetha	0.282	0.290	0.266	0.260	0.269	0.298	0.277	5.35
51)	1,3-Dichloropropane	0.602	0.573	0.531	0.509	0.569	0.639	0.571	8.21
52)	Tetrachloroethylene	0.382	0.366	0.337	0.332	0.394	0.398	0.368	7.75
53)	4-Methyl-2-Pentanone	0.489	0.499	0.453	0.448	0.507	0.474	0.478	5.08
54)	Dibromochloromethan	0.345	0.382	0.353	0.347	0.300	0.346	0.346	7.60
55)	1,2-Dibromoethane	0.338	0.363	0.327	0.326	0.318	0.355	0.338	5.33
56) P,M	Chlorobenzene	0.876	0.912	0.804	0.770	0.867	0.897	0.854	6.49
57) C	Ethyl Benzene	1.541	1.512	1.303	1.203	1.572	1.613	1.457	11.31#
58)	p- & m-Xylenes	1.149	1.066	0.908	0.818	1.186	1.196	1.054	14.94
59)	o-Xylene	1.192	1.136	0.978	0.930	1.225	1.252	1.119	12.00
60)	Styrene	1.009	0.947	0.840	0.782	1.031	1.035	0.941	11.34
61)	1,1,1,2-Tetrachloro	0.324	0.337	0.308	0.302	0.300	0.332	0.317	5.04
62)	p-Ethyltoluene	1.378	1.307	1.133	1.053	1.392	1.451	1.286	12.31
63)	p-Diethylbenzene	0.656	0.664	0.580	0.535	0.631	0.703	0.628	9.73
64)	1,2-DICHLOROBENZENE-d	-----ISTD-----							
65) p	Bromoform	0.527	0.654	0.631	0.726	0.428	0.529	0.582	18.47
66) S	p-Bromofluorobenzen	0.848	0.930	0.993	1.083	0.863	0.854	0.928	10.15
67) P	1,1,2,2-Tetrachloro	1.051	1.244	1.169	1.227	0.983	1.103	1.130	9.09
68)	trans-1,4-Dichloro-	1.269	1.415	1.337	1.450	1.073	1.281	1.304	10.28
69)	1,2,3-Trichloroprop	0.295	0.353	0.314	0.360	0.302	0.305	0.321	8.69
70)	Isopropylbenzene	3.672	3.740	3.513	3.736	3.486	3.821	3.661	3.67
71)	Bromobenzene	1.516	1.599	1.516	1.590	1.485	1.690	1.566	4.84
72)	n-Propylbenzene	4.253	4.522	4.158	4.317	4.215	4.347	4.302	2.97
73)	2-Chlorotoluene	2.757	2.855	2.622	2.789	2.748	2.794	2.761	2.80
74)	4-Chlorotoluene	2.730	2.900	2.665	2.777	2.794	2.957	2.804	3.85
75)	tert-Butylbenzene	3.157	3.324	3.063	3.214	3.102	3.304	3.194	3.32
76)	1,3,5-trimethylbenz	2.813	2.961	2.630	2.726	2.773	2.816	2.787	3.95
77)	1,2,4-trimethylbenz	2.779	2.870	2.650	2.792	2.770	2.808	2.778	2.60
78)	sec-Butylbenzene	3.776	3.959	3.597	3.801	3.574	3.793	3.750	3.83
79)	1,3-Dichlorobenzene	1.682	1.746	1.584	1.724	1.608	1.779	1.687	4.61
80)	1,4-Dichlorobenzene	1.727	1.701	1.603	1.706	1.613	1.715	1.678	3.25
81)	1,2-Dichlorobenzene	1.387	1.497	1.397	1.434	1.323	1.450	1.415	4.23
82)	p-Isopropyltoluene	2.982	3.042	2.758	2.909	2.895	3.139	2.954	4.46
83)	n-Butylbenzene	3.234	3.352	3.095	3.147	3.255	3.369	3.242	3.35
84)	1,2,4,5-Tetramethyl	2.326	2.714	2.458	2.672	2.302	2.429	2.483	6.98
85)	1,2-Dibromo-3-chlor	0.137	0.166	0.153	0.181	0.122	0.146	0.151	13.94

(#) = Out of Range

V2C00371.M

Thu Jan 14 15:20:38 2016

Page 2

Response Factor Report MS VOA 2

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Thu Jan 14 15:20:23 2016
Response via : Initial Calibration

Calibration Files

20 =V255515C.D 50 =V255516C.D 100 =V255517C.D
200 =V255518C.D 5 =V255513C.D 10 =V255514C.D

	Compound	20	50	100	200	5	10	Avg	%RSD
86)	1,2,4-Trichlorobenz	0.968	1.054	1.022	1.092	0.900	0.998	1.006	6.71
87)	Naphthalene	1.996	2.233	2.188	2.365	1.937	1.831	2.092	9.67
88)	Hexachloro-1,3-Buta	0.488	0.541	0.514	0.571	0.459	0.488	0.510	7.99
89)	1,2,3-Trichlorobenz	0.786	0.864	0.849	0.908	0.693	0.835	0.822	9.10

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255513C.D Vial: 14
 Acq On : 14 Jan 2016 12:35 pm Operator: BK
 Sample : 5PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 12:53 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.73	70	162514	50.00	ppb	-0.03
35) CHLOROBENZENE-d5(ISTD)	8.74	117	577419	50.00	ppb	-0.04
64) 1,2-DICHLOROBENZENE-d4(IST)	11.69	152	247636	50.00	ppb	-0.04

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.42	65	212330	54.04	ppb	-0.04
Spiked Amount	50.000	Range	67 - 128	Recovery	=	108.08%
47) Toluene-d8(SURR)	7.26	98	715417	48.79	ppb	-0.04
Spiked Amount	50.000	Range	87 - 113	Recovery	=	97.58%
66) p-Bromofluorobenzene(SURR)	10.00	174	213743	50.13	ppb	-0.04
Spiked Amount	50.000	Range	63 - 166	Recovery	=	100.26%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.56	85	23613	6.64	ppb	99
3) Chloromethane	1.76	50	35685	4.54	ppb	99
4) Vinyl Chloride	1.85	62	20773	3.76	ppb	# 96
5) Bromomethane	2.16	94	15828m	5.82	ppb	98
6) Chloroethane	2.26	64	9947	3.51	ppb	99
7) Trichlorofluoromethane	2.51	101	22586	5.78	ppb	99
8) Ethyl Ether	2.80	59	16725	4.95	ppb	93
9) Freon 113	3.01	101	20167	6.56	ppb	97
10) 1,1-Dichloroethylene	3.01	61	31069	5.97	ppb	97
11) Acrolein	2.92	56	2877	4.98	ppb	# 62
12) Iodomethane	3.17	142	7851	2.11	ppb	96
13) Methyl Acetate	3.39	43	19109	4.18	ppb	99
14) tert Butyl Alcohol (TBA)	3.60	59	3111	5.51	ppb	# 100
15) Acrylonitrile	3.72	53	9033	4.60	ppb	# 58
16) trans-1,2-Dichloroethylene	3.73	61	29138	5.19	ppb	99
17) Carbon Disulfide	3.22	76	74165	5.97	ppb	100
18) Methylene Chloride	3.48	49	41184	5.40	ppb	94
19) tert-Butyl Methyl Ether (M)	3.74	73	56875	5.39	ppb	99
20) Acetone	3.08	43	18329	10.39	ppb	94
21) 1,1-Dichloroethane	4.13	63	41495	5.41	ppb	99
22) Vinyl Acetate	4.17	43	32529	4.29	ppb	100
23) cis-1,2-Dichloroethylene	4.66	96	25212	5.45	ppb	# 98
24) 2-Butanone	4.69	43	16866	5.53	ppb	99
25) 2,2-Dichloropropane	4.67	77	30665	5.86	ppb	100
26) Bromochloromethane	4.89	49	20170	4.28	ppb	# 91
27) Chloroform	4.96	83	37569	5.57	ppb	100
28) 1,1,1-Trichloroethane	5.13	97	28753	6.31	ppb	100
29) Cyclohexane	5.18	56	42682	5.71	ppb	# 100

(#) = qualifier out of range (m) = manual integration

V255513C.D V2C00370.M

Thu Jan 14 15:30:11 2016

Page 1

Data File : G:\MSVOA2~1\DAI\DAT\2011\1416\255513C.D Vial: 14
 Acq On : 14 Jan 2016 12:35 pm Operator: BK
 Sample : 5PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 12:53 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,1-Dichloropropylene	5.29	75	28165	5.40	ppb	99
32) Carbon Tetrachloride	5.28	117	22474	6.37	ppb	98
33) 1,2-Dichloroethane	5.49	62	23235	5.17	ppb	99
34) Benzene	5.48	78	84640	5.48	ppb	100
36) Tetrahydrofuran	4.93	42	11896	4.94	ppb	93
37) Trichloroethylene	6.08	95	20541	5.30	ppb	# 60
38) Methyl Cyclohexane	6.26	83	33801	4.89	ppb	# 55
39) Methyl Methacrylate	6.40	69	17123	4.80	ppb	# 26
40) Dibromomethane	6.41	93	12284	4.60	ppb	97
41) Bromodichloromethane	6.55	83	25498	4.59	ppb	# 97
42) 1,2-Dichloropropane	6.30	63	23350	4.83	ppb	# 87
43) 1,4-Dioxane	6.43	88	3713	110.81	ppb	89
45) cis-1,3-Dichloropropene	6.99	75	35618	4.59	ppb	# 88
46) 2-Hexanone	7.98	43	21073	4.30	ppb	97
48) Toluene	7.33	91	78937	5.14	ppb	100
49) trans-1,3-Dichloropropene	7.54	75	30071	4.45	ppb	98
50) 1,1,2-Trichloroethane	7.73	83	15513	4.49	ppb	95
51) 1,3-Dichloropropane	7.90	76	32881	4.55	ppb	# 99
52) Tetrachloroethylene	7.88	166	22757	6.00	ppb	# 100
53) 4-Methyl-2-Pentanone	7.14	43	29273m	3.74	ppb	
54) Dibromochloromethane	8.14	129	17345	4.49	ppb	100
55) 1,2-Dibromoethane	8.27	107	18367	4.93	ppb	99
56) Chlorobenzene	8.77	112	50080	5.22	ppb	# 100
57) Ethyl Benzene	8.88	91	90785	5.40	ppb	100
58) p- & m-Xylenes	9.00	91	136940	11.17	ppb	100
59) o-Xylene	9.43	91	70722	5.46	ppb	100
60) Styrene	9.44	104	59516	5.71	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.85	131	17318	5.01	ppb	97
62) p-Ethyltoluene	10.40	105	80348	6.00	ppb	92
63) p-Diethylbenzene	11.67	119	36440	5.10	ppb	# 92
65) Bromoform	9.64	173	10587	4.35	ppb	# 75
67) 1,1,2,2-Tetrachloroethane	10.15	83	24344	3.92	ppb	97
68) trans-1,4-Dichloro-2-buten	10.21	75	26575	3.89	ppb	99
69) 1,2,3-Trichloropropane	10.20	110	7469	5.19	ppb	84
70) Isopropylbenzene	9.83	105	86328	5.54	ppb	# 95
71) Bromobenzene	10.16	77	36785	4.73	ppb	# 80
72) n-Propylbenzene	10.28	91	104379	5.17	ppb	100
73) 2-Chlorotoluene	10.37	91	68042	5.24	ppb	# 99
74) 4-Chlorotoluene	10.49	91	69189	5.29	ppb	# 100
75) tert-Butylbenzene	10.83	119	76829	5.40	ppb	# 99
76) 1,3,5-trimethylbenzene	10.47	105	68666	5.73	ppb	97

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255513C.D Vial: 14
Acq On : 14 Jan 2016 12:35 pm Operator: BK
Sample : 5PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 12:53 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Dec 23 08:37:45 2015
Response via : Initial Calibration
DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,4-trimethylbenzene	10.88	105	68596	5.58	ppb	99
78) sec-Butylbenzene	11.08	105	88504	5.43	ppb	# 95
79) 1,3-Dichlorobenzene	11.21	146	39815	5.29	ppb	# 68
80) 1,4-Dichlorobenzene	11.30	146	39955	5.27	ppb	# 100
81) 1,2-Dichlorobenzene	11.72	146	32756	4.80	ppb	# 99
82) p-Isopropyltoluene	11.24	119	71696	5.68	ppb	100
83) n-Butylbenzene	11.70	91	80597	4.99	ppb	99
84) 1,2,4,5-Tetramethylbenzene	12.55	119	57007	5.29	ppb	99
85) 1,2-Dibromo-3-chloropropan	12.59	75	3019	4.03	ppb	94
86) 1,2,4-Trichlorobenzene	13.54	180	22275	5.38	ppb	96
87) Naphthalene	13.82	128	47965	4.89	ppb	100
88) Hexachloro-1,3-Butadiene	13.74	225	11362	5.90	ppb	# 78
89) 1,2,3-Trichlorobenzene	14.10	182	17158	4.72	ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255513C.D

Vial: 14

Acq On : 14 Jan 2016 12:35 pm

Operator: BK

Sample : 5PPB VOA CALIBRATION CURVE

Inst : MS VOA 2

Misc : QBV2011416A

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 14 12:53 19116

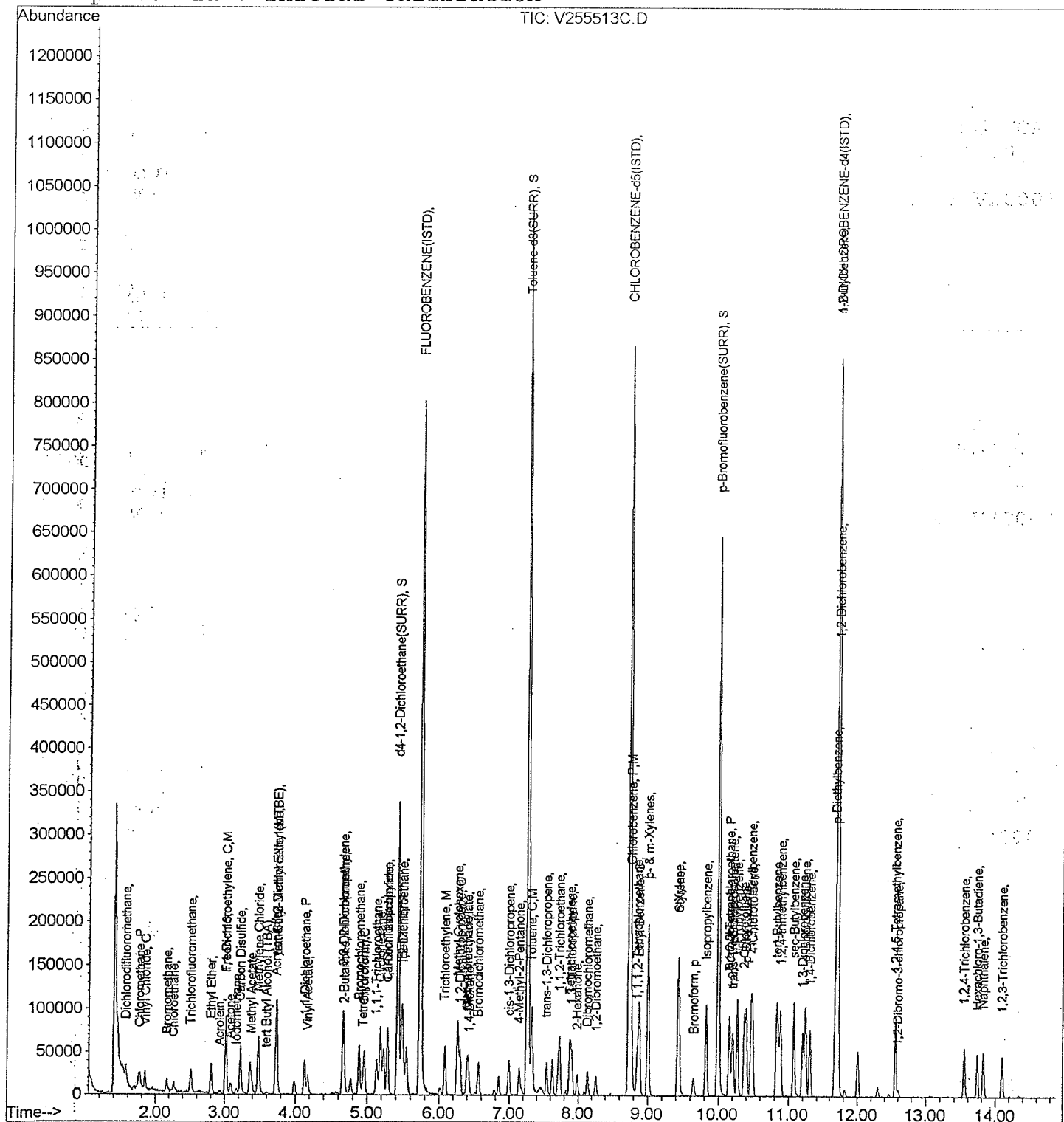
Quant Results File: V2C00370.RE

Method : G:\MSVOAM~1\V2C00370.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Dec 23 08:37:45 2015

Response via : Initial Calibration



Data File : G:\MSVOA2~1\DAI\LYDAT\V2011416\V255514C.D Vial: 15
 Acq On : 14 Jan 2016 1:04 pm Operator: BK
 Sample : 10PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 13:42 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.74	70	156772	50.00	ppb	-0.03
35) CHLOROBENZENE-d5(ISTD)	8.74	117	575455	50.00	ppb	-0.04
64) 1,2-DICHLOROBENZENE-d4(IST)	11.71	152	242973	50.00	ppb	-0.03

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.43	65	204941	54.06	ppb	-0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	108.12%
47) Toluene-d8(SURR)	7.26	98	711413	48.69	ppb	-0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	97.38%
66) p-Bromofluorobenzene(SURR)	10.00	174	207387	49.57	ppb	-0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	99.14%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.56	85	49143	14.34	ppb	100
3) Chloromethane	1.76	50	63426	8.37	ppb	100
4) Vinyl Chloride	1.85	62	44140	8.28	ppb	100
5) Bromomethane	2.16	94	23033	8.78	ppb	95
6) Chloroethane	2.26	64	19226	7.03	ppb	98
7) Trichlorofluoromethane	2.51	101	45824	12.16	ppb	100
8) Ethyl Ether	2.81	59	35871	11.00	ppb	# 56
9) Freon-113	3.02	101	40604	13.69	ppb	90
10) 1,1-Dichloroethylene	3.02	61	65629	13.08	ppb	98
11) Acrolein	2.94	56	6215	11.16	ppb	98
12) Iodomethane	3.16	142	27733m	7.73	ppb	
13) Methyl Acetate	3.39	43	42425	9.61	ppb	100
14) tert Butyl Alcohol (TBA)	3.60	59	5045	9.26	ppb	# 100
15) Acrylonitrile	3.72	53	18464	9.74	ppb	# 58
16) trans-1,2-Dichloroethylene	3.74	61	65844	12.15	ppb	# 70
17) Carbon Disulfide	3.22	76	152808	12.76	ppb	100
18) Methylene Chloride	3.48	49	82108	11.16	ppb	94
19) tert-Butyl Methyl Ether (M	3.74	73	121458	11.94	ppb	# 90
20) Acetone	3.08	43	26503	15.58	ppb	99
21) 1,1-Dichloroethane	4.13	63	88330	11.95	ppb	100
22) Vinyl Acetate	4.17	43	72139	9.87	ppb	100
23) cis-1,2-Dichloroethylene	4.67	96	52554	11.78	ppb	# 100
24) 2-Butanone	4.68	43	29363	9.98	ppb	100
25) 2,2-Dichloropropane	4.67	77	64213	12.72	ppb	100
26) Bromochloromethane	4.89	49	43989	9.68	ppb	# 93
27) Chloroform	4.96	83	75351	11.57	ppb	98
28) 1,1,1-Trichloroethane	5.13	97	59882	13.63	ppb	99
29) Cyclohexane	5.19	56	82191	11.39	ppb	# 100

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255514C.D Vial: 15
 Acq On : 14 Jan 2016 1:04 pm Operator: BK
 Sample : 10PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 13:42 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,1-Dichloropropylene	5.29	75	61694	12.25	ppb	99
32) Carbon Tetrachloride	5.29	117	49846	14.65	ppb	97
33) 1,2-Dichloroethane	5.50	62	49696	11.46	ppb	98
34) Benzene	5.49	78	171387	11.50	ppb	100
36) Tetrahydrofuran	4.95	42	19655	8.19	ppb	98
37) Trichloroethylene	6.08	95	45335	11.73	ppb	98
38) Methyl Cyclohexane	6.27	83	74044	10.75	ppb #	55
39) Methyl Methacrylate	6.40	69	34431	9.69	ppb #	26
40) Dibromomethane	6.42	93	27854	10.46	ppb #	67
41) Bromodichloromethane	6.56	83	56888	10.26	ppb	98
42) 1,2-Dichloropropane	6.30	63	46726	9.71	ppb #	98
43) 1,4-Dioxane	6.44	88	6845	204.98	ppb	100
45) cis-1,3-Dichloropropene	7.00	75	76604	9.90	ppb	99
46) 2-Hexanone	7.99	43	40229	8.25	ppb	97
48) Toluene	7.33	91	168260	10.99	ppb	100
49) trans-1,3-Dichloropropene	7.55	75	65488	9.72	ppb	98
50) 1,1,2-Trichloroethane	7.74	83	34264	9.95	ppb	96
51) 1,3-Dichloropropane	7.91	76	73589	10.23	ppb #	100
52) Tetrachloroethylene	7.88	166	45848	12.12	ppb #	100
53) 4-Methyl-2-Pentanone	7.15	43	54549	6.99	ppb	98
54) Dibromochloromethane	8.15	129	39860	10.36	ppb	99
55) 1,2-Dibromoethane	8.27	107	40898	11.01	ppb	96
56) Chlorobenzene	8.78	112	103206	10.79	ppb #	98
57) Ethyl Benzene	8.88	91	185599	11.07	ppb	99
58) p- & m-Xylenes	9.01	91	275385	22.54	ppb	100
59) o-Xylene	9.44	91	144066	11.17	ppb	99
60) Styrene	9.45	104	119080	11.47	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.85	131	38251	11.11	ppb	97
62) p-Ethyltoluene	10.41	105	167046	12.52	ppb	90
63) p-Diethylbenzene	11.68	119	80905	11.37	ppb #	98
65) Bromoform	9.65	173	25723	10.76	ppb #	75
67) 1,1,2,2-Tetrachloroethane	10.16	83	53596	8.80	ppb	99
68) trans-1,4-Dichloro-2-buten	10.22	75	62231	9.30	ppb	99
69) 1,2,3-Trichloropropane	10.21	110	14809	10.49	ppb	98
70) Isopropylbenzene	9.83	105	185700	12.14	ppb #	95
71) Bromobenzene	10.17	77	82146	10.77	ppb	97
72) n-Propylbenzene	10.28	91	211218	10.66	ppb	100
73) 2-Chlorotoluene	10.38	91	135756	10.65	ppb #	99
74) 4-Chlorotoluene	10.50	91	143683	11.19	ppb #	100
75) tert-Butylbenzene	10.84	119	160567	11.49	ppb #	99
76) 1,3,5-trimethylbenzene	10.47	105	136844	11.65	ppb	99

(#) = qualifier out of range (m) = manual integration
 V255514C.D V2C00370.M Thu Jan 14 15:30:18 2016

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255514C.D Vial: 15
Acq On : 14 Jan 2016 1:04 pm Operator: BK
Sample : 10PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 14 13:42 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Dec 23 08:37:45 2015

Response via : Initial Calibration

DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,4-trimethylbenzene	10.89	105	136465	11.30	ppb	100
78) sec-Butylbenzene	11.09	105	184303	11.53	ppb #	95
79) 1,3-Dichlorobenzene	11.21	146	86439	11.70	ppb #	100
80) 1,4-Dichlorobenzene	11.31	146	83333	11.21	ppb #	100
81) 1,2-Dichlorobenzene	11.73	146	70461	10.52	ppb #	100
82) p-Isopropyltoluene	11.25	119	152550	12.31	ppb #	97
83) n-Butylbenzene	11.71	91	163730	10.33	ppb #	95
84) 1,2,4,5-Tetramethylbenzene	12.57	119	118015	11.17	ppb	98
85) 1,2-Dibromo-3-chloropropan	12.61	75	7073	9.62	ppb	95
86) 1,2,4-Trichlorobenzene	13.55	180	48520	11.95	ppb	100
87) Naphthalene	13.83	128	88992	9.24	ppb #	97
88) Hexachloro-1,3-Butadiene	13.74	225	23702	12.55	ppb #	78
89) 1,2,3-Trichlorobenzene	14.11	182	40599	11.37	ppb	99

(#) = qualifier out of range (m) = manual integration

V255514C.D V2C00370.M

Thu Jan 14 15:30:18 2016

Page 3

Quantitation Report

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255514C.D

Vial: 15

Acq On : 14 Jan 2016 1:04 pm

Operator: BK

Sample : 10PPB VOA CALIBRATION CURVE

Inst : MS VOA 2

Misc : QBV2011416A

Multiplr: 1.00

```
MS Integration Params: rteint.p
```

Quant Time: Jan 14 13:42 19116

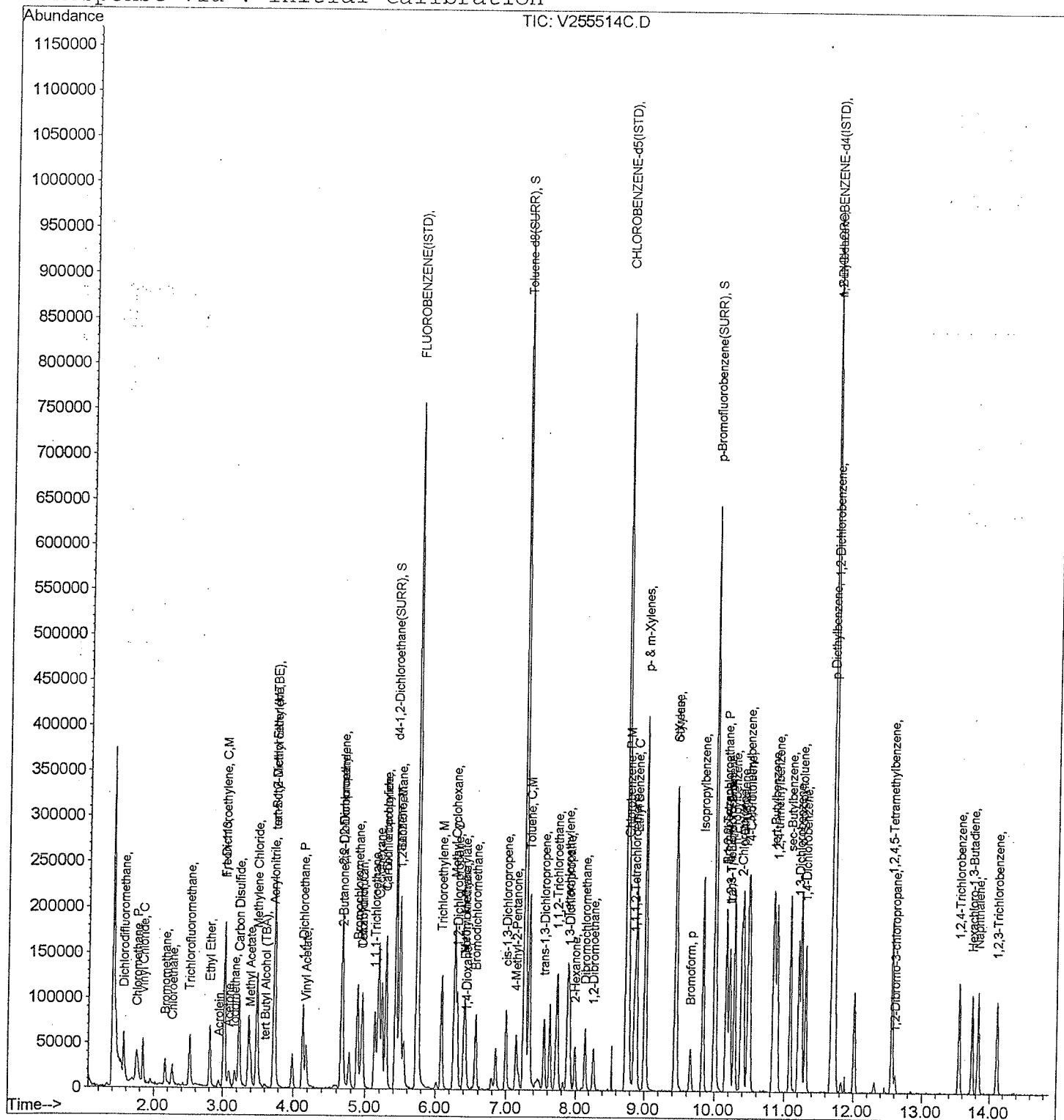
Quant Results File: V2C00370.RE

Method : G:\MSVOAM~1\V2C00370.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Dec 23 08:37:45 2015

Response via : Initial Calibration



Data File : G:\MSVOA2~1\DAI\LYDAT\V2011416\V255515C.D Vial: 16
 Acq On : 14 Jan 2016 1:34 pm Operator: BK
 Sample : 20PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 14:07 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) FLUOROBENZENE (ISTD)	5.75	70	159637	50.00	ppb	-0.02
35) CHLOROBENZENE-d5 (ISTD)	8.75	117	572209	50.00	ppb	-0.03
64) 1,2-DICHLOROBENZENE-d4 (IST)	11.71	152	234897	50.00	ppb	-0.03

System Monitoring Compounds

31) d4-1,2-Dichloroethane (SURR)	5.44	65	198312	51.38	ppb	-0.02
Spiked Amount	50.000	Range	67 - 128	Recovery	=	102.76%
47) Toluene-d8 (SURR)	7.28	98	689269	47.44	ppb	-0.02
Spiked Amount	50.000	Range	87 - 113	Recovery	=	94.88%
66) p-Bromofluorobenzene (SURR)	10.01	174	199152	49.24	ppb	-0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	98.48%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.57	85	96000	27.50	ppb	100
3) Chloromethane	1.76	50	127513	16.52	ppb	100
4) Vinyl Chloride	1.85	62	87471	16.11	ppb	100
5) Bromomethane	2.17	94	40465m	15.16	ppb	
6) Chloroethane	2.28	64	38298	13.74	ppb	100
7) Trichlorofluoromethane	2.52	101	88860	23.15	ppb	99
8) Ethyl Ether	2.81	59	76064	22.91	ppb	91
9) Freon-113	3.02	101	82887	27.44	ppb	95
10) 1,1-Dichloroethylene	3.02	61	127423	24.94	ppb	99
11) Acrolein	2.95	56	10706	18.88	ppb	89
12) Iodomethane	3.17	142	72274	19.77	ppb	98
13) Methyl Acetate	3.40	43	75690	16.84	ppb	99
14) tert Butyl Alcohol (TBA)	3.61	59	10225	18.44	ppb	# 100
15) Acrylonitrile	3.73	53	34364	17.80	ppb	# 58
16) trans-1,2-Dichloroethylene	3.74	61	122826	22.27	ppb	98
17) Carbon Disulfide	3.24	76	286217	23.46	ppb	100
18) Methylene Chloride	3.49	49	146211	19.51	ppb	94
19) tert-Butyl Methyl Ether (M)	3.75	73	222369	21.47	ppb	98
20) Acetone	3.10	43	40515	23.39	ppb	100
21) 1,1-Dichloroethane	4.14	63	164940	21.91	ppb	100
22) Vinyl Acetate	4.18	43	144543	19.41	ppb	100
23) cis-1,2-Dichloroethylene	4.67	96	103835	22.85	ppb	# 100
24) 2-Butanone	4.70	43	52320	17.46	ppb	98
25) 2,2-Dichloropropane	4.67	77	120711	23.47	ppb	99
26) Bromochloromethane	4.90	49	86769	18.76	ppb	# 92
27) Chloroform	4.97	83	144467	21.79	ppb	99
28) 1,1,1-Trichloroethane	5.14	97	117396	26.24	ppb	99
29) Cyclohexane	5.19	56	164380	22.38	ppb	# 100

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255515C.D Vial: 16
 Acq On : 14 Jan 2016 1:34 pm Operator: BK
 Sample : 20PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 14:07 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,1-Dichloropropylene	5.29	75	116709	22.76	ppb	99
32) Carbon Tetrachloride	5.29	117	90222	26.04	ppb	99
33) 1,2-Dichloroethane	5.51	62	91694	20.76	ppb #	88
34) Benzene	5.49	78	331040	21.81	ppb	100
36) Tetrahydrofuran	4.95	42	35647	14.94	ppb	89
37) Trichloroethylene	6.09	95	85684	22.30	ppb	99
38) Methyl Cyclohexane	6.28	83	145994	21.31	ppb #	55
39) Methyl Methacrylate	6.41	69	64084	18.14	ppb #	26
40) Dibromomethane	6.43	93	51734	19.55	ppb #	66
41) Bromodichloromethane	6.57	83	111469	20.23	ppb	99
42) 1,2-Dichloropropane	6.31	63	91354	19.08	ppb #	99
43) 1,4-Dioxane	6.45	88	12463	375.34	ppb	100
45) cis-1,3-Dichloropropene	7.01	75	151886	19.75	ppb	99
46) 2-Hexanone	8.00	43	73478	15.15	ppb	96
48) Toluene	7.34	91	319325	20.98	ppb	99
49) trans-1,3-Dichloropropene	7.55	75	130788	19.52	ppb	99
50) 1,1,2-Trichloroethane	7.74	83	64559	18.86	ppb	97
51) 1,3-Dichloropropane	7.92	76	137685	19.25	ppb #	100
52) Tetrachloroethylene	7.90	166	87510	23.27	ppb #	100
53) 4-Methyl-2-Pentanone	7.15	43	111967m	14.43	ppb	
54) Dibromochloromethane	8.15	129	78857	20.60	ppb	98
55) 1,2-Dibromoethane	8.27	107	77444	20.96	ppb	97
56) Chlorobenzene	8.78	112	200479	21.08	ppb #	67
57) Ethyl Benzene	8.89	91	352665	21.16	ppb	99
58) p- & m-Xylenes	9.01	91	526028	43.29	ppb	99
59) o-Xylene	9.44	91	272794	21.27	ppb	98
60) Styrene	9.46	104	230976	22.37	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.86	131	74076	21.65	ppb	98
62) p-Ethyltoluene	10.41	105	315441	23.77	ppb	91
63) p-Diethylbenzene	11.68	119	150068	21.21	ppb #	94
65) Bromoform	9.66	173	49541	21.44	ppb #	75
67) 1,1,2,2-Tetrachloroethane	10.16	83	98720	16.77	ppb #	98
68) trans-1,4-Dichloro-2-buten	10.22	75	119271	18.43	ppb	99
69) 1,2,3-Trichloropropane	10.21	110	27696	20.30	ppb	91
70) Isopropylbenzene	9.84	105	344996	23.32	ppb #	95
71) Bromobenzene	10.17	77	142414	19.31	ppb	94
72) n-Propylbenzene	10.29	91	399578	20.86	ppb	100
73) 2-Chlorotoluene	10.39	91	259039	21.01	ppb #	100
74) 4-Chlorotoluene	10.50	91	256509	20.66	ppb #	97
75) tert-Butylbenzene	10.85	119	296660	21.97	ppb #	100
76) 1,3,5-trimethylbenzene	10.48	105	264323	23.27	ppb	97

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255515C.D Vial: 16
Acq On : 14 Jan 2016 1:34 pm Operator: BK
Sample : 20PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 14:07 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Dec 23 08:37:45 2015
Response via : Initial Calibration
DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,4-trimethylbenzene	10.90	105	261114	22.37	ppb	99
78) sec-Butylbenzene	11.09	105	354782	22.96	ppb #	95
79) 1,3-Dichlorobenzene	11.22	146	158082	22.14	ppb #	68
80) 1,4-Dichlorobenzene	11.31	146	162238	22.57	ppb #	100
81) 1,2-Dichlorobenzene	11.73	146	130300	20.13	ppb #	99
82) p-Isopropyltoluene	11.25	119	280207	23.39	ppb #	97
83) n-Butylbenzene	11.71	91	303907	19.84	ppb #	94
84) 1,2,4,5-Tetramethylbenzene	12.57	119	218529	21.39	ppb	99
85) 1,2-Dibromo-3-chloropropan	12.61	75	12910	18.17	ppb	95
86) 1,2,4-Trichlorobenzene	13.56	180	90948	23.17	ppb	98
87) Naphthalene	13.83	128	187557	20.14	ppb #	97
88) Hexachloro-1,3-Butadiene	13.75	225	45845	25.12	ppb #	78
89) 1,2,3-Trichlorobenzene	14.11	182	73834	21.39	ppb	97

(#) = qualifier out of range (m) = manual integration
V255515C.D V2C00370.M Thu Jan 14 15:30:25 2016

Data File : G:\MSVOA2~1\DAI\DAT\2011\1416\255516C.D Vial: 17
 Acq On : 14 Jan 2016 2:03 pm Operator: BK
 Sample : 50PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 15:17 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.75	70	154103	50.00	ppb	-0.02
35) CHLOROBENZENE-d5(ISTD)	8.75	117	550075	50.00	ppb	-0.03
64) 1,2-DICHLOROBENZENE-d4(IST)	11.72	152	208897	50.00	ppb	-0.02

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.44	65	193859	52.03	ppb	-0.02
Spiked Amount	50.000	Range	67 - 128	Recovery	=	104.06%
47) Toluene-d8(SURR)	7.27	98	679218	48.63	ppb	-0.02
Spiked Amount	50.000	Range	87 - 113	Recovery	=	97.26%
66) p-Bromofluorobenzene(SURR)	10.01	174	194249	54.01	ppb	-0.02
Spiked Amount	50.000	Range	63 - 166	Recovery	=	108.02%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.57	85	235093	69.77	ppb	99
3) Chloromethane	1.76	50	304186	40.83	ppb	100
4) Vinyl Chloride	1.85	62	205628	39.24	ppb	100
5) Bromomethane	2.17	94	90733	35.20	ppb	98
6) Chloroethane	2.27	64	91597	34.05	ppb	98
7) Trichlorofluoromethane	2.52	101	218435	58.96	ppb	100
8) Ethyl Ether	2.81	59	187700	58.56	ppb	91
9) Freon-113	3.03	101	190176	65.23	ppb	93
10) 1,1-Dichloroethylene	3.02	61	289252	58.65	ppb	98
11) Acrolein	2.94	56	31537	57.62	ppb	94
12) Iodomethane	3.18	142	216453	61.35	ppb	99
13) Methyl Acetate	3.40	43	185611	42.78	ppb	99
14) tert Butyl Alcohol (TBA)	3.62	59	29540	55.19	ppb	# 100
15) Acrylonitrile	3.72	53	94204	50.54	ppb	# 98
16) trans-1,2-Dichloroethylene	3.75	61	284903	53.50	ppb	# 89
17) Carbon Disulfide	3.23	76	673369	57.19	ppb	100
18) Methylene Chloride	3.49	49	337193	46.61	ppb	93
19) tert-Butyl Methyl Ether (M	3.75	73	549011	54.90	ppb	98
20) Acetone	3.09	43	89883	53.75	ppb	100
21) 1,1-Dichloroethane	4.14	63	406235	55.89	ppb	100
22) Vinyl Acetate	4.19	43	355405	49.44	ppb	100
23) cis-1,2-Dichloroethylene	4.68	96	246464	56.18	ppb	# 100
24) 2-Butanone	4.70	43	126964	43.90	ppb	99
25) 2,2-Dichloropropane	4.68	77	289449	58.31	ppb	99
26) Bromochloromethane	4.90	49	210348	47.11	ppb	# 92
27) Chloroform	4.97	83	350049	54.69	ppb	98
28) 1,1,1-Trichloroethane	5.14	97	285665	66.15	ppb	99
29) Cyclohexane	5.20	56	388647	54.81	ppb	# 100

(#) = qualifier out of range (m) = manual integration

V255516C.D V2C00370.M Thu Jan 14 15:30:32 2016

Page 1

Data File : G:\MSVOA2~1\DAI\DAT\2011\416\255516C.D Vial: 17
 Acq On : 14 Jan 2016 2:03 pm Operator: BK
 Sample : 50PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 15:17 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,1-Dichloropropylene	5.30	75	266388	53.82	ppb	# 89
32) Carbon Tetrachloride	5.30	117	216661	64.79	ppb	100
33) 1,2-Dichloroethane	5.51	62	232758	54.60	ppb	99
34) Benzene	5.49	78	779266	53.18	ppb	100
36) Tetrahydrofuran	4.95	42	79273	34.56	ppb	86
37) Trichloroethylene	6.09	95	207554	56.19	ppb	99
38) Methyl Cyclohexane	6.28	83	345946	52.54	ppb	# 55
39) Methyl Methacrylate	6.41	69	166113	48.92	ppb	# 26
40) Dibromomethane	6.43	93	129399	50.86	ppb	97
41) Bromodichloromethane	6.57	83	286964	54.17	ppb	98
42) 1,2-Dichloropropane	6.31	63	219973	47.80	ppb	# 100
43) 1,4-Dioxane	6.44	88	35650	1116.86	ppb	99
45) cis-1,3-Dichloropropene	7.01	75	373373	50.50	ppb	99
46) 2-Hexanone	8.00	43	194148	41.63	ppb	97
48) Toluene	7.35	91	761340	52.03	ppb	100
49) trans-1,3-Dichloropropene	7.56	75	333194	51.72	ppb	99
50) 1,1,2-Trichloroethane	7.75	83	159699	48.54	ppb	97
51) 1,3-Dichloropropane	7.92	76	315427	45.87	ppb	# 86
52) Tetrachloroethylene	7.89	166	201093	55.63	ppb	# 100
53) 4-Methyl-2-Pentanone	7.16	43	274532m	36.81	ppb	
54) Dibromochloromethane	8.15	129	210283	57.15	ppb	100
55) 1,2-Dibromoethane	8.28	107	199866	56.27	ppb	98
56) Chlorobenzene	8.79	112	501650	54.87	ppb	# 95
57) Ethyl Benzene	8.89	91	831681	51.90	ppb	99
58) p- & m-Xylenes	9.02	91	1172845	100.41	ppb	99
59) o-Xylene	9.44	91	624766	50.67	ppb	98
60) Styrene	9.46	104	520691	52.46	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.87	131	185480	56.38	ppb	96
62) p-Ethyltoluene	10.42	105	719093	56.37	ppb	93
63) p-Diethylbenzene	11.69	119	365124	53.68	ppb	# 98
65) Bromoform	9.66	173	136615	66.49	ppb	# 99
67) 1,1,2,2-Tetrachloroethane	10.17	83	259969	49.67	ppb	100
68) trans-1,4-Dichloro-2-buten	10.23	75	295639	51.36	ppb	99
69) 1,2,3-Trichloropropane	10.22	110	73693	60.73	ppb	73
70) Isopropylbenzene	9.84	105	781235	59.39	ppb	# 95
71) Bromobenzene	10.18	77	334064	50.92	ppb	93
72) n-Propylbenzene	10.29	91	944679	55.46	ppb	100
73) 2-Chlorotoluene	10.39	91	596316	54.40	ppb	# 100
74) 4-Chlorotoluene	10.51	91	605819	54.87	ppb	# 97
75) tert-Butylbenzene	10.85	119	694439	57.82	ppb	# 100
76) 1,3,5-trimethylbenzene	10.49	105	618611	61.25	ppb	98

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255516C.D Vial: 17
Acq On : 14 Jan 2016 2:03 pm Operator: BK
Sample : 50PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 15:17 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Dec 23 08:37:45 2015
Response via : Initial Calibration
DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,4-trimethylbenzene	10.90	105	599625	57.77	ppb	100
78) sec-Butylbenzene	11.09	105	826924	60.17	ppb	# 100
79) 1,3-Dichlorobenzene	11.22	146	364836	57.45	ppb	# 100
80) 1,4-Dichlorobenzene	11.32	146	355306	55.57	ppb	# 100
81) 1,2-Dichlorobenzene	11.74	146	312694	54.31	ppb	# 99
82) p-Isopropyltoluene	11.26	119	635535	59.65	ppb	# 97
83) n-Butylbenzene	11.72	91	700271	51.39	ppb	# 94
84) 1,2,4,5-Tetramethylbenzene	12.57	119	567029	62.41	ppb	99
85) 1,2-Dibromo-3-chloropropan	12.62	75	34732	54.96	ppb	93
86) 1,2,4-Trichlorobenzene	13.56	180	220233	63.10	ppb	97
87) Naphthalene	13.84	128	466417	56.32	ppb	# 97
88) Hexachloro-1,3-Butadiene	13.75	225	112981	69.60	ppb	# 78
89) 1,2,3-Trichlorobenzene	14.12	182	180392	58.78	ppb	97

Quantitation Report

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255516C.D

Vial: 17

Acq On : 14 Jan 2016 2:03 pm

Operator: BK

Sample : 50PPB VOA CALIBRATION CURVE

Inst : MS VOA 2

Misc : QBV2011416A

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 14 15:17 19116

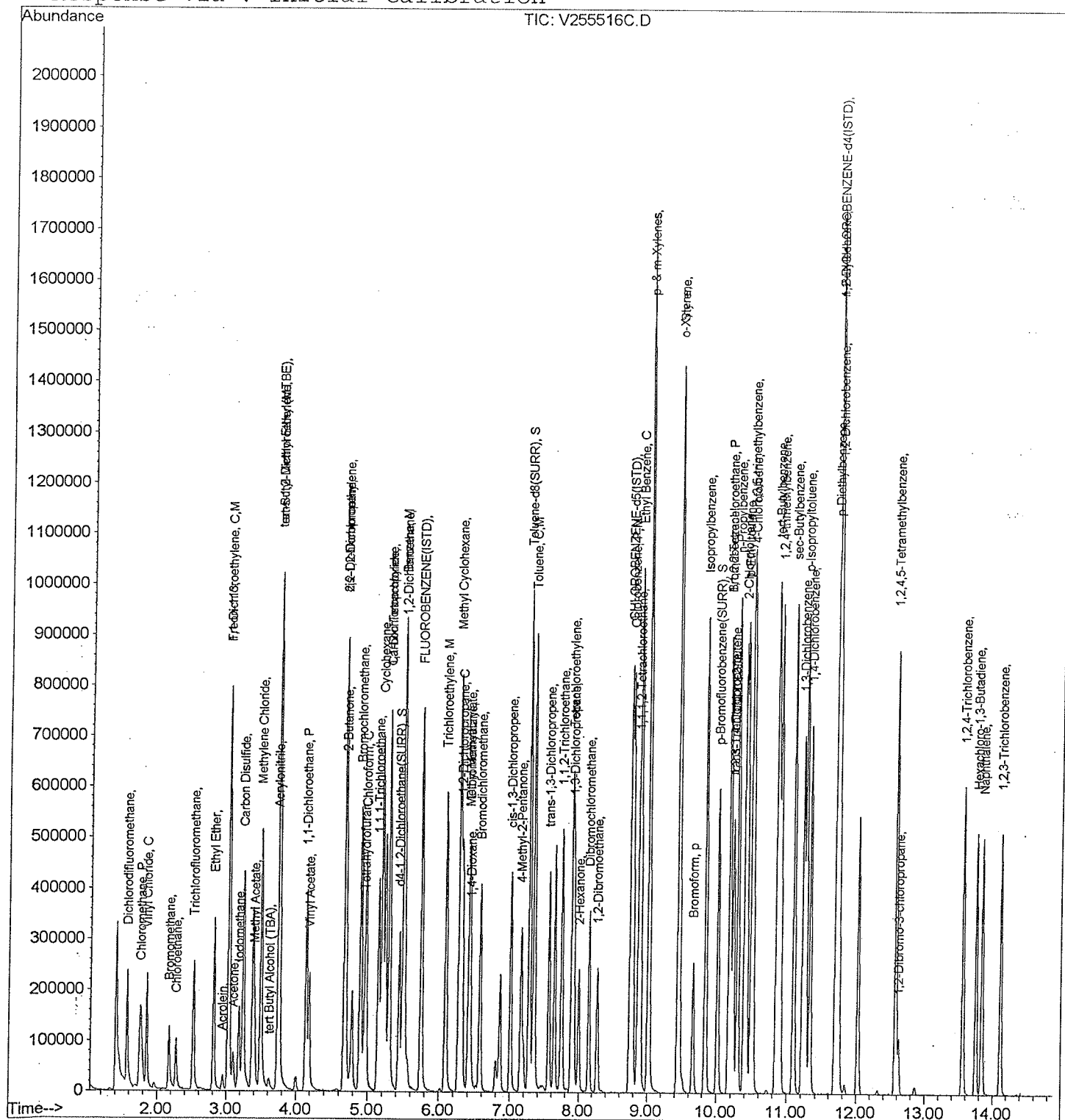
Quant Results File: V2C00370.RE

Method : G:\MSVOAM~1\V2C00370.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Dec 23 08:37:45 2015

Response via : Initial Calibration



V255516C.D V2C00370.M

Thu Jan 14 15:30:33 2016

Page 4

Data File : G:\MSVOA2~1\DAI\DAT\2011\1416\255517C.D Vial: 18
 Acq On : 14 Jan 2016 2:33 pm Operator: BK
 Sample : 100PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 15:18 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.75	70	152719	50.00	ppb	-0.02
35) CHLOROBENZENE-d5(ISTD)	8.75	117	539055	50.00	ppb	-0.03
64) 1,2-DICHLOROBENZENE-d4(IST)	11.71	152	193241	50.00	ppb	-0.03

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.43	65	187897	50.88	ppb	-0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	101.76%
47) Toluene-d8(SURR)	7.27	98	661409	48.32	ppb	-0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	96.64%
66) p-Bromofluorobenzene(SURR)	10.01	174	191821	57.65	ppb	-0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	115.30%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.57	85	429013	128.47	ppb	99
3) Chloromethane	1.76	50	582219	78.86	ppb	100
4) Vinyl Chloride	1.85	62	381317	73.42	ppb	100
5) Bromomethane	2.17	94	184937	72.40	ppb	100
6) Chloroethane	2.28	64	174083	65.30	ppb	99
7) Trichlorofluoromethane	2.52	101	400542	109.10	ppb	99
8) Ethyl Ether	2.81	59	344410	108.42	ppb	90
9) Freon-113	3.02	101	336626	116.51	ppb	92
10) 1,1-Dichloroethylene	3.02	61	512006	104.75	ppb	98
11) Acrolein	2.94	56	60664	111.84	ppb	100
12) Iodomethane	3.17	142	409713	117.17	ppb	100
13) Methyl Acetate	3.40	43	342903	79.74	ppb	99
14) tert Butyl Alcohol (TBA)	3.61	59	52325	98.64	ppb	# 100
15) Acrylonitrile	3.72	53	165967	89.85	ppb	# 58
16) trans-1,2-Dichloroethylene	3.74	61	500390	94.82	ppb	98
17) Carbon Disulfide	3.24	76	1187643	101.77	ppb	100
18) Methylene Chloride	3.49	49	581249	81.08	ppb	93
19) tert-Butyl Methyl Ether (M	3.75	73	990800	99.98	ppb	98
20) Acetone	3.09	43	184455	111.31	ppb	98
21) 1,1-Dichloroethane	4.14	63	732800	101.74	ppb	100
22) Vinyl Acetate	4.18	43	674062	94.63	ppb	99
23) cis-1,2-Dichloroethylene	4.67	96	436356	100.36	ppb	# 100
24) 2-Butanone	4.69	43	231047	80.61	ppb	98
25) 2,2-Dichloropropane	4.67	77	507247	103.11	ppb	99
26) Bromochloromethane	4.90	49	368958	83.38	ppb	# 90
27) Chloroform	4.97	83	626669	98.80	ppb	99
28) 1,1,1-Trichloroethane	5.14	97	509098	118.96	ppb	99
29) Cyclohexane	5.19	56	674411	95.98	ppb	# 100

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255517C.D Vial: 18
 Acq On : 14 Jan 2016 2:33 pm Operator: BK
 Sample : 100PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 15:18 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,1-Dichloropropylene	5.29	75	463421	94.47	ppb	99
32) Carbon Tetrachloride	5.29	117	383134	115.60	ppb	100
33) 1,2-Dichloroethane	5.51	62	413203	97.80	ppb #	96
34) Benzene	5.49	78	1333176	91.80	ppb	100
36) Tetrahydrofuran	4.94	42	149296	66.42	ppb	89
37) Trichloroethylene	6.09	95	365478	100.96	ppb	99
38) Methyl Cyclohexane	6.28	83	594775	92.17	ppb #	55
39) Methyl Methacrylate	6.40	69	290024	87.16	ppb #	26
40) Dibromomethane	6.42	93	234077	93.88	ppb	98
41) Bromodichloromethane	6.57	83	504675	97.21	ppb	98
42) 1,2-Dichloropropane	6.31	63	384802	85.32	ppb #	99
43) 1,4-Dioxane	6.44	88	63201	2020.46	ppb	99
45) cis-1,3-Dichloropropene	7.01	75	670289	92.51	ppb	98
46) 2-Hexanone	8.00	43	348420	76.24	ppb	96
48) Toluene	7.34	91	1329369	92.70	ppb	100
49) trans-1,3-Dichloropropene	7.55	75	612781	97.07	ppb	99
50) 1,1,2-Trichloroethane	7.74	83	286549	88.87	ppb	97
51) 1,3-Dichloropropane	7.91	76	572893	85.01	ppb #	100
52) Tetrachloroethylene	7.89	166	363661	102.66	ppb #	100
53) 4-Methyl-2-Pentanone	7.15	43	487992m	66.78	ppb	
54) Dibromochloromethane	8.15	129	380340	105.49	ppb	100
55) 1,2-Dibromoethane	8.27	107	352125	101.16	ppb	98
56) Chlorobenzene	8.78	112	866302	96.69	ppb #	67
57) Ethyl Benzene	8.89	91	1405064	89.47	ppb	99
58) p- & m-Xylenes	9.01	91	1957319	171.00	ppb	99
59) o-Xylene	9.44	91	1054321	87.25	ppb	98
60) Styrene	9.46	104	905436	93.08	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.86	131	331890	102.95	ppb	94
62) p-Ethyltoluene	10.41	105	1222003	97.75	ppb	94
63) p-Diethylbenzene	11.68	119	625739	93.87	ppb #	96
65) Bromoform	9.66	173	243880	128.32	ppb #	75
67) 1,1,2,2-Tetrachloroethane	10.16	83	451832	93.32	ppb	99
68) trans-1,4-Dichloro-2-buten	10.22	75	516579	97.02	ppb	99
69) 1,2,3-Trichloropropane	10.22	110	121424	108.17	ppb	81
70) Isopropylbenzene	9.84	105	1357739	111.57	ppb #	95
71) Bromobenzene	10.17	77	585732	96.52	ppb #	93
72) n-Propylbenzene	10.29	91	1607038	101.99	ppb	100
73) 2-Chlorotoluene	10.39	91	1013548	99.95	ppb #	100
74) 4-Chlorotoluene	10.50	91	1029965	100.84	ppb #	97
75) tert-Butylbenzene	10.85	119	1183962	106.56	ppb #	91
76) 1,3,5-trimethylbenzene	10.48	105	1016560	108.80	ppb	98

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255517C.D Vial: 18
Acq On : 14 Jan 2016 2:33 pm Operator: BK
Sample : 100PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 15:18 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Dec 23 08:37:45 2015
Response via : Initial Calibration
DataAcq Meth : V2C204A

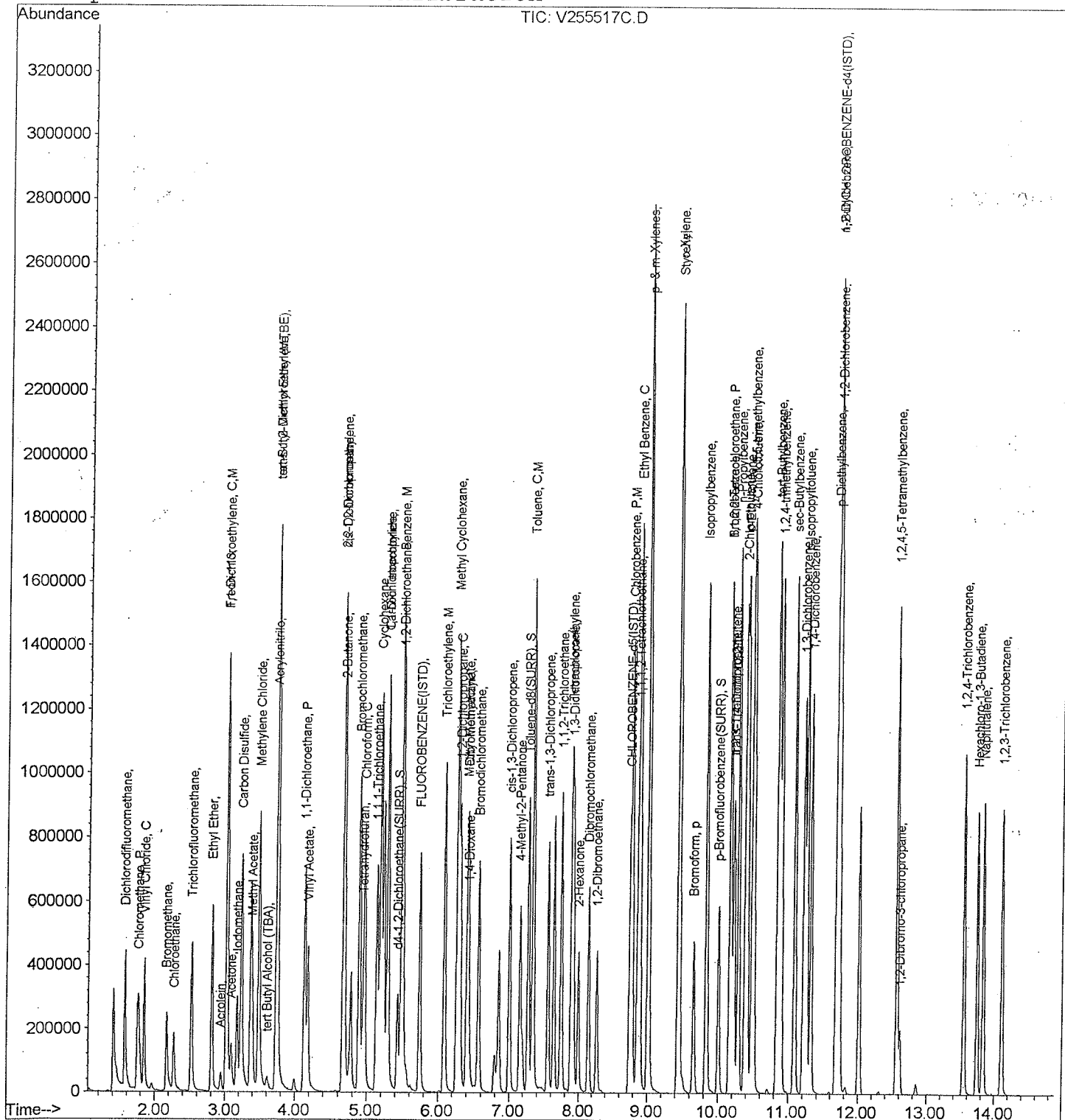
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,4-trimethylbenzene	10.90	105	1024286	106.68	ppb	100
78) sec-Butylbenzene	11.09	105	1390032	109.34	ppb	# 95
79) 1,3-Dichlorobenzene	11.21	146	612154	104.20	ppb	# 99
80) 1,4-Dichlorobenzene	11.31	146	619598	104.76	ppb	# 100
81) 1,2-Dichlorobenzene	11.73	146	540061	101.40	ppb	# 100
82) p-Isopropyltoluene	11.25	119	1065844	108.13	ppb	# 97
83) n-Butylbenzene	11.71	91	1196353	94.92	ppb	# 94
84) 1,2,4,5-Tetramethylbenzene	12.57	119	949836	113.01	ppb	100
85) 1,2-Dibromo-3-chloropropan	12.61	75	59290	101.41	ppb	88
86) 1,2,4-Trichlorobenzene	13.55	180	395098	122.37	ppb	99
87) Naphthalene	13.83	128	845523	110.37	ppb	# 97
88) Hexachloro-1,3-Butadiene	13.75	225	198730	132.35	ppb	99
89) 1,2,3-Trichlorobenzene	14.11	182	328233	115.61	ppb	98

(#) = qualifier out of range (m) = manual integration
V255517C.D V2C00370.M Thu Jan 14 15:30:40 2016

Quantitation Report

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255517C.D Vial: 18
Acq On : 14 Jan 2016 2:33 pm Operator: BK
Sample : 100PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 15:18 19116 Quant Results File: V2C00370.RE

Method : G:\MSVOAM~1\V2C00370.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Dec 23 08:37:45 2015
Response via : Initial Calibration



Data File : G:\MSVOA2~1\DAI\LYDAT\V2011416\V255518C.D Vial: 19
 Acq On : 14 Jan 2016 3:02 pm Operator: BK
 Sample : 200PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 15:19 19116 Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.74	70	142797	50.00	ppb	-0.03
35) CHLOROBENZENE-d5 (ISTD)	8.75	117	509576	50.00	ppb	-0.03
64) 1,2-DICHLOROBENZENE-d4 (IST)	11.71	152	159678	50.00	ppb	-0.02

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.44	65	177041	51.28	ppb	-0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	102.56%
47) Toluene-d8(SURR)	7.27	98	624517	48.26	ppb	-0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	96.52%
66) p-Bromofluorobenzene(SURR)	10.01	174	172919	62.90	ppb	-0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	125.80%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.57	85	802454	256.99	ppb	99
3) Chloromethane	1.76	50	1012249	146.63	ppb	100
4) Vinyl Chloride	1.85	62	664430	136.82	ppb	99
5) Bromomethane	2.17	94	353457	147.99	ppb	96
6) Chloroethane	2.27	64	309852	124.31	ppb	98
7) Trichlorofluoromethane	2.52	101	772185	224.94	ppb	99
8) Ethyl Ether	2.81	59	628679	211.66	ppb	91
9) Freon-113	3.02	101	611251	226.26	ppb	90
10) 1,1-Dichloroethylene	3.02	61	911154	199.36	ppb	99
11) Acrolein	2.94	56	120368	237.32	ppb	93
12) Iodomethane	3.17	142	730151	223.32	ppb	100
13) Methyl Acetate	3.40	43	635545	158.06	ppb	98
14) tert Butyl Alcohol (TBA)	3.60	59	104323	210.32	ppb	# 100
15) Acrylonitrile	3.72	53	300308	173.88	ppb	# 58
16) trans-1,2-Dichloroethylene	3.74	61	882063	178.76	ppb	97
17) Carbon Disulfide	3.23	76	2137666	195.91	ppb	100
18) Methylene Chloride	3.49	49	1041664	155.39	ppb	# 92
19) tert-Butyl Methyl Ether (M	3.75	73	1765008	190.48	ppb	98
20) Acetone	3.09	43	295753	190.87	ppb	99
21) 1,1-Dichloroethane	4.13	63	1300630	193.12	ppb	99
22) Vinyl Acetate	4.18	43	1216558	182.65	ppb	99
23) cis-1,2-Dichloroethylene	4.67	96	795241	195.62	ppb	# 99
24) 2-Butanone	4.69	43	389032	145.16	ppb	98
25) 2,2-Dichloropropane	4.67	77	922590	200.57	ppb	98
26) Bromochloromethane	4.89	49	644599	155.80	ppb	# 89
27) Chloroform	4.96	83	1143613	192.83	ppb	98
28) 1,1,1-Trichloroethane	5.14	97	926722	231.59	ppb	98
29) Cyclohexane	5.19	56	1152119	175.36	ppb	# 100

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255518C.D Vial: 19
 Acq On : 14 Jan 2016 3:02 pm Operator: BK
 Sample : 200PPB VOA CALIBRATION CURVE Inst : MS VOA 2
 Misc : QBV2011416A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Jan 14 15:19 19116

Quant Results File: V2C00370.RE

Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Dec 23 08:37:45 2015
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,1-Dichloropropylene	5.29	75	808421	176.26	ppb	99
32) Carbon Tetrachloride	5.29	117	711094	229.47	ppb	99
33) 1,2-Dichloroethane	5.51	62	774310	196.00	ppb	99
34) Benzene	5.49	78	2342543	172.51	ppb	100
36) Tetrahydrofuran	4.95	42	257417	121.14	ppb	86
37) Trichloroethylene	6.09	95	668837	195.45	ppb	99
38) Methyl Cyclohexane	6.27	83	1112832	182.43	ppb	# 55
39) Methyl Methacrylate	6.41	69	542023	172.31	ppb	# 26
40) Dibromomethane	6.43	93	427227	181.26	ppb	97
41) Bromodichloromethane	6.57	83	928646	189.23	ppb	98
42) 1,2-Dichloropropane	6.31	63	704433	165.23	ppb	# 87
43) 1,4-Dioxane	6.44	88	122821	4153.59	ppb	99
45) cis-1,3-Dichloropropene	7.00	75	1219013	177.97	ppb	98
46) 2-Hexanone	8.00	43	643326	148.91	ppb	96
48) Toluene	7.34	91	2366575	174.57	ppb	99
49) trans-1,3-Dichloropropene	7.56	75	1104649	185.10	ppb	99
50) 1,1,2-Trichloroethane	7.74	83	530736	174.13	ppb	97
51) 1,3-Dichloropropane	7.92	76	1038398	162.99	ppb	# 100
52) Tetrachloroethylene	7.89	166	676176	201.92	ppb	# 100
53) 4-Methyl-2-Pentanone	7.16	43	913792	132.27	ppb	# 97
54) Dibromochloromethane	8.15	129	707503	207.58	ppb	99
55) 1,2-Dibromoethane	8.27	107	663948	201.77	ppb	98
56) Chlorobenzene	8.78	112	1570194	185.39	ppb	# 67
57) Ethyl Benzene	8.89	91	2451667	165.15	ppb	98
58) p- & m-Xylenes	9.02	91	3333855	308.10	ppb	98
59) o-Xylene	9.44	91	1895284	165.92	ppb	98
60) Styrene	9.46	104	1594545	173.41	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.86	131	616121	202.16	ppb	96
62) p-Ethyltoluene	10.42	105	2145360	181.54	ppb	94
63) p-Diethylbenzene	11.69	119	1089613	172.92	ppb	# 99
65) Bromoform	9.66	173	463561	295.17	ppb	# 75
67) 1,1,2,2-Tetrachloroethane	10.17	83	783714	195.89	ppb	# 99
68) trans-1,4-Dichloro-2-buten	10.22	75	926266	210.52	ppb	99
69) 1,2,3-Trichloropropane	10.22	110	229906	247.86	ppb	70
70) Isopropylbenzene	9.84	105	2386362	237.31	ppb	# 95
71) Bromobenzene	10.18	77	1015709	202.55	ppb	# 92
72) n-Propylbenzene	10.29	91	2757613	211.80	ppb	99
73) 2-Chlorotoluene	10.39	91	1781181	212.56	ppb	# 100
74) 4-Chlorotoluene	10.51	91	1773553	210.13	ppb	# 97
75) tert-Butylbenzene	10.85	119	2053031	223.62	ppb	# 100
76) 1,3,5-trimethylbenzene	10.48	105	1740862	225.48	ppb	98

(#) = qualifier out of range (m) = manual integration
 V255518C.D, V2C00370.M Thu Jan 14 15:30:48 2016

Data File : G:\MSVOA2~1\DAI\LYDAT\V2011416\V255518C.D Vial: 19
Acq On : 14 Jan 2016 3:02 pm Operator: BK
Sample : 200PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 15:19 19116

Quant Results File: V2C00370.RE

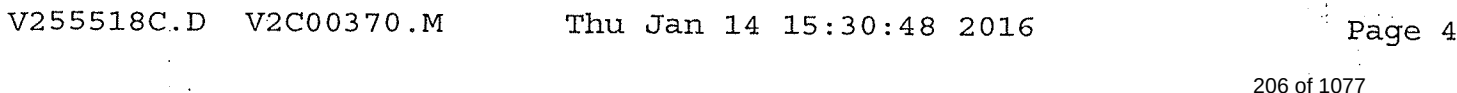
Quant Method : C:\HPCHEM\1\METHODS\V2C00370.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Dec 23 08:37:45 2015
Response via : Initial Calibration
DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) 1,2,4-trimethylbenzene	10.90	105	1783457	224.80	ppb	100
78) sec-Butylbenzene	11.09	105	2427588	231.09	ppb	# 95
79) 1,3-Dichlorobenzene	11.21	146	1101188	226.84	ppb	# 99
80) 1,4-Dichlorobenzene	11.31	146	1089948	223.02	ppb	# 100
81) 1,2-Dichlorobenzene	11.74	146	915751	208.08	ppb	# 100
82) p-Isopropyltoluene	11.26	119	1857961	228.12	ppb	# 97
83) n-Butylbenzene	11.71	91	2009976	192.98	ppb	# 94
84) 1,2,4,5-Tetramethylbenzene	12.57	119	1706700	245.73	ppb	98
85) 1,2-Dibromo-3-chloropropan	12.62	75	115763	239.63	ppb	91
86) 1,2,4-Trichlorobenzene	13.56	180	697218	261.34	ppb	98
87) Naphthalene	13.83	128	1510481	238.62	ppb	100
88) Hexachloro-1,3-Butadiene	13.75	225	364786	294.01	ppb	# 77
89) 1,2,3-Trichlorobenzene	14.12	182	579855	247.16	ppb	96

(#) = qualifier out of range (m) = manual integration

Data File : G:\MSVOA2~1\DAILYDAT\V2011416\V255518C.D Vial: 19
Acq On : 14 Jan 2016 3:02 pm Operator: BK
Sample : 200PPB VOA CALIBRATION CURVE Inst : MS VOA 2
Misc : QBV2011416A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 14 15:19 19116 Quant Results File: V2C0037

Quant Results File: V2C00370.RE



Data File : C:\HPCHEM\1\DATA\V2011416\V255520C.D

Vial: 21

Acq On : 14 Jan 2016 4:01 pm

Operator: BK

Sample : ICV

Inst : MS VOA 2

Misc : QBV2011416A

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 14 16:46 2016

Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Thu Jan 14 15:20:23 2016

Response via : Initial Calibration

DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.75	70	148750	50.00	ppb	0.00
35) CHLOROBENZENE-d5(ISTD)	8.75	117	535436	50.00	ppb	0.00
64) 1,2-DICHLOROBENZENE-d4(ISTD)	11.71	152	212698	50.00	ppb	0.00

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.43	65	190616	50.69	ppb	0.00
Spiked Amount	50.000	Range	67 - 128	Recovery	=	101.38%
47) Toluene-d8(SURR)	7.27	98	675980	51.41	ppb	0.00
Spiked Amount	50.000	Range	87 - 113	Recovery	=	102.82%
66) p-Bromofluorobenzene(SURR)	10.01	174	195636	49.54	ppb	0.00
Spiked Amount	50.000	Range	63 - 166	Recovery	=	99.08%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.57	85	186911	42.55	ppb	100
3) Chloromethane	1.76	50	268585	45.64	ppb	100
4) Vinyl Chloride	1.85	62	179300	46.35	ppb	100
5) Bromomethane	2.17	94	79219	38.45	ppb	97
6) Chloroethane	2.28	64	78501	44.83	ppb	97
7) Trichlorofluoromethane	2.52	101	186047	45.08	ppb	98
8) Ethyl Ether	2.81	59	170685	50.54	ppb	99
9) Freon-113	3.02	101	173438	48.31	ppb	98
10) 1,1-Dichloroethylene	3.02	61	262906	47.56	ppb	99
11) Acrolein	2.94	56	30614	52.51	ppb	97
12) Iodomethane	3.17	142	140072	43.30	ppb	100
13) Methyl Acetate	3.40	43	173922	49.03	ppb	# 99
14) tert Butyl Alcohol (TBA)	3.61	59	26858	52.08	ppb	# 100
15) Acrylonitrile	3.73	53	87414	52.42	ppb	99
16) trans-1,2-Dichloroethylene	3.74	61	273409	50.83	ppb	# 100
17) Carbon Disulfide	3.24	76	625159	48.64	ppb	100
18) Methylene Chloride	3.49	49	298216	45.03	ppb	99
19) tert-Butyl Methyl Ether (M	3.75	73	520289	50.56	ppb	100
20) Acetone	3.09	43	70339	37.12	ppb	98
21) 1,1-Dichloroethane	4.14	63	390789	51.63	ppb	100
22) Vinyl Acetate	4.18	43	348452	53.20	ppb	100
23) cis-1,2-Dichloroethylene	4.67	96	232989	50.67	ppb	# 99
24) 2-Butanone	4.70	43	114600	45.72	ppb	100
25) 2,2-Dichloropropane	4.67	77	263015	48.31	ppb	100
26) Bromochloromethane	4.90	49	196078	51.33	ppb	98
27) Chloroform	4.97	83	329040	49.89	ppb	99
28) 1,1,1-Trichloroethane	5.14	97	256566	48.54	ppb	100
29) Cyclohexane	5.19	56	344135	47.64	ppb	99
30) 1,1-Dichloropropylene	5.29	75	253764	50.23	ppb	# 100

(#) = qualifier out of range (m) = manual integration

V255520C.D V2C00371.M

Thu Jan 14 16:46:54 2016

Page 1

Data File : C:\HPCHEM\1\DATA\V2011416\V255520C.D

Vial: 21

Acq On : 14 Jan 2016 4:01 pm

Operator: BK

Sample : ICV

Inst : MS VOA 2

Misc : QBV2011416A

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Results File: V2C00371.RES

Quant Time: Jan 14 16:46 2016

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Thu Jan 14 15:20:23 2016

Response via : Initial Calibration

DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) Carbon Tetrachloride	5.30	117	193092	46.97	ppb	100
33) 1,2-Dichloroethane	5.51	62	220911	51.39	ppb #	97
34) Benzene	5.49	78	712173	48.89	ppb	100
36) Tetrahydrofuran	4.95	42	78256	46.57	ppb	98
37) Trichloroethylene	6.09	95	190681	49.27	ppb	99
38) Methyl Cyclohexane	6.28	83	312758	48.77	ppb #	99
39) Methyl Methacrylate	6.41	69	158368	51.81	ppb #	82
40) Dibromomethane	6.43	93	120253	50.18	ppb	98
41) Bromodichloromethane	6.57	83	263945	51.56	ppb	99
42) 1,2-Dichloropropane	6.31	63	207915	50.39	ppb	99
43) 1,4-Dioxane	6.44	88	35525	1099.94	ppb	98
45) cis-1,3-Dichloropropene	7.01	75	339030	49.41	ppb	100
46) 2-Hexanone	8.00	43	181087	50.05	ppb	100
48) Toluene	7.34	91	707594	49.54	ppb	99
49) trans-1,3-Dichloropropene	7.55	75	289467	48.02	ppb	99
50) 1,1,2-Trichloroethane	7.74	83	155180	52.22	ppb	99
51) 1,3-Dichloropropane	7.92	76	319200	52.22	ppb #	100
52) Tetrachloroethylene	7.90	166	192045	48.70	ppb #	100
53) 4-Methyl-2-Pentanone	7.16	43	271136	52.93	ppb #	71
54) Dibromochloromethane	8.15	129	191861	51.85	ppb	99
55) 1,2-Dibromoethane	8.28	107	191398	52.89	ppb	99
56) Chlorobenzene	8.78	112	462083	50.51	ppb #	100
57) Ethyl Benzene	8.89	91	760473	48.73	ppb	100
58) p- & m-Xylenes	9.01	91	1102004	97.65	ppb	100
59) o-Xylene	9.44	91	584761	48.81	ppb	100
60) Styrene	9.46	104	479213	47.58	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.87	131	175681	51.72	ppb	99
62) p-Ethyltoluene	10.42	105	674559	48.99	ppb	99
63) p-Diethylbenzene	11.68	119	357521	53.16	ppb	98
65) Bromoform	9.66	173	126714	51.14	ppb #	76
67) 1,1,2,2-Tetrachloroethane	10.16	83	240963	50.15	ppb	99
68) trans-1,4-Dichloro-2-buten	10.22	75	283442	51.09	ppb	100
69) 1,2,3-Trichloropropane	10.22	110	67147	49.12	ppb	97
70) Isopropylbenzene	9.84	105	749268	48.11	ppb #	100
71) Bromobenzene	10.17	77	311496	46.76	ppb	100
72) n-Propylbenzene	10.29	91	898904	49.12	ppb	100
73) 2-Chlorotoluene	10.39	91	567050	48.29	ppb #	100
74) 4-Chlorotoluene	10.50	91	573989	48.12	ppb #	100
75) tert-Butylbenzene	10.85	119	656541	48.32	ppb #	100
76) 1,3,5-trimethylbenzene	10.49	105	557561	47.04	ppb	99
77) 1,2,4-trimethylbenzene	10.90	105	557481	47.17	ppb	100

(#)=qualifier out of range (m)=manual integration

V255520C.D V2C00371.M

Thu Jan 14 16:46:55 2016

Page 2

Data File : C:\HPCHEM\1\DATA\V2011416\V255520C.D

Acq On : 14 Jan 2016 4:01 pm

Sample : ICV

Misc : QBV2011416A

MS Integration Params: rteint.p

Quant Time: Jan 14 16:46 2016

Vial: 21

Operator: BK

Inst : MS VOA 2

Multiplr: 1.00

Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Thu Jan 14 15:20:23 2016

Response via : Initial Calibration

DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) sec-Butylbenzene	11.09	105	771554	48.37	ppb	# 96
79) 1,3-Dichlorobenzene	11.22	146	352835	49.16	ppb	# 100
80) 1,4-Dichlorobenzene	11.32	146	355601	49.83	ppb	# 67
81) 1,2-Dichlorobenzene	11.74	146	302572	50.28	ppb	# 100
82) p-Isopropyltoluene	11.25	119	596751	47.48	ppb	# 100
83) n-Butylbenzene	11.71	91	674064	48.87	ppb	# 99
84) 1,2,4,5-Tetramethylbenzene	12.57	119	545745	51.66	ppb	100
85) 1,2-Dibromo-3-chloropropan	12.61	75	35872	55.86	ppb	99
86) 1,2,4-Trichlorobenzene	13.56	180	217479	50.84	ppb	97
87) Naphthalene	13.84	128	463792	52.12	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.75	225	107467	49.52	ppb	# 99
89) 1,2,3-Trichlorobenzene	14.11	182	182656	52.21	ppb	98

(#) = qualifier out of range (m) = manual integration
V255520C.D V2C00371.M Thu Jan 14 16:46:55 2016

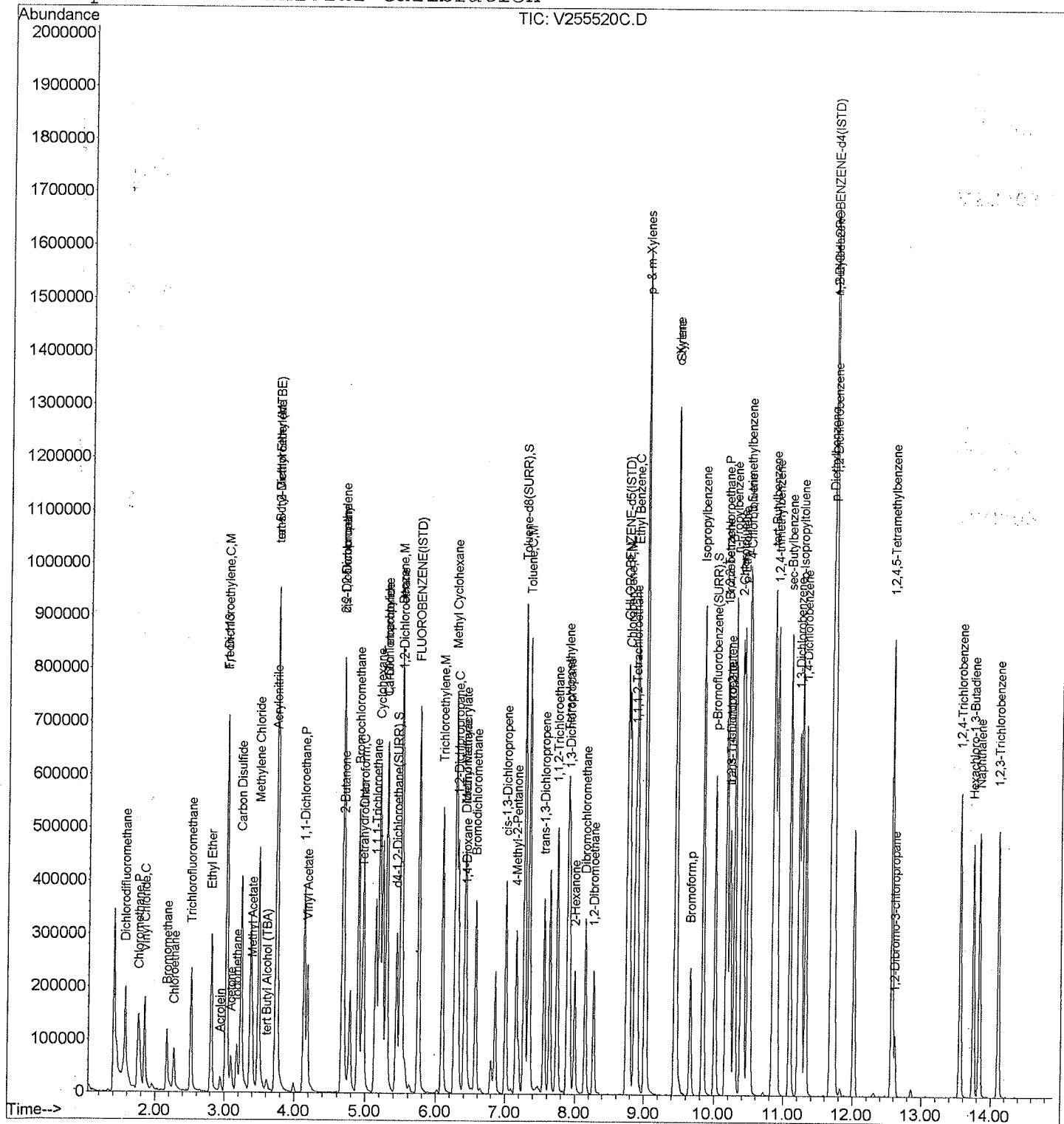
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V2011416\V255520C.D
 Acq On : 14 Jan 2016 4:01 pm
 Sample : ICV
 Misc : QBV2011416A
 MS Integration Params: rteint.p
 Quant Time: Jan 14 16:46 2016

Vial: 21
 Operator: BK
 Inst : MS VOA 2
 Multiplr: 1.00

Quant Results File: V2C00371.RES

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Thu Jan 14 15:20:23 2016
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D

Vial: 2

Acq On : 15 Mar 2016 8:20 am

Operator: BK

Sample : SEQ-CCV1

Inst : MS VOA 2

Misc : QBV2031516A Y16A033

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Feb 24 09:47:09 2016

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	FLUOROBENZENE (ISTD)	1.000	1.000	0.0	113	0.00
2	Dichlorodifluoromethane	1.476	1.310	11.2	97	0.00
3 P	Chloromethane	1.978	2.019	-2.1	115	0.00
4 C	Vinyl Chloride	1.300	1.386	-6.6	117	0.00
5	Bromomethane	0.693	0.668	3.6	128	0.00
6	Chloroethane	0.589	0.676	-14.8	128	0.00
7	Trichlorofluoromethane	1.387	1.342	3.2	107	0.00
8	Ethyl Ether	1.135	1.320	-16.3	122	0.00
9	Freon-113	1.207	1.294	-7.2	118	0.00
10 C,M	1,1-Dichloroethylene	1.858	1.994	-7.3	120	0.00
11	Acrolein	0.196	0.241	-23.0	133	0.00
12	Iodomethane	1.087	1.486	-36.7#	119	0.00
13	Methyl Acetate	1.192	1.382	-15.9	130	0.00
14	tert Butyl Alcohol (TBA)	0.173	0.199	-15.0	117	0.00
15	Acrylonitrile	0.561	0.659	-17.5	122	0.00
16	trans-1,2-Dichloroethylene	1.808	2.008	-11.1	123	0.00
17	Carbon Disulfide	4.320	4.871	-12.8	126	0.00
18	Methylene Chloride	2.226	2.334	-4.9	120	0.00
19	tert-Butyl Methyl Ether (MT)	3.459	3.651	-5.6	116	0.00
20	Acetone	0.637	0.700	-9.9	136	0.00
21 P	1,1-Dichloroethane	2.544	2.919	-14.7	125	0.00
22	Vinyl Acetate	2.202	3.519	-59.8#	172	0.00
23	cis-1,2-Dichloroethylene	1.546	1.780	-15.1	126	0.00
24	2-Butanone	0.843	0.972	-15.3	133	0.00
25	2,2-Dichloropropane	1.830	1.970	-7.7	118	0.00
26	Bromochloromethane	1.284	1.503	-17.1	124	0.00
27 C	Chloroform	2.217	2.448	-10.4	122	0.00
28	1,1,1-Trichloroethane	1.777	1.856	-4.4	113	0.00
29	Cyclohexane	2.428	2.665	-9.8	119	0.00
30	1,1-Dichloropropylene	1.698	1.925	-13.4	126	0.00
31 S	d4-1,2-Dichloroethane (SURR)	1.264	1.130	10.6	101	0.00
32	Carbon Tetrachloride	1.382	1.412	-2.2	113	0.00
33	1,2-Dichloroethane	1.445	1.484	-2.7	111	0.00
34 M	Benzene	4.897	5.561	-13.6	124	0.00
35	CHLOROBENZENE-d5 (ISTD)	1.000	1.000	0.0	112	0.00
36	Tetrahydrofuran	0.157	0.164	-4.5	127	0.00
37 M	Trichloroethylene	0.361	0.415	-15.0	123	0.00
38	Methyl Cyclohexane	0.599	0.699	-16.7	125	0.00
39	Methyl Methacrylate	0.285	0.322	-13.0	119	0.00
40	Dibromomethane	0.224	0.255	-13.8	122	0.00

(#)= Out of Range

V2567204.D V2C00371.M

Tue Mar 15 08:57:47 2016

Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D
 Acq On : 15 Mar 2016 8:20 am
 Sample : SEQ-CCV1
 Misc : QBV2031516A Y16A033
 MS Integration Params: rteint.p

Vial: 2
 Operator: BK
 Inst : MS VOA 2
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	Bromodichloromethane	0.478	0.544	-13.8	117	0.00
42	C 1,2-Dichloropropane	0.385	0.450	-16.9	126	0.00
43	1,4-Dioxane	0.003	0.005#	-66.7#	166	0.00
44	2-Chloroethyl vinyl ether	0.000	0.000#	0.0	119	0.00
45	cis-1,3-Dichloropropene	0.641	0.757	-18.1	125	0.00
46	2-Hexanone	0.338	0.399	-18.0	127	0.00
47	S Toluene-d8 (SURR)	1.228	1.224	0.3	111	0.00
48	C,M Toluene	1.334	1.500	-12.4	121	0.00
49	trans-1,3-Dichloropropene	0.563	0.631	-12.1	117	0.00
50	1,1,2-Trichloroethane	0.277	0.312	-12.6	120	0.00
51	1,3-Dichloropropane	0.571	0.635	-11.2	124	0.00
52	Tetrachloroethylene	0.368	0.412	-12.0	126	0.00
53	4-Methyl-2-Pentanone	0.478	0.552	-15.5	124	0.00
54	Dibromochloromethane	0.346	0.395	-14.2	116	0.00
55	1,2-Dibromoethane	0.338	0.373	-10.4	115	0.00
56	P,M Chlorobenzene	0.854	0.975	-14.2	120	0.00
57	C Ethyl Benzene	1.457	1.571	-7.8	117	0.00
58	p- & m-Xylenes	1.054	1.120	-6.3	118	0.00
59	o-Xylene	1.119	1.204	-7.6	119	0.00
60	Styrene	0.941	1.036	-10.1	123	0.00
61	1,1,1,2-Tetrachloroethane	0.317	0.357	-12.6	119	0.00
62	p-Ethyltoluene	1.286	1.407	-9.4	121	0.01
63	p-Diethylbenzene	0.628	0.703	-11.9	119	0.00
64	1,2-DICHLOROBENZENE-d4 (ISTD)	1.000	1.000	0.0	114	0.01
65	p Bromoform	0.582	0.650	-11.7	113	0.00
66	S p-Bromofluorobenzene (SURR)	0.928	0.957	-3.1	117	0.01
67	P 1,1,2,2-Tetrachloroethane	1.130	1.294	-14.5	118	0.00
68	trans-1,4-Dichloro-2-butene	1.304	1.456	-11.7	117	0.00
69	1,2,3-Trichloropropane	0.321	0.334	-4.0	108	0.00
70	Isopropylbenzene	3.661	3.963	-8.2	121	0.00
71	Bromobenzene	1.566	1.670	-6.6	119	0.00
72	n-Propylbenzene	4.302	4.636	-7.8	117	0.00
73	2-Chlorotoluene	2.761	2.957	-7.1	118	0.00
74	4-Chlorotoluene	2.804	2.898	-3.4	114	0.00
75	tert-Butylbenzene	3.194	3.427	-7.3	117	0.00
76	1,3,5-trimethylbenzene	2.787	2.904	-4.2	112	0.00
77	1,2,4-trimethylbenzene	2.778	2.904	-4.5	115	0.00
78	sec-Butylbenzene	3.750	4.105	-9.5	118	0.00
79	1,3-Dichlorobenzene	1.687	1.903	-12.8	124	0.01
80	1,4-Dichlorobenzene	1.678	1.873	-11.6	125	0.00

(#) = Out of Range

V2567204.D V2C00371.M

Tue Mar 15 08:57:48 2016

Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D
Acq On : 15 Mar 2016 8:20 am
Sample : SEQ-CCV1
Misc : QBV2031516A Y16A033
MS Integration Params: rteint.p

Vial: 2
Operator: BK
Inst : MS VOA 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Feb 24 09:47:09 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	1,2-Dichlorobenzene	1.415	1.597	-12.9	121	0.01
82	p-Isopropyltoluene	2.954	3.226	-9.2	121	0.00
83	n-Butylbenzene	3.242	3.442	-6.2	117	0.00
84	1,2,4,5-Tetramethylbenzene	2.483	2.935	-18.2	123	0.01
85	1,2-Dibromo-3-chloropropane	0.151	0.163	-7.9	111	0.00
86	1,2,4-Trichlorobenzene	1.006	1.147	-14.0	124	0.01
87	Naphthalene	2.092	2.490	-19.0	127	0.01
88	Hexachloro-1,3-Butadiene	0.510	0.555	-8.8	117	0.00
89	1,2,3-Trichlorobenzene	0.822	0.948	-15.3	125	0.01

(#) = Out of Range
V2567204.D V2C00371.M

SPCC's out = 0 CCC's out = 0
Tue Mar 15 08:57:48 2016

Page 3

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D
 Acq On : 15 Mar 2016 8:20 am
 Sample : SEQ-CCV1
 Misc : QBV2031516A Y16A033
 MS Integration Params: rteint.p
 Quant Time: Mar 15 8:36 2016

Vial: 2
 Operator: BK
 Inst : MS VOA 2
 Multiplr: 1.00

Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE (ISTD)	5.75	70	174006	50.00	ppb	0.00
35) CHLOROBENZENE-d5 (ISTD)	8.76	117	616589	50.00	ppb	0.00
64) 1,2-DICHLOROBENZENE-d4 (ISTD)	11.72	152	237757	50.00	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) d4-1,2-Dichloroethane (SURR)	5.45	65	196583	44.69	ppb	0.00
Spiked Amount	50.000	Range	67 - 128	Recovery	=	89.38%
47) Toluene-d8 (SURR)	7.28	98	754537	49.83	ppb	0.00
Spiked Amount	50.000	Range	87 - 113	Recovery	=	99.66%
66) p-Bromofluorobenzene (SURR)	10.02	174	227583	51.56	ppb	0.01
Spiked Amount	50.000	Range	63 - 166	Recovery	=	103.12%

Target Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
2) Dichlorodifluoromethane	1.57	85	227975	44.37	ppb	100	
3) Chloromethane	1.76	50	351319	51.04	ppb	100	
4) Vinyl Chloride	1.85	62	241216	53.30	ppb	99	
5) Bromomethane	2.18	94	116181	48.20	ppb	100	
6) Chloroethane	2.28	64	117684	57.45	ppb	98	
7) Trichlorofluoromethane	2.52	101	233599	48.39	ppb	99	
8) Ethyl Ether	2.81	59	229701	58.15	ppb	100	
9) Freon-113	3.02	101	225181	53.62	ppb	98	
10) 1,1-Dichloroethylene	3.03	61	347014	53.66	ppb	73	
11) Acrolein	2.94	56	41923	61.47	ppb	96	
12) Iodomethane	3.18	142	258486	68.31	ppb	100	
13) Methyl Acetate	3.40	43	240423	57.94	ppb	100	
14) tert Butyl Alcohol (TBA)	3.61	59	34609	57.37	ppb	100	
15) Acrylonitrile	3.73	53	114634	58.76	ppb	98	
16) trans-1,2-Dichloroethylene	3.75	61	349443	55.54	ppb	98	
17) Carbon Disulfide	3.24	76	847550	56.38	ppb	100	
18) Methylene Chloride	3.49	49	406073	52.41	ppb	99	
19) tert-Butyl Methyl Ether (M)	3.75	73	635285	52.78	ppb	100	
20) Acetone	3.10	43	121890	54.99	ppb	99	
21) 1,1-Dichloroethane	4.14	63	507968	57.37	ppb	100	
22) Vinyl Acetate	4.19	43	612286	79.92	ppb	100	
23) cis-1,2-Dichloroethylene	4.68	96	309715	57.58	ppb	100	
24) 2-Butanone	4.70	43	169110	57.68	ppb	100	
25) 2,2-Dichloropropane	4.68	77	342750	53.82	ppb	100	
26) Bromochloromethane	4.90	49	261614	58.54	ppb	99	
27) Chloroform	4.97	83	425880	55.20	ppb	99	
28) 1,1,1-Trichloroethane	5.15	97	322892	52.22	ppb	100	
29) Cyclohexane	5.20	56	463776	54.88	ppb	99	
30) 1,1-Dichloropropylene	5.30	75	334880	56.66	ppb	99	

(#) = qualifier out of range (m) = manual integration
 V2567204.D V2C00371.M Tue Mar 15 08:58:19 2016

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D

Vial: 2

Acq On : 15 Mar 2016 8:20 am

Operator: BK

Sample : SEQ-CCV1

Inst : MS VOA 2

Misc : QBV2031516A Y16A033

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Results File: V2C00371.RES

Quant Time: Mar 15 8:36 2016

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Feb 24 09:47:09 2016

Response via : Initial Calibration

DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) Carbon Tetrachloride	5.30	117	245733	51.10	ppb	100
33) 1,2-Dichloroethane	5.52	62	258277	51.36	ppb	97
34) Benzene	5.50	78	967637	56.78	ppb	100
36) Tetrahydrofuran	4.96	42	101056	52.23	ppb	94
37) Trichloroethylene	6.10	95	256003	57.44	ppb	99
38) Methyl Cyclohexane	6.28	83	430763	58.33	ppb	99
39) Methyl Methacrylate	6.41	69	198346	56.35	ppb	100
40) Dibromomethane	6.43	93	157267	56.99	ppb	99
41) Bromodichloromethane	6.58	83	335712	56.95	ppb	99
42) 1,2-Dichloropropane	6.32	63	277764	58.46	ppb	99
43) 1,4-Dioxane	6.45	88	59350	1595.76	ppb	99
45) cis-1,3-Dichloropropene	7.01	75	467035	59.11	ppb	100
46) 2-Hexanone	8.00	43	246285	59.11	ppb	100
48) Toluene	7.35	91	924729	56.22	ppb	99
49) trans-1,3-Dichloropropene	7.57	75	389358	56.09	ppb	100
50) 1,1,2-Trichloroethane	7.75	83	192237	56.18	ppb	100
51) 1,3-Dichloropropane	7.92	76	391731	55.65	ppb	94
52) Tetrachloroethylene	7.90	166	253899	55.91	ppb	100
53) 4-Methyl-2-Pentanone	7.17	43	340272	57.68	ppb	72
54) Dibromochloromethane	8.16	129	243397	57.12	ppb	100
55) 1,2-Dibromoethane	8.28	107	229769	55.14	ppb	98
56) Chlorobenzene	8.79	112	601149	57.06	ppb	72
57) Ethyl Benzene	8.90	91	968941	53.92	ppb	99
58) p- & m-Xylenes	9.03	91	1380993	106.27	ppb	99
59) o-Xylene	9.45	91	742495	53.82	ppb	99
60) Styrene	9.47	104	638703	55.07	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.87	131	220216	56.30	ppb	98
62) p-Ethyltoluene	10.43	105	867623	54.72	ppb	97
63) p-Diethylbenzene	11.69	119	433493	55.97	ppb	97
65) Bromoform	9.67	173	154437	55.76	ppb	76
67) 1,1,2,2-Tetrachloroethane	10.17	83	307697	57.29	ppb	99
68) trans-1,4-Dichloro-2-buten	10.23	75	346175	55.82	ppb	100
69) 1,2,3-Trichloropropane	10.23	110	79318	51.91	ppb	85
70) Isopropylbenzene	9.85	105	942147	54.11	ppb	100
71) Bromobenzene	10.19	77	397053	53.32	ppb	99
72) n-Propylbenzene	10.30	91	1102285	53.88	ppb	99
73) 2-Chlorotoluene	10.40	91	703137	53.56	ppb	99
74) 4-Chlorotoluene	10.52	91	689011	51.68	ppb	99
75) tert-Butylbenzene	10.86	119	814783	53.64	ppb	100
76) 1,3,5-trimethylbenzene	10.49	105	690426	52.11	ppb	99
77) 1,2,4-trimethylbenzene	10.91	105	690448	52.26	ppb	99

(#)=qualifier out of range (m)=manual integration

V2567204.D V2C00371.M

Tue Mar 15 08:58:19 2016

Page 2

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D

Acq On : 15 Mar 2016 8:20 am

Sample : SEQ-CCV1

Misc : QBV2031516A Y16A033

MS Integration Params: rteint.p

Quant Time: Mar 15 8:36 2016

Vial: 2

Operator: BK

Inst : MS VOA 2

Multiplr: 1.00

Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260

Last Update : Wed Feb 24 09:47:09 2016

Response via : Initial Calibration

DataAcq Meth : V2C204A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78) sec-Butylbenzene	11.10	105	975930	54.73	ppb	96
79) 1,3-Dichlorobenzene	11.23	146	452475	56.40	ppb	100
80) 1,4-Dichlorobenzene	11.32	146	445248	55.82	ppb	100
81) 1,2-Dichlorobenzene	11.75	146	379798	56.46	ppb	100
82) p-Isopropyltoluene	11.26	119	767066	54.60	ppb	100
83) n-Butylbenzene	11.72	91	818310	53.08	ppb	73
84) 1,2,4,5-Tetramethylbenzene	12.58	119	697772	59.09	ppb	97
85) 1,2-Dibromo-3-chloropropan	12.63	75	38647	53.84	ppb	94
86) 1,2,4-Trichlorobenzene	13.57	180	272673	57.02	ppb	98
87) Naphthalene	13.85	128	592129	59.53	ppb	100
88) Hexachloro-1,3-Butadiene	13.76	225	131895	54.38	ppb	100
89) 1,2,3-Trichlorobenzene	14.13	182	225325	57.61	ppb	99

(#) = qualifier out of range (m) = manual integration

V2567204.D V2C00371.M

Tue Mar 15 08:58:19 2016

Page 3

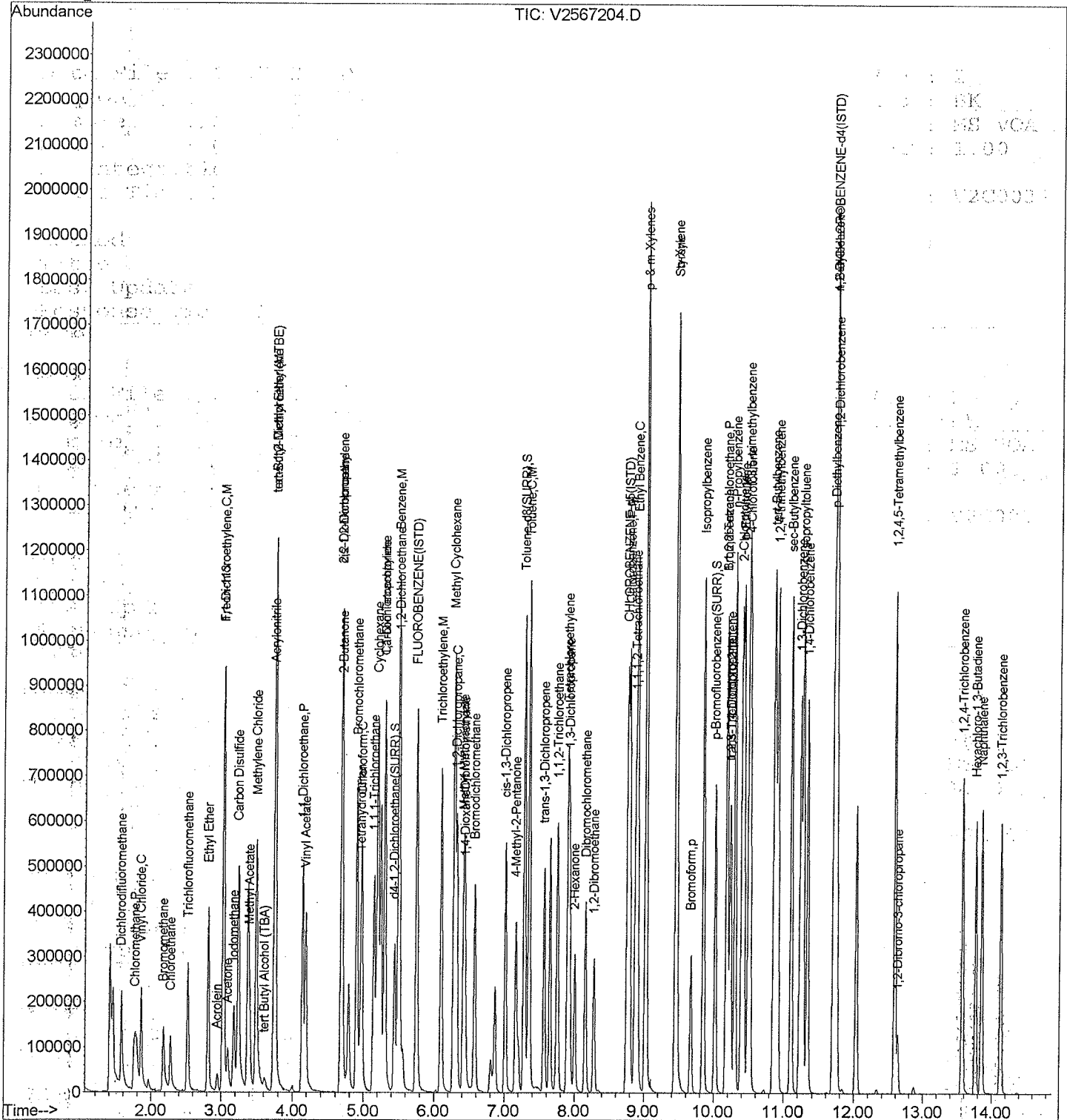
Quantitation Report

Data File : C:\HPCHEM\1\DATA\V2031516\V2567204.D
Acq On : 15 Mar 2016 8:20 am
Sample : SEQ-CCV1
Misc : QBV2031516A Y16A033
MS Integration Params: rteint.p
Quant Time: Mar 15 8:36 2016 Quant

Vial: 2
Operator: BK
Inst : MS VOA 2
Multiplr: 1.00

Quant Results File: V2C00371.RES

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
Title : VOCs BY GC/MS 8240/8260
Last Update : Wed Feb 24 09:47:09 2016
Response via : Initial Calibration



Response Factor Report MSVOA6

Method Path : C:\msdchem\1\METHODS\
Method File : V6LO0083.M
Title : Volatile Organics EPA 8260C
Last Update : Fri Mar 04 10:36:24 2016
Response Via : Initial Calibration

Calibration Files

0.5=V6017466.D 2.0 =V6017467.D 4.0 =V6017468.D 10.0=V6017469.D 20.0=V6017470.D 40.0=V6017471.D
80.0=V6017472.D 120 =V6017473.D 160 =V6017474.D

Compound	0.5	2.0	4.0	10.0	20.0	40.0	80.0	120	160	Avg	%RSD
-----ISTD-----											
1) I FLUOROBENZENE (ISTD)											
2) T Dichlorodifl...	1.3918	1.3799	1.4282	0.8939	1.3668	1.2808	1.2186	1.2405	1.1963	1.266	12.85
3) T Chloromethane	1.7475	1.6232	1.8090	1.4113	1.6890	1.6699	1.7695	1.8894	1.9333	1.727	8.99
4) T Vinyl Chloride	1.7680	1.7613	1.8536	1.5913	1.8554	1.8340	1.7404	1.7763	1.7396	1.769	4.57
5) T Bromomethane	0.1855	0.1442	0.2462	0.3148	0.5042	0.6915	0.7359	0.8289	0.8230	0.497	56.40
6) T Chloroethane	1.0581	1.1207	1.1735	1.0278	1.1336	1.1139	1.0753	1.0514	0.9970	1.083	5.18
7) T Trichloroflu...	2.0857	2.0969	2.1830	2.0192	2.1959	2.1464	2.1260	2.1556	2.1348	2.127	2.54
8) T Ethanol		0.0059	0.0060	0.0042	0.0047	0.0049	0.0048	0.0058	0.0050	0.005	13.04
9) T Freon-113	1.3441	1.3643	1.4363	1.3059	1.3855	1.3578	1.3736	1.4118	1.3921	1.375	2.78
10) T 1,1-Dichloro...	2.1752	2.3906	2.3813	2.4551	2.6003	2.5681	2.5375	2.5842	2.5397	2.470	5.55
11) T Acrolein	0.1353	0.1578	0.1679	0.1637	0.1804	0.1824	0.1915	0.2072	0.2020	0.176	12.91
12) T Acetone		0.3793	0.3449	0.2938	0.3020	0.2958	0.2967	0.3169	0.2963	0.316	9.80
13) T Iodomethane		0.0941	0.1771	0.3620	0.6334	0.8318	0.8056	0.8577	0.8295	0.574	55.19
14) T Methyl Acetate	0.8426	0.6953	0.7869	0.7442	0.8189	0.8228	0.8270	0.8469	0.8141	0.800	6.26
15) T Carbon disul...	4.9203	4.9847	4.9003	4.9429	5.3153	5.2231	5.1793	5.2338	5.1212	5.091	3.07
16) T tert-Butyl A...		0.1936	0.1362	0.1214	0.1317	0.1324	0.1350	0.1428	0.1342	0.141	15.68
17) T Methylene Ch...	2.0886	2.2286	2.2307	2.2994	2.3645	2.3537	2.3901	2.3856	2.3352	2.297	4.31
18) T Acrylonitrile		0.3223	0.2465	0.3029	0.3372	0.3803	0.3895	0.4167	0.3951	0.349	16.36
19) T trans-1,2-Di...	2.1442	2.4091	2.3581	2.5116	2.6129	2.6076	2.6193	2.6107	2.5550	2.492	6.48
20) T tert-Butyl M...	3.5026	4.0718	4.1016	4.3432	4.5815	4.5385	4.5930	4.6250	4.4817	4.315	8.54
21) T 1,1-Dichloro...	2.7328	3.0455	3.0317	3.2471	3.3581	3.3362	3.3156	3.2459	3.1596	3.164	6.34
22) T Vinyl Acetate	4.8931	5.1760	5.4291	5.4457	5.6719	5.6793	5.6452	5.5989	5.3945	5.437	4.82
23) T Diisopropyl ...	3.5810	7.6956	6.4164	7.8727	8.0838	6.4823	6.4519	6.2613	6.0340	6.542	20.66
24) T Ethyl-tert-B...	3.1737	6.8830	5.7625	7.1039	7.3863	5.9255	6.0376	5.9889	5.8647	6.014	20.35
25) T cis-1,2-Dich...	2.4022	2.6391	2.6641	2.8788	2.9455	2.9447	3.0019	2.9833	2.9183	2.820	7.27
26) T 2-Butanone	0.0817	0.1120	0.1194	0.1300	0.1164	0.1308	0.1401	0.1471	0.1411	0.124	16.03
27) T 2,2-Dichloro...	2.2123	2.3272	2.2947	2.4652	2.5255	2.5000	2.5267	2.5553	2.5065	2.435	5.08
28) T Tetrahydrofuran	0.3355	0.3629	0.3748	0.3519	0.3818	0.3856	0.4026	0.4094	0.3922	0.377	6.35
29) T Bromochlorom...	1.2014	1.3041	1.3237	1.4179	1.4093	1.3923	1.3673	1.3508	1.3276	1.344	4.94
30) T Chloroform	2.3228	2.6988	2.7517	2.9587	3.0249	3.0510	3.1168	3.1032	3.0257	2.895	8.99
31) T 1,1,1-Trichl...	2.0635	2.2972	2.3046	2.4970	2.5574	2.5711	2.6109	2.6659	2.6343	2.467	8.19
32) T Cyclohexane	2.8256	2.8135	3.0172	2.7450	2.8829	2.8189	2.8769	2.9313	2.8649	2.864	2.73
33) T 1,1-Dichloro...	1.8807	2.1030	2.0970	2.3435	2.3869	2.3840	2.4302	2.4671	2.4142	2.279	8.86
34) S d4-1,2-Dichl...	1.1941	1.2157	1.2018	1.2280	1.2171	1.2253	1.2628	1.2659	1.2480	1.229	2.07
35) T Carbon Tetra...	1.6006	1.8083	1.7896	1.9783	2.0579	2.0634	2.1283	2.1764	2.1567	1.973	10.04
36) T tert-Amyl al...	0.0665	0.1457	0.1196	0.1493	0.1676	0.1358	0.1422	0.1528	0.1396	0.135	21.36

37)	T	1,2-Dichloro...	1.6439	1.6258	1.7299	1.8111	1.9044	1.9293	1.9643	1.9980	1.9523	1.840	7.74
38)	T	Benzene	5.7816	6.3602	6.3009	6.7958	6.9934	6.9429	6.9903	6.9333	6.7419	6.649	6.27
39)	T	tert-Amyl me...	2.7904	6.2850	5.4969	6.9656	7.2949	5.8709	6.0051	6.0336	5.7985	5.838	21.89
40)	I	CHLOROBENZENE-d5 (...)							ISTD				
41)	T	Trichloroeth...	0.3782	0.4175	0.4258	0.4711	0.4800	0.4869	0.4975	0.5035	0.5095	0.463	9.82
42)	T	Methyl Cyclo...	0.6598	0.6665	0.7035	0.6758	0.6973	0.6841	0.7142	0.7350	0.7368	0.697	4.03
43)	T	Methyl Metha...	0.1224	0.1781	0.1927	0.2276	0.2491	0.2590	0.2673	0.2764	0.2738	0.227	23.20
44)	T	Dibromomethane	0.1726	0.2034	0.2072	0.2268	0.2397	0.2443	0.2490	0.2537	0.2440	0.227	11.93
45)	T	Bromodichlor...	0.3936	0.5126	0.5153	0.5824	0.6097	0.6239	0.6472	0.6519	0.6583	0.577	15.26
46)	T	1,2-Dichloro...	0.3691	0.4601	0.4557	0.5004	0.5187	0.5209	0.5305	0.5291	0.5314	0.491	11.04
47)	T	1,4-Dioxane		0.0025	0.0025	0.0026	0.0028	0.0027	0.0027	0.0027	0.0029	0.003	4.78
48)	T	2-Chloroethy...										0.000	-1.00
49)	T	cis-1,3-Dich...	0.4315	0.6106	0.6242	0.7180	0.7585	0.7669	0.7875	0.7875	0.7891	0.697	17.37
50)	T	4-Methyl-2-P...	0.2936	0.4061	0.4483	0.5135	0.5767	0.5906	0.6077	0.6267	0.6097	0.519	22.04
51)	S	Toluene-d8 (...)	1.3335	1.3304	1.3520	1.3518	1.3503	1.3672	1.3563	1.3545	1.3624	1.351	0.89
52)	T	Toluene	1.5772	1.7844	1.7908	1.9226	1.9593	1.9459	1.9520	1.9260	1.9017	1.862	6.74
53)	T	trans-1,3-Di...	0.3308	0.4642	0.5127	0.6046	0.6369	0.6504	0.6668	0.6732	0.6700	0.579	20.54
54)	T	1,1,2-Trichl...	0.2564	0.3012	0.2933	0.3328	0.3445	0.3445	0.3479	0.3521	0.3471	0.324	10.25
55)	T	1,3-Dichloro...	0.4192	0.5375	0.5206	0.5804	0.6045	0.6072	0.6070	0.6128	0.6043	0.566	11.37
56)	T	Tetrachloroe...	0.4080	0.4346	0.4236	0.4668	0.4690	0.4712	0.4738	0.4815	0.4739	0.456	5.81
57)	T	2-Hexanone		0.1503	0.1715	0.1742	0.2191	0.2307	0.2456	0.2560	0.2501	0.212	19.34
58)	T	Dibromochlor...	0.2495	0.3015	0.3092	0.3656	0.3927	0.4045	0.4119	0.4241	0.4155	0.364	17.12
59)	T	1,2-Dibromoe...	0.2348	0.2680	0.2650	0.3109	0.3276	0.3306	0.3350	0.3435	0.3363	0.306	12.91
60)	T	Chlorobenzene	0.8557	1.0268	1.0465	1.1189	1.1473	1.1409	1.1465	1.1471	1.1356	1.085	8.97
61)	T	1,1,1,2-tetr...	0.2811	0.3472	0.3597	0.3991	0.4148	0.4161	0.4172	0.4183	0.4071	0.385	12.18
62)	T	Ethyl Benzene	1.6583	1.9355	1.9047	2.0815	2.1148	2.0761	2.0781	2.0422	1.9791	1.986	7.17
63)	T	p- & m-Xylenes	1.2211	1.4065	1.4396	1.5617	1.5928	1.5573	1.5402	1.4934	1.4230	1.471	7.82
64)	T	o-Xylene	1.2381	1.4463	1.4336	1.5536	1.5787	1.5495	1.5532	1.5504	1.5303	1.493	7.23
65)	T	Styrene	0.7368	1.0487	1.1344	1.2728	1.3047	1.3061	1.3008	1.3023	1.2672	1.186	16.13
66)	T	Bromofrom	0.1097	0.1447	0.1524	0.1846	0.2011	0.2117	0.2215	0.2335	0.2324	0.188	23.18
67)	I	1,2-DICHLOROBENZEN...							ISTD				
68)	T	p-Ethyltoluene	3.2780	4.0171	3.7233	3.9451	3.9049	3.8577	3.9295	3.8835	3.8452	3.820	5.73
69)	T	Isopropylben...	3.9422	4.3232	4.3385	4.6454	4.5761	4.5457	4.6374	4.5253	4.4872	4.447	4.98
70)	S	p-Bromofluor...	1.2551	1.2184	1.2736	1.2457	1.2227	1.2444	1.2563	1.2454	1.2631	1.247	1.43
71)	T	1,1,2,2-Tetr...	0.6425	0.8387	0.8477	0.9128	0.9369	0.9505	0.9809	0.9914	0.9698	0.897	12.25
72)	T	Bromobenzene	1.4716	1.6226	1.7610	1.8311	1.8551	1.8878	1.9570	1.9315	1.9367	1.806	9.03
73)	T	trans-1,4-Di...	0.7136	0.7443	0.7304	0.8405	0.9438	0.9979	1.0526	1.0674	1.0487	0.904	16.40
74)	T	1,2,3-Trichl...	0.1862	0.2157	0.2074	0.2361	0.2438	0.2462	0.2493	0.2527	0.2450	0.231	9.92
75)	T	n-Propylbenzene	4.2939	4.9890	5.1421	5.4810	5.3845	5.3811	5.4516	5.2937	5.2046	5.180	7.10
76)	T	2-Chlorotoluene	2.6668	3.3858	3.4910	3.6366	3.6144	3.6479	3.7200	3.6429	3.5955	3.489	9.28
77)	T	4-Chlorotoluene	1.9349	2.8042	2.9919	3.3274	3.3415	3.3818	3.5101	3.4391	3.4008	3.126	16.05
78)	T	1,3,5-Trimet...	3.2780	3.6776	3.7233	3.9451	3.9049	3.8577	3.9295	3.8835	3.8452	3.783	5.54
79)	T	tert-Butylbe...	2.8385	2.7882	2.8690	3.0359	2.9978	2.9487	2.9878	2.9874	2.9745	2.936	2.86
80)	T	1,2,4-Trimet...	3.3210	3.6081	3.7271	3.9030	3.8849	3.9025	3.9677	3.8999	3.8146	3.781	5.41
81)	T	sec-Butylben...	3.4086	3.9321	3.9773	4.2085	4.1488	4.0997	4.1878	4.1917	4.1422	4.033	6.28
82)	T	1,3-Dichloro...	1.5191	1.6424	1.7830	1.9067	1.9250	1.9468	1.9664	1.9244	1.8661	1.831	8.45
83)	T	p-Isopropylt...	2.9874	3.5002	3.5978	3.8925	3.8378	3.7969	3.8173	3.7917	3.7168	3.660	7.68
84)	T	1,4-Dichloro...	1.2568	1.6008	1.7115	1.8915	1.9347	2.0172	2.0350	2.0200	1.9837	1.828	14.30
85)	T	1,2,3-Trimet...	2.7902	2.7236	3.1084	2.9326	3.0049	3.0585	3.1061	3.0984	3.0633	2.987	4.79

86)	T	p-Diethylben...	2.1458	1.8863	2.1698	2.1161	2.1009	2.1260	2.1506	2.1924	2.1721	2.118	4.32
87)	T	1,2-Dichloro...	1.4456	1.6344	1.5466	1.6722	1.6784	1.7132	1.7410	1.7469	1.7138	1.655	6.03
88)	T	n-Butylbenzene	3.5562	3.7474	3.9308	4.1503	4.0505	4.0549	4.0842	4.1617	4.1026	3.982	5.14
89)	T	1,2-Dibromo-...		0.1005	0.0923	0.1104	0.1127	0.1176	0.1253	0.1309	0.1288	0.115	11.91
90)	T	1,2,4,5-Tetr...	2.8409	2.9512	3.3647	3.2480	3.2380	3.2849	3.2474	3.3452	3.2689	3.199	5.60
91)	T	1,2,4-Trichl...	0.3747	0.6830	0.7242	0.8551	0.8653	0.8743	0.8678	0.9382	0.9023	0.787	22.27
92)	T	Hexachloro-1...	0.2795	0.2873	0.2953	0.3123	0.2949	0.2895	0.2860	0.3146	0.3080	0.296	4.21
93)	T	Naphthalene	0.9729	0.9850	1.1027	1.2717	1.3916	1.4083	1.4624	1.5646	1.4822	1.293	17.18
94)	T	1,2,3-Trichl...	0.4047	0.4188	0.4493	0.4896	0.5086	0.4953	0.5128	0.5558	0.5249	0.484	10.37

 (#) = Out of Range

V6LO0083.M Fri Mar 04 10:37:19 2016

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017466.D
 Acq On : 3 Mar 2016 2:12 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 1
 Misc : QBV6030316A <2 BGS
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 09:13:49 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.503	70	78044	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	8.524	117	280605	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.496	152	106114	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.222	65	93194	12.11	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	121.10%	
51) Toluene-d8 (SURR)	7.027	98	374187	9.36	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	93.60%	
70) p-Bromofluorobenzene (...)	9.793	95	133187	9.00	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	90.00%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.371	85	5431	0.55	ppb	99
3) Chloromethane	1.549	50	6819	0.51	ppb	95
4) Vinyl Chloride	1.644	62	6899	0.49	ppb	99
6) Chloroethane	2.053	64	4129	0.49	ppb	# 91
7) Trichlorofluoromethane	2.278	101	8139m	0.51	ppb	
8) Ethanol	2.534	45	767m	31.22	ppb	
9) Freon-113	2.754	101	5245	0.51	ppb	# 88
10) 1,1-Dichloroethylene	2.779	61	8488	0.45	ppb	# 92
11) Acrolein	2.740	56	528m	0.56	ppb	
12) Acetone	2.876	43	3789m	2.28	ppb	
14) Methyl Acetate	3.174	43	3288m	0.79	ppb	
15) Carbon disulfide	2.988	76	19200	0.49	ppb	100
16) tert-Butyl Alcohol (TBA)	3.408	59	1479m	2.43	ppb	
17) Methylene Chloride	3.269	49	8150	0.50	ppb	95
19) trans-1,2-Dichloroethy...	3.502	61	8367	0.44	ppb	# 90
20) tert-Butyl Methyl Ethe...	3.483	73	13668	0.53	ppb	# 93
21) 1,1-Dichloroethane	3.903	63	10664	0.44	ppb	# 87
22) Vinyl Acetate	3.914	43	19094m	0.54	ppb	
23) Diisopropyl ether (DIPE)	3.920	45	22358	0.46	ppb	# 95
24) Ethyl-tert-Butyl ether...	4.251	59	19815m	0.48	ppb	
25) cis-1,2-Dichloroethylene	4.454	61	9374m	0.44	ppb	
26) 2-Butanone	4.501	72	319m	0.48	ppb	
27) 2,2-Dichloropropane	4.426	77	8633	0.47	ppb	# 91
28) Tetrahydrofuran	4.752	42	1309m	0.75	ppb	
29) Bromochloromethane	4.685	49	4688	0.53	ppb	91
30) Chloroform	4.754	83	9064	0.42	ppb	# 69
31) 1,1,1-Trichloroethane	4.891	97	8052	0.43	ppb	97

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017466.D
 Acq On : 3 Mar 2016 2:12 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 1
 Misc : QBV6030316A <2 BGS
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 09:13:49 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	4.913	56	11026	0.50	ppb	# 80
33) 1,1-Dichloropropylene	5.041	75	7339	0.42	ppb	# 85
35) Carbon Tetrachloride	5.033	117	6246	0.42	ppb	99
36) tert-Amyl alcohol (TAA)	5.280	59	4153m	6.79	ppb	
37) 1,2-Dichloroethane	5.300	62	6415m	0.58	ppb	
38) Benzene	5.247	78	22561	0.44	ppb	# 1
39) tert-Amyl methyl ether...	5.316	73	17422	0.49	ppb	96
41) Trichloroethylene	5.853	95	5306	0.39	ppb	# 75
42) Methyl Cyclohexane	5.987	83	9257	0.46	ppb	91
43) Methyl Methacrylate	6.212	69	1718m	0.38	ppb	
44) Dibromomethane	6.226	93	2422m	0.47	ppb	
45) Bromodichloromethane	6.368	83	5522	0.37	ppb	# 66
46) 1,2-Dichloropropane	6.087	63	5178	0.39	ppb	94
49) cis-1,3-Dichloropropene	6.805	75	6054	0.34	ppb	# 57
50) 4-Methyl-2-Pentanone	6.944	43	4119m	0.42	ppb	
52) Toluene	7.094	91	22128	0.41	ppb	100
53) trans-1,3-Dichloropropene	7.384	75	4641	0.34	ppb	# 93
54) 1,1,2-Trichloroethane	7.550	97	3598m	0.49	ppb	
55) 1,3-Dichloropropane	7.723	76	5882	0.47	ppb	97
56) Tetrachloroethylene	7.634	166	5724m	0.43	ppb	
58) Dibromochloromethane	7.959	129	3500	0.42	ppb	# 63
59) 1,2-Dibromoethane	8.085	107	3294m	0.50	ppb	
60) Chlorobenzene	8.549	112	12005	0.39	ppb	# 62
61) 1,1,1,2-tetrachloroethane	8.644	131	3944	0.38	ppb	# 54
62) Ethyl Benzene	8.652	91	23267	0.40	ppb	96
63) p- & m-Xylenes	8.769	91	34266	0.80	ppb	# 92
64) o-Xylene	9.209	91	17371	0.40	ppb	100
65) Styrene	9.242	104	10337	0.31	ppb	# 72
66) Bromofrom	9.473	173	1539m	0.40	ppb	
68) p-Ethyltoluene	10.235	105	17392	0.35	ppb	# 97
69) Isopropylbenzene	9.590	105	20916	0.36	ppb	97
71) 1,1,2,2-Tetrachloroethane	9.990	83	3409	0.41	ppb	# 77
72) Bromobenzene	9.957	77	7808	0.37	ppb	# 75
73) trans-1,4-Dichloro-2-b...	10.035	75	3786m	0.48	ppb	
74) 1,2,3-Trichloropropane	10.041	110	988m	0.49	ppb	
75) n-Propylbenzene	10.041	91	22782	0.34	ppb	# 93
76) 2-Chlorotoluene	10.163	91	14149	0.31	ppb	98
77) 4-Chlorotoluene	10.283	91	10266	0.25	ppb	96
78) 1,3,5-Trimethylbenzene	10.235	105	17392	0.35	ppb	# 79
79) tert-Butylbenzene	10.594	119	15060m	0.40	ppb	
80) 1,2,4-Trimethylbenzene	10.664	105	17620	0.36	ppb	# 86

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017466.D
 Acq On : 3 Mar 2016 2:12 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 1
 Misc : QBV6030316A <2 BGS
 ALS Vial : 7 Sample Multiplier: 1

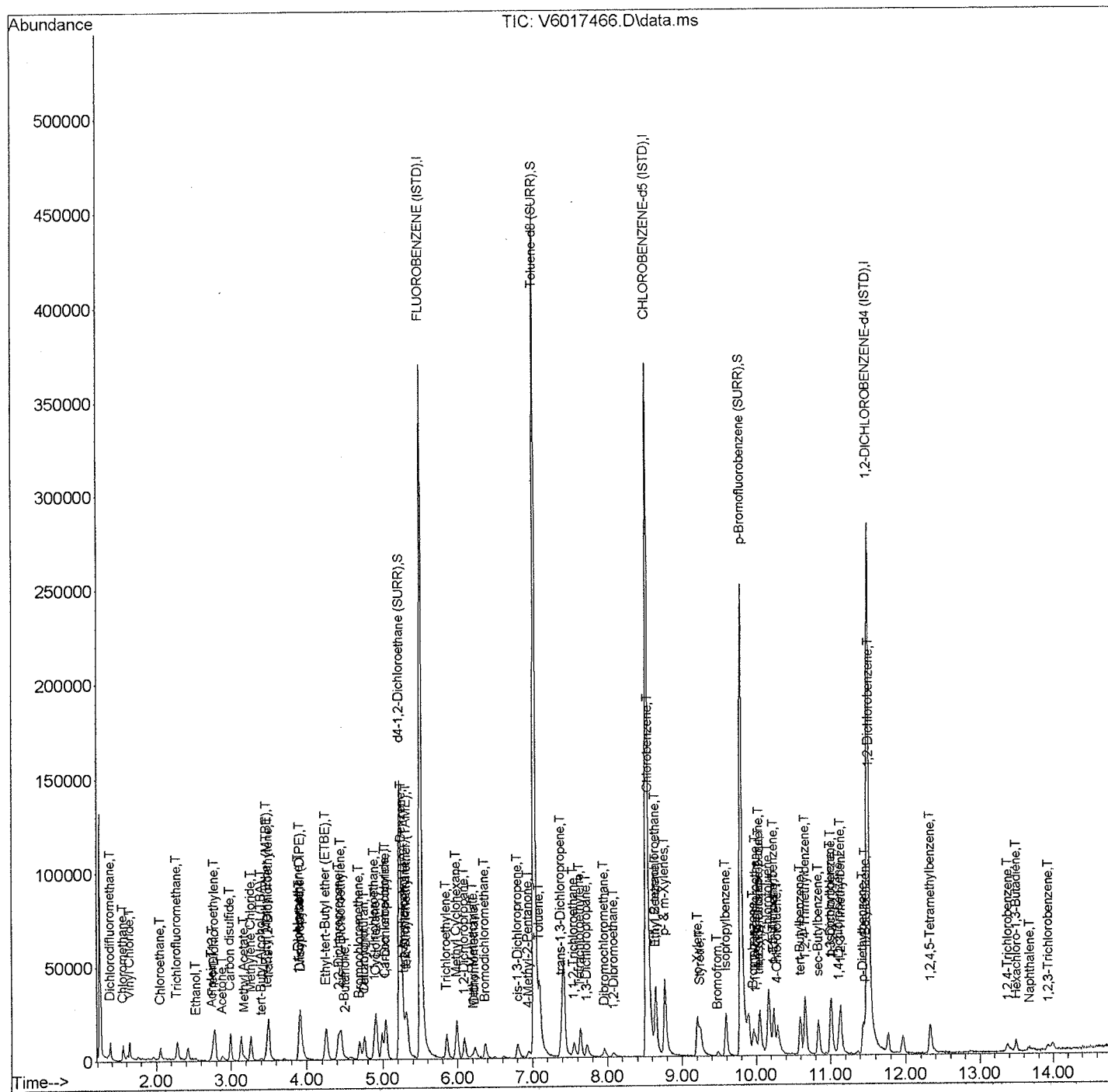
Quant Time: Mar 04 09:13:49 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
81)	sec-Butylbenzene	10.839	105	18085	0.34	ppb	95
82)	1,3-Dichlorobenzene	11.009	146	8060m	0.37	ppb	
83)	p-Isopropyltoluene	11.000	119	15850	0.33	ppb #	90
84)	1,4-Dichlorobenzene	11.109	146	6668	0.30	ppb	94
85)	1,2,3-Trimethylbenzene	11.134	105	14804	0.40	ppb #	85
86)	p-Diethylbenzene	11.432	105	11385m	0.41	ppb	
87)	1,2-Dichlorobenzene	11.518	146	7670m	0.43	ppb	
88)	n-Butylbenzene	11.468	91	18868m	0.37	ppb	
90)	1,2,4,5-Tetramethylben...	12.325	119	15073	0.39	ppb #	88
91)	1,2,4-Trichlorobenzene	13.379	180	1988	0.27	ppb #	44
92)	Hexachloro-1,3-Butadiene	13.496	225	1483m	0.42	ppb	
93)	Naphthalene	13.674	128	5162m	0.55	ppb	
94)	1,2,3-Trichlorobenzene	13.925	180	2147m	0.58	ppb	

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

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017466.D
Acq On : 3 Mar 2016 2:12 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 1
Misc : QBV6030316A <2 BGS
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 09:13:49 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017467.D
 Acq On : 3 Mar 2016 2:41 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 2
 Misc : QBV6030316A <2 BGS
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 09:19:35 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.503	70	79809	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.519	117	287679	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.493	152	114584	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.219	65	97026	12.33	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	123.30%	
51) Toluene-d8 (SURR)	7.022	98	382737	9.34	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	93.40%	
70) p-Bromofluorobenzene (...)	9.784	95	139613	8.74	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	87.40%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.374	85	22025	2.16	ppb	99
3) Chloromethane	1.552	50	25909	1.88	ppb	95
4) Vinyl Chloride	1.638	62	28114	1.97	ppb	98
5) Bromomethane	1.955	94	2302	0.48	ppb	98
6) Chloroethane	2.050	64	17889	2.06	ppb	98
7) Trichlorofluoromethane	2.275	101	33470	2.04	ppb	99
8) Ethanol	2.520	45	4733m	188.40	ppb	
9) Freon-113	2.754	101	21776	2.06	ppb	97
10) 1,1-Dichloroethylene	2.776	61	38159	1.96	ppb	# 94
11) Acrolein	2.729	56	2518	2.61	ppb	92
12) Acetone	2.876	43	6055	3.56	ppb	98
13) Iodomethane	2.940	142	1502m	0.27	ppb	
14) Methyl Acetate	3.160	43	11098	2.62	ppb	100
15) Carbon disulfide	2.987	76	79564	1.97	ppb	100
16) tert-Butyl Alcohol (TBA)	3.394	59	3090m	4.97	ppb	
17) Methylene Chloride	3.266	49	35572	2.12	ppb	91
18) Acrylonitrile	3.536	53	5144m	2.80	ppb	
19) trans-1,2-Dichloroethy...	3.499	61	38454	1.97	ppb	98
20) tert-Butyl Methyl Ethe...	3.480	73	64993	2.46	ppb	97
21) 1,1-Dichloroethane	3.903	63	48612	1.96	ppb	# 96
22) Vinyl Acetate	3.939	43	82619m	2.28	ppb	
23) Diisopropyl ether (DIPE)	3.917	45	98269	1.99	ppb	97
24) Ethyl-tert-Butyl ether...	4.253	59	87892	2.09	ppb	98
25) cis-1,2-Dichloroethylene	4.448	61	42124	1.94	ppb	95
26) 2-Butanone	4.504	72	1788m	2.61	ppb	
27) 2,2-Dichloropropane	4.423	77	37147	1.98	ppb	# 85
28) Tetrahydrofuran	4.732	42	5793m	3.24	ppb	

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017467.D
 Acq On : 3 Mar 2016 2:41 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 2
 Misc : QBV6030316A <2 BGS
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 09:19:35 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
29) Bromochloromethane	4.682	49	20815	2.29	ppb	93
30) Chloroform	4.749	83	43078	1.94	ppb	# 98
31) 1,1,1-Trichloroethane	4.888	97	36668	1.92	ppb	98
32) Cyclohexane	4.904	56	44908	2.00	ppb	# 83
33) 1,1-Dichloropropylene	5.041	75	33568	1.90	ppb	# 86
35) Carbon Tetrachloride	5.032	117	28864	1.91	ppb	# 92
36) tert-Amyl alcohol (TAA)	5.272	59	18606m	29.74	ppb	
37) 1,2-Dichloroethane	5.294	62	25951	2.28	ppb	99
38) Benzene	5.241	78	101521	1.95	ppb	# 60
39) tert-Amyl methyl ether...	5.311	73	80256	2.19	ppb	# 91
41) Trichloroethylene	5.848	95	24020	1.72	ppb	96
42) Methyl Cyclohexane	5.984	83	38349	1.86	ppb	91
43) Methyl Methacrylate	6.184	69	10246	2.18	ppb	# 67
44) Dibromomethane	6.223	93	11701	2.23	ppb	97
45) Bromodichloromethane	6.365	83	29490	1.91	ppb	98
46) 1,2-Dichloropropane	6.081	63	26474	1.93	ppb	# 78
47) 1,4-Dioxane	6.254	88	2862m	60.37	ppb	
49) cis-1,3-Dichloropropene	6.791	75	35129	1.94	ppb	95
50) 4-Methyl-2-Pentanone	6.933	43	23367	2.33	ppb	# 71
52) Toluene	7.088	91	102667	1.84	ppb	98
53) trans-1,3-Dichloropropene	7.358	75	26709	1.92	ppb	# 85
54) 1,1,2-Trichloroethane	7.548	97	17327	2.32	ppb	92
55) 1,3-Dichloropropane	7.714	76	30926	2.40	ppb	96
56) Tetrachloroethylene	7.634	166	25007	1.85	ppb	# 70
57) 2-Hexanone	7.809	43	8649m	2.29	ppb	
58) Dibromochloromethane	7.954	129	17349	2.04	ppb	96
59) 1,2-Dibromoethane	8.071	107	15420	2.30	ppb	93
60) Chlorobenzene	8.549	112	59079	1.88	ppb	# 92
61) 1,1,1,2-tetrachloroethane	8.641	131	19976	1.89	ppb	85
62) Ethyl Benzene	8.638	91	111361	1.87	ppb	100
63) p- & m-Xylenes	8.763	91	161853	3.69	ppb	97
64) o-Xylene	9.195	91	83216	1.88	ppb	100
65) Styrene	9.225	104	60339	1.76	ppb	# 89
66) Bromoform	9.470	173	8326	2.14	ppb	# 72
68) p-Ethyltoluene	10.227	105	92058m	1.73	ppb	
69) Isopropylbenzene	9.584	105	99073	1.58	ppb	96
71) 1,1,2,2-Tetrachloroethane	9.982	83	19221	2.14	ppb	# 76
72) Bromobenzene	9.954	77	37184	1.65	ppb	98
73) trans-1,4-Dichloro-2-b...	10.029	75	17058m	2.02	ppb	
74) 1,2,3-Trichloropropane	10.032	110	4944	2.28	ppb	98
75) n-Propylbenzene	10.038	91	114333	1.56	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017467.D
Acq On : 3 Mar 2016 2:41 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 2
Misc : QBV6030316A <2 BGS
ALS Vial : 8 Sample Multiplier: 1

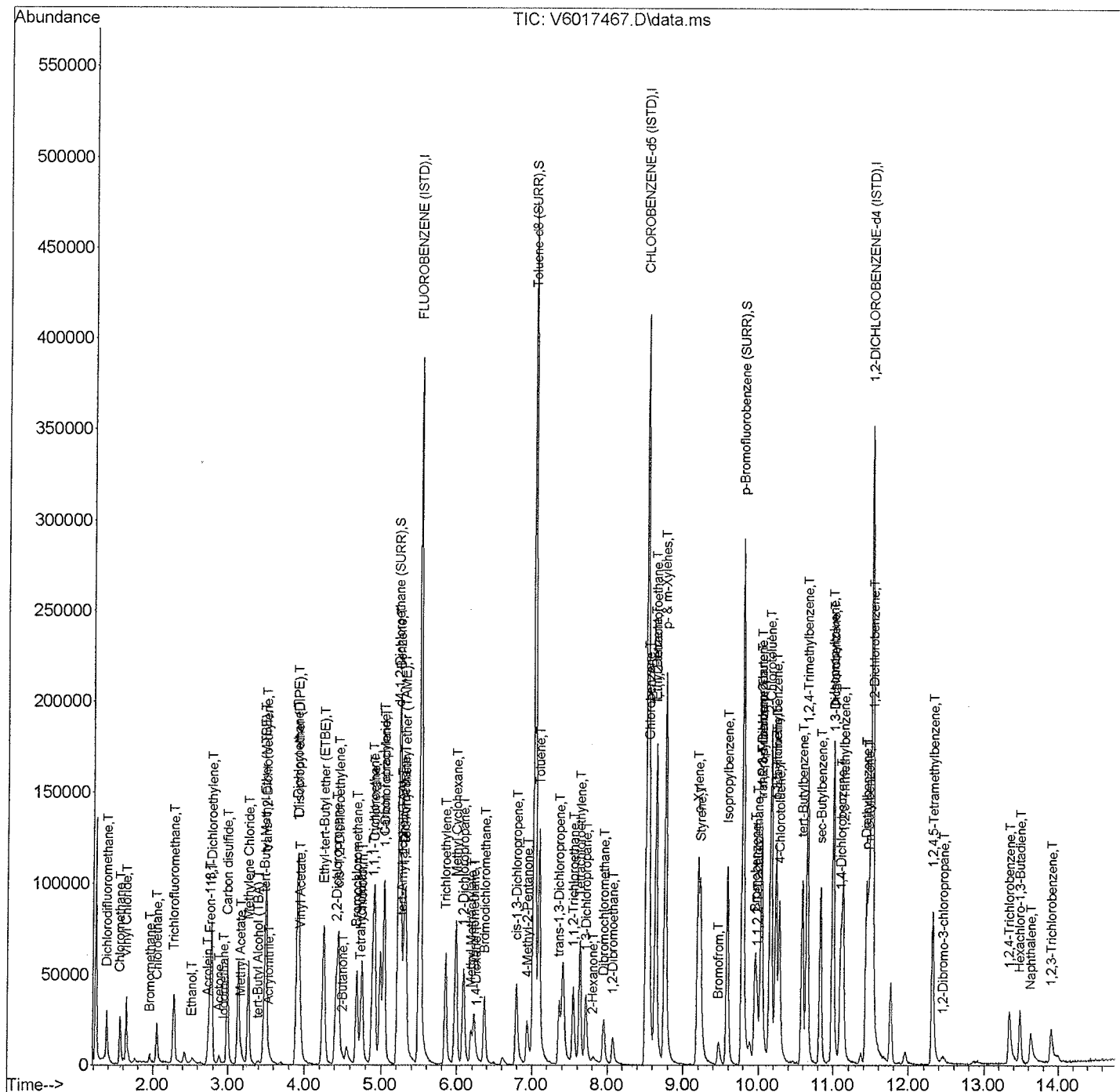
Quant Time: Mar 04 09:19:35 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
76) 2-Chlorotoluene	10.149	91	77592	1.60	ppb	99
77) 4-Chlorotoluene	10.277	91	64264	1.44	ppb	99
78) 1,3,5-Trimethylbenzene	10.227	105	84279	1.59	ppb	99
79) tert-Butylbenzene	10.583	119	63896	1.56	ppb	97
80) 1,2,4-Trimethylbenzene	10.647	105	82686	1.57	ppb	# 82
81) sec-Butylbenzene	10.831	105	90111	1.58	ppb	98
82) 1,3-Dichlorobenzene	10.998	146	37638	1.60	ppb	98
83) p-Isopropyltoluene	10.989	119	80213	1.55	ppb	97
84) 1,4-Dichlorobenzene	11.092	146	36685	1.53	ppb	98
85) 1,2,3-Trimethylbenzene	11.126	105	62416	1.56	ppb	# 87
86) p-Diethylbenzene	11.423	105	43227	1.46	ppb	# 43
87) 1,2-Dichlorobenzene	11.515	146	37456m	1.96	ppb	
88) n-Butylbenzene	11.457	91	85878	1.55	ppb	87
89) 1,2-Dibromo-3-chloropr...	12.458	75	2303m	2.54	ppb	
90) 1,2,4,5-Tetramethylben...	12.314	119	67632	1.63	ppb	97
91) 1,2,4-Trichlorobenzene	13.340	180	15652	1.96	ppb	# 89
92) Hexachloro-1,3-Butadiene	13.479	225	6584	1.72	ppb	97
93) Naphthalene	13.630	128	22572	2.22	ppb	# 88
94) 1,2,3-Trichlorobenzene	13.905	180	9598	2.39	ppb	# 90

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


```
Data Path : C:\msdchem\1\DATA\V6030316\  
Data File : V6017467.D  
Acq On    : 3 Mar 2016    2:41 pm  
InstName  : MSVOA6  
Operator  : SS  
Sample    : VOA CALIBRATION CURVE LEVEL 2  
Misc      : QBV6030316A <2 BGS  
ALS Vial  : 8    Sample Multiplier: 1
```

Quant Time: Mar 04 09:19:35 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017468.D
 Acq On : 3 Mar 2016 3:10 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 3
 Misc : QBV6030316A <2 BGS
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 09:33:42 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.502	70	77259	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.518	117	281712	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.493	152	108549	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.219	65	92852	12.19	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	121.90%	
51) Toluene-d8 (SURR)	7.022	98	380861	9.49	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	94.90%	
70) p-Bromofluorobenzene (...)	9.784	95	138253	9.13	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	91.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.374	85	44137	4.48	ppb	99
3) Chloromethane	1.549	50	55906	4.19	ppb	94
4) Vinyl Chloride	1.638	62	57282	4.14	ppb	98
5) Bromomethane	1.955	94	7607	1.63	ppb	98
6) Chloroethane	2.052	64	36264	4.32	ppb	98
7) Trichlorofluoromethane	2.275	101	67464	4.26	ppb	99
8) Ethanol	2.531	45	9305m	382.61	ppb	
9) Freon-113	2.756	101	44386	4.34	ppb	97
10) 1,1-Dichloroethylene	2.776	61	73591	3.91	ppb	# 94
11) Acrolein	2.723	56	5188	5.55	ppb	94
12) Acetone	2.873	43	10659	6.47	ppb	98
13) Iodomethane	2.937	142	5474	1.00	ppb	97
14) Methyl Acetate	3.165	43	24319	5.92	ppb	99
15) Carbon disulfide	2.987	76	151436	3.88	ppb	100
16) tert-Butyl Alcohol (TBA)	3.391	59	4209	6.99	ppb	# 97
17) Methylene Chloride	3.260	49	68936	4.25	ppb	91
18) Acrylonitrile	3.533	53	7619	4.29	ppb	92
19) trans-1,2-Dichloroethy...	3.496	61	72875	3.85	ppb	# 91
20) tert-Butyl Methyl Ethe...	3.480	73	126754	4.96	ppb	98
21) 1,1-Dichloroethane	3.903	63	93691	3.90	ppb	99
22) Vinyl Acetate	3.939	43	167778m	4.79	ppb	
23) Diisopropyl ether (DIPE)	3.914	45	198290	4.14	ppb	# 88
24) Ethyl-tert-Butyl ether...	4.250	59	178083	4.38	ppb	# 89
25) cis-1,2-Dichloroethylene	4.445	61	82330	3.92	ppb	95
26) 2-Butanone	4.490	72	3690m	5.56	ppb	
27) 2,2-Dichloropropane	4.420	77	70914	3.91	ppb	# 86
28) Tetrahydrofuran	4.726	42	11583m	6.70	ppb	

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017468.D
 Acq On : 3 Mar 2016 3:10 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 3
 Misc : QBV6030316A <2 BGS
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 09:33:42 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
29) Bromochloromethane	4.676	49	40906	4.64	ppb	94
30) Chloroform	4.746	83	85037	3.96	ppb #	97
31) 1,1,1-Trichloroethane	4.885	97	71221	3.85	ppb	99
32) Cyclohexane	4.907	56	93242	4.29	ppb	88
33) 1,1-Dichloropropylene	5.041	75	64805	3.78	ppb #	87
35) Carbon Tetrachloride	5.029	117	55305	3.78	ppb #	92
36) tert-Amyl alcohol (TAA)	5.277	59	36960m	61.03	ppb	
37) 1,2-Dichloroethane	5.288	62	53459	4.84	ppb	97
38) Benzene	5.238	78	194722	3.85	ppb #	78
39) tert-Amyl methyl ether...	5.310	73	169874	4.79	ppb #	87
41) Trichloroethylene	5.850	95	47978	3.51	ppb	98
42) Methyl Cyclohexane	5.984	83	79279	3.92	ppb	93
43) Methyl Methacrylate	6.176	69	21709	4.72	ppb #	74
44) Dibromomethane	6.223	93	23349	4.54	ppb #	66
45) Bromodichloromethane	6.365	83	58064	3.84	ppb	97
46) 1,2-Dichloropropane	6.078	63	51347	3.81	ppb	95
47) 1,4-Dioxane	6.243	88	5687m	122.50	ppb	
49) cis-1,3-Dichloropropene	6.791	75	70339	3.96	ppb	95
50) 4-Methyl-2-Pentanone	6.933	43	50515	5.13	ppb #	89
52) Toluene	7.091	91	201797	3.70	ppb	99
53) trans-1,3-Dichloropropene	7.358	75	57777	4.24	ppb	100
54) 1,1,2-Trichloroethane	7.542	97	33047	4.52	ppb	93
55) 1,3-Dichloropropane	7.712	76	58662	4.65	ppb #	86
56) Tetrachloroethylene	7.634	166	47737	3.61	ppb #	71
57) 2-Hexanone	7.801	43	19328m	5.22	ppb	
58) Dibromochloromethane	7.948	129	34840	4.17	ppb #	95
59) 1,2-Dibromoethane	8.068	107	29867	4.55	ppb	89
60) Chlorobenzene	8.549	112	117922	3.84	ppb #	96
61) 1,1,1,2-tetrachloroethane	8.641	131	40528	3.91	ppb	92
62) Ethyl Benzene	8.644	91	214628	3.69	ppb	100
63) p- & m-Xylenes	8.763	91	324448	7.56	ppb	98
64) o-Xylene	9.194	91	161544	3.73	ppb	100
65) Styrene	9.225	104	127828	3.80	ppb #	77
66) Bromofrom	9.467	173	17172	4.50	ppb #	85
68) p-Ethyltoluene	10.227	105	161666	3.21	ppb #	79
69) Isopropylbenzene	9.581	105	188376	3.17	ppb	96
71) 1,1,2,2-Tetrachloroethane	9.985	83	36805	4.32	ppb #	55
72) Bromobenzene	9.951	77	76463	3.58	ppb	98
73) trans-1,4-Dichloro-2-b...	10.024	75	31712	3.96	ppb	87
74) 1,2,3-Trichloropropane	10.024	110	9005	4.38	ppb #	11
75) n-Propylbenzene	10.035	91	223269	3.21	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017468.D
 Acq On : 3 Mar 2016 3:10 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 3
 Misc : QBV6030316A <2 BGS
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 09:33:42 2016

Quant Method : C:\msdchem\1\METHODS\V6LO0082.M

Quant Title : Volatile Organics EPA 8260C

QLast Update : Tue Mar 01 10:09:23 2016

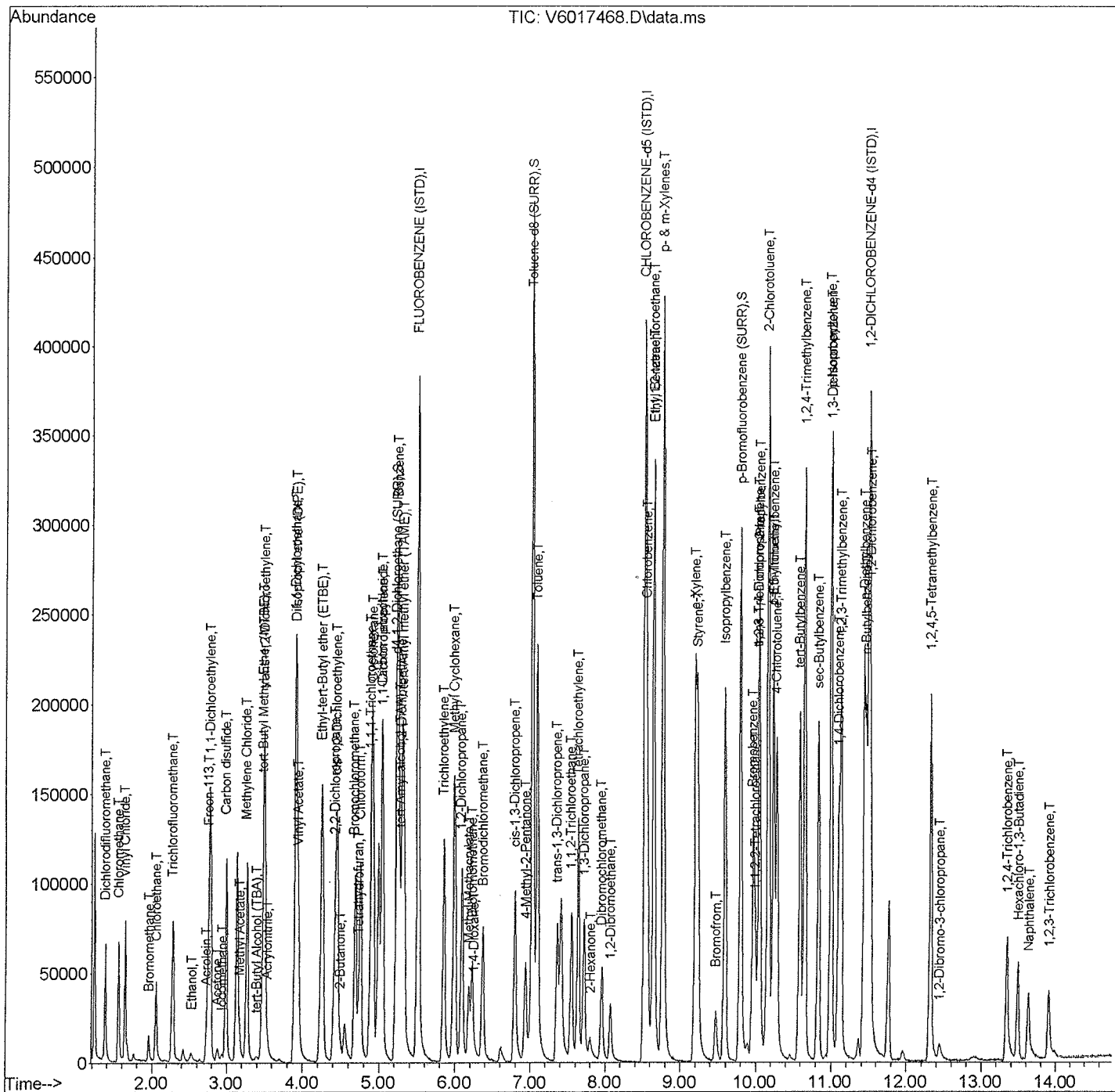
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 2-Chlorotoluene	10.152	91	151577	3.30	ppb	99
77) 4-Chlorotoluene	10.271	91	129906	3.08	ppb	100
78) 1,3,5-Trimethylbenzene	10.227	105	161666	3.22	ppb	97
79) tert-Butylbenzene	10.583	119	124573	3.22	ppb	96
80) 1,2,4-Trimethylbenzene	10.647	105	161829	3.25	ppb	# 81
81) sec-Butylbenzene	10.830	105	172694	3.20	ppb	98
82) 1,3-Dichlorobenzene	10.995	146	77419	3.48	ppb	99
83) p-Isopropyltoluene	10.989	119	156217	3.19	ppb	97
84) 1,4-Dichlorobenzene	11.092	146	74314	3.27	ppb	96
85) 1,2,3-Trimethylbenzene	11.123	105	134966	3.56	ppb	# 89
86) p-Diethylbenzene	11.429	105	94211	3.35	ppb	# 51
87) 1,2-Dichlorobenzene	11.512	146	67153	3.71	ppb	97
88) n-Butylbenzene	11.456	91	170672	3.25	ppb	89
89) 1,2-Dibromo-3-chloropr...	12.436	75	4006m	4.66	ppb	
90) 1,2,4,5-Tetramethylben...	12.313	119	146095	3.71	ppb	96
91) 1,2,4-Trichlorobenzene	13.337	180	31446	4.16	ppb	98
92) Hexachloro-1,3-Butadiene	13.488	225	12823	3.54	ppb	96
93) Naphthalene	13.627	128	47880	4.98	ppb	# 81
94) 1,2,3-Trichlorobenzene	13.899	180	19508	5.13	ppb	91

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

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017468.D
Acq On : 3 Mar 2016 3:10 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 3
Misc : QBV6030316A <2 BGS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 09:33:42 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017469.D
 Acq On : 3 Mar 2016 3:41 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 4
 Misc : QBV6030316A <2 BGS
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 04 09:39:32 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.500	70	79533	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	8.519	117	288919	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.490	152	115188	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.219	65	97666	12.45	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	124.50%	
51) Toluene-d8 (SURR)	7.019	98	390572	9.49	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	94.90%	
70) p-Bromofluorobenzene (...)	9.784	95	143495	8.93	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	89.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.371	85	71097	7.01	ppb	99
3) Chloromethane	1.546	50	112246	8.17	ppb	94
4) Vinyl Chloride	1.638	62	126564	8.89	ppb	98
5) Bromomethane	1.955	94	25034	5.20	ppb	97
6) Chloroethane	2.050	64	81745	9.46	ppb	98
7) Trichlorofluoromethane	2.278	101	160594	9.85	ppb	99
8) Ethanol	2.523	45	16551	661.10	ppb	100
9) Freon-113	2.754	101	103859	9.87	ppb	97
10) 1,1-Dichloroethylene	2.776	61	195261	10.08	ppb	# 94
11) Acrolein	2.720	56	13022	13.53	ppb	92
12) Acetone	2.868	43	23369	13.77	ppb	99
13) Iodomethane	2.937	142	28789	5.13	ppb	98
14) Methyl Acetate	3.163	43	59188	14.00	ppb	99
15) Carbon disulfide	2.987	76	393123	9.79	ppb	100
16) tert-Butyl Alcohol (TBA)	3.394	59	9654m	15.57	ppb	
17) Methylene Chloride	3.260	49	182880	10.96	ppb	92
18) Acrylonitrile	3.530	53	24094	13.18	ppb	95
19) trans-1,2-Dichloroethy...	3.497	61	199755	10.25	ppb	# 71
20) tert-Butyl Methyl Ethe...	3.477	73	345427	13.13	ppb	# 93
21) 1,1-Dichloroethane	3.900	63	258250	10.44	ppb	99
22) Vinyl Acetate	3.936	43	433114	12.02	ppb	100
23) Diisopropyl ether (DIPE)	3.914	45	500913	10.17	ppb	97
24) Ethyl-tert-Butyl ether...	4.248	59	451998	10.79	ppb	# 90
25) cis-1,2-Dichloroethylene	4.445	61	228963	10.59	ppb	95
26) 2-Butanone	4.476	72	10339m	15.13	ppb	
27) 2,2-Dichloropropane	4.420	77	196065	10.51	ppb	94
28) Tetrahydrofuran	4.724	42	27989	15.72	ppb	78

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017469.D
 Acq On : 3 Mar 2016 3:41 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 4
 Misc : QBV6030316A <2 BGS
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 04 09:39:32 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) Bromochloromethane	4.676	49	112767	12.43	ppb	93
30) Chloroform	4.749	83	235314	10.64	ppb	# 69
31) 1,1,1-Trichloroethane	4.882	97	198594	10.44	ppb	# 86
32) Cyclohexane	4.904	56	218321	9.75	ppb	89
33) 1,1-Dichloropropylene	5.035	75	186382	10.57	ppb	# 87
35) Carbon Tetrachloride	5.027	117	157338	10.45	ppb	# 91
36) tert-Amyl alcohol (TAA)	5.272	59	95018	152.40	ppb	# 53
37) 1,2-Dichloroethane	5.288	62	144046	12.67	ppb	99
38) Benzene	5.238	78	540489	10.39	ppb	# 90
39) tert-Amyl methyl ether...	5.308	73	443193	12.14	ppb	# 90
41) Trichloroethylene	5.845	95	136102	9.72	ppb	98
42) Methyl Cyclohexane	5.990	83	195242	9.42	ppb	93
43) Methyl Methacrylate	6.173	69	65766	13.95	ppb	# 77
44) Dibromomethane	6.218	93	65524	12.42	ppb	96
45) Bromodichloromethane	6.360	83	168257	10.86	ppb	97
46) 1,2-Dichloropropane	6.081	63	144563	10.47	ppb	# 81
47) 1,4-Dioxane	6.234	88	15206m	319.37	ppb	
49) cis-1,3-Dichloropropene	6.785	75	207449	11.38	ppb	97
50) 4-Methyl-2-Pentanone	6.927	43	148356	14.70	ppb	95
52) Toluene	7.088	91	555488	9.93	ppb	99
53) trans-1,3-Dichloropropene	7.353	75	174671	12.51	ppb	100
54) 1,1,2-Trichloroethane	7.539	97	96149	12.81	ppb	93
55) 1,3-Dichloropropane	7.709	76	167701	12.97	ppb	97
56) Tetrachloroethylene	7.634	166	134877	9.94	ppb	100
57) 2-Hexanone	7.781	43	50318	13.25	ppb	# 95
58) Dibromochloromethane	7.948	129	105633	12.34	ppb	97
59) 1,2-Dibromoethane	8.062	107	89839	13.35	ppb	92
60) Chlorobenzene	8.546	112	323260	10.26	ppb	97
61) 1,1,1,2-tetrachloroethane	8.635	131	115322	10.84	ppb	92
62) Ethyl Benzene	8.638	91	601387	10.07	ppb	99
63) p- & m-Xylenes	8.761	91	902422	20.51	ppb	97
64) o-Xylene	9.192	91	448865	10.11	ppb	100
65) Styrene	9.220	104	367725	10.67	ppb	# 77
66) Bromofrom	9.467	173	53331	13.63	ppb	# 84
68) p-Ethyltoluene	10.224	105	454431	8.50	ppb	# 79
69) Isopropylbenzene	9.579	105	535099	8.49	ppb	97
71) 1,1,2,2-Tetrachloroethane	9.976	83	105149	11.63	ppb	# 77
72) Bromobenzene	9.949	77	210921	9.31	ppb	98
73) trans-1,4-Dichloro-2-b...	10.024	75	96817	11.38	ppb	87
74) 1,2,3-Trichloropropane	10.021	110	27196	12.45	ppb	# 15
75) n-Propylbenzene	10.032	91	631343	8.57	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017469.D
 Acq On : 3 Mar 2016 3:41 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 4
 Misc : QBV6030316A <2 BGS
 ALS Vial : 1 Sample Multiplier: 1

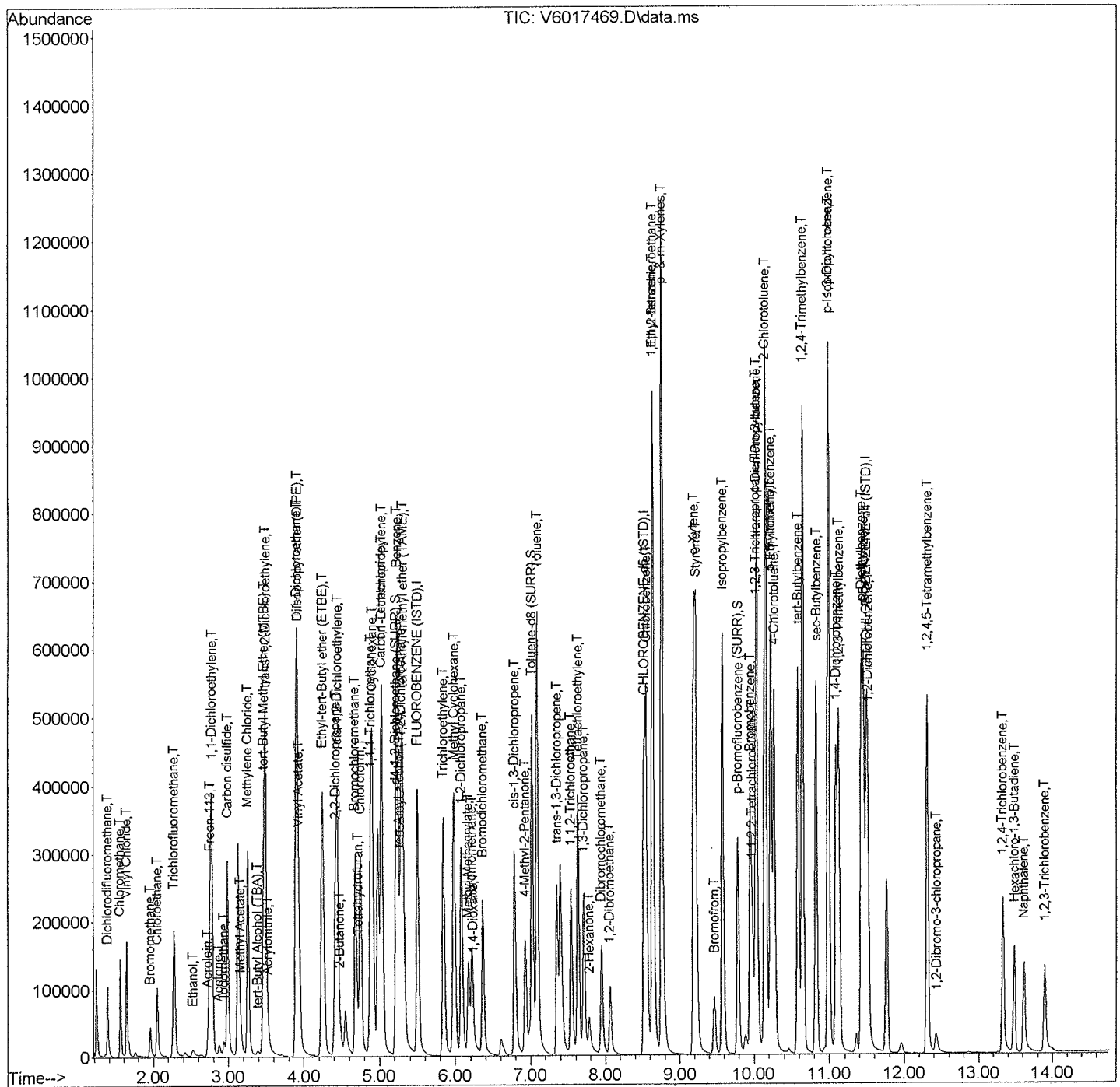
Quant Time: Mar 04 09:39:32 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
76) 2-Chlorotoluene	10.146	91	418890	8.59	ppb	99
77) 4-Chlorotoluene	10.269	91	383278	8.57	ppb	100
78) 1,3,5-Trimethylbenzene	10.224	105	454431	8.52	ppb	98
79) tert-Butylbenzene	10.580	119	349701	8.51	ppb	97
80) 1,2,4-Trimethylbenzene	10.644	105	449578	8.51	ppb	# 79
81) sec-Butylbenzene	10.828	105	484763	8.47	ppb	98
82) 1,3-Dichlorobenzene	10.986	146	219629	9.29	ppb	98
83) p-Isopropyltoluene	10.989	119	448372	8.63	ppb	98
84) 1,4-Dichlorobenzene	11.087	146	217883	9.04	ppb	97
85) 1,2,3-Trimethylbenzene	11.120	105	337799	8.39	ppb	# 88
86) p-Diethylbenzene	11.420	105	243747	8.17	ppb	# 45
87) 1,2-Dichlorobenzene	11.512	146	192613	10.04	ppb	# 86
88) n-Butylbenzene	11.451	91	478062	8.58	ppb	91
89) 1,2-Dibromo-3-chloropr...	12.433	75	12716m	13.95	ppb	
90) 1,2,4,5-Tetramethylben...	12.311	119	374134	8.96	ppb	96
91) 1,2,4-Trichlorobenzene	13.326	180	98492	12.28	ppb	96
92) Hexachloro-1,3-Butadiene	13.485	225	35975	9.36	ppb	96
93) Naphthalene	13.616	128	146487	14.36	ppb	98
94) 1,2,3-Trichlorobenzene	13.891	180	56393	13.98	ppb	99

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

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017469.D
Acq On : 3 Mar 2016 3:41 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 4
Misc : QBV6030316A <2 BGS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 04 09:39:32 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017470.D
 Acq On : 3 Mar 2016 4:10 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 5
 Misc : QBV6030316A <2 BGS
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 09:43:07 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.503	70	79492	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	8.518	117	290612	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.490	152	117969	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.216	65	96751	12.34	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	123.40%		
51) Toluene-d8 (SURR)	7.022	98	392407	9.48	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	94.80%		
70) p-Bromofluorobenzene (...)	9.784	95	144241	8.77	ppb	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	87.70%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.374	85	217298	21.44	ppb	99
3) Chloromethane	1.549	50	268524	19.55	ppb	94
4) Vinyl Chloride	1.638	62	294973	20.72	ppb	98
5) Bromomethane	1.955	94	80153	16.66	ppb	98
6) Chloroethane	2.050	64	180227	20.87	ppb	98
7) Trichlorofluoromethane	2.281	101	349118	21.41	ppb	99
8) Ethanol	2.523	45	37710	1507.04	ppb	100
9) Freon-113	2.754	101	220278	20.94	ppb	97
10) 1,1-Dichloroethylene	2.773	61	413408	21.35	ppb	# 94
11) Acrolein	2.720	56	28676	29.81	ppb	92
12) Acetone	2.868	43	48009	28.31	ppb	99
13) Iodomethane	2.937	142	100700	17.96	ppb	98
14) Methyl Acetate	3.160	43	130193	30.81	ppb	100
15) Carbon disulfide	2.985	76	845044	21.05	ppb	100
16) tert-Butyl Alcohol (TBA)	3.388	59	20938	33.78	ppb	# 97
17) Methylene Chloride	3.260	49	375912	22.54	ppb	92
18) Acrylonitrile	3.527	53	53602	29.33	ppb	93
19) trans-1,2-Dichloroethy...	3.494	61	415403	21.32	ppb	99
20) tert-Butyl Methyl Ethe...	3.477	73	728392	27.70	ppb	98
21) 1,1-Dichloroethane	3.900	63	533892	21.59	ppb	# 88
22) Vinyl Acetate	3.936	43	901734	25.04	ppb	100
23) Diisopropyl ether (DIPE)	3.911	45	1028161	20.88	ppb	97
24) Ethyl-tert-Butyl ether...	4.248	59	939437	22.43	ppb	# 89
25) cis-1,2-Dichloroethylene	4.445	61	468280	21.67	ppb	# 82
26) 2-Butanone	4.473	72	18511	27.11	ppb	# 1
27) 2,2-Dichloropropane	4.417	77	401522	21.53	ppb	94
28) Tetrahydrofuran	4.715	42	60697	34.11	ppb	79

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017470.D
 Acq On : 3 Mar 2016 4:10 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 5
 Misc : QBV6030316A <2 BGS
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 09:43:07 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
29) Bromochloromethane	4.676	49	224055	24.71	ppb	93
30) Chloroform	4.746	83	480916	21.76	ppb #	96
31) 1,1,1-Trichloroethane	4.882	97	406580	21.38	ppb #	87
32) Cyclohexane	4.907	56	458339	20.49	ppb	89
33) 1,1-Dichloropropylene	5.038	75	379476	21.54	ppb #	86
35) Carbon Tetrachloride	5.027	117	327180	21.74	ppb	99
36) tert-Amyl alcohol (TAA)	5.269	59	213187	342.11	ppb #	53
37) 1,2-Dichloroethane	5.288	62	302777	26.65	ppb #	98
38) Benzene	5.238	78	1111840	21.39	ppb #	94
39) tert-Amyl methyl ether...	5.308	73	927816	25.43	ppb #	90
41) Trichloroethylene	5.845	95	278959	19.81	ppb	97
42) Methyl Cyclohexane	5.984	83	405289	19.44	ppb	92
43) Methyl Methacrylate	6.167	69	144762	30.52	ppb #	67
44) Dibromomethane	6.215	93	139318	26.25	ppb	95
45) Bromodichloromethane	6.359	83	354388	22.74	ppb	98
46) 1,2-Dichloropropane	6.078	63	301485	21.70	ppb	95
47) 1,4-Dioxane	6.234	88	32549m	679.63	ppb	
49) cis-1,3-Dichloropropene	6.782	75	440868	24.04	ppb	96
50) 4-Methyl-2-Pentanone	6.924	43	335163	33.02	ppb	96
52) Toluene	7.088	91	1138789	20.24	ppb	99
53) trans-1,3-Dichloropropene	7.347	75	370179	26.36	ppb	99
54) 1,1,2-Trichloroethane	7.539	97	200215	26.52	ppb	93
55) 1,3-Dichloropropane	7.706	76	351348	27.02	ppb #	87
56) Tetrachloroethylene	7.634	166	272609	19.96	ppb #	71
57) 2-Hexanone	7.776	43	127343	33.34	ppb #	92
58) Dibromochloromethane	7.945	129	228222	26.51	ppb	97
59) 1,2-Dibromoethane	8.065	107	190413	28.12	ppb	94
60) Chlorobenzene	8.546	112	666842	21.04	ppb	97
61) 1,1,1,2-tetrachloroethane	8.635	131	241079	22.53	ppb	92
62) Ethyl Benzene	8.638	91	1229200	20.47	ppb	100
63) p- & m-Xylenes	8.758	91	1851581	41.84	ppb	97
64) o-Xylene	9.189	91	917597	20.55	ppb	100
65) Styrene	9.217	104	758305	21.88	ppb #	77
66) Bromofrom	9.464	173	116908	29.70	ppb	98
68) p-Ethyltoluene	10.224	105	921309	16.83	ppb #	79
69) Isopropylbenzene	9.579	105	1079685	16.73	ppb	97
71) 1,1,2,2-Tetrachloroethane	9.976	83	221044	23.88	ppb #	77
72) Bromobenzene	9.946	77	437681	18.86	ppb	98
73) trans-1,4-Dichloro-2-b...	10.021	75	222671	25.56	ppb	90
74) 1,2,3-Trichloropropane	10.021	110	57529	25.72	ppb #	18
75) n-Propylbenzene	10.032	91	1270415	16.83	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017470.D
Acq On : 3 Mar 2016 4:10 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 5
Misc : QBV6030316A <2 BGS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 09:43:07 2016

Quant Method : C:\msdchem\1\METHODS\V6LO0082.M

Quant Title : Volatile Organics EPA 8260C

QLast Update : Tue Mar 01 10:09:23 2016

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
76) 2-Chlorotoluene	10.149	91	852768	17.07	ppb	99
77) 4-Chlorotoluene	10.269	91	788398	17.21	ppb	100
78) 1,3,5-Trimethylbenzene	10.224	105	921309	16.87	ppb	98
79) tert-Butylbenzene	10.580	119	707296	16.82	ppb	97
80) 1,2,4-Trimethylbenzene	10.644	105	916588	16.94	ppb	# 80
81) sec-Butylbenzene	10.825	105	978867	16.70	ppb	99
82) 1,3-Dichlorobenzene	10.984	146	454192	18.76	ppb	98
83) p-Isopropyltoluene	10.989	119	905488	17.03	ppb	97
84) 1,4-Dichlorobenzene	11.084	146	456480	18.49	ppb	97
85) 1,2,3-Trimethylbenzene	11.123	105	708967	17.20	ppb	# 89
86) p-Diethylbenzene	11.423	105	495674	16.22	ppb	# 47
87) 1,2-Dichlorobenzene	11.509	146	395996	20.15	ppb	# 86
88) n-Butylbenzene	11.454	91	955664	16.74	ppb	92
89) 1,2-Dibromo-3-chloropr...	12.425	75	26584	28.48	ppb	# 45
90) 1,2,4,5-Tetramethylben...	12.308	119	763961	17.87	ppb	95
91) 1,2,4-Trichlorobenzene	13.323	180	204168	24.86	ppb	97
92) Hexachloro-1,3-Butadiene	13.482	225	69583	17.68	ppb	96
93) Naphthalene	13.613	128	328333	31.43	ppb	98
94) 1,2,3-Trichlorobenzene	13.894	180	120005	29.05	ppb	98

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

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017471.D
 Acq On : 3 Mar 2016 4:40 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 6
 Misc : QBV6030316A <2 BGS
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 09:48:45 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.500	70	79123	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.516	117	288239	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.490	152	115016	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.216	65	96950	12.42	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	124.20%	
51) Toluene-d8 (SURR)	7.022	98	394066	9.60	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	96.00%	
70) p-Bromofluorobenzene (...)	9.782	95	143131	8.92	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	89.20%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.374	85	405368	40.18	ppb	99
3) Chloromethane	1.549	50	528513	38.66	ppb	94
4) Vinyl Chloride	1.638	62	580451	40.96	ppb	98
5) Bromomethane	1.955	94	218841	45.69	ppb	97
6) Chloroethane	2.050	64	352543	41.01	ppb	98
7) Trichlorofluoromethane	2.281	101	679334	41.86	ppb	100
8) Ethanol	2.520	45	77575	3114.66	ppb	100
9) Freon-113	2.756	101	429744	41.05	ppb	# 80
10) 1,1-Dichloroethylene	2.776	61	812784	42.17	ppb	# 94
11) Acrolein	2.718	56	57723	60.28	ppb	92
12) Acetone	2.871	43	93615	55.47	ppb	99
13) Iodomethane	2.935	142	263261	47.17	ppb	98
14) Methyl Acetate	3.160	43	260415	61.92	ppb	100
15) Carbon disulfide	2.985	76	1653056	41.37	ppb	100
16) tert-Butyl Alcohol (TBA)	3.388	59	41915	67.94	ppb	# 97
17) Methylene Chloride	3.260	49	744921	44.88	ppb	92
18) Acrylonitrile	3.522	53	120350	66.17	ppb	# 94
19) trans-1,2-Dichloroethy...	3.497	61	825270	42.55	ppb	99
20) tert-Butyl Methyl Ethe...	3.472	73	1436390	54.88	ppb	98
21) 1,1-Dichloroethane	3.900	63	1055884	42.89	ppb	99
22) Vinyl Acetate	3.933	43	1797449	50.14	ppb	100
23) Diisopropyl ether (DIPE)	3.908	45	2051608	41.85	ppb	97
24) Ethyl-tert-Butyl ether...	4.248	59	1875365	44.99	ppb	98
25) cis-1,2-Dichloroethylene	4.445	61	931989	43.33	ppb	95
26) 2-Butanone	4.470	72	41384	60.89	ppb	80
27) 2,2-Dichloropropane	4.417	77	791221	42.62	ppb	# 83
28) Tetrahydrofuran	4.712	42	122037	68.91	ppb	79

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017471.D
 Acq On : 3 Mar 2016 4:40 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 6
 Misc : QBV6030316A <2 BGS
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 09:48:45 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
29) Bromochloromethane	4.676	49	440663	48.82	ppb	93
30) Chloroform	4.746	83	965616	43.90	ppb	# 67
31) 1,1,1-Trichloroethane	4.882	97	813721	42.98	ppb	99
32) Cyclohexane	4.904	56	892165	40.07	ppb	89
33) 1,1-Dichloropropylene	5.035	75	754507	43.02	ppb	# 85
35) Carbon Tetrachloride	5.027	117	653062	43.59	ppb	99
36) tert-Amyl alcohol (TAA)	5.266	59	429790	692.92	ppb	# 53
37) 1,2-Dichloroethane	5.288	62	610623	54.00	ppb	99
38) Benzene	5.238	78	2197373	42.47	ppb	# 97
39) tert-Amyl methyl ether...	5.308	73	1858079	51.17	ppb	# 88
41) Trichloroethylene	5.845	95	561340	40.19	ppb	97
42) Methyl Cyclohexane	5.984	83	788686	38.14	ppb	92
43) Methyl Methacrylate	6.165	69	298569	63.46	ppb	# 67
44) Dibromomethane	6.215	93	281695	53.51	ppb	96
45) Bromodichloromethane	6.359	83	719384	46.55	ppb	97
46) 1,2-Dichloropropane	6.078	63	600527	43.58	ppb	95
47) 1,4-Dioxane	6.223	88	63198m	1330.46	ppb	
49) cis-1,3-Dichloropropene	6.782	75	884168	48.61	ppb	96
50) 4-Methyl-2-Pentanone	6.922	43	680964	67.64	ppb	95
52) Toluene	7.088	91	2243562	40.21	ppb	99
53) trans-1,3-Dichloropropene	7.344	75	749915	53.84	ppb	99
54) 1,1,2-Trichloroethane	7.539	97	397144	53.05	ppb	93
55) 1,3-Dichloropropane	7.709	76	700089	54.28	ppb	# 87
56) Tetrachloroethylene	7.634	166	543234	40.11	ppb	99
57) 2-Hexanone	7.770	43	265964	70.20	ppb	# 95
58) Dibromochloromethane	7.945	129	466378	54.61	ppb	97
59) 1,2-Dibromoethane	8.062	107	381171	56.76	ppb	91
60) Chlorobenzene	8.546	112	1315369	41.85	ppb	98
61) 1,1,1,2-tetrachloroethane	8.635	131	479787	45.21	ppb	93
62) Ethyl Benzene	8.638	91	2393677	40.19	ppb	99
63) p- & m-Xylenes	8.761	91	3590990	81.81	ppb	97
64) o-Xylene	9.192	91	1786486	40.33	ppb	100
65) Styrene	9.217	104	1505862	43.80	ppb	# 77
66) Bromofrom	9.462	173	244053	62.52	ppb	# 78
68) p-Ethyltoluene	10.224	105	1774778	33.26	ppb	# 79
69) Isopropylbenzene	9.579	105	2091316	33.24	ppb	96
71) 1,1,2,2-Tetrachloroethane	9.976	83	437288	48.45	ppb	# 77
72) Bromobenzene	9.946	77	868488	38.39	ppb	98
73) trans-1,4-Dichloro-2-b...	10.021	75	459110	54.05	ppb	91
74) 1,2,3-Trichloropropane	10.018	110	113258	51.94	ppb	# 16
75) n-Propylbenzene	10.032	91	2475670	33.64	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017471.D
Acq On : 3 Mar 2016 4:40 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 6
Misc : QBV6030316A <2 BGS
ALS Vial : 3 Sample Multiplier: 1

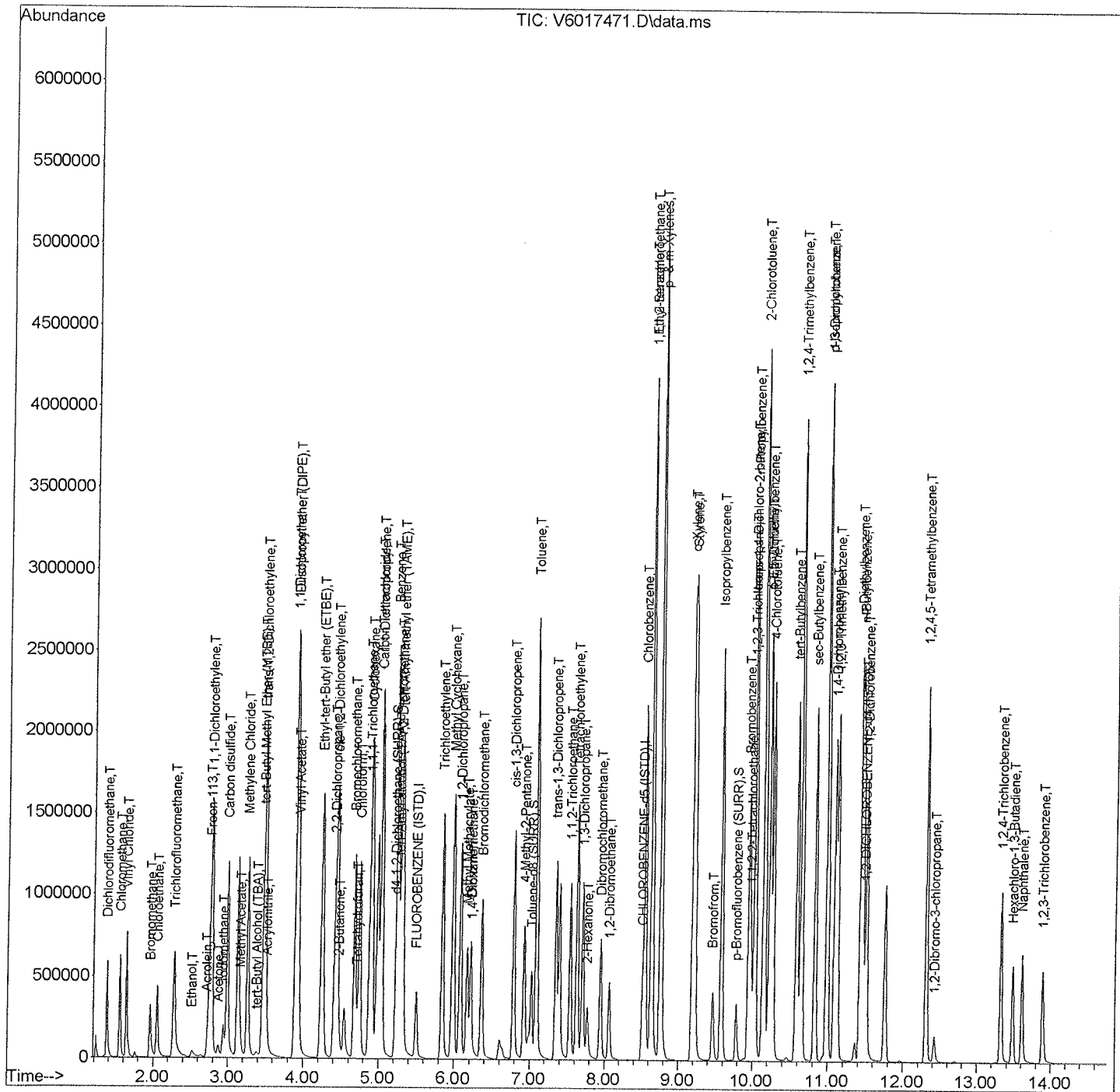
Quant Time: Mar 04 09:48:45 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
76) 2-Chlorotoluene	10.149	91	1678265	34.46	ppb	99
77) 4-Chlorotoluene	10.269	91	1555839	34.83	ppb	100
78) 1,3,5-Trimethylbenzene	10.224	105	1774778	33.33	ppb	97
79) tert-Butylbenzene	10.583	119	1356600	33.08	ppb	97
80) 1,2,4-Trimethylbenzene	10.644	105	1795385	34.03	ppb	# 81
81) sec-Butylbenzene	10.825	105	1886109	33.01	ppb	99
82) 1,3-Dichlorobenzene	10.984	146	895644	37.94	ppb	98
83) p-Isopropyltoluene	10.989	119	1746813	33.69	ppb	97
84) 1,4-Dichlorobenzene	11.087	146	928028	38.56	ppb	97
85) 1,2,3-Trimethylbenzene	11.123	105	1407094	35.01	ppb	# 89
86) p-Diethylbenzene	11.423	105	978106	32.82	ppb	# 47
87) 1,2-Dichlorobenzene	11.512	146	788204	41.13	ppb	# 86
88) n-Butylbenzene	11.451	91	1865513	33.52	ppb	92
89) 1,2-Dibromo-3-chloropr...	12.422	75	54117	59.46	ppb	# 45
90) 1,2,4,5-Tetramethylben...	12.308	119	1511247	36.26	ppb	96
91) 1,2,4-Trichlorobenzene	13.323	180	402228	50.23	ppb	97
92) Hexachloro-1,3-Butadiene	13.482	225	133200	34.71	ppb	96
93) Naphthalene	13.610	128	647911	63.62	ppb	98
94) 1,2,3-Trichlorobenzene	13.885	180	227865	56.58	ppb	98

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

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017471.D
Acq On : 3 Mar 2016 4:40 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 6
Misc : QBV6030316A <2 BGS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 09:48:45 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017472.D
 Acq On : 3 Mar 2016 5:09 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 7
 Misc : QBV6030316A <2 BGS
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 09:52:44 2016

Quant Method : C:\msdchem\1\METHODS\V6LO0082.M

Quant Title : Volatile Organics EPA 8260C

QLast Update : Tue Mar 01 10:09:23 2016

Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.500	70	78548	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.516	117	285940	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.490	152	111953	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.219	65	99192	12.80	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	128.00%	
51) Toluene-d8 (SURR)	7.019	98	387828	9.52	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	95.20%	
70) p-Bromofluorobenzene (...)	9.782	95	140648	9.01	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	90.10%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.374	85	765738	76.46	ppb	99
3) Chloromethane	1.549	50	1111945	81.94	ppb	95
4) Vinyl Chloride	1.638	62	1093620	77.75	ppb	98
5) Bromomethane	1.955	94	462405	97.24	ppb	98
6) Chloroethane	2.050	64	675678	79.17	ppb	98
7) Trichlorofluoromethane	2.278	101	1335916	82.93	ppb	99
8) Ethanol	2.520	45	149432	6043.65	ppb	100
9) Freon-113	2.754	101	863177	83.05	ppb	97
10) 1,1-Dichloroethylene	2.776	61	1594512	83.34	ppb	# 94
11) Acrolein	2.718	56	120328	126.59	ppb	93
12) Acetone	2.868	43	186417	111.26	ppb	98
13) Iodomethane	2.935	142	506196	91.36	ppb	98
14) Methyl Acetate	3.157	43	519696	124.47	ppb	100
15) Carbon disulfide	2.985	76	3254575	82.04	ppb	100
16) tert-Butyl Alcohol (TBA)	3.388	59	84821	138.50	ppb	# 97
17) Methylene Chloride	3.260	49	1501924	91.15	ppb	93
18) Acrylonitrile	3.522	53	244738	135.54	ppb	96
19) trans-1,2-Dichloroethy...	3.494	61	1645901	85.48	ppb	99
20) tert-Butyl Methyl Ethe...	3.474	73	2886197	111.08	ppb	98
21) 1,1-Dichloroethane	3.900	63	2083491	85.25	ppb	# 88
22) Vinyl Acetate	3.933	43	3547353	99.68	ppb	100
23) Diisopropyl ether (DIPE)	3.911	45	4054273	83.31	ppb	97
24) Ethyl-tert-Butyl ether...	4.245	59	3793948	91.69	ppb	# 90
25) cis-1,2-Dichloroethylene	4.443	61	1886367	88.34	ppb	95
26) 2-Butanone	4.470	72	88036	130.49	ppb	85
27) 2,2-Dichloropropane	4.420	77	1587725	86.14	ppb	# 83
28) Tetrahydrofuran	4.712	42	252990	143.90	ppb	78

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017472.D
 Acq On : 3 Mar 2016 5:09 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 7
 Misc : QBV6030316A <2 BGS
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 09:52:44 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
29) Bromochloromethane	4.676	49	859207	95.89	ppb	93
30) Chloroform	4.746	83	1958529	89.68	ppb	# 67
31) 1,1,1-Trichloroethane	4.882	97	1640674	87.30	ppb	# 87
32) Cyclohexane	4.907	56	1807787	81.78	ppb	89
33) 1,1-Dichloropropylene	5.035	75	1527069	87.71	ppb	# 84
35) Carbon Tetrachloride	5.027	117	1337417	89.93	ppb	99
36) tert-Amyl alcohol (TAA)	5.266	59	893606	1451.24	ppb	# 53
37) 1,2-Dichloroethane	5.286	62	1234314	109.96	ppb	99
38) Benzene	5.236	78	4392592	85.52	ppb	# 96
39) tert-Amyl methyl ether...	5.308	73	3773505	104.69	ppb	# 90
41) Trichloroethylene	5.842	95	1137982	82.13	ppb	97
42) Methyl Cyclohexane	5.984	83	1633710	79.65	ppb	93
43) Methyl Methacrylate	6.165	69	611392	131.00	ppb	# 65
44) Dibromomethane	6.212	93	569586	109.07	ppb	96
45) Bromodichloromethane	6.360	83	1480401	96.56	ppb	98
46) 1,2-Dichloropropane	6.079	63	1213610	88.79	ppb	95
47) 1,4-Dioxane	6.223	88	123282m	2616.23	ppb	
49) cis-1,3-Dichloropropene	6.782	75	1801491	99.83	ppb	96
50) 4-Methyl-2-Pentanone	6.922	43	1390094	139.18	ppb	96
52) Toluene	7.086	91	4465270	80.67	ppb	99
53) trans-1,3-Dichloropropene	7.344	75	1525253	110.39	ppb	99
54) 1,1,2-Trichloroethane	7.539	97	795884	107.16	ppb	93
55) 1,3-Dichloropropane	7.706	76	1388421	108.52	ppb	# 87
56) Tetrachloroethylene	7.631	166	1083718	80.66	ppb	# 71
57) 2-Hexanone	7.770	43	561709	149.45	ppb	# 95
58) Dibromochloromethane	7.945	129	942191	111.22	ppb	97
59) 1,2-Dibromoethane	8.060	107	766387	115.04	ppb	92
60) Chlorobenzene	8.546	112	2622729	84.11	ppb	98
61) 1,1,1,2-tetrachloroethane	8.638	131	954349	90.65	ppb	93
62) Ethyl Benzene	8.638	91	4753772	80.45	ppb	99
63) p- & m-Xylenes	8.761	91	7046624	161.83	ppb	97
64) o-Xylene	9.189	91	3553037	80.85	ppb	100
65) Styrene	9.217	104	2975513	87.25	ppb	# 77
66) Bromofrom	9.462	173	506604	130.82	ppb	# 78
68) p-Ethyltoluene	10.224	105	3519311	67.75	ppb	99
69) Isopropylbenzene	9.579	105	4153327	67.83	ppb	96
71) 1,1,2,2-Tetrachloroethane	9.976	83	878508	100.01	ppb	# 77
72) Bromobenzene	9.946	77	1752730	79.59	ppb	98
73) trans-1,4-Dichloro-2-b...	10.024	75	942759	114.03	ppb	92
74) 1,2,3-Trichloropropane	10.021	110	223287	105.21	ppb	# 15
75) n-Propylbenzene	10.029	91	4882614	68.16	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017472.D
Acq On : 3 Mar 2016 5:09 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 7
Misc : QBV6030316A <2 BGS
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 09:52:44 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76)	2-Chlorotoluene	10.146	91	3331684	70.29	ppb	99
77)	4-Chlorotoluene	10.269	91	3143743	72.30	ppb	100
78)	1,3,5-Trimethylbenzene	10.224	105	3519311	67.90	ppb	97
79)	tert-Butylbenzene	10.583	119	2675916	67.04	ppb	98
80)	1,2,4-Trimethylbenzene	10.644	105	3553590	69.21	ppb	# 81
81)	sec-Butylbenzene	10.825	105	3750700	67.44	ppb	98
82)	1,3-Dichlorobenzene	10.984	146	1761174	76.65	ppb	98
83)	p-Isopropyltoluene	10.989	119	3418871	67.74	ppb	97
84)	1,4-Dichlorobenzene	11.087	146	1822601	77.80	ppb	97
85)	1,2,3-Trimethylbenzene	11.120	105	2781872	71.12	ppb	# 89
86)	p-Diethylbenzene	11.423	105	1926110	66.40	ppb	# 47
87)	1,2-Dichlorobenzene	11.509	146	1559271	83.59	ppb	# 86
88)	n-Butylbenzene	11.454	91	3657909	67.53	ppb	92
89)	1,2-Dibromo-3-chloropr...	12.419	75	112214	126.68	ppb	# 84
90)	1,2,4,5-Tetramethylben...	12.308	119	2908453	71.69	ppb	96
91)	1,2,4-Trichlorobenzene	13.324	180	777252	99.72	ppb	97
92)	Hexachloro-1,3-Butadiene	13.479	225	256157	68.58	ppb	97
93)	Naphthalene	13.607	128	1309756	132.12	ppb	98
94)	1,2,3-Trichlorobenzene	13.886	180	459275	117.16	ppb	98

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

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017473.D
 Acq On : 3 Mar 2016 5:39 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 8
 Misc : QBV6030316A <2 BGS
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 09:57:48 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	5.497	70	78320	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.513	117	284117	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.487	152	115355	10.00	ppb	# 0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.213	65	99148	12.84	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	128.40%	
51) Toluene-d8 (SURR)	7.019	98	384833	9.51	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	95.10%	
70) p-Bromofluorobenzene (...)	9.782	95	143661	8.93	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	89.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.371	85	1165908	116.75	ppb	99
3) Chloromethane	1.544	50	1775689	131.23	ppb	95
4) Vinyl Chloride	1.635	62	1669481	119.03	ppb	98
5) Bromomethane	1.953	94	778994	164.30	ppb	97
6) Chloroethane	2.047	64	988190	116.12	ppb	98
7) Trichlorofluoromethane	2.278	101	2025931	126.13	ppb	100
8) Ethanol	2.520	45	271726	11021.73	ppb	100
9) Freon-113	2.751	101	1326886	128.03	ppb	97
10) 1,1-Dichloroethylene	2.776	61	2428781	127.31	ppb	# 94
11) Acrolein	2.715	56	194698	205.42	ppb	93
12) Acetone	2.868	43	297850	178.28	ppb	98
13) Iodomethane	2.935	142	806056	145.90	ppb	99
14) Methyl Acetate	3.157	43	795916	191.17	ppb	100
15) Carbon disulfide	2.985	76	4918905	124.36	ppb	100
16) tert-Butyl Alcohol (TBA)	3.385	59	134172	219.72	ppb	# 97
17) Methylene Chloride	3.260	49	2242065	136.47	ppb	93
18) Acrylonitrile	3.519	53	391590	217.51	ppb	97
19) trans-1,2-Dichloroethy...	3.494	61	2453613	127.81	ppb	99
20) tert-Butyl Methyl Ethe...	3.474	73	4346798	167.78	ppb	98
21) 1,1-Dichloroethane	3.900	63	3050580	125.18	ppb	99
22) Vinyl Acetate	3.933	43	5262042	148.30	ppb	100
23) Diisopropyl ether (DIPE)	3.908	45	5884576	121.28	ppb	98
24) Ethyl-tert-Butyl ether...	4.248	59	5628572	136.42	ppb	98
25) cis-1,2-Dichloroethylene	4.443	61	2803866	131.70	ppb	95
26) 2-Butanone	4.468	72	138275	205.55	ppb	86
27) 2,2-Dichloropropane	4.420	77	2401557	130.68	ppb	# 93
28) Tetrahydrofuran	4.710	42	384758	219.49	ppb	79

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017473.D
 Acq On : 3 Mar 2016 5:39 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 8
 Misc : QBV6030316A <2 BGS
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 09:57:48 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) Bromochloromethane	4.676	49	1269525	142.10	ppb	94
30) Chloroform	4.743	83	2916527	133.94	ppb	# 69
31) 1,1,1-Trichloroethane	4.882	97	2505518	133.71	ppb	# 86
32) Cyclohexane	4.907	56	2754952	124.99	ppb	89
33) 1,1-Dichloropropylene	5.035	75	2318714	133.57	ppb	# 84
35) Carbon Tetrachloride	5.027	117	2045512	137.94	ppb	99
36) tert-Amyl alcohol (TAA)	5.263	59	1435629	2338.28	ppb	# 53
37) 1,2-Dichloroethane	5.286	62	1877810	167.77	ppb	99
38) Benzene	5.236	78	6516185	127.23	ppb	# 95
39) tert-Amyl methyl ether...	5.305	73	5670609	157.78	ppb	# 90
41) Trichloroethylene	5.842	95	1716520	124.69	ppb	97
42) Methyl Cyclohexane	5.981	83	2505848	122.95	ppb	93
43) Methyl Methacrylate	6.165	69	942269	203.19	ppb	# 69
44) Dibromomethane	6.212	93	864809	166.66	ppb	96
45) Bromodichloromethane	6.357	83	2222534	145.90	ppb	98
46) 1,2-Dichloropropane	6.076	63	1803966	132.82	ppb	96
47) 1,4-Dioxane	6.221	88	194261m	4148.96	ppb	
49) cis-1,3-Dichloropropene	6.780	75	2684919	149.75	ppb	96
50) 4-Methyl-2-Pentanone	6.919	43	2136751	215.32	ppb	96
52) Toluene	7.086	91	6566598	119.40	ppb	99
53) trans-1,3-Dichloropropene	7.345	75	2295095	167.17	ppb	99
54) 1,1,2-Trichloroethane	7.539	97	1200483	162.67	ppb	93
55) 1,3-Dichloropropane	7.703	76	2089262	164.35	ppb	# 87
56) Tetrachloroethylene	7.631	166	1641714	122.97	ppb	# 71
57) 2-Hexanone	7.767	43	872652	233.68	ppb	# 95
58) Dibromochloromethane	7.943	129	1446032	171.78	ppb	97
59) 1,2-Dibromoethane	8.060	107	1171177	176.93	ppb	93
60) Chlorobenzene	8.546	112	3910847	126.22	ppb	98
61) 1,1,1,2-tetrachloroethane	8.635	131	1426071	136.33	ppb	93
62) Ethyl Benzene	8.638	91	6962834	118.60	ppb	99
63) p- & m-Xylenes	8.761	91	10183202	235.37	ppb	96
64) o-Xylene	9.192	91	5285917	121.06	ppb	100
65) Styrene	9.217	104	4440100	131.03	ppb	# 77
66) Bromofrom	9.459	173	795928	206.85	ppb	# 78
68) p-Ethyltoluene	10.224	105	5375826	100.44	ppb	# 79
69) Isopropylbenzene	9.579	105	6264133	99.28	ppb	95
71) 1,1,2,2-Tetrachloroethane	9.977	83	1372389	151.62	ppb	# 77
72) Bromobenzene	9.943	77	2673701	117.82	ppb	97
73) trans-1,4-Dichloro-2-b...	10.024	75	1477520	173.44	ppb	93
74) 1,2,3-Trichloropropane	10.018	110	349796	159.95	ppb	# 17
75) n-Propylbenzene	10.032	91	7327826	99.28	ppb	99

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017473.D
 Acq On : 3 Mar 2016 5:39 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 8
 Misc : QBV6030316A <2 BGS
 ALS Vial : 5 Sample Multiplier: 1

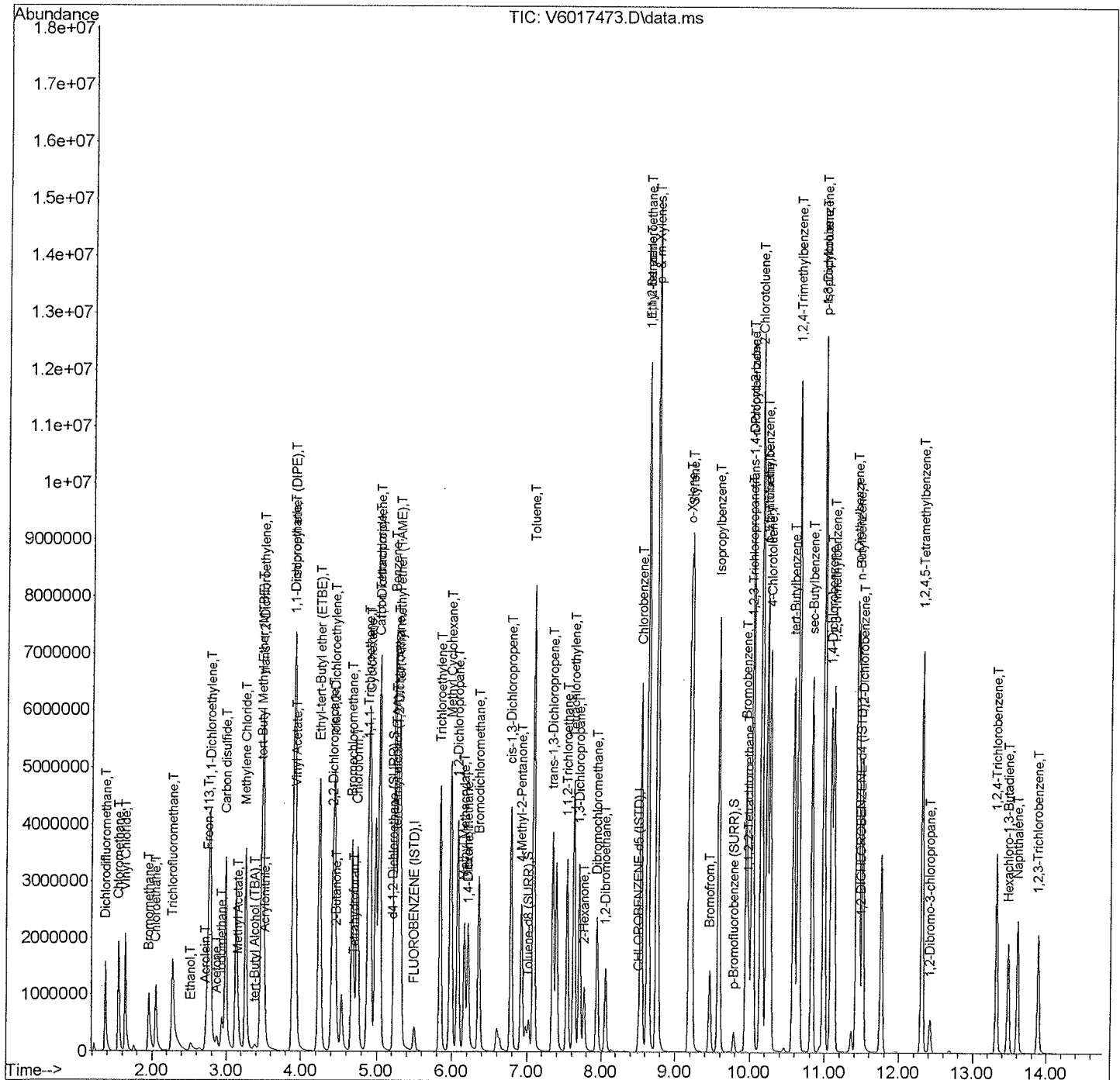
Quant Time: Mar 04 09:57:48 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76)	2-Chlorotoluene	10.146	91	5042782	103.25	ppb	99
77)	4-Chlorotoluene	10.269	91	4760643	106.26	ppb	100
78)	1,3,5-Trimethylbenzene	10.224	105	5375826	100.67	ppb	97
79)	tert-Butylbenzene	10.583	119	4135272	100.54	ppb	99
80)	1,2,4-Trimethylbenzene	10.647	105	5398415	102.03	ppb #	81
81)	sec-Butylbenzene	10.825	105	5802335	101.26	ppb	98
82)	1,3-Dichlorobenzene	10.984	146	2663832	112.52	ppb	97
83)	p-Isopropyltoluene	10.989	119	5248745	100.92	ppb	96
84)	1,4-Dichlorobenzene	11.084	146	2796146	115.84	ppb	96
85)	1,2,3-Trimethylbenzene	11.123	105	4288950	106.41	ppb #	89
86)	p-Diethylbenzene	11.423	105	3034847	101.53	ppb #	47
87)	1,2-Dichlorobenzene	11.510	146	2418107	125.81	ppb #	86
88)	n-Butylbenzene	11.451	91	5760836	103.22	ppb	92
89)	1,2-Dibromo-3-chloropr...	12.417	75	181175	198.49	ppb #	83
90)	1,2,4,5-Tetramethylben...	12.308	119	4630678	110.78	ppb	95
91)	1,2,4-Trichlorobenzene	13.318	180	1298689	161.71	ppb	97
92)	Hexachloro-1,3-Butadiene	13.479	225	435439	113.14	ppb	96
93)	Naphthalene	13.607	128	2165799	212.03	ppb	98
94)	1,2,3-Trichlorobenzene	13.883	180	769430	190.48	ppb	98

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

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017473.D
Acq On : 3 Mar 2016 5:39 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 8
Misc : QBV6030316A <2 BGS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 09:57:48 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017474.D
 Acq On : 3 Mar 2016 6:08 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 9
 Misc : QBV6030316A <2 BGS
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 10:00:05 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.497	70	81208	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.516	117	287156	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.487	152	115322	10.00	ppb	# 0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.216	65	101347	12.65	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	126.50%	
51) Toluene-d8 (SURR)	7.019	98	391210	9.57	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	95.70%	
70) p-Bromofluorobenzene (...)	9.782	95	145662	9.06	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	90.60%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.371	85	1554343	150.12	ppb	99
3) Chloromethane	1.546	50	2511945	179.04	ppb	95
4) Vinyl Chloride	1.638	62	2260356	155.43	ppb	98
5) Bromomethane	1.952	94	1069376	217.52	ppb	97
6) Chloroethane	2.047	64	1295421	146.81	ppb	98
7) Trichlorofluoromethane	2.278	101	2773799	166.54	ppb	99
8) Ethanol	2.517	45	321686	12584.16	ppb	100
9) Freon-113	2.751	101	1808811	168.33	ppb	97
10) 1,1-Dichloroethylene	2.773	61	3299890	166.82	ppb	# 94
11) Acrolein	2.717	56	262464	267.07	ppb	93
12) Acetone	2.865	43	385000	222.25	ppb	98
13) Iodomethane	2.934	142	1077802	188.16	ppb	98
14) Methyl Acetate	3.154	43	1057833	245.05	ppb	100
15) Carbon disulfide	2.985	76	6654152	162.25	ppb	100
16) tert-Butyl Alcohol (TBA)	3.385	59	174408	275.45	ppb	# 97
17) Methylene Chloride	3.257	49	3034183	178.12	ppb	93
18) Acrylonitrile	3.519	53	513383	275.02	ppb	96
19) trans-1,2-Dichloroethy...	3.494	61	3319803	166.78	ppb	99
20) tert-Butyl Methyl Ethe...	3.471	73	5823165	216.77	ppb	98
21) 1,1-Dichloroethane	3.900	63	4105330	162.47	ppb	99
22) Vinyl Acetate	3.933	43	7009254	190.51	ppb	100
23) Diisopropyl ether (DIPE)	3.908	45	7840190	155.83	ppb	98
24) Ethyl-tert-Butyl ether...	4.242	59	7620230	178.13	ppb	98
25) cis-1,2-Dichloroethylene	4.442	61	3791892	171.77	ppb	96
26) 2-Butanone	4.465	72	183360	262.87	ppb	86
27) 2,2-Dichloropropane	4.417	77	3256719	170.91	ppb	# 83
28) Tetrahydrofuran	4.710	42	509624	280.38	ppb	79

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017474.D
 Acq On : 3 Mar 2016 6:08 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 9
 Misc : QBV6030316A <2 BGS
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 10:00:05 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
29) Bromochloromethane	4.676	49	1725051	186.22	ppb	94
30) Chloroform	4.746	83	3931433	174.13	ppb	# 69
31) 1,1,1-Trichloroethane	4.882	97	3422816	176.17	ppb	# 73
32) Cyclohexane	4.907	56	3722488	162.88	ppb	90
33) 1,1-Dichloropropylene	5.035	75	3136791	174.27	ppb	# 83
35) Carbon Tetrachloride	5.027	117	2802306	182.26	ppb	99
36) tert-Amyl alcohol (TAA)	5.263	59	1813369	2848.49	ppb	# 53
37) 1,2-Dichloroethane	5.285	62	2536666	218.57	ppb	99
38) Benzene	5.235	78	8759890	164.96	ppb	# 95
39) tert-Amyl methyl ether...	5.308	73	7534113	202.17	ppb	# 91
41) Trichloroethylene	5.842	95	2340750	168.23	ppb	97
42) Methyl Cyclohexane	5.984	83	3385268	164.35	ppb	93
43) Methyl Methacrylate	6.165	69	1257792	268.35	ppb	# 69
44) Dibromomethane	6.212	93	1121036	213.76	ppb	96
45) Bromodichloromethane	6.357	83	3024404	196.44	ppb	98
46) 1,2-Dichloropropane	6.078	63	2441440	177.85	ppb	96
47) 1,4-Dioxane	6.223	88	262141	5539.46	ppb	94
49) cis-1,3-Dichloropropene	6.782	75	3625360	200.06	ppb	96
50) 4-Methyl-2-Pentanone	6.921	43	2801297	279.29	ppb	96
52) Toluene	7.086	91	8737442	157.18	ppb	99
53) trans-1,3-Dichloropropene	7.344	75	3078366	221.84	ppb	99
54) 1,1,2-Trichloroethane	7.539	97	1594848	213.83	ppb	93
55) 1,3-Dichloropropane	7.706	76	2776364	216.09	ppb	# 87
56) Tetrachloroethylene	7.634	166	2177553	161.38	ppb	99
57) 2-Hexanone	7.767	43	1149039	304.43	ppb	# 95
58) Dibromochloromethane	7.945	129	1909216	224.41	ppb	97
59) 1,2-Dibromoethane	8.062	107	1545171	230.96	ppb	92
60) Chlorobenzene	8.546	112	5217704	166.62	ppb	98
61) 1,1,1,2-tetrachloroethane	8.638	131	1870633	176.93	ppb	93
62) Ethyl Benzene	8.638	91	9093001	153.24	ppb	99
63) p- & m-Xylenes	8.763	91	13075587	299.02	ppb	95
64) o-Xylene	9.192	91	7030810	159.31	ppb	100
65) Styrene	9.220	104	5822323	170.01	ppb	# 77
66) Bromofrom	9.462	173	1067981	274.61	ppb	# 78
68) p-Ethyltoluene	10.227	105	7094998	132.60	ppb	99
69) Isopropylbenzene	9.581	105	8279601	131.26	ppb	95
71) 1,1,2,2-Tetrachloroethane	9.979	83	1789426	197.75	ppb	# 77
72) Bromobenzene	9.946	77	3573430	157.52	ppb	97
73) trans-1,4-Dichloro-2-b...	10.026	75	1935081	227.21	ppb	92
74) 1,2,3-Trichloropropane	10.018	110	452074	206.78	ppb	# 15
75) n-Propylbenzene	10.035	91	9603294	130.15	ppb	99

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017474.D
 Acq On : 3 Mar 2016 6:08 pm
 InstName : MSVOA6
 Operator : SS
 Sample : VOA CALIBRATION CURVE LEVEL 9
 Misc : QBV6030316A <2 BGS
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 10:00:05 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Tue Mar 01 10:09:23 2016
 Response via : Initial Calibration

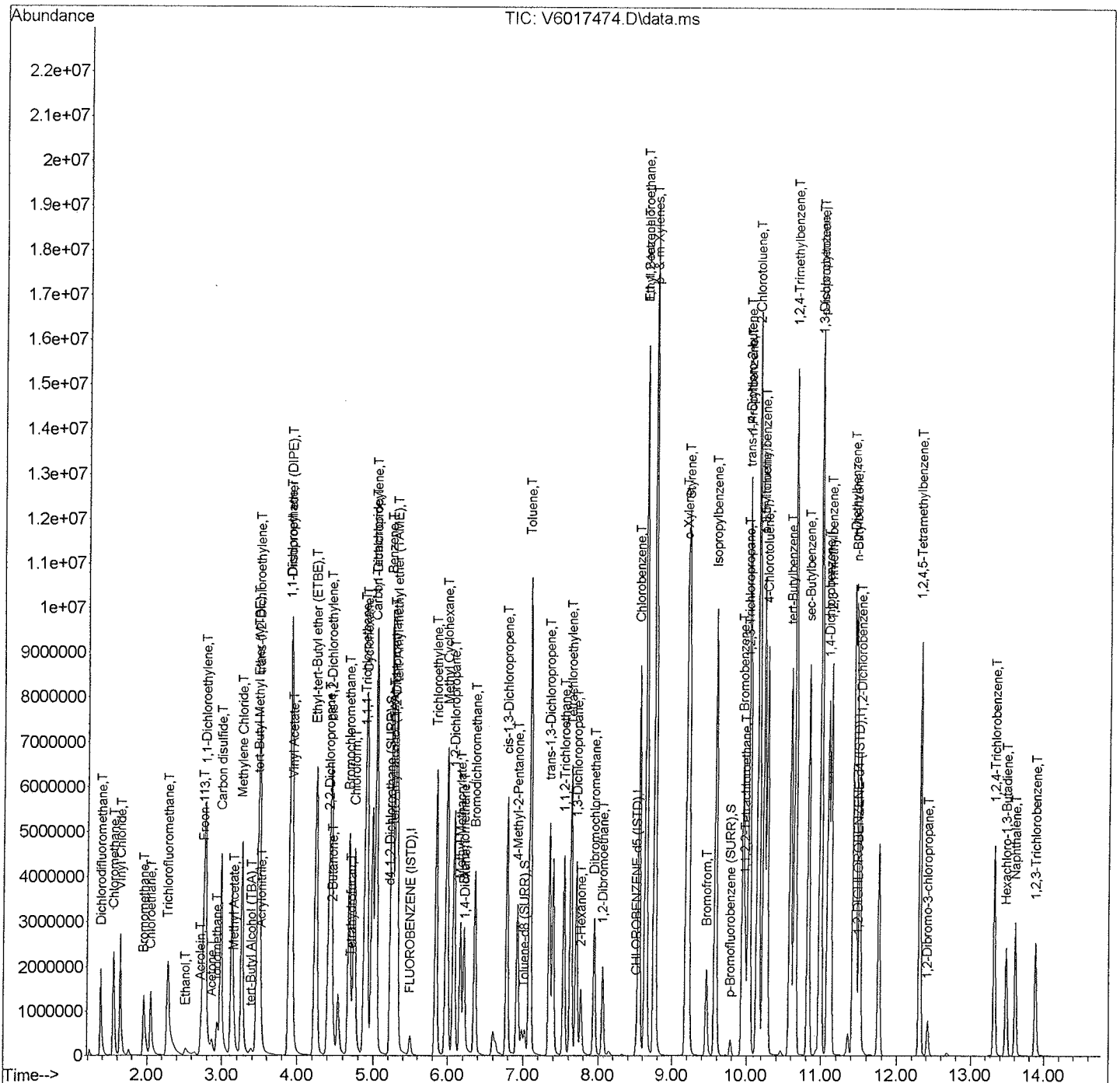
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
76) 2-Chlorotoluene	10.149	91	6634298	135.88	ppb	99
77) 4-Chlorotoluene	10.271	91	6274999	140.11	ppb	100
78) 1,3,5-Trimethylbenzene	10.227	105	7094998	132.90	ppb	97
79) tert-Butylbenzene	10.586	119	5488347	133.48	ppb	99
80) 1,2,4-Trimethylbenzene	10.647	105	7038597	133.07	ppb	# 81
81) sec-Butylbenzene	10.828	105	7643068	133.42	ppb	98
82) 1,3-Dichlorobenzene	10.984	146	3443148	145.48	ppb	96
83) p-Isopropyltoluene	10.992	119	6857972	131.90	ppb	96
84) 1,4-Dichlorobenzene	11.086	146	3660220	151.68	ppb	96
85) 1,2,3-Trimethylbenzene	11.123	105	5652194	140.28	ppb	# 89
86) p-Diethylbenzene	11.426	105	4007824	134.12	ppb	# 47
87) 1,2-Dichlorobenzene	11.512	146	3162173	164.58	ppb	98
88) n-Butylbenzene	11.454	91	7569838	135.67	ppb	92
89) 1,2-Dibromo-3-chloropr...	12.419	75	237683	260.48	ppb	# 84
90) 1,2,4,5-Tetramethylben...	12.308	119	6031689	144.34	ppb	95
91) 1,2,4-Trichlorobenzene	13.321	180	1664903	207.37	ppb	96
92) Hexachloro-1,3-Butadiene	13.482	225	568296	147.70	ppb	97
93) Naphthalene	13.607	128	2734962	267.83	ppb	98
94) 1,2,3-Trichlorobenzene	13.885	180	968471	239.83	ppb	98

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017474.D
Acq On : 3 Mar 2016 6:08 pm
InstName : MSVOA6
Operator : SS
Sample : VOA CALIBRATION CURVE LEVEL 9
Misc : QBV6030316A <2 BGS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 10:00:05 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0082.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Tue Mar 01 10:09:23 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017476.D
 Acq On : 3 Mar 2016 7:07 pm
 InstName : MSVOA6
 Operator : SS
 Sample : ICV
 Misc : QBV6030316A <2 BGS
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 10:40:09 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.500	70	77999	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.516	117	285757	10.00	ppb	0.00
67) 1,2-DICHLOROETHANE-d4...	11.487	152	115039	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.216	65	94038	9.81	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.10%
51) Toluene-d8 (SURR)	7.019	98	385898	10.00	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.00%
70) p-Bromofluorobenzene (...)	9.784	95	141738	9.88	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.80%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.371	85	117191	11.86	ppb	99
3) Chloromethane	1.546	50	140688	10.44	ppb	94
4) Vinyl Chloride	1.635	62	153684	11.14	ppb	98
5) Bromomethane	1.952	94	33068	8.53	ppb	98
6) Chloroethane	2.047	64	91980	10.88	ppb	99
7) Trichlorofluoromethane	2.275	101	172748	10.41	ppb	99
8) Ethanol	2.526	45	17954	446.41	ppb	100
9) Freon-113	2.757	101	114363	10.67	ppb	# 67
10) 1,1-Dichloroethylene	2.773	61	216366	11.23	ppb	# 94
11) Acrolein	2.718	56	13864	10.07	ppb	91
12) Acetone	2.871	43	25824	10.49	ppb	100
13) Iodomethane	2.946	142	17241	3.85	ppb	98
14) Methyl Acetate	3.163	43	60532	9.70	ppb	100
15) Carbon disulfide	2.982	76	440796	11.10	ppb	100
16) tert-Butyl Alcohol (TBA)	3.391	59	8822	8.03	ppb	# 97
17) Methylene Chloride	3.260	49	195332	10.90	ppb	92
18) Acrylonitrile	3.524	53	26114	9.60	ppb	95
19) trans-1,2-Dichloroethy...	3.491	61	218598	11.25	ppb	99
20) tert-Butyl Methyl Ethe...	3.472	73	360436	10.71	ppb	# 93
21) 1,1-Dichloroethane	3.897	63	268320	10.87	ppb	99
22) Vinyl Acetate	3.936	43	409295	9.65	ppb	100
23) Diisopropyl ether (DIPE)	3.908	45	498829	9.78	ppb	# 88
24) Ethyl-tert-Butyl ether...	4.245	59	448515	9.56	ppb	# 84
25) cis-1,2-Dichloroethylene	4.443	61	239329	10.88	ppb	95
26) 2-Butanone	4.476	72	9527	9.83	ppb	81
27) 2,2-Dichloropropane	4.415	77	193525	10.19	ppb	# 83
28) Tetrahydrofuran	4.721	42	25167	8.55	ppb	# 63

Data Path : C:\msdchem\1\DATA\V6030316\
 Data File : V6017476.D
 Acq On : 3 Mar 2016 7:07 pm
 InstName : MSVOA6
 Operator : SS
 Sample : ICV
 Misc : QBV6030316A <2 BGS
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 10:40:09 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) Bromochloromethane	4.676	49	112545	10.74	ppb	# 76
30) Chloroform	4.743	83	242402	10.74	ppb	# 96
31) 1,1,1-Trichloroethane	4.879	97	207634	10.79	ppb	99
32) Cyclohexane	4.904	56	236880	10.60	ppb	89
33) 1,1-Dichloropropylene	5.032	75	190420	10.71	ppb	# 85
35) Carbon Tetrachloride	5.024	117	164736	10.70	ppb	99
36) tert-Amyl alcohol (TAA)	5.266	59	96468	91.31	ppb	# 53
37) 1,2-Dichloroethane	5.286	62	143976	10.03	ppb	99
38) Benzene	5.233	78	579999	11.18	ppb	# 92
39) tert-Amyl methyl ether...	5.308	73	439336	9.65	ppb	95
41) Trichloroethylene	5.842	95	143624	10.85	ppb	97
42) Methyl Cyclohexane	5.984	83	206164	10.35	ppb	92
43) Methyl Methacrylate	6.168	69	67133	10.33	ppb	# 78
44) Dibromomethane	6.218	93	66211	10.22	ppb	96
45) Bromodichloromethane	6.360	83	172930	10.48	ppb	98
46) 1,2-Dichloropropane	6.076	63	152185	10.85	ppb	95
47) 1,4-Dioxane	6.237	88	12942m	168.79	ppb	
49) cis-1,3-Dichloropropene	6.782	75	214590	10.77	ppb	96
50) 4-Methyl-2-Pentanone	6.924	43	150849	10.17	ppb	95
52) Toluene	7.086	91	586354	11.02	ppb	99
53) trans-1,3-Dichloropropene	7.347	75	179141	10.83	ppb	99
54) 1,1,2-Trichloroethane	7.539	97	99640	10.75	ppb	92
55) 1,3-Dichloropropane	7.706	76	171232	10.59	ppb	# 76
56) Tetrachloroethylene	7.631	166	141530	10.87	ppb	99
57) 2-Hexanone	7.779	43	49761	8.21	ppb	# 94
58) Dibromochloromethane	7.945	129	110003	10.58	ppb	97
59) 1,2-Dibromoethane	8.062	107	92701	10.61	ppb	93
60) Chlorobenzene	8.546	112	357387	11.53	ppb	97
61) 1,1,1,2-tetrachloroethane	8.638	131	120672	10.98	ppb	91
62) Ethyl Benzene	8.638	91	640696	11.29	ppb	100
63) p- & m-Xylenes	8.758	91	982055	23.37	ppb	98
64) o-Xylene	9.189	91	498299	11.68	ppb	100
65) Styrene	9.220	104	363080	10.71	ppb	# 77
66) Bromofrom	9.462	173	55240	10.29	ppb	98
68) p-Ethyltoluene	10.221	105	476134	10.83	ppb	99
69) Isopropylbenzene	9.579	105	590816	11.55	ppb	96
71) 1,1,2,2-Tetrachloroethane	9.979	83	108372	10.50	ppb	# 55
72) Bromobenzene	9.949	77	216148	10.40	ppb	98
73) trans-1,4-Dichloro-2-b...	10.021	75	101786	9.78	ppb	85
74) 1,2,3-Trichloropropane	10.024	110	28177	10.59	ppb	# 84
75) n-Propylbenzene	10.029	91	703932	11.81	ppb	98

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017476.D
Acq On : 3 Mar 2016 7:07 pm
InstName : MSVOA6
Operator : SS
Sample : ICV
Misc : QBV6030316A <2 BGS
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 10:40:09 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 2-Chlorotoluene	10.146	91	462331	11.52	ppb	99
77) 4-Chlorotoluene	10.266	91	428626	11.92	ppb	100
78) 1,3,5-Trimethylbenzene	10.221	105	476134	10.94	ppb	97
79) tert-Butylbenzene	10.580	119	388200	11.49	ppb	97
80) 1,2,4-Trimethylbenzene	10.641	105	471993	10.85	ppb	# 81
81) sec-Butylbenzene	10.825	105	551167	11.88	ppb	98
82) 1,3-Dichlorobenzene	10.984	146	244290	11.60	ppb	99
83) p-Isopropyltoluene	10.986	119	469574	11.15	ppb	98
84) 1,4-Dichlorobenzene	11.087	146	243646	11.59	ppb	97
85) 1,2,3-Trimethylbenzene	11.117	105	349803	10.18	ppb	# 89
86) p-Diethylbenzene	11.420	105	252071	10.35	ppb	# 45
87) 1,2-Dichlorobenzene	11.509	146	209165	10.99	ppb	98
88) n-Butylbenzene	11.451	91	495072	10.81	ppb	92
89) 1,2-Dibromo-3-chloropr...	12.430	75	12238	9.27	ppb	# 58
90) 1,2,4,5-Tetramethylben...	12.308	119	386931	10.51	ppb	96
91) 1,2,4-Trichlorobenzene	13.326	180	106532	11.76	ppb	97
92) Hexachloro-1,3-Butadiene	13.482	225	41616	12.21	ppb	97
93) Naphthalene	13.616	128	171046	11.49	ppb	97
94) 1,2,3-Trichlorobenzene	13.886	180	72709	13.05	ppb	95

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

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017793.D
 Acq On : 15 Mar 2016 9:15 am
 InstName : MSVOA6
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV6031516A <2 OW Y16A035
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1 I	FLUOROBENZENE (ISTD)	1.000	1.000	0.0	69	0.02
2 T	Dichlorodifluoromethane	1.266	1.400	-10.5	107	0.00
3 T	Chloromethane	1.727	1.494	13.5	73	0.01
4 T	Vinyl Chloride	1.769	1.766	0.2	76	0.00
5 T	Bromomethane	0.497	0.169	65.9#	37#	0.01
6 T	Chloroethane	1.083	1.104	-1.9	74	0.02
7 T	Trichlorofluoromethane	2.127	2.575	-21.1	87	0.01
8 T	Ethanol	0.005	0.004	13.5	74	0.02
9 T	Freon-113	1.375	1.655	-20.4	87	0.02
10 T	1,1-Dichloroethylene	2.470	2.765	-11.9	77	0.02
11 T	Acrolein	0.176	0.149	15.7	62	0.02
12 T	Acetone	0.316	0.372	-17.7	87	0.02
13 T	Iodomethane	0.574	0.266	53.6#	50	0.02
14 T	Methyl Acetate	0.800	0.866	-8.2	80	0.02
15 T	Carbon disulfide	5.091	5.523	-8.5	77	0.02
16 T	tert-Butyl Alcohol (TBA)	0.141	0.132	6.0	75	0.03
17 T	Methylene Chloride	2.297	2.495	-8.6	74	0.02
18 T	Acrylonitrile	0.349	0.320	8.3	72	0.02
19 T	trans-1,2-Dichloroethylene	2.492	2.751	-10.4	75	0.02
20 T	tert-Butyl Methyl Ether (MT)	4.315	4.824	-11.8	76	0.02
21 T	1,1-Dichloroethane	3.164	3.504	-10.8	74	0.01
22 T	Vinyl Acetate	5.437	5.904	-8.6	74	0.02
23 T	Diisopropyl ether (DIPE)	6.542	8.268	-26.4#	72	0.02
24 T	Ethyl-tert-Butyl ether (ETB)	6.014	7.698	-28.0#	74	0.02
25 T	cis-1,2-Dichloroethylene	2.820	3.117	-10.5	74	0.02
26 T	2-Butanone	0.124	0.093	24.9	49#	0.03
27 T	2,2-Dichloropropane	2.435	2.984	-22.6	83	0.02
28 T	Tetrahydrofuran	0.377	0.327	13.5	64	0.03
29 T	Bromochloromethane	1.344	1.525	-13.5	74	0.02
30 T	Chloroform	2.895	3.321	-14.7	77	0.02
31 T	1,1,1-Trichloroethane	2.467	2.922	-18.5	80	0.02
32 T	Cyclohexane	2.864	3.222	-12.5	80	0.01
33 T	1,1-Dichloropropylene	2.279	2.509	-10.1	73	0.02
34 S	d4-1,2-Dichloroethane (SURR)	1.229	1.337	-8.8	75	0.02
35 T	Carbon Tetrachloride	1.973	2.400	-21.6	83	0.02
36 T	tert-Amyl alcohol (TAA)	0.136	0.152	-12.3	70	0.02
37 T	1,2-Dichloroethane	1.840	2.087	-13.4	79	0.02

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017793.D
 Acq On : 15 Mar 2016 9:15 am
 InstName : MSVOA6
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV6031516A <2 OW Y16A035
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
38 T	Benzene	6.649	7.170	-7.8	72	0.02
39 T	tert-Amyl methyl ether (TAM	5.838	7.367	-26.2#	73	0.02
40 I	CHLOROBENZENE-d5 (ISTD)	1.000	1.000	0.0	74	0.02
41 T	Trichloroethylene	0.463	0.467	-0.8	73	0.02
42 T	Methyl Cyclohexane	0.697	0.725	-4.0	79	0.02
43 T	Methyl Methacrylate	0.227	0.217	4.5	70	0.03
44 T	Dibromomethane	0.227	0.232	-2.2	75	0.02
45 T	Bromodichloromethane	0.577	0.606	-5.0	77	0.02
46 T	1,2-Dichloropropane	0.491	0.482	1.8	71	0.02
47 T	1,4-Dioxane	0.003	0.002	33.3#	51	0.03
48 T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-7.09#
49 T	cis-1,3-Dichloropropene	0.697	0.726	-4.1	74	0.02
50 T	4-Methyl-2-Pentanone	0.519	0.559	-7.6	80	0.02
51 S	Toluene-d8 (SURR)	1.351	1.330	1.5	72	0.02
52 T	Toluene	1.862	1.891	-1.6	72	0.02
53 T	trans-1,3-Dichloropropene	0.579	0.600	-3.7	73	0.02
54 T	1,1,2-Trichloroethane	0.324	0.324	0.1	72	0.02
55 T	1,3-Dichloropropane	0.566	0.566	-0.1	72	0.02
56 T	Tetrachloroethylene	0.456	0.481	-5.5	76	0.02
57 T	2-Hexanone	0.212	0.160	24.4	68	0.03
58 T	Dibromochloromethane	0.364	0.383	-5.3	77	0.02
59 T	1,2-Dibromoethane	0.306	0.315	-2.9	74	0.02
60 T	Chlorobenzene	1.085	1.123	-3.5	74	0.02
61 T	1,1,1,2-tetrachloroethane	0.385	0.410	-6.7	76	0.01
62 T	Ethyl Benzene	1.986	2.078	-4.6	73	0.02
63 T	p- & m-Xylenes	1.471	1.573	-7.0	74	0.01
64 T	o-Xylene	1.493	1.573	-5.4	74	0.01
65 T	Styrene	1.186	1.262	-6.4	73	0.01
66 T	Bromofrom	0.188	0.196	-4.2	78	0.02
67 I	1,2-DICHLOROBENZENE-d4 (IST	1.000	1.000	0.0	76	0.02
68 T	p-Ethyltoluene	3.821	3.876	-1.5	75	0.01
69 T	Isopropylbenzene	4.447	4.544	-2.2	74	0.01
70 S	p-Bromofluorobenzene (SURR)	1.247	1.225	1.8	75	0.02
71 T	1,1,2,2-Tetrachloroethane	0.897	0.860	4.1	72	0.01
72 T	Bromobenzene	1.806	1.783	1.3	74	0.02

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017793.D
 Acq On : 15 Mar 2016 9:15 am
 InstName : MSVOA6
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV6031516A <2 OW Y16A035
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
73 T	trans-1,4-Dichloro-2-butene	0.904	0.829	8.4	75	0.01
74 T	1,2,3-Trichloropropane	0.231	0.238	-3.1	77	0.02
75 T	n-Propylbenzene	5.180	5.326	-2.8	74	0.01
76 T	2-Chlorotoluene	3.489	3.583	-2.7	75	0.01
77 T	4-Chlorotoluene	3.126	3.306	-5.8	76	0.01
78 T	1,3,5-Trimethylbenzene	3.783	3.876	-2.5	75	0.01
79 T	tert-Butylbenzene	2.936	2.993	-1.9	75	0.01
80 T	1,2,4-Trimethylbenzene	3.781	3.844	-1.7	75	0.01
81 T	sec-Butylbenzene	4.033	4.113	-2.0	74	0.01
82 T	1,3-Dichlorobenzene	1.831	1.869	-2.1	75	0.02
83 T	p-Isopropyltoluene	3.660	3.873	-5.8	76	0.00
84 T	1,4-Dichlorobenzene	1.828	1.867	-2.1	75	0.01
85 T	1,2,3-Trimethylbenzene	2.987	2.939	1.6	76	0.01
86 T	p-Diethylbenzene	2.118	1.977	6.6	71	0.00
87 T	1,2-Dichlorobenzene	1.655	1.636	1.1	74	0.01
88 T	n-Butylbenzene	3.982	4.026	-1.1	74	0.01
89 T	1,2-Dibromo-3-chloropropane	0.115	0.101	11.7	70	0.02
90 T	1,2,4,5-Tetramethylbenzene	3.199	3.141	1.8	74	0.01
91 T	1,2,4-Trichlorobenzene	0.787	0.763	3.1	68	0.02
92 T	Hexachloro-1,3-Butadiene	0.296	0.312	-5.1	76	0.01
93 T	Naphthalene	1.294	1.080	16.5	65	0.02
94 T	1,2,3-Trichlorobenzene	0.484	0.415	14.4	64	0.02

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017793.D
 Acq On : 15 Mar 2016 9:15 am
 InstName : MSVOA6
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV6031516A <2 OW Y16A035
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.519	70	54534	10.00	ppb	# 0.02
40) CHLOROBENZENE-d5 (ISTD)	8.535	117	212489	10.00	ppb	0.02
67) 1,2-DICHLOROBENZENE-d4...	11.504	152	87567	10.00	ppb	0.02
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.233	65	72911	10.88	ppb	0.02
Spiked Amount 10.000	Range	70 - 130	Recovery	=	108.80%	
51) Toluene-d8 (SURR)	7.038	98	282627	9.85	ppb	0.02
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.50%	
70) p-Bromofluorobenzene (...)	9.798	95	107247	9.82	ppb	0.02
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.20%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.379	85	76330	11.05	ppb	# 85
3) Chloromethane	1.557	50	81452	8.65	ppb	94
4) Vinyl Chloride	1.646	62	96291	9.98	ppb	98
5) Bromomethane	1.964	94	9232	3.41	ppb	100
6) Chloroethane	2.064	64	60210	10.19	ppb	99
7) Trichlorofluoromethane	2.289	101	140454	12.11	ppb	100
8) Ethanol	2.534	45	12302	437.49	ppb	100
9) Freon-113	2.768	101	90249	12.04	ppb	# 81
10) 1,1-Dichloroethylene	2.790	61	150757	11.19	ppb	# 95
11) Acrolein	2.737	56	8114	8.43	ppb	93
12) Acetone	2.887	43	20263	11.77	ppb	100
13) Iodomethane	2.954	142	14518	4.64	ppb	100
14) Methyl Acetate	3.177	43	47208	10.82	ppb	100
15) Carbon disulfide	3.001	76	301176	10.85	ppb	100
16) tert-Butyl Alcohol (TBA)	3.410	59	7219	9.39	ppb	# 97
17) Methylene Chloride	3.277	49	136075	10.86	ppb	92
18) Acrylonitrile	3.541	53	17447	9.17	ppb	95
19) trans-1,2-Dichloroethy...	3.511	61	150000	11.04	ppb	# 71
20) tert-Butyl Methyl Ethe...	3.491	73	263043	11.18	ppb	98
21) 1,1-Dichloroethane	3.914	63	191102	11.08	ppb	99
22) Vinyl Acetate	3.953	43	321958	10.86	ppb	100
23) Diisopropyl ether (DIPE)	3.925	45	360693	10.11	ppb	# 88
24) Ethyl-tert-Butyl ether...	4.262	59	335856	10.24	ppb	# 89
25) cis-1,2-Dichloroethylene	4.462	61	169964	11.05	ppb	# 82
26) 2-Butanone	4.495	72	5095	7.52	ppb	# 39
27) 2,2-Dichloropropane	4.437	77	162732	12.26	ppb	# 83
28) Tetrahydrofuran	4.740	42	17809	8.65	ppb	86

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017793.D
 Acq On : 15 Mar 2016 9:15 am
 InstName : MSVOA6
 Operator : SS
 Sample : SEQ-CCV1
 Misc : QBV6031516A <2 OW Y16A035
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) Bromochloromethane	4.693	49	83168	11.35	ppb	95
30) Chloroform	4.763	83	181078	11.47	ppb	# 67
31) 1,1,1-Trichloroethane	4.899	97	159355	11.85	ppb	# 86
32) Cyclohexane	4.921	56	175694	11.25	ppb	90
33) 1,1-Dichloropropylene	5.052	75	136832	11.01	ppb	# 76
35) Carbon Tetrachloride	5.046	117	130868	12.16	ppb	# 92
36) tert-Amyl alcohol (TAA)	5.283	59	66383	89.87	ppb	# 53
37) 1,2-Dichloroethane	5.305	62	113816	11.34	ppb	# 98
38) Benzene	5.255	78	391001	10.78	ppb	# 89
39) tert-Amyl methyl ether...	5.327	73	321422	10.10	ppb	95
41) Trichloroethylene	5.862	95	99277	10.08	ppb	97
42) Methyl Cyclohexane	6.001	83	154083	10.40	ppb	91
43) Methyl Methacrylate	6.190	69	46163	9.56	ppb	# 76
44) Dibromomethane	6.234	93	49229	10.22	ppb	96
45) Bromodichloromethane	6.379	83	128794	10.50	ppb	96
46) 1,2-Dichloropropane	6.098	63	102411	9.82	ppb	97
47) 1,4-Dioxane	6.257	88	7706m	135.16	ppb	
49) cis-1,3-Dichloropropene	6.805	75	154209	10.41	ppb	94
50) 4-Methyl-2-Pentanone	6.941	43	118709	10.76	ppb	96
52) Toluene	7.102	91	401832	10.15	ppb	99
53) trans-1,3-Dichloropropene	7.367	75	127517	10.37	ppb	99
54) 1,1,2-Trichloroethane	7.556	97	68890	9.99	ppb	94
55) 1,3-Dichloropropane	7.726	76	120306	10.00	ppb	# 85
56) Tetrachloroethylene	7.651	166	102183	10.55	ppb	99
57) 2-Hexanone	7.795	43	34080	7.56	ppb	# 90
58) Dibromochloromethane	7.962	129	81433	10.53	ppb	99
59) 1,2-Dibromoethane	8.079	107	66891	10.30	ppb	92
60) Chlorobenzene	8.563	112	238739	10.35	ppb	97
61) 1,1,1,2-tetrachloroethane	8.652	131	87164	10.67	ppb	92
62) Ethyl Benzene	8.655	91	441467	10.46	ppb	100
63) p- & m-Xylenes	8.777	91	668438	21.39	ppb	98
64) o-Xylene	9.206	91	334284	10.54	ppb	100
65) Styrene	9.234	104	268049	10.64	ppb	# 77
66) Bromofrom	9.481	173	41634	10.42	ppb	97
68) p-Ethyltoluene	10.241	105	339415	10.15	ppb	99
69) Isopropylbenzene	9.595	105	397933	10.22	ppb	96
71) 1,1,2,2-Tetrachloroethane	9.990	83	75287	9.59	ppb	# 76
72) Bromobenzene	9.965	77	156162	9.87	ppb	98
73) trans-1,4-Dichloro-2-b...	10.038	75	72576	9.16	ppb	85
74) 1,2,3-Trichloropropane	10.038	110	20887	10.31	ppb	# 21
75) n-Propylbenzene	10.046	91	466409	10.28	ppb	98

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017793.D
Acq On : 15 Mar 2016 9:15 am
InstName : MSVOA6
Operator : SS
Sample : SEQ-CCV1
Misc : QBV6031516A <2 OW Y16A035
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration

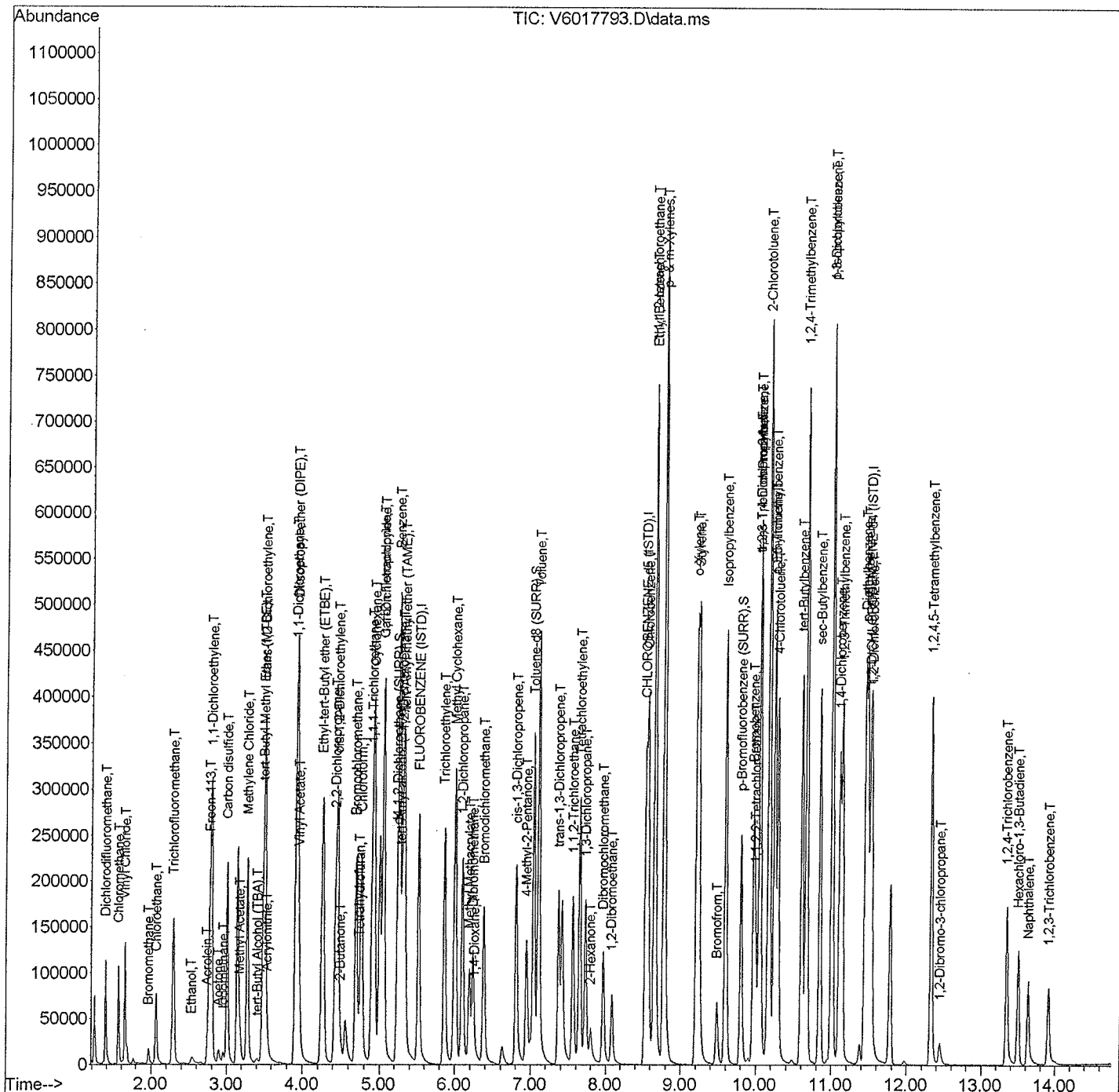
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 2-Chlorotoluene	10.163	91	313799	10.27	ppb	99
77) 4-Chlorotoluene	10.285	91	289512	10.58	ppb	100
78) 1,3,5-Trimethylbenzene	10.241	105	339415	10.25	ppb	98
79) tert-Butylbenzene	10.597	119	262043	10.19	ppb	98
80) 1,2,4-Trimethylbenzene	10.658	105	336585	10.17	ppb	# 81
81) sec-Butylbenzene	10.839	105	360145	10.20	ppb	98
82) 1,3-Dichlorobenzene	11.000	146	163657	10.21	ppb	98
83) p-Isopropyltoluene	11.000	119	339131	10.58	ppb	98
84) 1,4-Dichlorobenzene	11.101	146	163474	10.21	ppb	97
85) 1,2,3-Trimethylbenzene	11.137	105	257349	9.84	ppb	# 89
86) p-Diethylbenzene	11.434	105	173154	9.34	ppb	# 42
87) 1,2-Dichlorobenzene	11.526	146	143276m	9.89	ppb	
88) n-Butylbenzene	11.468	91	352527	10.11	ppb	91
89) 1,2-Dibromo-3-chloropr...	12.442	75	8876	8.83	ppb	90
90) 1,2,4,5-Tetramethylben...	12.322	119	275023	9.82	ppb	97
91) 1,2,4-Trichlorobenzene	13.340	180	66801	9.69	ppb	97
92) Hexachloro-1,3-Butadiene	13.496	225	27278	10.51	ppb	97
93) Naphthalene	13.627	128	94578	8.35	ppb	98
94) 1,2,3-Trichlorobenzene	13.908	180	36313	8.56	ppb	100

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017793.D
Acq On : 15 Mar 2016 9:15 am
InstName : MSVOA6
Operator : SS
Sample : SEQ-CCV1
Misc : QBV6031516A <2 OW Y16A035
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 12:14:31 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8260C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1524Instrument: MS VOA 2Calibration: UNASSIGNED

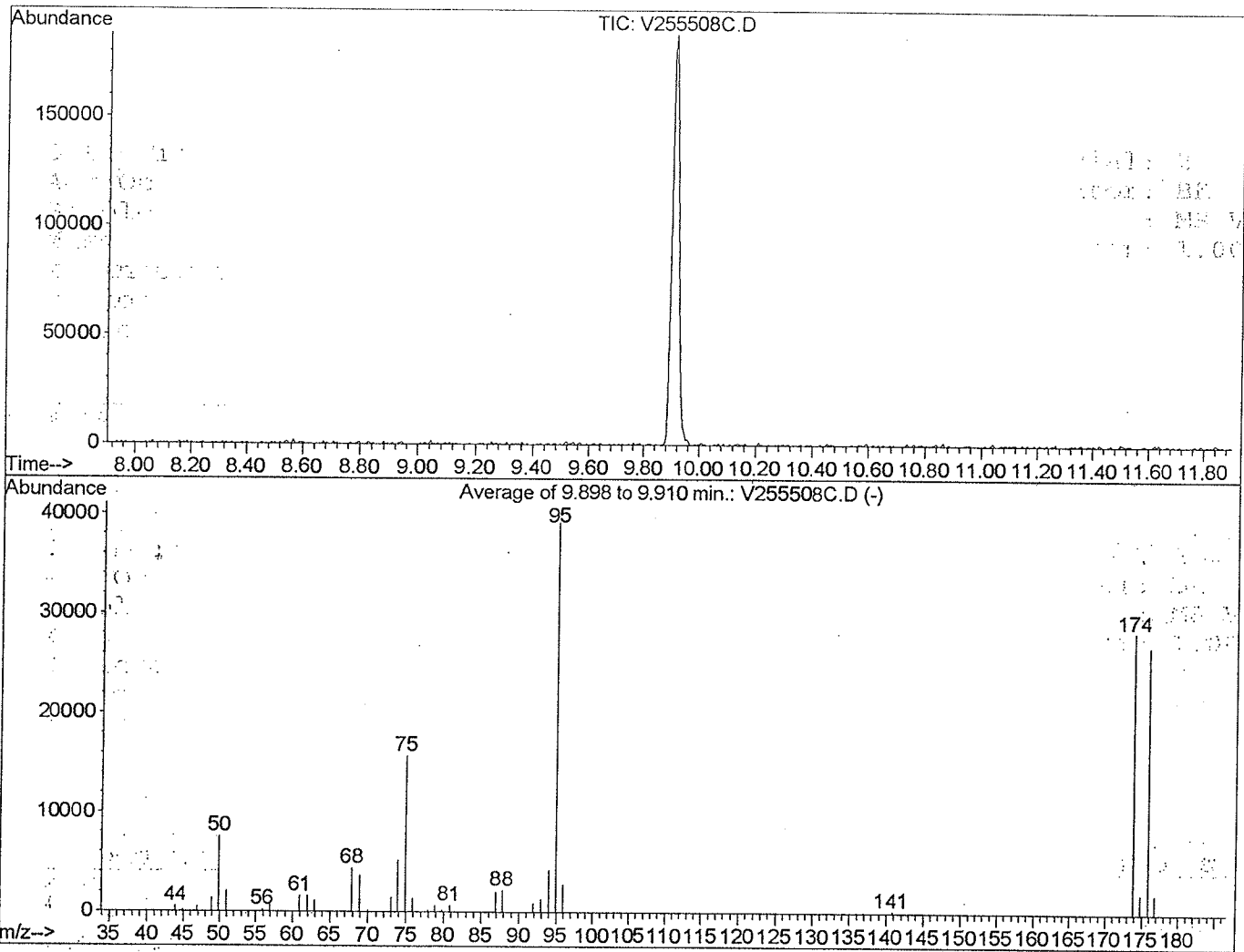
Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	BC60766-BS1	V2567205.D	03/15/16 08:56
LCS Dup	BC60766-BSD1	V2567206.D	03/15/16 09:26
Blank	BC60766-BLK1	V2567207.D	03/15/16 09:56
01/LSB-3	16C0466-01	V2567216.D	03/15/16 14:33
02/DUP	16C0466-02	V2567217.D	03/15/16 15:02
03/LSB-3	16C0466-03	V2567218.D	03/15/16 15:32

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8260C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1622Instrument: MSVOA6Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	BC60771-BS1	V6017794.D	03/15/16 09:54
LCS Dup	BC60771-BSD1	V6017795.D	03/15/16 10:24
Blank	BC60771-BLK1	V6017797.D	03/15/16 11:22
04/FB20160309	16C0466-04	V6017809.D	03/15/16 17:12
05/TB20160309	16C0466-05	V6017810.D	03/15/16 17:41

Data File : G:\MSVOA2~1\AILYDAT\V2011416\V255508C.D
 Acq On : 14 Jan 2016 9:07 am
 Sample : BFB DIRECT INJECT 50ng
 Misc : QBV2011416A
 MS Integration Params: rteint.p
 Method : G:\MSVOAM~1\V2C00370.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260

Vial: 2
 Operator: BK
 Inst : MS VOA 2
 Multiplr: 1.00



Spectrum Information: Average of 9.898 to 9.910 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	7542	PASS
75	95	30	60	40.1	15714	PASS
95	95	100	100	100.0	39157	PASS
96	95	5	9	7.2	2817	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.4	28360	PASS
175	174	5	9	6.9	1954	PASS
176	174	95	101	95.0	26955	PASS
177	176	5	9	6.9	1870	PASS

Data File : C:\HPCHEM\1\DATA\V2031516\V2567203.D

Vial: 1

Acq On : 15 Mar 2016 7:48 am

Operator: BK

Sample : SEQ-TUN1

Inst : MS VOA 2

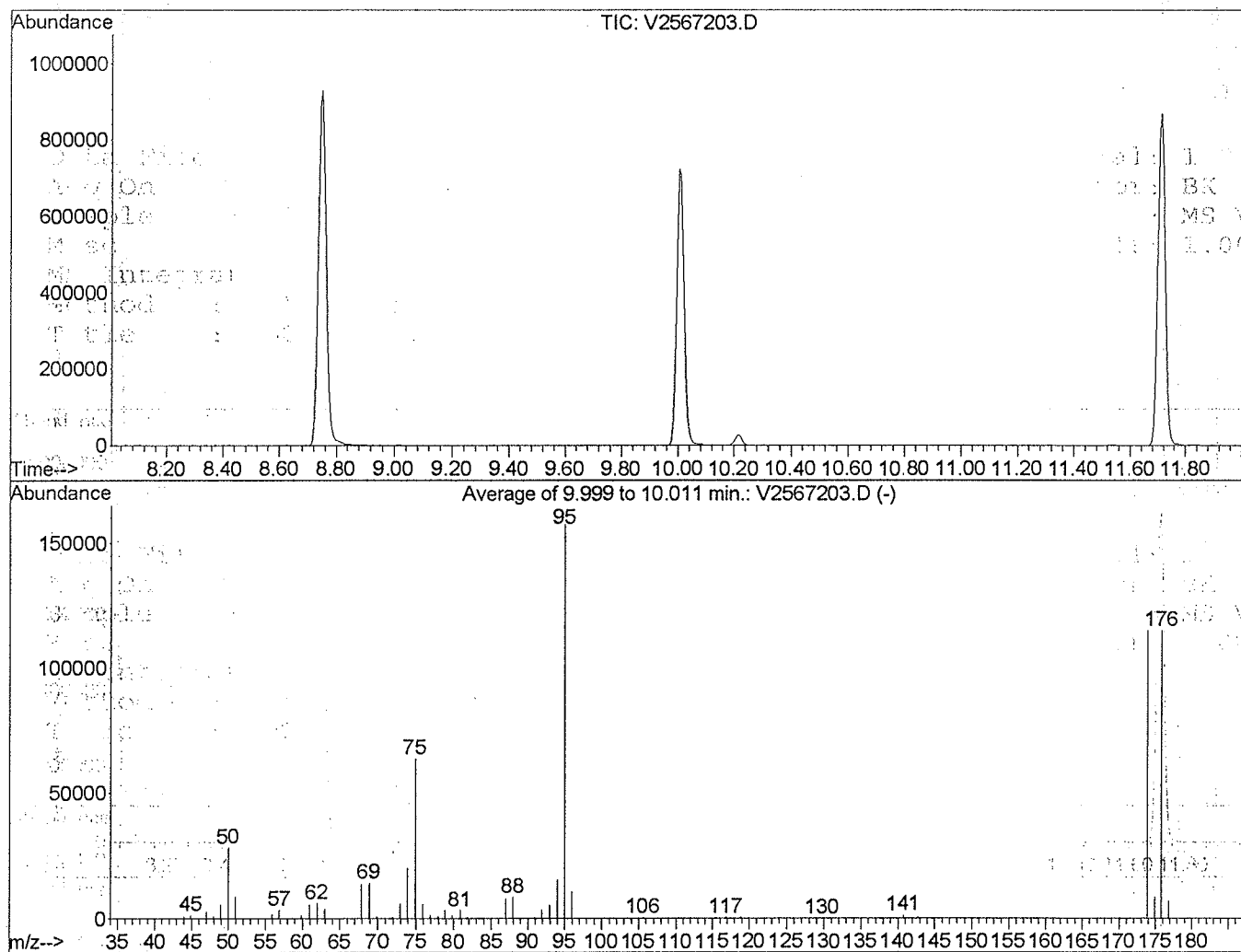
Misc : QBV2031516A

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)

Title : VOCs BY GC/MS 8240/8260



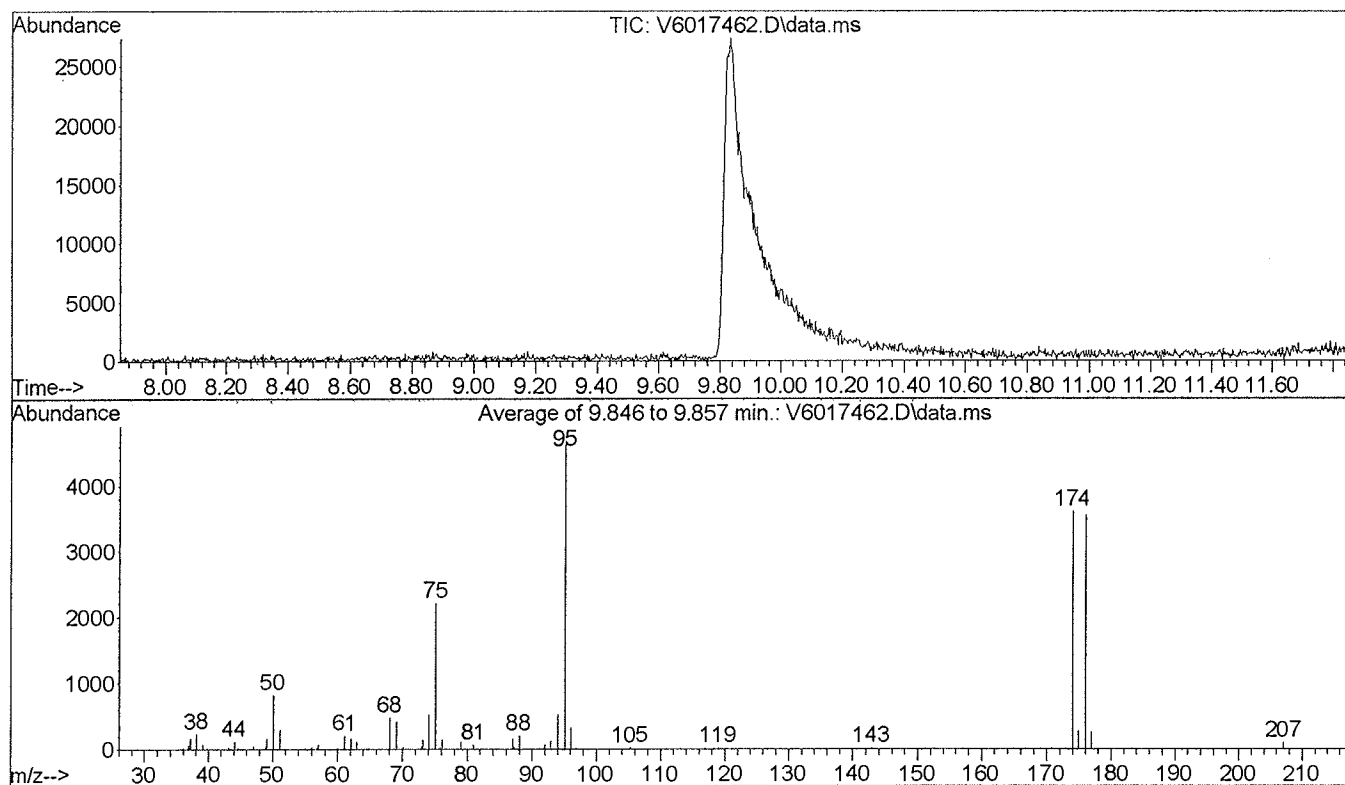
Spectrum Information: Average of 9.999 to 10.011 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	28283	PASS
75	95	30	60	40.5	63584	PASS
95	95	100	100	100.0	157141	PASS
96	95	5	9	6.8	10744	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	73.3	115136	PASS
175	174	5	9	7.5	8595	PASS
176	174	95	101	100.0	115160	PASS
177	176	5	9	5.9	6844	PASS

Data Path : C:\msdchem\1\DATA\V6030316\
Data File : V6017462.D
Acq On : 3 Mar 2016 12:09 pm
Operator : SS
Sample : BFB DIRECT INJ 50ng
Misc : QBV6030316A
ALS Vial : 3 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\V6LO0083.M
Title : Volatile Organics EPA 8260C
Last Update : Fri Mar 04 10:36:24 2016



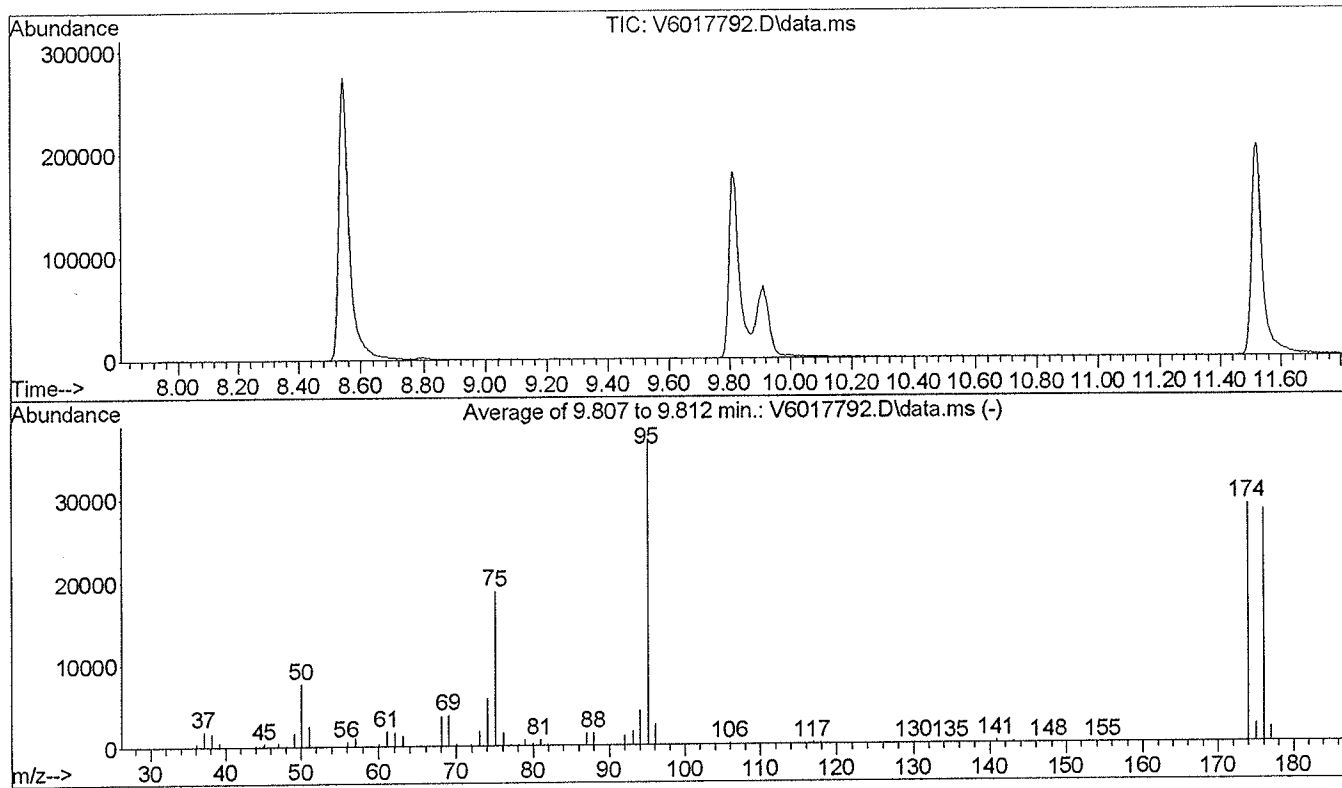
Spectrum Information: Average of 9.846 to 9.857 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	834	PASS
75	95	30	60	47.3	2219	PASS
95	95	100	100	100.0	4688	PASS
96	95	5	9	7.0	330	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.0	3611	PASS
175	174	5	9	7.6	276	PASS
176	174	95	101	98.6	3558	PASS
177	176	5	9	7.4	263	PASS

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017792.D
Acq On : 15 Mar 2016 8:44 am
Operator : SS
Sample : SEQ-TUN1
Misc : QBV6031516A
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\V6LO0083.M
Title : Volatile Organics EPA 8260C
Last Update : Fri Mar 04 10:36:24 2016



Spectrum Information: Average of 9.807 to 9.812 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	7700	PASS
75	95	30	60	50.9	18899	PASS
95	95	100	100	100.0	37133	PASS
96	95	5	9	6.8	2513	PASS
173	174	0.00	2	0.2	51	PASS
174	95	50	100	78.2	29048	PASS
175	174	5	9	7.5	2186	PASS
176	174	95	101	97.6	28357	PASS
177	176	5	9	6.4	1804	PASS

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60766-BLK1 File ID: V2567207.D
 Prepared: 03/15/16 08:49 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/15/16 09:56 Instrument: MS VOA 2
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.0050	U
71-55-6	1,1,1-Trichloroethane	0.0050	U
79-34-5	1,1,2,2-Tetrachloroethane	0.0050	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0050	U
79-00-5	1,1,2-Trichloroethane	0.0050	U
75-34-3	1,1-Dichloroethane	0.0050	U
75-35-4	1,1-Dichloroethylene	0.0050	U
563-58-6	1,1-Dichloropropylene	0.0050	U
87-61-6	1,2,3-Trichlorobenzene	0.0050	U
96-18-4	1,2,3-Trichloropropane	0.0050	U
120-82-1	1,2,4-Trichlorobenzene	0.0050	U
95-63-6	1,2,4-Trimethylbenzene	0.0050	U
96-12-8	1,2-Dibromo-3-chloropropane	0.0050	U
106-93-4	1,2-Dibromoethane	0.0050	U
95-50-1	1,2-Dichlorobenzene	0.0050	U
107-06-2	1,2-Dichloroethane	0.0050	U
78-87-5	1,2-Dichloropropane	0.0050	U
108-67-8	1,3,5-Trimethylbenzene	0.0050	U
541-73-1	1,3-Dichlorobenzene	0.0050	U
142-28-9	1,3-Dichloropropane	0.0050	U
106-46-7	1,4-Dichlorobenzene	0.0050	U
123-91-1	1,4-Dioxane	0.10	U
594-20-7	2,2-Dichloropropane	0.0050	U
78-93-3	2-Butanone	0.0050	U
95-49-8	2-Chlorotoluene	0.0050	U
591-78-6	2-Hexanone	0.0050	U
106-43-4	4-Chlorotoluene	0.0050	U
108-10-1	4-Methyl-2-pentanone	0.0050	U
67-64-1	Acetone	0.010	U
107-02-8	Acrolein	0.010	U

FORM I
METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60766-BLK1 File ID: V2567207.D
 Prepared: 03/15/16 08:49 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/15/16 09:56 Instrument: MS VOA 2
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
107-13-1	Acrylonitrile	0.0050	U
71-43-2	Benzene	0.0050	U
108-86-1	Bromobenzene	0.0050	U
74-97-5	Bromochloromethane	0.0050	U
75-27-4	Bromodichloromethane	0.0050	U
75-25-2	Bromoform	0.0050	U
74-83-9	Bromomethane	0.0050	U
75-15-0	Carbon disulfide	0.0050	U
56-23-5	Carbon tetrachloride	0.0050	U
108-90-7	Chlorobenzene	0.0050	U
75-00-3	Chloroethane	0.0050	U
67-66-3	Chloroform	0.0050	U
74-87-3	Chloromethane	0.0050	U
156-59-2	cis-1,2-Dichloroethylene	0.0050	U
10061-01-5	cis-1,3-Dichloropropylene	0.0050	U
110-82-7	Cyclohexane	0.0050	U
124-48-1	Dibromochloromethane	0.0050	U
74-95-3	Dibromomethane	0.0050	U
75-71-8	Dichlorodifluoromethane	0.0050	U
100-41-4	Ethyl Benzene	0.0050	U
87-68-3	Hexachlorobutadiene	0.0050	U
98-82-8	Isopropylbenzene	0.0050	U
79-20-9	Methyl acetate	0.0050	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.0050	U
108-87-2	Methylcyclohexane	0.0050	U
75-09-2	Methylene chloride	0.010	U
104-51-8	n-Butylbenzene	0.0050	U
103-65-1	n-Propylbenzene	0.0050	U
95-47-6	o-Xylene	0.0050	U
179601-23-1	p- & m- Xylenes	0.010	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60766-BLK1 File ID: V2567207.D
 Prepared: 03/15/16 08:49 Preparation: EPA 5035A Initial/Final: 5 g / 5 ml
 Analyzed: 03/15/16 09:56 Instrument: MS VOA 2
 Batch: BC60766 Sequence: Y6C1524 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
99-87-6	p-Isopropyltoluene	0.0050	U
135-98-8	sec-Butylbenzene	0.0050	U
100-42-5	Styrene	0.0050	U
75-65-0	tert-Butyl alcohol (TBA)	0.010	U
98-06-6	tert-Butylbenzene	0.0050	U
127-18-4	Tetrachloroethylene	0.0050	U
108-88-3	Toluene	0.0050	U
156-60-5	trans-1,2-Dichloroethylene	0.0050	U
10061-02-6	trans-1,3-Dichloropropylene	0.0050	U
79-01-6	Trichloroethylene	0.0050	U
75-69-4	Trichlorofluoromethane	0.0050	U
108-05-4	Vinyl acetate	0.0050	U
75-01-4	Vinyl Chloride	0.0050	U
1330-20-7	Xylenes, Total	0.015	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	50.0	50.4	101	77 - 125	
Toluene-d8	50.0	49.2	98.4	85 - 120	
p-Bromofluorobenzene	50.0	44.3	88.5	76 - 130	

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567207.D Vial: 5
 Acq On : 15 Mar 2016 9:56 am Operator: BK
 Sample : BC60766-BLK1 Inst : MS VOA 2
 Misc : QBV2031516A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:20 2016 Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.77	70	164587	50.00	ppb	0.02
35) CHLOROBENZENE-d5(ISTD)	8.78	117	633237	50.00	ppb	0.03
64) 1,2-DICHLOROBENZENE-d4(IST	11.74	152	281968	50.00	ppb	0.03

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR	5.46	65	209604	50.38	ppb	0.02
Spiked Amount	50.000	Range	67 - 128	Recovery	=	100.76%
47) Toluene-d8(SURR)	7.30	98	765329	49.22	ppb	0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	98.44%
66) p-Bromofluorobenzene(SURR)	10.03	174	231735	44.27	ppb	0.02
Spiked Amount	50.000	Range	63 - 166	Recovery	=	88.54%

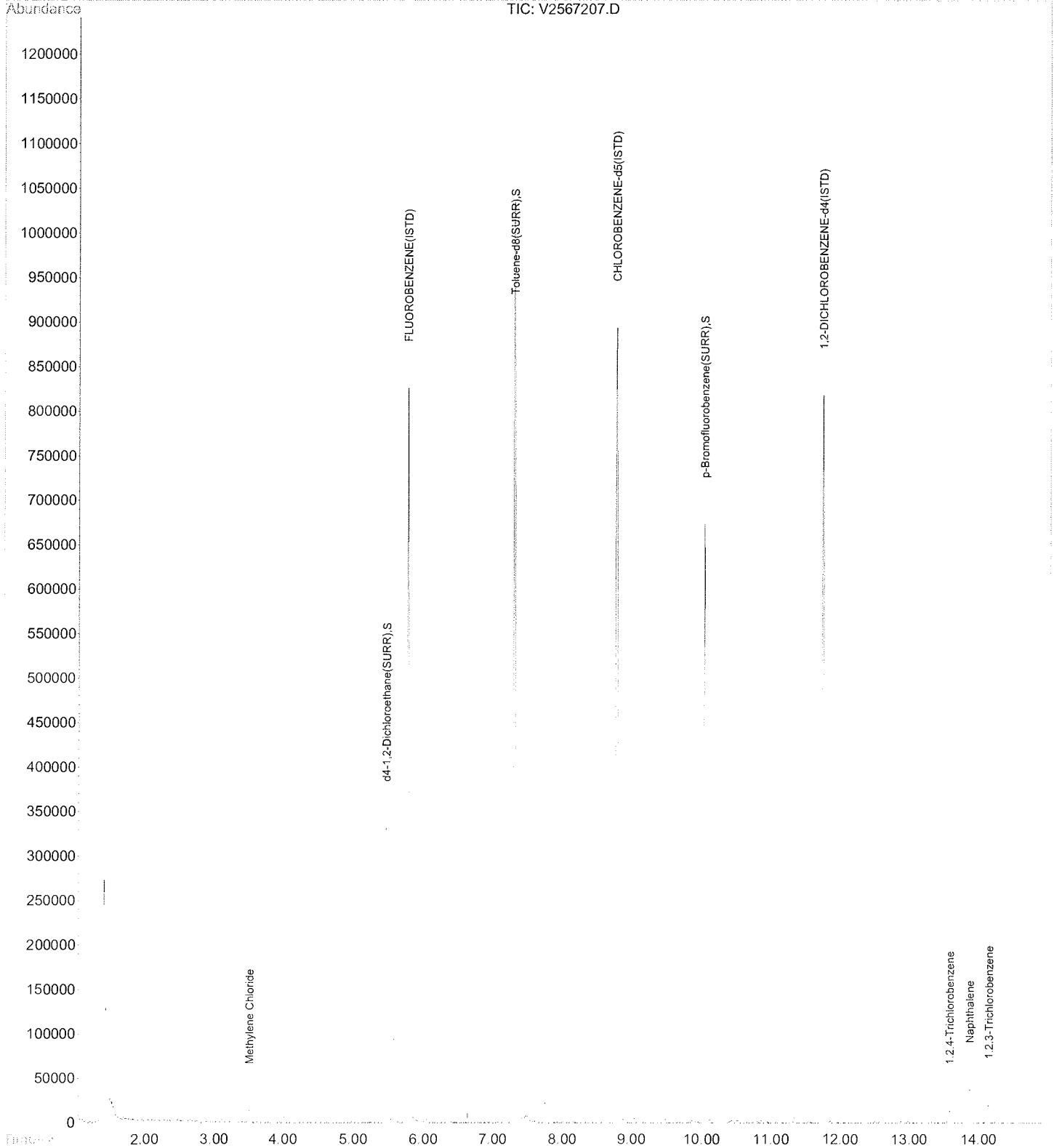
Target Compounds

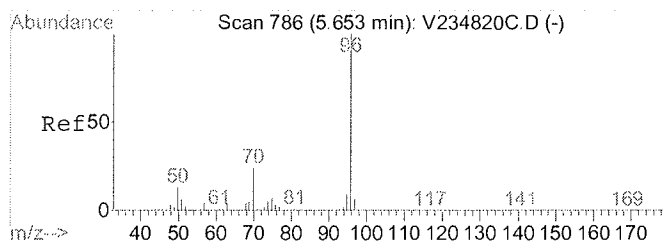
						Qvalue
18) Methylene Chloride	3.52	49	7940	1.08	ppb	98
86) 1,2,4-Trichlorobenzene	13.58	180	8149	1.44	ppb	# 50
87) Naphthalene	13.87	128	44981	3.81	ppb	# 97
89) 1,2,3-Trichlorobenzene	14.14	182	10860	2.34	ppb	# 98

Quantitation Report

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567207.D Vial: 5
 Acq On : 15 Mar 2016 9:56 am Operator: BK
 Sample : BC60766-BLK1 Inst : MS VOA 2
 Misc : QBV2031516A Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 12:20 2016 Quant Results File: V2C00371.RES

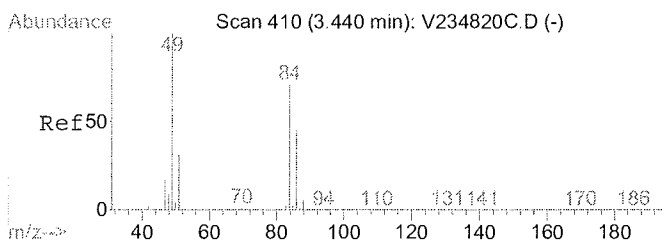
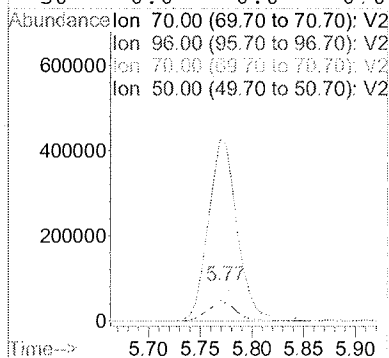
Method : G:\MSVOA METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Thu Jan 14 15:20:23 2016
 Response via : Initial Calibration





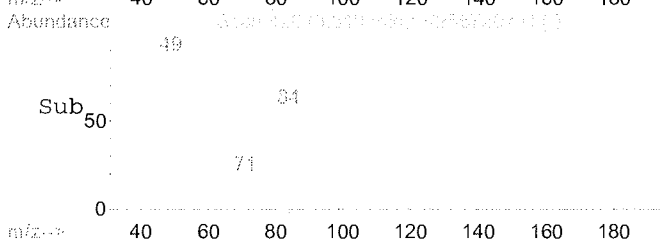
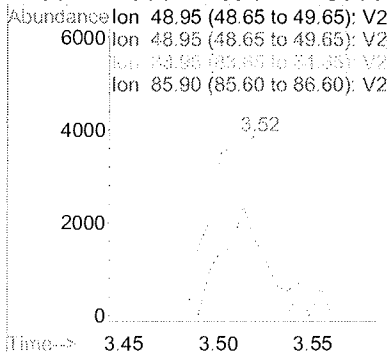
#1
 FLUOROBENZENE (ISTD)
 Concen: 50.00 ppb
 RT: 5.77 min Scan# 802
 Delta R.T. 0.02 min
 Lab File: V2567207.D
 Acq: 15 Mar 2016 9:56 am

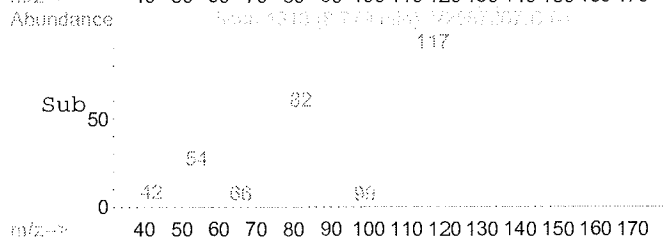
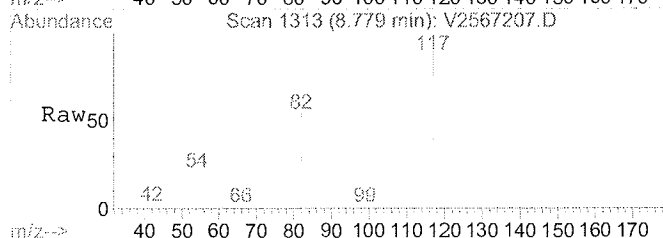
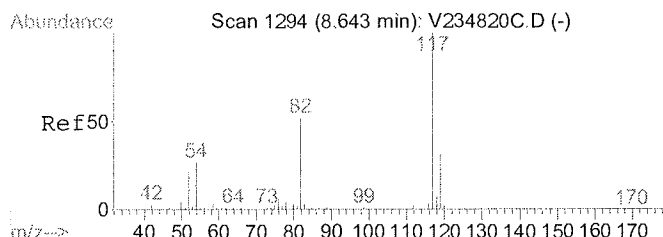
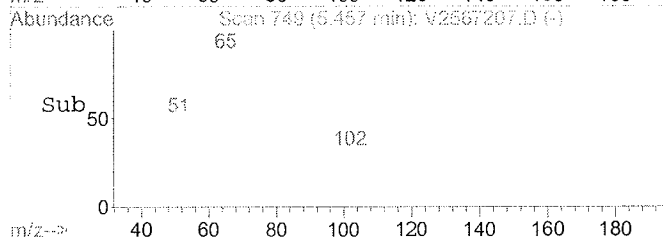
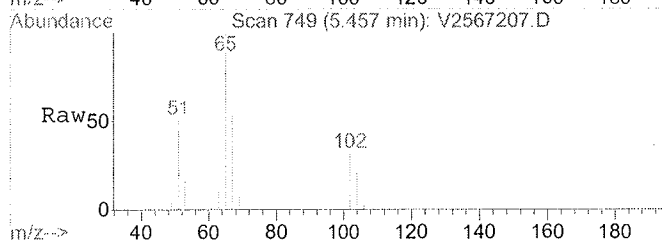
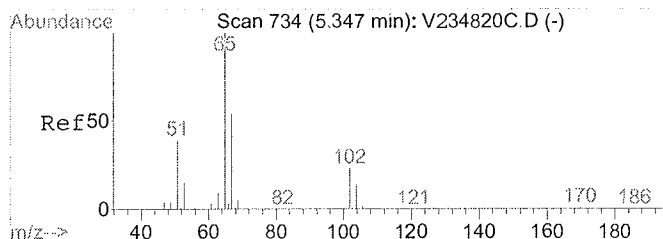
Tgt Ion: 70 Resp: 164587
 Ion Ratio Lower Upper
 70 100
 96 504.9 388.6 582.8
 70 100.0 80.0 120.0
 50 0.0 0.0 0.0



#18
 Methylene Chloride
 Concen: 1.08 ppb
 RT: 3.52 min Scan# 420
 Delta R.T. 0.03 min
 Lab File: V2567207.D
 Acq: 15 Mar 2016 9:56 am

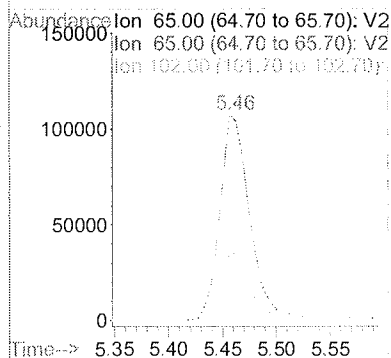
Tgt Ion: 49 Resp: 7940
 Ion Ratio Lower Upper
 49 100
 49 100.0 80.0 120.0
 84 69.0 59.8 89.8
 86 48.6 39.2 58.8





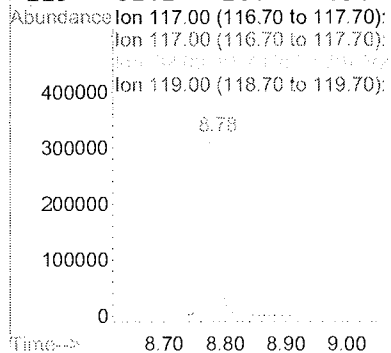
#31
d4-1,2-Dichloroethane (SURR)
Concen: N.D. ppb
RT: 5.46 min Scan# 749
Delta R.T. 0.02 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am

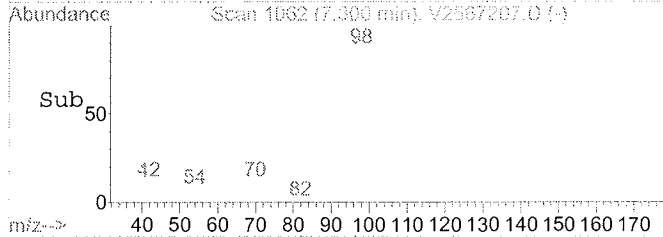
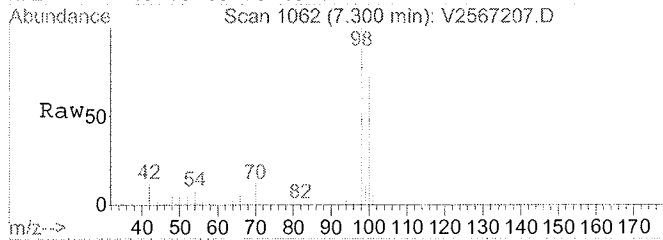
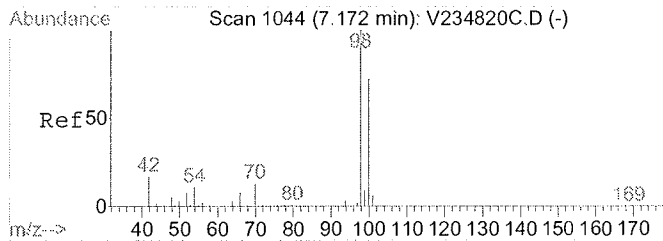
Tgt Ion	Ratio	Lower	Upper
65	100		
65	100.0	80.0	120.0
102	34.1	24.8	37.2



#35
CHLOROBENZENE-d5 (ISTD)
Concen: 50.00 ppb
RT: 8.78 min Scan# 1313
Delta R.T. 0.03 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am

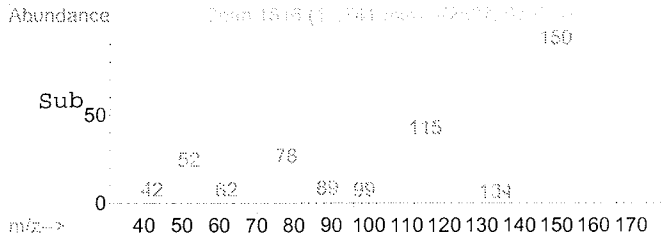
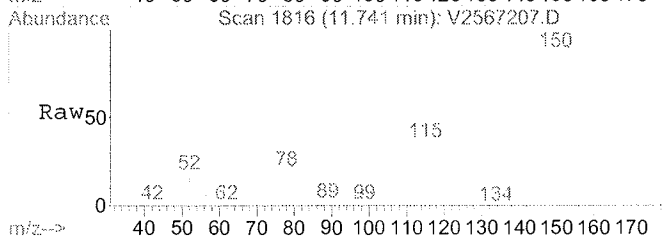
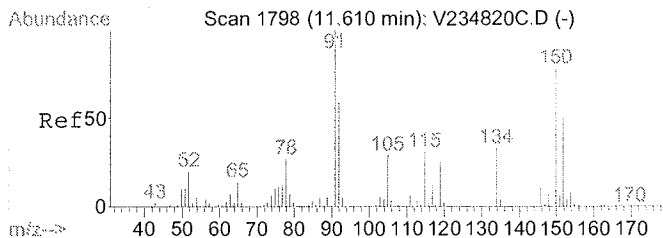
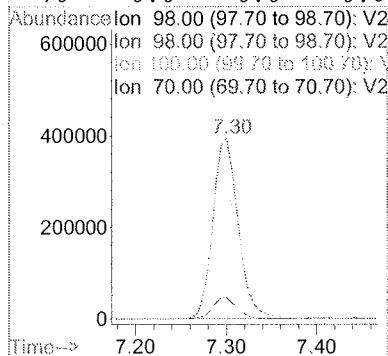
Tgt Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0
82	0.0	0.0	0.0
119	32.2	26.1	39.1





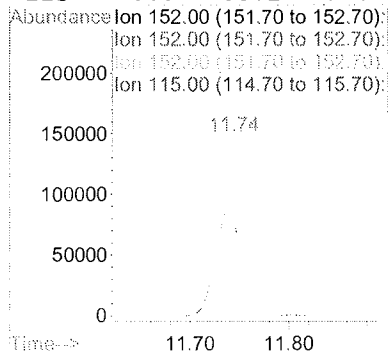
#47
Toluene-d8 (SURRE)
Concen: Below ppb
RT: 7.30 min Scan# 1062
Delta R.T. 0.03 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am

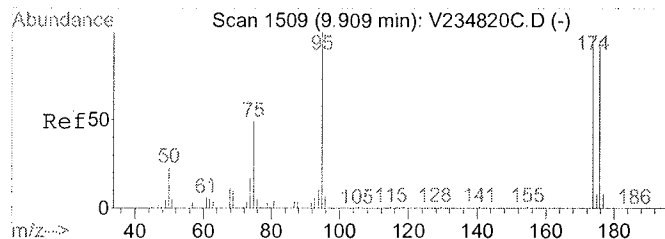
Tgt Ion: 98 Resp: 765329
Ion Ratio Lower Upper
98 100
98 100.0 80.0 120.0
100 73.5 59.5 89.3
70 0.0 0.0 0.0



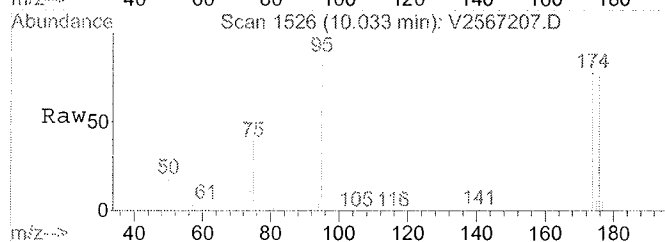
#64
1,2-DICHLOROBENZENE-d4 (ISTD)
Concen: 50.00 ppb
RT: 11.74 min Scan# 1816
Delta R.T. 0.03 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am

Tgt Ion: 152 Resp: 281968
Ion Ratio Lower Upper
152 100
152 100.0 80.0 120.0
152 100.0 80.0 120.0
115 0.0 65.1 97.7#

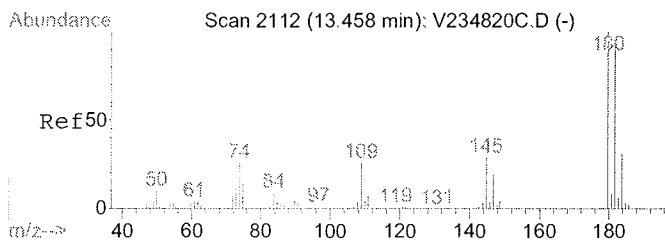
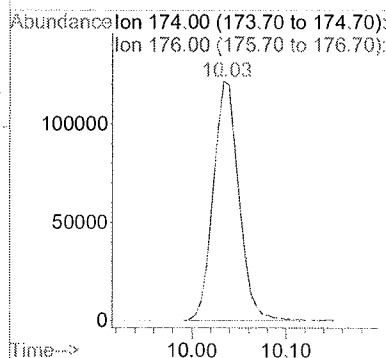
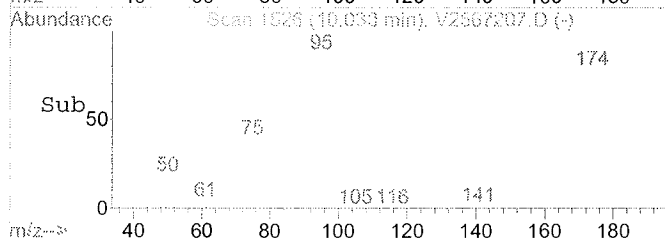




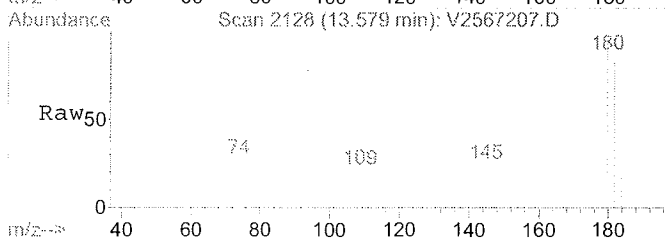
#66
p-Bromofluorobenzene (SURR)
Concen: N.D. ppb
RT: 10.03 min Scan# 1526
Delta R.T. 0.02 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am



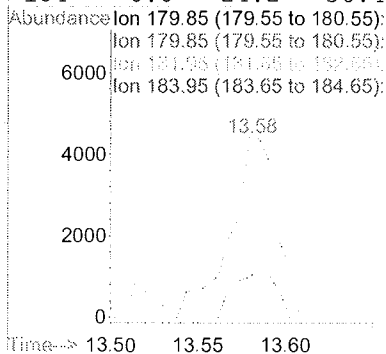
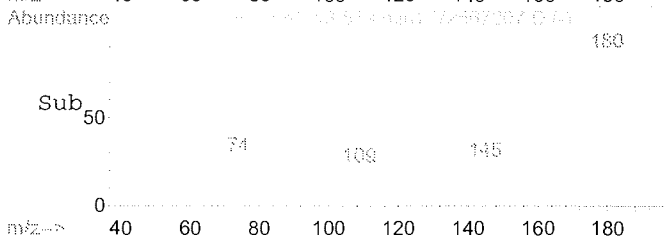
Tgt Ion:174 Resp: 231735
Ion Ratio Lower Upper
174 100
176 97.4 78.6 118.0

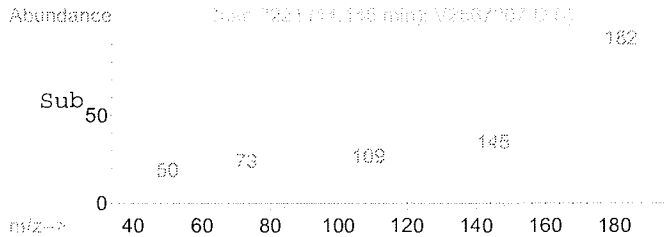
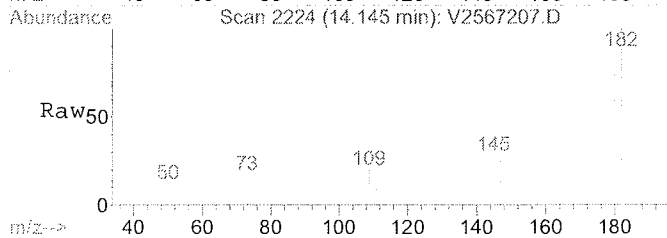
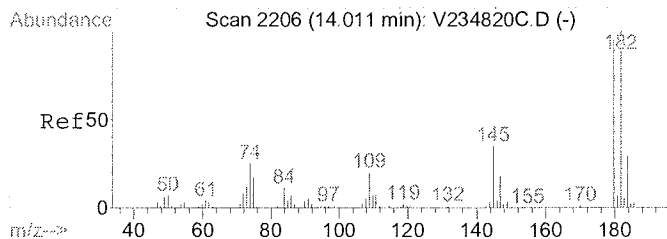
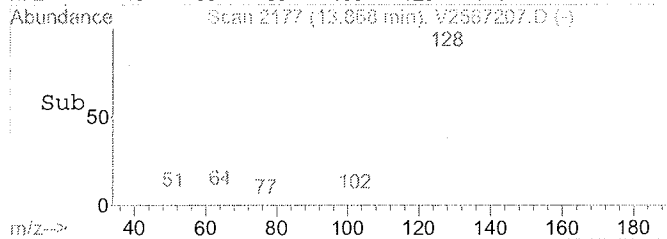
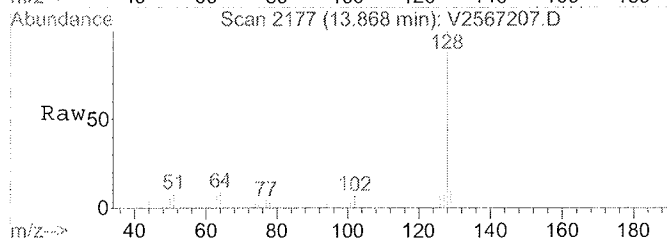
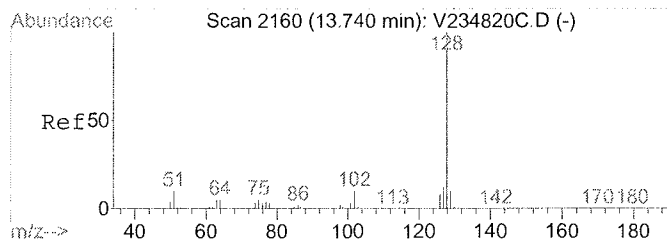


#86
1,2,4-Trichlorobenzene
Concen: 1.44 ppb
RT: 13.58 min Scan# 2128
Delta R.T. 0.02 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am



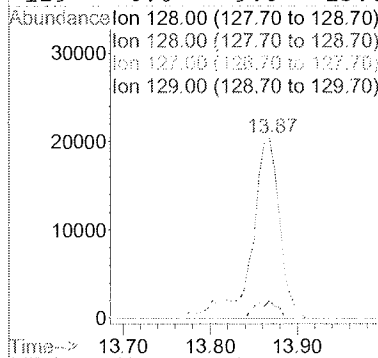
Tgt Ion:180 Resp: 8149
Ion Ratio Lower Upper
180 100
180 100.0 80.0 120.0
182 0.0 79.0 118.6#
184 0.0 24.2 36.4#





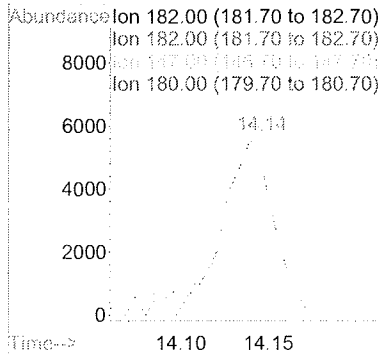
#87
Naphthalene
Concen: 3.81 ppb
RT: 13.87 min Scan# 2177
Delta R.T. 0.03 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am

Tgt Ion:128 Resp: 44981
Ion Ratio Lower Upper
128 100
128 100.0 80.0 120.0
127 10.4 0.0 0.0#
129 0.0 9.0 13.6#



#89
1,2,3-Trichlorobenzene
Concen: 2.34 ppb
RT: 14.14 min Scan# 2224
Delta R.T. 0.03 min
Lab File: V2567207.D
Acq: 15 Mar 2016 9:56 am

Tgt Ion:182 Resp: 10860
Ion Ratio Lower Upper
182 100
182 100.0 80.0 120.0
147 16.5 16.8 25.2#
180 108.2 85.4 128.2



FORM I

METHOD BLANK DATA SHEET

EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60771-BLK1 File ID: V6017797.D
 Prepared: 03/15/16 08:12 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/15/16 11:22 Instrument: MSVOA6
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
75-35-4	1,1-Dichloroethylene	0.50	U
563-58-6	1,1-Dichloropropylene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
96-18-4	1,2,3-Trichloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
95-63-6	1,2,4-Trimethylbenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
106-93-4	1,2-Dibromoethane	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
108-67-8	1,3,5-Trimethylbenzene	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
142-28-9	1,3-Dichloropropane	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
123-91-1	1,4-Dioxane	80	U
594-20-7	2,2-Dichloropropane	0.50	U
78-93-3	2-Butanone	0.50	U
95-49-8	2-Chlorotoluene	0.50	U
591-78-6	2-Hexanone	2.0	U
106-43-4	4-Chlorotoluene	0.50	U
108-10-1	4-Methyl-2-pentanone	0.50	U
67-64-1	Acetone	2.2	
107-02-8	Acrolein	0.50	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60771-BLK1 File ID: V6017797.D
 Prepared: 03/15/16 08:12 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/15/16 11:22 Instrument: MSVOA6
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
107-13-1	Acrylonitrile	2.0	U
71-43-2	Benzene	0.50	U
108-86-1	Bromobenzene	0.50	U
74-97-5	Bromochloromethane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
75-25-2	Bromoform	0.50	U
74-83-9	Bromomethane	0.50	U
75-15-0	Carbon disulfide	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
108-90-7	Chlorobenzene	0.50	U
75-00-3	Chloroethane	0.50	U
67-66-3	Chloroform	0.50	U
74-87-3	Chloromethane	0.50	U
156-59-2	cis-1,2-Dichloroethylene	0.50	U
10061-01-5	cis-1,3-Dichloropropylene	0.50	U
110-82-7	Cyclohexane	0.50	U
124-48-1	Dibromochloromethane	0.50	U
74-95-3	Dibromomethane	0.50	U
75-71-8	Dichlorodifluoromethane	0.50	U
100-41-4	Ethyl Benzene	0.50	U
87-68-3	Hexachlorobutadiene	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-20-9	Methyl acetate	0.50	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.50	U
108-87-2	Methylcyclohexane	0.50	U
75-09-2	Methylene chloride	2.0	U
104-51-8	n-Butylbenzene	0.50	U
103-65-1	n-Propylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	p- & m- Xylenes	1.0	U

FORM I

METHOD BLANK DATA SHEET
EPA 8260C

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60771-BLK1 File ID: V6017797.D
 Prepared: 03/15/16 08:12 Preparation: EPA 5030B Initial/Final: 25 mL / 25 mL
 Analyzed: 03/15/16 11:22 Instrument: MSVOA6
 Batch: BC60771 Sequence: Y6C1622 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
99-87-6	p-Isopropyltoluene	0.50	U
135-98-8	sec-Butylbenzene	0.50	U
100-42-5	Styrene	0.50	U
75-65-0	tert-Butyl alcohol (TBA)	2.0	U
98-06-6	tert-Butylbenzene	0.50	U
127-18-4	Tetrachloroethylene	0.50	U
108-88-3	Toluene	0.50	U
156-60-5	trans-1,2-Dichloroethylene	0.50	U
10061-02-6	trans-1,3-Dichloropropylene	0.50	U
79-01-6	Trichloroethylene	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
108-05-4	Vinyl acetate	0.50	U
75-01-4	Vinyl Chloride	0.50	U
1330-20-7	Xylenes, Total	1.5	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4	10.0	10.7	107	69 - 130	
Toluene-d8	10.0	9.76	97.6	81 - 117	
p-Bromofluorobenzene	10.0	9.93	99.3	79 - 122	

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017797.D
 Acq On : 15 Mar 2016 11:22 am
 InstName : MSVOA6
 Operator : SS
 Sample : BC60771-BLK1
 Misc : QBV6031516A <2 OW
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 12:19:20 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

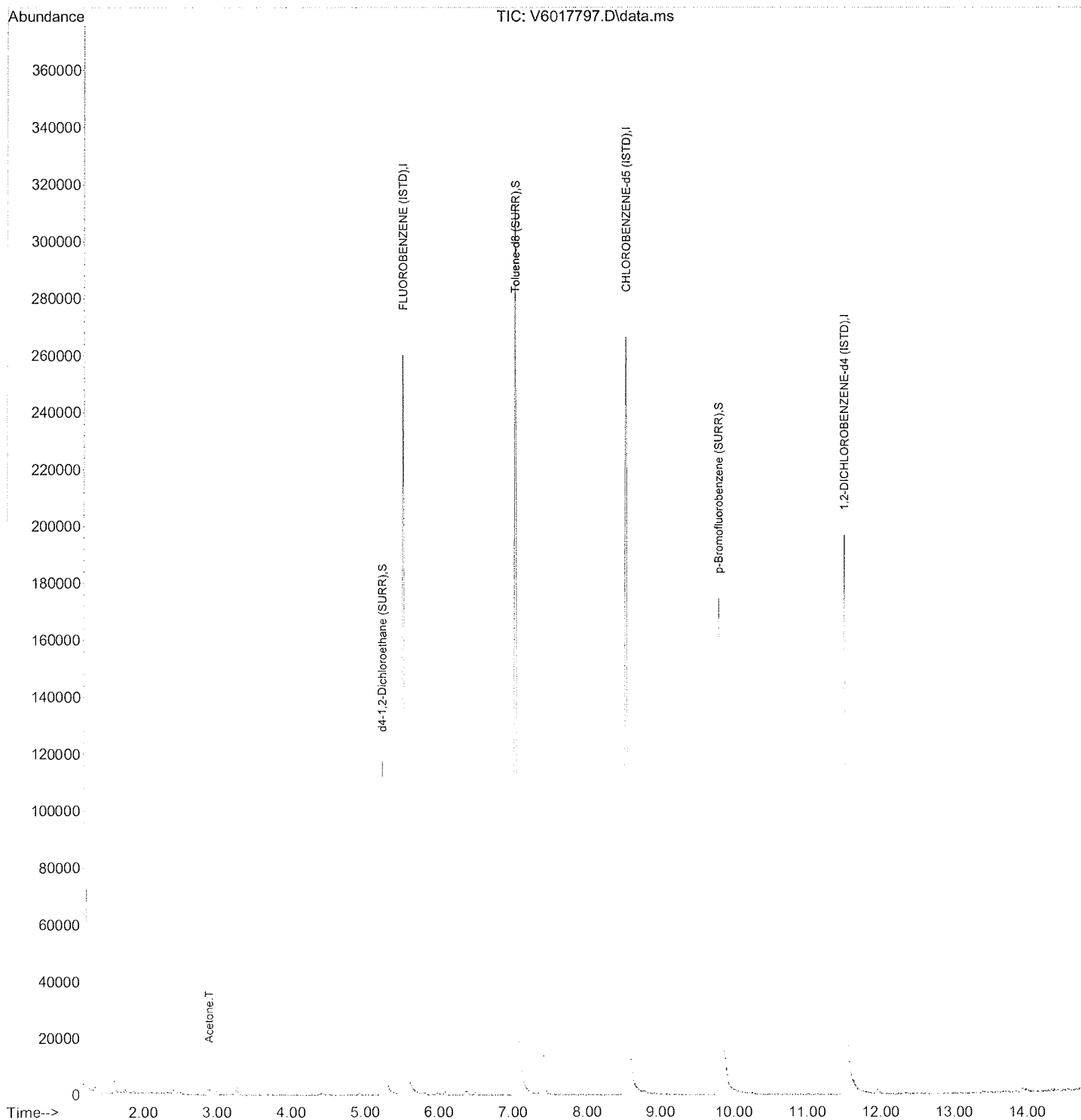
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

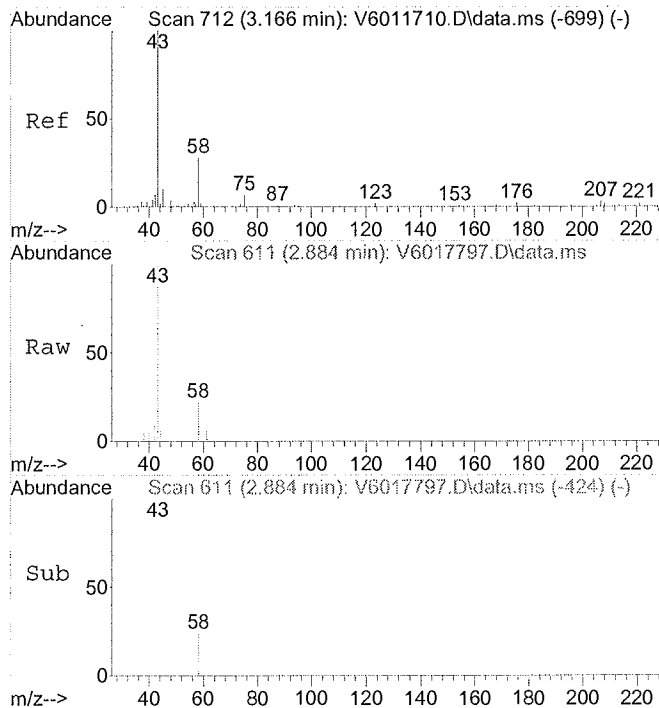
Internal Standards						
1) FLUOROBENZENE (ISTD)	5.505	70	52622	10.00	ppb	# 0.00
40) CHLOROBENZENE-d5 (ISTD)	8.524	117	204661	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.496	152	76058	10.00	ppb	0.00
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.222	65	68977	10.67	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	106.70%	
51) Toluene-d8 (SURR)	7.027	98	269868	9.76	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	97.60%	
70) p-Bromofluorobenzene (...)	9.787	95	94178	9.93	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.30%	
Target Compounds						
12) Acetone	2.884	43	3687	2.22	ppb	Qvalue 96

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

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017797.D
Acq On : 15 Mar 2016 11:22 am
InstName : MSVOA6
Operator : SS
Sample : BC60771-BLK1
Misc : QBV6031516A <2 OW
ALS Vial : 6 Sample Multiplier: 1

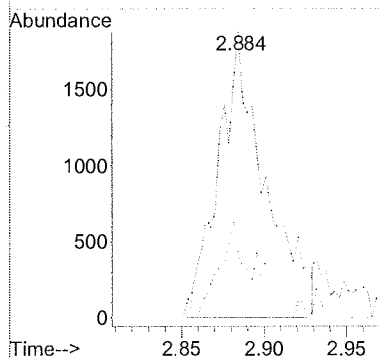
Quant Time: Mar 16 12:19:20 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration





#12
 Acetone
 Concen: 2.22 ppb
 RT: 2.884 min Scan# 611
 Delta R.T. 0.019 min
 Lab File: V6017797.D
 Acq: 15 Mar 2016 11:22 am

Tgt Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
58	18.0	13.9	41.6



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BS1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	50.0	54	107	75 - 129
1,1,1-Trichloroethane	50.0	51	102	71 - 137
1,1,2,2-Tetrachloroethane	50.0	56	113	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	50.0	54	108	58 - 146
1,1,2-Trichloroethane	50.0	56	111	83 - 123
1,1-Dichloroethane	50.0	56	111	75 - 130
1,1-Dichloroethylene	50.0	49	97.5	64 - 137
1,1-Dichloropropylene	50.0	54	108	77 - 127
1,2,3-Trichlorobenzene	50.0	55	110	81 - 140
1,2,3-Trichloropropane	50.0	53	106	81 - 126
1,2,4-Trichlorobenzene	50.0	55	110	80 - 141
1,2,4-Trimethylbenzene	50.0	50	99.5	84 - 125
1,2-Dibromo-3-chloropropane	50.0	55	111	74 - 142
1,2-Dibromoethane	50.0	54	108	86 - 123
1,2-Dichlorobenzene	50.0	54	109	85 - 122
1,2-Dichloroethane	50.0	51	102	71 - 133
1,2-Dichloropropane	50.0	53	106	81 - 122
1,3,5-Trimethylbenzene	50.0	49	98.9	82 - 126
1,3-Dichlorobenzene	50.0	53	107	84 - 124
1,3-Dichloropropane	50.0	55	111	83 - 123
1,4-Dichlorobenzene	50.0	52	103	84 - 124
1,4-Dioxane	1000	1600	165	10 - 228
2,2-Dichloropropane	50.0	51	103	67 - 136
2-Butanone	50.0	58	116	58 - 147
2-Chlorotoluene	50.0	50	101	78 - 127
2-Hexanone	50.0	60	120	70 - 139
4-Chlorotoluene	50.0	49	97.8	79 - 125
4-Methyl-2-pentanone	50.0	61	121	72 - 132
Acetone	50.0	54	108	36 - 155
Acrolein	50.0	100	202	10 - 238

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BS1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Acrylonitrile	50.0	60	121	66 - 141
Benzene	50.0	54	109	77 - 127
Bromobenzene	50.0	49	97.7	77 - 129
Bromochloromethane	50.0	56	111	74 - 129
Bromodichloromethane	50.0	52	103	81 - 124
Bromoform	50.0	53	107	80 - 136
Bromomethane	50.0	44	87.6	32 - 177
Carbon disulfide	50.0	53	105	10 - 136
Carbon tetrachloride	50.0	49	98.1	66 - 143
Chlorobenzene	50.0	54	109	86 - 120
Chloroethane	50.0	54	108	51 - 142
Chloroform	50.0	53	107	76 - 131
Chloromethane	50.0	52	104	49 - 132
cis-1,2-Dichloroethylene	50.0	54	108	74 - 132
cis-1,3-Dichloropropylene	50.0	52	104	81 - 129
Cyclohexane	50.0	58	116	70 - 130
Dibromochloromethane	50.0	54	108	10 - 200
Dibromomethane	50.0	53	106	83 - 124
Dichlorodifluoromethane	50.0	45	89.8	28 - 158
Ethyl Benzene	50.0	50	99.9	84 - 125
Hexachlorobutadiene	50.0	50	99.8	83 - 133
Isopropylbenzene	50.0	51	102	81 - 127
Methyl acetate	50.0	62	125	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	53	106	74 - 131
Methylcyclohexane	50.0	56	112	70 - 130
Methylene chloride	50.0	51	101	57 - 141
n-Butylbenzene	50.0	50	101	80 - 130
n-Propylbenzene	50.0	51	103	74 - 136
o-Xylene	50.0	51	103	83 - 123
p- & m- Xylenes	100	98	98.2	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BS1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
p-Isopropyltoluene	50.0	50	99.9	85 - 125
sec-Butylbenzene	50.0	52	104	83 - 125
Styrene	50.0	52	104	86 - 126
tert-Butyl alcohol (TBA)	50.0	64	128	70 - 130
tert-Butylbenzene	50.0	51	103	80 - 127
Tetrachloroethylene	50.0	52	104	80 - 129
Toluene	50.0	52	104	85 - 121
trans-1,2-Dichloroethylene	50.0	54	108	72 - 132
trans-1,3-Dichloropropylene	50.0	51	101	78 - 132
Trichloroethylene	50.0	54	107	84 - 123
Trichlorofluoromethane	50.0	48	96.5	62 - 140
Vinyl acetate	50.0	88	175 *	67 - 136
Vinyl Chloride	50.0	52	104	52 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BSD1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	50.0	54	108	1.17	30	75 - 129
1,1,1-Trichloroethane	50.0	49	98.2	3.87	30	71 - 137
1,1,2,2-Tetrachloroethane	50.0	57	113	0.513	30	79 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54	107	0.633	30	58 - 146
1,1,2-Trichloroethane	50.0	56	112	0.788	30	83 - 123
1,1-Dichloroethane	50.0	54	108	2.46	30	75 - 130
1,1-Dichloroethylene	50.0	48	96.4	1.13	30	64 - 137
1,1-Dichloropropylene	50.0	54	109	1.22	30	77 - 127
1,2,3-Trichlorobenzene	50.0	54	108	1.96	30	81 - 140
1,2,3-Trichloropropane	50.0	54	108	1.27	30	81 - 126
1,2,4-Trichlorobenzene	50.0	53	107	3.05	30	80 - 141
1,2,4-Trimethylbenzene	50.0	50	99.7	0.221	30	84 - 125
1,2-Dibromo-3-chloropropane	50.0	54	108	2.08	30	74 - 142
1,2-Dibromoethane	50.0	54	108	0.0743	30	86 - 123
1,2-Dichlorobenzene	50.0	54	109	0.0735	30	85 - 122
1,2-Dichloroethane	50.0	51	102	0.452	30	71 - 133
1,2-Dichloropropane	50.0	55	110	3.15	30	81 - 122
1,3,5-Trimethylbenzene	50.0	49	98.8	0.121	30	82 - 126
1,3-Dichlorobenzene	50.0	54	107	0.485	30	84 - 124
1,3-Dichloropropane	50.0	55	111	0.0903	30	83 - 123
1,4-Dichlorobenzene	50.0	53	106	2.35	30	84 - 124
1,4-Dioxane	1000	1600	159	3.76	30	10 - 228
2,2-Dichloropropane	50.0	51	101	1.59	30	67 - 136
2-Butanone	50.0	55	109	5.78	30	58 - 147
2-Chlorotoluene	50.0	50	101	0.258	30	78 - 127
2-Hexanone	50.0	58	115	4.07	30	70 - 139
4-Chlorotoluene	50.0	49	98.7	0.855	30	79 - 125
4-Methyl-2-pentanone	50.0	56	112	7.97	30	72 - 132
Acetone	50.0	49	97.2	10.7	30	36 - 155
Acrolein	50.0	97	193	4.39	30	10 - 238

FORM III
LCS / LCS DUPLICATE RECOVERY
EPA 8260C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Batch: BC60766

Laboratory ID: BC60766-BSD1

Preparation: EPA 5035A

Initial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Acrylonitrile	50.0	57	114	5.44	30	66 - 141
Benzene	50.0	54	108	1.27	30	77 - 127
Bromobenzene	50.0	50	100	2.43	30	77 - 129
Bromochloromethane	50.0	54	109	2.07	30	74 - 129
Bromodichloromethane	50.0	54	108	4.08	30	81 - 124
Bromoform	50.0	53	106	0.507	30	80 - 136
Bromomethane	50.0	46	91.7	4.64	30	32 - 177
Carbon disulfide	50.0	50	99.2	5.72	30	10 - 136
Carbon tetrachloride	50.0	48	96.2	2.00	30	66 - 143
Chlorobenzene	50.0	55	111	1.82	30	86 - 120
Chloroethane	50.0	53	106	2.60	30	51 - 142
Chloroform	50.0	52	103	3.18	30	76 - 131
Chloromethane	50.0	50	100	3.12	30	49 - 132
cis-1,2-Dichloroethylene	50.0	56	111	3.09	30	74 - 132
cis-1,3-Dichloropropylene	50.0	53	107	2.77	30	81 - 129
Cyclohexane	50.0	53	106	9.48	30	70 - 130
Dibromochloromethane	50.0	54	108	0.575	30	10 - 200
Dibromomethane	50.0	53	107	1.15	30	83 - 124
Dichlorodifluoromethane	50.0	40	80.5	10.9	30	28 - 158
Ethyl Benzene	50.0	50	101	0.956	30	84 - 125
Hexachlorobutadiene	50.0	51	101	1.21	30	83 - 133
Isopropylbenzene	50.0	52	104	1.75	30	81 - 127
Methyl acetate	50.0	60	120	3.78	30	41 - 143
Methyl tert-butyl ether (MTBE)	50.0	51	103	2.90	30	74 - 131
Methyleyclohexane	50.0	56	112	0.268	30	70 - 130
Methylene chloride	50.0	49	98.0	3.27	30	57 - 141
n-Butylbenzene	50.0	50	100	0.577	30	80 - 130
n-Propylbenzene	50.0	52	104	1.30	30	74 - 136
o-Xylene	50.0	52	104	1.30	30	83 - 123
p- & m- Xylenes	100	99	98.6	0.335	30	82 - 128

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60766Laboratory ID: BC60766-BSD1Preparation: EPA 5035AInitial/Final: 5 g / 5 ml

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
p-Isopropyltoluene	50.0	51	102	2.47	30	85 - 125
sec-Butylbenzene	50.0	52	105	0.806	30	83 - 125
Styrene	50.0	53	105	1.57	30	86 - 126
tert-Butyl alcohol (TBA)	50.0	57	114	11.5	30	70 - 130
tert-Butylbenzene	50.0	52	103	0.738	30	80 - 127
Tetrachloroethylene	50.0	52	103	1.02	30	80 - 129
Toluene	50.0	52	103	0.174	30	85 - 121
trans-1,2-Dichloroethylene	50.0	53	106	1.52	30	72 - 132
trans-1,3-Dichloropropylene	50.0	50	101	0.673	30	78 - 132
Trichloroethylene	50.0	53	105	1.68	30	84 - 123
Trichlorofluoromethane	50.0	47	93.3	3.35	30	62 - 140
Vinyl acetate	50.0	84	169 *	3.86	30	67 - 136
Vinyl Chloride	50.0	52	104	0.0578	30	52 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BS1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	10.0	11	113	82 - 126
1,1,1-Trichloroethane	10.0	12	125	78 - 136
1,1,2,2-Tetrachloroethane	10.0	9.4	94.0	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	12	123	54 - 165
1,1,2-Trichloroethane	10.0	9.9	99.3	82 - 123
1,1-Dichloroethane	10.0	11	115	82 - 129
1,1-Dichloroethylene	10.0	12	120	68 - 138
1,1-Dichloropropylene	10.0	12	117	83 - 133
1,2,3-Trichlorobenzene	10.0	9.6	96.0	76 - 136
1,2,3-Trichloropropane	10.0	9.9	98.9	77 - 128
1,2,4-Trichlorobenzene	10.0	10	105	76 - 137
1,2,4-Trimethylbenzene	10.0	11	110	82 - 132
1,2-Dibromo-3-chloropropane	10.0	8.5	85.1	45 - 147
1,2-Dibromoethane	10.0	9.9	99.1	83 - 124
1,2-Dichlorobenzene	10.0	11	109	79 - 123
1,2-Dichloroethane	10.0	12	118	73 - 132
1,2-Dichloropropane	10.0	10	103	78 - 126
1,3,5-Trimethylbenzene	10.0	11	110	80 - 131
1,3-Dichlorobenzene	10.0	12	116	86 - 122
1,3-Dichloropropane	10.0	10	101	81 - 125
1,4-Dichlorobenzene	10.0	12	115	85 - 124
1,4-Dioxane	200	140	72.3	10 - 349
2,2-Dichloropropane	10.0	13	129	56 - 150
2-Butanone	10.0	6.5	65.2	49 - 152
2-Chlorotoluene	10.0	12	117	79 - 130
2-Hexanone	10.0	6.8	67.5	51 - 146
4-Chlorotoluene	10.0	12	119	79 - 128
4-Methyl-2-pentanone	10.0	9.8	97.6	57 - 145
Acetone	10.0	10	101	14 - 150
Acrolein	10.0	8.7	87.0	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BS1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Acrylonitrile	10.0	8.4	83.6	51 - 150
Benzene	10.0	11	114	85 - 126
Bromobenzene	10.0	10	102	78 - 129
Bromochloromethane	10.0	11	113	77 - 128
Bromodichloromethane	10.0	11	106	79 - 128
Bromoform	10.0	9.8	97.5	78 - 133
Bromomethane	10.0	5.7	57.1	43 - 168
Carbon disulfide	10.0	11	113	68 - 146
Carbon tetrachloride	10.0	13	126	77 - 141
Chlorobenzene	10.0	11	114	88 - 120
Chloroethane	10.0	12	116	65 - 136
Chloroform	10.0	12	117	82 - 128
Chloromethane	10.0	10	101	43 - 155
cis-1,2-Dichloroethylene	10.0	12	118	83 - 129
cis-1,3-Dichloropropylene	10.0	10	104	80 - 131
Cyclohexane	10.0	12	118	63 - 149
Dibromochloromethane	10.0	11	107	80 - 130
Dibromomethane	10.0	10	99.6	72 - 134
Dichlorodifluoromethane	10.0	14	140	44 - 144
Ethyl Benzene	10.0	11	111	80 - 131
Hexachlorobutadiene	10.0	11	114	67 - 146
Isopropylbenzene	10.0	12	118	76 - 140
Methyl acetate	10.0	10	102	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	11	110	76 - 135
Methylcyclohexane	10.0	11	106	72 - 143
Methylene chloride	10.0	11	115	55 - 137
n-Butylbenzene	10.0	11	111	79 - 132
n-Propylbenzene	10.0	12	118	78 - 133
o-Xylene	10.0	12	117	78 - 130
p- & m- Xylenes	20.0	23	116	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BS1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
p-Isopropyltoluene	10.0	11	114	81 - 136
sec-Butylbenzene	10.0	12	120	79 - 137
Styrene	10.0	10	105	67 - 132
tert-Butyl alcohol (TBA)	10.0	8.3	83.4	25 - 162
tert-Butylbenzene	10.0	12	117	77 - 138
Tetrachloroethylene	10.0	11	110	82 - 131
Toluene	10.0	11	108	80 - 127
trans-1,2-Dichloroethylene	10.0	12	117	80 - 132
trans-1,3-Dichloropropylene	10.0	10	103	78 - 131
Trichloroethylene	10.0	11	108	82 - 128
Trichlorofluoromethane	10.0	13	132	67 - 139
Vinyl acetate	10.0	11	109 *	21 - 90
Vinyl Chloride	10.0	11	114	58 - 145

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BSD1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	10.0	12	119	5.17	30	82 - 126
1,1,1-Trichloroethane	10.0	13	128	2.14	30	78 - 136
1,1,2,2-Tetrachloroethane	10.0	10	104	9.72	30	76 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	13	126	2.49	30	54 - 165
1,1,2-Trichloroethane	10.0	11	110	9.86	30	82 - 123
1,1-Dichloroethane	10.0	12	119	3.68	30	82 - 129
1,1-Dichloroethylene	10.0	12	124	2.86	30	68 - 138
1,1-Dichloropropylene	10.0	12	119	1.78	30	83 - 133
1,2,3-Trichlorobenzene	10.0	11	113	16.3	30	76 - 136
1,2,3-Trichloropropane	10.0	11	109	9.62	30	77 - 128
1,2,4-Trichlorobenzene	10.0	11	114	7.96	30	76 - 137
1,2,4-Trimethylbenzene	10.0	11	110	0.365	30	82 - 132
1,2-Dibromo-3-chloropropane	10.0	9.1	90.6	6.26	30	45 - 147
1,2-Dibromoethane	10.0	11	110	10.2	30	83 - 124
1,2-Dichlorobenzene	10.0	11	113	3.59	30	79 - 123
1,2-Dichloroethane	10.0	12	124	5.29	30	73 - 132
1,2-Dichloropropane	10.0	11	107	4.47	30	78 - 126
1,3,5-Trimethylbenzene	10.0	11	111	1.08	30	80 - 131
1,3-Dichlorobenzene	10.0	12	117	1.12	30	86 - 122
1,3-Dichloropropane	10.0	11	109	7.63	30	81 - 125
1,4-Dichlorobenzene	10.0	12	117	1.98	30	85 - 124
1,4-Dioxane	200	180	89.4	21.1	30	10 - 349
2,2-Dichloropropane	10.0	13	130	0.542	30	56 - 150
2-Butanone	10.0	8.2	81.5	22.2	30	49 - 152
2-Chlorotoluene	10.0	12	117	0.342	30	79 - 130
2-Hexanone	10.0	8.1	80.6	17.7	30	51 - 146
4-Chlorotoluene	10.0	12	120	1.09	30	79 - 128
4-Methyl-2-pentanone	10.0	11	110	12.2	30	57 - 145
Acetone	10.0	11	113	10.7	30	14 - 150
Acrolein	10.0	10	100	14.0	30	10 - 153

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BSD1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Acrylonitrile	10.0	8.8	88.4	5.58	30	51 - 150
Benzene	10.0	12	119	3.95	30	85 - 126
Bromobenzene	10.0	11	106	4.23	30	78 - 129
Bromochloromethane	10.0	12	120	5.49	30	77 - 128
Bromodichloromethane	10.0	11	112	6.06	30	79 - 128
Bromoform	10.0	11	109	10.9	30	78 - 133
Bromomethane	10.0	7.4	74.1	25.9	30	43 - 168
Carbon disulfide	10.0	11	115	1.76	30	68 - 146
Carbon tetrachloride	10.0	13	129	2.66	30	77 - 141
Chlorobenzene	10.0	12	119	4.73	30	88 - 120
Chloroethane	10.0	12	120	3.74	30	65 - 136
Chloroform	10.0	12	125	5.95	30	82 - 128
Chloromethane	10.0	10	102	0.791	30	43 - 155
cis-1,2-Dichloroethylene	10.0	12	122	3.35	30	83 - 129
cis-1,3-Dichloropropylene	10.0	11	112	7.22	30	80 - 131
Cyclohexane	10.0	12	120	2.27	30	63 - 149
Dibromochloromethane	10.0	12	115	7.75	30	80 - 130
Dibromomethane	10.0	11	110	9.47	30	72 - 134
Dichlorodifluoromethane	10.0	14	137	2.45	30	44 - 144
Ethyl Benzene	10.0	12	115	3.45	30	80 - 131
Hexachlorobutadiene	10.0	12	121	5.94	30	67 - 146
Isopropylbenzene	10.0	12	117	0.682	30	76 - 140
Methyl acetate	10.0	11	109	6.44	30	51 - 139
Methyl tert-butyl ether (MTBE)	10.0	12	119	8.02	30	76 - 135
Methylcyclohexane	10.0	11	110	3.90	30	72 - 143
Methylene chloride	10.0	12	121	5.01	30	55 - 137
n-Butylbenzene	10.0	11	111	0.00	30	79 - 132
n-Propylbenzene	10.0	12	118	0.169	30	78 - 133
o-Xylene	10.0	12	121	3.53	30	78 - 130
p- & m- Xylenes	20.0	24	121	4.27	30	77 - 133

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60771Laboratory ID: BC60771-BSD1Preparation: EPA 5030BInitial/Final: 25 mL / 25 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
p-Isopropyltoluene	10.0	11	112	1.77	30	81 - 136
sec-Butylbenzene	10.0	12	120	0.00	30	79 - 137
Styrene	10.0	11	109	4.11	30	67 - 132
tert-Butyl alcohol (TBA)	10.0	9.5	94.7	12.7	30	25 - 162
tert-Butylbenzene	10.0	12	117	0.512	30	77 - 138
Tetrachloroethylene	10.0	11	115	4.19	30	82 - 131
Toluene	10.0	11	110	1.83	30	80 - 127
trans-1,2-Dichloroethylene	10.0	12	122	3.60	30	80 - 132
trans-1,3-Dichloropropylene	10.0	12	115	11.3	30	78 - 131
Trichloroethylene	10.0	11	112	3.46	30	82 - 128
Trichlorofluoromethane	10.0	13	134	1.81	30	67 - 139
Vinyl acetate	10.0	12	117 *	7.28	30	21 - 90
Vinyl Chloride	10.0	12	117	2.78	30	58 - 145

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567205.D Vial: 3
 Acq On : 15 Mar 2016 8:56 am Operator: BK
 Sample : BC60766-BS1 Inst : MS VOA 2
 Misc : QBV2031516A Y16A037 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 9:31 2016 Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.77	70	165652	50.00	ppb	0.03
35) CHLOROBENZENE-d5(ISTD)	8.78	117	625823	50.00	ppb	0.03
64) 1,2-DICHLOROBENZENE-d4(IST	11.74	152	246977	50.00	ppb	0.03

System Monitoring Compounds						
31) d4-1,2-Dichloroethane(SURR	5.46	65	199315	47.59	ppb	0.02
Spiked Amount	50.000	Range	67 - 128	Recovery	=	95.18%
47) Toluene-d8(SURR)	7.30	98	739893	48.14	ppb	0.02
Spiked Amount	50.000	Range	87 - 113	Recovery	=	96.28%
66) p-Bromofluorobenzene(SURR)	10.04	174	222949	48.62	ppb	0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	97.24%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.58	85	219616	44.90	ppb	100
3) Chloromethane	1.78	50	339514	51.81	ppb	100
4) Vinyl Chloride	1.87	62	223789	51.95	ppb	100
5) Bromomethane	2.19	94	100448	43.78	ppb	99
6) Chloroethane	2.29	64	105592	54.14	ppb	# 97
7) Trichlorofluoromethane	2.54	101	221649	48.23	ppb	99
8) Ethyl Ether	2.83	59	217300	57.78	ppb	98
9) Freon-113	3.05	101	215309	53.86	ppb	98
10) 1,1-Dichloroethylene	3.05	61	300255	48.77	ppb	99
11) Acrolein	2.96	56	65615	101.06	ppb	96
12) Iodomethane	3.20	142	232285	64.48	ppb	99
13) Methyl Acetate	3.42	43	246235	62.33	ppb	100
14) tert Butyl Alcohol (TBA)	3.63	59	36712	63.93	ppb	# 100
15) Acrylonitrile	3.75	53	112231	60.43	ppb	98
16) trans-1,2-Dichloroethylene	3.76	61	322136	53.78	ppb	# 63
17) Carbon Disulfide	3.26	76	751784	52.53	ppb	100
18) Methylene Chloride	3.51	49	373270	50.61	ppb	100
19) tert-Butyl Methyl Ether (M	3.77	73	605322	52.83	ppb	100
20) Acetone	3.11	43	114135	54.09	ppb	99
21) 1,1-Dichloroethane	4.17	63	468238	55.55	ppb	100
22) Vinyl Acetate	4.21	43	639341	87.66	ppb	100
23) cis-1,2-Dichloroethylene	4.70	96	275787	53.86	ppb	# 99
24) 2-Butanone	4.72	43	161875	57.99	ppb	99
25) 2,2-Dichloropropane	4.70	77	311277	51.34	ppb	100
26) Bromochloromethane	4.93	49	236215	55.53	ppb	99
27) Chloroform	5.00	83	392022	53.37	ppb	98
28) 1,1,1-Trichloroethane	5.17	97	300570	51.06	ppb	100
29) Cyclohexane	5.22	56	466714	58.02	ppb	99
30) 1,1-Dichloropropylene	5.32	75	302593	53.78	ppb	# 99
32) Carbon Tetrachloride	5.33	117	224600	49.06	ppb	100
33) 1,2-Dichloroethane	5.53	62	244320	51.04	ppb	100
34) Benzene	5.52	78	883805	54.48	ppb	100
36) Tetrahydrofuran	4.98	42	95533	48.64	ppb	97
37) Trichloroethylene	6.12	95	242091	53.52	ppb	98
38) Methyl Cyclohexane	6.30	83	418883	55.88	ppb	# 100
39) Methyl Methacrylate	6.43	69	203226	56.88	ppb	# 100
40) Dibromomethane	6.45	93	147744	52.75	ppb	99
41) Bromodichloromethane	6.60	83	309139	51.67	ppb	100
42) 1,2-Dichloropropane	6.34	63	256212	53.12	ppb	99
43) 1,4-Dioxane	6.47	88	62267	1649.49	ppb	98
45) cis-1,3-Dichloropropene	7.03	75	416817	51.97	ppb	100
46) 2-Hexanone	8.02	43	253274	59.89	ppb	100
48) Toluene	7.37	91	864530	51.79	ppb	100
49) trans-1,3-Dichloropropene	7.58	75	357174	50.70	ppb	100
50) 1,1,2-Trichloroethane	7.78	83	193244	55.64	ppb	# 55

(#) = qualifier out of range (m) = manual integration
 V2567205.D V2C00371.M Wed Mar 16 13:04:33 2016

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567205.D Vial: 3
 Acq On : 15 Mar 2016 8:56 am Operator: BK
 Sample : BC60766-BS1 Inst : MS VOA 2
 Misc : QBV2031516A Y16A037 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 9:31 2016 Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

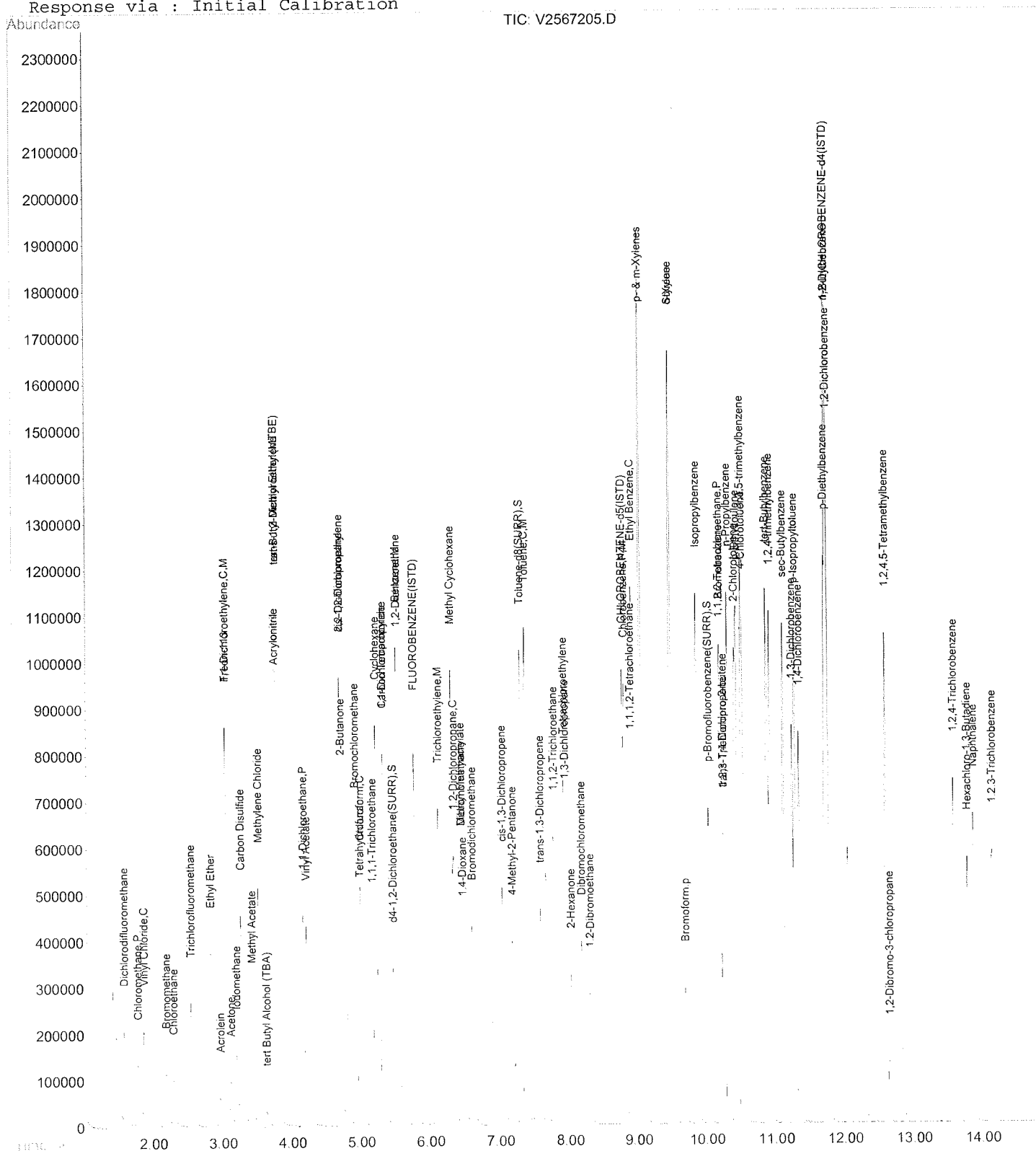
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51) 1,3-Dichloropropane	7.95	76	395630	55.38	ppb	# 94
52) Tetrachloroethylene	7.92	166	240704	52.22	ppb	# 100
53) 4-Methyl-2-Pentanone	7.18	43	362270	60.51	ppb	# 59
54) Dibromochloromethane	8.18	129	232555	53.77	ppb	100
55) 1,2-Dibromoethane	8.31	107	227716	53.84	ppb	100
56) Chlorobenzene	8.81	112	581092	54.34	ppb	# 72
57) Ethyl Benzene	8.92	91	911344	49.96	ppb	99
58) p- & m-Xylenes	9.04	91	1295513	98.22	ppb	98
59) o-Xylene	9.47	91	718329	51.30	ppb	99
60) Styrene	9.48	104	611231	51.92	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.90	131	212406	53.50	ppb	97
62) p-Ethyltoluene	10.44	105	848641	52.73	ppb	98
63) p-Diethylbenzene	11.72	119	444556	56.55	ppb	95
65) Bromoform	9.69	173	153716	53.43	ppb	# 76
67) 1,1,2,2-Tetrachloroethane	10.19	83	314652	56.40	ppb	99
68) trans-1,4-Dichloro-2-buten	10.25	75	358611	55.67	ppb	100
69) 1,2,3-Trichloropropane	10.24	110	84460	53.21	ppb	98
70) Isopropylbenzene	9.87	105	923529	51.06	ppb	# 99
71) Bromobenzene	10.20	77	377913	48.85	ppb	98
72) n-Propylbenzene	10.32	91	1089592	51.28	ppb	100
73) 2-Chlorotoluene	10.41	91	687606	50.42	ppb	# 87
74) 4-Chlorotoluene	10.53	91	677361	48.91	ppb	# 87
75) tert-Butylbenzene	10.87	119	809316	51.29	ppb	# 100
76) 1,3,5-trimethylbenzene	10.51	105	680523	49.44	ppb	99
77) 1,2,4-trimethylbenzene	10.93	105	682627	49.74	ppb	99
78) sec-Butylbenzene	11.12	105	961858	51.93	ppb	# 94
79) 1,3-Dichlorobenzene	11.25	146	445578	53.46	ppb	# 100
80) 1,4-Dichlorobenzene	11.35	146	428238	51.68	ppb	# 100
81) 1,2-Dichlorobenzene	11.76	146	380129	54.40	ppb	# 100
82) p-Isopropyltoluene	11.28	119	729038	49.96	ppb	# 100
83) n-Butylbenzene	11.75	91	807342	50.41	ppb	# 100
84) 1,2,4,5-Tetramethylbenzene	12.60	119	668348	54.48	ppb	97
85) 1,2-Dibromo-3-chloropropan	12.65	75	41205m	55.26	ppb	
86) 1,2,4-Trichlorobenzene	13.58	180	273148	54.99	ppb	98
87) Naphthalene	13.87	128	608502	58.90	ppb	# 100
88) Hexachloro-1,3-Butadiene	13.78	225	125764	49.91	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.14	182	223701	55.06	ppb	99

(#) = qualifier out of range (m) = manual integration
 V2567205.D V2C00371.M Wed Mar 16 13:04:33 2016

Quantitation Report

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567205.D Vial: 3
Acq On : 15 Mar 2016 8:56 am Operator: BK
Sample : BC60766-BS1 Inst : MS VOA 2
Misc : QBV2031516A Y16A037 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 15 9:31 2016 Quant Results File: V2C00371.RES

```
Method       : G:\MSVOA METHODS\V2C00371.M (RTE Integrator)
Title        : VOCs BY GC/MS 8240/8260
Last Update   : Thu Jan 14 15:20:23 2016
Response via  : Initial Calibration
```



Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567206.D Vial: 4
 Acq On : 15 Mar 2016 9:26 am Operator: BK
 Sample : BC60766-BSD1 Inst : MS VOA 2
 Misc : QBV2031516A Y16A037 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 11:03 2016 Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) FLUOROBENZENE(ISTD)	5.77	70	166477	50.00	ppb	0.03
35) CHLOROBEZENE-d5(ISTD)	8.78	117	610541	50.00	ppb	0.03
64) 1,2-DICHLOROBEZENE-d4(ISTD)	11.74	152	238845	50.00	ppb	0.03

System Monitoring Compounds

31) d4-1,2-Dichloroethane(SURR)	5.46	65	196328	46.65	ppb	0.03
Spiked Amount	50.000	Range	67 - 128	Recovery	=	93.30%
47) Toluene-d8(SURR)	7.30	98	733448	48.92	ppb	0.03
Spiked Amount	50.000	Range	87 - 113	Recovery	=	97.84%
66) p-Bromofluorobenzene(SURR)	10.04	174	217977	49.15	ppb	0.03
Spiked Amount	50.000	Range	63 - 166	Recovery	=	98.30%

Target Compounds

Qvalue

2) Dichlorodifluoromethane	1.58	85	197843	40.25	ppb	99
3) Chloromethane	1.78	50	330760	50.22	ppb	100
4) Vinyl Chloride	1.86	62	224771	51.92	ppb	99
5) Bromomethane	2.19	94	105741	45.86	ppb	99
6) Chloroethane	2.29	64	103375	52.75	ppb	100
7) Trichlorofluoromethane	2.54	101	215409	46.64	ppb	99
8) Ethyl Ether	2.83	59	199973	52.91	ppb	97
9) Freon-113	3.05	101	215026	53.52	ppb	98
10) 1,1-Dichloroethylene	3.05	61	298309	48.22	ppb	99
11) Acrolein	2.96	56	63110	96.72	ppb	97
12) Iodomethane	3.19	142	233013	64.37	ppb	99
13) Methyl Acetate	3.42	43	238294	60.02	ppb	100
14) tert Butyl Alcohol (TBA)	3.63	59	32881	56.97	ppb	# 100
15) Acrylonitrile	3.75	53	106808	57.23	ppb	# 90
16) trans-1,2-Dichloroethylene	3.77	61	318871	52.97	ppb	# 99
17) Carbon Disulfide	3.26	76	713540	49.61	ppb	100
18) Methylene Chloride	3.51	49	363057	48.98	ppb	100
19) tert-Butyl Methyl Ether (M	3.77	73	591050	51.32	ppb	100
20) Acetone	3.11	43	103110	48.62	ppb	99
21) 1,1-Dichloroethane	4.16	63	459175	54.20	ppb	100
22) Vinyl Acetate	4.21	43	618240	84.34	ppb	100
23) cis-1,2-Dichloroethylene	4.70	96	285893	55.55	ppb	# 100
24) 2-Butanone	4.72	43	153525	54.73	ppb	99
25) 2,2-Dichloropropane	4.70	77	307863	50.53	ppb	100
26) Bromochloromethane	4.92	49	232543	54.39	ppb	98
27) Chloroform	4.99	83	381641	51.70	ppb	99
28) 1,1,1-Trichloroethane	5.17	97	290611	49.12	ppb	99
29) Cyclohexane	5.22	56	426626	52.77	ppb	97
30) 1,1-Dichloropropylene	5.32	75	307839	54.44	ppb	# 100
32) Carbon Tetrachloride	5.32	117	221231	48.09	ppb	100
33) 1,2-Dichloroethane	5.53	62	244464	50.81	ppb	100
34) Benzene	5.52	78	877047	53.79	ppb	100
36) Tetrahydrofuran	4.97	42	99887	52.14	ppb	94
37) Trichloroethylene	6.12	95	232266	52.63	ppb	99
38) Methyl Cyclohexane	6.30	83	409701	56.03	ppb	# 72
39) Methyl Methacrylate	6.43	69	195014	55.95	ppb	# 100
40) Dibromomethane	6.45	93	145810	53.36	ppb	98
41) Bromodichloromethane	6.60	83	314147	53.82	ppb	99
42) 1,2-Dichloropropane	6.34	63	257936	54.82	ppb	98
43) 1,4-Dioxane	6.46	88	58505	1588.62	ppb	98
45) cis-1,3-Dichloropropene	7.04	75	418052	53.43	ppb	100
46) 2-Hexanone	8.02	43	237245	57.50	ppb	99
48) Toluene	7.36	91	841924	51.70	ppb	99
49) trans-1,3-Dichloropropene	7.58	75	346127	50.36	ppb	99
50) 1,1,2-Trichloroethane	7.77	83	190004	56.08	ppb	98

(#) = qualifier out of range (m) = manual integration

V2567206.D V2C00371.M Wed Mar 16 13:04:39 2016

Quantitation Report (QT Reviewed)

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567206.D Vial: 4
 Acq On : 15 Mar 2016 9:26 am Operator: BK
 Sample : BC60766-BSD1 Inst : MS VOA 2
 Misc : QBV2031516A Y16A037 Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Mar 15 11:03 2016 Quant Results File: V2C00371.RES

Quant Method : C:\HPCHEM\1\METHODS\V2C00371.M (RTE Integrator)
 Title : VOCs BY GC/MS 8240/8260
 Last Update : Wed Feb 24 09:47:09 2016
 Response via : Initial Calibration
 DataAcq Meth : V2C204A

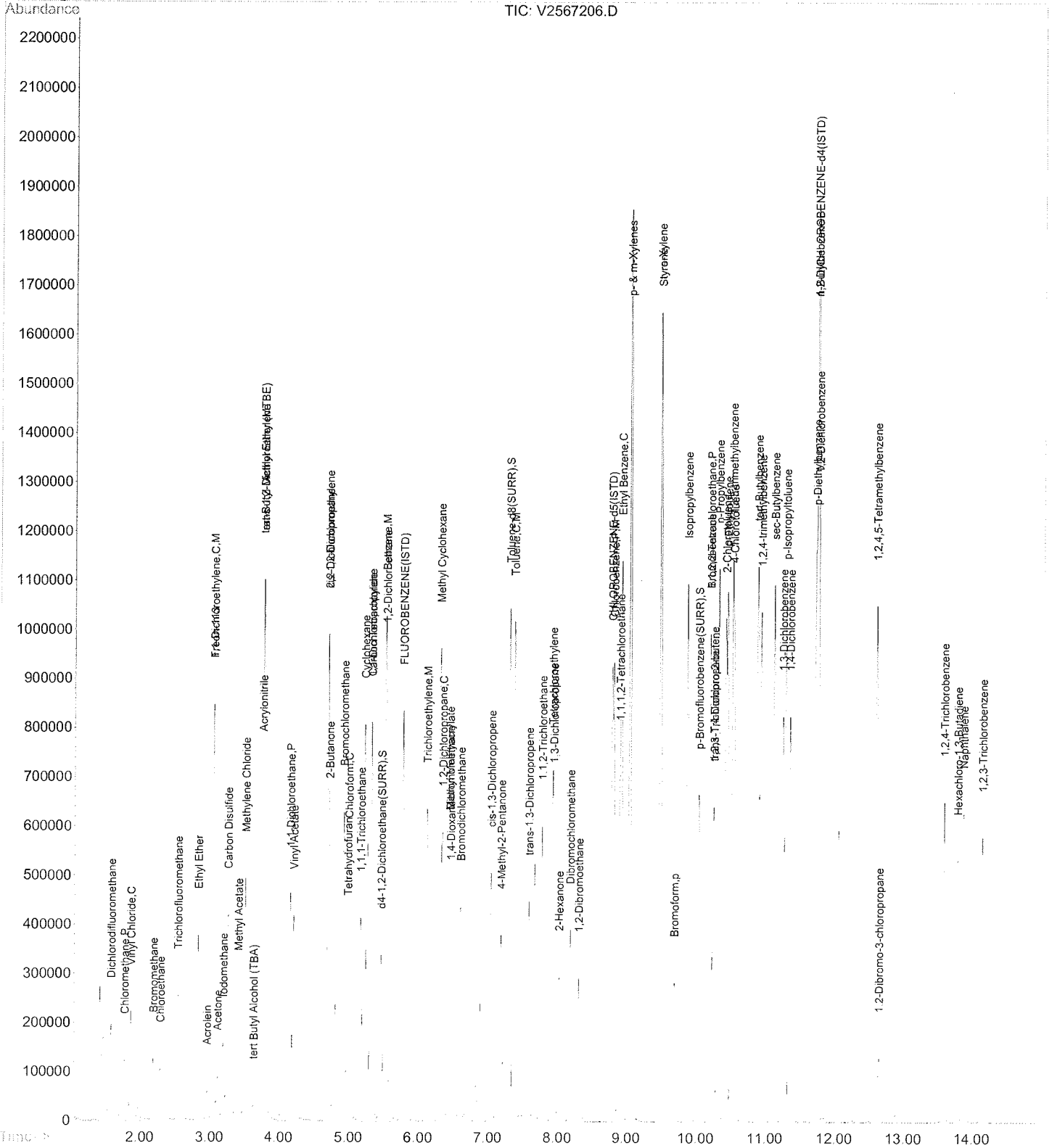
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51) 1,3-Dichloropropane	7.94	76	385614	55.33	ppb	# 100
52) Tetrachloroethylene	7.92	166	232436	51.69	ppb	# 100
53) 4-Methyl-2-Pentanone	7.18	43	326345	55.87	ppb	# 72
54) Dibromochloromethane	8.18	129	228202	54.08	ppb	100
55) 1,2-Dibromoethane	8.30	107	222001	53.80	ppb	98
56) Chlorobenzene	8.81	112	577324	55.34	ppb	# 72
57) Ethyl Benzene	8.92	91	897570	50.44	ppb	99
58) p- & m-Xylenes	9.04	91	1268084	98.55	ppb	99
59) o-Xylene	9.47	91	709870	51.97	ppb	99
60) Styrene	9.49	104	605687	52.74	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.89	131	209659	54.13	ppb	98
62) p-Ethyltoluene	10.45	105	828573	52.78	ppb	97
63) p-Diethylbenzene	11.71	119	414195	54.01	ppb	97
65) Bromoform	9.69	173	147916	53.16	ppb	# 99
67) 1,1,2,2-Tetrachloroethane	10.19	83	305907	56.69	ppb	99
68) trans-1,4-Dichloro-2-buten	10.25	75	352342	56.56	ppb	100
69) 1,2,3-Trichloropropane	10.25	110	82716	53.89	ppb	100
70) Isopropylbenzene	9.87	105	908822	51.96	ppb	# 89
71) Bromobenzene	10.20	77	374396	50.05	ppb	99
72) n-Propylbenzene	10.32	91	1067555	51.95	ppb	100
73) 2-Chlorotoluene	10.42	91	663204	50.29	ppb	# 99
74) 4-Chlorotoluene	10.53	91	660717	49.33	ppb	# 99
75) tert-Butylbenzene	10.88	119	788451	51.67	ppb	# 100
76) 1,3,5-trimethylbenzene	10.51	105	657240	49.38	ppb	99
77) 1,2,4-trimethylbenzene	10.93	105	661659	49.85	ppb	100
78) sec-Butylbenzene	11.12	105	937652	52.35	ppb	# 96
79) 1,3-Dichlorobenzene	11.24	146	432976	53.72	ppb	# 67
80) 1,4-Dichlorobenzene	11.34	146	424001	52.91	ppb	# 99
81) 1,2-Dichlorobenzene	11.76	146	367863	54.44	ppb	# 100
82) p-Isopropyltoluene	11.28	119	722680	51.21	ppb	# 100
83) n-Butylbenzene	11.74	91	776266	50.12	ppb	# 73
84) 1,2,4,5-Tetramethylbenzene	12.60	119	661372	55.75	ppb	97
85) 1,2-Dibromo-3-chloropropan	12.64	75	39029	54.12	ppb	95
86) 1,2,4-Trichlorobenzene	13.58	180	256251	53.34	ppb	98
87) Naphthalene	13.86	128	597741	59.82	ppb	# 97
88) Hexachloro-1,3-Butadiene	13.78	225	123096	50.52	ppb	# 100
89) 1,2,3-Trichlorobenzene	14.14	182	212121	53.99	ppb	99

(#) = qualifier out of range (m) = manual integration
 V2567206.D V2C00371.M Wed Mar 16 13:04:39 2016

Quantitation Report

Data File : G:\MSVOA2 V2\AILYDAT\V2031516\V2567206.D Vial: 4
Acq On : 15 Mar 2016 9:26 am Operator: BK
Sample : BC60766-BSD1 Inst : MS VOA 2
Misc : QBV2031516A Y16A037 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 15 11:03 2016 Quant Results File: V2C00371

```
Method       : G:\MSVOA METHODS\V2C00371.M (RTE Integrator)
Title        : VOCs BY GC/MS 8240/8260
Last Update   : Thu Jan 14 15:20:23 2016
Response via  : Initial Calibration
```



Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017794.D
 Acq On : 15 Mar 2016 9:54 am
 InstName : MSVOA6
 Operator : SS
 Sample : BC60771-BS1
 Misc : QBV6031516A <2 OW Y16A039
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 12:16:12 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) FLUOROBENZENE (ISTD)	5.508	70	53759	10.00	ppb	0.01
40) CHLOROBENZENE-d5 (ISTD)	8.527	117	213134	10.00	ppb	0.01
67) 1,2-DICHLOROBENZENE-d4...	11.498	152	85018	10.00	ppb	0.01
System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.227	65	69848	10.57	ppb	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery	=	105.70%	
51) Toluene-d8 (SURR)	7.033	98	281904	9.79	ppb	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.90%	
70) p-Bromofluorobenzene (...)	9.793	95	106569	10.05	ppb	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.50%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.379	85	95408	14.02	ppb	99
3) Chloromethane	1.555	50	93532	10.07	ppb	95
4) Vinyl Chloride	1.644	62	107903	11.35	ppb	97
5) Bromomethane	1.961	94	15247	5.71	ppb	98
6) Chloroethane	2.061	64	67274	11.55	ppb	98
7) Trichlorofluoromethane	2.284	101	150510	13.16	ppb	99
8) Ethanol	2.531	45	11398	411.19	ppb	100
9) Freon-113	2.765	101	90991	12.31	ppb	97
10) 1,1-Dichloroethylene	2.785	61	159999	12.05	ppb	# 95
11) Acrolein	2.732	56	8256	8.70	ppb	94
12) Acetone	2.882	43	17182	10.12	ppb	100
13) Iodomethane	2.943	142	22876	7.41	ppb	100
14) Methyl Acetate	3.171	43	43930	10.22	ppb	100
15) Carbon disulfide	2.996	76	308428	11.27	ppb	100
16) tert-Butyl Alcohol (TBA)	3.399	59	6316m	8.34	ppb	
17) Methylene Chloride	3.271	49	141832	11.48	ppb	92
18) Acrylonitrile	3.536	53	15670	8.36	ppb	# 77
19) trans-1,2-Dichloroethy...	3.505	61	157252	11.74	ppb	99
20) tert-Butyl Methyl Ethe...	3.486	73	255312	11.01	ppb	# 93
21) 1,1-Dichloroethane	3.909	63	195147	11.47	ppb	99
22) Vinyl Acetate	3.945	43	317376m	10.86	ppb	
23) Diisopropyl ether (DIPE)	3.920	45	378764	10.77	ppb	# 95
24) Ethyl-tert-Butyl ether...	4.259	59	348577	10.78	ppb	# 84
25) cis-1,2-Dichloroethylene	4.454	61	178150	11.75	ppb	95
26) 2-Butanone	4.493	72	4355	6.52	ppb	# 1
27) 2,2-Dichloropropane	4.432	77	168718	12.89	ppb	# 85
28) Tetrahydrofuran	4.732	42	15976	7.87	ppb	# 75
29) Bromochloromethane	4.690	49	81835	11.33	ppb	# 67
30) Chloroform	4.754	83	182744	11.74	ppb	# 96
31) 1,1,1-Trichloroethane	4.893	97	165596	12.49	ppb	# 86
32) Cyclohexane	4.918	56	181143	11.77	ppb	89
33) 1,1-Dichloropropylene	5.046	75	143134	11.69	ppb	# 78
35) Carbon Tetrachloride	5.038	117	133702	12.60	ppb	99
36) tert-Amyl alcohol (TAA)	5.280	59	58541	80.39	ppb	# 53
37) 1,2-Dichloroethane	5.300	62	116554	11.78	ppb	99
38) Benzene	5.250	78	407871	11.41	ppb	# 90
39) tert-Amyl methyl ether...	5.322	73	322500	10.28	ppb	95
41) Trichloroethylene	5.859	95	106440	10.78	ppb	97
42) Methyl Cyclohexane	5.992	83	157052	10.57	ppb	91
43) Methyl Methacrylate	6.182	69	44117	9.10	ppb	# 57
44) Dibromomethane	6.229	93	48132	9.96	ppb	96
45) Bromodichloromethane	6.371	83	130016	10.57	ppb	98
46) 1,2-Dichloropropane	6.090	63	107372	10.27	ppb	96

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017794.D
 Acq On : 15 Mar 2016 9:54 am
 InstName : MSVOA6
 Operator : SS
 Sample : BC60771-BS1
 Misc : QBV6031516A <2 OW Y16A039
 ALS Vial : 3 Sample Multiplier: 1

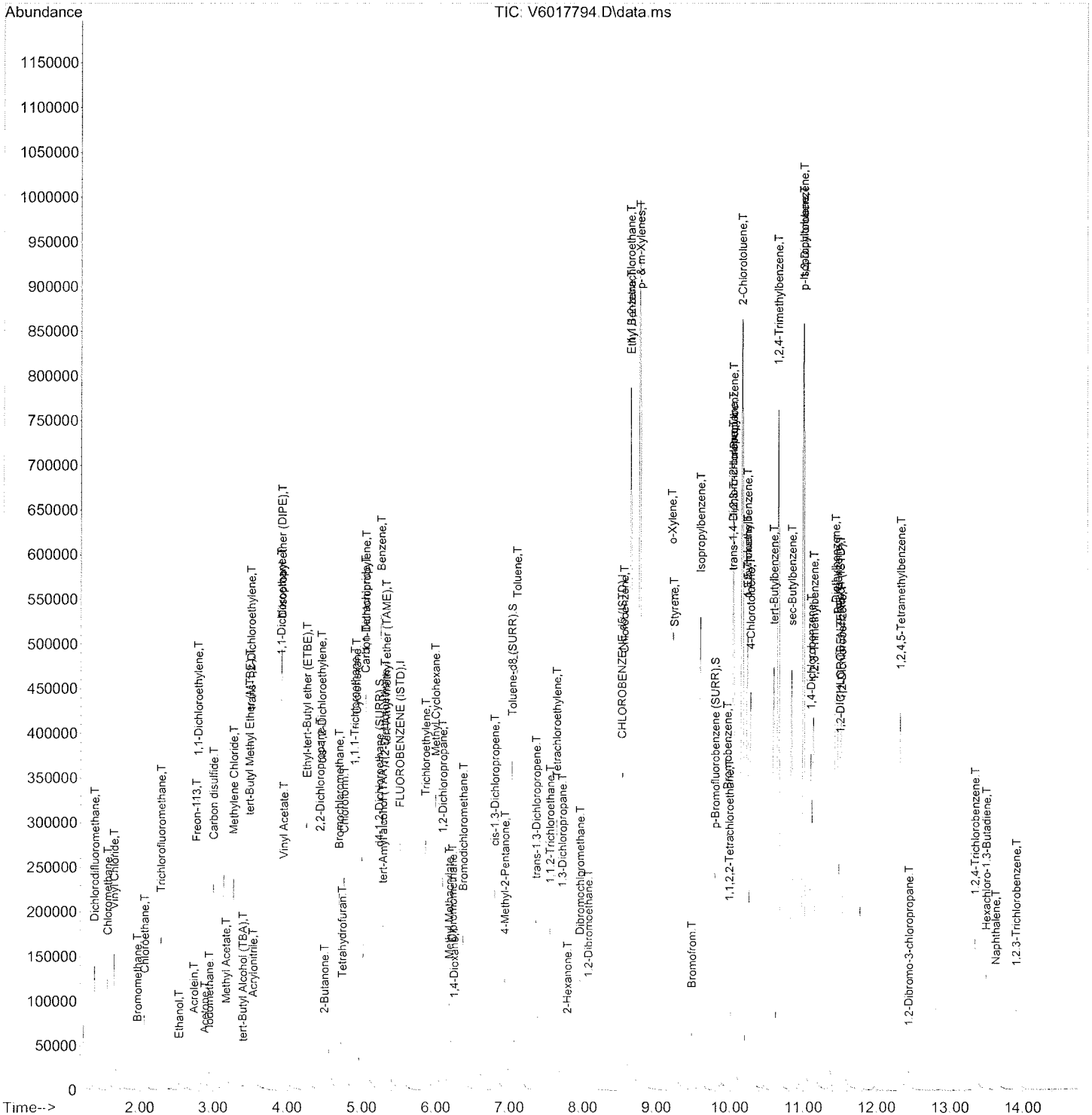
Quant Time: Mar 16 12:16:12 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dioxane	6.248	88	8272m	144.65	ppb	
49) cis-1,3-Dichloropropene	6.796	75	154682	10.41	ppb	93
50) 4-Methyl-2-Pentanone	6.938	43	108027	9.76	ppb	95
52) Toluene	7.100	91	429094	10.81	ppb	99
53) trans-1,3-Dichloropropene	7.364	75	126914	10.29	ppb	# 89
54) 1,1,2-Trichloroethane	7.550	97	68667	9.93	ppb	95
55) 1,3-Dichloropropane	7.720	76	121622	10.08	ppb	# 76
56) Tetrachloroethylene	7.640	166	106777	10.99	ppb	100
57) 2-Hexanone	7.790	43	30545	6.75	ppb	# 84
58) Dibromochloromethane	7.959	129	82657	10.66	ppb	97
59) 1,2-Dibromoethane	8.076	107	64566	9.91	ppb	91
60) Chlorobenzene	8.558	112	262383	11.35	ppb	97
61) 1,1,1,2-tetrachloroethane	8.647	131	92615	11.30	ppb	94
62) Ethyl Benzene	8.649	91	470582	11.12	ppb	99
63) p- & m-Xylenes	8.772	91	726016	23.16	ppb	98
64) o-Xylene	9.203	91	372277	11.70	ppb	100
65) Styrene	9.231	104	265213	10.49	ppb	# 77
66) Bromofrom	9.476	173	39041	9.75	ppb	98
68) p-Ethyltoluene	10.233	105	354366	10.91	ppb	99
69) Isopropylbenzene	9.590	105	444848	11.77	ppb	97
71) 1,1,2,2-Tetrachloroethane	9.988	83	71695	9.40	ppb	# 77
72) Bromobenzene	9.960	77	156405	10.19	ppb	98
73) trans-1,4-Dichloro-2-b...	10.032	75	68805	8.95	ppb	# 80
74) 1,2,3-Trichloropropane	10.035	110	19460	9.89	ppb	# 10
75) n-Propylbenzene	10.041	91	519965	11.81	ppb	98
76) 2-Chlorotoluene	10.157	91	346866	11.69	ppb	100
77) 4-Chlorotoluene	10.277	91	315165	11.86	ppb	100
78) 1,3,5-Trimethylbenzene	10.233	105	354366	11.02	ppb	98
79) tert-Butylbenzene	10.591	119	291464	11.68	ppb	99
80) 1,2,4-Trimethylbenzene	10.653	105	353158	10.99	ppb	# 82
81) sec-Butylbenzene	10.836	105	409996	11.96	ppb	99
82) 1,3-Dichlorobenzene	10.998	146	179920	11.56	ppb	99
83) p-Isopropyltoluene	10.995	119	354379	11.39	ppb	98
84) 1,4-Dichlorobenzene	11.098	146	178942	11.51	ppb	97
85) 1,2,3-Trimethylbenzene	11.134	105	271557	10.69	ppb	# 89
86) p-Diethylbenzene	11.432	105	193138	10.73	ppb	# 47
87) 1,2-Dichlorobenzene	11.521	146	153922	10.94	ppb	# 86
88) n-Butylbenzene	11.462	91	375715	11.10	ppb	91
89) 1,2-Dibromo-3-chloropr...	12.436	75	8311	8.51	ppb	88
90) 1,2,4,5-Tetramethylben...	12.319	119	289673	10.65	ppb	97
91) 1,2,4-Trichlorobenzene	13.338	180	70191	10.49	ppb	94
92) Hexachloro-1,3-Butadiene	13.491	225	28822	11.44	ppb	96
93) Naphthalene	13.621	128	96085	8.74	ppb	98
94) 1,2,3-Trichlorobenzene	13.900	180	39541	9.60	ppb	97

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

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017794.D
Acq On : 15 Mar 2016 9:54 am
InstName : MSVOA6
Operator : SS
Sample : BC60771-BS1
Misc : QBV6031516A <2 OW Y16A039
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 12:16:12 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017795.D
 Acq On : 15 Mar 2016 10:24 am
 InstName : MSVOA6
 Operator : SS
 Sample : BC60771-BSD1
 Misc : QBV6031516A <2 OW Y16A039
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 12:18:09 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

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

Internal Standards						
1) FLUOROBENZENE (ISTD)	5.506	70	54355	10.00	ppb	0.00
40) CHLOROBENZENE-d5 (ISTD)	8.524	117	215697	10.00	ppb	0.00
67) 1,2-DICHLOROBENZENE-d4...	11.493	152	89378	10.00	ppb	0.00

System Monitoring Compounds						
34) d4-1,2-Dichloroethane ...	5.227	65	74364	11.13	ppb	0.01
Spiked Amount 10.000	Range	70 - 130	Recovery	=	111.30%	
51) Toluene-d8 (SURR)	7.027	98	285803	9.81	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.10%	
70) p-Bromofluorobenzene (...)	9.790	95	110002	9.87	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	98.70%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.377	85	94178	13.68	ppb	99
3) Chloromethane	1.552	50	95296	10.15	ppb	95
4) Vinyl Chloride	1.641	62	112199	11.67	ppb	98
5) Bromomethane	1.961	94	20012	7.41	ppb	98
6) Chloroethane	2.053	64	70607	11.99	ppb	98
7) Trichlorofluoromethane	2.281	101	154956	13.40	ppb	100
8) Ethanol	2.523	45	17831m	636.20	ppb	
9) Freon-113	2.757	101	94322	12.62	ppb	98
10) 1,1-Dichloroethylene	2.779	61	166552	12.40	ppb	# 95
11) Acrolein	2.729	56	9604	10.01	ppb	93
12) Acetone	2.879	43	19326	11.26	ppb	99
13) Iodomethane	2.940	142	27888	8.94	ppb	99
14) Methyl Acetate	3.168	43	47373	10.90	ppb	100
15) Carbon disulfide	2.993	76	317313	11.47	ppb	100
16) tert-Butyl Alcohol (TBA)	3.397	59	7250	9.47	ppb	# 97
17) Methylene Chloride	3.266	49	150746	12.07	ppb	92
18) Acrylonitrile	3.533	53	16754	8.84	ppb	# 86
19) trans-1,2-Dichloroethy...	3.502	61	164863	12.17	ppb	# 71
20) tert-Butyl Methyl Ethe...	3.483	73	279826	11.93	ppb	98
21) 1,1-Dichloroethane	3.906	63	204616	11.90	ppb	99
22) Vinyl Acetate	3.942	43	345087m	11.68	ppb	
23) Diisopropyl ether (DIPE)	3.914	45	403816	11.36	ppb	97
24) Ethyl-tert-Butyl ether...	4.254	59	371876	11.38	ppb	# 84
25) cis-1,2-Dichloroethylene	4.454	61	186239	12.15	ppb	# 82
26) 2-Butanone	4.484	72	5508	8.15	ppb	# 1
27) 2,2-Dichloropropane	4.423	77	171560	12.96	ppb	# 75
28) Tetrahydrofuran	4.726	42	17303	8.43	ppb	# 75
29) Bromochloromethane	4.685	49	87431	11.97	ppb	95
30) Chloroform	4.754	83	196100	12.46	ppb	# 96
31) 1,1,1-Trichloroethane	4.891	97	171077	12.76	ppb	# 86
32) Cyclohexane	4.916	56	187471	12.04	ppb	89
33) 1,1-Dichloropropylene	5.044	75	147429	11.90	ppb	# 77
35) Carbon Tetrachloride	5.035	117	138812	12.94	ppb	# 91
36) tert-Amyl alcohol (TAA)	5.277	59	70778	96.13	ppb	# 53
37) 1,2-Dichloroethane	5.297	62	124177	12.42	ppb	100
38) Benzene	5.244	78	428864	11.87	ppb	# 92
39) tert-Amyl methyl ether...	5.314	73	351256	11.07	ppb	# 91
41) Trichloroethylene	5.851	95	111509	11.16	ppb	96
42) Methyl Cyclohexane	5.992	83	165176	10.99	ppb	92
43) Methyl Methacrylate	6.176	69	48757	9.94	ppb	# 69
44) Dibromomethane	6.223	93	53571	10.95	ppb	97
45) Bromodichloromethane	6.368	83	139752	11.23	ppb	98
46) 1,2-Dichloropropane	6.087	63	113630	10.74	ppb	97

Data Path : C:\msdchem\1\DATA\V6031516\
 Data File : V6017795.D
 Acq On : 15 Mar 2016 10:24 am
 InstName : MSVOA6
 Operator : SS
 Sample : BC60771-BSD1
 Misc : QBV6031516A <2 OW Y16A039
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 12:18:09 2016
 Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
 Quant Title : Volatile Organics EPA 8260C
 QLast Update : Fri Mar 04 10:00:44 2016
 Response via : Initial Calibration

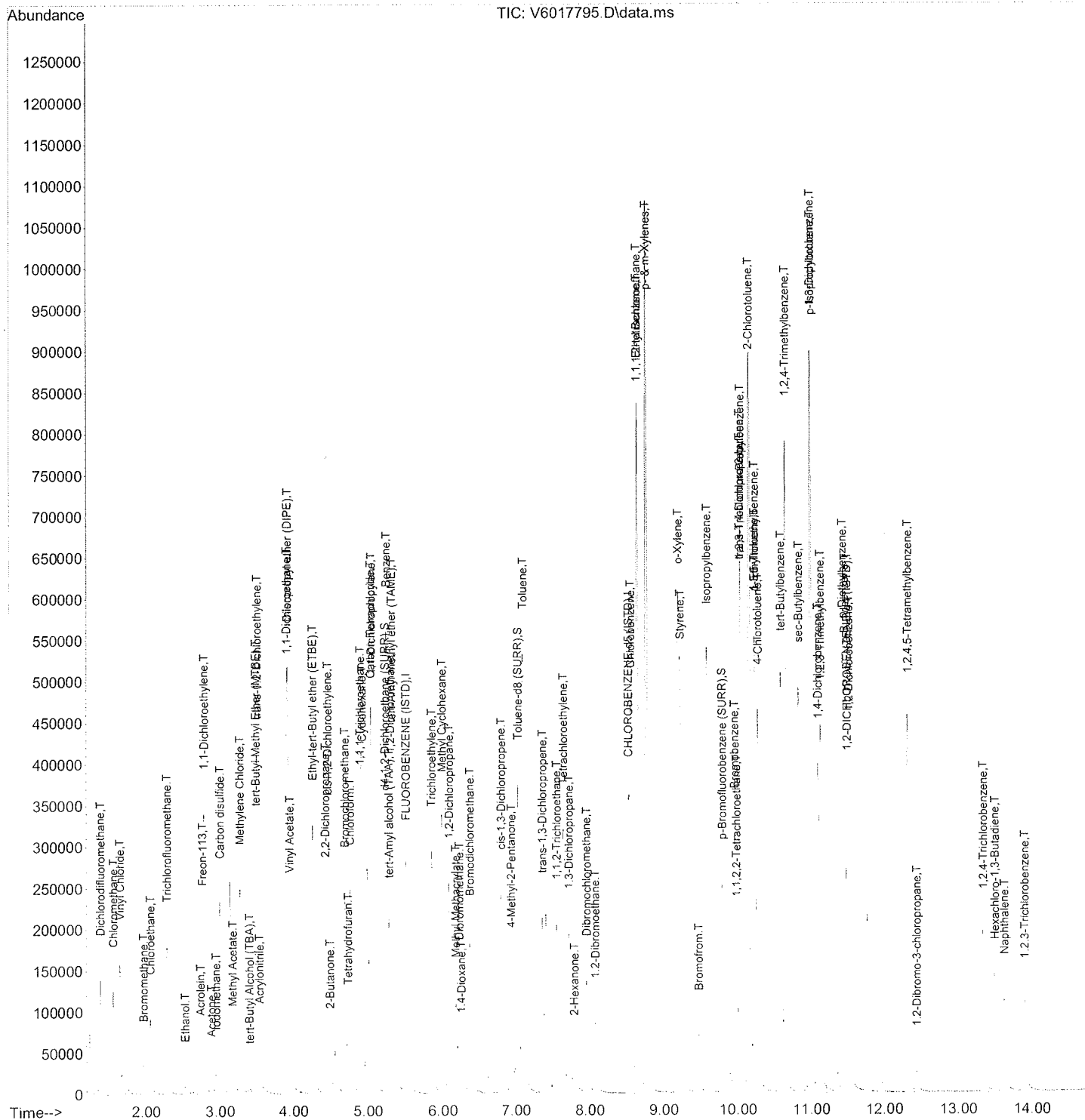
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,4-Dioxane	6.248	88	10349m	178.82	ppb	
49) cis-1,3-Dichloropropene	6.794	75	168255	11.19	ppb	95
50) 4-Methyl-2-Pentanone	6.930	43	123522	11.03	ppb	96
52) Toluene	7.094	91	442067	11.01	ppb	100
53) trans-1,3-Dichloropropene	7.356	75	143833	11.52	ppb	100
54) 1,1,2-Trichloroethane	7.548	97	76711	10.96	ppb	95
55) 1,3-Dichloropropane	7.715	76	132792	10.88	ppb	# 86
56) Tetrachloroethylene	7.640	166	112650	11.46	ppb	99
57) 2-Hexanone	7.787	43	36866	8.06	ppb	# 88
58) Dibromochloromethane	7.954	129	90376	11.52	ppb	97
59) 1,2-Dibromoethane	8.071	107	72374	10.97	ppb	91
60) Chlorobenzene	8.555	112	278424	11.90	ppb	97
61) 1,1,1,2-tetrachloroethane	8.641	131	98692	11.90	ppb	95
62) Ethyl Benzene	8.644	91	493143	11.51	ppb	100
63) p- & m-Xylenes	8.766	91	766860	24.17	ppb	99
64) o-Xylene	9.198	91	390366	12.12	ppb	100
65) Styrene	9.225	104	279499	10.93	ppb	# 77
66) Bromofrom	9.470	173	44071	10.87	ppb	97
68) p-Ethyltoluene	10.230	105	376805	11.03	ppb	# 79
69) Isopropylbenzene	9.584	105	464524	11.69	ppb	97
71) 1,1,2,2-Tetrachloroethane	9.982	83	83035	10.36	ppb	# 77
72) Bromobenzene	9.957	77	171510	10.63	ppb	98
73) trans-1,4-Dichloro-2-b...	10.029	75	76087	9.41	ppb	83
74) 1,2,3-Trichloropropane	10.029	110	22525	10.89	ppb	# 23
75) n-Propylbenzene	10.038	91	545878	11.79	ppb	98
76) 2-Chlorotoluene	10.152	91	365715	11.73	ppb	99
77) 4-Chlorotoluene	10.274	91	334892	11.99	ppb	100
78) 1,3,5-Trimethylbenzene	10.230	105	376805	11.14	ppb	99
79) tert-Butylbenzene	10.589	119	308178	11.74	ppb	98
80) 1,2,4-Trimethylbenzene	10.650	105	369989	10.95	ppb	# 82
81) sec-Butylbenzene	10.831	105	431127	11.96	ppb	98
82) 1,3-Dichlorobenzene	10.992	146	191398	11.69	ppb	98
83) p-Isopropyltoluene	10.995	119	365872	11.19	ppb	97
84) 1,4-Dichlorobenzene	11.092	146	191747	11.74	ppb	97
85) 1,2,3-Trimethylbenzene	11.126	105	290165	10.87	ppb	# 90
86) p-Diethylbenzene	11.426	105	205380	10.85	ppb	# 45
87) 1,2-Dichlorobenzene	11.518	146	167658m	11.34	ppb	
88) n-Butylbenzene	11.457	91	395171	11.10	ppb	91
89) 1,2-Dibromo-3-chloropr...	12.433	75	9298	9.06	ppb	91
90) 1,2,4,5-Tetramethylben...	12.316	119	314456	11.00	ppb	97
91) 1,2,4-Trichlorobenzene	13.335	180	79904	11.36	ppb	96
92) Hexachloro-1,3-Butadiene	13.493	225	32157	12.14	ppb	97
93) Naphthalene	13.621	128	119282	10.32	ppb	97
94) 1,2,3-Trichlorobenzene	13.894	180	48904	11.30	ppb	97

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\V6031516\
Data File : V6017795.D
Acq On : 15 Mar 2016 10:24 am
InstName : MSVOA6
Operator : SS
Sample : BC60771-BSD1
Misc : QBV6031516A <2 OW Y16A039
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 12:18:09 2016
Quant Method : C:\msdchem\1\METHODS\V6LO0083.M
Quant Title : Volatile Organics EPA 8260C
QLast Update : Fri Mar 04 10:00:44 2016
Response via : Initial Calibration



BC60766

York Analytical Laboratories, Inc.

Printed: 3/16/2016 3:15:30PM

Prepared by: EPA 5035A

Surrogate used: Y15L023

Lab Number	Analysis	Prepared	By	Initial (g)	Final (ml)	Spike ID	Source ID	Spike	Surrogate	pH Data	Decanted Y/N	Sample Comments
										Initial	Acid	Basic
16C0323-04 B	Volatile Organics, CT RCP	03/15/2016 09:5	BK	5.00	5.00				1			From BC60707 by BK o
16C0323-06 C	Volatile Organics, CT RCP	03/15/2016 09:5	BK	5.48	5.00				1			From BC60704 by BK o
16C0323-08 B	Volatile Organics, CT RCP	03/15/2016 09:5	BK	6.13	5.00				1			From BC60704 by BK o
16C0323-09 B	Volatile Organics, CT RCP	03/15/2016 09:5	BK	5.27	5.00				1			From BC60704 by BK o
16C0323-10 B	Volatile Organics, CT RCP	03/15/2016 09:5	BK	5.84	5.00				1			From BC60704 by BK o
16C0466-01 B	Volatile Organics, 8260 - C	03/15/2016 09:5	BGS	4.80	5.00				1			
16C0466-02 B	Volatile Organics, 8260 - C	03/15/2016 09:5	BGS	5.31	5.00				1			
16C0466-03 B	Volatile Organics, 8260 - C	03/15/2016 09:5	BGS	6.44	5.00				1			
16C0478-01 B	Volatile Organics, 8260 Lisi	03/15/2016 09:5	BGS	6.88	5.00				1			
16C0478-02 B	Volatile Organics, 8260 Lisi	03/15/2016 09:5	BGS	3.78	5.00				1			
16C0478-03 B	Volatile Organics, 8260 Lisi	03/15/2016 09:5	BGS	5.49	5.00				1			
16C0478-04 B	Volatile Organics, 8260 Lisi	03/15/2016 09:5	BGS	6.02	5.00				1			
16C0540-02 B	Volatile Organics, NJDEP/1	03/15/2016 09:5	BK	7.70	5.00				1			
16C0540-03 B	Volatile Organics, NJDEP/1	03/15/2016 09:5	BK	7.31	5.00				1			
BC60766-BLK1	QC	03/15/2016 08:4	BK	5.00	5.00				1			
BC60766-BS1	QC	03/15/2016 08:4	BK	5.00	5.00	Y16A037		5	1			
BC60766-BSD1	QC	03/15/2016 08:4	BK	5.00	5.00	Y16A037		5	1			

Batch Comments:

PREPARATION BENCH SHEET

BC60771

York Analytical Laboratories, Inc.

Printed: 3/16/2016 12:53:01PM

Matrix: Water Preparation EPA 5030B Surrogate used: Y15L025 Surrogate, uL 1

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	pH	Residual Chlorine	Sample Comments
16C0391-01	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0391-01	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-02	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-02	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0391-03	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-03	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0391-04	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-04	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0391-05	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-05	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0391-06	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-06	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0391-07	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0391-07	Volatile Organics, tert-Butyl.	03/15/2016 08:	BGS	25	25				<2		
16C0420-01	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0420-02	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0420-03	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0420-04	Volatile Organics, 8260 List	03/15/2016 08:	BGS	25	25				<2		
16C0466-04	Volatile Organics, 8260 - Co	03/15/2016 08:	BGS	25	25				<2		
16C0466-05	Volatile Organics, 8260 - Co	03/15/2016 08:	BGS	25	25				<2		
16C0506-01	Volatile Organics, CP-51 (S7	03/15/2016 08:	BGS	25	25				<2		
16C0506-01	Volatile Organics, NYCDEP	03/15/2016 08:	BGS	25	25				<2		
16C0506-02	Volatile Organics, NYCDEP	03/15/2016 08:	BGS	25	25				<2		

PREPARATION BENCH SHEET

BC60771

York Analytical Laboratories, Inc.

Printed: 3/16/2016 12:53:01PM

Matrix: Water			Preparation				EPA 5030B			Surrogate used: Y15L025			Surrogate, uL	1
Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	pH	Residual Chlorine	Sample Comments			
BC60771-BLK1	QC	03/15/2016 08:	EGS	25	25				<2					
BC60771-BS1	QC	03/15/2016 08:	EGS	25	25	Y16A039		5	<2					
BC60771-BSD1	QC	03/15/2016 08:	EGS	25	25	Y16A039		5	<2					

Batch Comments:

Injection Log

Directory: g:\msvoa2~1\dailydat\201516

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	v2567203.d	1.	SEQ-TUN1	QBV2031516A	15 Mar 16 07:48
2	2	v2567204.d	1.	SEQ-CCV1	QBV2031516A Y16A033	15 Mar 16 08:20
3	3	v2567205.d	1.	BC60766-BS1	QBV2031516A Y16A037	15 Mar 16 08:56
4	4	v2567206.d	1.	BC60766-BSD1	QBV2031516A Y16A037	15 Mar 16 09:26
5	5	v2567207.d	1.	BC60766-BLK1	QBV2031516A	15 Mar 16 09:56
6	6	v2567208.d	1.	16C0323-04	QBV2031516A RCP RE C 4.42g	15 Mar 16 10:26
7	7	v2567209.d	1.	16C0540-02	QBV2031516A NJDEP/TCL/375 B 7.70g	15 Mar 16 10:55
8	8	v2567210.d	1.	16C0540-03	QBV2031516A NJDEP/TCL/375 B 7.31g	15 Mar 16 11:31
9	9	v2567211.d	1.	16C0323-06	QBV2031516A RCP RE C 5.48g	15 Mar 16 12:01
10	10	v2567212.d	1.	16C0323-08	QBV2031516A RCP RE C 6.13g	15 Mar 16 12:30
11	11	v2567213.d	1.	16C0323-09	QBV2031516A RCP RE C 5.27g	15 Mar 16 13:02
12	12	v2567214.d	1.	16C0323-10	QBV2031516A RCP RE C 5.84g	15 Mar 16 13:34
13	13	v2567215.d	1.	16C0323-04	QBV2031516A RCP RE A 5.00g	15 Mar 16 14:03
14	14	v2567216.d	1.	16C0466-01	QBV2031516A 8260 COMP B 4.80g	15 Mar 16 14:33
15	15	v2567217.d	1.	16C0466-02	QBV2031516A 8260 COMP B 5.31g	15 Mar 16 15:02
16	16	v2567218.d	1.	16C0466-03	QBV2031516A 8260 COMP B 6.44g	15 Mar 16 15:32
17	17	v2567219.d	1.	16C0478-01	QBV2031516A 8260 B 6.88g	15 Mar 16 16:02
18	18	v2567220.d	1.	16C0478-02	QBV2031516A 8260 B 3.78g	15 Mar 16 16:32
19	19	v2567221.d	1.	16C0478-03	QBV2031516A 8260 B 5.49g	15 Mar 16 17:01
20	20	v2567222.d	1.	16C0478-04	QBV2031516A 8260 B 6.02g	15 Mar 16 17:31
21	21	v2567223.d	1.	SEQ-TUN1	QBV2031516B	15 Mar 16 18:01
22	22	v2567224.d	1.	SEQ-TUN1	QBV2031516B	15 Mar 16 18:30
23	23	v2567225.d	1.	SEQ-CCV1	QBV2031516B Y16A033	15 Mar 16 19:00
24	24	v2567226.d	1.	BC60802-BS1	QBV2031516B Y16A037	15 Mar 16 19:29
25	25	v2567227.d	1.	BC60802-BSD1	QBV2031516B Y16A037	15 Mar 16 19:59
26	26	v2567228.d	1.	BC60802-BLK1	QBV2031516B	15 Mar 16 20:28
27	27	v2567229.d	1.	16C0477-01	QBV2031516B 8260 COMP B 5.65g	15 Mar 16 20:58
28	28	v2567230.d	1.	16C0477-02	QBV2031516B 8260 COMP B 6.20g	15 Mar 16 21:28
29	29	v2567231.d	1.	16C0477-03	QBV2031516B 8260 COMP B 6.73g	15 Mar 16 21:57
30	30	v2567232.d	1.	16C0477-04	QBV2031516B 8260 COMP B 6.58g	15 Mar 16 22:27
31	31	v2567233.d	1.	16C0477-05	QBV2031516B 8260 COMP B 6.05g	15 Mar 16 22:56
32	32	v2567234.d	1.	16C0477-06	QBV2031516B 8260 COMP B 6.47g	15 Mar 16 23:26
33	33	v2567235.d	1.	16C0477-07	QBV2031516B 8260 COMP B 6.38g	15 Mar 16 23:56
34	34	v2567236.d	1.	16C0477-08	QBV2031516B 8260 COMP B 6.28g	16 Mar 16 00:25
35	35	v2567237.d	1.	16C0477-09	QBV2031516B 8260 COMP B 6.58g	16 Mar 16 00:55
36	36	v2567238.d	1.	16C0484-01	QBV2031516B 8260 COMP B 5.51g	16 Mar 16 01:25

Injection Log

Directory: g:\msvoa2~1\dailydat\2031516

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
37	37	v2567239.d	1.	16C0486-01	QBV2031516B 8260 COMP B 7.88g	16 Mar 16 01:54
38	38	v2567240.d	1.	16C0487-01	QBV2031516B 8260 COMP B 7.01g	16 Mar 16 02:24
39	39	v2567241.d	1.	16C0504-14	QBV2031516B RCP B 6.41g	16 Mar 16 02:54
40	40	v2567242.d	1.	16C0504-23	QBV2031516B RCP B 7.08g	16 Mar 16 03:23

Injection Log

Directory: g:\msvoa6~1\dailyd~1\v6031516

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	v6017792.d	1.	SEQ-TUN1	QBV6031516A	15 Mar 16 08:44
2	2	v6017793.d	1.	SEQ-CCV1	QBV6031516A <2 OW Y16A035	15 Mar 16 09:15
3	3	v6017794.d	1.	BC60771-BS1	QBV6031516A <2 OW Y16A039	15 Mar 16 09:54
4	4	v6017795.d	1.	BC60771-BSD1	QBV6031516A <2 OW Y16A039	15 Mar 16 10:24
5	5	v6017796.d	1.	blk	QBV6031516A <2 OW	15 Mar 16 10:53
6	6	v6017797.d	1.	BC60771-BLK1	QBV6031516A <2 OW	15 Mar 16 11:22
7	7	v6017798.d	1.	16C0391-01	QBV6031516A 8260 + TBA A	15 Mar 16 11:51
8	8	v6017799.d	1.	16C0391-02	QBV6031516A 8260 + TBA AF A	15 Mar 16 12:21
9	9	v6017800.d	1.	16C0391-03	QBV6031516A 8260 + TBA A	15 Mar 16 12:50
10	10	v6017801.d	1.	16C0391-04	QBV6031516A 8260 + TBA AF A	15 Mar 16 13:19
11	11	v6017802.d	1.	16C0391-05	QBV6031516A 8260 + TBA A	15 Mar 16 13:48
12	12	v6017803.d	1.	16C0391-06	QBV6031516A 8260 + TBA A	15 Mar 16 14:17
13	13	v6017804.d	1.	16C0391-07	QBV6031516A 8260 + TBA A	15 Mar 16 14:46
14	14	v6017805.d	1.	16C0420-01	QBV6031516A 8260 LOW A	15 Mar 16 15:15
15	15	v6017806.d	1.	16C0420-02	QBV6031516A 8260 LOW A	15 Mar 16 15:44
16	16	v6017807.d	1.	16C0420-03	QBV6031516A 8260 LOW A	15 Mar 16 16:13
17	17	v6017808.d	1.	16C0420-04	QBV6031516A 8260 LOW A	15 Mar 16 16:43
18	18	v6017809.d	1.	16C0466-04	QBV6031516A 8260 COMP A	15 Mar 16 17:12
19	19	v6017810.d	1.	16C0466-05	QBV6031516A 8260 COMP A	15 Mar 16 17:41
20	20	v6017811.d	1.	16C0506-01	QBV6031516A CP51 LOW + NYCDEP SEWER AF	15 Mar 16 18:10
21	21	v6017812.d	1.	16C0506-02	QBV6031516A NYCDEP SEWER A	15 Mar 16 18:39

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: SVOA

METHOD: EPA 8270D

DATA PACKAGE COVER PAGE

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Sequence: Instrument:
 Matrix: Water Calibration:

Surrogate Compound	Spike Level mg/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (BC60754-BLK1) Lab File ID: E201057.D Analyzed: 03/15/16 10:24								
2-Fluorophenol	2.51	30.9	20 - 108	6.66				
Phenol-d5	2.50	34.1	23 - 114	7.74				
Nitrobenzene-d5	1.67	34.8	22 - 108	8.76				
2-Fluorobiphenyl	1.67	35.4	21 - 113	11.11				
2,4,6-Tribromophenol	2.51	25.7	19 - 110	13.21				
Terphenyl-d14	1.67	31.1	24 - 116	16.44				
LCS (BC60754-BS1) Lab File ID: E201058.D Analyzed: 03/15/16 10:55								
2-Fluorophenol	2.51	57.2	20 - 108	6.68				
Phenol-d5	2.50	50.0	23 - 114	7.75				
Nitrobenzene-d5	1.67	57.5	22 - 108	8.77				
2-Fluorobiphenyl	1.67	51.9	21 - 113	11.12				
2,4,6-Tribromophenol	2.51	37.6	30 - 130	13.22				
Terphenyl-d14	1.67	66.8	24 - 116	16.44				
LCS Dup (BC60754-BSD1) Lab File ID: E201059.D Analyzed: 03/15/16 11:26								
2-Fluorophenol	2.51	51.3	20 - 108	6.68				
Phenol-d5	2.50	46.0	23 - 114	7.75				
Nitrobenzene-d5	1.67	53.2	22 - 108	8.77				
2-Fluorobiphenyl	1.67	47.1	21 - 113	11.12				
2,4,6-Tribromophenol	2.51	34.1	30 - 130	13.22				
Terphenyl-d14	1.67	58.0	24 - 116	16.44				
Blank (BC60798-BLK2) Lab File ID: E500693.D Analyzed: 03/16/16 09:32								
2-Fluorophenol	75.2		12 - 64					*
Phenol-d5	75.1		10 - 82					*
Nitrobenzene-d5	50.2		12 - 96					*
2-Fluorobiphenyl	50.2		16 - 84					*
2,4,6-Tribromophenol	75.2		15 - 104					*
Terphenyl-d14	50.0		15 - 106					*
Blank (BC60798-BLK1) Lab File ID: E401233.D Analyzed: 03/16/16 09:43								
2-Fluorophenol	75.2	16.3	12 - 64	7.48				
Phenol-d5	75.1	10.1	10 - 82	8.61				
Nitrobenzene-d5	50.2	68.3	12 - 96	9.69				
2-Fluorobiphenyl	50.2	71.4	16 - 84	12.03				
2,4,6-Tribromophenol	75.2	44.8	15 - 104	14.12				
Terphenyl-d14	50.0	88.2	15 - 106	17.31				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Sequence: Instrument:
 Matrix: Water Calibration:

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (BC60798-BS2) Lab File ID: E500694.D Analyzed: 03/16/16 10:03								
2-Fluorophenol	75.2		12 - 64					*
Phenol-d5	75.1		10 - 82					*
Nitrobenzene-d5	50.2		12 - 96					*
2-Fluorobiphenyl	50.2		16 - 84					*
2,4,6-Tribromophenol	75.2		15 - 104					*
Terphenyl-d14	50.0		15 - 106					*
LCS (BC60798-BS1) Lab File ID: E401234.D Analyzed: 03/16/16 10:17								
2-Fluorophenol	75.2	25.4	12 - 64	7.48				
Phenol-d5	75.1	15.0	10 - 82	8.61				
Nitrobenzene-d5	50.2	99.3	12 - 96	9.69				*
2-Fluorobiphenyl	50.2	103	16 - 84	12.03				*
2,4,6-Tribromophenol	75.2	78.4	15 - 104	14.12				
Terphenyl-d14	50.0	122	15 - 106	17.31				*
LCS Dup (BC60798-BSD1) Lab File ID: E401235.D Analyzed: 03/16/16 10:51								
2-Fluorophenol	75.2	26.5	12 - 64	7.49				
Phenol-d5	75.1	15.9	10 - 82	8.61				
Nitrobenzene-d5	50.2	101	12 - 96	9.7				*
2-Fluorobiphenyl	50.2	105	16 - 84	12.03				*
2,4,6-Tribromophenol	75.2	83.6	15 - 104	14.13				
Terphenyl-d14	50.0	115	15 - 106	17.31				*
04/FB20160309 (16C0466-04) Lab File ID: E401242.D Analyzed: 03/16/16 12:02								
2-Fluorophenol	85.9	15.8	12 - 64	7.48				
Phenol-d5	85.8	9.72	10 - 82	8.62				*
Nitrobenzene-d5	57.4	76.8	12 - 96	9.69				
2-Fluorobiphenyl	57.4	77.5	16 - 84	12.03				
2,4,6-Tribromophenol	85.9	48.7	15 - 104	14.13				
Terphenyl-d14	57.1	97.1	15 - 106	17.32				
01/LSB-3 (16C0466-01) Lab File ID: E201099.D Analyzed: 03/16/16 22:34								
2-Fluorophenol	2.83	56.1	20 - 108	6.67				
Phenol-d5	2.83	87.4	23 - 114	7.76				
Nitrobenzene-d5	1.89	75.7	22 - 108	8.76				
2-Fluorobiphenyl	1.89	116	21 - 113	11.11				*
2,4,6-Tribromophenol	2.83	92.8	19 - 110	13.21				
Terphenyl-d14	1.88	76.0	24 - 116	16.43				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

Matrix: Soil

Calibration:

Surrogate Compound	Spike Level mg/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
02/DUP (16C0466-02)		Lab File ID: E201100.D			Analyzed: 03/16/16 23:05			
2-Fluorophenol	3.00	57.4	20 - 108	6.66				
Phenol-d5	3.00	66.7	23 - 114	7.75				
Nitrobenzene-d5	2.00	61.2	22 - 108	8.76				
2-Fluorobiphenyl	2.00	85.7	21 - 113	11.1				
2,4,6-Tribromophenol	3.00	77.3	19 - 110	13.21				
Terphenyl-d14	2.00	73.8	24 - 116	16.43				
03/LSB-3 (16C0466-03)		Lab File ID: E201101.D			Analyzed: 03/16/16 23:37			
2-Fluorophenol	3.00	50.3	20 - 108	6.66				
Phenol-d5	2.99	66.3	23 - 114	7.75				
Nitrobenzene-d5	2.00	57.6	22 - 108	8.76				
2-Fluorobiphenyl	2.00	79.9	21 - 113	11.11				
2,4,6-Tribromophenol	3.00	68.5	19 - 110	13.21				
Terphenyl-d14	1.99	56.4	24 - 116	16.43				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BS1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
1,1'-Biphenyl		0.828		22 - 103
1,2,4,5-Tetrachlorobenzene	1.67	0.837	50.2	10 - 144
1,2,4-Trichlorobenzene	1.67	0.971	58.3	23 - 130
1,2-Dichlorobenzene	1.67	0.912	54.7	26 - 113
1,2-Diphenylhydrazine (as Azobenzene)	1.67	0.870	52.2	10 - 140
1,3-Dichlorobenzene	1.67	0.866	52.0	32 - 113
1,4-Dichlorobenzene	1.67	0.931	55.8	28 - 111
2,3,4,6-Tetrachlorophenol	1.67	1.61	96.5	30 - 130
2,4,5-Trichlorophenol	1.67	0.899	54.0	14 - 138
2,4,6-Trichlorophenol	1.67	1.02	61.4	27 - 122
2,4-Dichlorophenol	1.67	1.05	63.1	23 - 133
2,4-Dimethylphenol	1.67	0.831	49.9	15 - 131
2,4-Dinitrophenol	1.67	1.37	82.2	10 - 149
2,4-Dinitrotoluene	1.67	1.13	68.0	30 - 123
2,6-Dinitrotoluene	1.67	1.22	73.2	30 - 125
2-Chloronaphthalene	1.67	0.950	57.0	22 - 115
2-Chlorophenol	1.67	0.900	54.0	25 - 121
2-Methylnaphthalene	1.67	0.831	49.8	16 - 127
2-Methylphenol	1.67	0.831	49.9	10 - 146
2-Nitroaniline	1.67	1.04	62.3	24 - 126
2-Nitrophenol	1.67	0.895	53.7	17 - 129
3- & 4-Methylphenols	1.67	0.786	47.2	20 - 109
3,3'-Dichlorobenzidine	1.67	1.23	74.0	10 - 147
3-Nitroaniline	1.67	1.06	63.8	23 - 123
4,6-Dinitro-2-methylphenol	1.67	0.773	46.4	10 - 149
4-Bromophenyl phenyl ether	1.67	0.819	49.2	30 - 138
4-Chloro-3-methylphenol	1.67	0.972	58.3	16 - 138
4-Chloroaniline	1.67	1.07	64.1	10 - 117
4-Chlorophenyl phenyl ether	1.67	0.892	53.5	18 - 132
4-Nitroaniline	1.67	0.791	47.4	14 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BS1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
4-Nitrophenol	1.67	0.928	55.7	10 - 136
Acenaphthene	1.67	0.919	55.1	17 - 124
Acenaphthylene	1.67	0.901	54.1	16 - 124
Acetophenone	3.33	0.887	26.6 *	28 - 105
Aniline	1.67	0.628	37.7	10 - 111
Anthracene	1.67	0.869	52.2	24 - 124
Atrazine	3.33	0.933	28.0	22 - 120
Benzaldehyde	3.33	0.826	24.8	21 - 100
Benzo(a)anthracene	1.67	1.17	70.1	25 - 134
Benzo(a)pyrene	1.67	1.24	74.5	29 - 144
Benzo(b)fluoranthene	1.67	1.02	61.1	20 - 151
Benzo(g,h,i)perylene	1.67	1.11	66.4	10 - 153
Benzo(k)fluoranthene	1.67	1.05	62.9	10 - 148
Benzoic acid	1.67	0.633	38.0	10 - 116
Benzyl alcohol	1.67	0.848	50.9	17 - 128
Benzyl butyl phthalate	1.67	1.40	84.0	10 - 132
Bis(2-chloroethoxy)methane	1.67	0.859	51.5	10 - 129
Bis(2-chloroethyl)ether	1.67	0.834	50.0	14 - 125
Bis(2-chloroisopropyl)ether	1.67	0.879	52.7	14 - 122
Bis(2-ethylhexyl)phthalate	1.67	1.11	66.9	10 - 141
Caprolactam	3.33	0.0533	1.60 *	10 - 123
Carbazole	1.67	0.867	52.0	31 - 120
Chrysene	1.67	1.16	69.4	24 - 116
Dibenzo(a,h)anthracene	1.67	1.04	62.3	17 - 147
Dibenzofuran	1.67	0.954	57.3	23 - 123
Diethyl phthalate	1.67	1.06	63.3	23 - 122
Dimethyl phthalate	1.67	1.13	68.1	28 - 127
Di-n-butyl phthalate	1.67	0.934	56.0	19 - 123
Di-n-octyl phthalate	1.67	1.35	81.0	10 - 132
Fluoranthene	1.67	0.916	54.9	36 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BS1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Fluorene	1.67	0.944	56.7	16 - 130
Hexachlorobenzene	1.67	0.899	54.0	10 - 129
Hexachlorobutadiene	1.67	0.958	57.5	22 - 153
Hexachlorocyclopentadiene	1.67	0.748	44.9	10 - 134
Hexachloroethane	1.67	0.874	52.4	20 - 112
Indeno(1,2,3-cd)pyrene	1.67	1.04	62.1	10 - 155
Isophorone	1.67	0.927	55.6	14 - 131
Naphthalene	1.67	0.857	51.4	20 - 121
Nitrobenzene	1.67	0.918	55.1	20 - 121
N-Nitrosodimethylamine	1.67	0.647	38.8	10 - 124
N-nitroso-di-n-propylamine	1.67	0.800	48.0	21 - 119
N-Nitrosodiphenylamine	1.67	0.887	53.2	10 - 163
Pentachlorophenol	1.67	0.635	38.1	10 - 143
Phenanthrene	1.67	0.902	54.1	24 - 123
Phenol	1.67	0.770	46.2	15 - 123
Pyrene	1.67	1.35	80.9	24 - 132
Pyridine	1.67	0.588	35.3	10 - 92

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BSD1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1'-Biphenyl		0.801		3.32	30	22 - 103
1,2,4,5-Tetrachlorobenzene	1.67	0.815	48.9	2.62	30	10 - 144
1,2,4-Trichlorobenzene	1.67	0.886	53.2	9.12	30	23 - 130
1,2-Dichlorobenzene	1.67	0.838	50.3	8.45	30	26 - 113
1,2-Diphenylhydrazine (as Azobenzene)	1.67	0.786	47.2	10.1	30	10 - 140
1,3-Dichlorobenzene	1.67	0.794	47.6	8.67	30	32 - 113
1,4-Dichlorobenzene	1.67	0.847	50.8	9.41	30	28 - 111
2,3,4,6-Tetrachlorophenol	1.67	1.49	89.7	7.37	30	30 - 130
2,4,5-Trichlorophenol	1.67	0.822	49.3	9.03	30	14 - 138
2,4,6-Trichlorophenol	1.67	0.935	56.1	9.02	30	27 - 122
2,4-Dichlorophenol	1.67	0.936	56.2	11.7	30	23 - 133
2,4-Dimethylphenol	1.67	0.745	44.7	11.0	30	15 - 131
2,4-Dinitrophenol	1.67	1.16	69.7	16.5	30	10 - 149
2,4-Dinitrotoluene	1.67	1.04	62.5	8.37	30	30 - 123
2,6-Dinitrotoluene	1.67	1.09	65.3	11.5	30	30 - 125
2-Chloronaphthalene	1.67	0.852	51.1	10.8	30	22 - 115
2-Chlorophenol	1.67	0.817	49.0	9.75	30	25 - 121
2-Methylnaphthalene	1.67	0.788	47.3	5.27	30	16 - 127
2-Methylphenol	1.67	0.736	44.2	12.1	30	10 - 146
2-Nitroaniline	1.67	0.912	54.7	12.9	30	24 - 126
2-Nitrophenol	1.67	0.828	49.7	7.74	30	17 - 129
3- & 4-Methylphenols	1.67	0.723	43.4	8.39	30	20 - 109
3,3'-Dichlorobenzidine	1.67	1.21	72.4	2.21	30	10 - 147
3-Nitroaniline	1.67	0.926	55.6	13.8	30	23 - 123
4,6-Dinitro-2-methylphenol	1.67	0.765	45.9	1.04	30	10 - 149
4-Bromophenyl phenyl ether	1.67	0.760	45.6	7.51	30	30 - 138
4-Chloro-3-methylphenol	1.67	0.879	52.8	10.0	30	16 - 138
4-Chloroaniline	1.67	1.03	61.9	3.52	30	10 - 117
4-Chlorophenyl phenyl ether	1.67	0.832	49.9	7.00	30	18 - 132
4-Nitroaniline	1.67	0.699	42.0	12.3	30	14 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BSD1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4-Nitrophenol	1.67	0.818	49.1	12.6	30	10 - 136
Acenaphthene	1.67	0.830	49.8	10.2	30	17 - 124
Acenaphthylene	1.67	0.813	48.8	10.3	30	16 - 124
Acetophenone	3.33	0.879	26.4 *	0.982	30	28 - 105
Aniline	1.67	0.582	34.9	7.60	30	10 - 111
Anthracene	1.67	0.808	48.5	7.31	30	24 - 124
Atrazine	3.33	0.911	27.3	2.35	30	22 - 120
Benzaldehyde	3.33	0.795	23.8	3.78	30	21 - 100
Benzo(a)anthracene	1.67	0.991	59.5	16.4	30	25 - 134
Benzo(a)pyrene	1.67	1.20	72.3	3.08	30	29 - 144
Benzo(b)fluoranthene	1.67	1.15	68.7	11.7	30	20 - 151
Benzo(g,h,i)perylene	1.67	0.927	55.6	17.6	30	10 - 153
Benzo(k)fluoranthene	1.67	1.04	62.6	0.414	30	10 - 148
Benzoic acid	1.67	0.708	42.5	11.1	30	10 - 116
Benzyl alcohol	1.67	0.761	45.7	10.7	30	17 - 128
Benzyl butyl phthalate	1.67	1.19	71.3	16.3	30	10 - 132
Bis(2-chloroethoxy)methane	1.67	0.757	45.4	12.6	30	10 - 129
Bis(2-chloroethyl)ether	1.67	0.766	46.0	8.50	30	14 - 125
Bis(2-chloroisopropyl)ether	1.67	0.785	47.1	11.3	30	14 - 122
Bis(2-ethylhexyl)phthalate	1.67	0.930	55.8	18.0	30	10 - 141
Caprolactam	3.33	0.0493	1.48 *	7.79	30	10 - 123
Carbazole	1.67	0.808	48.5	7.01	30	31 - 120
Chrysene	1.67	1.02	61.1	12.8	30	24 - 116
Dibenzo(a,h)anthracene	1.67	0.888	53.3	15.5	30	17 - 147
Dibenzofuran	1.67	0.853	51.2	11.3	30	23 - 123
Diethyl phthalate	1.67	0.954	57.3	10.1	30	23 - 122
Dimethyl phthalate	1.67	1.01	60.7	11.4	30	28 - 127
Di-n-butyl phthalate	1.67	0.866	51.9	7.59	30	19 - 123
Di-n-octyl phthalate	1.67	1.19	71.5	12.5	30	10 - 132
Fluoranthene	1.67	0.878	52.7	4.16	30	36 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BSD1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Fluorene	1.67	0.868	52.1	8.42	30	16 - 130
Hexachlorobenzene	1.67	0.825	49.5	8.62	30	10 - 129
Hexachlorobutadiene	1.67	0.887	53.2	7.73	30	22 - 153
Hexachlorocyclopentadiene	1.67	0.710	42.6	5.26	30	10 - 134
Hexachloroethane	1.67	0.818	49.1	6.58	30	20 - 112
Indeno(1,2,3-cd)pyrene	1.67	0.884	53.1	15.7	30	10 - 155
Isophorone	1.67	0.824	49.4	11.8	30	14 - 131
Naphthalene	1.67	0.779	46.7	9.54	30	20 - 121
Nitrobenzene	1.67	0.819	49.1	11.4	30	20 - 121
N-Nitrosodimethylamine	1.67	0.476	28.6	30.3 *	30	10 - 124
N-nitroso-di-n-propylamine	1.67	0.727	43.6	9.47	30	21 - 119
N-Nitrosodiphenylamine	1.67	0.832	49.9	6.36	30	10 - 163
Pentachlorophenol	1.67	0.650	39.0	2.34	30	10 - 143
Phenanthrene	1.67	0.850	51.0	5.86	30	24 - 123
Phenol	1.67	0.713	42.8	7.60	30	15 - 123
Pyrene	1.67	1.16	69.5	15.2	30	24 - 132
Pyridine	1.67	0.433	26.0	30.3 *	30	10 - 92

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1'-Biphenyl		36.1		21 - 102
1,2,4,5-Tetrachlorobenzene	50.0	40.4	80.9	28 - 105
1,2-Diphenylhydrazine (as Azobenzene)	50.0	43.5	87.0	16 - 137
2,3,4,6-Tetrachlorophenol	50.0	69.2	138 *	30 - 130
2,4,5-Trichlorophenol	50.0	33.4	66.7	36 - 112
2,4,6-Trichlorophenol	50.0	30.9	61.8	41 - 107
1,2,4-Trichlorobenzene	50.0	30.2	60.3	35 - 91
2,4-Dichlorophenol	50.0	27.5	55.0	43 - 92
2,4-Dimethylphenol	50.0	28.1	56.3	25 - 92
2,4-Dinitrophenol	50.0	34.5	69.1	10 - 149
2,4-Dinitrotoluene	50.0	37.5	75.0	41 - 114
1,2-Dichlorobenzene	50.0	30.7	61.4	42 - 85
2,6-Dinitrotoluene	50.0	39.5	79.0	49 - 106
2-Chloronaphthalene	50.0	33.1	66.1	40 - 96
2-Chlorophenol	50.0	21.9	43.8	35 - 84
2-Methylnaphthalene	50.0	38.2	76.4	33 - 101
1,3-Dichlorobenzene	50.0	28.9	57.9	45 - 80
2-Methylphenol	50.0	16.8	33.6	10 - 90
2-Nitroaniline	50.0	39.4	78.7	31 - 122
1,4-Dichlorobenzene	50.0	31.0	62.1	42 - 82
2-Nitrophenol	50.0	31.3	62.6	37 - 97
3- & 4-Methylphenols	50.0	13.2	26.4	10 - 101
3,3'-Dichlorobenzidine	50.0	60.0	120	25 - 155
3-Nitroaniline	50.0	37.3	74.6	29 - 128
4,6-Dinitro-2-methylphenol	50.0	37.8	75.6	10 - 135
4-Bromophenyl phenyl ether	50.0	35.0	70.1	38 - 116
4-Chloro-3-methylphenol	50.0	29.9	59.9	28 - 101
4-Chloroaniline	50.0	39.6	79.1	10 - 154
4-Chlorophenyl phenyl ether	50.0	35.0	70.0	34 - 112
4-Nitroaniline	50.0	35.0	70.0	15 - 143

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Batch: BC60798

Laboratory ID: BC60798-BS1

Preparation: EPA 3510C

Initial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
4-Nitrophenol	50.0	2.52	5.04 *	10 - 112
Acenaphthene	50.0	40.2	80.5	24 - 114
Acenaphthylene	50.0	36.6	73.1	26 - 112
Acetophenone	100	40.4	40.4 *	47 - 92
Aniline	50.0	25.4	50.7	10 - 107
Anthracene	50.0	38.0	75.9	35 - 114
Atrazine	100	42.9	42.9 *	43 - 101
Benzaldehyde	100	41.4	41.4	17 - 117
Benzo(a)anthracene	50.0	41.7	83.5	38 - 127
Benzo(a)pyrene	50.0	38.1	76.1	30 - 146
Benzo(b)fluoranthene	50.0	35.0	69.9	36 - 145
Benzo(g,h,i)perylene	50.0	28.2	56.4	10 - 163
Benzo(k)fluoranthene	50.0	37.3	74.6	16 - 149
Benzoic acid	50.0	ND	*	30 - 130
Benzyl alcohol	50.0	19.5	38.9	18 - 75
Benzyl butyl phthalate	50.0	41.8	83.6	28 - 129
Bis(2-chloroethoxy)methane	50.0	41.1	82.3	27 - 112
Bis(2-chloroethyl)ether	50.0	39.8	79.5	24 - 114
Bis(2-chloroisopropyl)ether	50.0	59.1	118	21 - 124
Bis(2-ethylhexyl)phthalate	50.0	42.5	85.1	10 - 171
Caprolactam	100	5.38	5.38 *	10 - 29
Carbazole	50.0	37.5	75.0	49 - 116
Hexachlorobutadiene	50.0	30.0	60.1	25 - 106
Chrysene	50.0	39.7	79.5	33 - 120
Dibenzo(a,h)anthracene	50.0	31.5	63.0	10 - 149
Dibenzofuran	50.0	36.8	73.6	42 - 105
Diethyl phthalate	50.0	37.7	75.3	38 - 112
Dimethyl phthalate	50.0	36.2	72.3	49 - 106
Di-n-butyl phthalate	50.0	38.8	77.5	36 - 110
Di-n-octyl phthalate	50.0	44.3	88.6	12 - 149

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Naphthalene	50.0	37.2	74.5	30 - 99
Fluoranthene	50.0	39.2	78.5	33 - 126
Fluorene	50.0	38.0	76.0	28 - 117
Hexachlorobenzene	50.0	35.6	71.3	27 - 120
Hexachlorocyclopentadiene	50.0	13.8	27.5	10 - 99
Hexachloroethane	50.0	30.5	61.1	33 - 84
Indeno(1,2,3-ed)pyrene	50.0	30.4	60.7	10 - 150
Isophorone	50.0	39.9	79.7	29 - 115
Nitrobenzene	50.0	35.5	70.9	32 - 113
N-Nitrosodimethylamine	50.0	12.5	24.9	10 - 63
N-nitroso-di-n-propylamine	50.0	43.6	87.2	36 - 118
N-Nitrosodiphenylamine	50.0	43.4	86.8	27 - 145
Pentaachlorophenol	50.0	24.6	49.3	19 - 127
Phenanthrene	50.0	39.7	79.3	31 - 112
Phenol	50.0	8.32	16.6	10 - 37
Pyrene	50.0	39.8	79.6	42 - 125
Pyridine	50.0	11.9	23.7	10 - 46

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BSD1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1'-Biphenyl		44.6		20.9 *	20	21 - 102
1,2,4,5-Tetrachlorobenzene	50.0	47.8	95.6	16.7	20	28 - 105
1,2-Diphenylhydrazine (as Azobenzene)	50.0	47.8	95.7	9.48	20	16 - 137
2,3,4,6-Tetrachlorophenol	50.0	81.9	164 *	16.9	20	30 - 130
2,4,5-Trichlorophenol	50.0	38.2	76.3	13.4	20	36 - 112
2,4,6-Trichlorophenol	50.0	33.8	67.6	9.00	20	41 - 107
1,2,4-Trichlorobenzene	50.0	33.4	66.8	10.1	20	35 - 91
2,4-Dichlorophenol	50.0	31.3	62.5	12.8	20	43 - 92
2,4-Dimethylphenol	50.0	32.0	64.0	12.9	20	25 - 92
2,4-Dinitrophenol	50.0	42.0	84.1	19.6	20	10 - 149
2,4-Dinitrotoluene	50.0	40.3	80.5	7.18	20	41 - 114
1,2-Dichlorobenzene	50.0	32.9	65.8	6.98	20	42 - 85
2,6-Dinitrotoluene	50.0	45.7	91.5	14.7	20	49 - 106
2-Chloronaphthalene	50.0	35.4	70.8	6.78	20	40 - 96
2-Chlorophenol	50.0	24.2	48.3	9.77	20	35 - 84
2-Methylnaphthalene	50.0	41.9	83.8	9.16	20	33 - 101
1,3-Dichlorobenzene	50.0	31.0	62.1	7.00	20	45 - 80
2-Methylphenol	50.0	19.0	38.0	12.1	20	10 - 90
2-Nitroaniline	50.0	43.3	86.7	9.60	20	31 - 122
1,4-Dichlorobenzene	50.0	32.6	65.1	4.75	20	42 - 82
2-Nitrophenol	50.0	35.9	71.8	13.7	20	37 - 97
3- & 4-Methylphenols	50.0	15.6	31.3	16.9	20	10 - 101
3,3'-Dichlorobenzidine	50.0	58.7	117	2.21	20	25 - 155
3-Nitroaniline	50.0	41.4	82.8	10.4	20	29 - 128
4,6-Dinitro-2-methylphenol	50.0	50.6	101	28.9 *	20	10 - 135
4-Bromophenyl phenyl ether	50.0	42.7	85.5	19.8	20	38 - 116
4-Chloro-3-methylphenol	50.0	34.2	68.4	13.3	20	28 - 101
4-Chloroaniline	50.0	44.2	88.4	11.1	20	10 - 154
4-Chlorophenyl phenyl ether	50.0	41.8	83.5	17.7	20	34 - 112
4-Nitroaniline	50.0	42.1	84.1	18.4	20	15 - 143

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BSD1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4-Nitrophenol	50.0	3.93	7.86 *	43.7 *	20	10 - 112
Acenaphthene	50.0	45.1	90.1	11.3	20	24 - 114
Acenaphthylene	50.0	40.9	81.9	11.3	20	26 - 112
Acetophenone	100	47.4	47.4	15.9	20	47 - 92
Aniline	50.0	27.7	55.5	8.97	20	10 - 107
Anthracene	50.0	43.8	87.7	14.4	20	35 - 114
Atrazine	100	50.8	50.8	16.8	20	43 - 101
Benzaldehyde	100	46.6	46.6	11.6	20	17 - 117
Benzo(a)anthracene	50.0	41.2	82.3	1.40	20	38 - 127
Benzo(a)pyrene	50.0	38.1	76.2	0.0525	20	30 - 146
Benzo(b)fluoranthene	50.0	36.2	72.4	3.49	20	36 - 145
Benzo(g,h,i)perylene	50.0	21.6	43.3	26.2 *	20	10 - 163
Benzo(k)fluoranthene	50.0	37.8	75.5	1.23	20	16 - 149
Benzoic acid	50.0	ND	*		20	30 - 130
Benzyl alcohol	50.0	22.5	44.9	14.3	20	18 - 75
Benzyl butyl phthalate	50.0	45.5	91.0	8.45	20	28 - 129
Bis(2-chloroethoxy)methane	50.0	45.9	91.8	10.9	20	27 - 112
Bis(2-chloroethyl)ether	50.0	42.3	84.6	6.12	20	24 - 114
Bis(2-chloroisopropyl)ether	50.0	62.5	125 *	5.59	20	21 - 124
Bis(2-ethylhexyl)phthalate	50.0	35.5	71.0	18.0	20	10 - 171
Caprolactam	100	6.41	6.41 *	17.5	20	10 - 29
Carbazole	50.0	42.3	84.7	12.1	20	49 - 116
Hexachlorobutadiene	50.0	32.9	65.8	9.18	20	25 - 106
Chrysene	50.0	41.6	83.1	4.48	20	33 - 120
Dibenzo(a,h)anthracene	50.0	28.1	56.2	11.3	20	10 - 149
Dibenzofuran	50.0	39.4	78.9	6.95	20	42 - 105
Diethyl phthalate	50.0	40.1	80.1	6.17	20	38 - 112
Dimethyl phthalate	50.0	39.1	78.1	7.68	20	49 - 106
Di-n-butyl phthalate	50.0	42.5	85.0	9.28	20	36 - 110
Di-n-octyl phthalate	50.0	44.3	88.5	0.0452	20	12 - 149

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BSD1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Naphthalene	50.0	40.3	80.6	7.94	20	30 - 99
Fluoranthene	50.0	45.6	91.2	14.9	20	33 - 126
Fluorene	50.0	42.6	85.3	11.5	20	28 - 117
Hexachlorobenzene	50.0	41.4	82.9	15.1	20	27 - 120
Hexachlorocyclopentadiene	50.0	21.6	43.3	44.5 *	20	10 - 99
Hexachloroethane	50.0	32.8	65.5	7.02	20	33 - 84
Indeno(1,2,3-cd)pyrene	50.0	26.3	52.6	14.4	20	10 - 150
Isophorone	50.0	43.7	87.4	9.17	20	29 - 115
Nitrobenzene	50.0	39.6	79.3	11.1	20	32 - 113
N-Nitrosodimethylamine	50.0	15.0	29.9	18.2	20	10 - 63
N-nitroso-di-n-propylamine	50.0	47.4	94.7	8.31	20	36 - 118
N-Nitrosodiphenylamine	50.0	53.9	108	21.6 *	20	27 - 145
Pentachlorophenol	50.0	29.4	58.9	17.7	20	19 - 127
Phenanthrene	50.0	47.4	94.8	17.8	20	31 - 112
Phenol	50.0	9.55	19.1	13.8	20	10 - 37
Pyrene	50.0	43.0	86.1	7.85	20	42 - 125
Pyridine	50.0	11.5	23.0	2.99	20	10 - 46

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS2Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1'-Biphenyl		ND		21 - 102
1,2,4,5-Tetrachlorobenzene		ND		28 - 105
1,2-Diphenylhydrazine (as Azobenzene)		ND		16 - 137
2,3,4,6-Tetrachlorophenol		ND		30 - 130
2,4,5-Trichlorophenol		ND		36 - 112
2,4,6-Trichlorophenol		ND		41 - 107
1,2,4-Trichlorobenzene		ND		35 - 91
2,4-Dichlorophenol		ND		43 - 92
2,4-Dimethylphenol		ND		25 - 92
2,4-Dinitrophenol		ND		10 - 149
2,4-Dinitrotoluene		ND		41 - 114
1,2-Dichlorobenzene		ND		42 - 85
2,6-Dinitrotoluene		ND		49 - 106
2-Chloronaphthalene		ND		40 - 96
2-Chlorophenol		ND		35 - 84
2-Methylnaphthalene		ND		33 - 101
1,3-Dichlorobenzene		ND		45 - 80
2-Methylphenol		ND		10 - 90
2-Nitroaniline		ND		31 - 122
1,4-Dichlorobenzene		ND		42 - 82
2-Nitrophenol		ND		37 - 97
3- & 4-Methylphenols		ND		10 - 101
3,3'-Dichlorobenzidine		ND		25 - 155
3-Nitroaniline		ND		29 - 128
4,6-Dinitro-2-methylphenol		ND		10 - 135
4-Bromophenyl phenyl ether		ND		38 - 116
4-Chloro-3-methylphenol		ND		28 - 101
4-Chloroaniline		ND		10 - 154
4-Chlorophenyl phenyl ether		ND		34 - 112
4-Nitroaniline		ND		15 - 143

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS2Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
4-Nitrophenol		ND		10 - 112
Acenaphthene	1.00	0.580	58.0	24 - 114
Acenaphthylene	1.00	0.580	58.0	26 - 112
Acetophenone		ND		47 - 92
Aniline		ND		10 - 107
Anthracene	1.00	0.610	61.0	35 - 114
Atrazine		ND		43 - 101
Benzaldehyde		ND		17 - 117
Benzo(a)anthracene	1.00	0.620	62.0	38 - 127
Benzo(a)pyrene	1.00	0.680	68.0	30 - 146
Benzo(b)fluoranthene	1.00	0.660	66.0	36 - 145
Benzo(g,h,i)perylene	1.00	0.700	70.0	10 - 163
Benzo(k)fluoranthene	1.00	0.800	80.0	16 - 149
Benzoic acid		ND		30 - 130
Benzyl alcohol		ND		18 - 75
Benzyl butyl phthalate		ND		28 - 129
Bis(2-chloroethoxy)methane		ND		27 - 112
Bis(2-chloroethyl)ether		ND		24 - 114
Bis(2-chloroisopropyl)ether		ND		21 - 124
Bis(2-ethylhexyl)phthalate		ND		10 - 171
Caprolactam		ND		10 - 29
Carbazole		ND		49 - 116
Hexachlorobutadiene		ND		25 - 106
Chrysene	1.00	0.630	63.0	33 - 120
Dibenzo(a,h)anthracene	1.00	0.740	74.0	10 - 149
Dibenzofuran		ND		42 - 105
Diethyl phthalate		ND		38 - 112
Dimethyl phthalate		ND		49 - 106
Di-n-butyl phthalate		ND		36 - 110
Di-n-octyl phthalate		ND		12 - 149

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS2Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Naphthalene	1.00	0.570	57.0	30 - 99
Fluoranthene	1.00	0.690	69.0	33 - 126
Fluorene	1.00	0.590	59.0	28 - 117
Hexachlorobenzene		ND		27 - 120
Hexachlorocyclopentadiene		ND		10 - 99
Hexachloroethane		ND		33 - 84
Indeno(1,2,3-cd)pyrene	1.00	0.730	73.0	10 - 150
Isophorone		ND		29 - 115
Nitrobenzene		ND		32 - 113
N-Nitrosodimethylamine		ND		10 - 63
N-nitroso-di-n-propylamine		ND		36 - 118
N-Nitrosodiphenylamine		ND		27 - 145
Pentachlorophenol		ND		19 - 127
Phenanthrene	1.00	0.540	54.0	31 - 112
Phcnol		ND		10 - 37
Pyrene	1.00	0.610	61.0	42 - 125
Pyridine		ND		10 - 46

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60754-BL.K1 File ID: E201057.D
 Prepared: 03/15/16 07:11 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Analyzed: 03/15/16 10:24 Instrument: BNA#2
 Batch: BC60754 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
92-52-4	1,1'-Biphenyl	0.0417	U
95-94-3	1,2,4,5-Tetrachlorobenzene	0.0833	U
120-82-1	1,2,4-Trichlorobenzene	0.0417	U
95-50-1	1,2-Dichlorobenzene	0.0417	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	0.0417	U
541-73-1	1,3-Dichlorobenzene	0.0417	U
106-46-7	1,4-Dichlorobenzene	0.0417	U
58-90-2	2,3,4,6-Tetrachlorophenol	0.0833	U
95-95-4	2,4,5-Trichlorophenol	0.0417	U
88-06-2	2,4,6-Trichlorophenol	0.0417	U
120-83-2	2,4-Dichlorophenol	0.0417	U
105-67-9	2,4-Dimethylphenol	0.0417	U
51-28-5	2,4-Dinitrophenol	0.0833	U
121-14-2	2,4-Dinitrotoluene	0.0417	U
606-20-2	2,6-Dinitrotoluene	0.0417	U
91-58-7	2-Chloronaphthalene	0.0417	U
95-57-8	2-Chlorophenol	0.0417	U
91-57-6	2-Methylnaphthalene	0.0417	U
95-48-7	2-Methylphenol	0.0417	U
88-74-4	2-Nitroaniline	0.0833	U
88-75-5	2-Nitrophenol	0.0417	U
65794-96-9	3- & 4-Methylphenols	0.0417	U
91-94-1	3,3'-Dichlorobenzidine	0.0417	U
99-09-2	3-Nitroaniline	0.0833	U
534-52-1	4,6-Dinitro-2-methylphenol	0.0833	U
101-55-3	4-Bromophenyl phenyl ether	0.0417	U
59-50-7	4-Chloro-3-methylphenol	0.0417	U
106-47-8	4-Chloroaniline	0.0417	U
7005-72-3	4-Chlorophenyl phenyl ether	0.0417	U
100-01-6	4-Nitroaniline	0.0833	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60754-BLK1 File ID: E201057.D
 Prepared: 03/15/16 07:11 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Analyzed: 03/15/16 10:24 Instrument: BNA#2
 Batch: BC60754 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
100-02-7	4-Nitrophenol	0.0833	U
83-32-9	Acenaphthene	0.0417	U
208-96-8	Acenaphthylene	0.0417	U
98-86-2	Acetophenone	0.0417	U
62-53-3	Aniline	0.167	U
120-12-7	Anthracene	0.0417	U
1912-24-9	Atrazine	0.0417	U
100-52-7	Benzaldehyde	0.0417	U
92-87-5	Benzidine	0.167	U
56-55-3	Benzo(a)anthracene	0.0417	U
50-32-8	Benzo(a)pyrene	0.0417	U
205-99-2	Benzo(b)fluoranthene	0.0417	U
191-24-2	Benzo(g,h,i)perylene	0.0417	U
207-08-9	Benzo(k)fluoranthene	0.0417	U
65-85-0	Benzoic acid	0.0417	U
100-51-6	Benzyl alcohol	0.0417	U
85-68-7	Benzyl butyl phthalate	0.0417	U
111-91-1	Bis(2-chloroethoxy)methane	0.0417	U
111-44-4	Bis(2-chloroethyl)ether	0.0417	U
108-60-1	Bis(2-chloroisopropyl)ether	0.0417	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.0417	U
105-60-2	Caprolactam	0.0833	U
86-74-8	Carbazole	0.0417	U
218-01-9	Chrysene	0.0417	U
53-70-3	Dibenzo(a,h)anthracene	0.0417	U
132-64-9	Dibenzofuran	0.0417	U
84-66-2	Diethyl phthalate	0.0417	U
131-11-3	Dimethyl phthalate	0.0417	U
84-74-2	Di-n-butyl phthalate	0.0417	U
117-84-0	Di-n-octyl phthalate	0.0417	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60754-BLK1 File ID: E201057.D
 Prepared: 03/15/16 07:11 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Analyzed: 03/15/16 10:24 Instrument: BNA#2
 Batch: BC60754 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
206-44-0	Fluoranthene	0.0417	U
86-73-7	Fluorene	0.0417	U
118-74-1	Hexachlorobenzene	0.0417	U
87-68-3	Hexachlorobutadiene	0.0417	U
77-47-4	Hexachlorocyclopentadiene	0.0417	U
67-72-1	Hexachloroethane	0.0417	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0417	U
78-59-1	Isophorone	0.0417	U
91-20-3	Naphthalene	0.0417	U
98-95-3	Nitrobenzene	0.0417	U
62-75-9	N-Nitrosodimethylamine	0.0417	U
621-64-7	N-nitroso-di-n-propylamine	0.0417	U
86-30-6	N-Nitrosodiphenylamine	0.0417	U
87-86-5	Pentachlorophenol	0.0417	U
85-01-8	Phenanthrene	0.0417	U
108-95-2	Phenol	0.0417	U
129-00-0	Pyrene	0.0417	U
110-86-1	Pyridine	0.167	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	2.51	0.774	30.9	20 - 108	
Phenol-d5	2.50	0.853	34.1	23 - 114	
Nitrobenzene-d5	1.67	0.582	34.8	22 - 108	
2-Fluorobiphenyl	1.67	0.593	35.4	21 - 113	
2,4,6-Tribromophenol	2.51	0.645	25.7	19 - 110	
Terphenyl-d14	1.67	0.518	31.1	24 - 116	

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK1 File ID: E401233.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:43 Instrument: GC/MS BNA
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
92-52-4	1,1'-Biphenyl	5.00	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.00	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	5.00	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.00	U
95-95-4	2,4,5-Trichlorophenol	5.00	U
88-06-2	2,4,6-Trichlorophenol	5.00	U
120-82-1	1,2,4-Trichlorobenzene	5.00	U
120-83-2	2,4-Dichlorophenol	5.00	U
105-67-9	2,4-Dimethylphenol	5.00	U
51-28-5	2,4-Dinitrophenol	5.00	U
121-14-2	2,4-Dinitrotoluene	5.00	U
95-50-1	1,2-Dichlorobenzene	5.00	U
606-20-2	2,6-Dinitrotoluene	5.00	U
91-58-7	2-Chloronaphthalene	5.00	U
95-57-8	2-Chlorophenol	5.00	U
91-57-6	2-Methylnaphthalene	5.00	U
541-73-1	1,3-Dichlorobenzene	5.00	U
95-48-7	2-Methylphenol	5.00	U
88-74-4	2-Nitroaniline	5.00	U
106-46-7	1,4-Dichlorobenzene	5.00	U
88-75-5	2-Nitrophenol	5.00	U
65794-96-9	3- & 4-Methylphenols	5.00	U
91-94-1	3,3'-Dichlorobenzidine	5.00	U
99-09-2	3-Nitroaniline	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol	5.00	U
101-55-3	4-Bromophenyl phenyl ether	5.00	U
59-50-7	4-Chloro-3-methylphenol	5.00	U
106-47-8	4-Chloroaniline	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether	5.00	U
100-01-6	4-Nitroaniline	5.00	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK1 File ID: E401233.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:43 Instrument: GC/MS BNA
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
100-02-7	4-Nitrophenol	5.00	U
83-32-9	Acenaphthene	0.0500	U
208-96-8	Acenaphthylene	0.0500	U
98-86-2	Acetophenone	5.00	U
62-53-3	Aniline	5.00	U
120-12-7	Anthracene	0.0500	U
1912-24-9	Atrazine	0.500	U
100-52-7	Benzaldehyde	5.00	U
92-87-5	Benzidine	20.0	U
56-55-3	Benzo(a)anthracene	0.0500	U
50-32-8	Benzo(a)pyrene	0.0500	U
205-99-2	Benzo(b)fluoranthene	0.0500	U
191-24-2	Benzo(g,h,i)perylene	0.0500	U
207-08-9	Benzo(k)fluoranthene	0.0500	U
65-85-0	Benzoic acid	50.0	U
100-51-6	Benzyl alcohol	5.00	U
85-68-7	Benzyl butyl phthalate	5.00	U
111-91-1	Bis(2-chloroethoxy)methane	5.00	U
111-44-4	Bis(2-chloroethyl)ether	5.00	U
108-60-1	Bis(2-chloroisopropyl)ether	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.500	U
105-60-2	Caprolactam	5.00	U
86-74-8	Carbazole	5.00	U
87-68-3	Hexachlorobutadiene	0.500	U
218-01-9	Chrysene	0.0500	U
53-70-3	Dibenzo(a,h)anthracene	0.0500	U
132-64-9	Dibenzofuran	5.00	U
84-66-2	Diethyl phthalate	5.00	U
131-11-3	Dimethyl phthalate	5.00	U
84-74-2	Di-n-butyl phthalate	5.00	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK1 File ID: E401233.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:43 Instrument: GC/MS BNA
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
117-84-0	Di-n-octyl phthalate	5.00	U
91-20-3	Naphthalene	0.0500	U
206-44-0	Fluoranthene	0.0500	U
86-73-7	Fluorene	0.0500	U
118-74-1	Hexachlorobenzene	0.0200	U
77-47-4	Hexachlorocyclopentadiene	5.00	U
67-72-1	Hexachloroethane	0.500	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0500	U
78-59-1	Isophorone	5.00	U
98-95-3	Nitrobenzene	0.250	U
62-75-9	N-Nitrosodimethylamine	0.500	U
621-64-7	N-nitroso-di-n-propylamine	5.00	U
86-30-6	N-Nitrosodiphenylamine	5.00	U
87-86-5	Pentachlorophenol	0.250	U
85-01-8	Phenanthrene	0.0500	U
108-95-2	Phenol	5.00	U
129-00-0	Pyrene	0.0500	U
110-86-1	Pyridine	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	75.2	12.3	16.3	12 - 64	
Phenol-d5	75.1	7.58	10.1	10 - 82	
Nitrobenzene-d5	50.2	34.3	68.3	12 - 96	
2-Fluorobiphenyl	50.2	35.9	71.4	16 - 84	
2,4,6-Tribromophenol	75.2	33.7	44.8	15 - 104	
Terphenyl-d14	50.0	44.1	88.2	15 - 106	

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK2 File ID: E500693.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:32 Instrument: BNA #5
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
92-52-4	1,1'-Biphenyl	5.00	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.00	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	5.00	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.00	U
95-95-4	2,4,5-Trichlorophenol	5.00	U
88-06-2	2,4,6-Trichlorophenol	5.00	U
120-82-1	1,2,4-Trichlorobenzene	5.00	U
120-83-2	2,4-Dichlorophenol	5.00	U
105-67-9	2,4-Dimethylphenol	5.00	U
51-28-5	2,4-Dinitrophenol	5.00	U
121-14-2	2,4-Dinitrotoluene	5.00	U
95-50-1	1,2-Dichlorobenzene	5.00	U
606-20-2	2,6-Dinitrotoluene	5.00	U
91-58-7	2-Chloronaphthalene	5.00	U
95-57-8	2-Chlorophenol	5.00	U
91-57-6	2-Methylnaphthalene	5.00	U
541-73-1	1,3-Dichlorobenzene	5.00	U
95-48-7	2-Methylphenol	5.00	U
88-74-4	2-Nitroaniline	5.00	U
106-46-7	1,4-Dichlorobenzene	5.00	U
88-75-5	2-Nitrophenol	5.00	U
65794-96-9	3- & 4-Methylphenols	5.00	U
91-94-1	3,3'-Dichlorobenzidine	5.00	U
99-09-2	3-Nitroaniline	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol	5.00	U
101-55-3	4-Bromophenyl phenyl ether	5.00	U
59-50-7	4-Chloro-3-methylphenol	5.00	U
106-47-8	4-Chloroaniline	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether	5.00	U
100-01-6	4-Nitroaniline	5.00	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK2 File ID: E500693.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:32 Instrument: BNA #5
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
100-02-7	4-Nitrophenol	5.00	U
83-32-9	Acenaphthene	0.0500	U
208-96-8	Acenaphthylene	0.0500	U
98-86-2	Acetophenone	5.00	U
62-53-3	Aniline	5.00	U
120-12-7	Anthracene	0.0500	U
1912-24-9	Atrazine	0.500	U
100-52-7	Benzaldehyde	5.00	U
92-87-5	Benzidine	20.0	U
56-55-3	Benzo(a)anthracene	0.0500	U
50-32-8	Benzo(a)pyrene	0.0500	U
205-99-2	Benzo(b)fluoranthene	0.0500	U
191-24-2	Benzo(g,h,i)perylene	0.0500	U
207-08-9	Benzo(k)fluoranthene	0.0500	U
65-85-0	Benzoic acid	50.0	U
100-51-6	Benzyl alcohol	5.00	U
85-68-7	Benzyl butyl phthalate	5.00	U
111-91-1	Bis(2-chlorooctoxy)methane	5.00	U
111-44-4	Bis(2-chloroethyl)ether	5.00	U
108-60-1	Bis(2-chloroisopropyl)ether	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.500	U
105-60-2	Caprolactam	5.00	U
86-74-8	Carbazole	5.00	U
87-68-3	Hexachlorobutadiene	0.500	U
218-01-9	Chrysene	0.0500	U
53-70-3	Dibenzo(a,h)anthracene	0.0500	U
132-64-9	Dibenzofuran	5.00	U
84-66-2	Diethyl phthalate	5.00	U
131-11-3	Dimethyl phthalate	5.00	U
84-74-2	Di-n-butyl phthalate	5.00	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK2 File ID: E500693.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:32 Instrument: BNA #5
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
117-84-0	Di-n-octyl phthalate	5.00	U
91-20-3	Naphthalene	0.0500	U
206-44-0	Fluoranthene	0.0500	U
86-73-7	Fluorene	0.0500	U
118-74-1	Hexachlorobenzene	0.0200	U
77-47-4	Hexachlorocyclopentadiene	5.00	U
67-72-1	Hexachloroethane	0.500	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0500	U
78-59-1	Isophorone	5.00	U
98-95-3	Nitrobenzene	0.250	U
62-75-9	N-Nitrosodimethylamine	0.500	U
621-64-7	N-nitroso-di-n-propylamine	5.00	U
86-30-6	N-Nitrosodiphenylamine	5.00	U
87-86-5	Pentachlorophenol	0.250	U
85-01-8	Phenanthrene	0.0500	U
108-95-2	Phenol	5.00	U
129-00-0	Pyrene	0.0500	U
110-86-1	Pyridine	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	75.2	0.00		12 - 64	*
Phenol-d5	75.1	0.00		10 - 82	*
Nitrobenzene-d5	50.2	0.00		12 - 96	*
2-Fluorobiphenyl	50.2	0.00		16 - 84	*
2,4,6-Tribromophenol	75.2	0.00		15 - 104	*
Terphenyl-d14	50.0	0.00		15 - 106	*

FORM IV**PREPARATION BATCH SUMMARY****EPA 8270D**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60754 Batch Matrix: Soil Preparation: EPA 3550C

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01	E201099.D	03/15/16 07:11	
02/DUP	16C0466-02	E201100.D	03/15/16 07:11	
03/LSB-3	16C0466-03	E201101.D	03/15/16 07:11	
Blank	BC60754-BLK1	E201057.D	03/15/16 07:11	
LCS	BC60754-BS1	E201058.D	03/15/16 07:11	
LCS Dup	BC60754-BSD1	E201059.D	03/15/16 07:11	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8270D**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60798 Batch Matrix: Water Preparation: EPA 3510C

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04	E500696.D	03/15/16 14:32	From BC60921 by RDS on 03/17/2016
04/FB20160309	16C0466-04	E401242.D	03/15/16 14:32	From BC60921 by RDS on 03/17/2016
Blank	BC60798-BLK1	E401233.D	03/15/16 14:32	
Blank	BC60798-BLK2	E500693.D	03/15/16 14:32	
LCS	BC60798-BS1	E401234.D	03/15/16 14:32	
LCS	BC60798-BS2	E500694.D	03/15/16 14:32	
LCS Dup	BC60798-BSD1	E401235.D	03/15/16 14:32	

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E201042.D
 Instrument ID: BNA 2
 Calibration: BNA2M269

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 03/14/2016
 DFTPP Injection Time: 12:10
 Sequence: QBSV2031416A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	52.1
68	Less than 2.0 percent of mass 69	0.3
70	Less than 2.0 percent of mass 69	0.6
127	10.0-80.0 percent of mass 198	37.7
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	3.0-9.0 percent of mass 198	7.0
275	10.0-60.0 percent of mass 198	20.7
365	Greater than 1.0 percent of mass 198	2.1
441	0.01-100.0 percent of mass 442	16.3
442	40.0-100.0 percent of mass 198	54.3
443	15.0-24.0 percent of mass 442	21.2

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		1.25 ppm BNA CAL STD	E201044.D	03/14/16	13:12
2		2.5 ppm BNA CAL STD	E201045.D	03/14/16	13:43
3		5 ppm BNA CAL STD	E201046.D	03/14/16	14:14
4		10 ppm BNA CAL STD	E201047.D	03/14/16	14:45
5		15 ppm BNA CAL STD	E201048.D	03/14/16	15:16
6		20 ppm BNA CAL STD	E201049.D	03/14/16	15:47
7		30 ppm BNA CAL STD	E201050.D	03/14/16	16:17
8		40 ppm BNA CAL STD	E201051.D	03/14/16	16:48
9		30 ppm BNA ICV STD	E201052.D	03/14/16	17:19
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E522138.D
 Instrument ID: BNA 5
 Calibration: BN5SIM24

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 01/10/16
 DFTPP Injection Time: 20:20
 Sequence: QBSV5011016A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	64.8
68	Less than 2.0 percent of mass 69	0.0
70	Less than 2.0 percent of mass 69	0.4
127	10.0-80.0 percent of mass 198	56.7
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	5.0-9.0 percent of mass 198	7.3
275	10.0-60.0 percent of mass 198	29.1
365	Greater than 1.0 percent of mass 198	3.2
441	0.01-24.0 percent of mass 443	78.2
442	50.0-100.0 percent of mass 198	91.6
443	15.0-24.0 percent of mass 442	20.3

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		ICAL - LEVEL 1	E522140.D	01/10/16	21:21
2		ICAL - LEVEL 2	E522141.D	01/10/16	21:52
3		ICAL - LEVEL 3	E522142.D	01/10/16	22:23
4		ICAL - LEVEL 4	E522143.D	01/10/16	22:54
5		ICAL - LEVEL 5	E522144.D	01/10/16	23:24
6		ICAL - LEVEL 6	E522145.D	01/10/16	23:55
7		ICAL - LEVEL 7	E522146.D	01/11/16	00:26
8		ICV VARIOUS CONC	E522147.D	01/11/16	00:56
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E422937.D
 Instrument ID: BNA 4
 Calibration: BNA4M049

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 09/30/15
 DFTPP Injection Time: 08:45
 Sequence: QBSV4093015A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	40.4
68	Less than 2.0 percent of mass 69	0.0
70	Less than 2.0 percent of mass 69	0.2
127	10.0-80.0 percent of mass 198	50.1
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	5.0-9.0 percent of mass 198	7.2
275	10.0-60.0 percent of mass 198	23.4
365	Greater than 1.0 percent of mass 198	2.8
441	0.01-100.0 percent of mass 443	1.5
442	50.0-100.0 percent of mass 198	86.6
443	15.0-24.0 percent of mass 442	20.1

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		1.25 ppm ICAL STD	E422940.D	09/30/15	10:46
2		2.5 ppm ICAL STD	E422941.D	09/30/15	11:19
3		5 ppm ICAL STD	E422942.D	09/30/15	11:53
4		10 ppm ICAL STD	E422943.D	09/30/15	12:27
5		15 ppm ICAL STD	E422944.D	09/30/15	13:00
6		20 ppm ICAL STD	E422945.D	09/30/15	13:33
7		30 ppm ICAL STD	E422946.D	09/30/15	14:07
8		40 ppm ICAL STD	E422947.D	09/30/15	14:40
9		ICV - 30 ppm	E422948.D	09/30/15	15:13
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E201054.D
 Instrument ID: BNA 2
 Calibration: BNA2M269

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 03/15/16
 DFTPP Injection Time: 08:16
 Sequence: QBSV2031516A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	49.7
68	Less than 2.0 percent of mass 69	0.1
70	Less than 2.0 percent of mass 69	0.5
127	10.0-80.0 percent of mass 198	36.2
197	Less than 2.0 percent of mass 198	0.1
198	Base peak, 100 percent relative abundance	100.0
199	3.0-9.0 percent of mass 198	7.7
275	10.0-60.0 percent of mass 198	22.0
365	Greater than 1.0 percent of mass 198	2.5
441	0.01-100.0 percent of mass 442	16.1
442	40.0-100.0 percent of mass 198	57.4
443	15.0-24.0 percent of mass 442	19.4

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		CCV-30ppm	E201056.D	03/15/16	09:17
2		BC60754-BLK1	E201057.D	3/15/2016	10:24
3		BC60754-BS1	E201058.D	3/15/2016	10:55
4		BC60754-BSD1	E201059.D	3/15/2016	11:26
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E201081.D
 Instrument ID: BNA 2
 Calibration: BNA2M269

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 03/16/16
 DFTPP Injection Time: 13:11
 Sequence: QBSV2031616A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	42.0
68	Less than 2.0 percent of mass 69	0.4
70	Less than 2.0 percent of mass 69	0.9
127	10.0-80.0 percent of mass 198	31.8
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	3.0-9.0 percent of mass 198	7.6
275	10.0-60.0 percent of mass 198	23.4
365	Greater than 1.0 percent of mass 198	2.6
441	0.01-100.0 percent of mass 442	15.3
442	40.0-100.0 percent of mass 198	65.7
443	15.0-24.0 percent of mass 442	21.4

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		CCV-30ppm	E201082.D	03/16/16	13:41
2	01/LSB-3 (20x)	16C0466-01 (20x)	E201099.D	3/16/2016	22:34
3	02/DUP (5x)	16C0466-02 (5x)	E201100.D	3/16/2016	23:05
4	03/LSB-3 (5x)	16C0466-03 (5x)	E201101.D	3/16/2016	23:35
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E500691.D
 Instrument ID: BNA 5
 Calibration: BN5SIM24

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 03/16/16
 DFTPP Injection Time: 08:26
 Sequence: QBSV5031616A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	58.9
68	Less than 2.0 percent of mass 69	0.0
70	Less than 2.0 percent of mass 69	0.5
127	10.0-80.0 percent of mass 198	53.8
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	5.0-9.0 percent of mass 198	7.4
275	10.0-60.0 percent of mass 198	27.1
365	Greater than 1.0 percent of mass 198	3.0
441	0.01-24.0 percent of mass 443	74.0
442	50.0-100.0 percent of mass 198	84.5
443	15.0-24.0 percent of mass 442	20.4

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		CCV - Various Conc.	E500692.D	3/16/2016	09:48
2		BC60798-BLK2	E500693.D	3/16/2016	09:32
3		BC60798-BS2	E500694.D	3/16/2016	10:03
4	04/FB20160309	16C0466-04	E500696.D	3/16/2016	12:02
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E401231.D
 Instrument ID: BNA 4
 Calibration: BNA4M049

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 03/16/16
 DFTPP Injection Time: 08:34
 Sequence: QBSV4031616A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	49.1
68	Less than 2.0 percent of mass 69	0.0
70	Less than 2.0 percent of mass 69	0.2
127	10.0-80.0 percent of mass 198	53.8
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	5.0-9.0 percent of mass 198	6.8
275	10.0-60.0 percent of mass 198	22.6
365	Greater than 1.0 percent of mass 198	2.3
441	0.01-100.0 percent of mass 443	15.8
442	50.0-100.0 percent of mass 198	72.7
443	15.0-24.0 percent of mass 442	20.1

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		CCV - 30 ppm	E401232.D	3/16/2016	09:09
2		BC60798-BLK1	E401233.D	3/16/2016	09:43
3		BC60798-BS1	E401234.D	3/16/2016	10:17
4		BC60798-BSD1	E401235.D	3/16/2016	10:51
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 5B
Semivolatile Organic Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)

Lab Name: York Analytical Laboratories, Inc.
 Client: Langan Engineering & Environmental Services (NJ)
 Lab File ID: E401239.D
 Instrument ID: BNA 4
 Calibration: BNA4M049

SDG: 16C0466
 Project: 100433202
 DFTPP Injection Date: 03/16/16
 DFTPP Injection Time: 13:32
 Sequence: QBSV4031616A

m/e	Ion Abundance Criteria	% Relative Abundance
51	10.0-80.0 percent of mass 198	47.2
68	Less than 2.0 percent of mass 69	0.0
70	Less than 2.0 percent of mass 69	0.6
127	10.0-80.0 percent of mass 198	51.9
197	Less than 2.0 percent of mass 198	0.0
198	Base peak, 100 percent relative abundance	100.0
199	5.0-9.0 percent of mass 198	7.1
275	10.0-60.0 percent of mass 198	23.8
365	Greater than 1.0 percent of mass 198	2.4
441	0.01-100.0 percent of mass 443	16.4
442	50.0-100.0 percent of mass 198	77.3
443	15.0-24.0 percent of mass 442	19.6

This check applies to the following samples, MS, MSD, blanks and standards

	Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
1		CCV - 30 ppm	E401240.D	3/16/2016	14:05
2	04/FB20160309	16C0466-04	E401242.D	3/16/2016	15:13
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Form 8A

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 2
Date Analyzed: 03/15/16
Time Analyzed 9:17

[illegible]

1S 1 (DCB) = 1,4-Dichlorobenzene

1S 2 (NPT) = Naphthalene-d8

1S 3 (ANT) = Acenaphthene-d10

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* = Values outside of QC limits

Form 8B

Lab Name: York Analytical Laboratories, Inc
Client: Langan Engineering & Environmental Services (NJ)
Sequence: QBSV2031516A
Calibration: BNA2M269
Lab File 1D: E201056.D

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 2
Date Analyzed: 03/15/16
Time Analyzed: 9:17

[illegible]

IS 4 (PHN) = Phenanthrene-d10

1S 5 (CRY) = Chrysene-d12

IS 6 (PRY) = Perylene-d12

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* Values outside of QC limits

Form 8A

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 2
Date Analyzed: 03/16/16
Time Analyzed 13:41

Lab Name: York Analytical Laboratories, Inc	SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ)	Project: 100433202
Sequence: QBSV2031616A	Instrument ID: BNA 2
Calibration: BNA2M269	Date Analyzed: 03/16/16
Lab File ID: E201082.D	Time Analyzed 13:41

IS 3 (ANT) = Acenaphthene-d10

RT Upper Limit -0.50 minutes of internal standard RT

Page 1 of 2

Form 8B
Semivolatile Internal Standard Area and RT Summary

Lab Name: York Analytical Laboratories, Inc
Client: Langan Engineering & Environmental Services (NJ)
Sequence: QBSV2031616A
Calibration: BNA2M269
Lab File ID: E201082.D

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 2
Date Analyzed: 03/16/16
Time Analyzed: 13:41

[illegible]

IS 4 (PHN) = Phenanthrene-d10

1S 5 (CRY) = Chrysene-d12

IS 6 (PRY) = Perylene-d12

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* Values outside of QC limits

Form 8A

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 5
Date Analyzed: 03/16/16
Time Analyzed: 09:48

[illegible]

1S 1 (DCB) = 1,4-Dichlorobenzene
1S 2 (NPT) = Naphthalene-d8
1S 3 (ANT) = Acenaphthene-d10

Area Upper Limit	+100% of internal standard area
Area Lower Limit	-50% of internal standard area
RT Upper Limit	+0.50 minutes of internal standard RT
RT Upper Limit	-0.50 minutes of internal standard RT

* = Values outside of QC limits

Form 8B

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 5
Date Analyzed: 03/16/16
Time Analyzed: 09:48

[illegible]

1S 4 (PHN) = Phenanthrene-d10

1S 5 (CRY) = Chrysene-d12

1S 6 (PRY) = Perylene-d12

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* Values outside of QC limits

Form 8A

SDG: 16C0466
Project: I00433202
Instrument ID: BNA 4
Date Analyzed: 03/16/16
Time Analyzed: 9:09

[illegible]

IS 2 (NPT) = Naphthalene-d8

Area Lower Limit -50% of internal standard area

RT Upper Limit -0.50 minutes of internal standard RT

Form 8B

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 4
Date Analyzed: 03/16/16
Time Analyzed: 9:09

[illegible]

1S 4 (PHN) = Phenanthrene-d10

IS 5 (CRY) = Chrysene-d12

IS 6 (PRY) = Perylene-d12

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* Values outside of QC limits

Form 8A

SDG: 16C0466
Project: 100433202
Instrument ID: BNA 4
Date Analyzed: 03/16/16
Time Analyzed: 14:05

[illegible]

IS 1 (DCB) = 1,4-Dichlorobenzene

IS 2 (NPT) = Naphthalene-d8

1S 3 (ANT) = Acenaphthene-d10

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* = Values outside of QC limits

Form 8B

SDG: I6C0466
Project: 100433202
Instrument ID: BNA 4
Date Analyzed: 03/16/16
Time Analyzed: 14:05

[illegible]

IS 4 (PHN) = Phenanthrene-d10

IS 5 (CRY) = Chrysene-d12

IS 6 (PRY) = Perylene-d12

Area Upper Limit +100% of internal standard area

Area Lower Limit -50% of internal standard area

RT Upper Limit +0.50 minutes of internal standard RT

RT Upper Limit -0.50 minutes of internal standard RT

* Values outside of QC limits

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
1,1'-Biphenyl	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
1,2,4,5-Tetrachlorobenzene	2.50	5.00	ug/L
	0.0417	0.0833	mg/kg
1,2,4-Trichlorobenzene	0.0209	0.0417	mg/kg
1,2-Dichlorobenzene	0.0209	0.0417	mg/kg
1,2-Diphenylhydrazine (as Azobenzene)	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
1,3-Dichlorobenzene	0.0209	0.0417	mg/kg
1,4-Dichlorobenzene	0.0209	0.0417	mg/kg
2,3,4,6-Tetrachlorophenol	0.0417	0.0833	mg/kg
	2.50	5.00	ug/L
2,4,5-Trichlorophenol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
2,4,6-Trichlorophenol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
1,2,4-Trichlorobenzene	2.50	5.00	ug/L
2,4-Dichlorophenol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
2,4-Dimethylphenol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
2,4-Dinitrophenol	0.0417	0.0833	mg/kg
	2.50	5.00	ug/L
2,4-Dinitrotoluene	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
1,2-Dichlorobenzene	2.50	5.00	ug/L
2,6-Dinitrotoluene	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
2-Chloronaphthalene	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
2-Chlorophenol	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
2-Methylnaphthalene	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
1,3-Dichlorobenzene	2.50	5.00	ug/L
2-Methylphenol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
2-Nitroaniline	0.0417	0.0833	mg/kg
	2.50	5.00	ug/L
1,4-Dichlorobenzene	2.50	5.00	ug/L
2-Nitrophenol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
3- & 4-Methylphenols	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
3,3'-Dichlorobenzidine	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
3-Nitroaniline	2.50	5.00	ug/L
	0.0417	0.0833	mg/kg
4,6-Dinitro-2-methylphenol	2.50	5.00	ug/L
	0.0417	0.0833	mg/kg
4-Bromophenyl phenyl ether	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
4-Chloro-3-methylphenol	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
4-Chloroaniline	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
4-Chlorophenyl phenyl ether	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
4-Nitroaniline	2.50	5.00	ug/L
	0.0417	0.0833	mg/kg
4-Nitrophenol	0.0417	0.0833	mg/kg
	2.50	5.00	ug/L
Acenaphthene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Acenaphthylene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Acetophenone	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Aniline	0.0835	0.167	mg/kg
	2.50	5.00	ug/L
Anthracene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Atrazine	0.0209	0.0417	mg/kg
	0.500	0.500	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument:

Analyte	LOD	LOQ	Units
Benzaldehyde	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
Benzidine	10.0	20.0	ug/L
	0.0835	0.167	mg/kg
Benzo(a)anthracene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Benzo(a)pyrene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Benzo(b)fluoranthene	0.0500	0.0500	ug/L
	0.0209	0.0417	mg/kg
Benzo(g,h,i)perylene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Benzo(k)fluoranthene	0.0500	0.0500	ug/L
	0.0209	0.0417	mg/kg
Benzoic acid	25.0	50.0	ug/L
	0.0209	0.0417	mg/kg
Benzyl alcohol	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Benzyl butyl phthalate	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Bis(2-chloroethoxy)methane	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Bis(2-chloroethyl)ether	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
Bis(2-chloroisopropyl)ether	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
Bis(2-ethylhexyl)phthalate	0.500	0.500	ug/L
	0.0209	0.0417	mg/kg
Caprolactam	2.50	5.00	ug/L
	0.0417	0.0833	mg/kg
Carbazole	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
Hexachlorobutadiene	0.500	0.500	ug/L
Chrysene	0.0500	0.0500	ug/L
	0.0209	0.0417	mg/kg
Dibenzo(a,h)anthracene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
Dibenzofuran	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Diethyl phthalate	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Dimethyl phthalate	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Di-n-butyl phthalate	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Di-n-octyl phthalate	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Naphthalene	0.0500	0.0500	ug/L
Fluoranthene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Fluorene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Hexachlorobenzene	0.0209	0.0417	mg/kg
	0.0200	0.0200	ug/L
Hexachlorobutadiene	0.0209	0.0417	mg/kg
Hexachlorocyclopentadiene	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Hexachloroethane	0.0209	0.0417	mg/kg
	0.500	0.500	ug/L
Indeno(1,2,3-cd)pyrene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Isophorone	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Naphthalene	0.0209	0.0417	mg/kg
Nitrobenzene	0.0209	0.0417	mg/kg
	0.250	0.250	ug/L
N-Nitrosodimethylamine	0.0209	0.0417	mg/kg
	0.500	0.500	ug/L
N-nitroso-di-n-propylamine	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
N-Nitrosodiphenylamine	0.0209	0.0417	mg/kg
	2.50	5.00	ug/L
Pentachlorophenol	0.0209	0.0417	mg/kg
	0.250	0.250	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
Phenanthrene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Phenol	2.50	5.00	ug/L
	0.0209	0.0417	mg/kg
Pyrene	0.0209	0.0417	mg/kg
	0.0500	0.0500	ug/L
Pyridine	2.50	5.00	ug/L
	0.0835	0.167	mg/kg

HOLDING TIME SUMMARY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/15/16 07:11	5.83	14.00	03/16/16 22:34	1.64	40.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/15/16 07:11	5.83	14.00	03/16/16 23:05	1.66	40.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/15/16 07:11	5.81	14.00	03/16/16 23:37	1.68	40.00	
04/FB20160309	03/09/16 12:55	03/10/16 19:54	03/15/16 14:32	6.07	7.00	03/16/16 12:02	0.90	40.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-01 File ID: E201099.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 22:34
 Solids: 88.45 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	20	0.897	JD
95-94-3	1,2,4,5-Tetrachlorobenzene	20	1.88	U
120-82-1	1,2,4-Trichlorobenzene	20	0.943	U
95-50-1	1,2-Dichlorobenzene	20	0.943	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	20	0.943	U
541-73-1	1,3-Dichlorobenzene	20	0.943	U
106-46-7	1,4-Dichlorobenzene	20	0.943	U
58-90-2	2,3,4,6-Tetrachlorophenol	20	1.88	U
95-95-4	2,4,5-Trichlorophenol	20	0.943	U
88-06-2	2,4,6-Trichlorophenol	20	0.943	U
120-83-2	2,4-Dichlorophenol	20	0.943	U
105-67-9	2,4-Dimethylphenol	20	0.943	U
51-28-5	2,4-Dinitrophenol	20	1.88	U
121-14-2	2,4-Dinitrotoluene	20	0.943	U
606-20-2	2,6-Dinitrotoluene	20	0.943	U
91-58-7	2-Chloronaphthalene	20	0.943	U
95-57-8	2-Chlorophenol	20	0.943	U
91-57-6	2-Methylnaphthalene	20	2.20	D
95-48-7	2-Methylphenol	20	0.943	U
88-74-4	2-Nitroaniline	20	1.88	U
88-75-5	2-Nitrophenol	20	0.943	U
65794-96-9	3- & 4-Methylphenols	20	0.943	U
91-94-1	3,3'-Dichlorobenzidine	20	0.943	U
99-09-2	3-Nitroaniline	20	1.88	U
534-52-1	4,6-Dinitro-2-methylphenol	20	1.88	U
101-55-3	4-Bromophenyl phenyl ether	20	0.943	U
59-50-7	4-Chloro-3-methylphenol	20	0.943	U
106-47-8	4-Chloroaniline	20	0.943	U
7005-72-3	4-Chlorophenyl phenyl ether	20	0.943	U
100-01-6	4-Nitroaniline	20	1.88	U
100-02-7	4-Nitrophenol	20	1.88	U
83-32-9	Acenaphthene	20	0.573	JD
208-96-8	Acenaphthylene	20	2.41	D
98-86-2	Acetophenone	20	0.943	U
62-53-3	Aniline	20	3.78	U
120-12-7	Anthracene	20	1.91	D
1912-24-9	Atrazine	20	0.943	U
100-52-7	Benzaldehyde	20	0.943	U
92-87-5	Benzidine	20	3.78	U
56-55-3	Benzo(a)anthracene	20	7.18	D

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-01 File ID: E201099.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 22:34
 Solids: 88.45 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	20	4.42	D
205-99-2	Benzo(b)fluoranthene	20	5.87	D
191-24-2	Benzo(g,h,i)perylene	20	2.66	D
207-08-9	Benzo(k)fluoranthene	20	5.64	D
65-85-0	Benzoic acid	20	0.943	U
100-51-6	Benzyl alcohol	20	0.943	U
85-68-7	Benzyl butyl phthalate	20	0.943	U
111-91-1	Bis(2-chloroethoxy)methane	20	0.943	U
111-44-4	Bis(2-chloroethyl)ether	20	0.943	U
108-60-1	Bis(2-chloroisopropyl)ether	20	0.943	U
117-81-7	Bis(2-ethylhexyl)phthalate	20	0.943	U
105-60-2	Caprolactam	20	1.88	U
86-74-8	Carbazole	20	2.86	D
218-01-9	Chrysene	20	8.63	D
53-70-3	Dibenzo(a,h)anthracene	20	1.03	D
132-64-9	Dibenzofuran	20	5.16	D
84-66-2	Diethyl phthalate	20	0.943	U
131-11-3	Dimethyl phthalate	20	0.943	U
84-74-2	Di-n-butyl phthalate	20	0.943	U
117-84-0	Di-n-octyl phthalate	20	0.943	U
206-44-0	Fluoranthene	20	25.5	D
86-73-7	Fluorene	20	1.89	D
118-74-1	Hexachlorobenzene	20	0.943	U
87-68-3	Hexachlorobutadiene	20	0.943	U
77-47-4	Hexachlorocyclopentadiene	20	0.943	U
67-72-1	Hexachloroethane	20	0.943	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	2.93	D
78-59-1	Isophorone	20	0.943	U
91-20-3	Naphthalene	20	3.35	D
98-95-3	Nitrobenzene	20	0.943	U
62-75-9	N-Nitrosodimethylamine	20	0.943	U
621-64-7	N-nitroso-di-n-propylamine	20	0.943	U
86-30-6	N-Nitrosodiphenylamine	20	0.943	U
87-86-5	Pentachlorophenol	20	0.943	U
85-01-8	Phenanthrene	20	29.5	D
108-95-2	Phenol	20	0.943	U
129-00-0	Pyrene	20	15.7	D
110-86-1	Pyridine	20	3.78	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0466-01 File ID: E201099.D
Sampled: 03/09/16 11:15 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 22:34
Solids: 88.45 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	2.83	1.59	56.1	20 - 108	
Phenol-d5	2.83	2.47	87.4	23 - 114	
Nitrobenzene-d5	1.89	1.43	75.7	22 - 108	
2-Fluorobiphenyl	1.89	2.20	116	21 - 113	*
2,4,6-Tribromophenol	2.83	2.63	92.8	19 - 110	
Terphenyl-d14	1.88	1.43	76.0	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E2031616\E201099.D

Vial: 28

Acq On : 16 Mar 2016 10:34 pm

Operator: KH

Sample : 16C0466-01

Inst : BNA#2

Misc : QBSV2031616A RE 20X 8270 COMP

Multiplr: 20.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 9:07 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M269

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	3971039	40.00	ug/mL	0.01
21) Naphthalene-d8	9.64	136	12147994	40.00	ug/mL	0.01
39) Acenaphthene-d10	12.06	164	6994543	40.00	ug/mL	0.01
62) Phenanthrene-d10	14.15	188	14292773	40.00	ug/mL	0.00
79) Chrysene-d12	17.97	240	13393279	40.00	ug/mL	0.01
91) Perylene-d12	19.98	264	10694587	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol		6.67	112	347507	2.11	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	2.81%#	
5) Phenol-d5		7.76	99	603374	3.28	ug/mL	0.01
Spiked Amount	75.000	Range	10 - 100	Recovery	=	4.37%#	
22) Nitrobenzene-d5		8.76	82	397805	1.90	ug/mL	0.02
Spiked Amount	50.000	Range	26 - 120	Recovery	=	3.80%#	
45) 2-Fluorobiphenyl		11.11	172	936009	2.92	ug/mL	0.01
Spiked Amount	50.000	Range	29 - 120	Recovery	=	5.84%#	
67) 2,4,6-Tribromophenol		13.21	330	269556	3.49	ug/mL	0.01
Spiked Amount	75.000	Range	35 - 126	Recovery	=	4.65%#	
81) Terphenyl-d14		16.43	244	1023073	1.90	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	3.80%#	

Target Compounds

						Qvalue
31) Naphthalene		9.66	128	1679175	4.45	ug/mL 99
37) 1-Methylnaphthalene		10.74	141	534966	1.84	ug/mL 95
38) 2-Methylnaphthalene		10.58	142	805337	2.92	ug/mL 93
42) Biphenyl		11.23	153	186162	1.19	ug/mL 91
50) Acenaphthylene		11.85	152	1436319	3.20	ug/mL 99
52) Acenaphthene		12.10	154	198235	0.76	ug/mL 95
54) Dibenzofuran		12.33	168	2781997	6.84	ug/mL 94
59) Fluorene		12.81	166	759120	2.51	ug/mL 96
73) Phenanthrene		14.19	178	17347618	39.11	ug/mL 100
74) Anthracene		14.23	178	1236105m	2.53	ug/mL
75) Carbazole		14.50	167	1534035	3.80	ug/mL# 91
77) Fluoranthene		15.90	202	20313144	33.78	ug/mL 100
80) Pyrene		16.23	202	16822810	20.85	ug/mL 99
84) Benz (a) anthracene		17.93	228	5310472	9.53	ug/mL# 90
86) Chrysene		18.00	228	7130263	11.45	ug/mL# 94
88) Benzo(b) fluoranthene		19.42	252	5364924	7.79	ug/mL# 56
89) Benzo(k) fluoranthene		19.45	252	5250886	7.48	ug/mL# 55
90) Benzo(a) pyrene		19.88	252	4222605	5.87	ug/mL 96
92) Indeno(1,2,3-cd) pyrene		21.73	276	1795101	3.89	ug/mL 99
93) Dibenz(a,h)anthracene		21.73	278	497427	1.36	ug/mL# 81
94) Benzo(g,h,i) perylene		22.24	276	1377692	3.53	ug/mL 98

(#) = qualifier out of range (m) = manual integration

E201099.D BNA2M269.M

Thu Mar 17 09:10:07 2016

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031616\E201099.D

Vial: 28

Acq On : 16 Mar 2016 10:34 pm

Operator: KH

Sample : 16C0466-01

Inst : BNA#2

Misc : QBSV2031616A RE 20X 8270 COMP

Multiplr: 20.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 9:07 2016

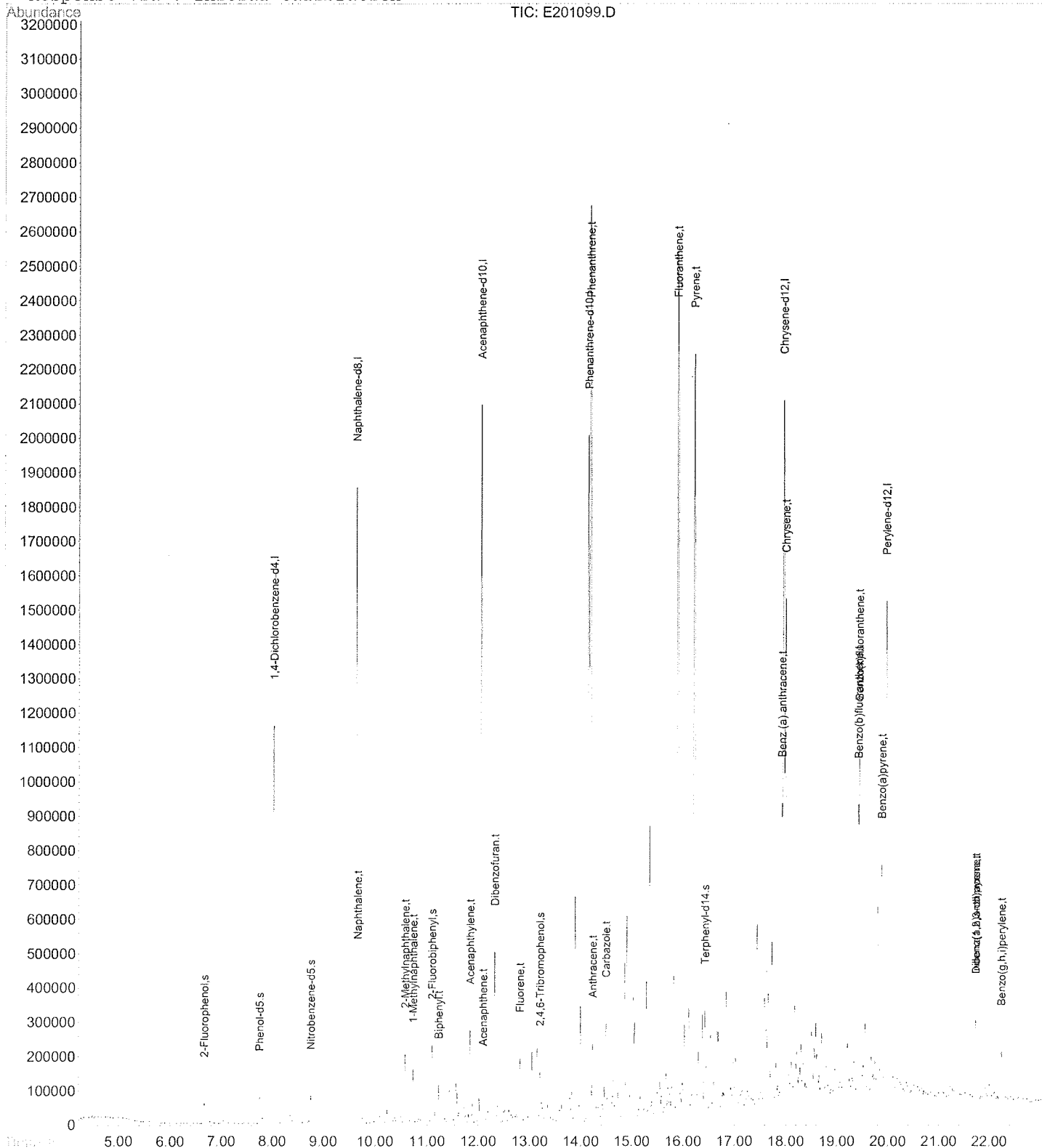
Quant Results File: BNA2M269.RES

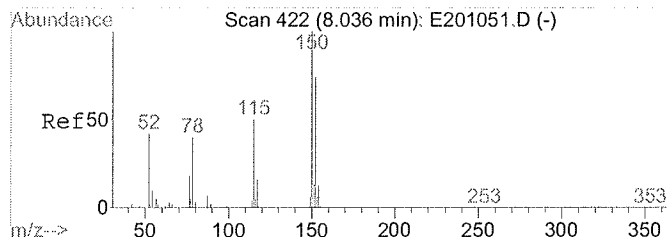
Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

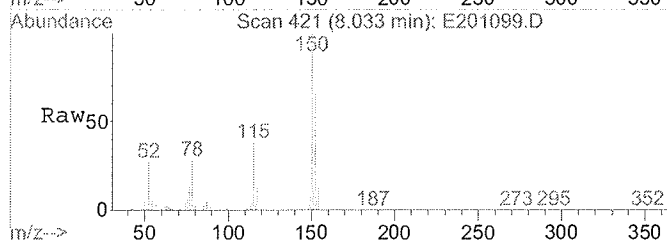
Response via : Initial Calibration





#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.03 min Scan# 421
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion:152 Resp: 3971039
Ion Ratio Lower Upper
152 100
150 151.1 90.0 269.9
115 61.1 33.8 101.3
78 46.9 28.1 84.2



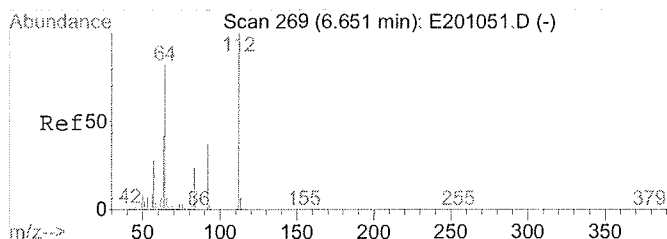
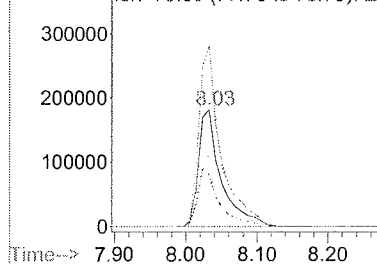
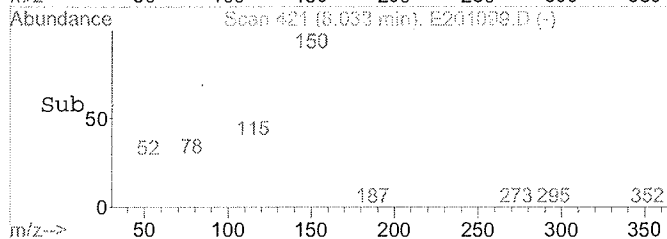
Abundance

Ion 152.00 (151.70 to 152.70):

Ion 150.00 (149.70 to 150.70):

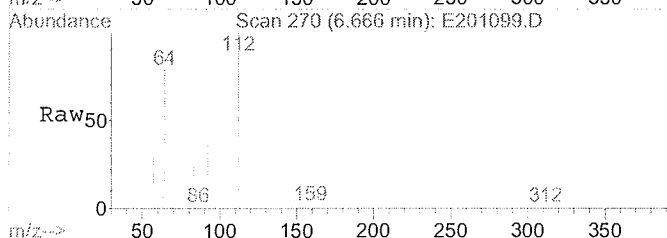
Ion 115.00 (114.70 to 115.70):

Ion 78.00 (77.70 to 78.70): E2



#4
2-Fluorophenol
Concen: N.D. ug/mL
RT: 6.67 min Scan# 270
Delta R.T. 0.00 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion:112 Resp: 347507
Ion Ratio Lower Upper
112 100
64 80.3 63.0 94.6
92 44.0 20.3 30.5#

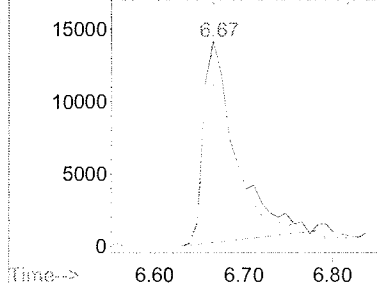
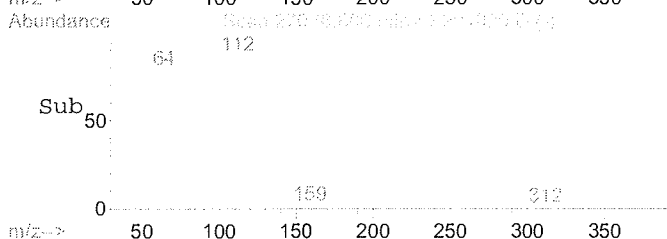


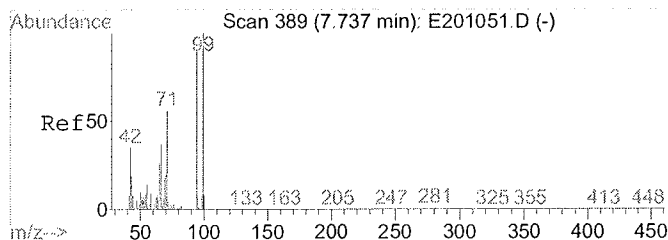
Abundance

Ion 112.00 (111.70 to 112.70):

Ion 64.00 (63.70 to 64.70): E2

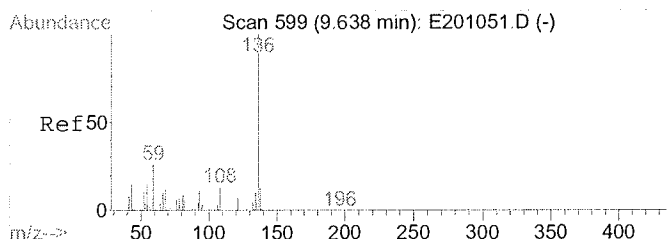
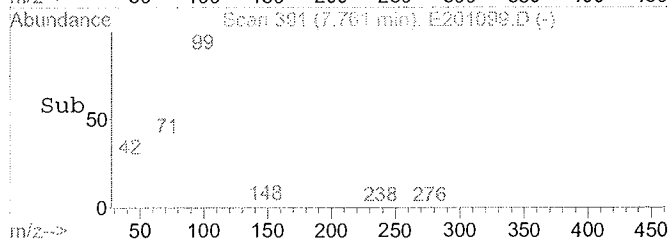
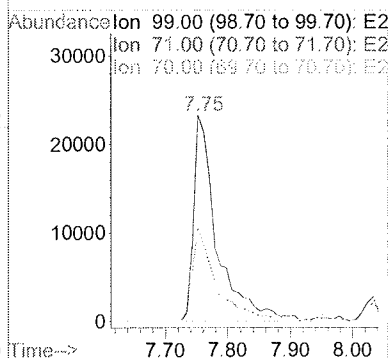
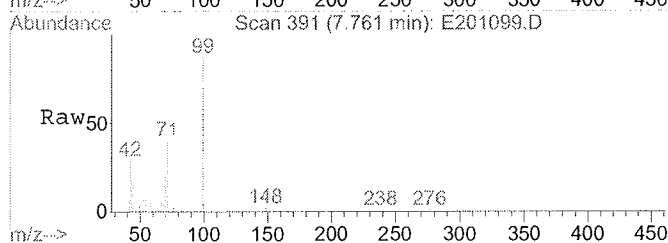
Ion 92.00 (91.70 to 92.70): E2





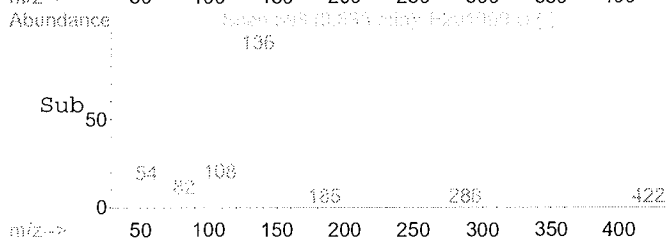
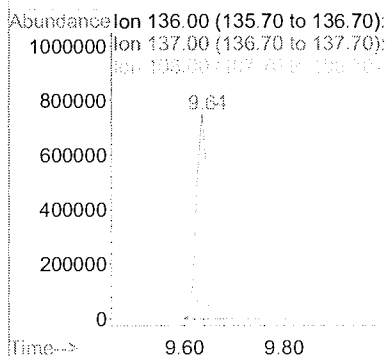
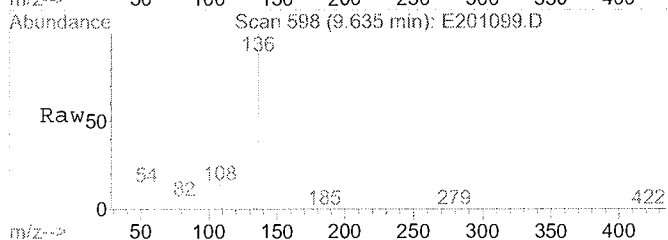
#5
Phenol-d5
Concen: N.D. ug/mL
RT: 7.76 min Scan# 391
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

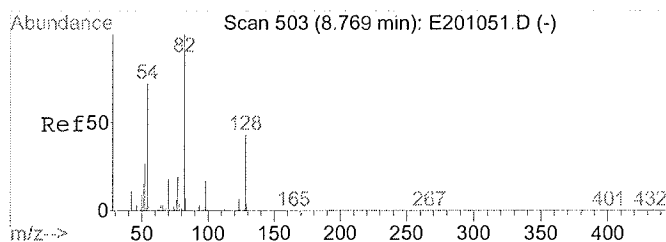
Tgt Ion: 99 Resp: 603374
Ion Ratio Lower Upper
99 100
71 45.2 43.1 64.7
70 17.7 17.1 25.7



#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.64 min Scan# 598
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

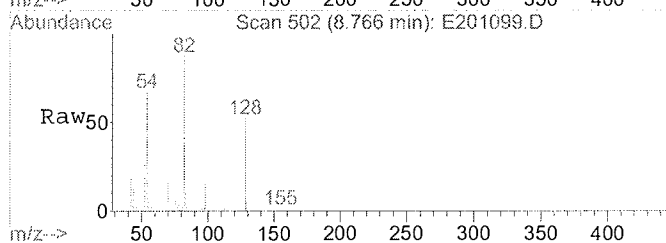
Tgt Ion: 136 Resp: 12147994
Ion Ratio Lower Upper
136 100
137 12.0 6.1 18.3
108 12.7 7.3 22.0



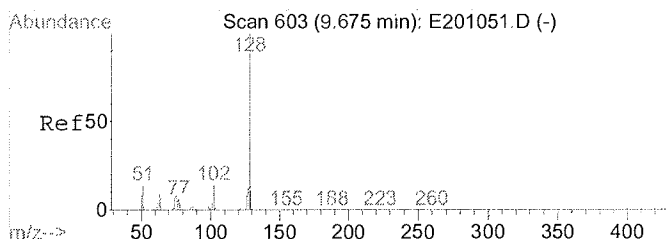
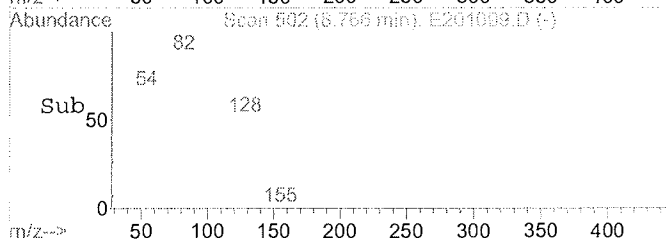
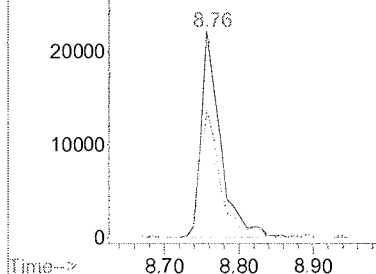


#22
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 8.76 min Scan# 502
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion: 82 Resp: 397805
Ion Ratio Lower Upper
82 100
54 64.8 55.7 83.5
128 48.2 35.6 53.4

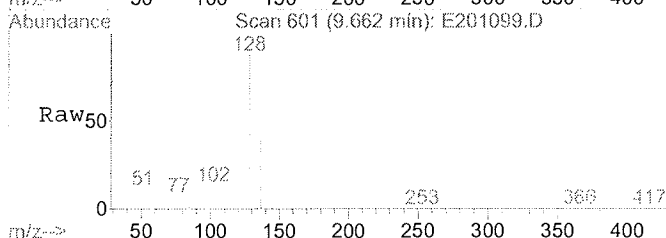


Abundance Ion 82.00 (81.70 to 82.70): E2
30000 Ion 54.00 (53.70 to 54.70): E2
Ion 128.00 (127.70 to 128.70): E2

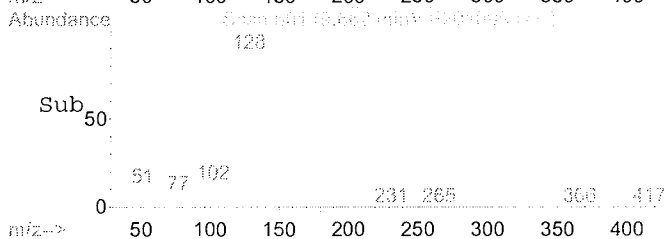
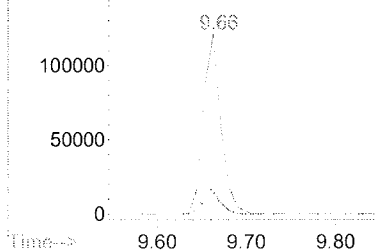


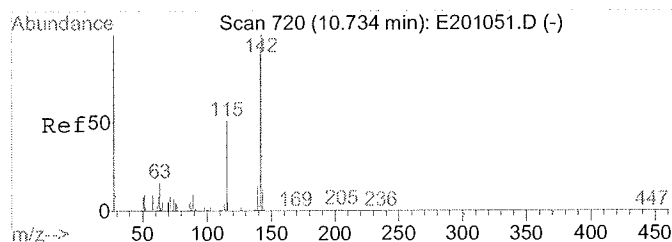
#31
Naphthalene
Concen: 4.45 ug/mL
RT: 9.66 min Scan# 601
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion: 128 Resp: 1679175
Ion Ratio Lower Upper
128 100
127 14.5 11.5 17.3
102 15.3 7.2 21.6
129 11.9 6.7 15.7



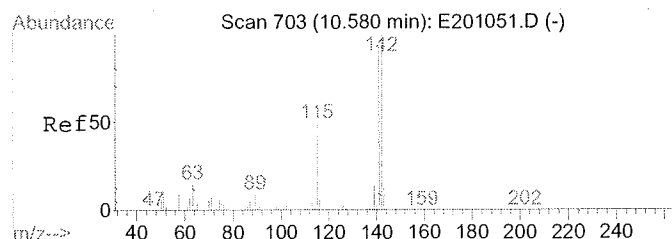
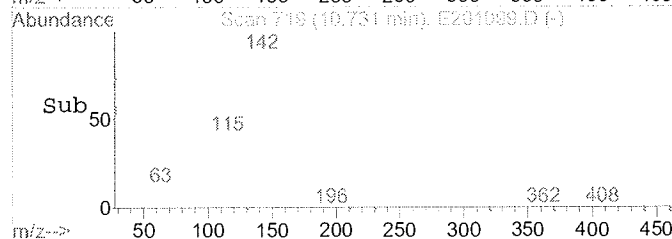
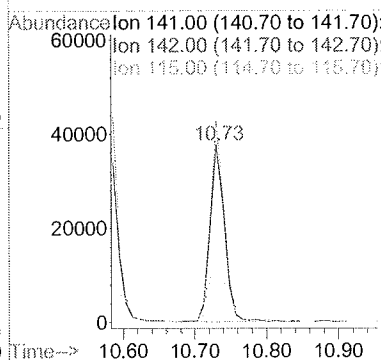
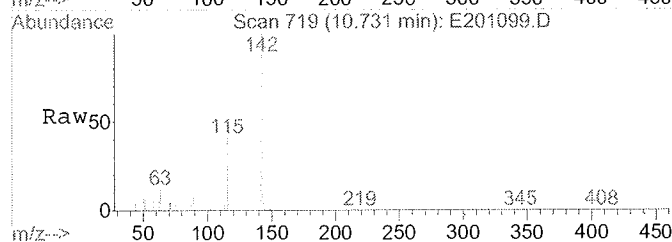
Abundance Ion 128.00 (127.70 to 128.70): E2
150000 Ion 127.00 (126.70 to 127.70): E2
Ion 102.00 (101.70 to 102.70): E2
Ion 129.00 (128.70 to 129.70): E2





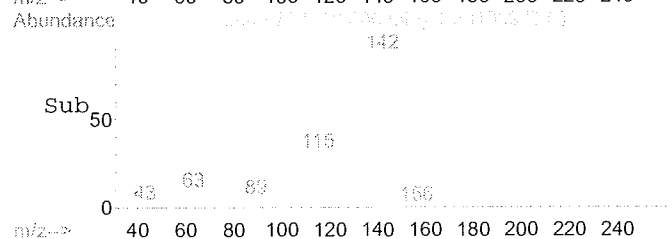
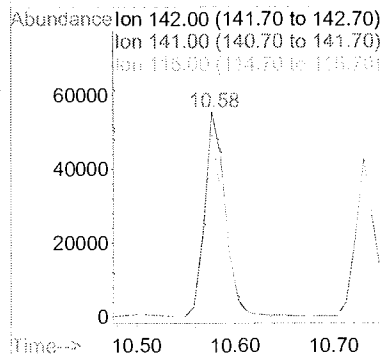
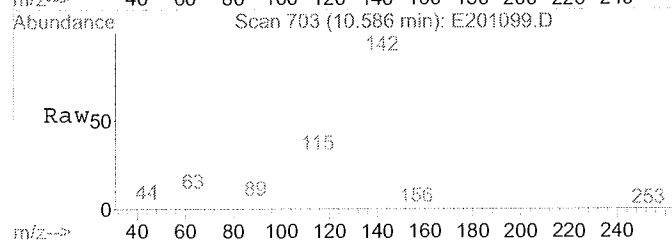
#37
1-Methylnaphthalene
Concen: 1.84 ug/mL
RT: 10.74 min Scan# 719
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

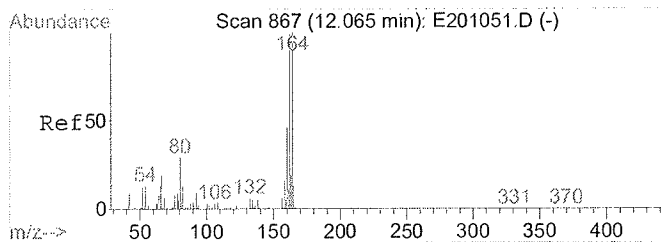
Tgt Ion:141 Resp: 534966
Ion Ratio Lower Upper
141 100
142 105.6 87.0 130.4
115 42.6 39.4 59.0



#38
2-Methylnaphthalene
Concen: 2.92 ug/mL
RT: 10.58 min Scan# 703
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

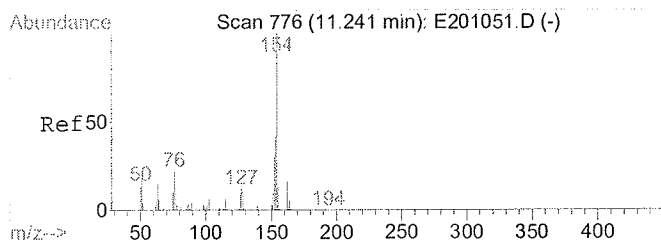
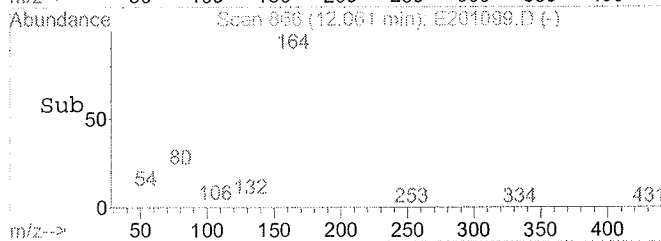
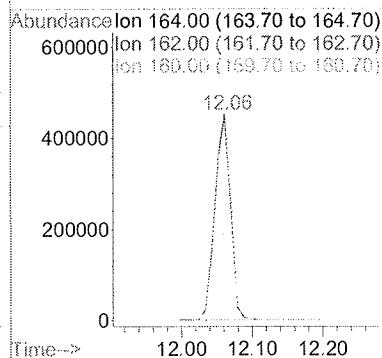
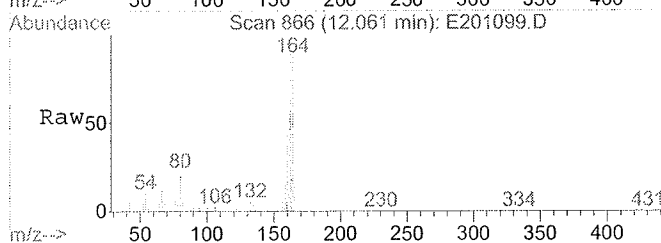
Tgt Ion:142 Resp: 805337
Ion Ratio Lower Upper
142 100
141 86.1 72.6 108.8
115 37.1 35.0 52.4





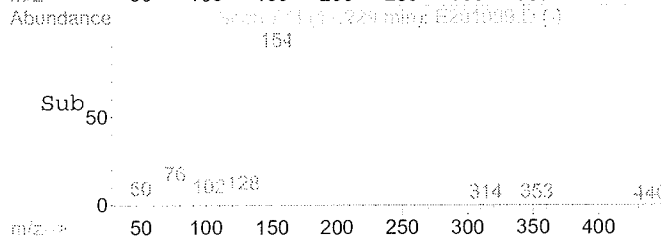
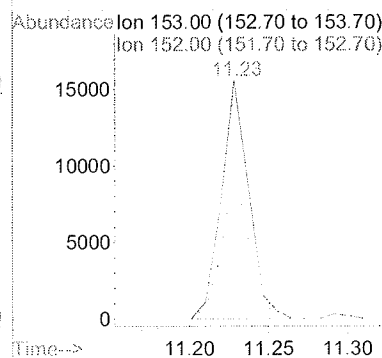
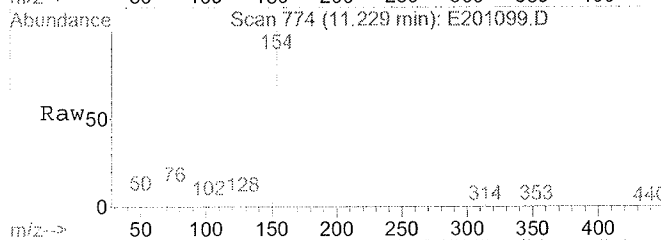
#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.06 min Scan# 866
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

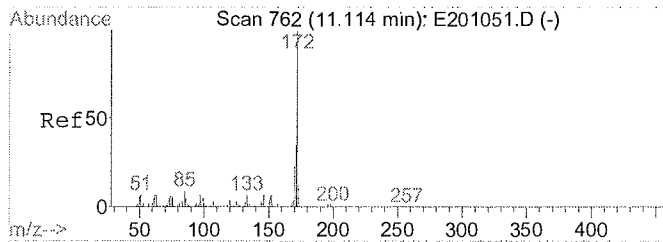
Tgt Ion: 164 Resp: 6994543
Ion Ratio Lower Upper
164 100
162 98.6 50.0 149.8
160 45.0 22.6 67.7



#42
Biphenyl
Concen: 1.19 ug/mL
RT: 11.23 min Scan# 774
Delta R.T. 0.14 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

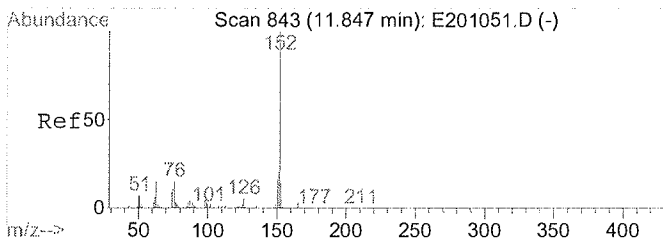
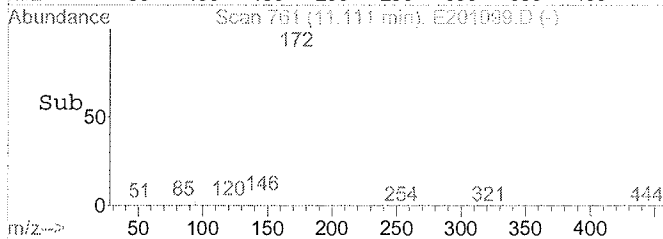
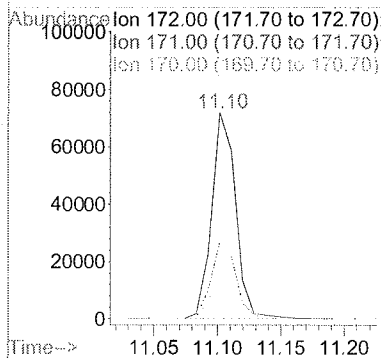
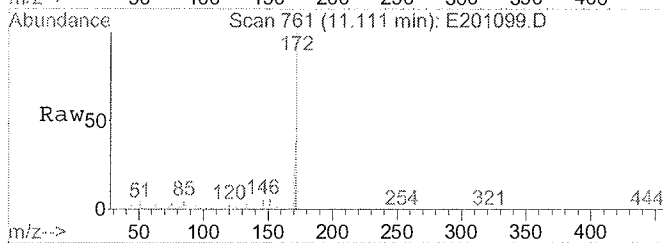
Tgt Ion: 153 Resp: 186162
Ion Ratio Lower Upper
153 100
152 61.9 55.4 83.2





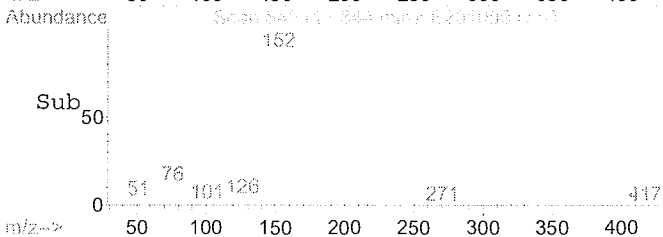
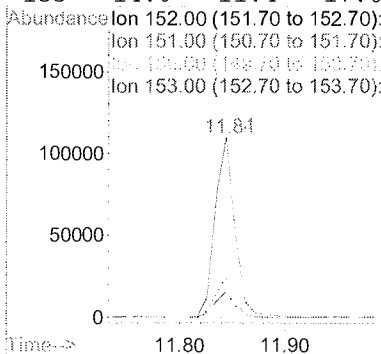
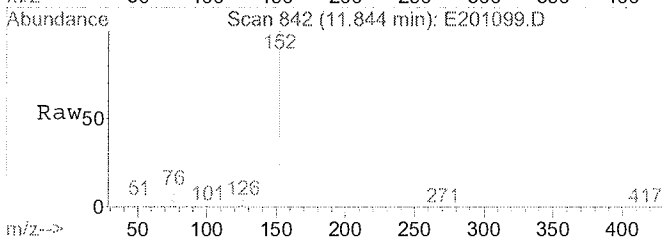
#45
2-Fluorobiphenyl
Concen: N.D. ug/mL
RT: 11.11 min Scan# 761
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

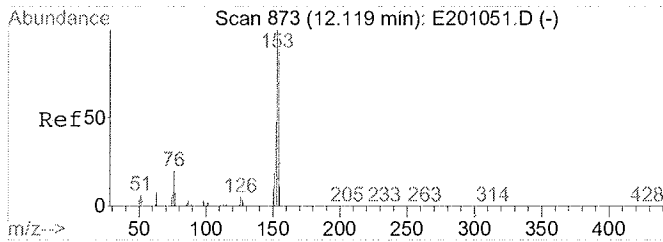
Tgt Ion:172 Resp: 936009
Ion Ratio Lower Upper
172 100
171 38.4 29.2 43.8
170 23.5 19.4 29.2



#50
Acenaphthylene
Concen: 3.20 ug/mL
RT: 11.85 min Scan# 842
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

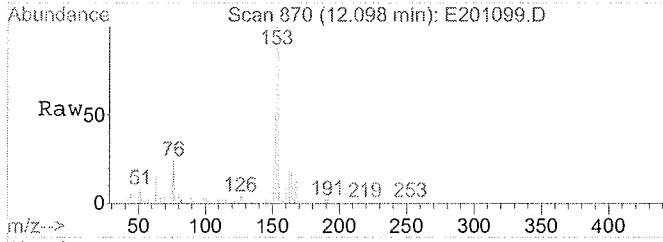
Tgt Ion:152 Resp: 1436319
Ion Ratio Lower Upper
152 100
151 20.8 17.0 25.6
150 14.9 12.4 18.6
153 14.0 11.4 17.0





#52
Acenaphthene
Concen: 0.76 ug/mL
RT: 12.10 min Scan# 870
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion:154 Resp: 198235
Ion Ratio Lower Upper
154 100
153 111.7 87.0 130.6
152 60.2 42.4 63.6
151 22.2 17.0 25.6



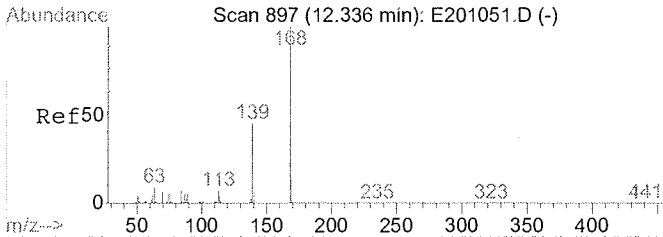
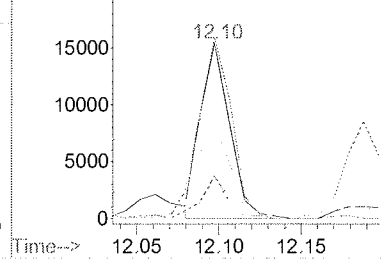
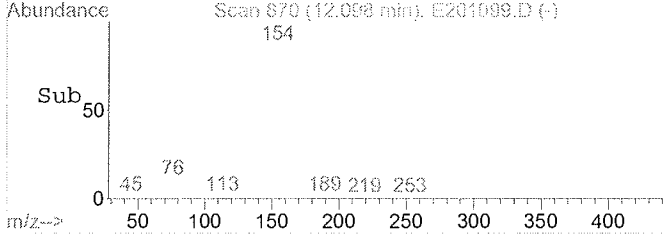
Abundance

Ion 154.00 (153.70 to 154.70):

Ion 153.00 (152.70 to 153.70):

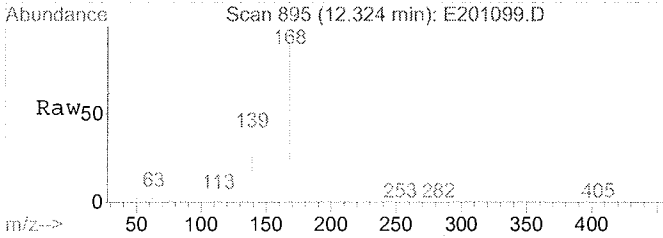
Ion 152.00 (151.70 to 152.70):

Ion 151.00 (150.70 to 151.70):



#54
Dibenzofuran
Concen: 6.84 ug/mL
RT: 12.33 min Scan# 895
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion:168 Resp: 2781997
Ion Ratio Lower Upper
168 100
139 40.0 34.7 52.1
169 16.6 11.3 16.9

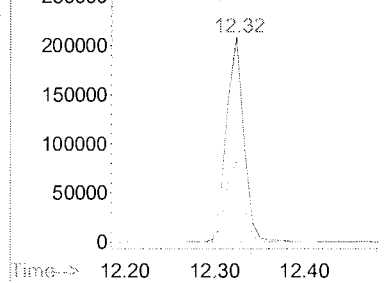
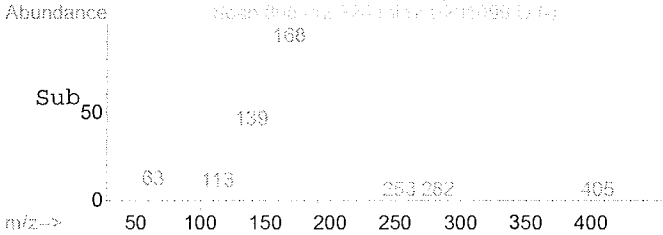


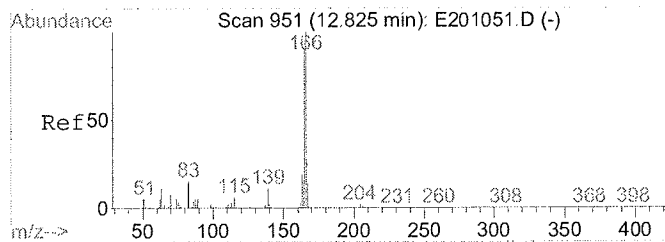
Abundance

Ion 168.00 (167.70 to 168.70):

Ion 139.00 (138.70 to 139.70):

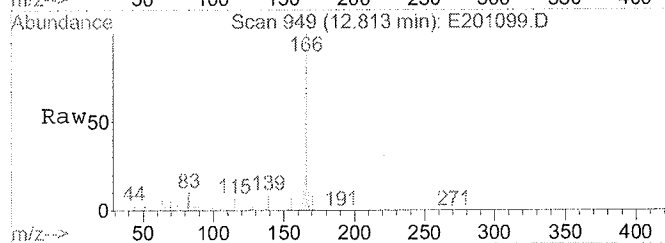
Ion 169.00 (168.70 to 169.70):





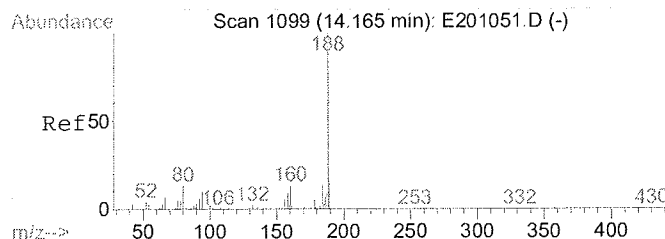
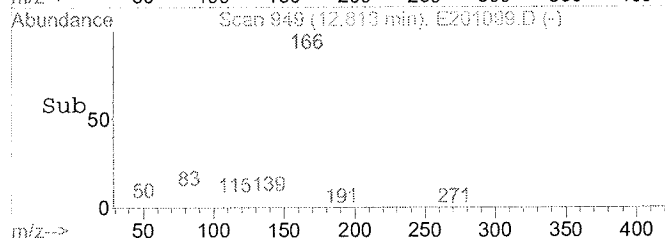
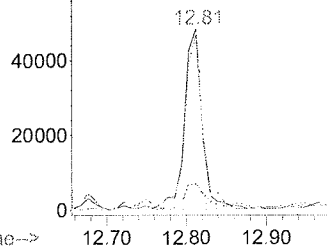
#59
Fluorene
Concen: 2.51 ug/mL
RT: 12.81 min Scan# 949
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion:166 Resp: 759120
Ion Ratio Lower Upper
166 100
165 100.7 77.0 115.6
163 16.6 14.0 21.0
167 14.0 11.3 16.9



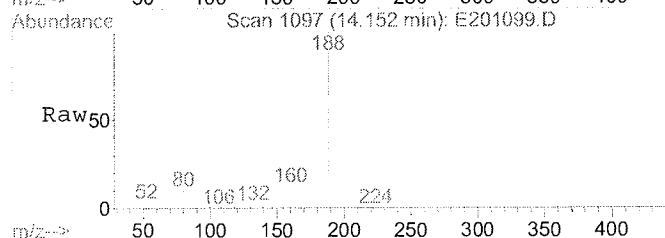
Abundance

Ion 166.00 (165.70 to 166.70):



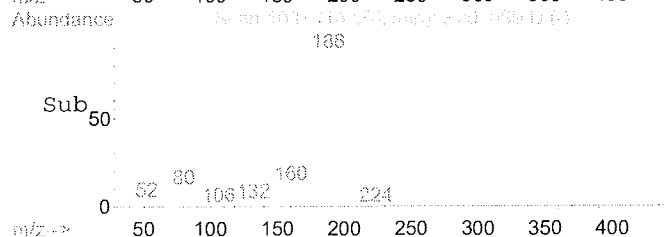
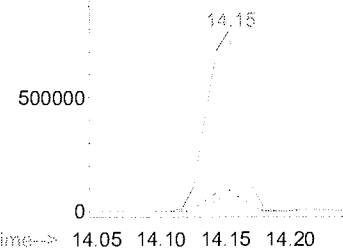
#62
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.15 min Scan# 1097
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

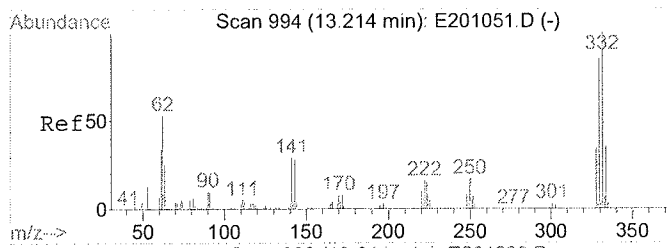
Tgt Ion:188 Resp:14292773
Ion Ratio Lower Upper
188 100
187 8.9 7.4 11.0
189 16.1 8.2 24.4
160 11.7 6.5 19.4



Abundance

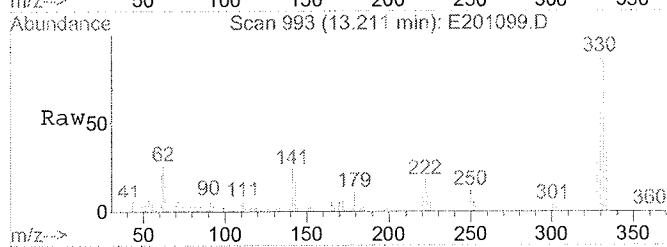
Ion 188.00 (187.70 to 188.70):





#67
 2,4,6-Tribromophenol
 Concen: Below ug/mL
 RT: 13.21 min Scan# 993
 Delta R.T. 0.01 min
 Lab File: E201099.D
 Acq: 16 Mar 2016 10:34 pm

Tgt Ion	Ratio	Lower	Upper
330	100		
332	96.9	80.2	120.4
328	29.8	26.5	39.7
334	32.9	27.7	41.5



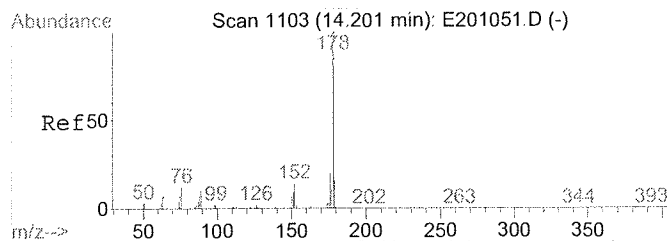
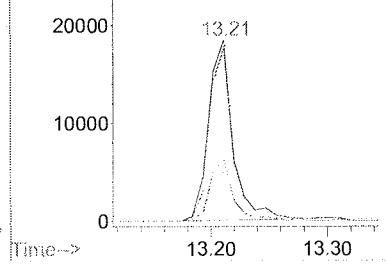
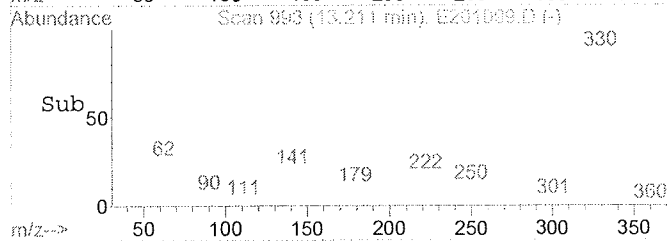
Abundance

Ion 329.65 (329.35 to 330.35):

Ion 331.75 (331.45 to 332.45):

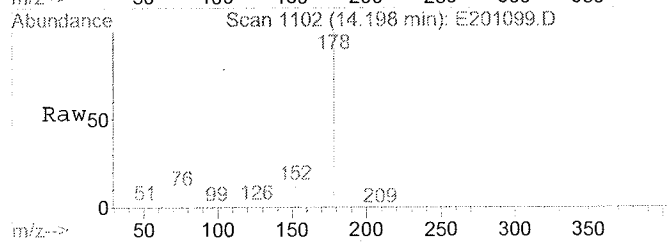
Ion 327.75 (327.45 to 328.45):

Ion 333.75 (333.45 to 334.45):



#73
 Phenanthrene
 Concen: 39.11 ug/mL
 RT: 14.19 min Scan# 1102
 Delta R.T. 0.02 min
 Lab File: E201099.D
 Acq: 16 Mar 2016 10:34 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
176	20.7	16.5	24.7
179	16.8	13.2	19.8
177	11.6	9.3	13.9



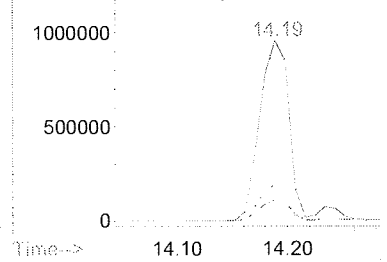
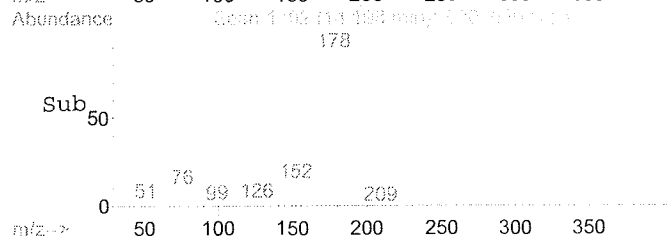
Abundance

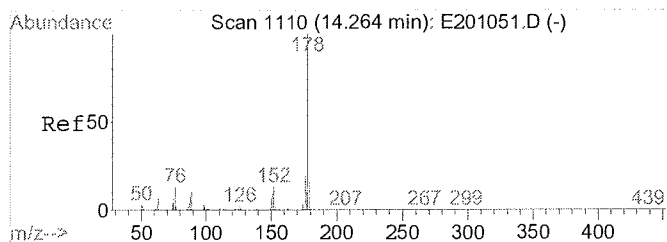
Ion 178.00 (177.70 to 178.70):

Ion 176.00 (175.70 to 176.70):

Ion 179.00 (178.70 to 179.70):

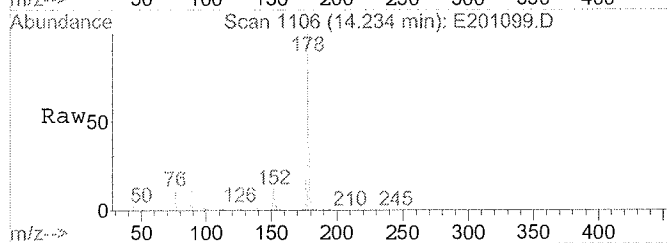
Ion 177.00 (176.70 to 177.70):





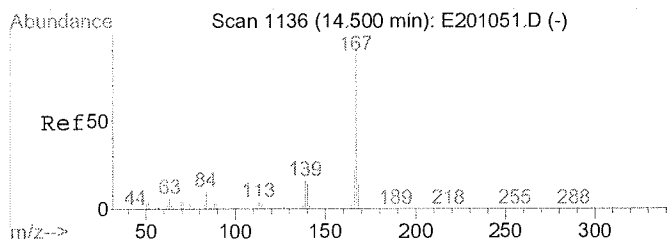
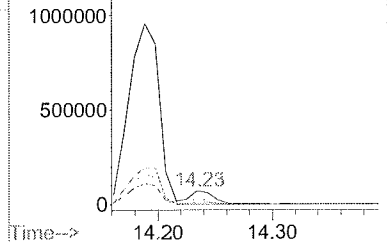
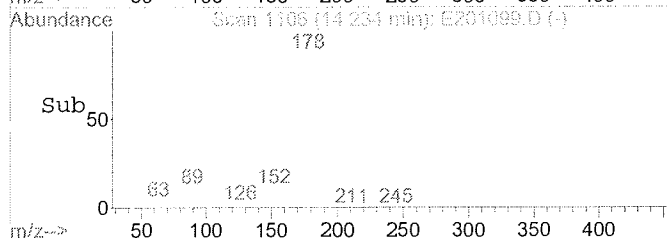
#74
 Anthracene
 Concen: 2.53 ug/mL m
 RT: 14.23 min Scan# 1106
 Delta R.T. 0.01 min
 Lab File: E201099.D
 Acq: 16 Mar 2016 10:34 pm

Tgt Ion: 178 Resp: 1236105
 Ion Ratio Lower Upper
 178 100
 176 290.0 14.8 22.2#
 179 235.9 11.8 17.8#
 177 162.7 8.4 12.6#



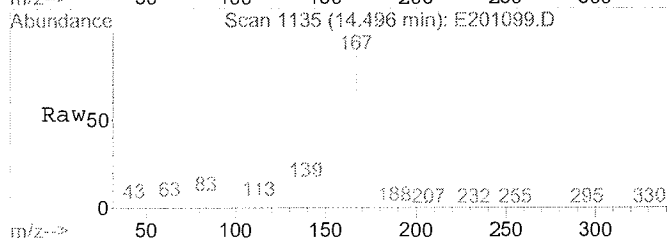
Abundance

Ion 178.00 (177.70 to 178.70):
 Ion 176.00 (175.70 to 176.70):
 Ion 179.00 (178.70 to 179.70):
 Ion 177.00 (176.70 to 177.70):



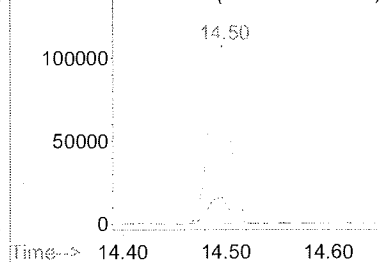
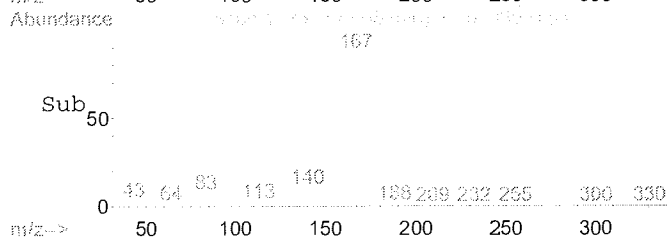
#75
 Carbazole
 Concen: 3.80 ug/mL
 RT: 14.50 min Scan# 1135
 Delta R.T. 0.01 min
 Lab File: E201099.D
 Acq: 16 Mar 2016 10:34 pm

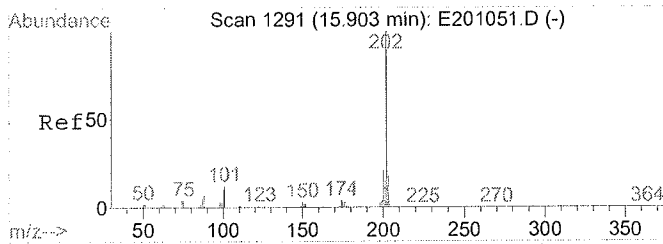
Tgt Ion: 167 Resp: 1534035
 Ion Ratio Lower Upper
 167 100
 166 100.0 80.0 120.0
 168 0.0 11.2 33.6#
 168 0.0 0.0 0.0



Abundance

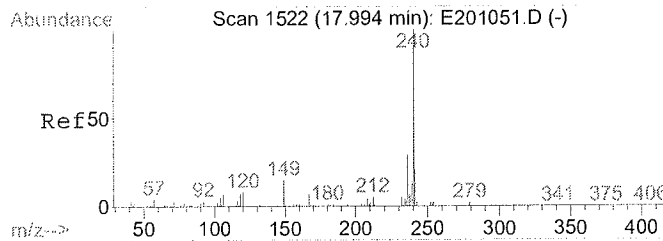
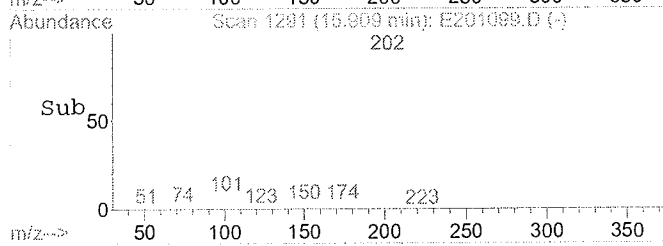
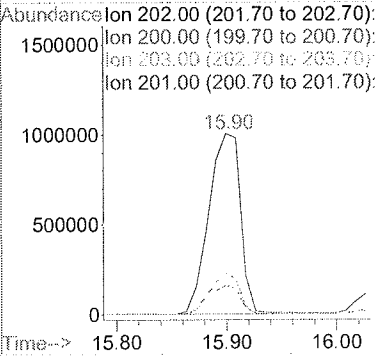
Ion 167.00 (166.70 to 167.70):
 Ion 167.00 (166.70 to 167.70):
 Ion 166.00 (165.70 to 166.70):
 Ion 168.00 (167.70 to 168.70):





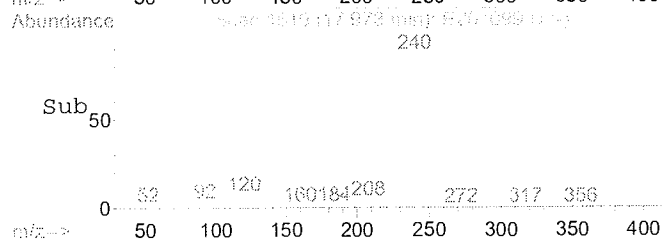
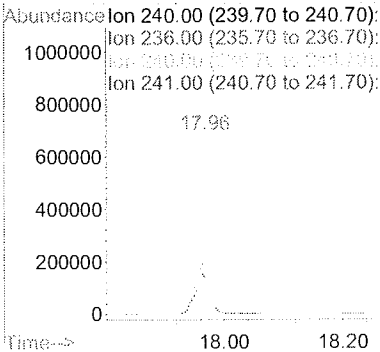
#77
Fluoranthene
Concen: 33.78 ug/mL
RT: 15.90 min Scan# 1291
Delta R.T. 0.03 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

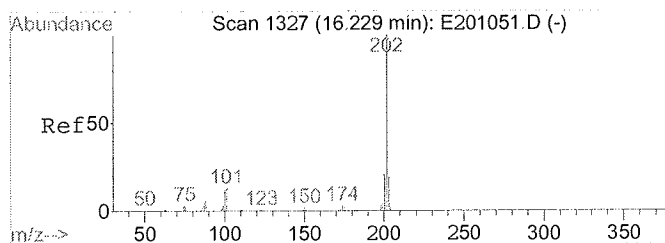
Tgt Ion	Ratio	Lower	Upper
202	100		
200	21.4	17.1	25.7
203	18.5	14.7	22.1
201	15.3	12.2	18.2



#79
Chrysene-d12
Concen: 40.00 ug/mL
RT: 17.97 min Scan# 1519
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

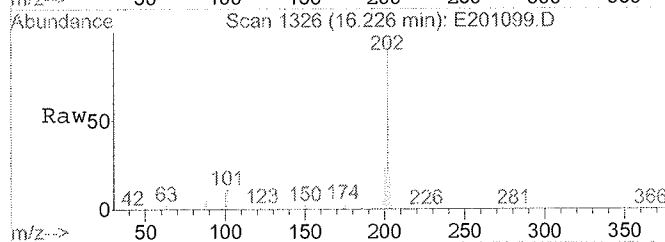
Tgt Ion	Ratio	Lower	Upper
240	100		
236	27.1	14.1	42.2
240	100.0	50.0	150.0
241	19.6	9.8	29.4





#80
Pyrene
Concen: 20.85 ug/mL
RT: 16.23 min Scan# 1326
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion	202	Resp	16822810
Ion Ratio	Lower	Upper	
202	100		
200	21.8	17.1	25.7
203	20.1	15.3	22.9
201	18.4	14.5	21.7



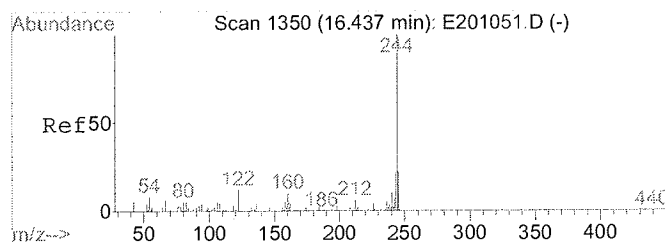
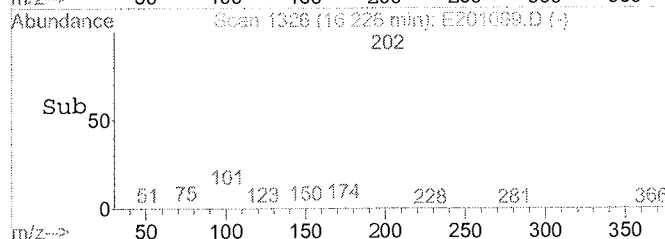
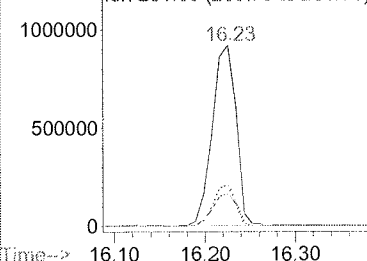
Abundance

Ion 202.00 (201.70 to 202.70):

Ion 200.00 (199.70 to 200.70):

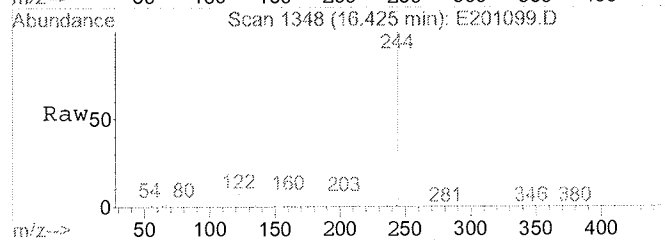
Ion 203.00 (202.70 to 203.70):

Ion 201.00 (200.70 to 201.70):



#81
Terphenyl-d14
Concen: 20.85 ug/mL
RT: 16.43 min Scan# 1348
Delta R.T. 0.01 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion	244	Resp	1023073
Ion Ratio	Lower	Upper	
244	100		
243	31.7	16.7	25.1#
245	20.2	17.3	25.9
240	11.7	8.6	12.8



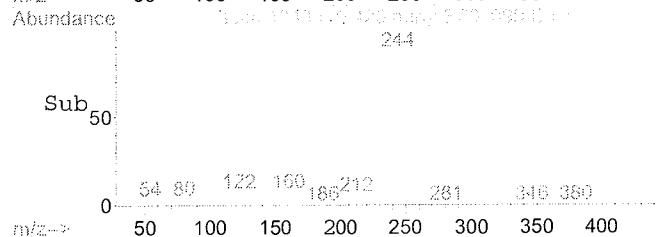
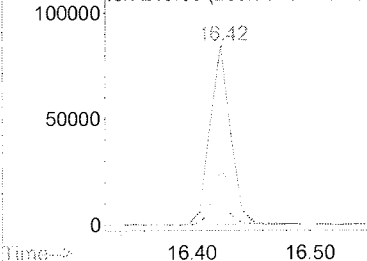
Abundance

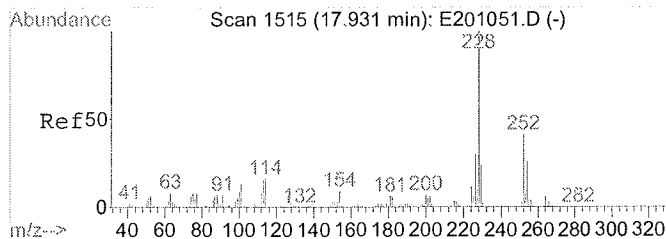
Ion 244.00 (243.70 to 244.70):

Ion 243.00 (242.70 to 243.70):

Ion 245.00 (244.70 to 245.70):

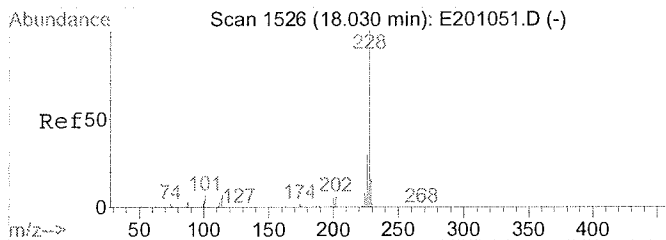
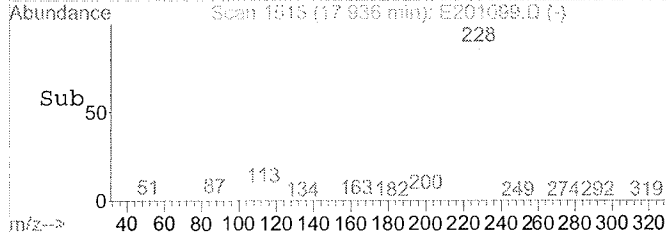
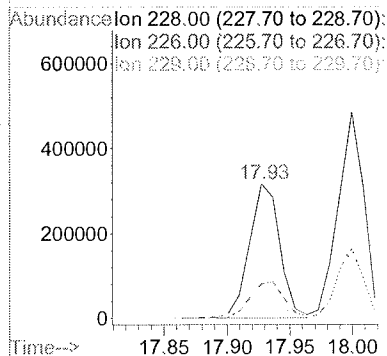
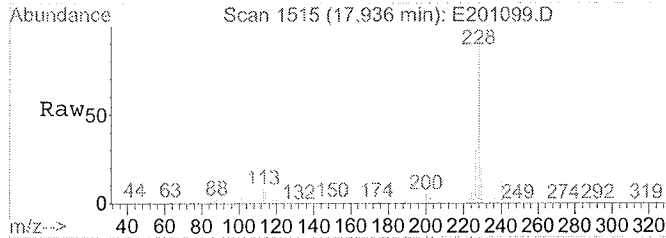
Ion 240.00 (239.70 to 240.70):





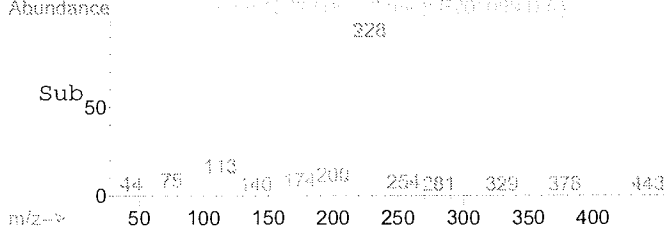
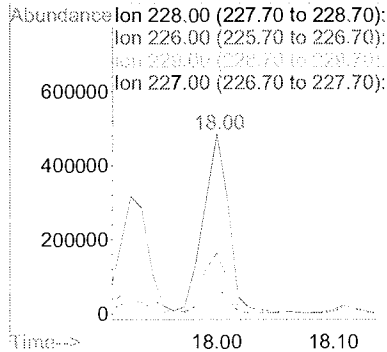
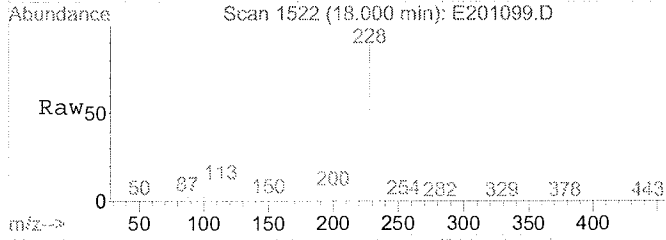
#84
Benz (a) anthracene
Concen: 9.53 ug/mL
RT: 17.93 min Scan# 1515
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

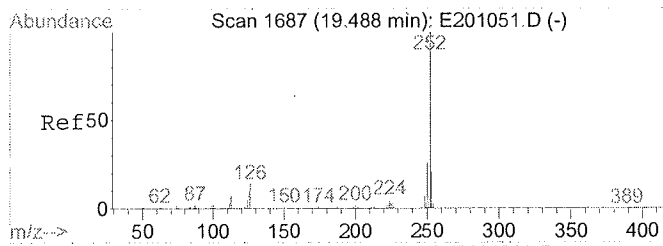
Tgt Ion:228 Resp: 5310472
Ion Ratio Lower Upper
228 100
226 30.0 23.0 34.4
229 30.2 16.6 24.8#



#86
Chrysene
Concen: 11.45 ug/mL
RT: 18.00 min Scan# 1522
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

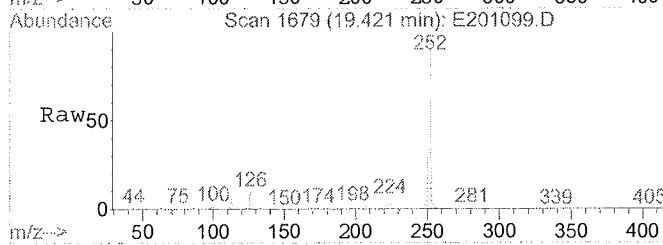
Tgt Ion:228 Resp: 7130263
Ion Ratio Lower Upper
228 100
226 33.9 25.0 37.4
229 25.9 16.6 24.8#
227 13.9 10.4 15.6



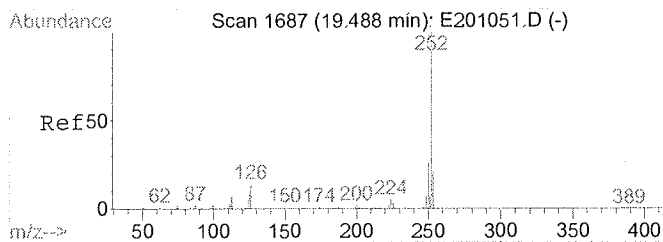
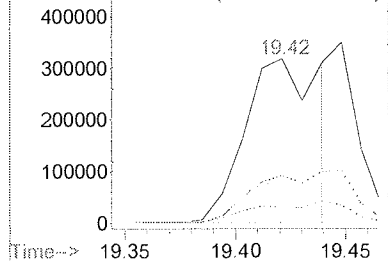
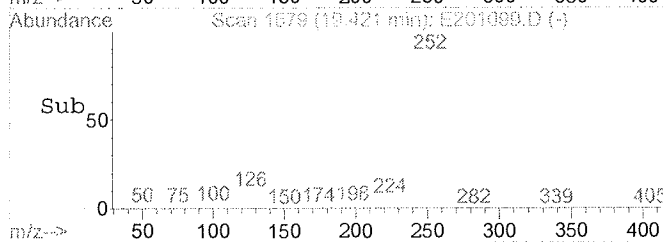


#88
Benzo(b)fluoranthene
Concen: 7.79 ug/mL
RT: 19.42 min Scan# 1679
Delta R.T. 0.03 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion: 252 Resp: 5364924
Ion Ratio Lower Upper
252 100
250 57.6 21.8 32.8#
253 6.0 18.3 27.5#
126 0.0 8.6 12.8#

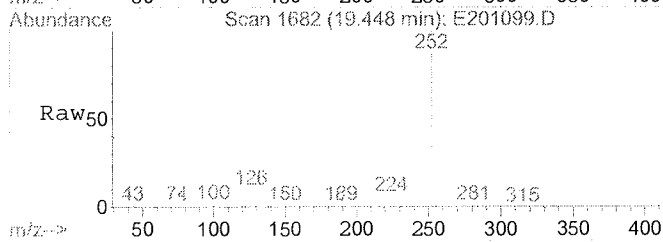


Abundance Ion 252.00 (251.70 to 252.70):
Ion 250.00 (249.70 to 250.70):
Ion 253.00 (252.70 to 253.70):
Ion 126.00 (125.70 to 126.70):

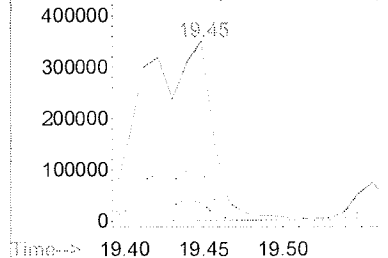
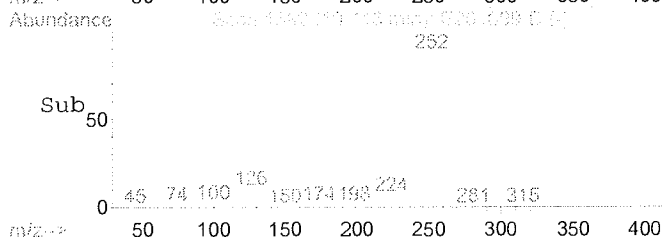


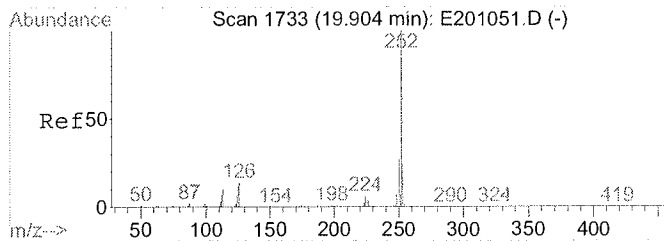
#89
Benzo(k)fluoranthene
Concen: 7.48 ug/mL
RT: 19.45 min Scan# 1682
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion: 252 Resp: 5250886
Ion Ratio Lower Upper
252 100
250 58.9 20.2 30.4#
253 53.6 17.8 26.6#
126 22.7 21.1 31.7



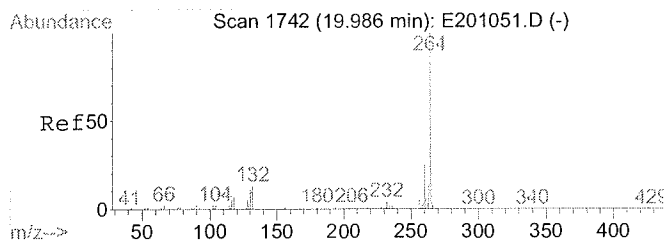
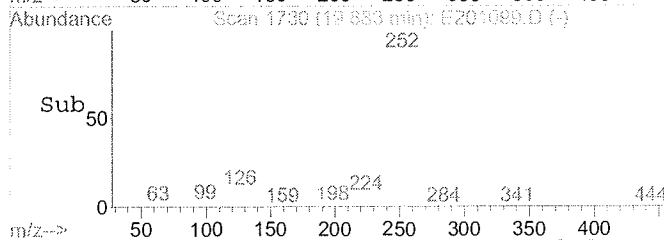
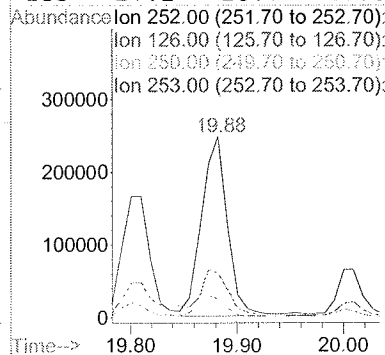
Abundance Ion 252.00 (251.70 to 252.70):
Ion 250.00 (249.70 to 250.70):
Ion 253.00 (252.70 to 253.70):
Ion 126.00 (125.70 to 126.70):





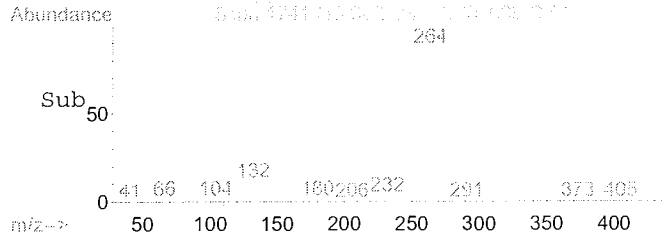
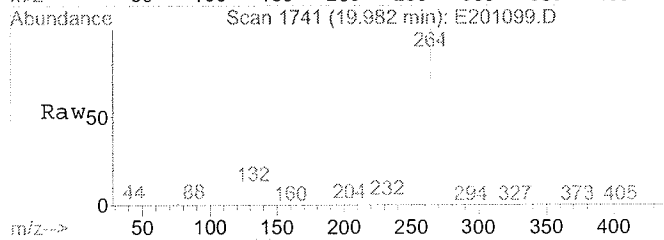
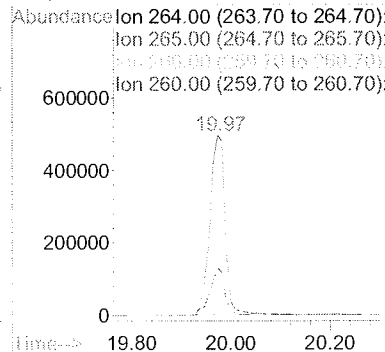
#90
Benzo(a)pyrene
Concen: 5.87 ug/mL
RT: 19.88 min Scan# 1730
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

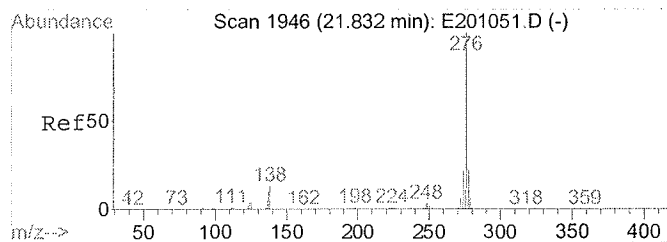
Tgt Ion	252	Resp	4222605
Ion Ratio	Lower	Upper	
252	100		
126	12.1	10.2	15.2
250	28.6	21.8	32.8
253	27.1	18.6	27.8



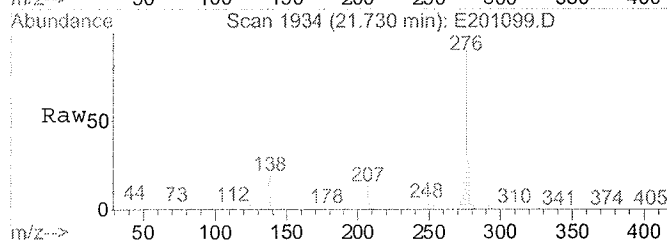
#91
Perylene-d12
Concen: 40.00 ug/mL
RT: 19.98 min Scan# 1741
Delta R.T. 0.00 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion	264	Resp	10694587
Ion Ratio	Lower	Upper	
264	100		
265	24.1	18.8	28.2
260	25.1	23.3	34.9
260	25.1	20.4	37.8



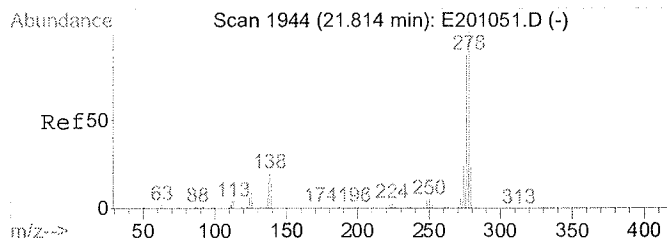
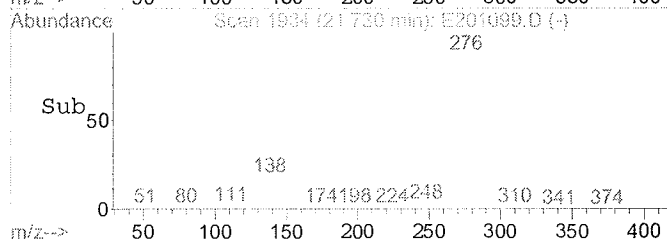
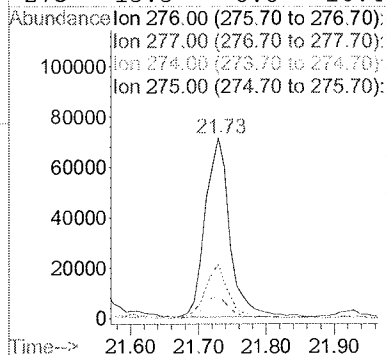


#92
 Indeno (1,2,3-cd)pyrene
 Concen: 3.89 ug/mL
 RT: 21.73 min Scan# 1934
 Delta R.T. 0.02 min
 Lab File: E201099.D
 Acq: 16 Mar 2016 10:34 pm

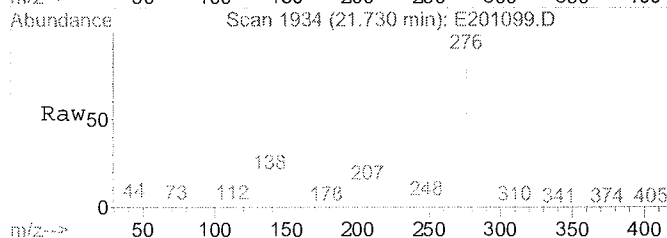


Tgt Ion: 276 Resp: 1795101

Ion	Ratio	Lower	Upper
276	100		
277	26.2	21.1	31.7
274	27.7	21.7	32.5
275	13.3	8.8	16.4

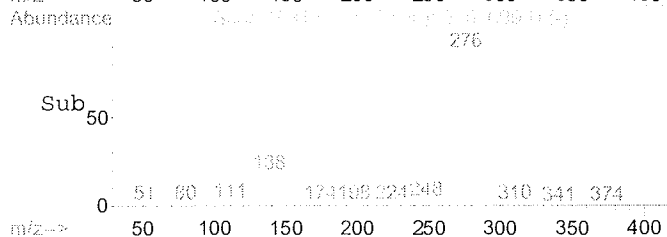
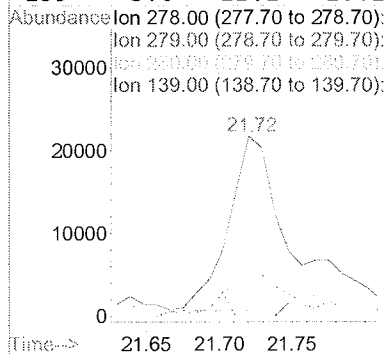


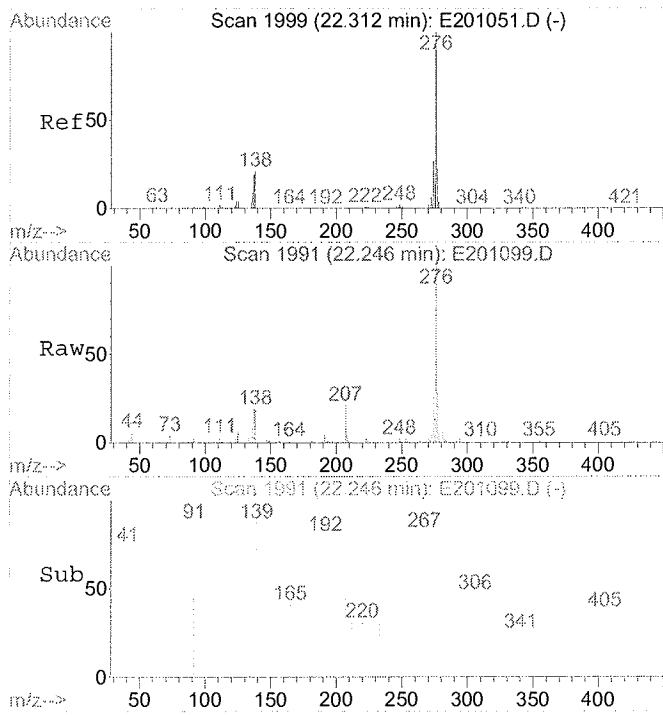
#93
 Dibenz (a,h)anthracene
 Concen: 1.36 ug/mL
 RT: 21.73 min Scan# 1934
 Delta R.T. 0.01 min
 Lab File: E201099.D
 Acq: 16 Mar 2016 10:34 pm



Tgt Ion: 278 Resp: 497427

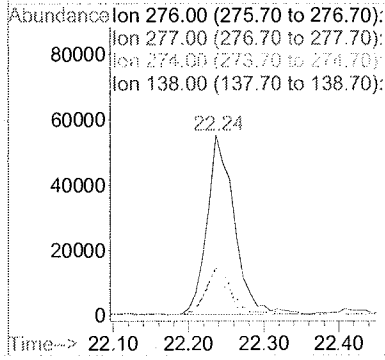
Ion	Ratio	Lower	Upper
278	100		
279	16.6	20.3	30.5#
280	0.0	0.0	6.4
139	5.6	12.1	18.1#





#94
Benzo(g,h,i)perylene
Concen: 3.53 ug/mL
RT: 22.24 min Scan# 1991
Delta R.T. 0.02 min
Lab File: E201099.D
Acq: 16 Mar 2016 10:34 pm

Tgt Ion: 276 Resp: 1377692
Ion Ratio Lower Upper
276 100
277 26.8 19.9 29.9
274 25.2 0.0 51.4
138 20.6 16.5 24.7



FORM I

ORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-02 File ID: E201100.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 23:05
 Solids: 83.47 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	5	0.250	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5	0.499	U
120-82-1	1,2,4-Trichlorobenzene	5	0.250	U
95-50-1	1,2-Dichlorobenzene	5	0.250	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	5	0.250	U
541-73-1	1,3-Dichlorobenzene	5	0.250	U
106-46-7	1,4-Dichlorobenzene	5	0.250	U
58-90-2	2,3,4,6-Tetrachlorophenol	5	0.499	U
95-95-4	2,4,5-Trichlorophenol	5	0.250	U
88-06-2	2,4,6-Trichlorophenol	5	0.250	U
120-83-2	2,4-Dichlorophenol	5	0.250	U
105-67-9	2,4-Dimethylphenol	5	0.250	U
51-28-5	2,4-Dinitrophenol	5	0.499	U
121-14-2	2,4-Dinitrotoluene	5	0.250	U
606-20-2	2,6-Dinitrotoluene	5	0.250	U
91-58-7	2-Chloronaphthalene	5	0.250	U
95-57-8	2-Chlorophenol	5	0.250	U
91-57-6	2-Methylnaphthalene	5	0.280	D
95-48-7	2-Methylphenol	5	0.250	U
88-74-4	2-Nitroaniline	5	0.499	U
88-75-5	2-Nitrophenol	5	0.250	U
65794-96-9	3- & 4-Methylphenols	5	0.250	U
91-94-1	3,3'-Dichlorobenzidine	5	0.250	U
99-09-2	3-Nitroaniline	5	0.499	U
534-52-1	4,6-Dinitro-2-methylphenol	5	0.499	U
101-55-3	4-Bromophenyl phenyl ether	5	0.250	U
59-50-7	4-Chloro-3-methylphenol	5	0.250	U
106-47-8	4-Chloroaniline	5	0.250	U
7005-72-3	4-Chlorophenyl phenyl ether	5	0.250	U
100-01-6	4-Nitroaniline	5	0.499	U
100-02-7	4-Nitrophenol	5	0.499	U
83-32-9	Acenaphthene	5	0.238	JD
208-96-8	Acenaphthylene	5	0.413	D
98-86-2	Acetophenone	5	0.250	U
62-53-3	Aniline	5	1.00	U
120-12-7	Anthracene	5	0.839	D
1912-24-9	Atrazine	5	0.250	U
100-52-7	Benzaldehyde	5	0.250	U
92-87-5	Benzidine	5	1.00	U
56-55-3	Benzo(a)anthracene	5	2.73	D

FORM I

ORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-02 File ID: E201100.D
 Sampled: 03/09/16 11:15 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 23:05
 Solids: 83.47 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	5	1.32	D
205-99-2	Benzo(b)fluoranthene	5	1.30	D
191-24-2	Benzo(g,h,i)perylene	5	0.621	D
207-08-9	Benzo(k)fluoranthene	5	1.99	D
65-85-0	Benzoic acid	5	0.250	U
100-51-6	Benzyl alcohol	5	0.250	U
85-68-7	Benzyl butyl phthalate	5	0.250	U
111-91-1	Bis(2-chloroethoxy)methane	5	0.250	U
111-44-4	Bis(2-chloroethyl)ether	5	0.250	U
108-60-1	Bis(2-chloroisopropyl)ether	5	0.250	U
117-81-7	Bis(2-ethylhexyl)phthalate	5	6.27	D
105-60-2	Caprolactam	5	0.499	U
86-74-8	Carbazole	5	0.767	D
218-01-9	Chrysene	5	2.25	D
53-70-3	Dibenzo(a,h)anthracene	5	0.341	D
132-64-9	Dibenzofuran	5	0.793	D
84-66-2	Diethyl phthalate	5	0.250	U
131-11-3	Dimethyl phthalate	5	0.250	U
84-74-2	Di-n-butyl phthalate	5	0.250	U
117-84-0	Di-n-octyl phthalate	5	0.250	U
206-44-0	Fluoranthene	5	5.34	D
86-73-7	Fluorene	5	0.519	D
118-74-1	Hexachlorobenzene	5	0.250	U
87-68-3	Hexachlorobutadiene	5	0.250	U
77-47-4	Hexachlorocyclopentadiene	5	0.250	U
67-72-1	Hexachloroethane	5	0.250	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	0.747	D
78-59-1	Isophorone	5	0.250	U
91-20-3	Naphthalene	5	0.425	D
98-95-3	Nitrobenzene	5	0.250	U
62-75-9	N-Nitrosodimethylamine	5	0.250	U
621-64-7	N-nitroso-di-n-propylamine	5	0.250	U
86-30-6	N-Nitrosodiphenylamine	5	0.250	U
87-86-5	Pentachlorophenol	5	0.250	U
85-01-8	Phenanthrene	5	5.58	D
108-95-2	Phenol	5	0.250	U
129-00-0	Pyrene	5	4.39	D
110-86-1	Pyridine	5	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0466-02 File ID: E201100.D
Sampled: 03/09/16 11:15 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 23:05
Solids: 83.47 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	3.00	1.73	57.4	20 - 108	
Phenol-d5	3.00	2.00	66.7	23 - 114	
Nitrobenzene-d5	2.00	1.23	61.2	22 - 108	
2-Fluorobiphenyl	2.00	1.72	85.7	21 - 113	
2,4,6-Tribromophenol	3.00	2.32	77.3	19 - 110	
Terphenyl-d14	2.00	1.47	73.8	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E2031616\E201100.D

Vial: 29

Acq On : 16 Mar 2016 11:05 pm

Operator: KH

Sample : 16C0466-02

Inst : BNA#2

Misc : QBSV2031616A RE 8270 COMP

Multiplr: 5.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 9:08 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M269

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	5241309	40.00	ug/mL	0.00
21) Naphthalene-d8	9.64	136	15347289	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.06	164	8760971	40.00	ug/mL	0.01
62) Phenanthrene-d10	14.15	188	17544725	40.00	ug/mL	0.01
79) Chrysene-d12	17.97	240	12657230	40.00	ug/mL	0.00
91) Perylene-d12	19.98	264	10065685	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	1873639	8.64	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	11.52%#
5) Phenol-d5	7.75	99	2431344	10.02	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	13.36%
22) Nitrobenzene-d5	8.76	82	1622320	6.14	ug/mL	0.01
Spiked Amount	50.000	Range	26 - 120	Recovery	=	12.28%#
45) 2-Fluorobiphenyl	11.10	172	3456000	8.60	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	17.20%#
67) 2,4,6-Tribromophenol	13.21	330	1102969	11.62	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	15.49%#
81) Terphenyl-d14	16.43	244	3756554	7.38	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	14.76%#

Target Compounds

					Qvalue	
31) Naphthalene	9.66	128	1016327	2.13	ug/mL	97
37) 1-Methylnaphthalene	10.73	141	341488	0.93	ug/mL	93
38) 2-Methylnaphthalene	10.58	142	487609	1.40	ug/mL	97
50) Acenaphthylene	11.84	152	1163105	2.07	ug/mL	99
52) Acenaphthene	12.10	154	387305	1.19	ug/mL	91
54) Dibenzofuran	12.32	168	2023272	3.97	ug/mL	94
59) Fluorene	12.81	166	986865	2.60	ug/mL	99
73) Phenanthrene	14.19	178	15222800	27.96	ug/mL	100
74) Anthracene	14.24	178	2516123m	4.20	ug/mL	
75) Carbazole	14.49	167	1904581	3.84	ug/mL#	91
77) Fluoranthene	15.90	202	19738442	26.74	ug/mL	100
80) Pyrene	16.22	202	16773447	22.00	ug/mL	98
83) Bis(2-ethylhexyl) phthalat	17.98	149	10082198	31.40	ug/mL#	97
84) Benz (a) anthracene	17.93	228	7186727	13.65	ug/mL#	88
86) Chrysene	18.00	228	6617770	11.25	ug/mL#	94
88) Benzo(b) fluoranthene	19.42	252	4248370	6.53	ug/mL#	69
89) Benzo(k) fluoranthene	19.44	252	6603819m	9.96	ug/mL	
90) Benzo(a)pyrene	19.88	252	4499805	6.62	ug/mL	97
92) Indeno(1,2,3-cd)pyrene	21.73	276	1626501	3.74	ug/mL	98
93) Dibenz(a,h)anthracene	21.73	278	591645	1.71	ug/mL#	94
94) Benzo(g,h,i)perylene	22.24	276	1139885	3.11	ug/mL	96

 (#) = qualifier out of range (m) = manual integration

E201100.D BNA2M269.M Thu Mar 17 09:10:14 2016

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031616\E201100.D

Vial: 29

Operator: KH

Inst : BNA

Inst : BNA#2

Multiplr: 5.00

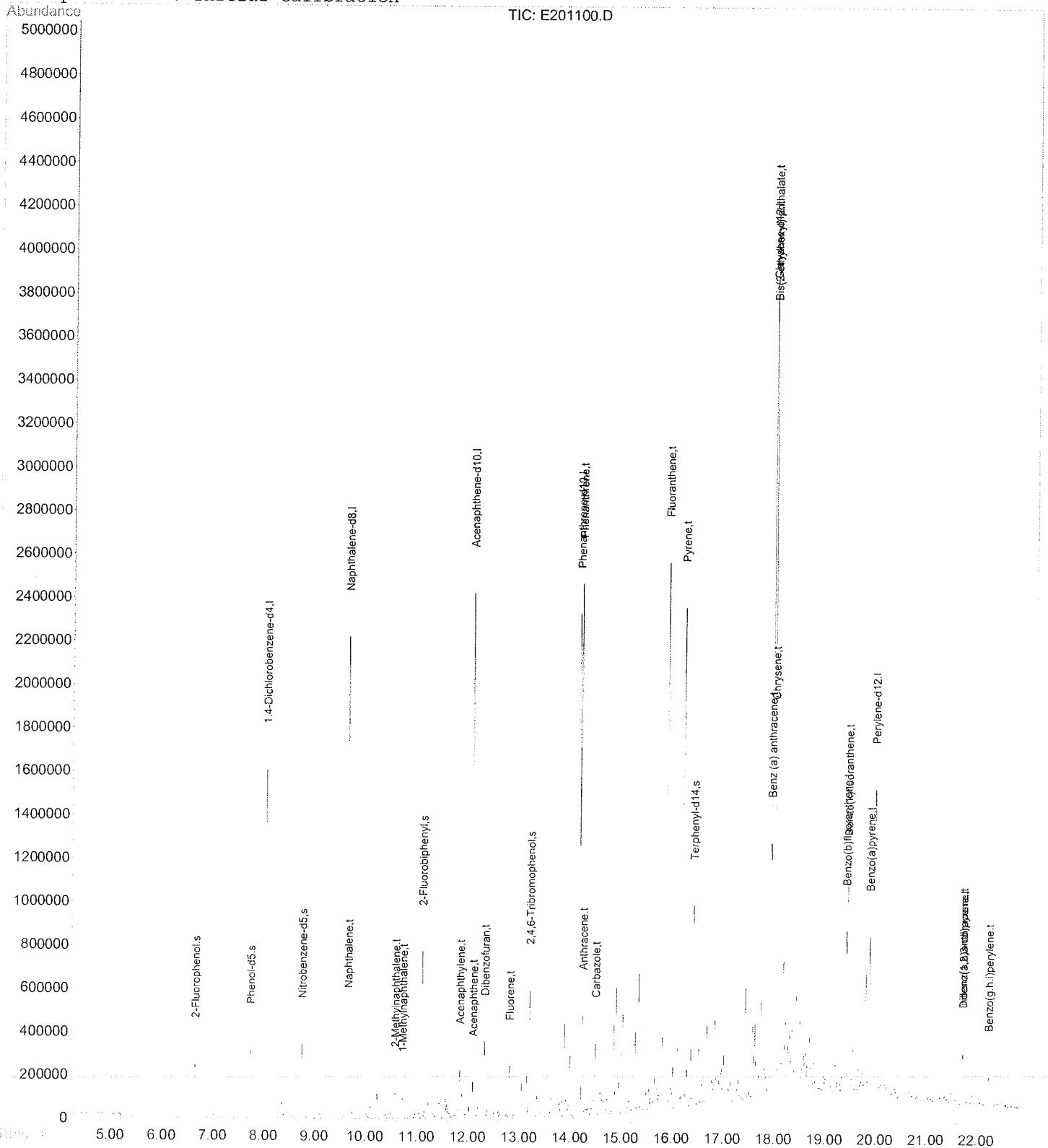
Quant Results File: BNA2M269.RES

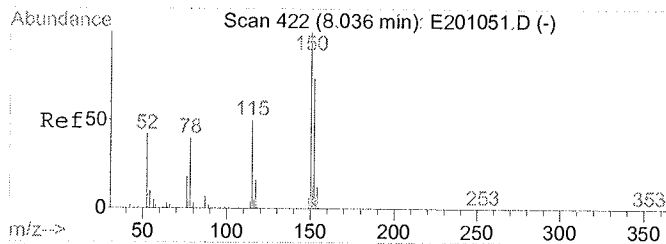
Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

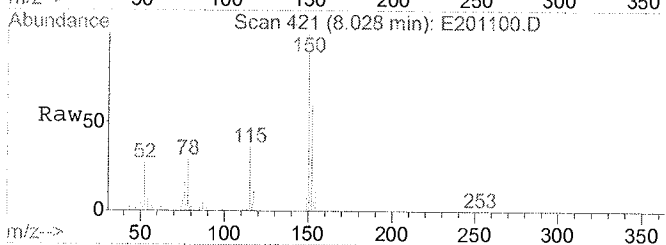
Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration



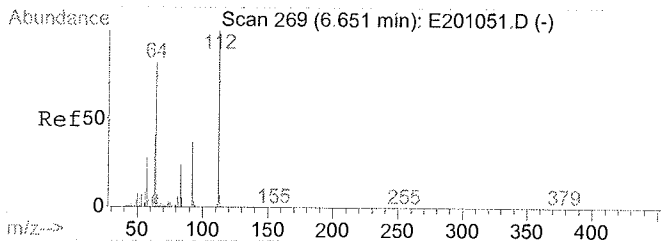
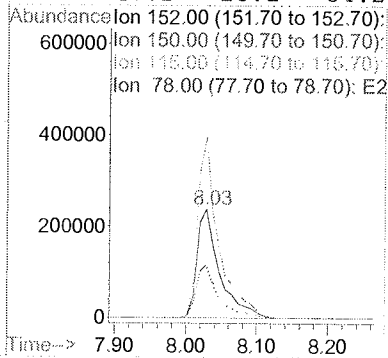
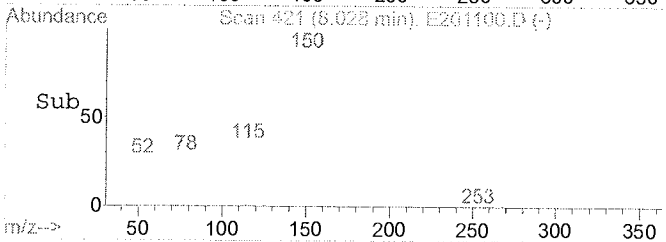


#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.03 min Scan# 421
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

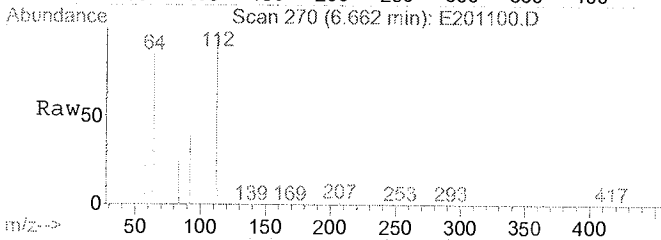


Tgt Ion:152 Resp: 5241309

Ion	Ratio	Lower	Upper
152	100		
150	154.2	90.0	269.9
115	60.2	33.8	101.3
78	47.2	28.1	84.2

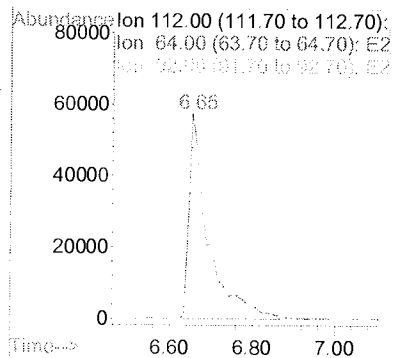
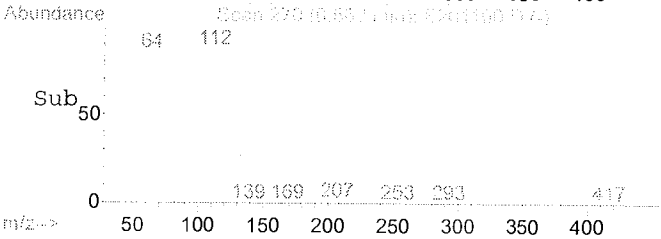


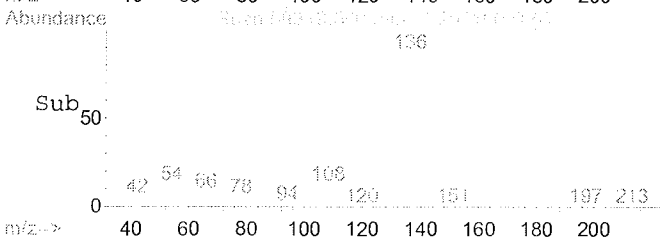
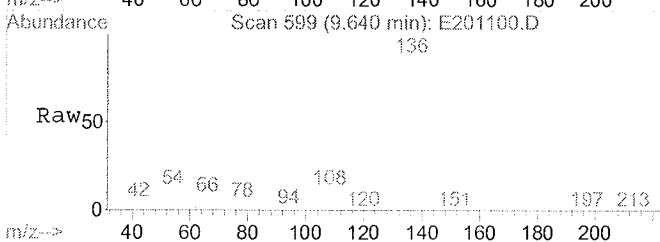
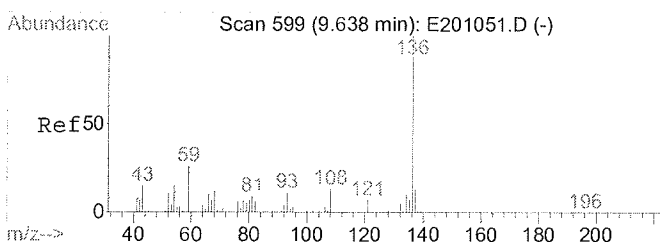
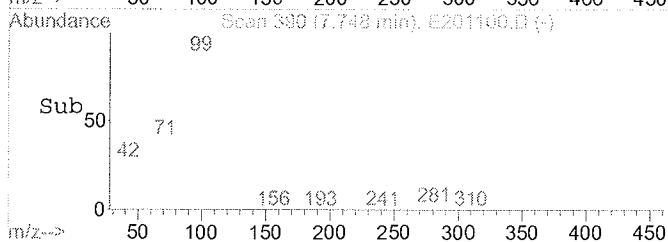
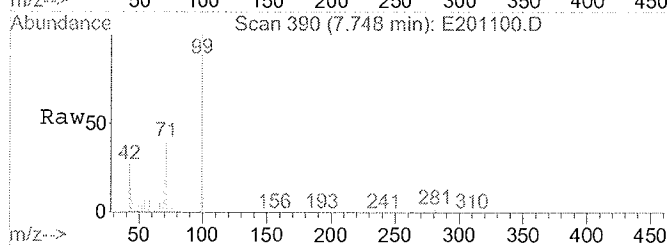
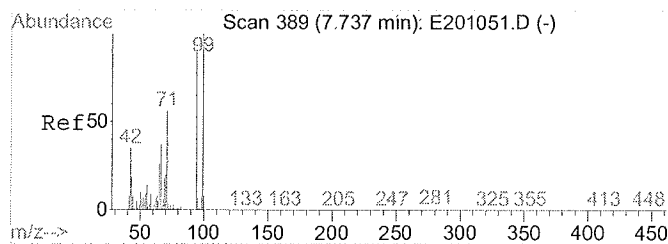
#4
2-Fluorophenol
Concen: N.D. ug/mL
RT: 6.66 min Scan# 270
Delta R.T. -0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm



Tgt Ion:112 Resp: 1873639

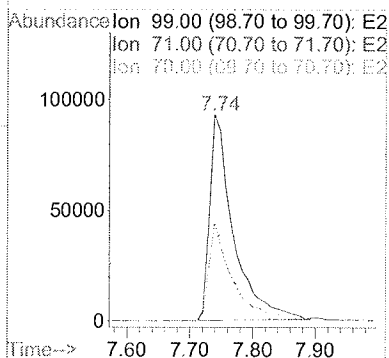
Ion	Ratio	Lower	Upper
112	100		
64	79.6	63.0	94.6
92	35.5	20.3	30.5





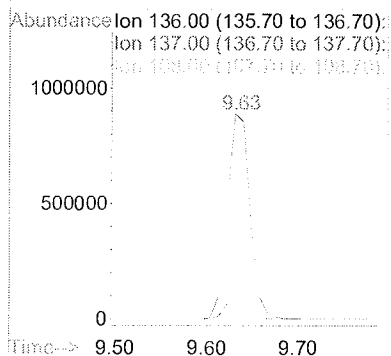
#5
Phenol-d5
Concen: N.D. ug/mL
RT: 7.75 min Scan# 390
Delta R.T. -0.00 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

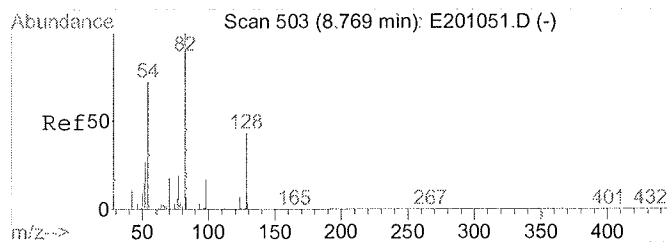
Tgt Ion: 99 Resp: 2431344
Ion Ratio Lower Upper
99 100
71 48.2 43.1 64.7
70 18.4 17.1 25.7



#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.64 min Scan# 599
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

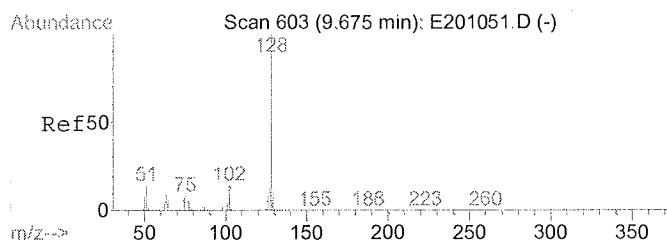
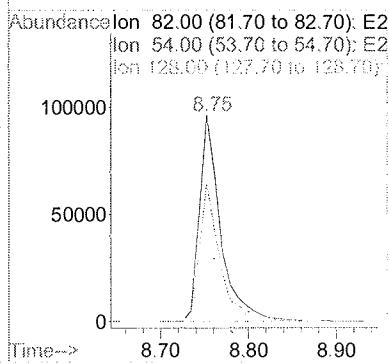
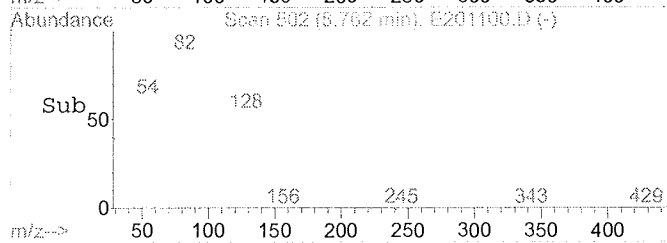
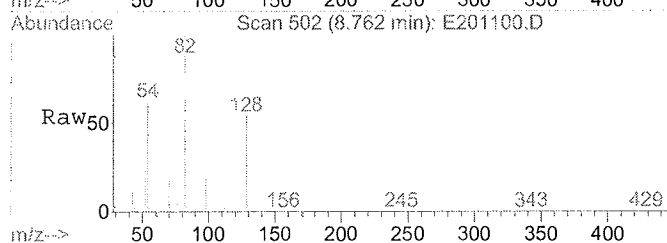
Tgt Ion: 136 Resp: 15347289
Ion Ratio Lower Upper
136 100
137 11.8 6.1 18.3
108 12.7 7.3 22.0





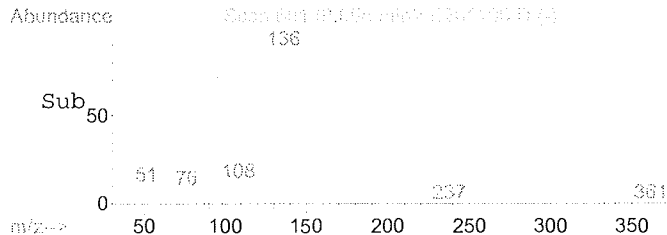
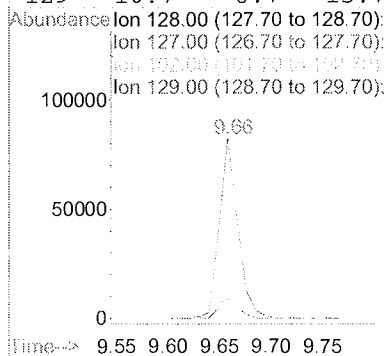
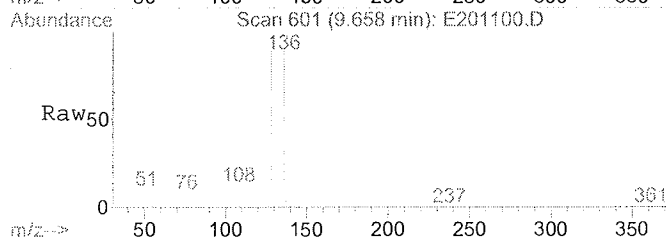
#22
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 8.76 min Scan# 502
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

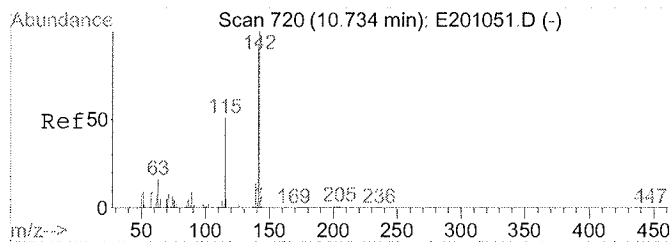
Tgt Ion: 82 Resp: 1622320
Ion Ratio Lower Upper
82 100
54 64.6 55.7 83.5
128 49.4 35.6 53.4



#31
Naphthalene
Concen: 2.13 ug/mL
RT: 9.66 min Scan# 601
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

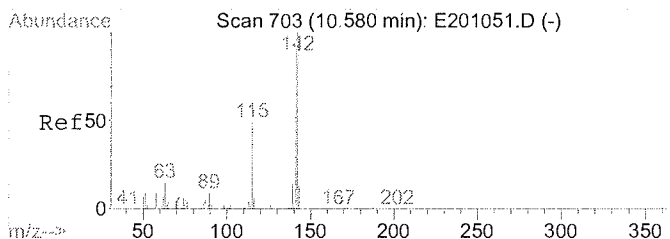
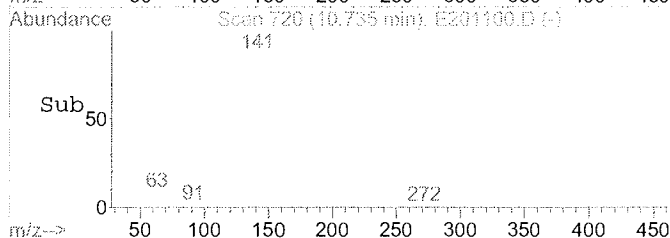
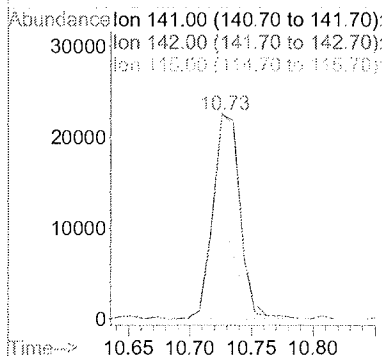
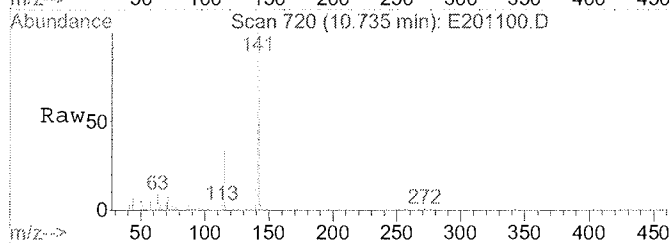
Tgt Ion: 128 Resp: 1016327
Ion Ratio Lower Upper
128 100
127 14.1 11.5 17.3
102 17.3 7.2 21.6
129 10.7 6.7 15.7





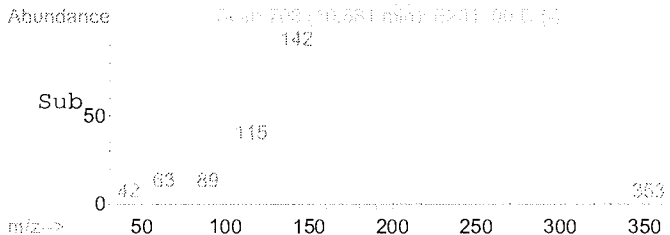
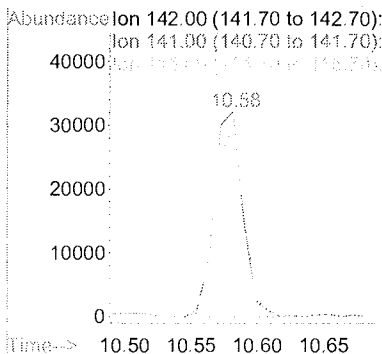
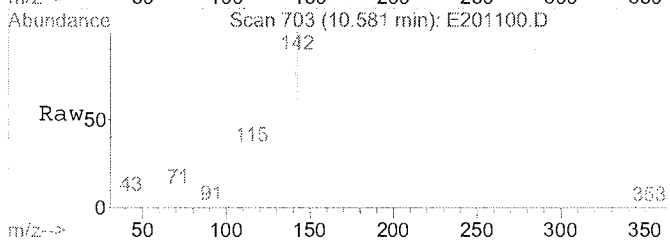
#37
1-Methylnaphthalene
Concen: 0.93 ug/mL
RT: 10.73 min Scan# 720
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

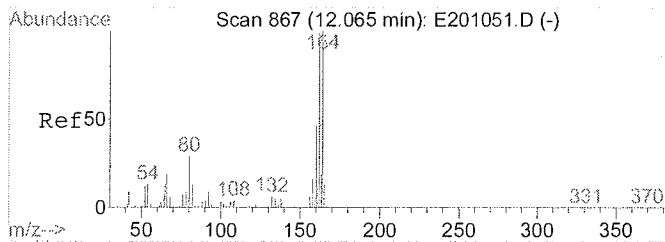
Tgt Ion	Ratio	Lower	Upper
141	100		
142	102.2	87.0	130.4
115	42.3	39.4	59.0



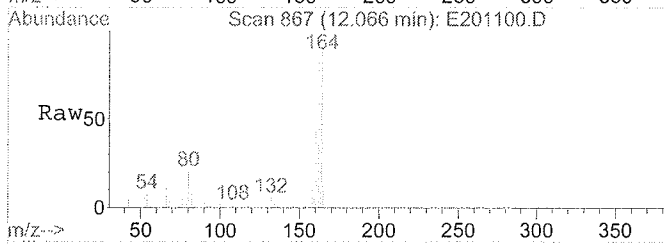
#38
2-Methylnaphthalene
Concen: 1.40 ug/mL
RT: 10.58 min Scan# 703
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	90.8	72.6	108.8
115	37.2	35.0	52.4

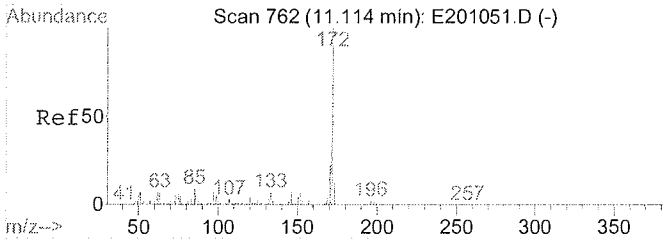
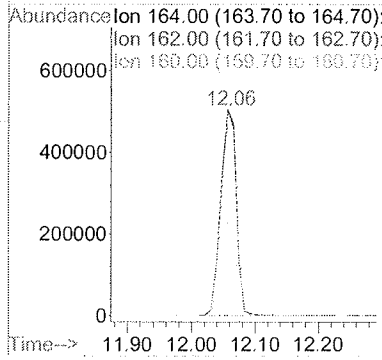
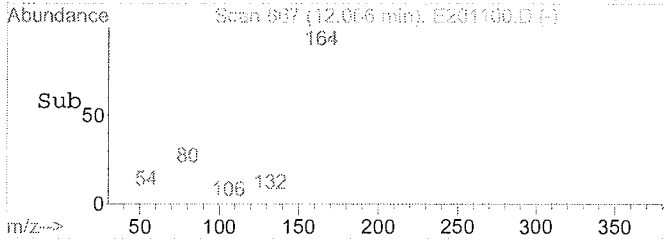




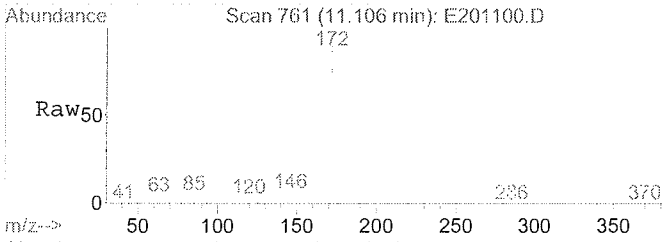
#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.06 min Scan# 867
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm



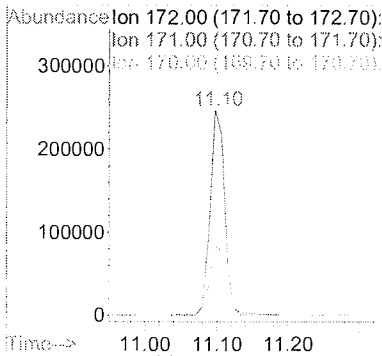
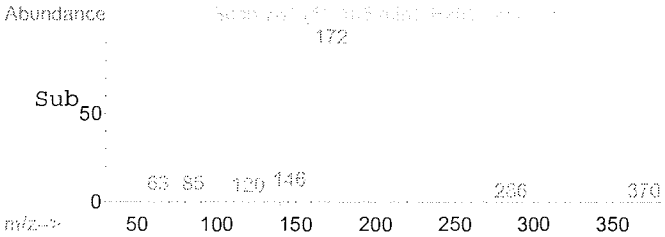
Tgt Ion:164 Resp: 8760971
Ion Ratio Lower Upper
164 100
162 98.2 50.0 149.8
160 45.1 22.6 67.7

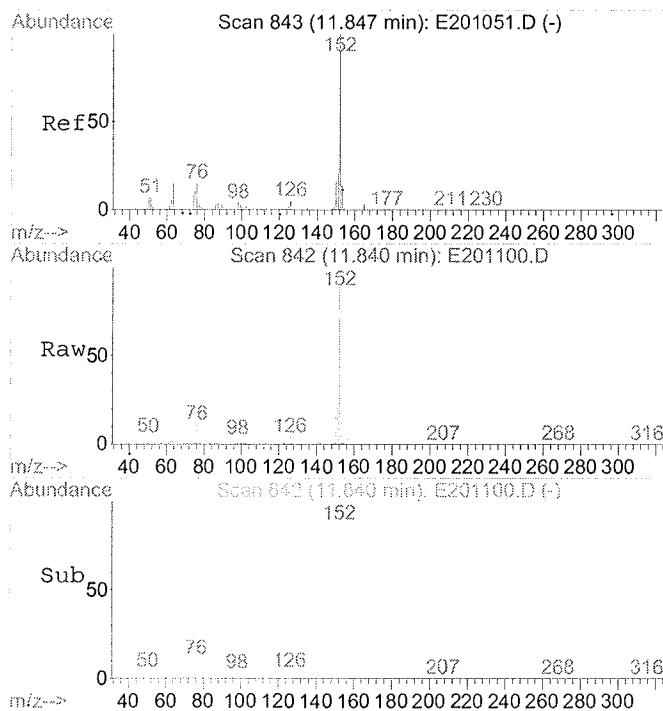


#45
2-Fluorobiphenyl
Concen: N.D. ug/mL
RT: 11.10 min Scan# 761
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm



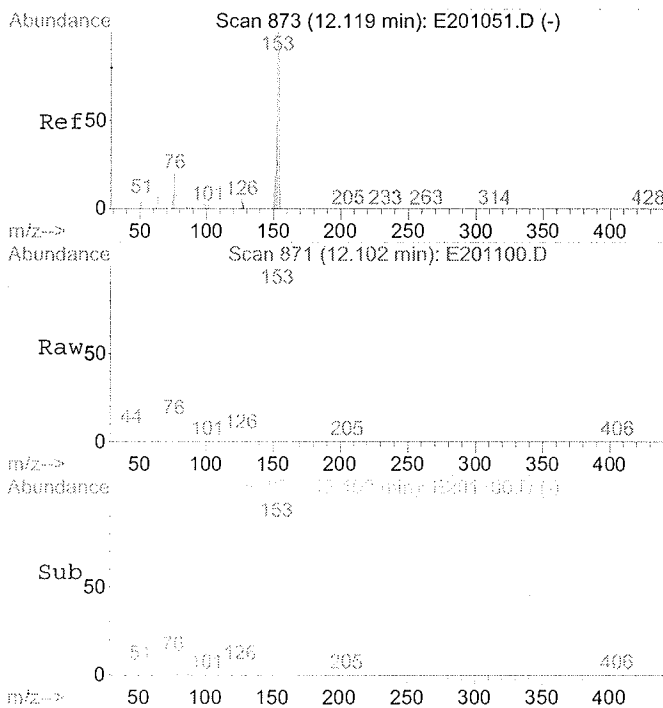
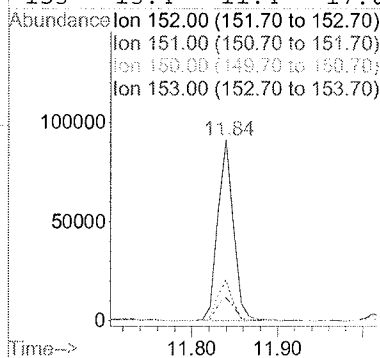
Tgt Ion:172 Resp: 3456000
Ion Ratio Lower Upper
172 100
171 35.3 29.2 43.8
170 24.8 19.4 29.2





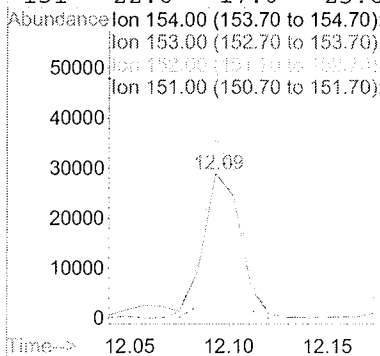
#50
Acenaphthylene
Concen: 2.07 ug/mL
RT: 11.84 min Scan# 842
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

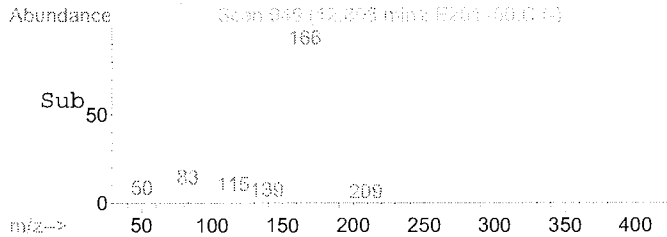
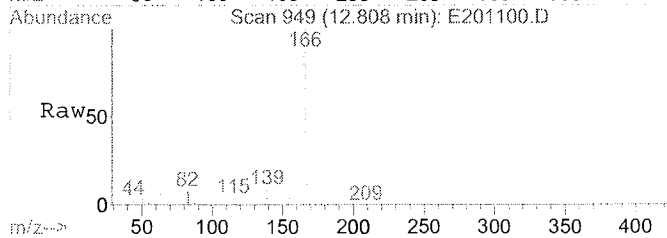
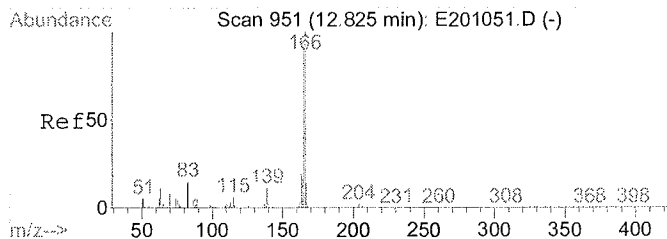
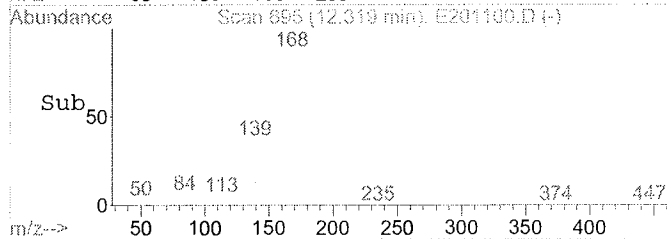
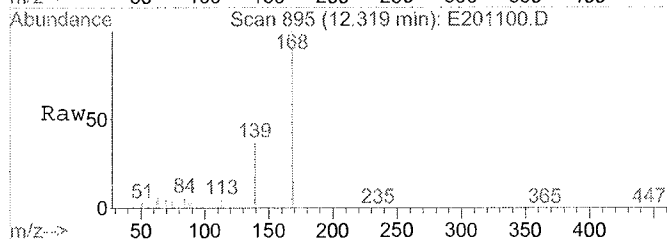
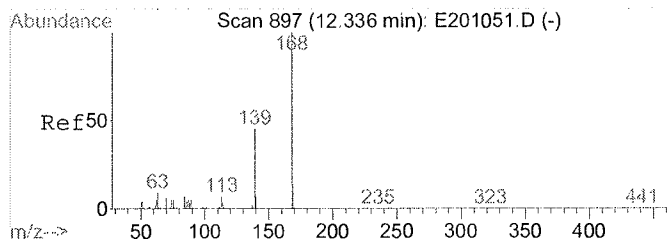
Tgt Ion: 152 Resp: 1163105
Ion Ratio Lower Upper
152 100
151 21.7 17.0 25.6
150 15.0 12.4 18.6
153 13.4 11.4 17.0



#52
Acenaphthene
Concen: 1.19 ug/mL
RT: 12.10 min Scan# 871
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

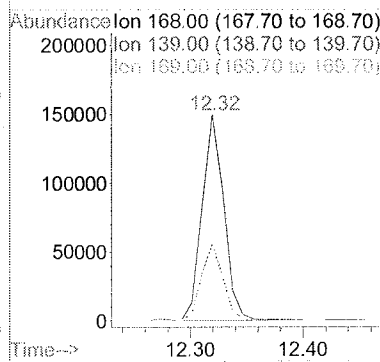
Tgt Ion: 154 Resp: 387305
Ion Ratio Lower Upper
154 100
153 120.1 87.0 130.6
152 59.4 42.4 63.6
151 22.6 17.0 25.6





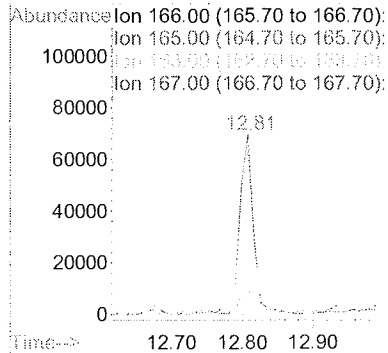
#54
Dibenzofuran
Concen: 3.97 ug/mL
RT: 12.32 min Scan# 895
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

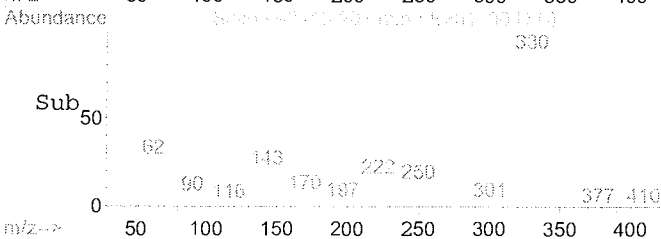
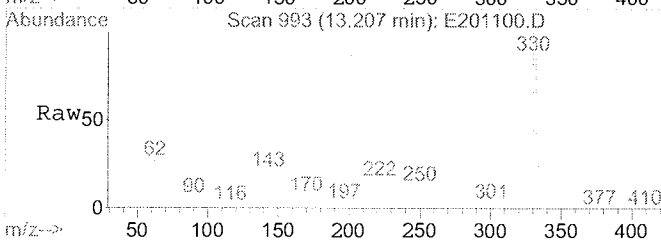
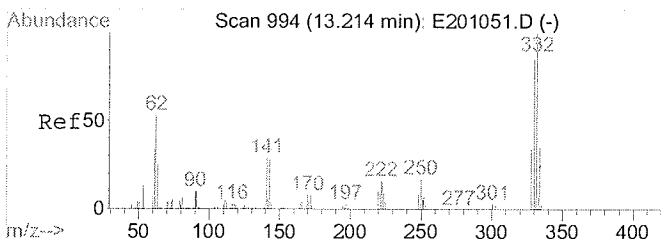
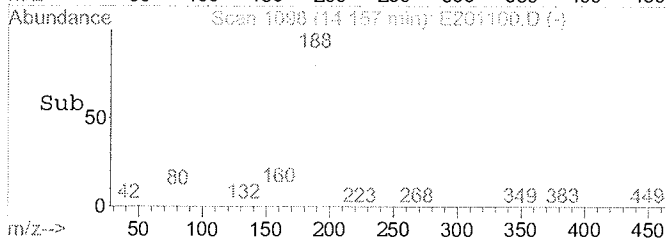
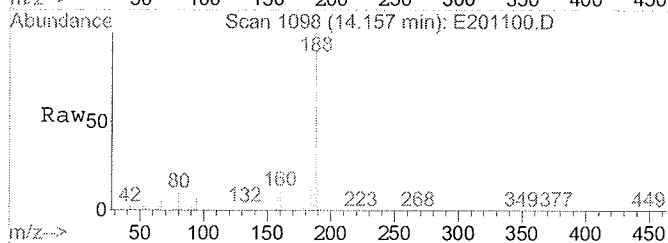
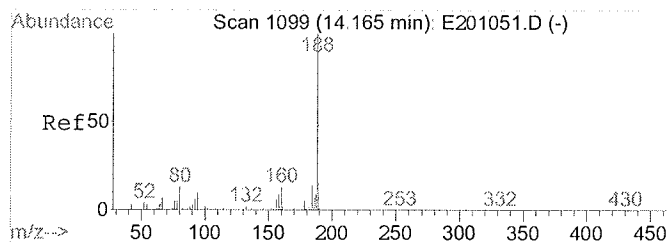
Tgt Ion:168 Resp: 2023272
Ion Ratio Lower Upper
168 100
139 38.4 34.7 52.1
169 13.7 11.3 16.9



#59
Fluorene
Concen: 2.60 ug/mL
RT: 12.81 min Scan# 949
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

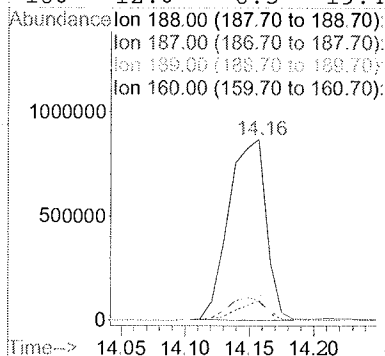
Tgt Ion:166 Resp: 986865
Ion Ratio Lower Upper
166 100
165 96.5 77.0 115.6
163 16.1 14.0 21.0
167 13.8 11.3 16.9





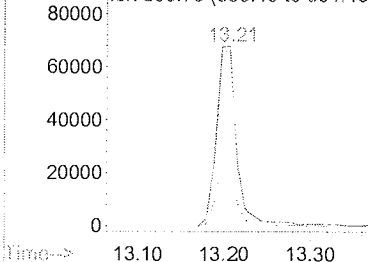
#62
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.15 min Scan# 1098
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

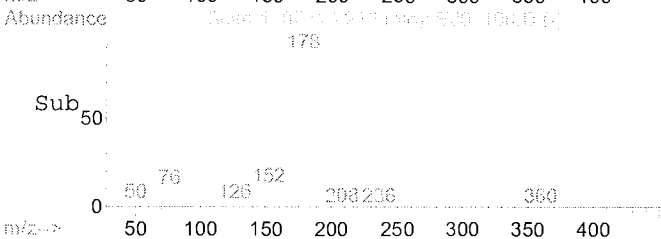
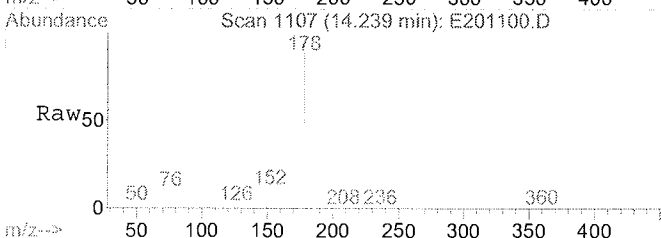
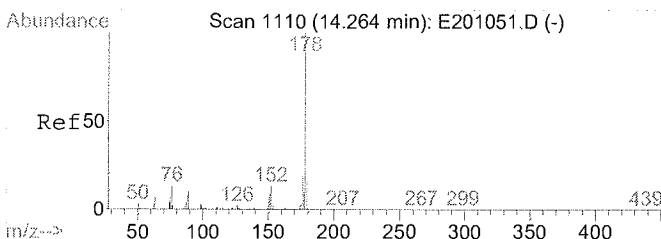
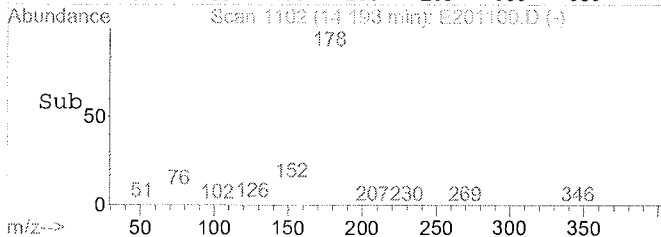
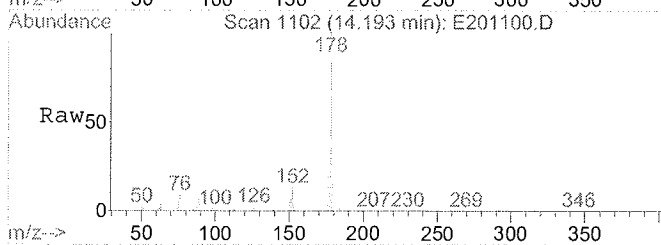
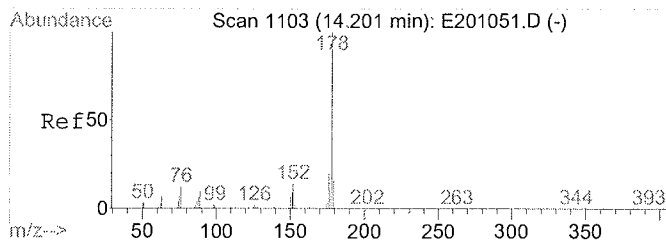
Tgt Ion:188 Resp:17544725
Ion Ratio Lower Upper
188 100
187 8.7 7.4 11.0
189 16.8 8.2 24.4
160 12.0 6.5 19.4



#67
2,4,6-Tribromophenol
Concen: Below ug/mL
RT: 13.21 min Scan# 993
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

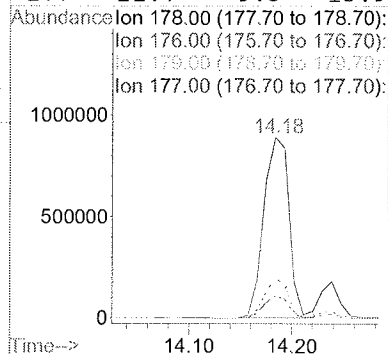
Tgt Ion:330 Resp: 1102969
Ion Ratio Lower Upper
330 100
332 94.5 80.2 120.4
328 31.4 26.5 39.7
334 34.6 27.7 41.5





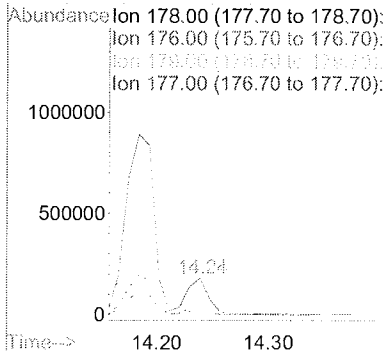
#73
Phenanthrene
Concen: 27.96 ug/mL
RT: 14.19 min Scan# 1102
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

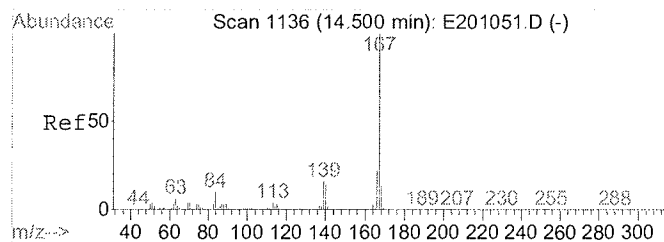
Tgt Ion:178 Resp:15222800
Ion Ratio Lower Upper
178 100
176 20.3 16.5 24.7
179 16.5 13.2 19.8
177 11.7 9.3 13.9



#74
Anthracene
Concen: 4.20 ug/mL m
RT: 14.24 min Scan# 1107
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

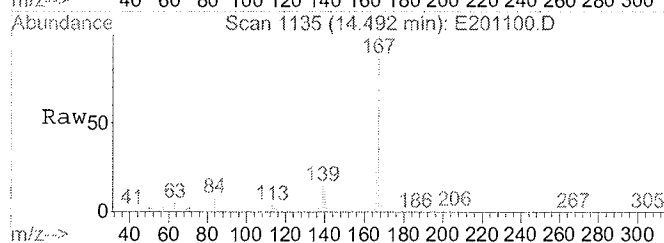
Tgt Ion:178 Resp: 2516123
Ion Ratio Lower Upper
178 100
176 123.1 14.8 22.2#
179 100.2 11.8 17.8#
177 71.0 8.4 12.6#



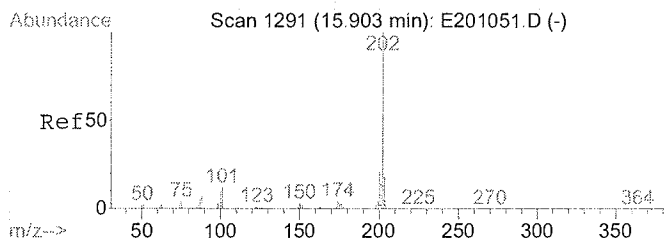
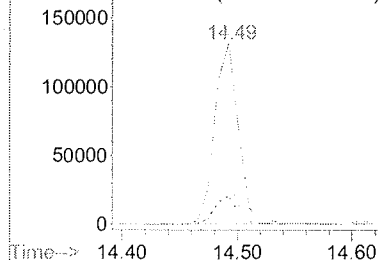
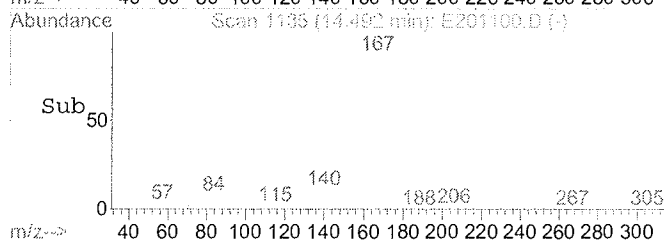


#75
 Carbazole
 Concen: 3.84 ug/mL
 RT: 14.49 min Scan# 1135
 Delta R.T. 0.01 min
 Lab File: E201100.D
 Acq: 16 Mar 2016 11:05 pm

Tgt Ion: 167 Resp: 1904581
 Ion Ratio Lower Upper
 167 100
 167 100.0 80.0 120.0
 166 0.0 11.2 33.6#
 168 0.0 0.0 0.0

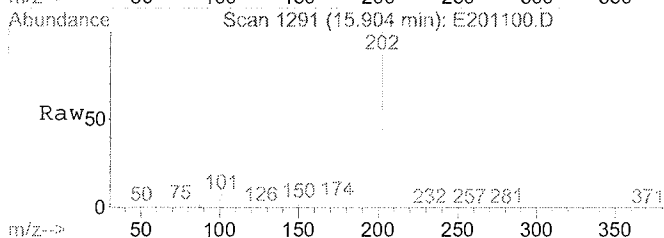


Abundance Ion 167.00 (166.70 to 167.70):
 200000 Ion 167.00 (166.70 to 167.70):
 Ion 168.00 (167.70 to 168.70):
 Ion 168.00 (167.70 to 168.70):

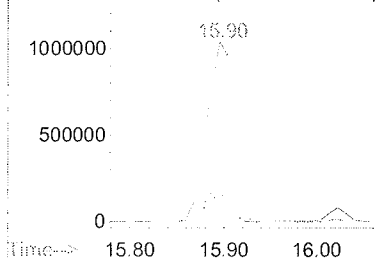
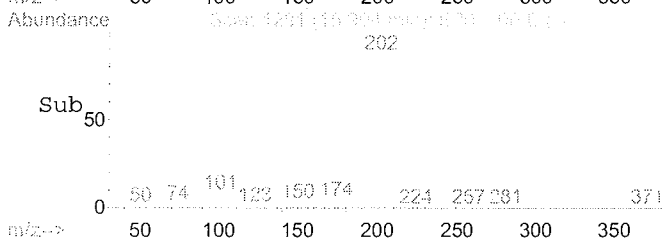


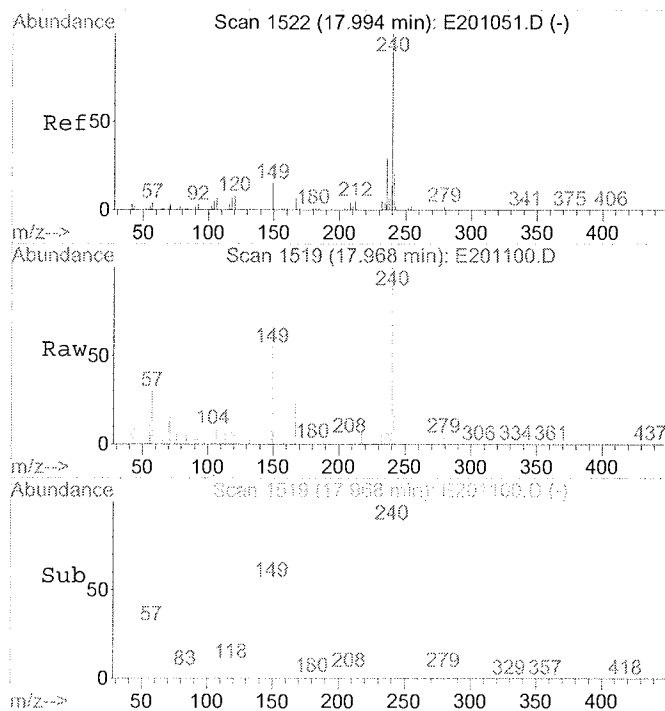
#77
 Fluoranthene
 Concen: 26.74 ug/mL
 RT: 15.90 min Scan# 1291
 Delta R.T. 0.02 min
 Lab File: E201100.D
 Acq: 16 Mar 2016 11:05 pm

Tgt Ion: 202 Resp: 19738442
 Ion Ratio Lower Upper
 202 100
 200 21.3 17.1 25.7
 203 18.2 14.7 22.1
 201 15.2 12.2 18.2



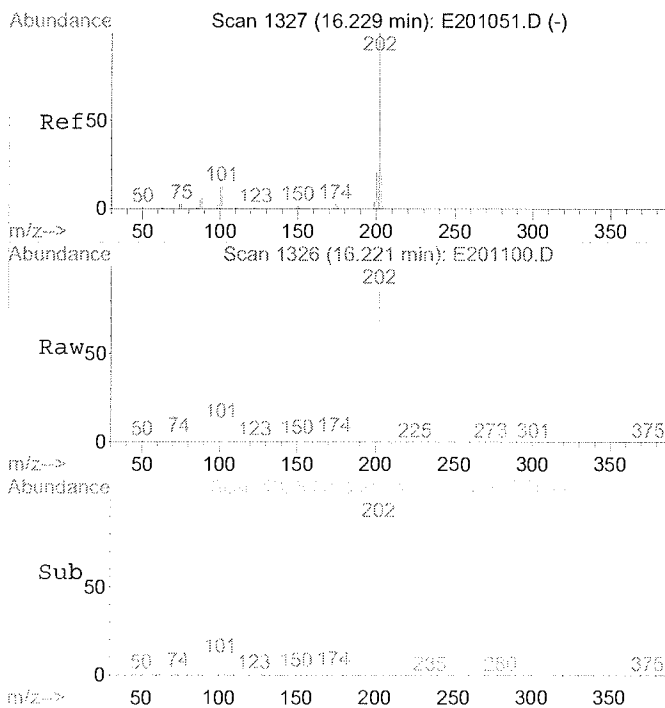
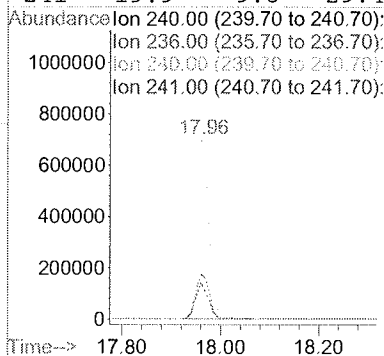
Abundance Ion 202.00 (201.70 to 202.70):
 1500000 Ion 200.00 (199.70 to 200.70):
 Ion 201.00 (200.70 to 201.70):





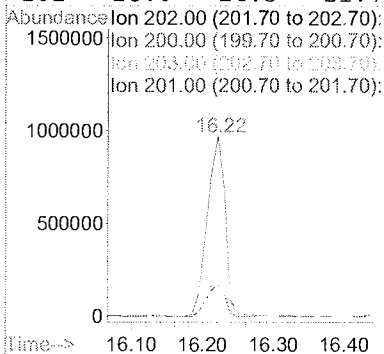
#79
Chrysene-d12
Concen: 40.00 ug/mL
RT: 17.97 min Scan# 1519
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

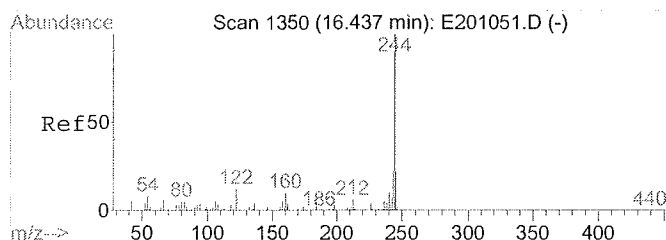
Tgt Ion:240 Resp:12657230
Ion Ratio Lower Upper
240 100
236 27.2 14.1 42.2
240 100.0 50.0 150.0
241 19.9 9.8 29.4



#80
Pyrene
Concen: 22.00 ug/mL
RT: 16.22 min Scan# 1326
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

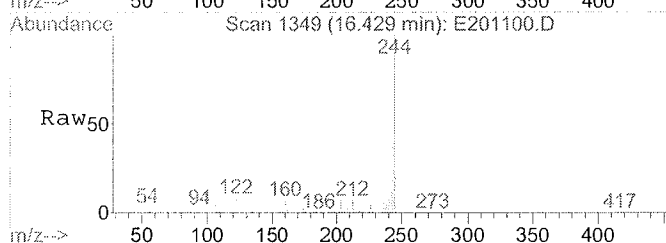
Tgt Ion:202 Resp:16773447
Ion Ratio Lower Upper
202 100
200 21.8 17.1 25.7
203 21.6 15.3 22.9
201 18.0 14.5 21.7



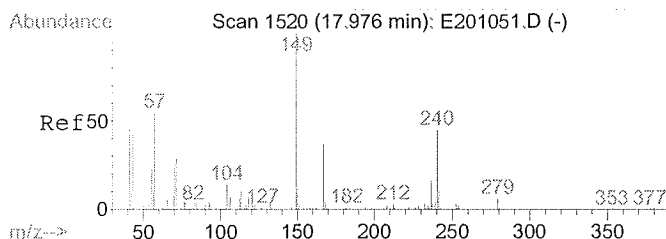
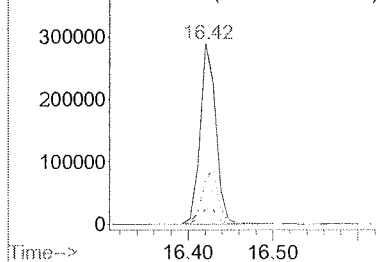
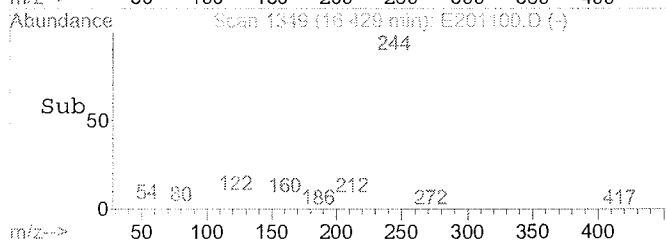


#81
 Terphenyl-d14
 Concen: 22.00 ug/mL
 RT: 16.43 min Scan# 1349
 Delta R.T. 0.01 min
 Lab File: E201100.D
 Acq: 16 Mar 2016 11:05 pm

Tgt Ion:244 Resp: 3756554
 Ion Ratio Lower Upper
 244 100
 243 30.8 16.7 25.1#
 245 22.0 17.3 25.9
 240 9.6 8.6 12.8

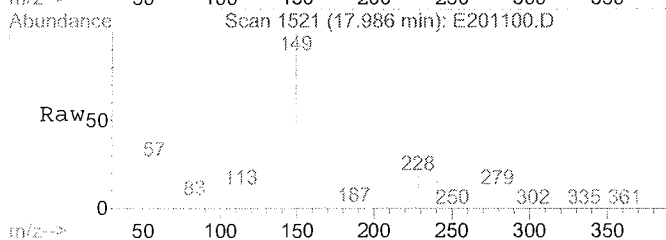


Abundance Ion 244.00 (243.70 to 244.70):
 Ion 243.00 (242.70 to 243.70):
 Ion 245.00 (244.70 to 245.70):
 Ion 240.00 (239.70 to 240.70):

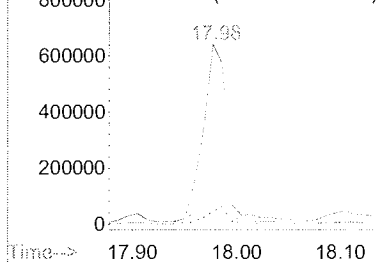
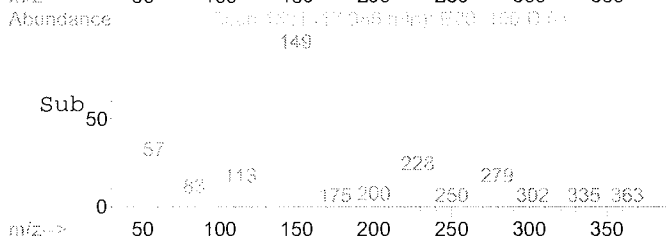


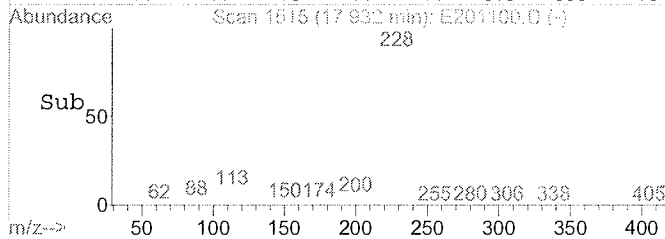
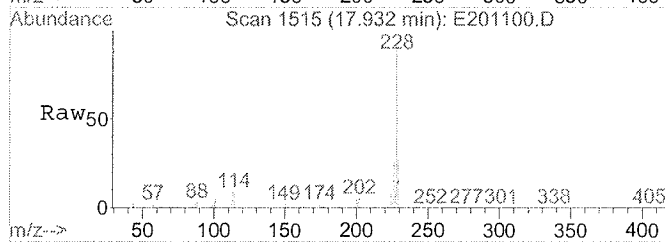
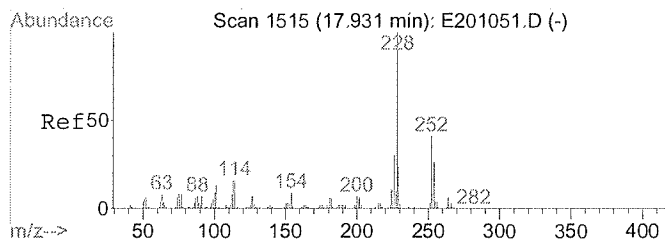
#83
 Bis(2-ethylhexyl) phthalate
 Concen: 31.40 ug/mL
 RT: 17.98 min Scan# 1521
 Delta R.T. 0.02 min
 Lab File: E201100.D
 Acq: 16 Mar 2016 11:05 pm

Tgt Ion:149 Resp:10082198
 Ion Ratio Lower Upper
 149 100
 167 41.4 32.7 49.1
 150 13.2 13.0 19.6
 279 8.3 5.2 7.8#



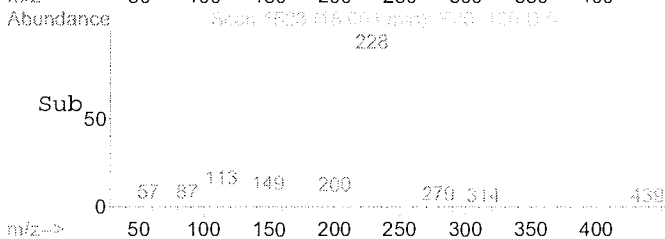
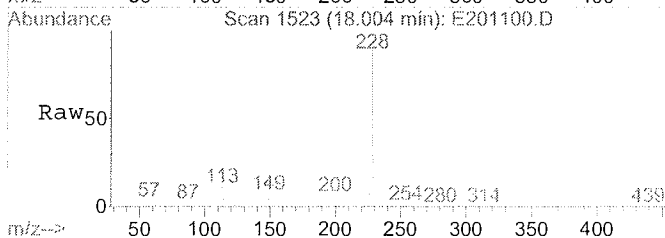
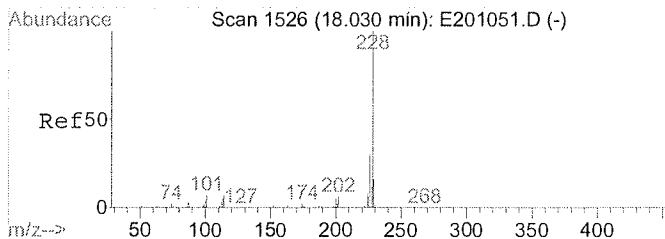
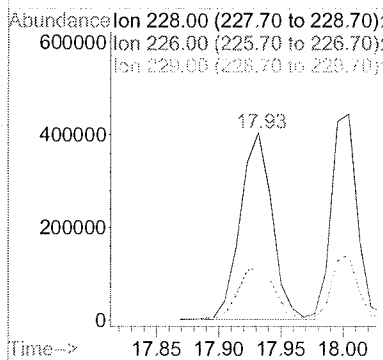
Abundance Ion 149.00 (148.70 to 149.70):
 Ion 167.00 (166.70 to 167.70):
 Ion 150.00 (149.70 to 150.70):
 Ion 279.00 (278.70 to 279.70):





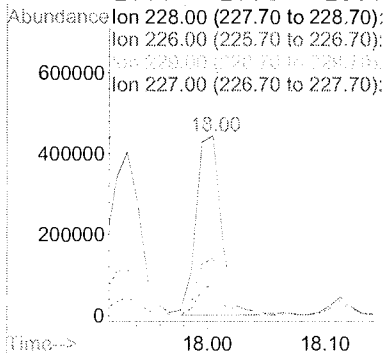
#84
Benz (a) anthracene
Concen: 13.65 ug/mL
RT: 17.93 min Scan# 1515
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

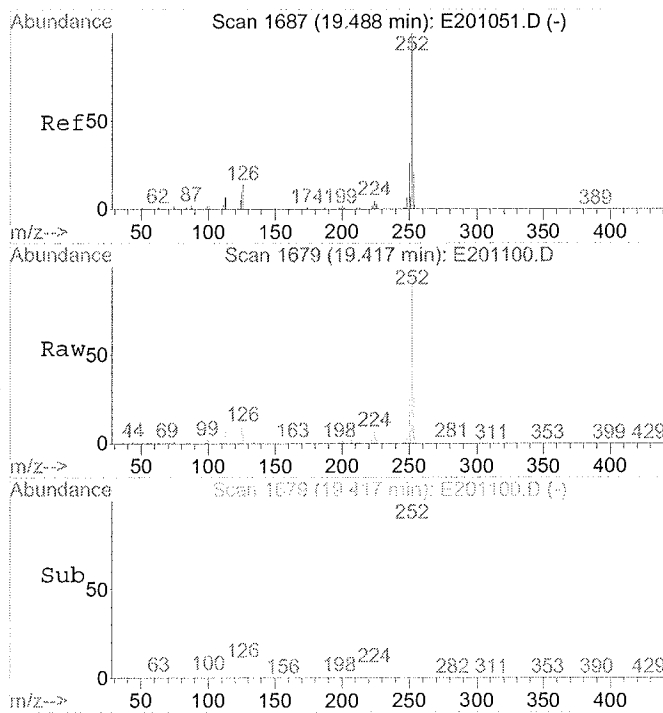
Tgt Ion:228 Resp: 7186727
Ion Ratio Lower Upper
228 100
226 31.8 23.0 34.4
229 30.1 16.6 24.8#



#86
Chrysene
Concen: 11.25 ug/mL
RT: 18.00 min Scan# 1523
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

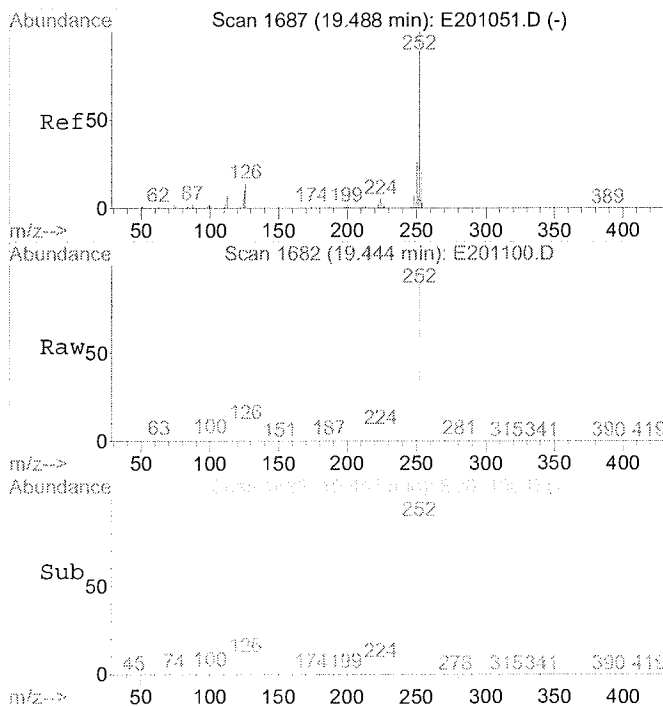
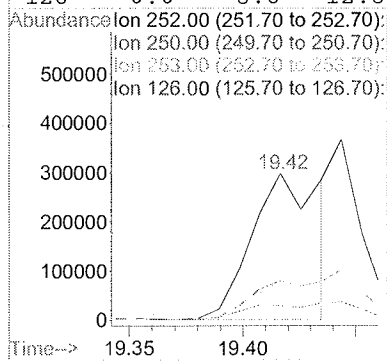
Tgt Ion:228 Resp: 6617770
Ion Ratio Lower Upper
228 100
226 31.7 25.0 37.4
229 26.7 16.6 24.8#
227 16.0 10.4 15.6#





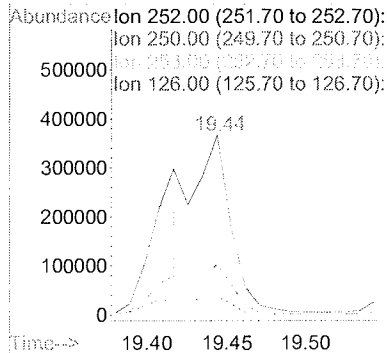
#88
Benzo(b)fluoranthene
Concen: 6.53 ug/mL
RT: 19.42 min Scan# 1679
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

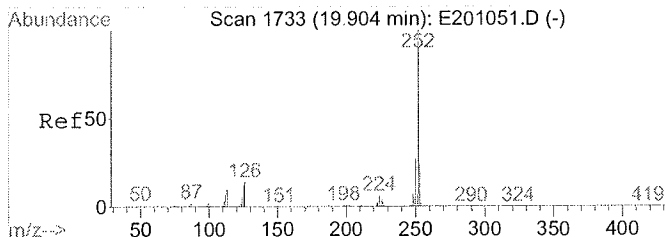
Tgt Ion:252 Resp: 4248370
Ion Ratio Lower Upper
252 100
250 0.0 21.8 32.8#
253 26.4 18.3 27.5
126 0.0 8.6 12.8#



#89
Benzo(k)fluoranthene
Concen: 9.96 ug/mL m
RT: 19.44 min Scan# 1682
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

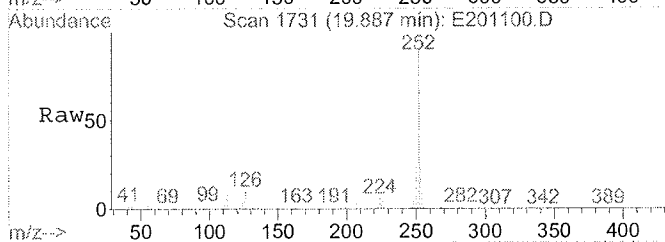
Tgt Ion:252 Resp: 6603819
Ion Ratio Lower Upper
252 100
250 42.3 20.2 30.4#
253 37.0 17.8 26.6#
126 9.3 21.1 31.7#





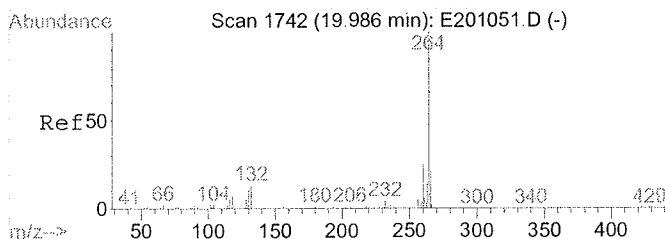
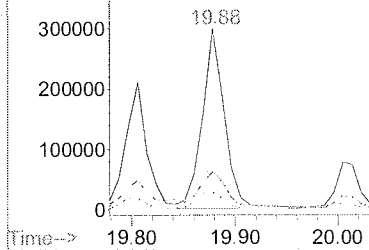
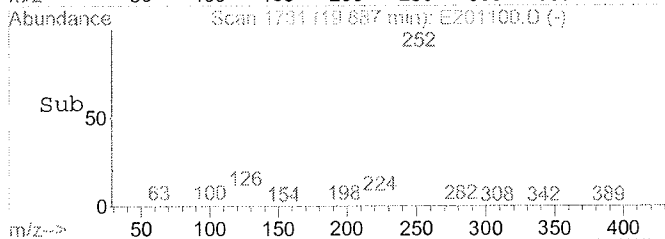
#90
Benzo(a)pyrene
Concen: 6.62 ug/mL
RT: 19.88 min Scan# 1731
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

Tgt Ion: 252 Resp: 4499805
Ion Ratio Lower Upper
252 100
126 11.5 10.2 15.2
250 26.6 21.8 32.8
253 25.3 18.6 27.8



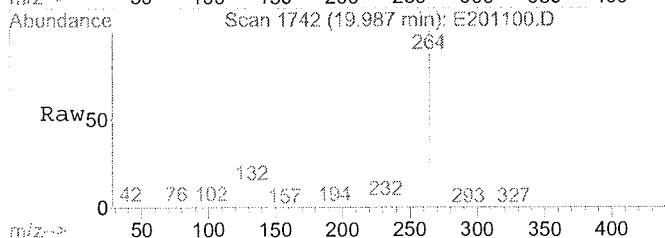
Abundance

Ion 252.00 (251.70 to 252.70):
Ion 126.00 (125.70 to 126.70):
Ion 250.00 (249.70 to 250.70):
Ion 253.00 (252.70 to 253.70):



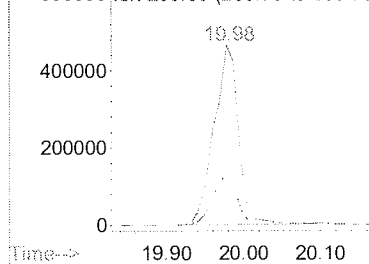
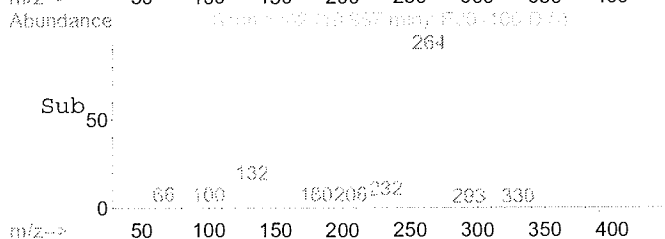
#91
Perylene-d12
Concen: 40.00 ug/mL
RT: 19.98 min Scan# 1742
Delta R.T. 0.01 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

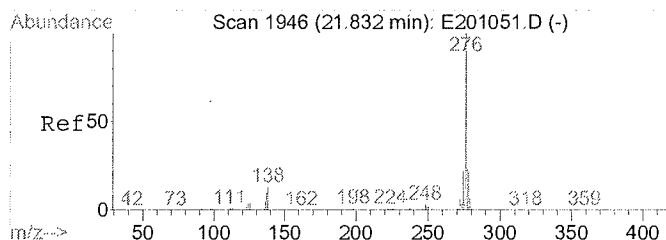
Tgt Ion: 264 Resp: 10065685
Ion Ratio Lower Upper
264 100
265 0.0 18.8 28.2#
260 29.7 23.3 34.9
260 29.7 20.4 37.8



Abundance

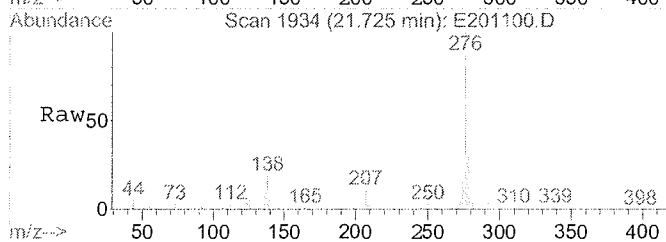
Ion 264.00 (263.70 to 264.70):
Ion 265.00 (264.70 to 265.70):
Ion 260.00 (259.70 to 260.70):





#92
 Indeno(1,2,3-cd)pyrene
 Concen: 3.74 ug/mL
 RT: 21.73 min Scan# 1934
 Delta R.T. 0.02 min
 Lab File: E201100.D
 Acq: 16 Mar 2016 11:05 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
277	27.4	21.1	31.7
274	25.6	21.7	32.5
275	13.3	8.8	16.4



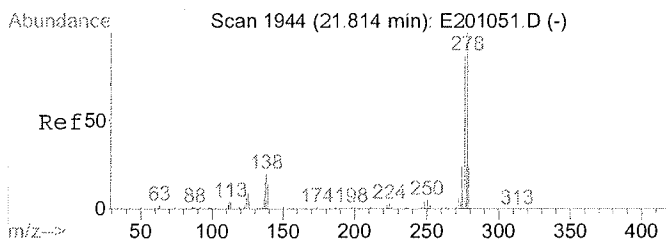
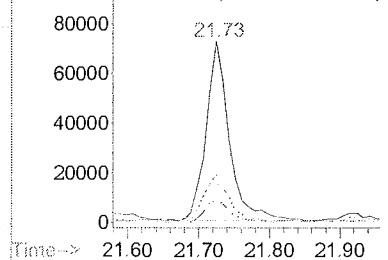
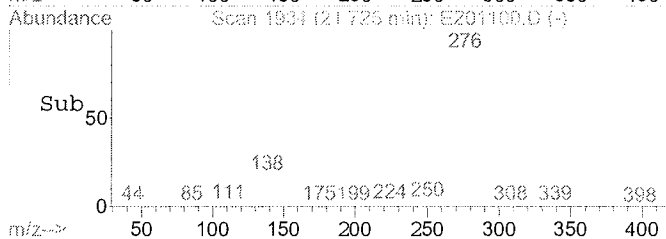
Abundance

Ion 276.00 (275.70 to 276.70):

Ion 277.00 (276.70 to 277.70):

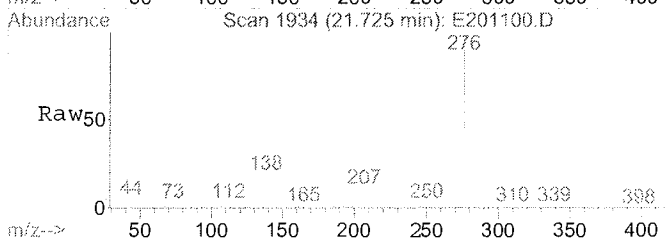
Ion 274.00 (273.70 to 274.70):

Ion 275.00 (274.70 to 275.70):



#93
 Dibenz(a,h)anthracene
 Concen: 1.71 ug/mL
 RT: 21.73 min Scan# 1934
 Delta R.T. 0.01 min
 Lab File: E201100.D
 Acq: 16 Mar 2016 11:05 pm

Tgt Ion	Ratio	Lower	Upper
278	100		
279	22.5	20.3	30.5
280	0.0	0.0	6.4
139	17.5	12.1	18.1

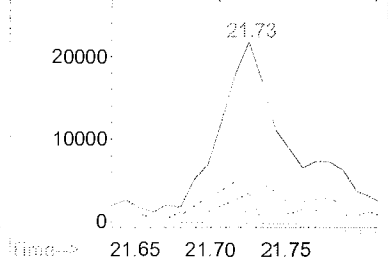
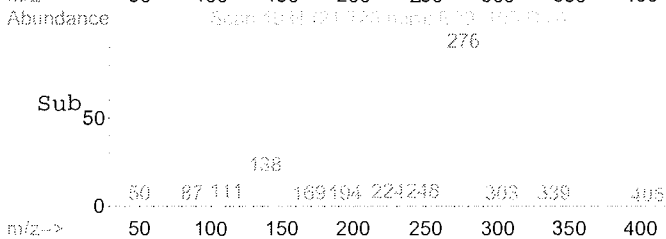


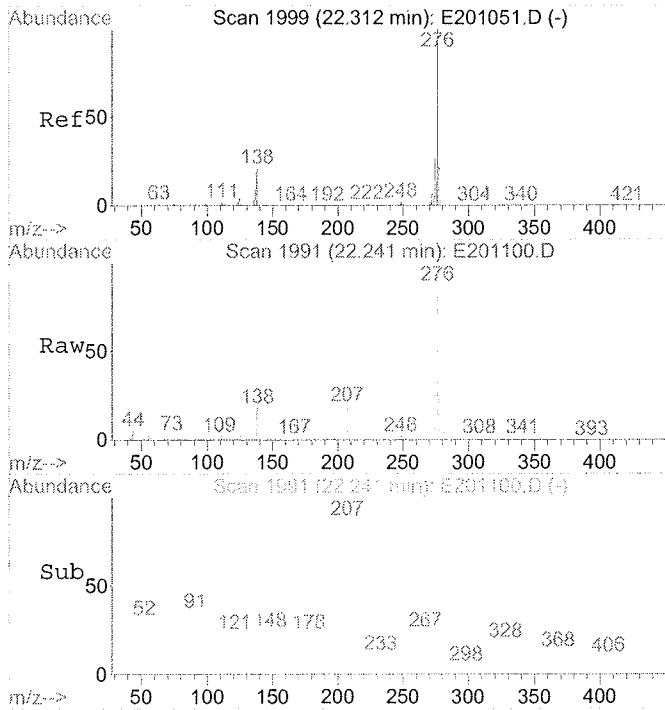
Abundance

Ion 278.00 (277.70 to 278.70):

Ion 279.00 (278.70 to 279.70):

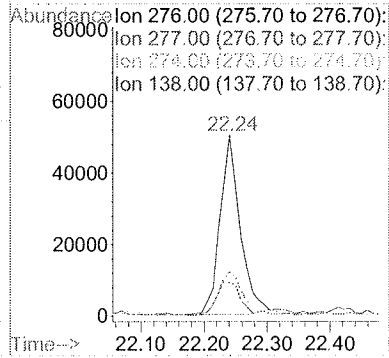
Ion 139.00 (138.70 to 139.70):





#94
Benzo(g,h,i)perylene
Concen: 3.11 ug/mL
RT: 22.24 min Scan# 1991
Delta R.T. 0.02 min
Lab File: E201100.D
Acq: 16 Mar 2016 11:05 pm

Tgt Ion: 276 Resp: 1139885
Ion Ratio Lower Upper
276 100
277 25.3 19.9 29.9
274 29.1 0.0 51.4
138 22.5 16.5 24.7



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-03 File ID: E201101.D
 Sampled: 03/09/16 11:50 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 23:37
 Solids: 83.60 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
92-52-4	1,1'-Biphenyl	5	0.249	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5	0.498	U
120-82-1	1,2,4-Trichlorobenzene	5	0.249	U
95-50-1	1,2-Dichlorobenzene	5	0.249	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	5	0.249	U
541-73-1	1,3-Dichlorobenzene	5	0.249	U
106-46-7	1,4-Dichlorobenzene	5	0.249	U
58-90-2	2,3,4,6-Tetrachlorophenol	5	0.498	U
95-95-4	2,4,5-Trichlorophenol	5	0.249	U
88-06-2	2,4,6-Trichlorophenol	5	0.249	U
120-83-2	2,4-Dichlorophenol	5	0.249	U
105-67-9	2,4-Dimethylphenol	5	0.249	U
51-28-5	2,4-Dinitrophenol	5	0.498	U
121-14-2	2,4-Dinitrotoluene	5	0.249	U
606-20-2	2,6-Dinitrotoluene	5	0.249	U
91-58-7	2-Chloronaphthalene	5	0.249	U
95-57-8	2-Chlorophenol	5	0.249	U
91-57-6	2-Methylnaphthalene	5	0.249	U
95-48-7	2-Methylphenol	5	0.249	U
88-74-4	2-Nitroaniline	5	0.498	U
88-75-5	2-Nitrophenol	5	0.249	U
65794-96-9	3- & 4-Methylphenols	5	0.249	U
91-94-1	3,3'-Dichlorobenzidine	5	0.249	U
99-09-2	3-Nitroaniline	5	0.498	U
534-52-1	4,6-Dinitro-2-methylphenol	5	0.498	U
101-55-3	4-Bromophenyl phenyl ether	5	0.249	U
59-50-7	4-Chloro-3-methylphenol	5	0.249	U
106-47-8	4-Chloroaniline	5	0.249	U
7005-72-3	4-Chlorophenyl phenyl ether	5	0.249	U
100-01-6	4-Nitroaniline	5	0.498	U
100-02-7	4-Nitrophenol	5	0.498	U
83-32-9	Acenaphthene	5	0.255	D
208-96-8	Acenaphthylene	5	0.323	D
98-86-2	Acetophenone	5	0.249	U
62-53-3	Aniline	5	0.999	U
120-12-7	Anthracene	5	0.983	D
1912-24-9	Atrazine	5	0.249	U
100-52-7	Benzaldehyde	5	0.249	U
92-87-5	Benzidine	5	0.999	U
56-55-3	Benzo(a)anthracene	5	2.21	D

FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-03 File ID: E201101.D
 Sampled: 03/09/16 11:50 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 23:37
 Solids: 83.60 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
50-32-8	Benzo(a)pyrene	5	0.967	D
205-99-2	Benzo(b)fluoranthene	5	1.12	D
191-24-2	Benzo(g,h,i)perylene	5	0.524	D
207-08-9	Benzo(k)fluoranthene	5	1.46	D
65-85-0	Benzoic acid	5	0.249	U
100-51-6	Benzyl alcohol	5	0.249	U
85-68-7	Benzyl butyl phthalate	5	0.249	U
111-91-1	Bis(2-chloroethoxy)methane	5	0.249	U
111-44-4	Bis(2-chloroethyl)ether	5	0.249	U
108-60-1	Bis(2-chloroisopropyl)ether	5	0.249	U
117-81-7	Bis(2-ethylhexyl)phthalate	5	0.249	U
105-60-2	Caprolactam	5	0.498	U
86-74-8	Carbazole	5	0.714	D
218-01-9	Chrysene	5	1.90	D
53-70-3	Dibenzo(a,h)anthracene	5	0.345	D
132-64-9	Dibenzofuran	5	0.590	D
84-66-2	Diethyl phthalate	5	0.249	U
131-11-3	Dimethyl phthalate	5	0.249	U
84-74-2	Di-n-butyl phthalate	5	0.249	U
117-84-0	Di-n-octyl phthalate	5	0.249	U
206-44-0	Fluoranthene	5	5.17	D
86-73-7	Fluorene	5	0.445	D
118-74-1	Hexachlorobenzene	5	0.249	U
87-68-3	Hexachlorobutadiene	5	0.249	U
77-47-4	Hexachlorocyclopentadiene	5	0.249	U
67-72-1	Hexachloroethane	5	0.249	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	0.588	D
78-59-1	Isophorone	5	0.249	U
91-20-3	Naphthalene	5	0.227	JD
98-95-3	Nitrobenzene	5	0.249	U
62-75-9	N-Nitrosodimethylamine	5	0.249	U
621-64-7	N-nitroso-di-n-propylamine	5	0.249	U
86-30-6	N-Nitrosodiphenylamine	5	0.249	U
87-86-5	Pentachlorophenol	5	0.249	U
85-01-8	Phenanthrene	5	5.20	D
108-95-2	Phenol	5	0.249	U
129-00-0	Pyrene	5	3.32	D
110-86-1	Pyridine	5	0.999	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0466-03 File ID: E201101.D
Sampled: 03/09/16 11:50 Prepared: 03/15/16 07:11 Analyzed: 03/16/16 23:37
Solids: 83.60 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
Batch: BC60754 Sequence: Calibration: Instrument: BNA#2

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	3.00	1.51	50.3	20 - 108	
Phenol-d5	2.99	1.99	66.3	23 - 114	
Nitrobenzene-d5	2.00	1.15	57.6	22 - 108	
2-Fluorobiphenyl	2.00	1.60	79.9	21 - 113	
2,4,6-Tribromophenol	3.00	2.05	68.5	19 - 110	
Terphenyl-d14	1.99	1.12	56.4	24 - 116	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E2031616\E201101.D

Vial: 31

Acq On : 16 Mar 2016 11:37 pm

Operator: KH

Sample : 16C0466-03

Inst : BNA#2

Misc : QBSV2031616A RE 5X 8270 COMP

Multiplr: 5.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 9:09 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M269

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	5670087	40.00	ug/mL	0.01
21) Naphthalene-d8	9.64	136	15994380	40.00	ug/mL	0.01
39) Acenaphthene-d10	12.07	164	9706667	40.00	ug/mL	0.01
62) Phenanthrene-d10	14.16	188	20176302	40.00	ug/mL	0.01
79) Chrysene-d12	17.98	240	18243162	40.00	ug/mL	0.02
91) Perylene-d12	19.98	264	12418278	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	1775044	7.56	ug/mL	0.00
Spiked Amount	75.000	Range 15 - 87	Recovery	=	10.08%#	
5) Phenol-d5	7.75	99	2614096	9.96	ug/mL	0.00
Spiked Amount	75.000	Range 10 - 100	Recovery	=	13.28%	
22) Nitrobenzene-d5	8.76	82	1592729	5.78	ug/mL	0.01
Spiked Amount	50.000	Range 26 - 120	Recovery	=	11.56%#	
45) 2-Fluorobiphenyl	11.11	172	3572843	8.02	ug/mL	0.01
Spiked Amount	50.000	Range 29 - 120	Recovery	=	16.04%#	
67) 2,4,6-Tribromophenol	13.21	330	1123877	10.30	ug/mL	0.01
Spiked Amount	75.000	Range 35 - 126	Recovery	=	13.73%#	
81) Terphenyl-d14	16.43	244	4139787	5.64	ug/mL	0.01
Spiked Amount	50.000	Range 35 - 127	Recovery	=	11.28%#	

Target Compounds

					Qvalue	
31) Naphthalene	9.66	128	567508	1.14	ug/mL#	89
50) Acenaphthylene	11.85	152	1008571	1.62	ug/mL	99
52) Acenaphthene	12.10	154	463201	1.28	ug/mL	99
54) Dibenzofuran	12.33	168	1670122	2.96	ug/mL	95
59) Fluorene	12.81	166	937193	2.23	ug/mL	99
73) Phenanthrene	14.19	178	16337139	26.09	ug/mL	99
74) Anthracene	14.24	178	3398705m	4.93	ug/mL	
75) Carbazole	14.50	167	2039284	3.58	ug/mL#	91
77) Fluoranthene	15.90	202	22004557	25.92	ug/mL	100
80) Pyrene	16.23	202	18296213	16.65	ug/mL	98
84) Benz (a) anthracene	17.94	228	8405737	11.08	ug/mL#	91
86) Chrysene	18.01	228	8078655	9.53	ug/mL#	93
88) Benzo (b) fluoranthene	19.42	252	5261088	5.61	ug/mL#	74
89) Benzo (k) fluoranthene	19.44	252	6982983m	7.30	ug/mL	
90) Benzo (a) pyrene	19.89	252	4754485	4.85	ug/mL#	94
92) Indeno (1,2,3-cd) pyrene	21.73	276	1580626	2.95	ug/mL	97
93) Dibenz (a,h) anthracene	21.73	278	735895	1.73	ug/mL#	86
94) Benzo (g,h,i) perylene	22.25	276	1191635	2.63	ug/mL	98

(#) = qualifier out of range (m) = manual integration

E201101.D BNA2M269.M

Thu Mar 17 09:10:23 2016

Page 1

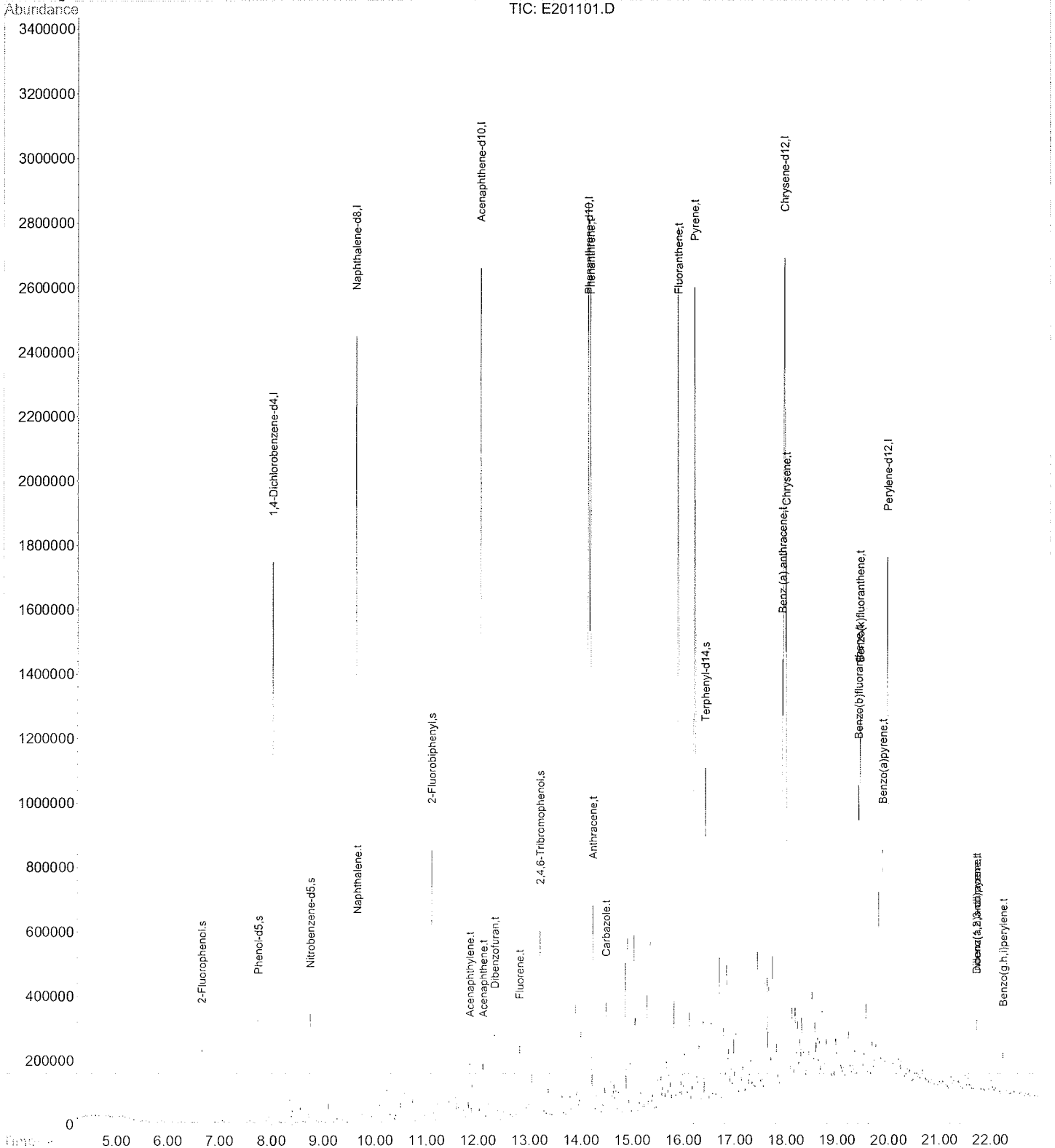
Quantitation Report

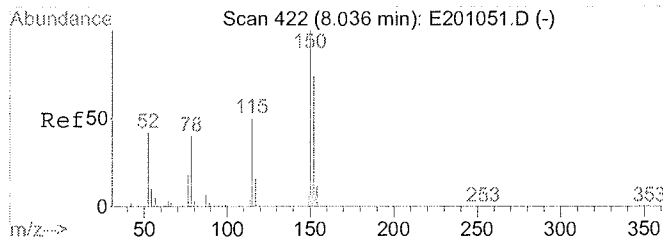
Data File : C:\HPCHEM\1\DATA\E2031616\E201101.D
 Acq On : 16 Mar 2016 11:37 pm
 Sample : 16C0466-03
 Misc : QBSV2031616A RE 5X 8270 COMP
 MS Integration Params: EVENTS.E
 Quant Time: Mar 17 9:09 2016

Vial: 31
 Operator: KH
 Inst : BNA#2
 Multiplr: 5.00

Quant Results File: BNA2M269.RES

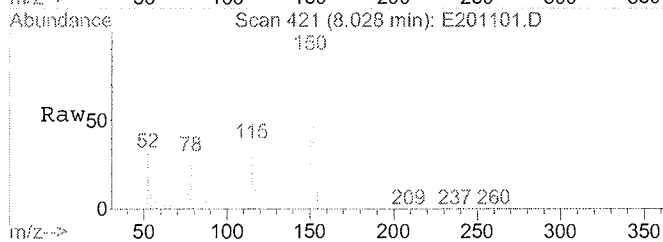
Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration





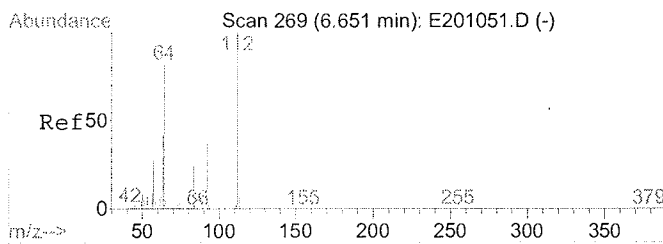
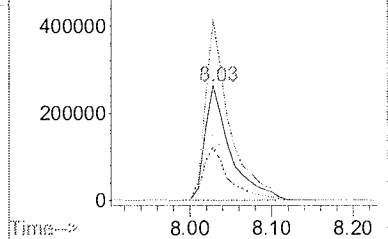
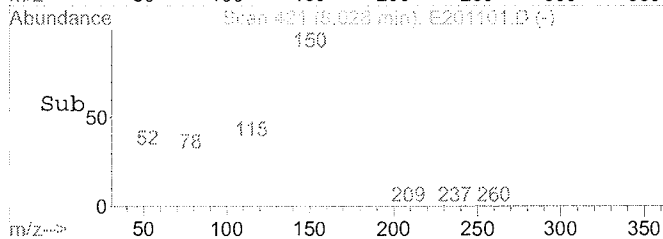
#1
1,4-Dichlorobenzene-d4
Concen: 40.00 ug/mL
RT: 8.03 min Scan# 421
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:152 Resp: 5670087
Ion Ratio Lower Upper
152 100
150 150.1 90.0 269.9
115 60.2 33.8 101.3
78 46.2 28.1 84.2



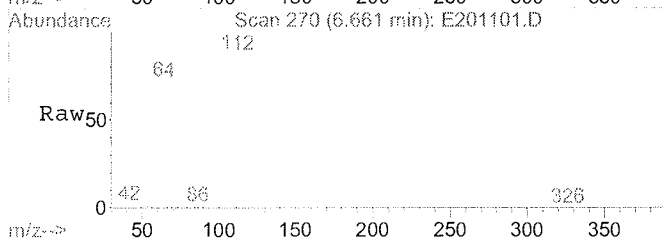
Abundance

Ion 152.00 (151.70 to 152.70):
Ion 150.00 (149.70 to 150.70):
Ion 115.00 (114.70 to 115.70):
Ion 78.00 (77.70 to 78.70): E2



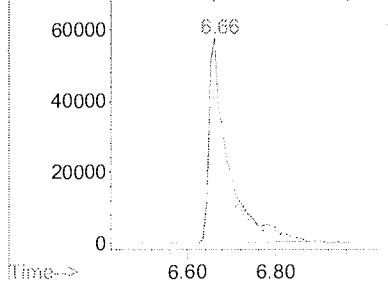
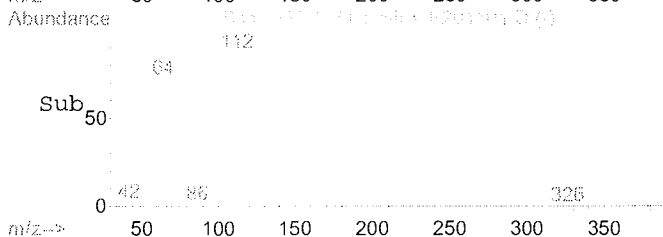
#4
2-Fluorophenol
Concen: N.D. ug/mL
RT: 6.66 min Scan# 270
Delta R.T. -0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

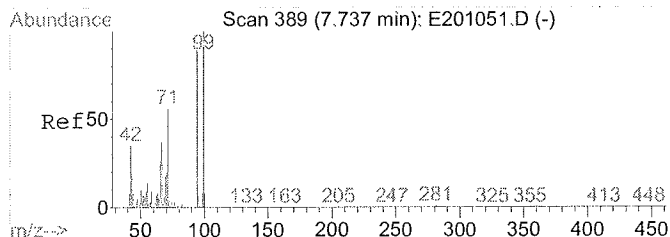
Tgt Ion:112 Resp: 1775044
Ion Ratio Lower Upper
112 100
64 71.7 63.0 94.6
92 29.1 20.3 30.5



Abundance

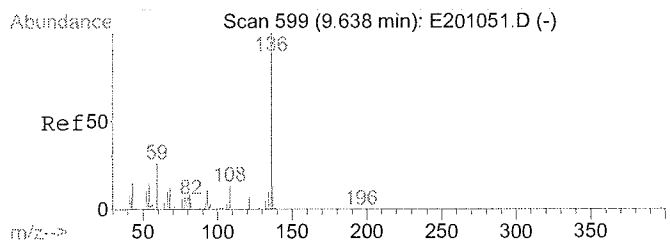
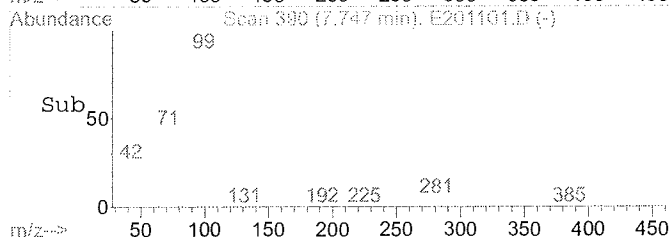
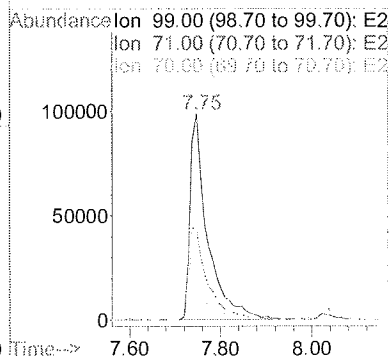
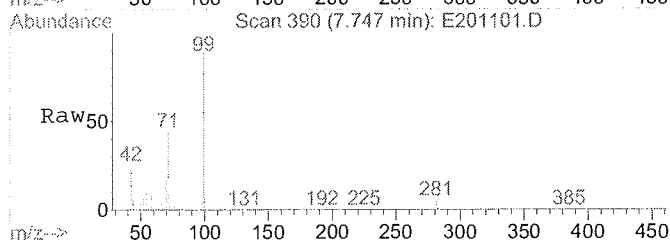
Ion 112.00 (111.70 to 112.70):
Ion 64.00 (63.70 to 64.70): E2
Ion 92.00 (91.70 to 92.70): E2





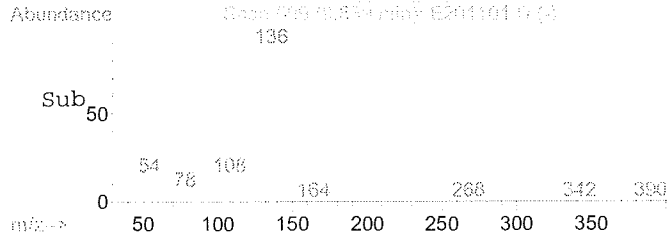
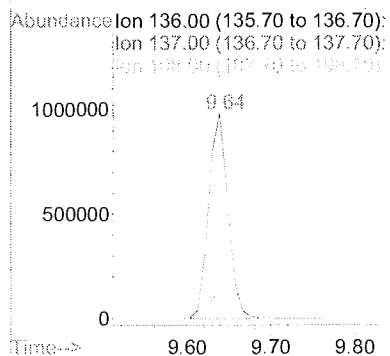
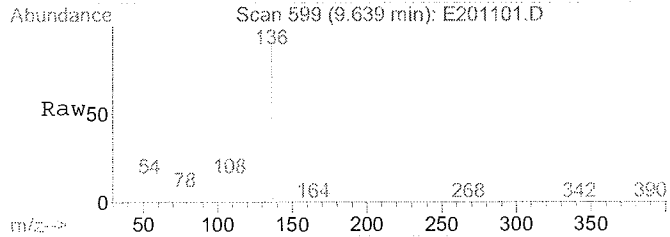
#5
Phenol-d5
Concen: N.D. ug/mL
RT: 7.75 min Scan# 390
Delta R.T. 0.00 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

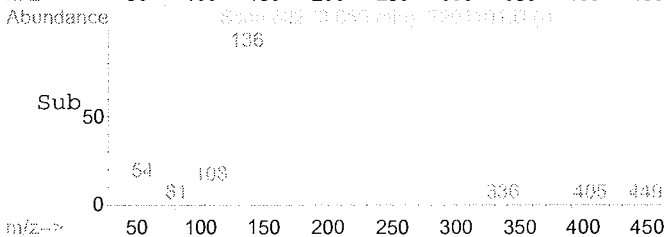
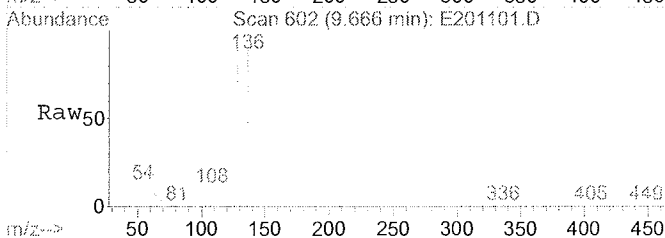
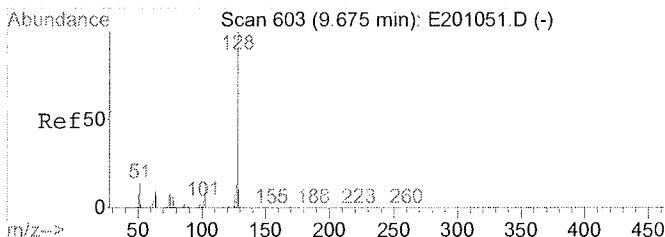
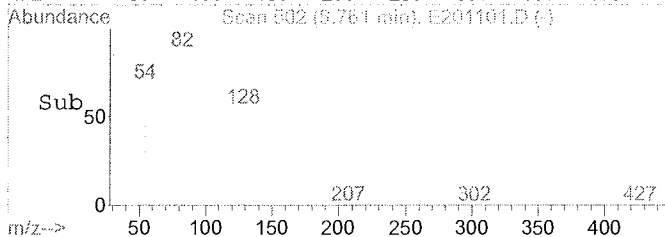
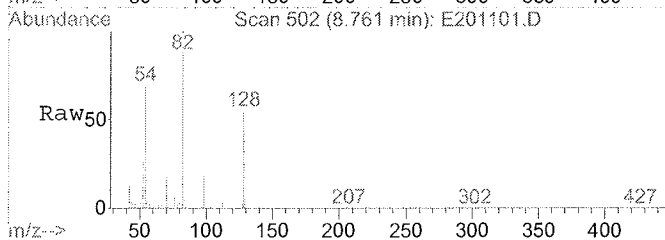
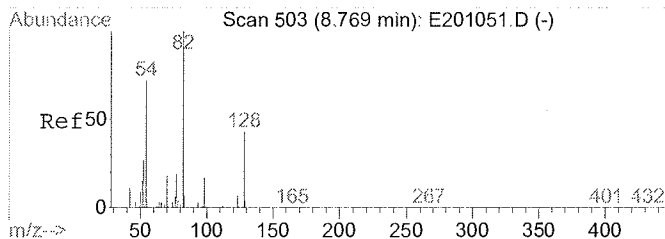
Tgt Ion: 99 Resp: 2614096
Ion Ratio Lower Upper
99 100
71 46.6 43.1 64.7
70 17.8 17.1 25.7



#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.64 min Scan# 599
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion: 136 Resp: 15994380
Ion Ratio Lower Upper
136 100
137 12.1 6.1 18.3
108 12.9 7.3 22.0





#22

Nitrobenzene-d5

Concen: 40.00 ug/mL

RT: 8.76 min Scan# 502

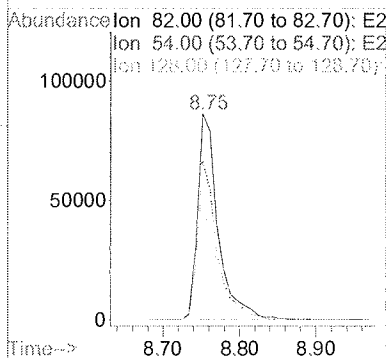
Delta R.T. 0.01 min

Lab File: E201101.D

Acq: 16 Mar 2016 11:37 pm

Tgt Ion: 82 Resp: 1592729

Ion	Ratio	Lower	Upper
82	100		
54	74.1	55.7	83.5
128	51.7	35.6	53.4



#31

Naphthalene

Concen: 1.14 ug/mL

RT: 9.66 min Scan# 602

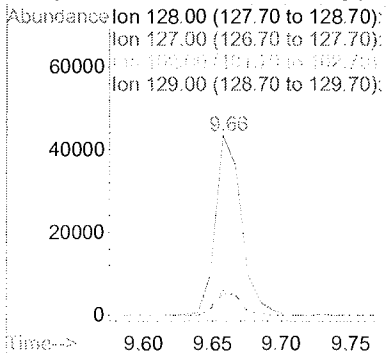
Delta R.T. 0.01 min

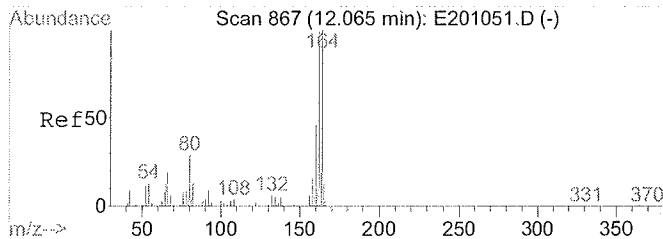
Lab File: E201101.D

Acq: 16 Mar 2016 11:37 pm

Tgt Ion: 128 Resp: 567508

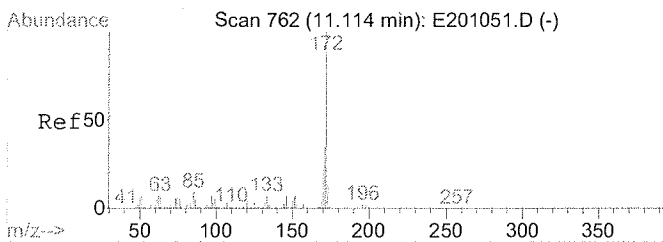
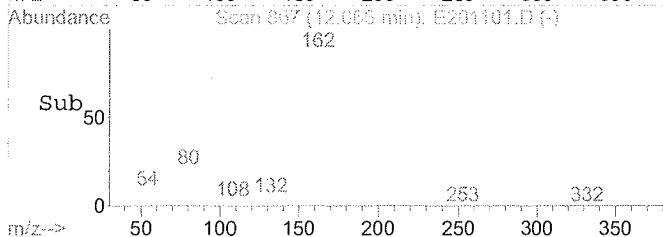
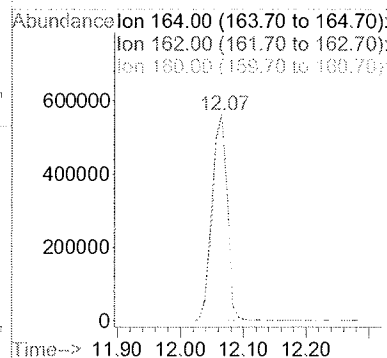
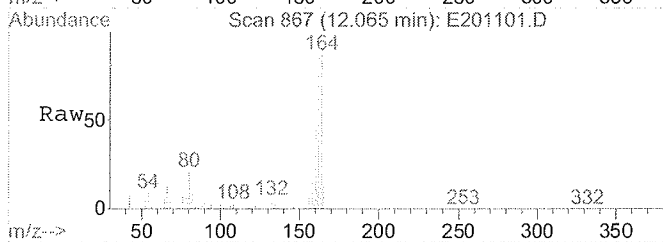
Ion	Ratio	Lower	Upper
128	100		
127	14.9	11.5	17.3
102	25.3	7.2	21.6#
129	12.5	6.7	15.7





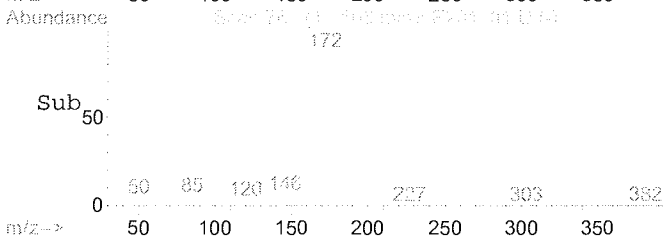
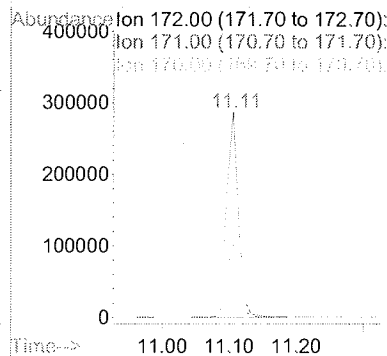
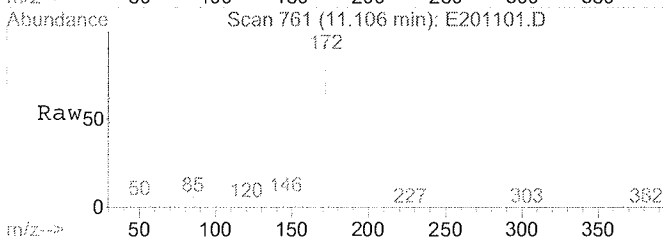
#39
Acenaphthene-d10
Concen: 40.00 ug/mL
RT: 12.07 min Scan# 867
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

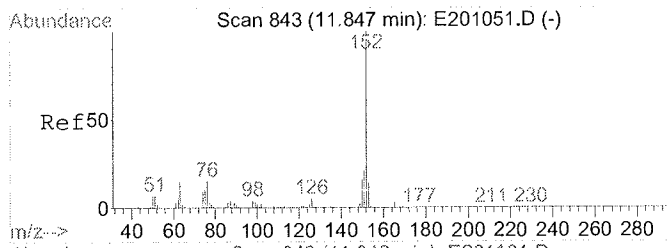
Tgt Ion:164 Resp: 9706667
Ion Ratio Lower Upper
164 100
162 98.9 50.0 149.8
160 45.3 22.6 67.7



#45
2-Fluorobiphenyl
Concen: N.D. ug/mL
RT: 11.11 min Scan# 761
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

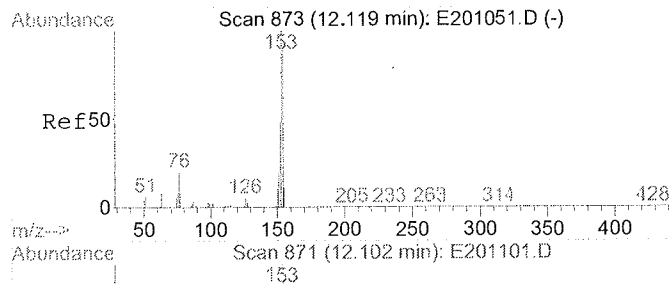
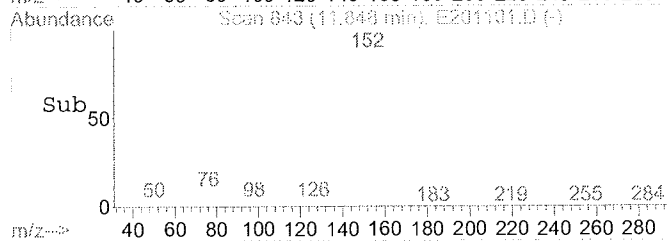
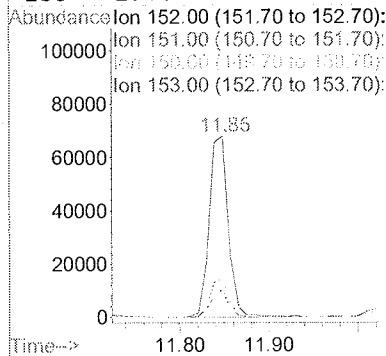
Tgt Ion:172 Resp: 3572843
Ion Ratio Lower Upper
172 100
171 36.8 29.2 43.8
170 24.1 19.4 29.2





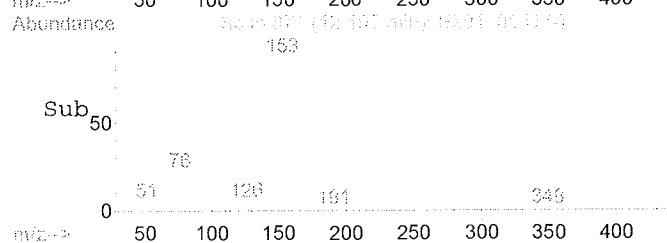
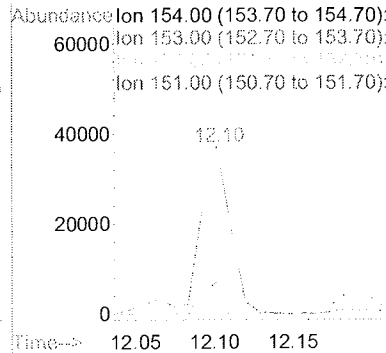
#50
Acenaphthylene
Concen: 1.62 ug/mL
RT: 11.85 min Scan# 843
Delta R.T. 0.02 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

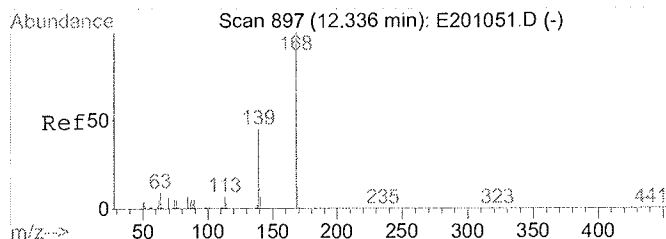
Tgt Ion:152 Resp: 1008571
Ion Ratio Lower Upper
152 100
151 20.5 17.0 25.6
150 15.1 12.4 18.6
153 13.7 11.4 17.0



#52
Acenaphthene
Concen: 1.28 ug/mL
RT: 12.10 min Scan# 871
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

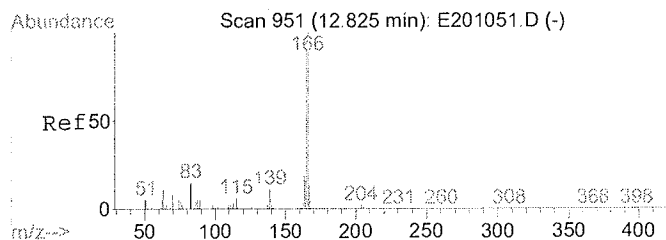
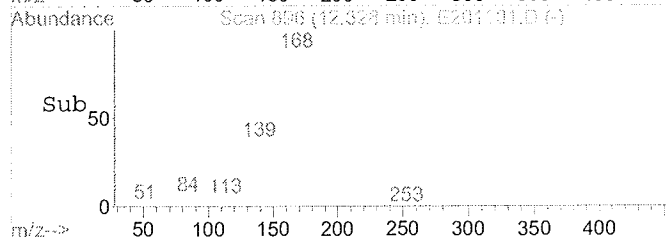
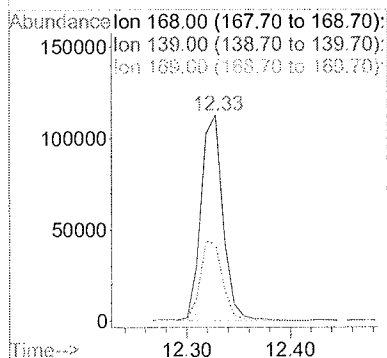
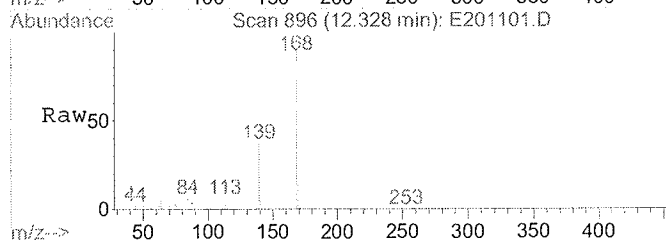
Tgt Ion:154 Resp: 463201
Ion Ratio Lower Upper
154 100
153 108.5 87.0 130.6
152 53.6 42.4 63.6
151 20.3 17.0 25.6





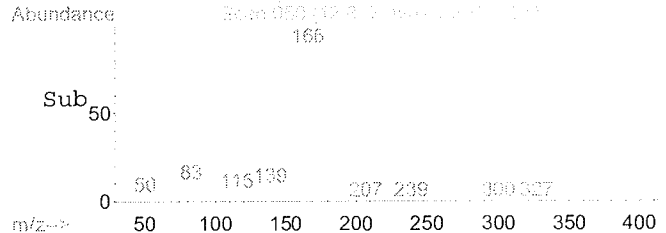
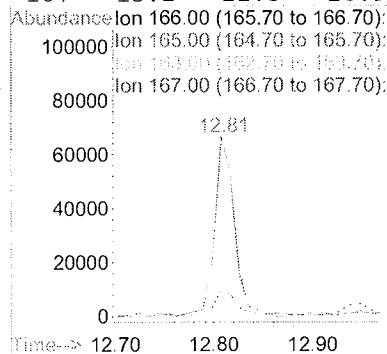
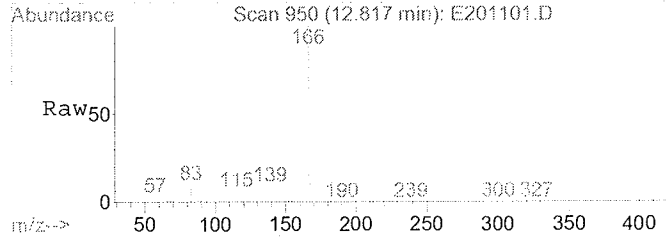
#54
Dibenzofuran
Concen: 2.96 ug/mL
RT: 12.33 min Scan# 896
Delta R.T. 0.02 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

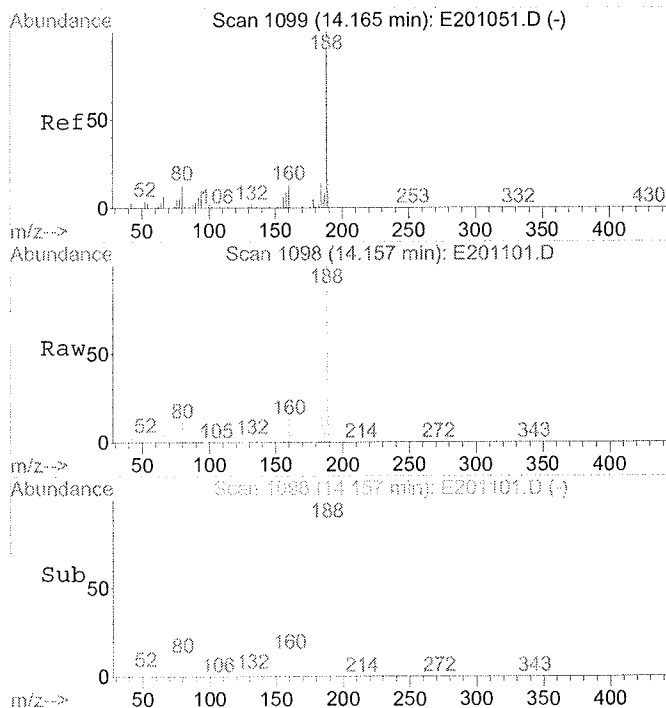
Tgt Ion:168 Resp: 1670122
Ion Ratio Lower Upper
168 100
139 39.5 34.7 52.1
169 13.3 11.3 16.9



#59
Fluorene
Concen: 2.23 ug/mL
RT: 12.81 min Scan# 950
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:166 Resp: 937193
Ion Ratio Lower Upper
166 100
165 95.7 77.0 115.6
163 16.1 14.0 21.0
167 15.1 11.3 16.9

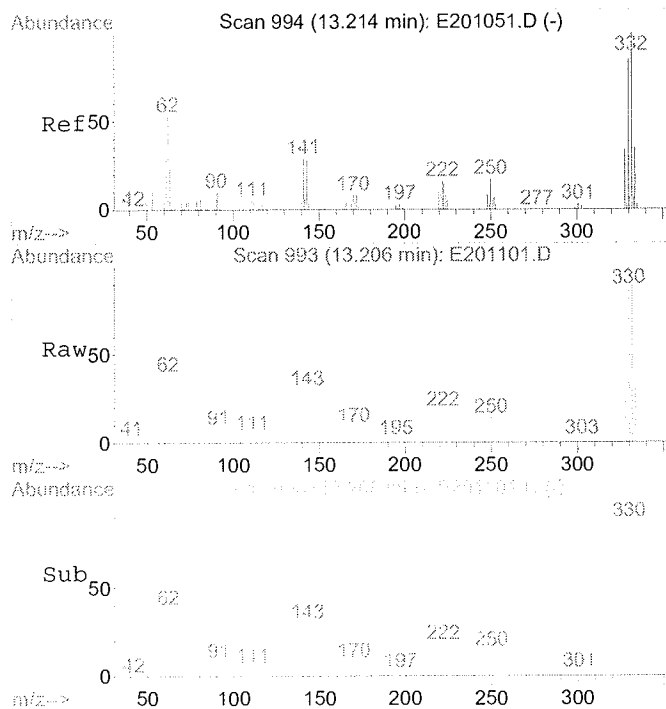
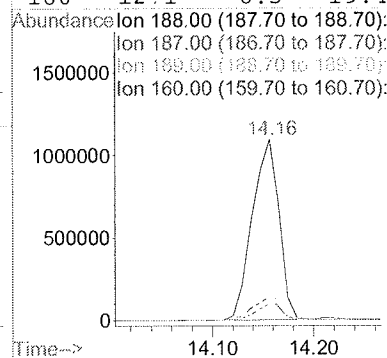




#62
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.16 min Scan# 1098
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:188 Resp:20176302

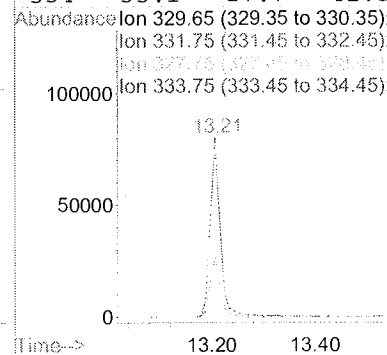
Ion	Ratio	Lower	Upper
188	100		
187	8.8	7.4	11.0
189	16.4	8.2	24.4
160	12.1	6.5	19.4

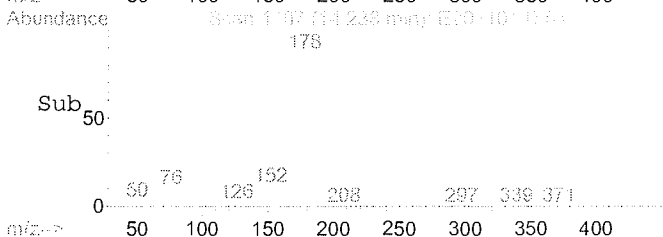
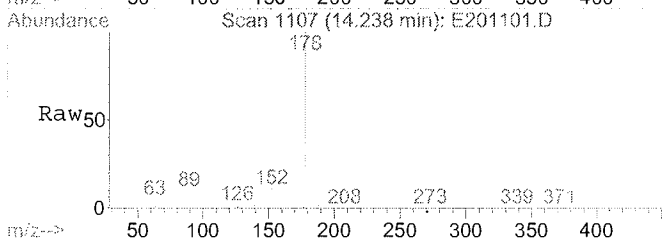
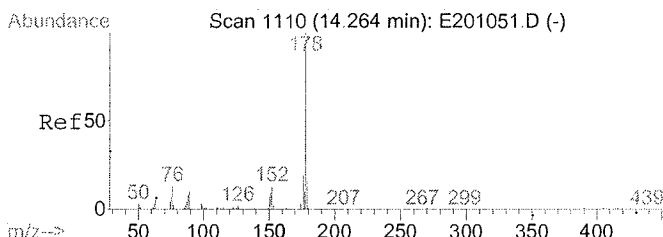
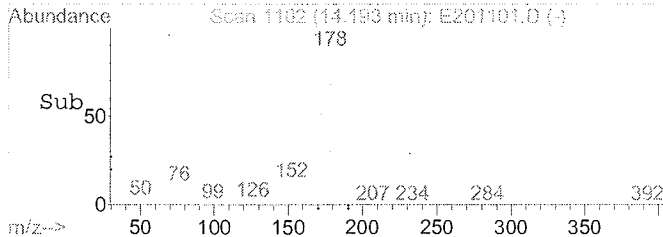
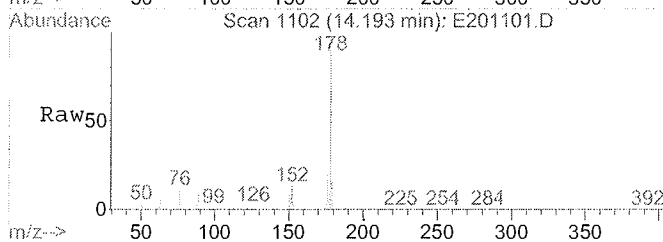
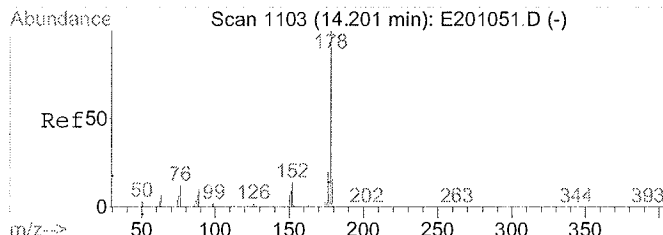


#67
2,4,6-Tribromophenol
Concen: Below ug/mL
RT: 13.21 min Scan# 993
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:330 Resp: 1123877

Ion	Ratio	Lower	Upper
330	100		
332	88.2	80.2	120.4
328	34.9	26.5	39.7
334	33.1	27.7	41.5





#73

Phenanthrene

Concen: 26.09 ug/mL

RT: 14.19 min Scan# 1102

Delta R.T. 0.02 min

Lab File: E201101.D

Acq: 16 Mar 2016 11:37 pm

Tgt Ion:178 Resp:16337139

Ion	Ratio	Lower	Upper
178	100		
176	19.9	16.5	24.7
179	16.4	13.2	19.8
177	11.2	9.3	13.9

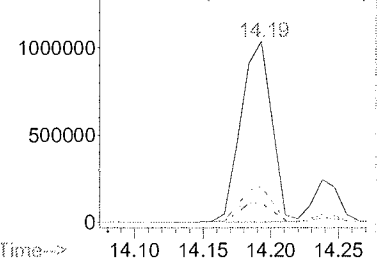
Abundance

Ion 178.00 (177.70 to 178.70):

Ion 176.00 (175.70 to 176.70):

Ion 179.00 (178.70 to 179.70):

Ion 177.00 (176.70 to 177.70):



#74

Anthracene

Concen: 4.93 ug/mL m

RT: 14.24 min Scan# 1107

Delta R.T. 0.01 min

Lab File: E201101.D

Acq: 16 Mar 2016 11:37 pm

Ion	Ratio	Lower	Upper
178	100		
176	95.8	14.8	22.2#
179	78.6	11.8	17.8#
177	54.0	8.4	12.6#

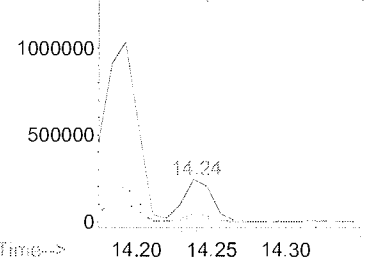
Abundance

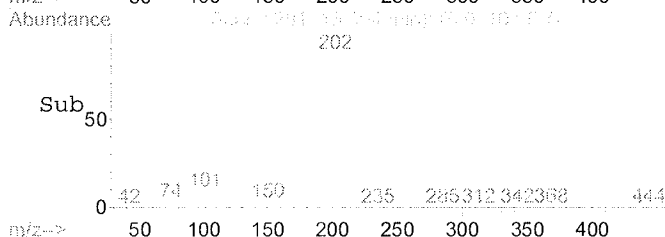
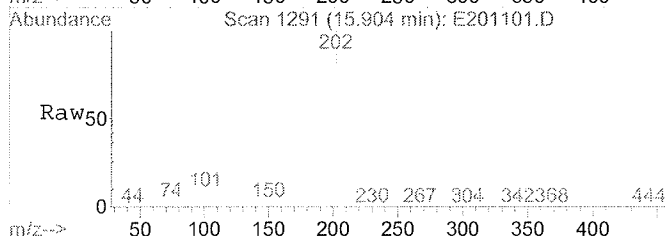
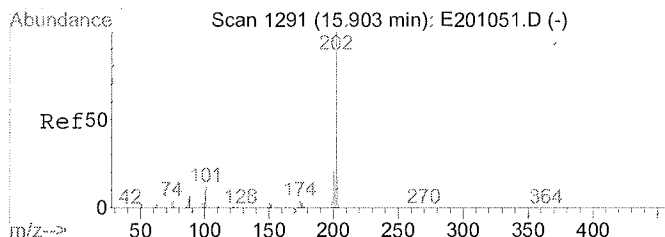
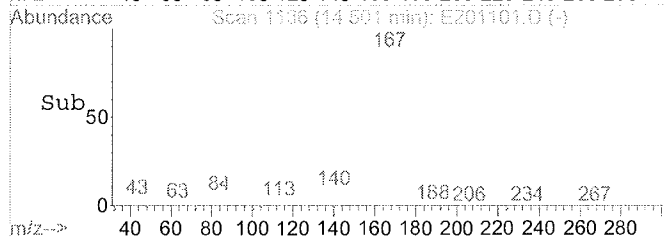
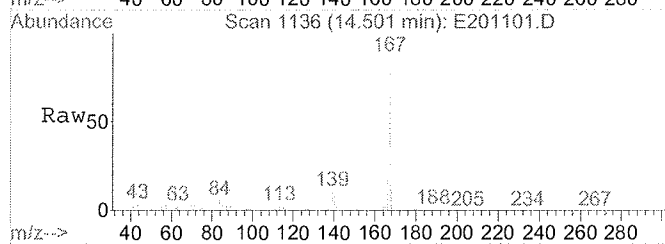
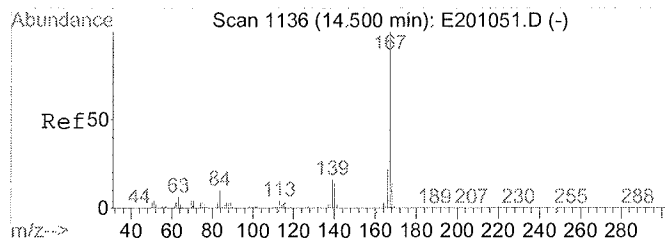
Ion 178.00 (177.70 to 178.70):

Ion 176.00 (175.70 to 176.70):

Ion 179.00 (178.70 to 179.70):

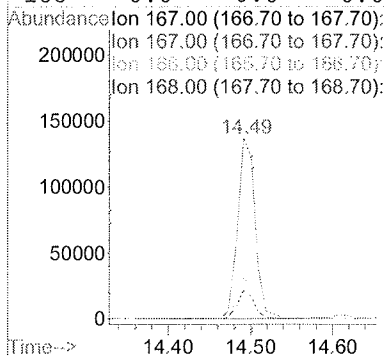
Ion 177.00 (176.70 to 177.70):





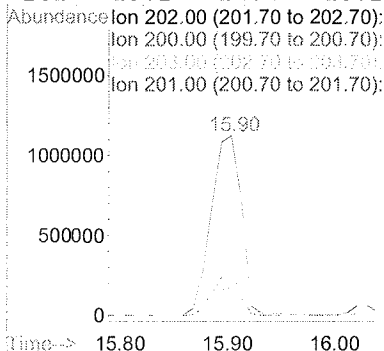
#75
Carbazole
Concen: 3.58 ug/mL
RT: 14.50 min Scan# 1136
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

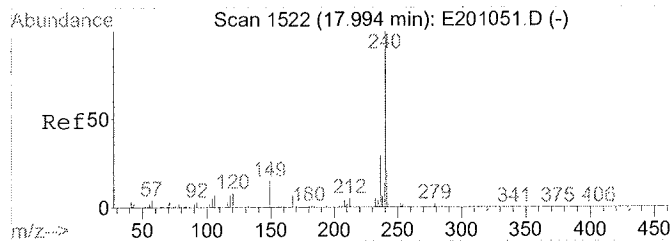
Tgt Ion:167 Resp: 2039284
Ion Ratio Lower Upper
167 100
167 100.0 80.0 120.0
166 0.0 11.2 33.6#
168 0.0 0.0 0.0



#77
Fluoranthene
Concen: 25.92 ug/mL
RT: 15.90 min Scan# 1291
Delta R.T. 0.03 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:202 Resp:22004557
Ion Ratio Lower Upper
202 100
200 21.3 17.1 25.7
203 18.3 14.7 22.1
201 15.2 12.2 18.2

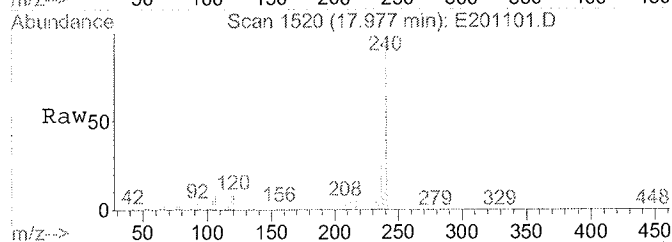




#79
Chrysene-d12
Concen: 40.00 ug/mL
RT: 17.98 min Scan# 1520
Delta R.T. 0.02 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:240 Resp:18243162

Ion	Ratio	Lower	Upper
240	100		
236	28.1	14.1	42.2
240	100.0	50.0	150.0
241	19.9	9.8	29.4



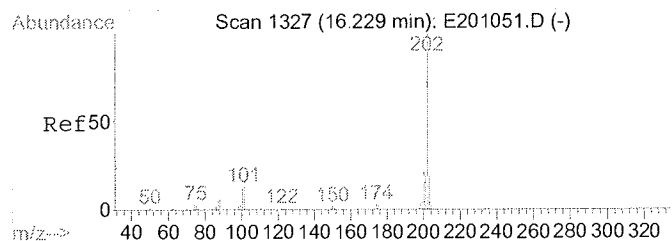
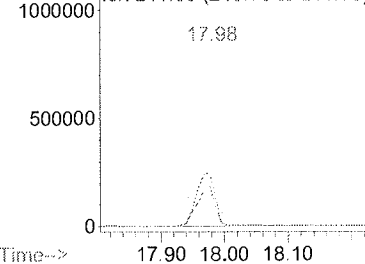
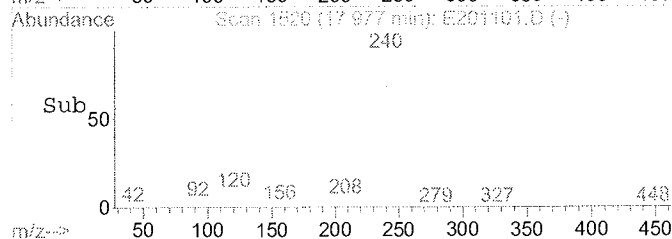
Abundance

Ion 240.00 (239.70 to 240.70):

Ion 236.00 (235.70 to 236.70):

Ion 240.00 (239.70 to 240.70):

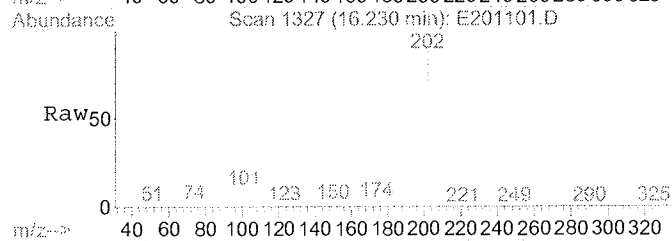
Ion 241.00 (240.70 to 241.70):



#80
Pyrene
Concen: 16.65 ug/mL
RT: 16.23 min Scan# 1327
Delta R.T. 0.03 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion:202 Resp:18296213

Ion	Ratio	Lower	Upper
202	100		
200	22.2	17.1	25.7
203	20.8	15.3	22.9
201	18.0	14.5	21.7

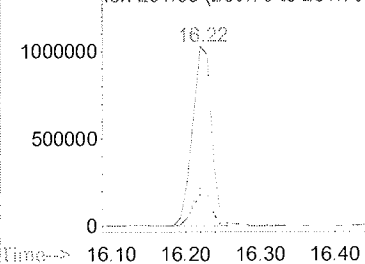
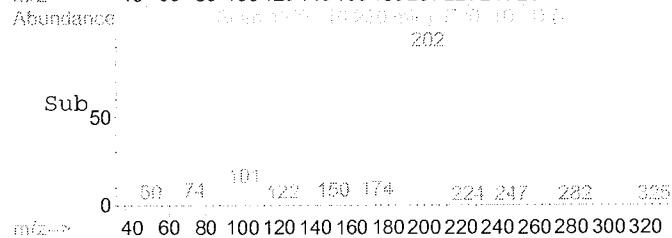


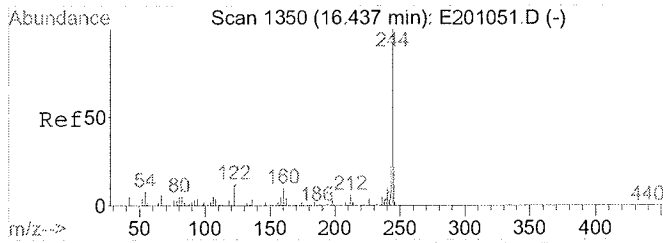
Abundance

Ion 202.00 (201.70 to 202.70):

Ion 200.00 (199.70 to 200.70):

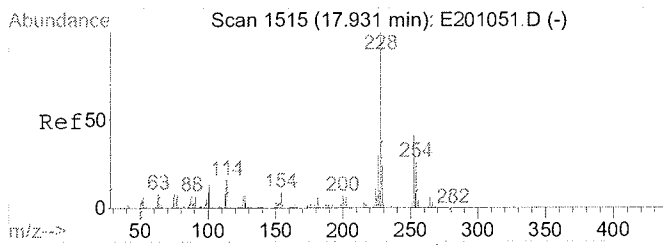
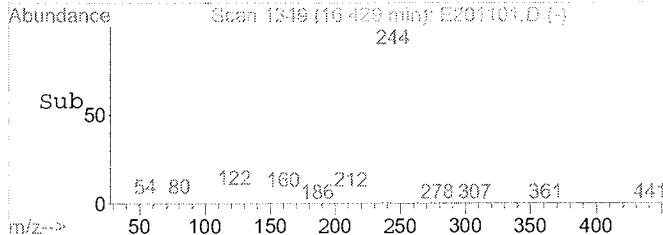
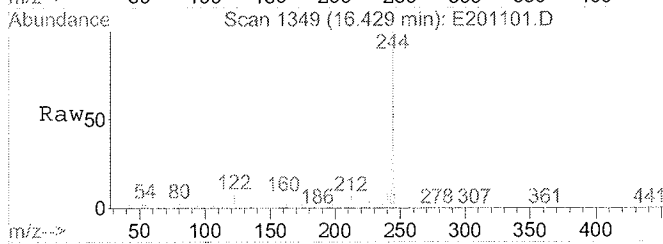
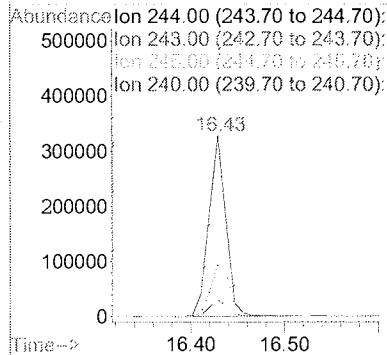
Ion 201.00 (200.70 to 201.70):





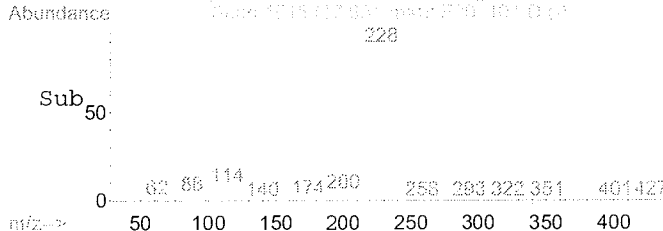
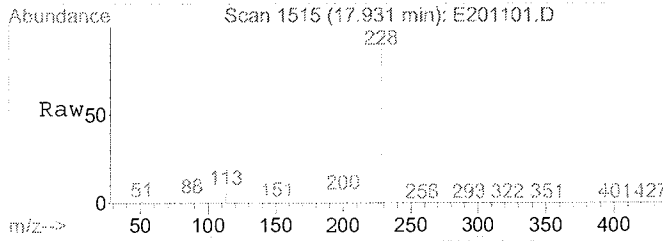
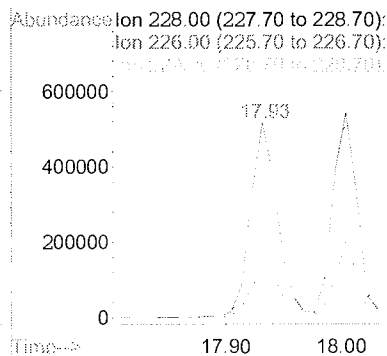
#81
 Terphenyl-d14
 Concen: 16.65 ug/mL
 RT: 16.43 min Scan# 1349
 Delta R.T. 0.01 min
 Lab File: E201101.D
 Acq: 16 Mar 2016 11:37 pm

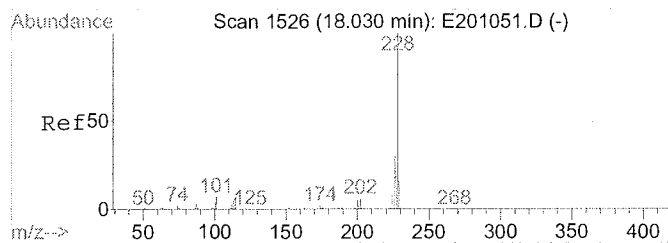
Tgt Ion:244 Resp: 4139787
 Ion Ratio Lower Upper
 244 100
 243 31.9 16.7 25.1#
 245 19.7 17.3 25.9
 240 9.2 8.6 12.8



#84
 Benz (a) anthracene
 Concen: 11.08 ug/mL
 RT: 17.94 min Scan# 1515
 Delta R.T. 0.02 min
 Lab File: E201101.D
 Acq: 16 Mar 2016 11:37 pm

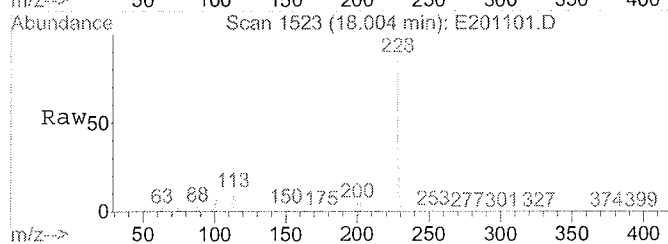
Tgt Ion:228 Resp: 8405737
 Ion Ratio Lower Upper
 228 100
 226 27.6 23.0 34.4
 229 29.1 16.6 24.8#



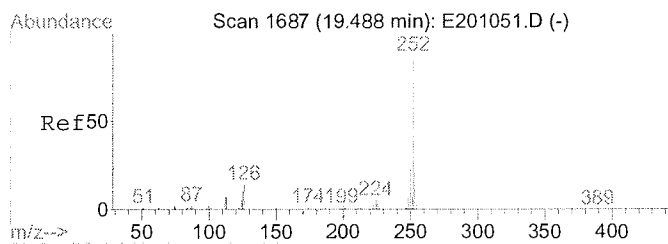
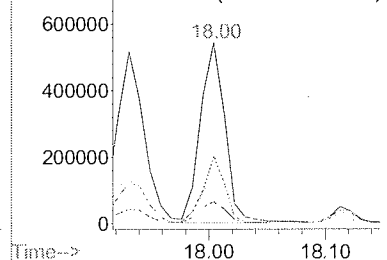
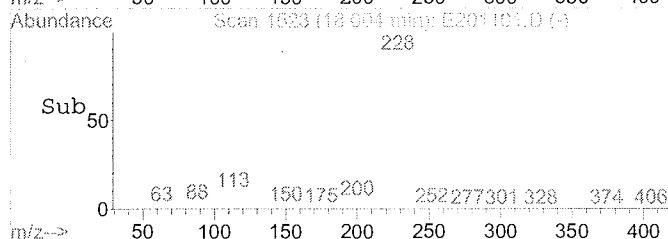


#86
Chrysene
Concen: 9.53 ug/mL
RT: 18.01 min Scan# 1523
Delta R.T. 0.02 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion: 228 Resp: 8078655
Ion Ratio Lower Upper
228 100
226 33.4 25.0 37.4
229 27.3 16.6 24.8#
227 12.8 10.4 15.6

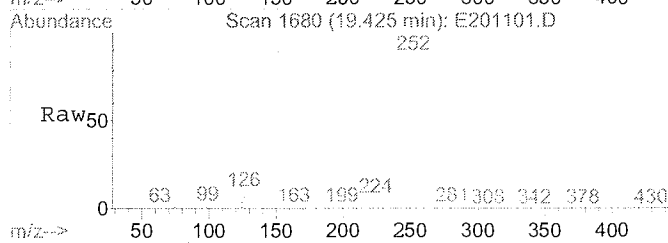


Abundance Ion 228.00 (227.70 to 228.70):
Ion 226.00 (225.70 to 226.70):
Ion 229.00 (228.70 to 229.70):
Ion 227.00 (226.70 to 227.70):

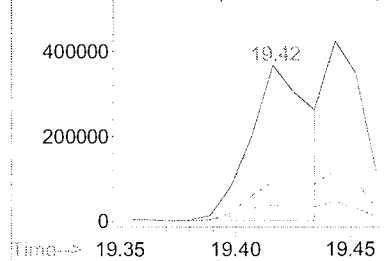
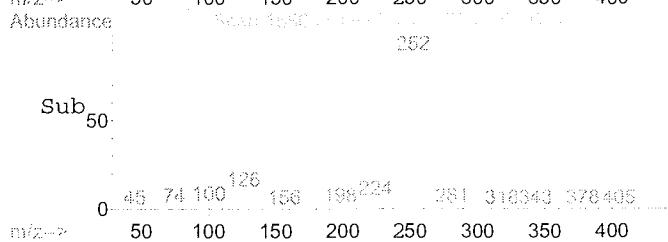


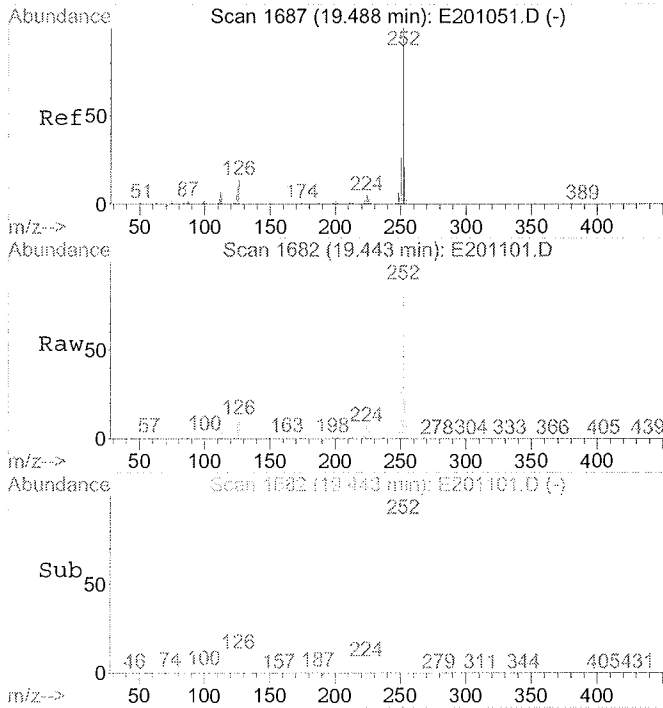
#88
Benzo(b)fluoranthene
Concen: 5.61 ug/mL
RT: 19.42 min Scan# 1680
Delta R.T. 0.03 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion: 252 Resp: 5261088
Ion Ratio Lower Upper
252 100
250 0.0 21.8 32.8#
253 25.6 18.3 27.5
126 11.0 8.6 12.8



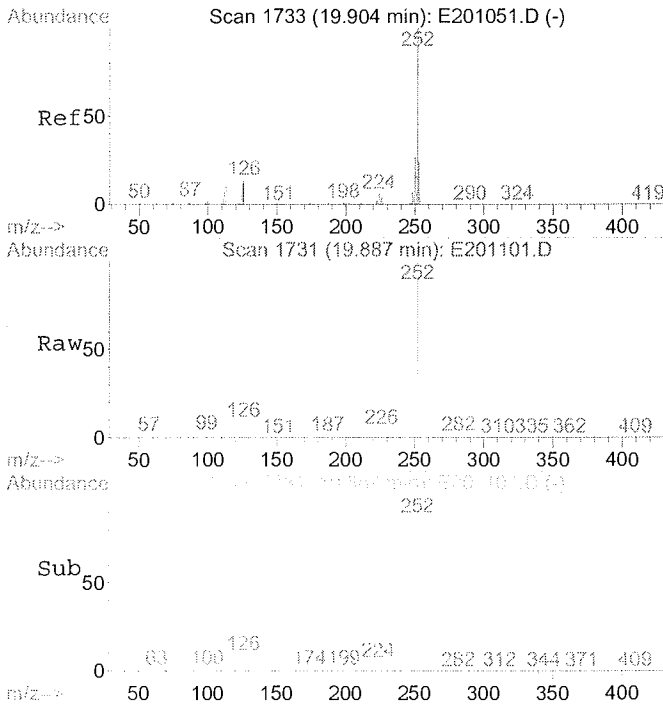
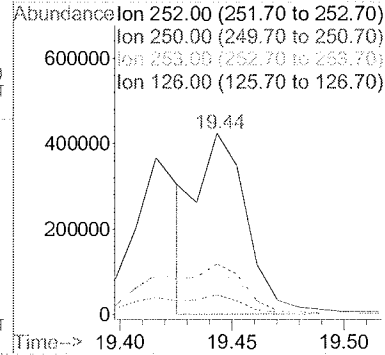
Abundance Ion 252.00 (251.70 to 252.70):
Ion 250.00 (249.70 to 250.70):
Ion 254.00 (252.70 to 255.70):
Ion 126.00 (125.70 to 126.70):





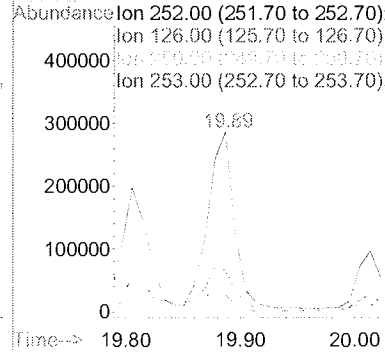
#89
Benzo(k)fluoranthene
Concen: 7.30 ug/mL m
RT: 19.44 min Scan# 1682
Delta R.T. 0.01 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

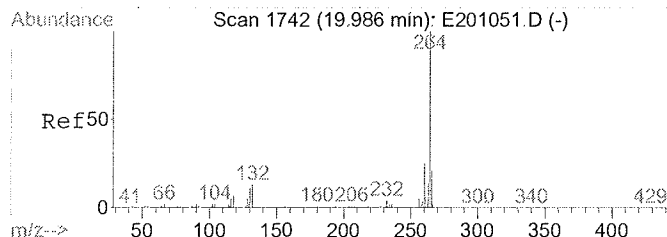
Tgt Ion:252 Resp: 6982983
Ion Ratio Lower Upper
252 100
250 46.6 20.2 30.4#
253 41.8 17.8 26.6#
126 10.1 21.1 31.7#



#90
Benzo(a)pyrene
Concen: 4.85 ug/mL
RT: 19.89 min Scan# 1731
Delta R.T. 0.03 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

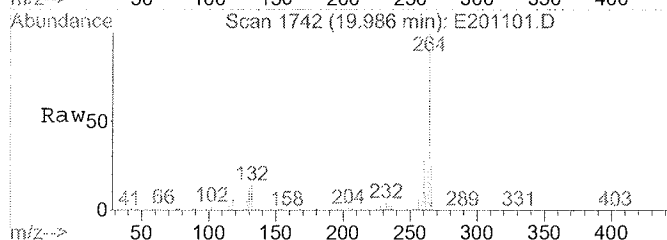
Tgt Ion:252 Resp: 4754485
Ion Ratio Lower Upper
252 100
126 12.0 10.2 15.2
250 28.6 21.8 32.8
253 29.1 18.6 27.8#





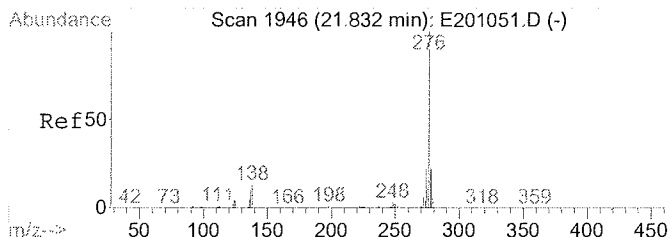
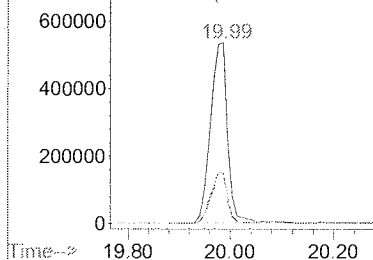
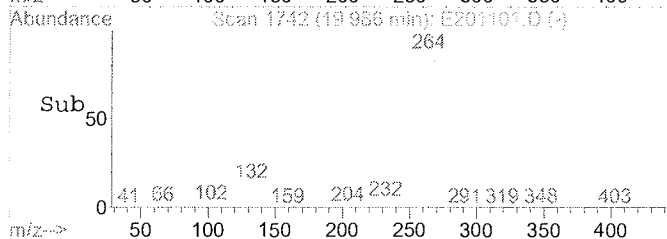
#91
 Perylene-d12
 Concen: 40.00 ug/mL
 RT: 19.98 min Scan# 1742
 Delta R.T. 0.01 min
 Lab File: E201101.D
 Acq: 16 Mar 2016 11:37 pm

Tgt Ion: 264 Resp: 12418278
 Ion Ratio Lower Upper
 264 100
 265 0.0 18.8 28.2#
 260 28.1 23.3 34.9
 260 28.1 20.4 37.8



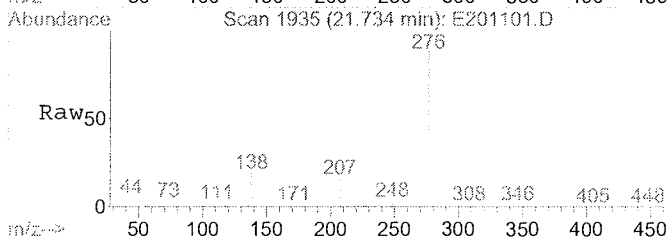
Abundance

Ion 264.00 (263.70 to 264.70):
 Ion 265.00 (264.70 to 265.70):
 Ion 266.00 (265.70 to 266.70):
 Ion 260.00 (259.70 to 260.70):



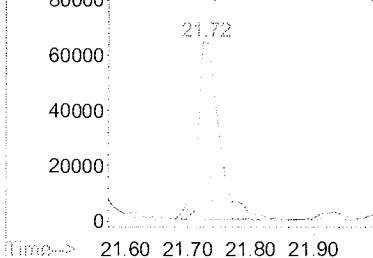
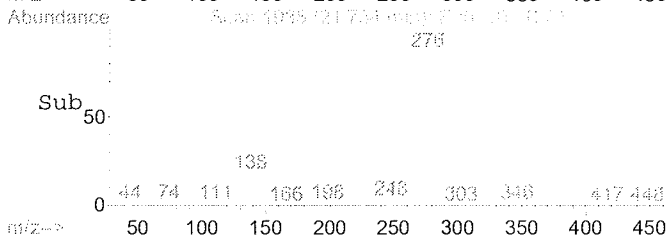
#92
 Indeno(1,2,3-cd)pyrene
 Concen: 2.95 ug/mL
 RT: 21.73 min Scan# 1935
 Delta R.T. 0.02 min
 Lab File: E201101.D
 Acq: 16 Mar 2016 11:37 pm

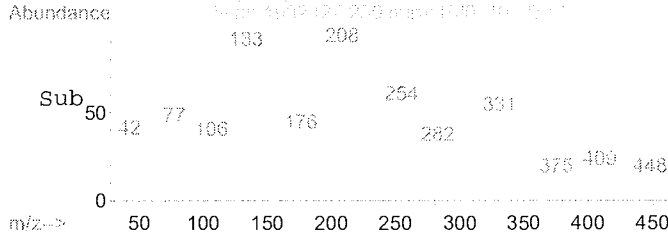
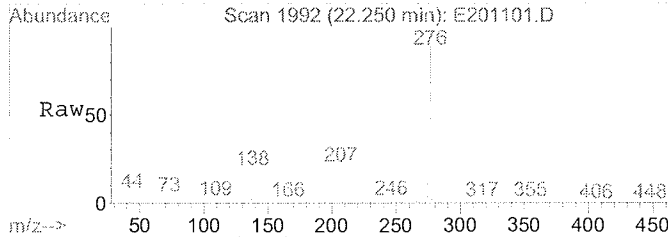
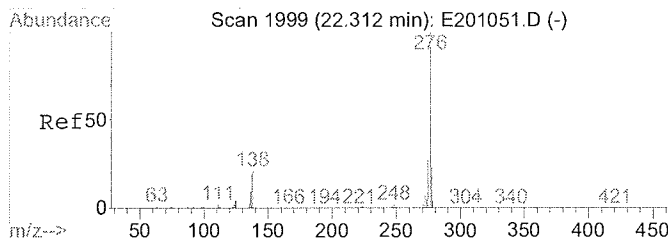
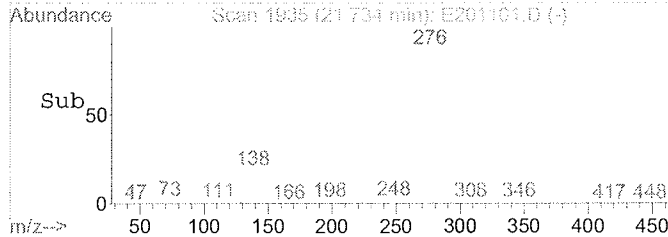
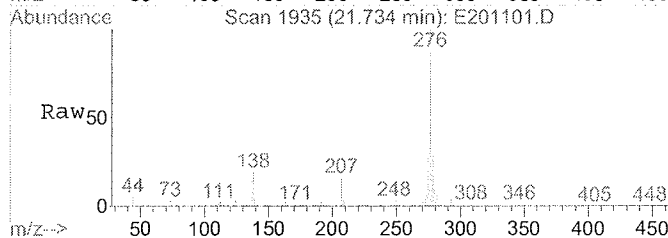
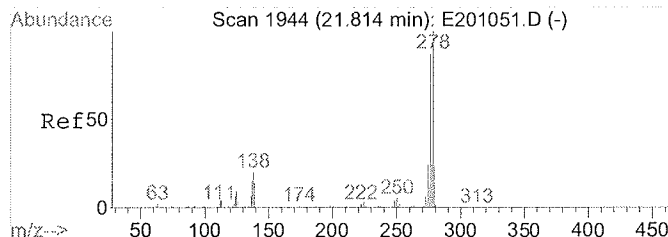
Tgt Ion: 276 Resp: 1580626
 Ion Ratio Lower Upper
 276 100
 277 28.5 21.1 31.7
 274 28.0 21.7 32.5
 275 11.9 8.8 16.4



Abundance

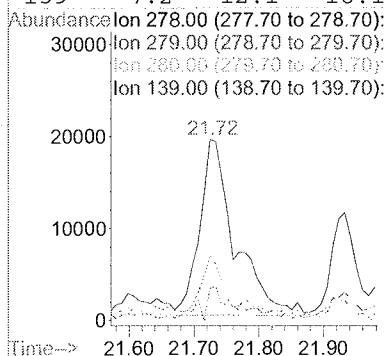
Ion 276.00 (275.70 to 276.70):
 Ion 277.00 (276.70 to 277.70):
 Ion 274.00 (273.70 to 274.70):
 Ion 275.00 (274.70 to 275.70):





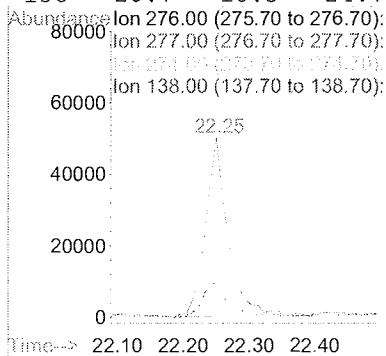
#93
Dibenz (a, h) anthracene
Concen: 1.73 ug/mL
RT: 21.73 min Scan# 1935
Delta R.T. 0.02 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion	Ratio	Lower	Upper
278	100		
279	19.8	20.3	30.5#
280	0.0	0.0	6.4
139	7.2	12.1	18.1#



#94
Benzo (g, h, i) perylene
Concen: 2.63 ug/mL
RT: 22.25 min Scan# 1992
Delta R.T. 0.03 min
Lab File: E201101.D
Acq: 16 Mar 2016 11:37 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
277	26.9	19.9	29.9
274	24.3	0.0	51.4
138	20.7	16.5	24.7



FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-04 File ID: E401242.D
 Sampled: 03/09/16 12:55 Prepared: 03/15/16 14:32 Analyzed: 03/16/16 12:02
 Solids: Preparation: EPA 3510C Initial/Final: 875 mL / 1 mL
 Batch: BC60798 Sequence: Calibration: Instrument: GC/MS BNA

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
92-52-4	1,1'-Biphenyl	1	5.71	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1	5.71	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	1	5.71	U
58-90-2	2,3,4,6-Tetrachlorophenol	1	5.71	U
95-95-4	2,4,5-Trichlorophenol	1	5.71	U
88-06-2	2,4,6-Trichlorophenol	1	5.71	U
120-82-1	1,2,4-Trichlorobenzene	1	5.71	U
120-83-2	2,4-Dichlorophenol	1	5.71	U
105-67-9	2,4-Dimethylphenol	1	5.71	U
51-28-5	2,4-Dinitrophenol	1	5.71	U
121-14-2	2,4-Dinitrotoluene	1	5.71	U
95-50-1	1,2-Dichlorobenzene	1	5.71	U
606-20-2	2,6-Dinitrotoluene	1	16.7	
91-58-7	2-Chloronaphthalene	1	5.71	U
95-57-8	2-Chlorophenol	1	5.71	U
91-57-6	2-Methylnaphthalene	1	5.71	U
541-73-1	1,3-Dichlorobenzene	1	5.71	U
95-48-7	2-Methylphenol	1	5.71	U
88-74-4	2-Nitroaniline	1	5.71	U
106-46-7	1,4-Dichlorobenzene	1	5.71	U
88-75-5	2-Nitrophenol	1	5.71	U
65794-96-9	3- & 4-Methylphenols	1	5.71	U
91-94-1	3,3'-Dichlorobenzidine	1	5.71	U
99-09-2	3-Nitroaniline	1	5.71	U
534-52-1	4,6-Dinitro-2-methylphenol	1	5.71	U
101-55-3	4-Bromophenyl phenyl ether	1	5.71	U
59-50-7	4-Chloro-3-methylphenol	1	5.71	U
106-47-8	4-Chloroaniline	1	5.71	U
7005-72-3	4-Chlorophenyl phenyl ether	1	5.71	U
100-01-6	4-Nitroaniline	1	5.71	U
100-02-7	4-Nitrophenol	1	5.71	U
83-32-9	Acenaphthene	1	0.0571	U
208-96-8	Acenaphthylene	1	0.0571	U
98-86-2	Acetophenone	1	5.71	U
62-53-3	Aniline	1	5.71	U
120-12-7	Anthracene	1	0.0571	U
1912-24-9	Atrazine	1	0.571	U
100-52-7	Benzaldehyde	1	5.71	U
92-87-5	Benzidine	1	22.9	U
56-55-3	Benzo(a)anthracene	1	0.0571	U

FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-04 File ID: E500696.D
 Sampled: 03/09/16 12:55 Prepared: 03/15/16 14:32 Analyzed: 03/16/16 12:02
 Solids: Preparation: EPA 3510C Initial/Final: 875 mL / 1 mL
 Batch: BC60798 Sequence: Calibration: Instrument: BNA #5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
50-32-8	Benzo(a)pyrene	1	0.0571	U
205-99-2	Benzo(b)fluoranthene	1	0.0571	U
191-24-2	Benzo(g,h,i)perylene	1	0.0571	U
207-08-9	Benzo(k)fluoranthene	1	0.0571	U
65-85-0	Benzoic acid	1	57.1	U
100-51-6	Benzyl alcohol	1	5.71	U
85-68-7	Benzyl butyl phthalate	1	5.71	U
111-91-1	Bis(2-chloroethoxy)methane	1	5.71	U
111-44-4	Bis(2-chloroethyl)ether	1	5.71	U
108-60-1	Bis(2-chloroisopropyl)ether	1	5.71	U
117-81-7	Bis(2-ethylhexyl)phthalate	1	0.571	U
105-60-2	Caprolactam	1	5.71	U
86-74-8	Carbazole	1	5.71	U
87-68-3	Hexachlorobutadiene	1	0.571	U
218-01-9	Chrysene	1	0.0571	U
53-70-3	Dibenzo(a,h)anthracene	1	0.0571	U
132-64-9	Dibenzofuran	1	5.71	U
84-66-2	Diethyl phthalate	1	5.71	U
131-11-3	Dimethyl phthalate	1	5.66	J
84-74-2	Di-n-butyl phthalate	1	5.71	U
117-84-0	Di-n-octyl phthalate	1	5.71	U
91-20-3	Naphthalene	1	0.0571	U
206-44-0	Fluoranthene	1	0.0571	U
86-73-7	Fluorene	1	0.0571	U
118-74-1	Hexachlorobenzene	1	0.0229	U
77-47-4	Hexachlorocyclopentadiene	1	5.71	U
67-72-1	Hexachloroethane	1	0.571	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.0571	U
78-59-1	Isophorone	1	5.71	U
98-95-3	Nitrobenzene	1	0.286	U
62-75-9	N-Nitrosodimethylamine	1	0.571	U
621-64-7	N-nitroso-di-n-propylamine	1	7.12	
86-30-6	N-Nitrosodiphenylamine	1	5.71	U
87-86-5	Pentachlorophenol	1	0.286	U
85-01-8	Phenanthrene	1	0.0571	U
108-95-2	Phenol	1	5.71	U
129-00-0	Pyrene	1	0.0571	U
110-86-1	Pyridine	1	5.71	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q

FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water Laboratory ID: 16C0466-04 File ID: E401242.D
Sampled: 03/09/16 12:55 Prepared: 03/15/16 14:32 Analyzed: 03/16/16 12:02
Solids: Preparation: EPA 3510C Initial/Final: 875 mL / 1 mL
Batch: BC60798 Sequence: Calibration: Instrument: GC/MS BNA

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	85.9	13.6	15.8	12 - 64	
Phenol-d5	85.8	8.34	9.72	10 - 82	*
Nitrobenzene-d5	57.4	44.0	76.8	12 - 96	
2-Fluorobiphenyl	57.4	44.5	77.5	16 - 84	
2,4,6-Tribromophenol	85.9	41.8	48.7	15 - 104	
Terphenyl-d14	57.1	55.5	97.1	15 - 106	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\031616\E401242.D

Vial: 12

Acq On : 16 Mar 2016 3:13 pm

Operator: KH

Sample : 16C0466-04

Inst : GC/MS BNA

Misc : QBSV4031616A 1X 8270 COMP SIMSCAN

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 9:44 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.95	152	5467389	40.00	ug/mL	0.00
20) Naphthalene-d8	10.57	136	21800075	40.00	ug/mL	-0.01
38) Acenaphthene-d10	12.99	164	11628033	40.00	ug/mL	-0.02
61) Phenanthrene-d10	15.06	188	18563538	40.00	ug/mL	-0.03
78) Chrysene-d12	18.85	240	18377594	40.00	ug/mL	-0.03
90) Perylene-d12	20.95	264	15676046	40.00	ug/mL	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	7.48	112	2168582m	11.88	ug/mL	-0.16
Spiked Amount	75.000	Range	15 - 87	Recovery	=	15.84%
5) Phenol-d5	8.62	99	1596590m	7.30	ug/mL	-0.10
Spiked Amount	75.000	Range	10 - 100	Recovery	=	9.73%#
21) Nitrobenzene-d5	9.69	82	7303304	38.53	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	77.06%
43) 2-Fluorobiphenyl	12.03	172	12318126	38.91	ug/mL	-0.01
Spiked Amount	50.000	Range	29 - 120	Recovery	=	77.82%
66) 2,4,6-Tribromophenol	14.13	330	3315508	36.59	ug/mL	-0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	48.79%
80) Terphenyl-d14	17.32	244	13293421	48.57	ug/mL	-0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	97.14%

Target Compounds

					Qvalue
17) N-Nitroso-di-n-propylamine	9.69	70	1015765	6.23	ug/mL# 46
47) Dimethylphthalate	12.99	163	2099050	4.95	ug/mL# 1
48) 2,6-Dinitrotoluene	12.99	165	1519548	14.63	ug/mL# 18
77) Benzidine	17.32	184	189015	1.77	ug/mL# 1

 (#) = qualifier out of range (m) = manual integration

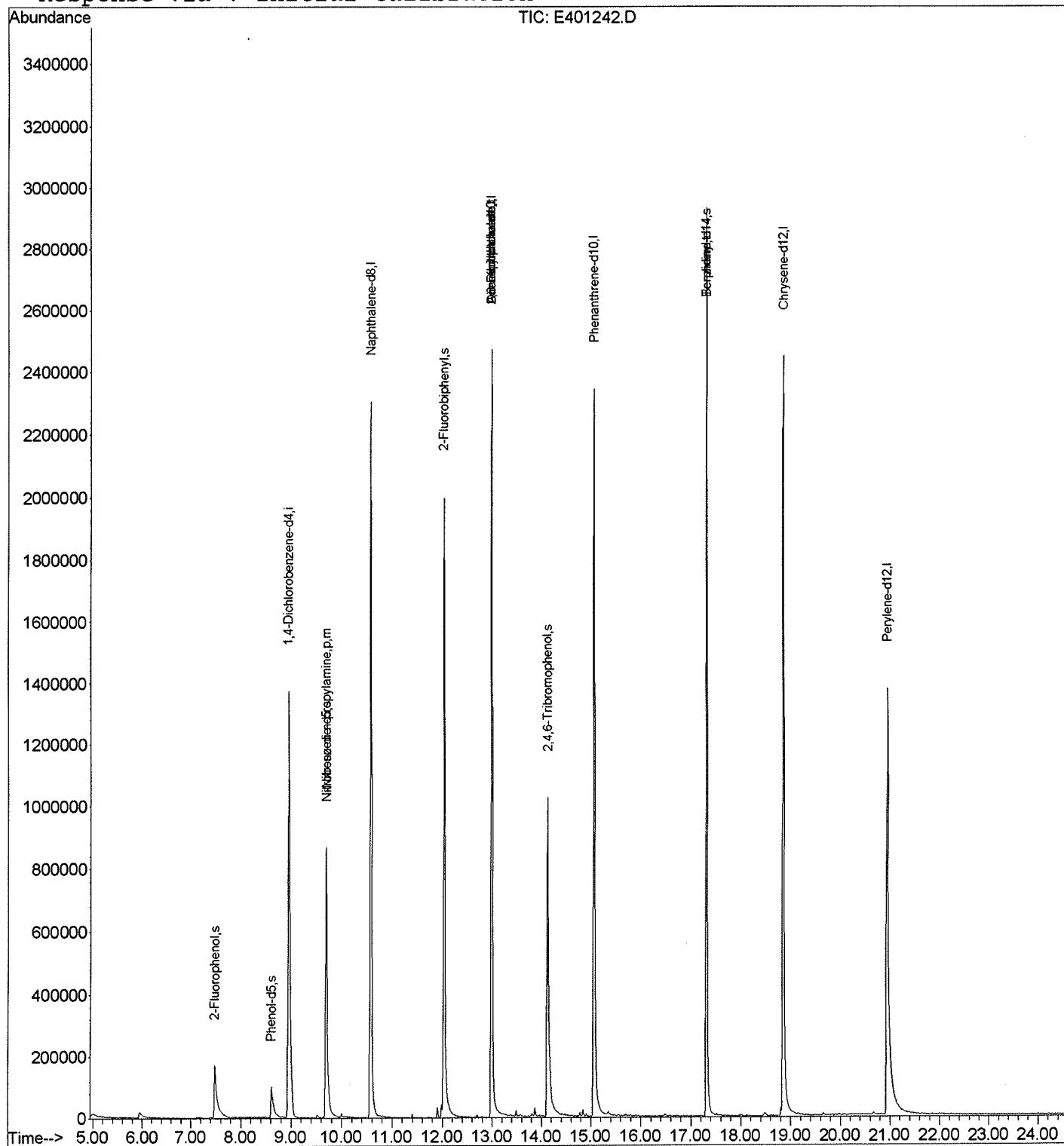
Quantitation Report

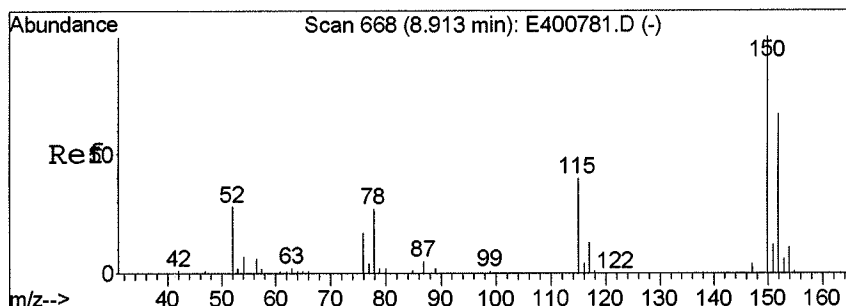
Data File : C:\HPCHEM\1\DATA\031616\E401242.D
 Acq On : 16 Mar 2016 3:13 pm
 Sample : 16C0466-04
 Misc : QBSV4031616A 1X 8270 COMP SIMSCAN
 MS Integration Params: EVENTS.E
 Quant Time: Mar 17 9:44 2016

Vial: 12
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M49A.RES

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Initial Calibration

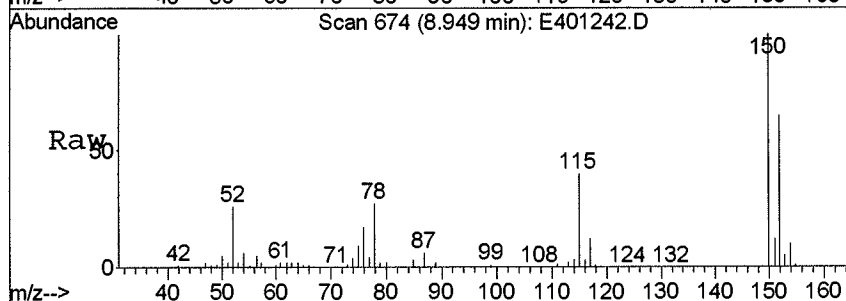




#1
 1,4-Dichlorobenzene-d4
 Concen: 40.00 ug/mL
 RT: 8.95 min Scan# 674
 Delta R.T. -0.01 min
 Lab File: E401242.D
 Acq: 16 Mar 2016 3:13 pm

Tgt Ion:152 Resp: 5467389

Ion	Ratio	Lower	Upper
152	100		
150	155.0	80.2	240.5
115	61.8	33.1	99.3
78	41.6	22.5	67.5



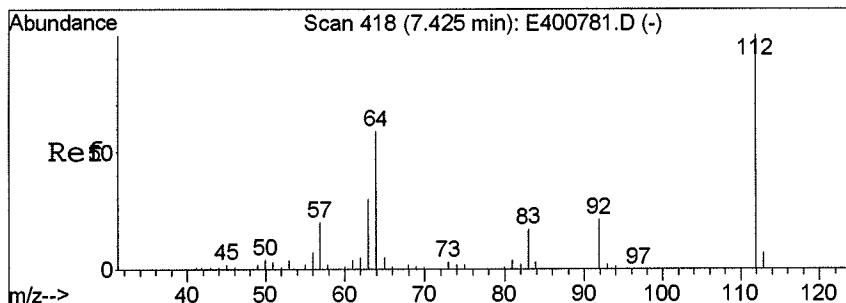
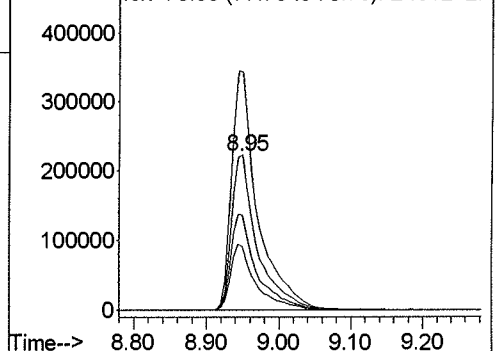
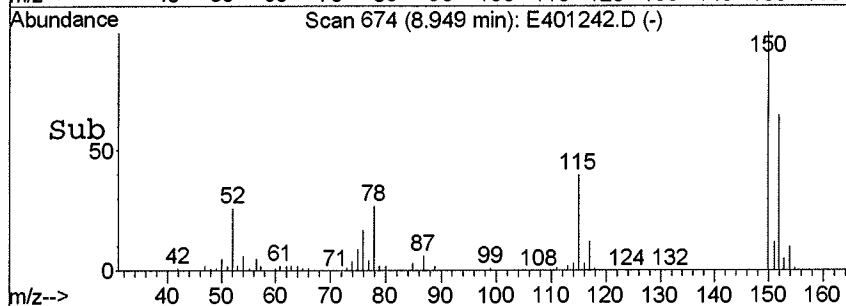
Abundance

Ion 152.00 (151.70 to 152.70): E40124

Ion 150.00 (149.70 to 150.70): E40124

Ion 115.00 (114.70 to 115.70): E40124

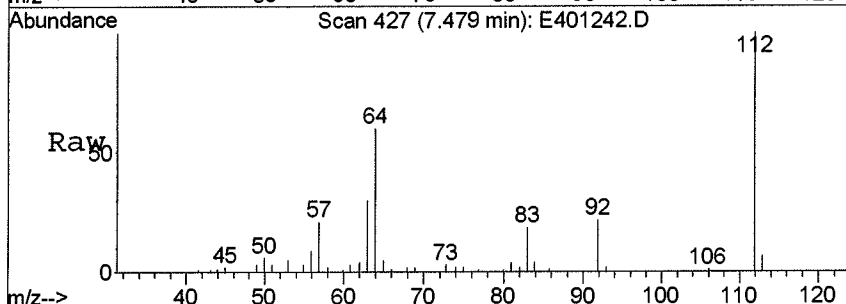
Ion 78.00 (77.70 to 78.70): E401242.D



#4
 2-Fluorophenol
 Concen: N.D. ug/mL m
 RT: 7.48 min Scan# 427
 Delta R.T. -0.16 min
 Lab File: E401242.D
 Acq: 16 Mar 2016 3:13 pm

Tgt Ion:112 Resp: 2168582

Ion	Ratio	Lower	Upper
112	100		
64	43.3	41.5	62.3
92	14.7	15.8	23.8#

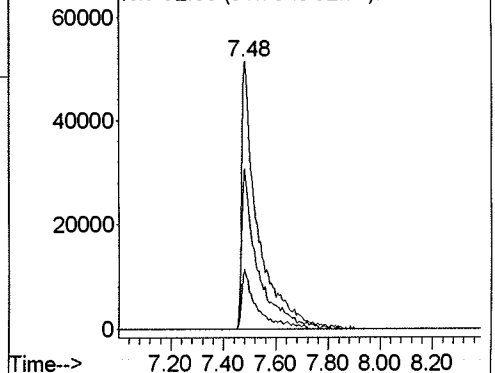
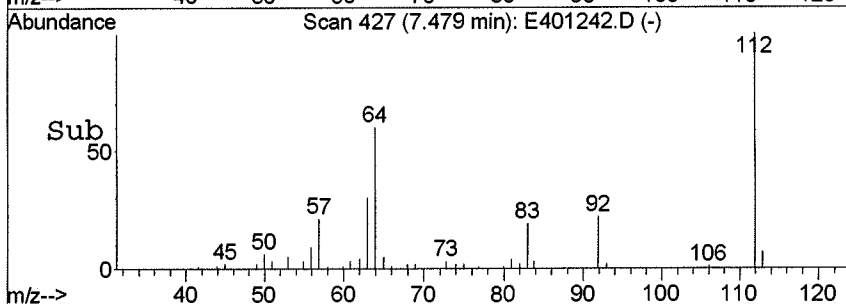


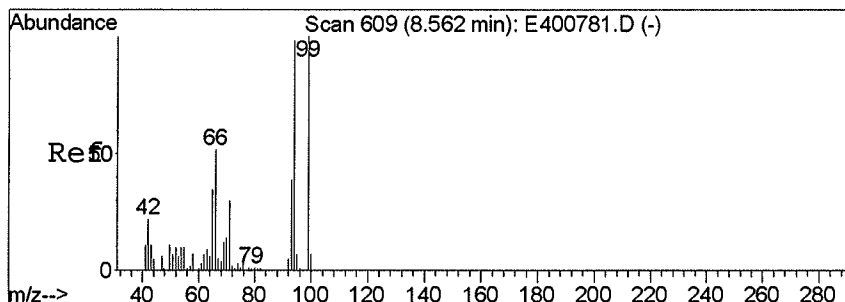
Abundance

Ion 112.00 (111.70 to 112.70): E40124

Ion 64.00 (63.70 to 64.70): E401242.D

Ion 92.00 (91.70 to 92.70): E401242.D





#5

Phenol-d5

Concen: N.D. ug/mL m

RT: 8.62 min Scan# 618

Delta R.T. -0.10 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

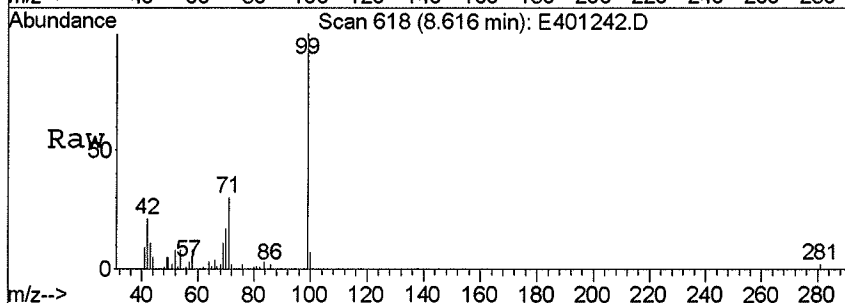
Tgt Ion: 99 Resp: 1596590

Ion Ratio Lower Upper

99 100

71 21.8 26.3 39.5#

70 11.4 12.4 18.6#

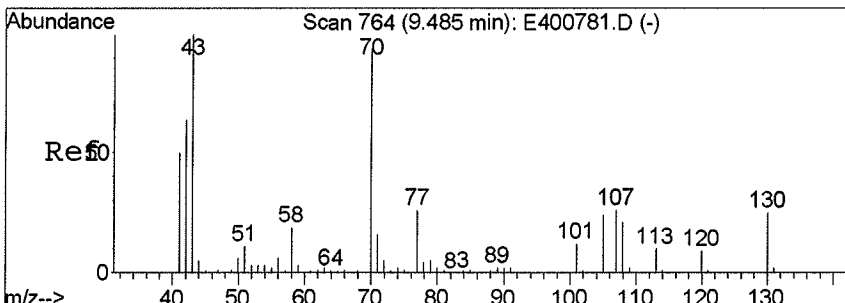
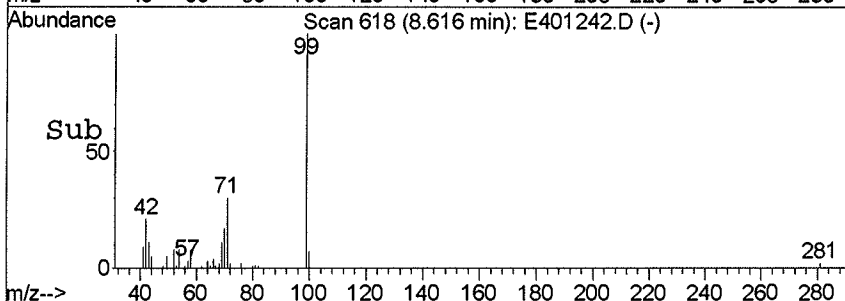
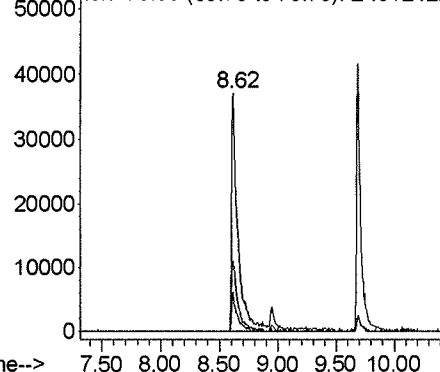


Abundance

Ion 99.00 (98.70 to 99.70): E401242.D

Ion 71.00 (70.70 to 71.70): E401242.D

Ion 70.00 (69.70 to 70.70): E401242.D



#17

N-Nitroso-di-n-propylamine

Concen: 6.23 ug/mL

RT: 9.69 min Scan# 799

Delta R.T. 0.17 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

Tgt Ion: 70 Resp: 1015765

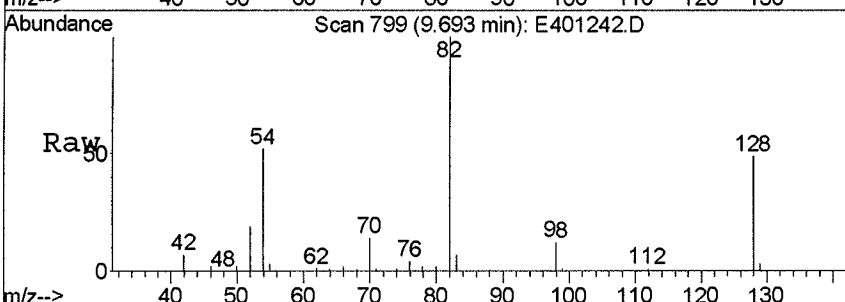
Ion Ratio Lower Upper

70 100

43 3.9 69.5 104.3#

42 55.7 49.4 74.0

101 0.0 9.8 14.6#



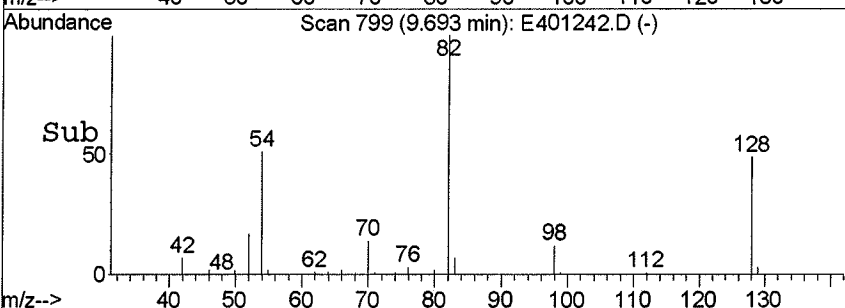
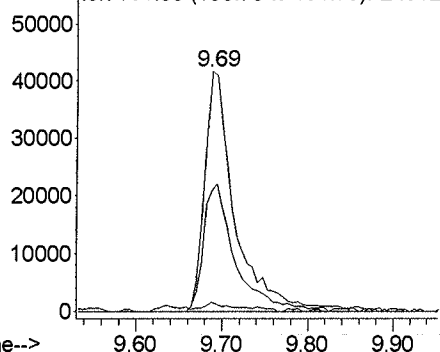
Abundance

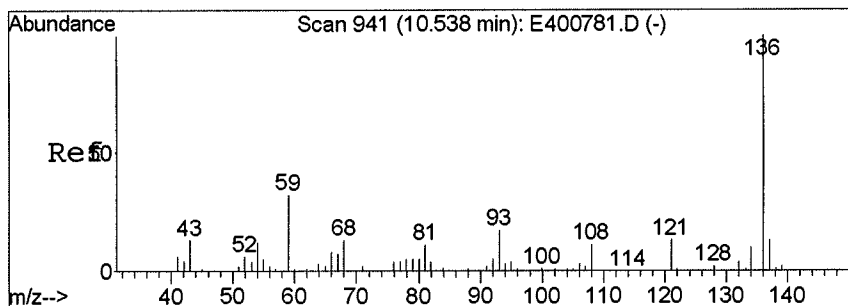
Ion 70.00 (69.70 to 70.70): E401242.D

Ion 43.00 (42.70 to 43.70): E401242.D

Ion 42.00 (41.70 to 42.70): E401242.D

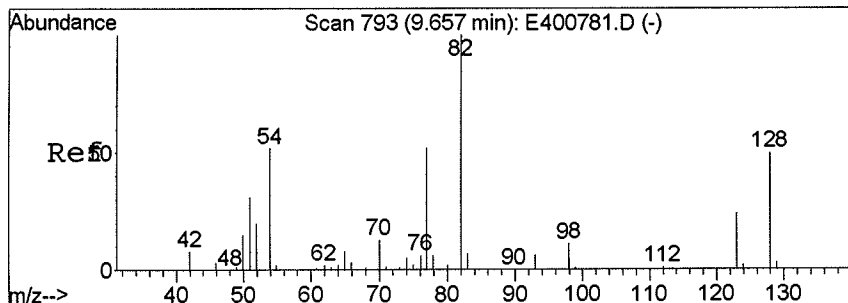
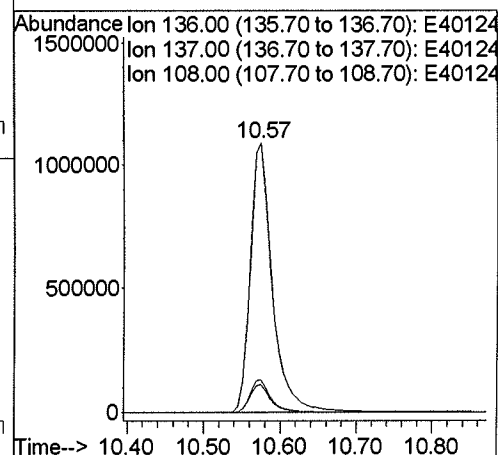
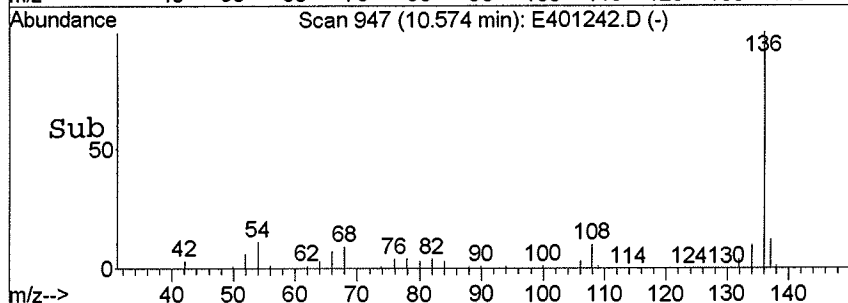
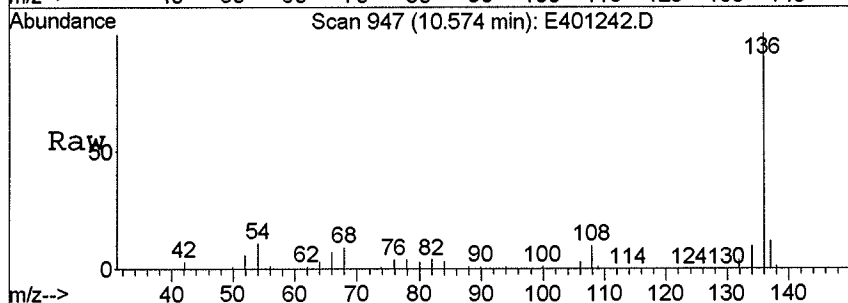
Ion 101.00 (100.70 to 101.70): E401242.D





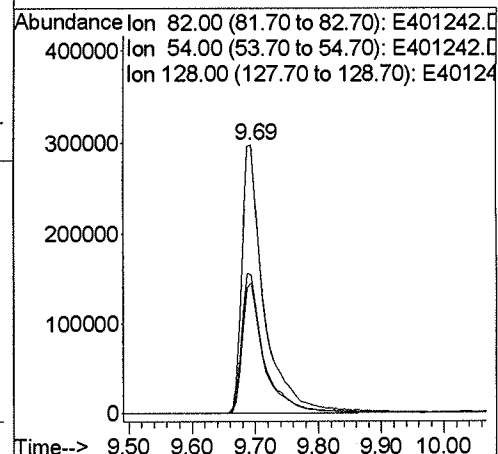
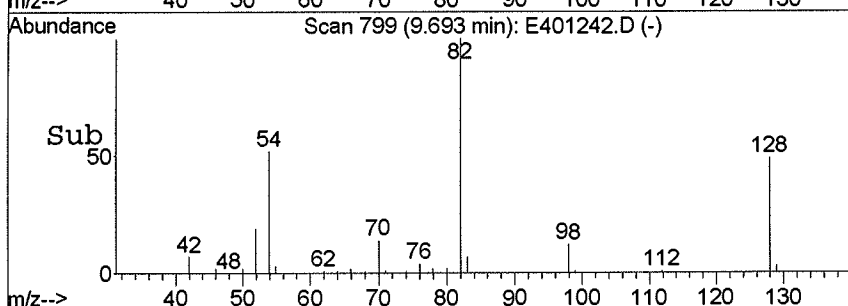
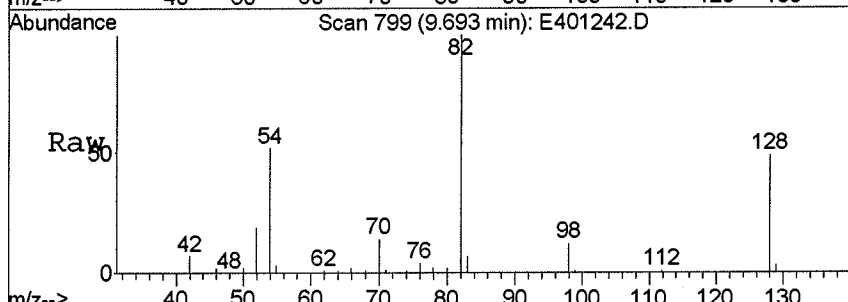
#20
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 10.57 min Scan# 947
Delta R.T. -0.01 min
Lab File: E401242.D
Acq: 16 Mar 2016 3:13 pm

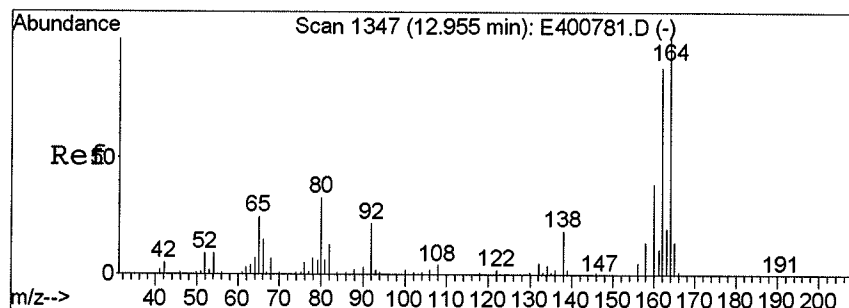
Tgt Ion: 136 Resp: 21800075
Ion Ratio Lower Upper
136 100
137 11.5 6.2 18.4
108 9.9 6.2 18.4



#21
Nitrobenzene-d5
Concen: 40.00 ug/mL
RT: 9.69 min Scan# 799
Delta R.T. -0.00 min
Lab File: E401242.D
Acq: 16 Mar 2016 3:13 pm

Tgt Ion: 82 Resp: 7303304
Ion Ratio Lower Upper
82 100
54 52.6 36.5 54.7
128 48.1 40.9 61.3





#38

Acenaphthene-d10

Concen: 40.00 ug/mL

RT: 12.99 min Scan# 1353

Delta R.T. -0.02 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

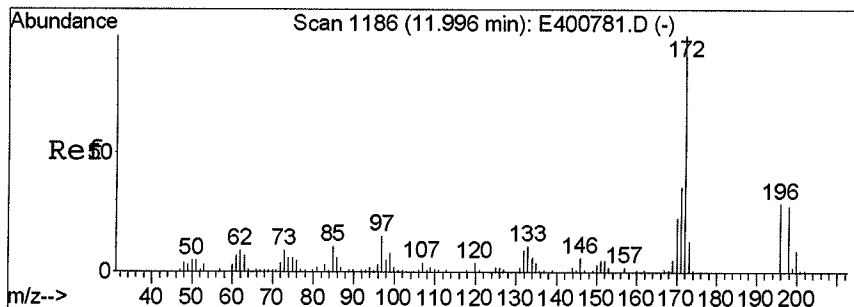
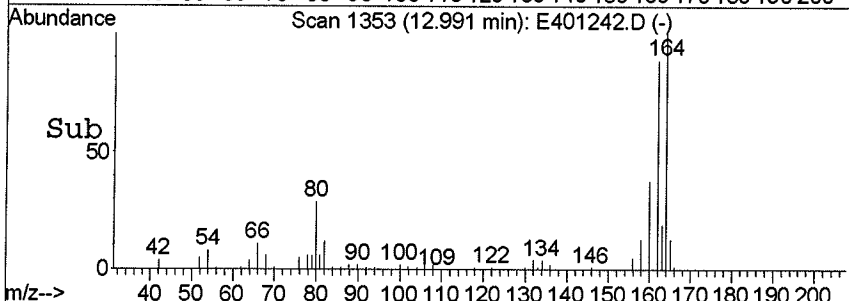
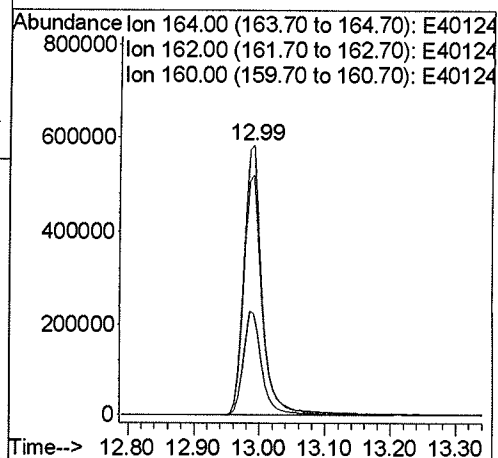
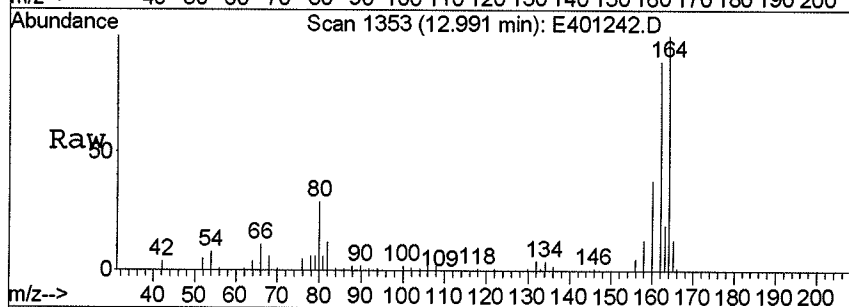
Tgt Ion:164 Resp:11628033

Ion Ratio Lower Upper

164 100

162 89.8 45.0 135.0

160 39.5 20.2 60.6



#43

2-Fluorobiphenyl

Concen: N.D. ug/mL

RT: 12.03 min Scan# 1192

Delta R.T. -0.01 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

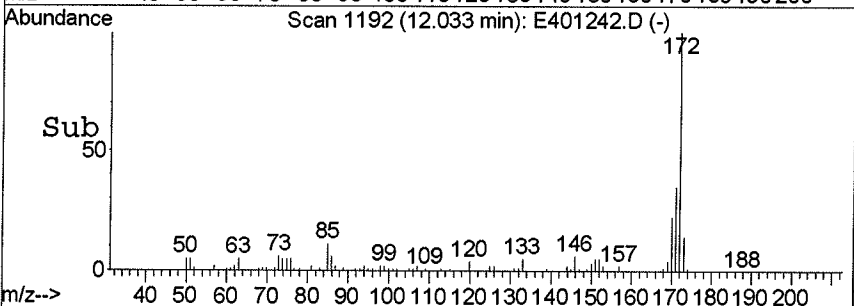
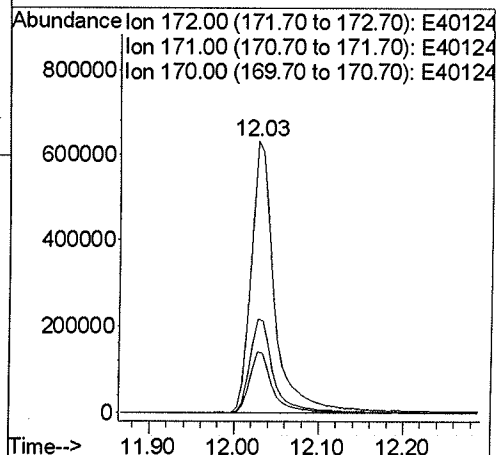
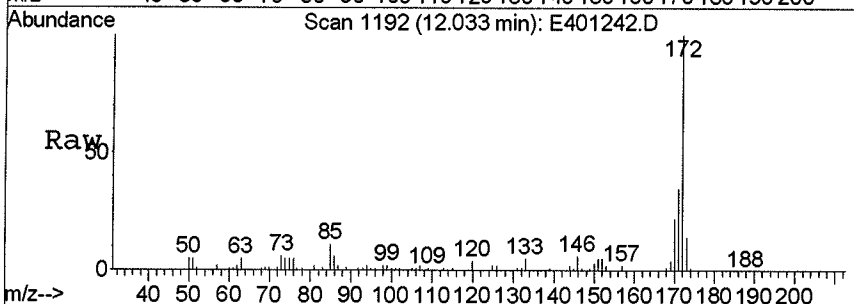
Tgt Ion:172 Resp:12318126

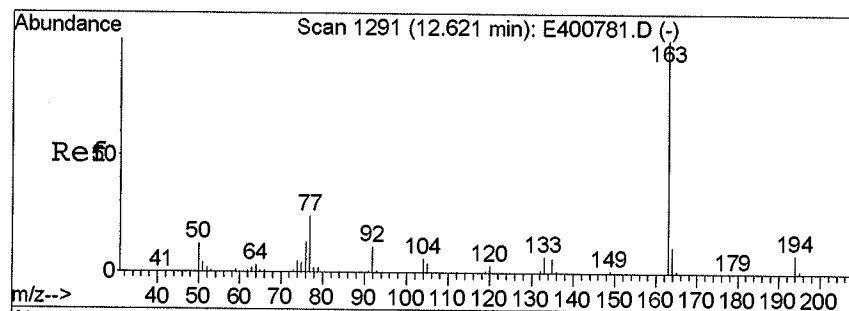
Ion Ratio Lower Upper

172 100

171 35.0 29.2 43.8

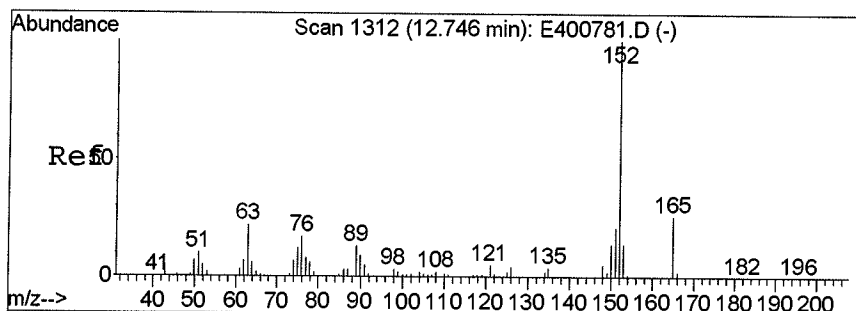
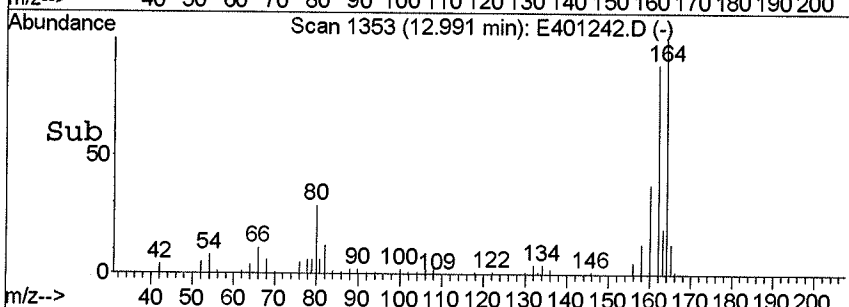
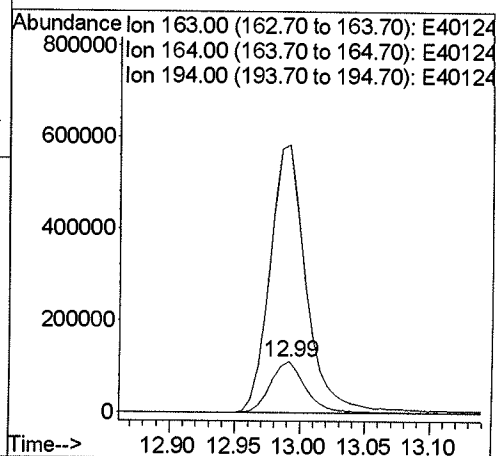
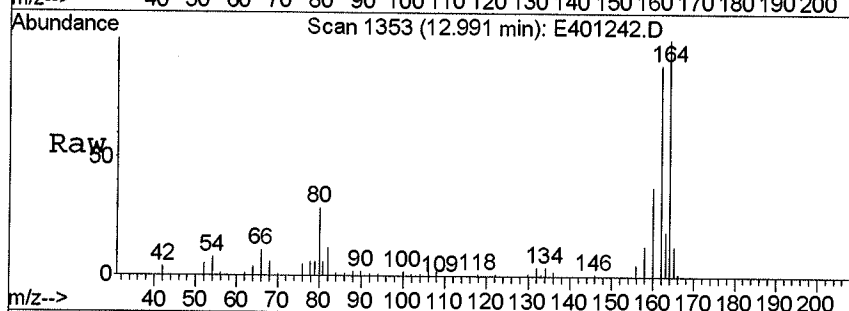
170 22.0 18.6 28.0





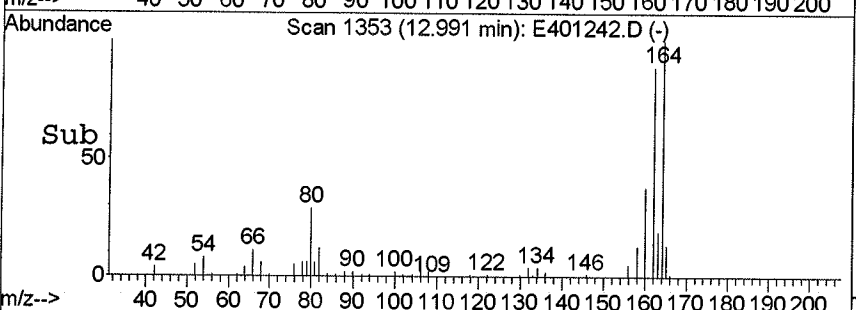
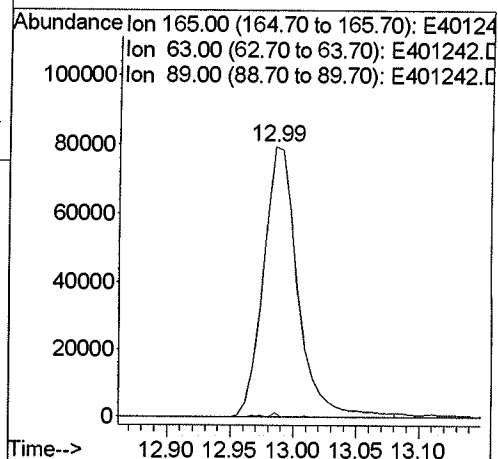
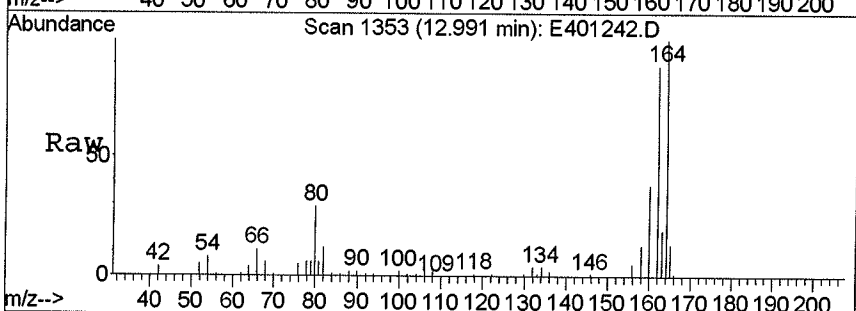
#47
Dimethylphthalate
Concen: 4.95 ug/mL
RT: 12.99 min Scan# 1353
Delta R.T. 0.32 min
Lab File: E401242.D
Acq: 16 Mar 2016 3:13 pm

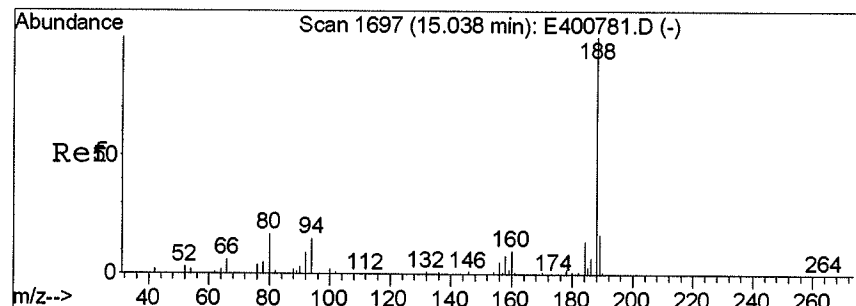
Tgt Ion:163 Resp: 2099050
Ion Ratio Lower Upper
163 100
164 533.2 8.7 13.1#
194 0.0 4.4 10.2#



#48
2,6-Dinitrotoluene
Concen: 14.63 ug/mL
RT: 12.99 min Scan# 1353
Delta R.T. 0.19 min
Lab File: E401242.D
Acq: 16 Mar 2016 3:13 pm

Tgt Ion:165 Resp: 1519548
Ion Ratio Lower Upper
165 100
63 0.1 61.6 92.4#
89 0.3 39.6 59.4#





#61

Phenanthrene-d10

Concen: 40.00 ug/mL

RT: 15.06 min Scan# 1701

Delta R.T. -0.03 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

Tgt Ion:188 Resp:18563538

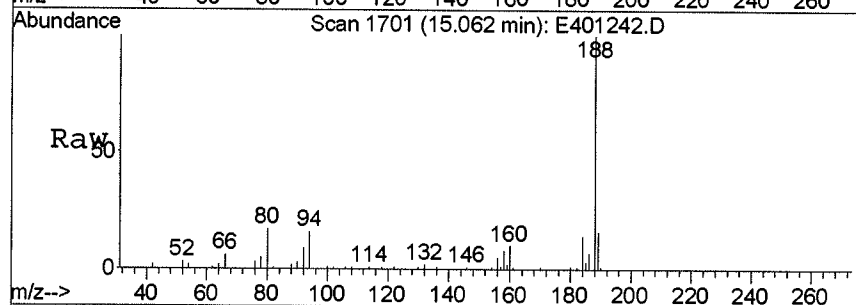
Ion Ratio Lower Upper

188 100

187 0.1 0.0 0.0#

189 15.9 8.3 25.1

160 9.5 5.6 16.8



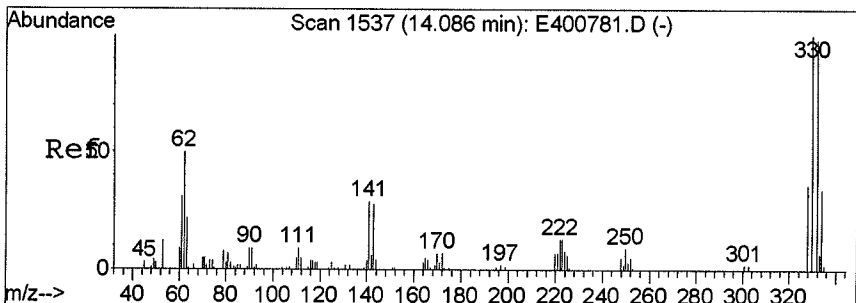
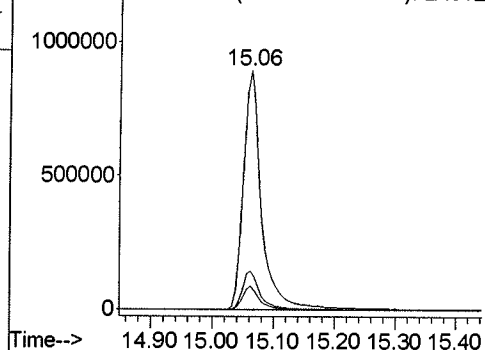
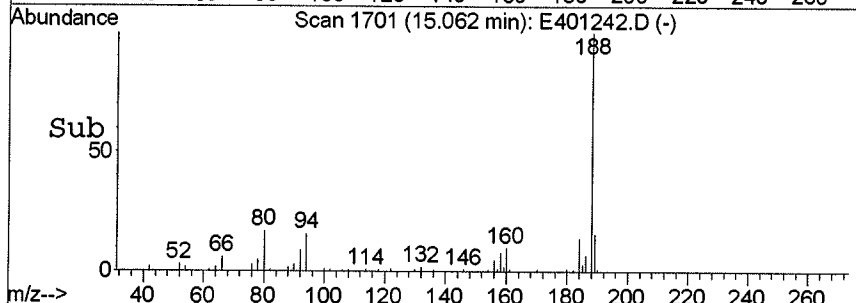
Abundance

Ion 188.00 (187.70 to 188.70): E40124

Ion 187.00 (186.70 to 187.70): E40124

Ion 189.00 (188.70 to 189.70): E40124

Ion 160.00 (159.70 to 160.70): E40124



#66

2,4,6-Tribromophenol

Concen: Below ug/mL

RT: 14.13 min Scan# 1544

Delta R.T. -0.02 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

Tgt Ion:330 Resp: 3315508

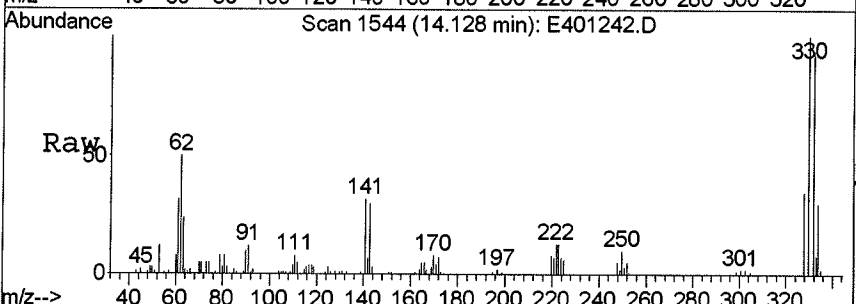
Ion Ratio Lower Upper

330 100

332 97.1 77.9 116.9

328 34.0 27.6 41.4

334 30.8 25.4 38.0



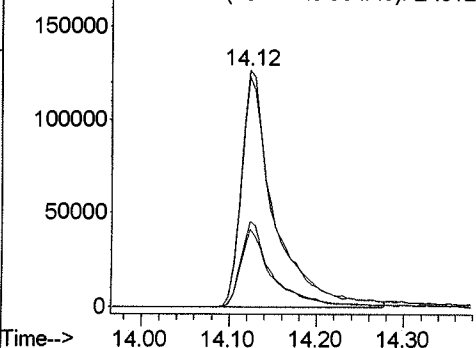
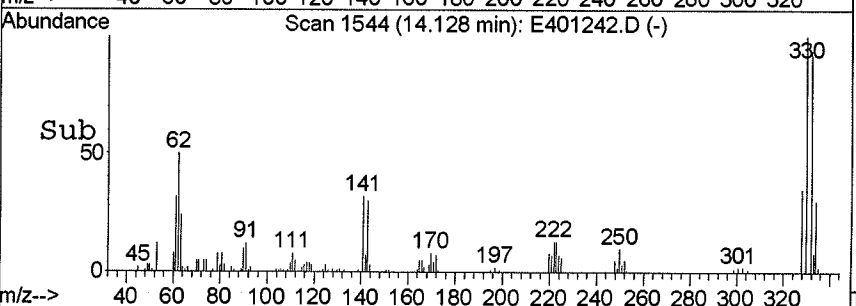
Abundance

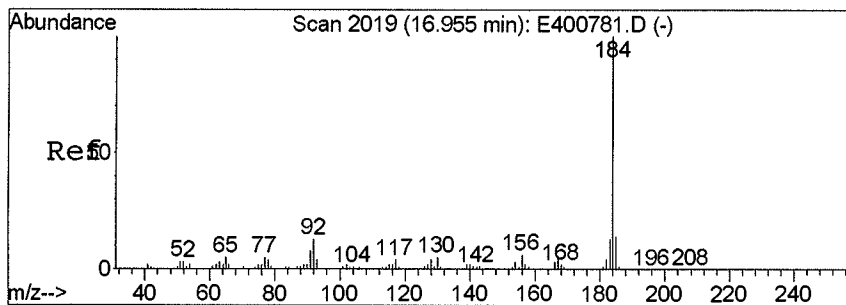
Ion 329.65 (329.35 to 330.35): E40124

Ion 331.75 (331.45 to 332.45): E40124

Ion 327.75 (327.45 to 328.45): E40124

Ion 333.75 (333.45 to 334.45): E40124





#77

Benzidine

Concen: 1.77 ug/mL

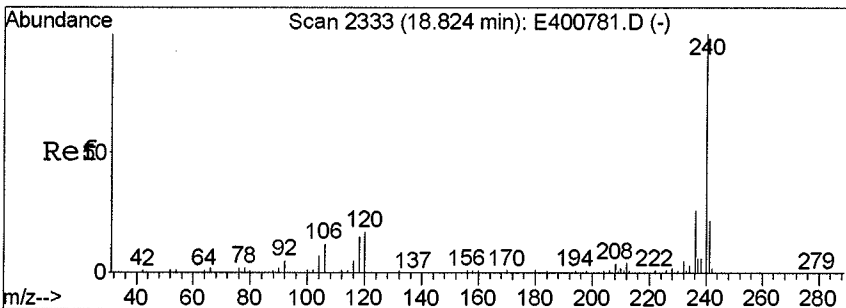
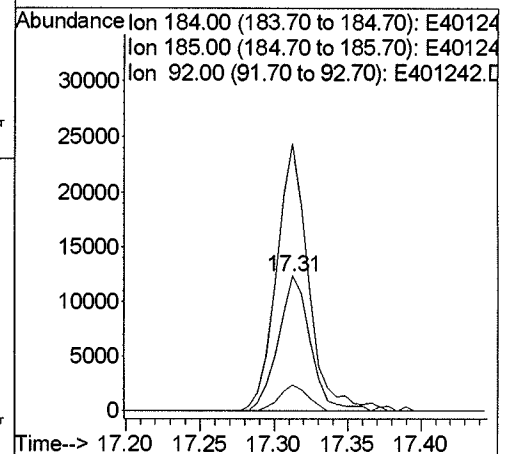
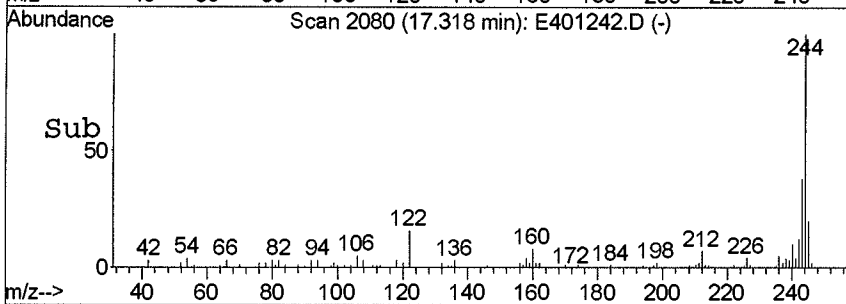
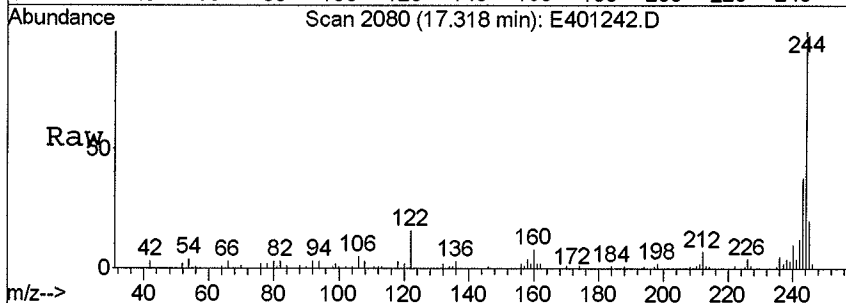
RT: 17.32 min Scan# 2080

Delta R.T. 0.29 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

Tgt Ion:	184	Resp:	189015
Ion Ratio	Lower	Upper	
184	100		
185	16.9	12.4	18.6
92	196.5	7.8	11.8#



#78

Chrysene-d12

Concen: 40.00 ug/mL

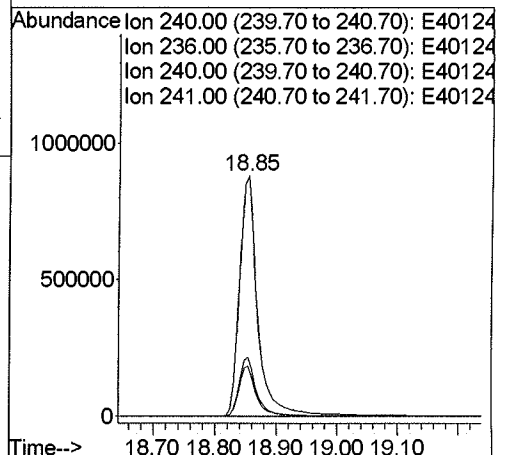
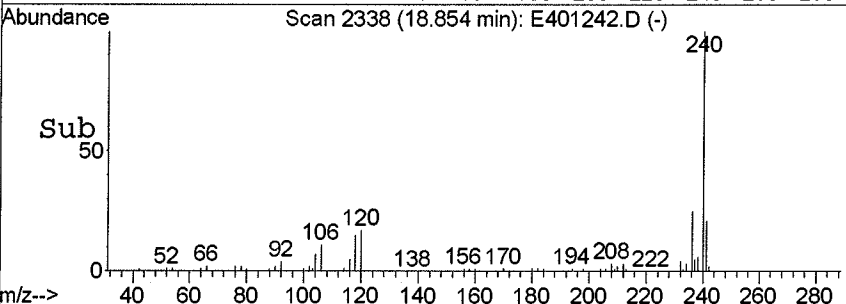
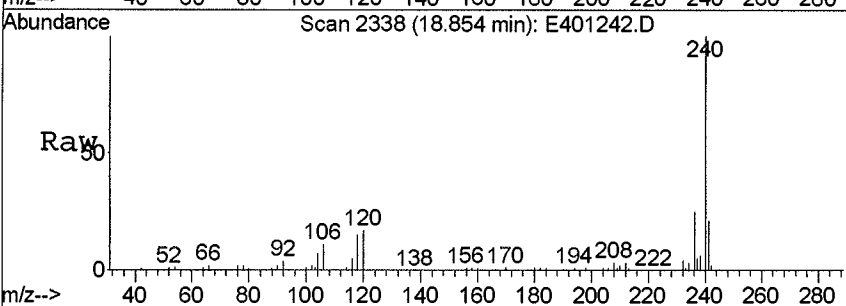
RT: 18.85 min Scan# 2338

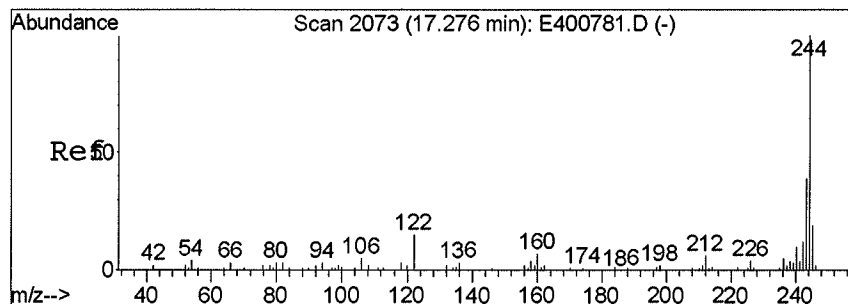
Delta R.T. -0.03 min

Lab File: E401242.D

Acq: 16 Mar 2016 3:13 pm

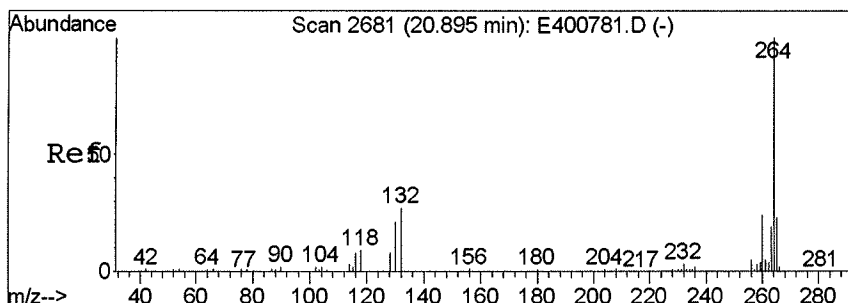
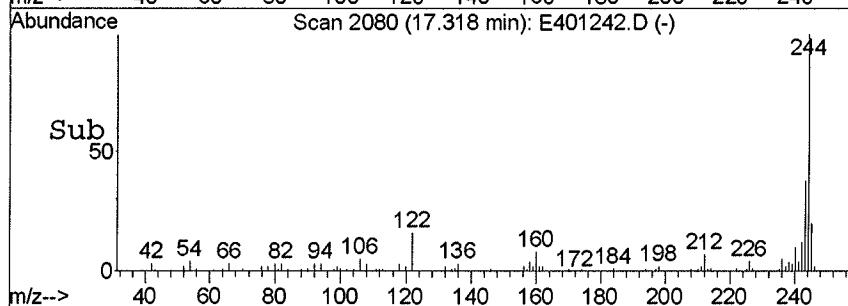
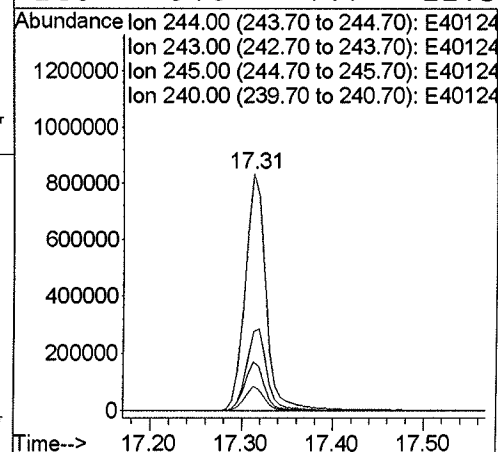
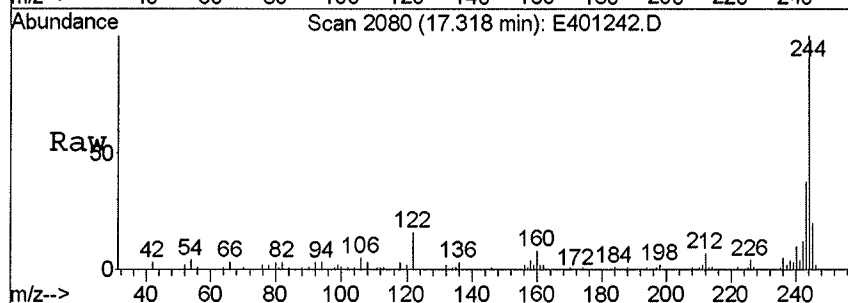
Tgt Ion:	240	Resp:	18377594
Ion Ratio	Lower	Upper	
240	100		
236	0.0	11.7	35.1#
240	100.0	50.0	150.0
241	19.9	10.9	32.7





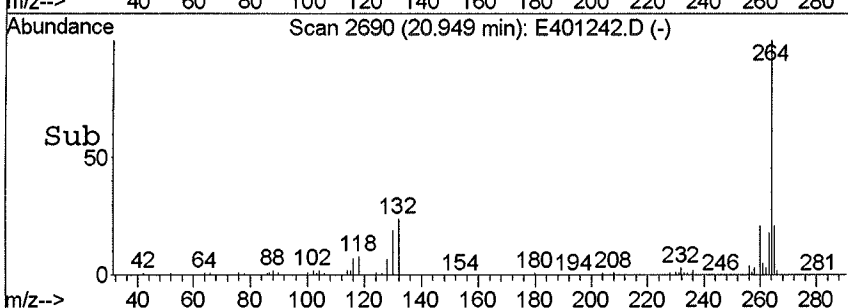
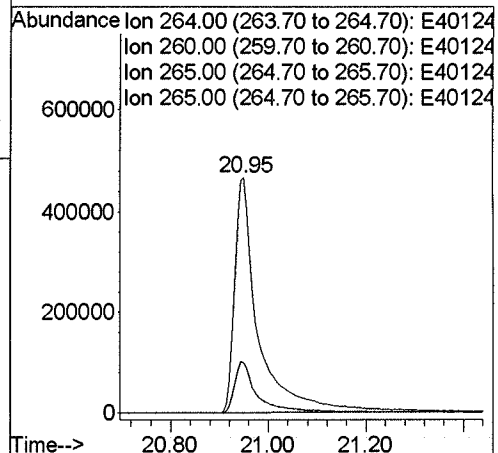
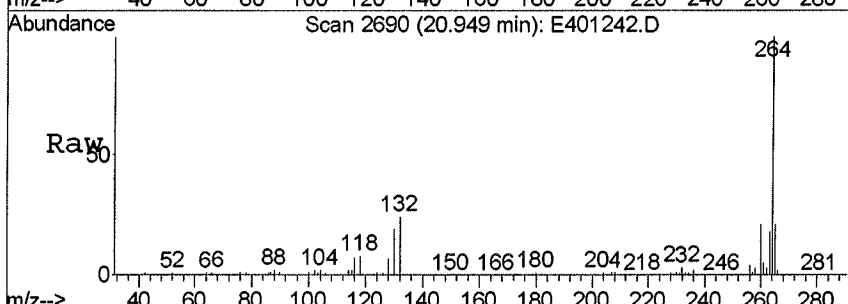
#80
 Terphenyl-d14
 Concen: N.D. ug/mL
 RT: 17.32 min Scan# 2080
 Delta R.T. -0.02 min
 Lab File: E401242.D
 Acq: 16 Mar 2016 3:13 pm

Tgt Ion:244 Resp:13293421
 Ion Ratio Lower Upper
 244 100
 243 34.5 28.0 42.0
 245 20.0 15.6 23.4
 240 9.8 7.7 11.5



#90
 Perylene-d12
 Concen: 40.00 ug/mL
 RT: 20.95 min Scan# 2690
 Delta R.T. -0.03 min
 Lab File: E401242.D
 Acq: 16 Mar 2016 3:13 pm

Tgt Ion:264 Resp:15676046
 Ion Ratio Lower Upper
 264 100
 260 21.6 17.9 26.9
 265 21.3 18.1 27.1
 265 21.3 18.1 27.1



Data File : C:\HPCHEM\1\DATA\031616A\E500696.D

Vial: 6

Acq On : 16 Mar 2016 12:02 pm

Operator: SR

Sample : 16C0466-04

Inst : BNA #5

Misc : QBSV5031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 15:24 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Wed Feb 24 15:45:54 2016

Response via : Initial Calibration

DataAcq Meth : BN5SIM24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.02	150	4126509	2.00	ug/mL	-0.01
5) Naphthalene-d8	9.61	136	10397014	2.00	ug/mL	-0.01
8) Acenaphthene-d10	12.03	164	6156399	2.00	ug/mL	-0.01
12) Phenanthrene-d10	14.12	188	10923131	2.00	ug/mL	-0.01
19) Chrysene-d12	17.94	240	9418769	2.00	ug/mL	-0.01
24) Perylene-d12	19.87	264	7470256	2.00	ug/mL	-0.01

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
21) Bis(2-ethylhexyl) phthalat	17.95	149	527825	0.19	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E500696.D BN5SIM24.M

Thu Mar 24 14:49:56 2016

Page 1

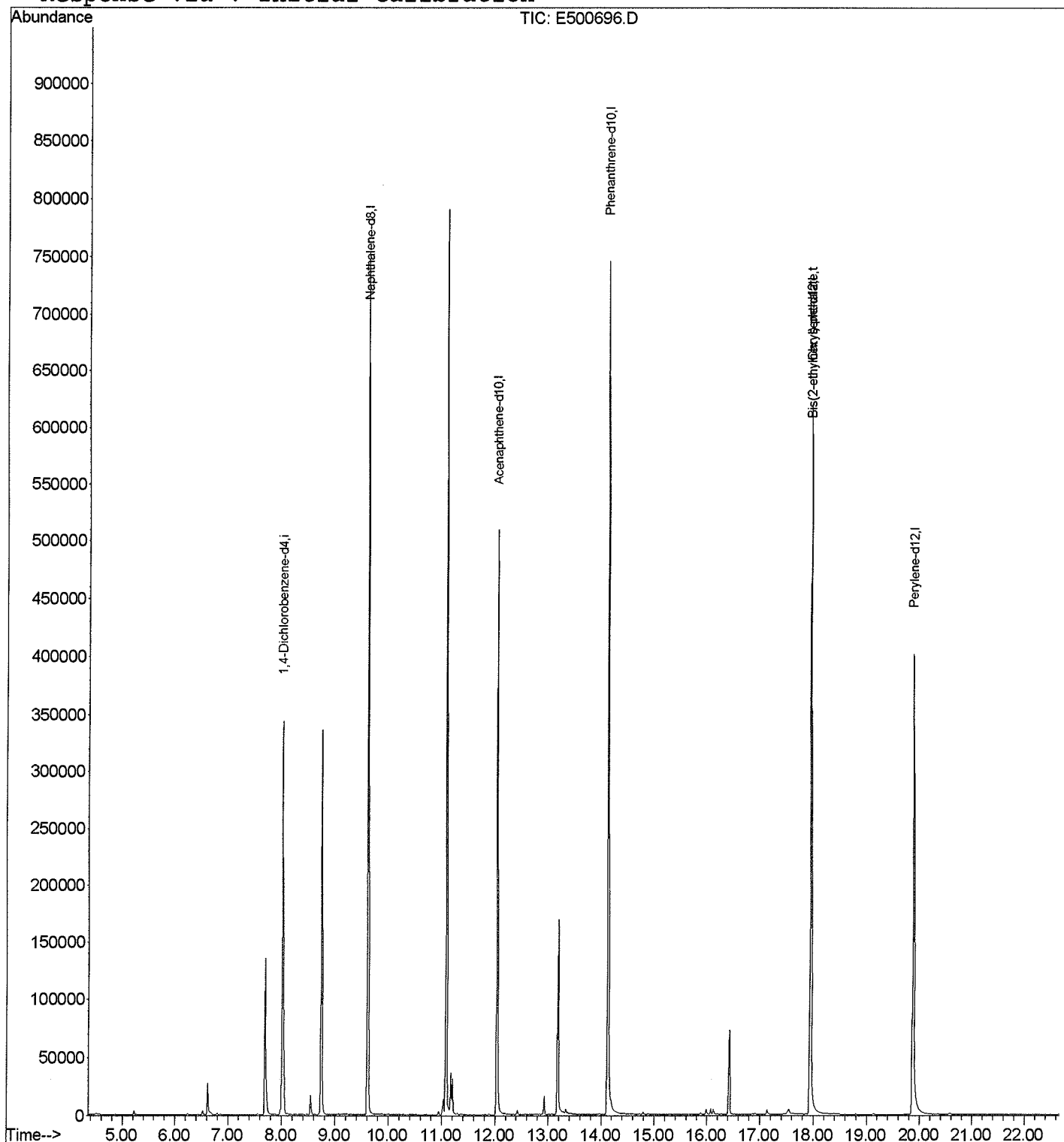
Quantitation Report

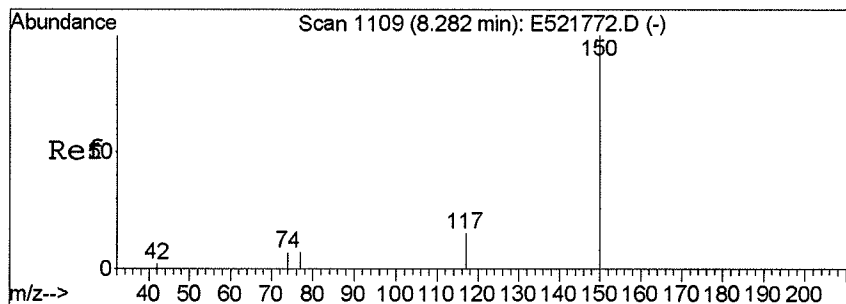
Data File : C:\HPCHEM\1\DATA\031616A\E500696.D
 Acq On : 16 Mar 2016 12:02 pm
 Sample : 16C0466-04
 Misc : QBSV5031616A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 17 15:24 2016

Vial: 6
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Tue Mar 22 14:15:51 2016
 Response via : Initial Calibration

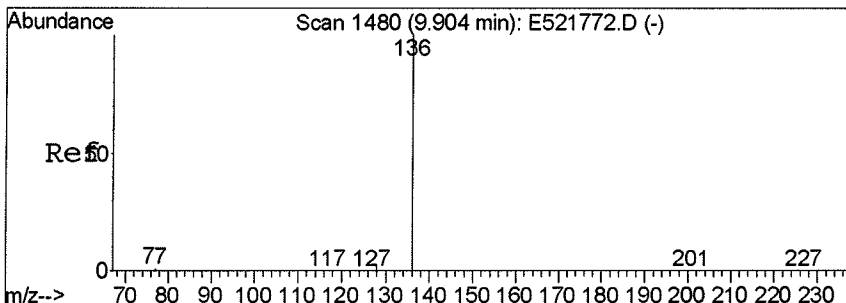
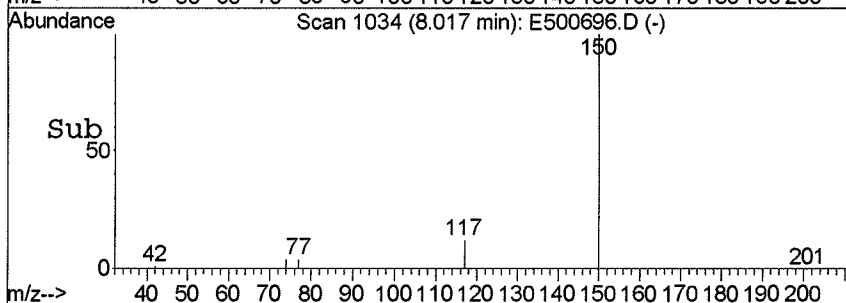
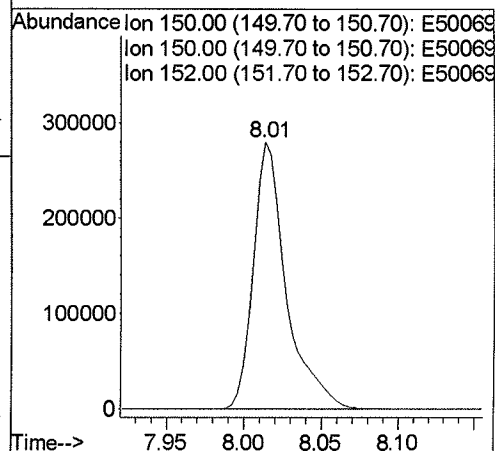
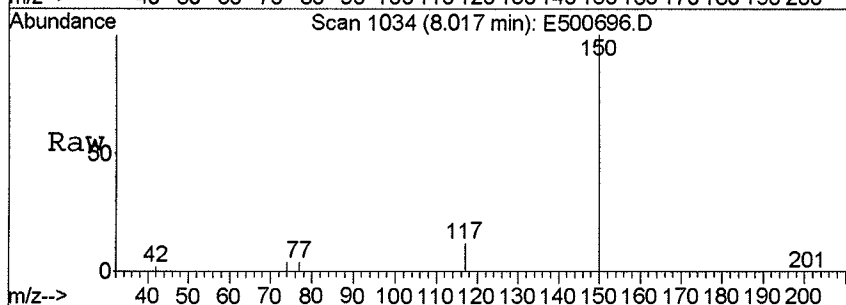




#1
1,4-Dichlorobenzene-d4
Concen: 2.00 ug/mL
RT: 8.02 min Scan# 1034
Delta R.T. -0.01 min
Lab File: E500696.D
Acq: 16 Mar 2016 12:02 pm

Tgt Ion:150 Resp: 4126509

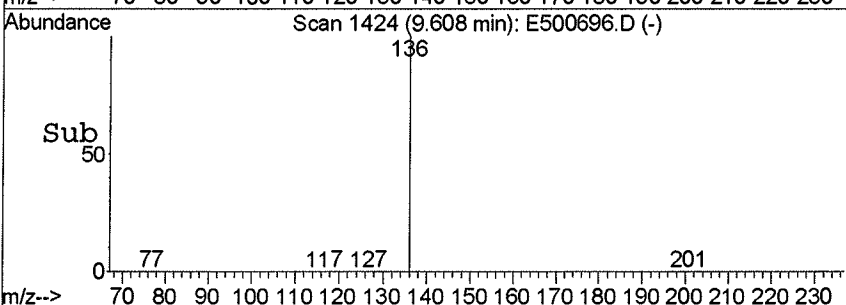
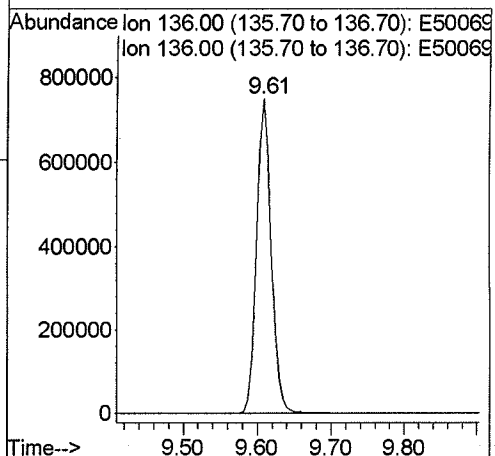
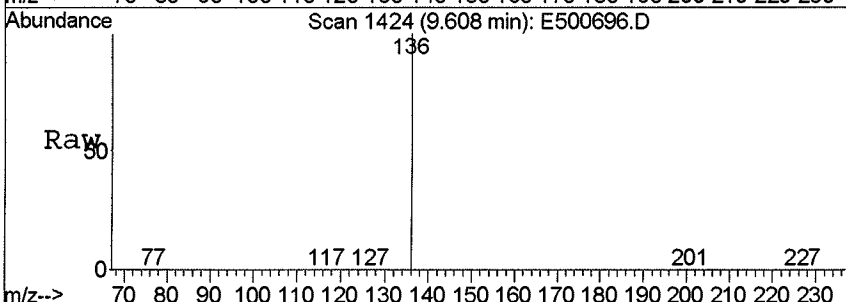
Ion	Ratio	Lower	Upper
150	100		
150	100.0	50.0	150.0
152	0.0	0.0	0.0

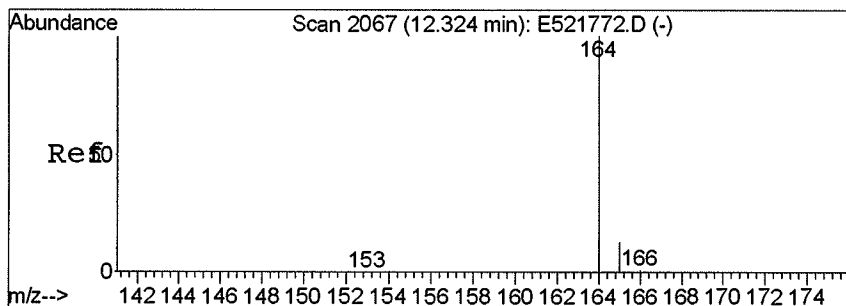


#5
Naphthalene-d8
Concen: 2.00 ug/mL
RT: 9.61 min Scan# 1424
Delta R.T. -0.01 min
Lab File: E500696.D
Acq: 16 Mar 2016 12:02 pm

Tgt Ion:136 Resp:10397014

Ion	Ratio	Lower	Upper
136	100		
136	100.0	50.0	150.0





#8

Acenaphthene-d10

Concen: 2.00 ug/mL

RT: 12.03 min Scan# 1983

Delta R.T. -0.01 min

Lab File: E500696.D

Acq: 16 Mar 2016 12:02 pm

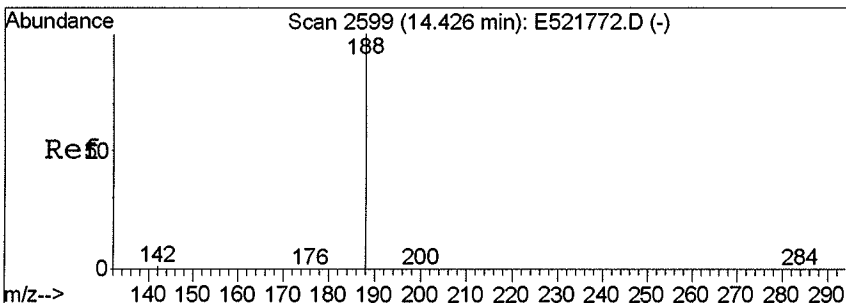
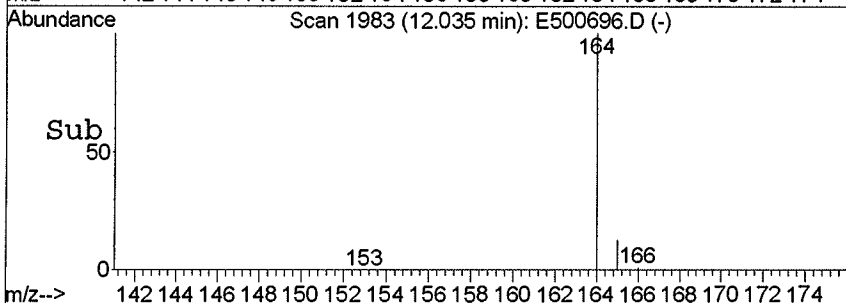
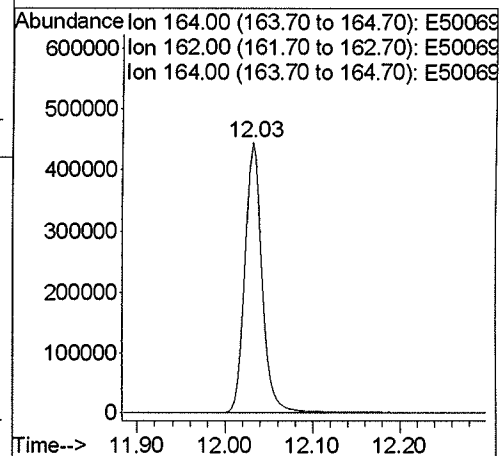
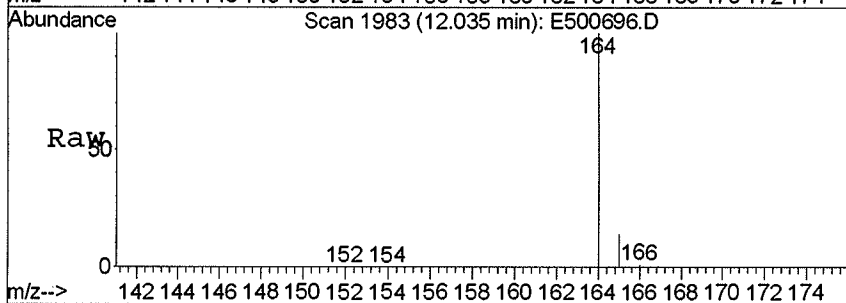
Tgt Ion:164 Resp: 6156399

Ion Ratio Lower Upper

164 100

162 0.0 0.0 0.0

164 100.0 50.0 150.0



#12

Phenanthrene-d10

Concen: 2.00 ug/mL

RT: 14.12 min Scan# 2536

Delta R.T. -0.01 min

Lab File: E500696.D

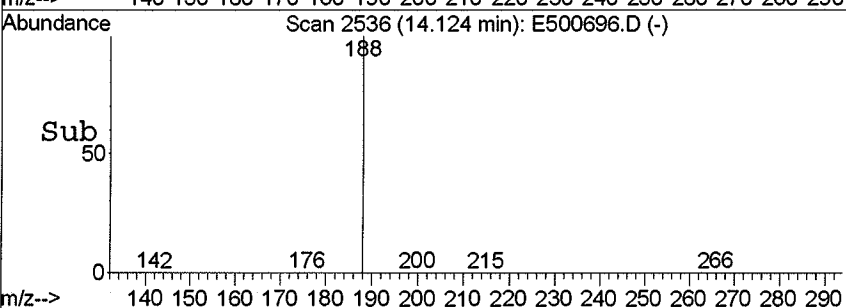
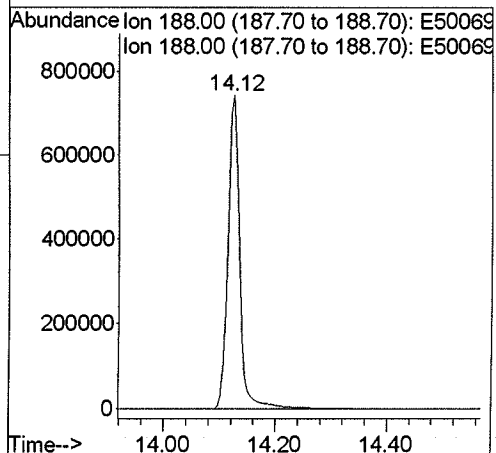
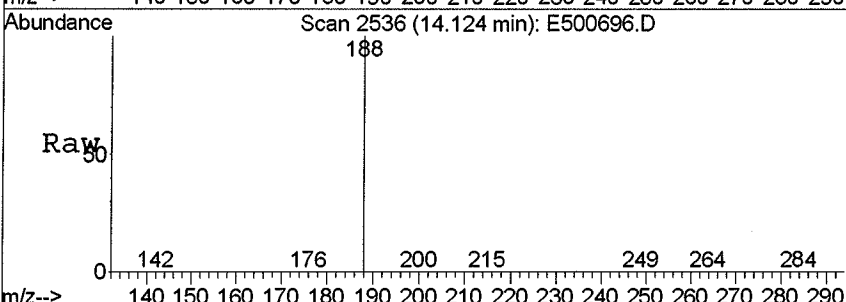
Acq: 16 Mar 2016 12:02 pm

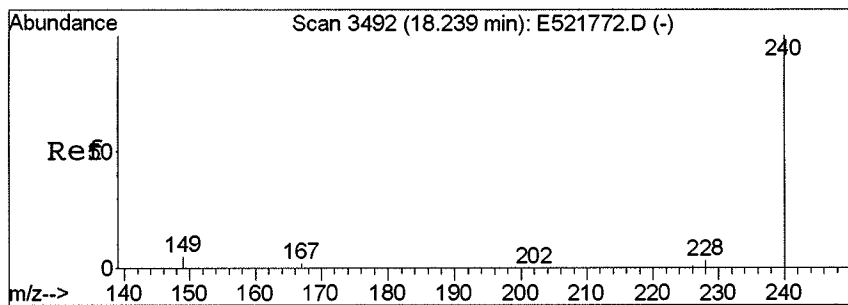
Tgt Ion:188 Resp:10923131

Ion Ratio Lower Upper

188 100

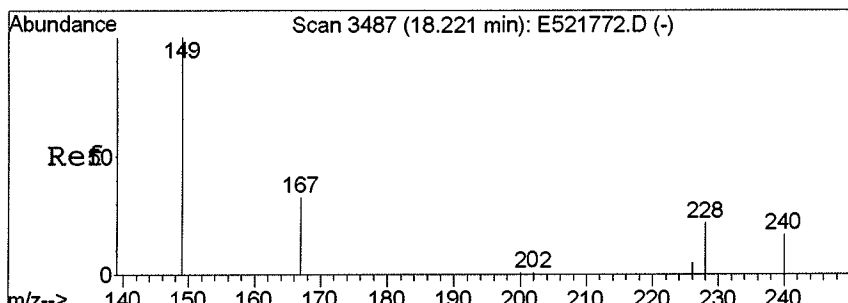
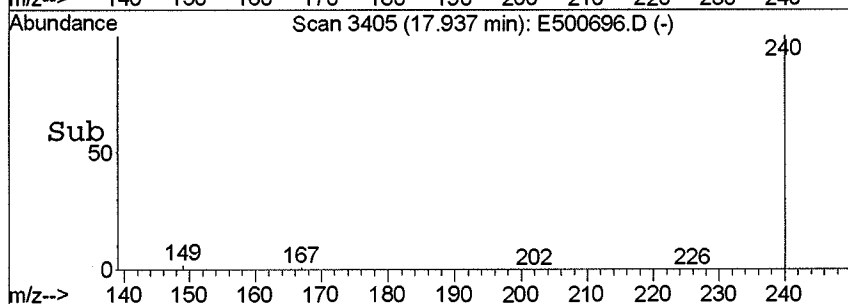
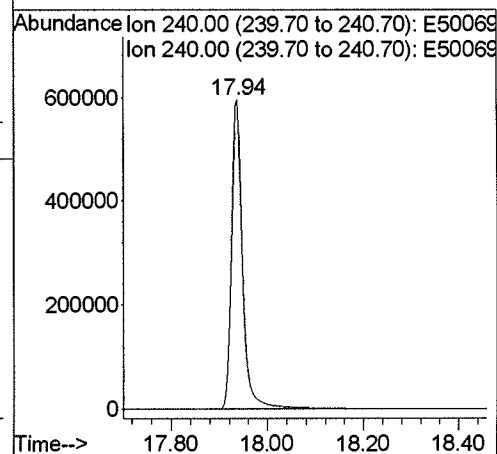
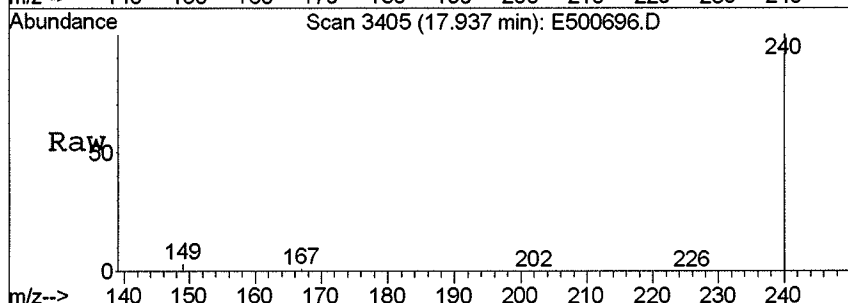
188 100.0 80.0 120.0





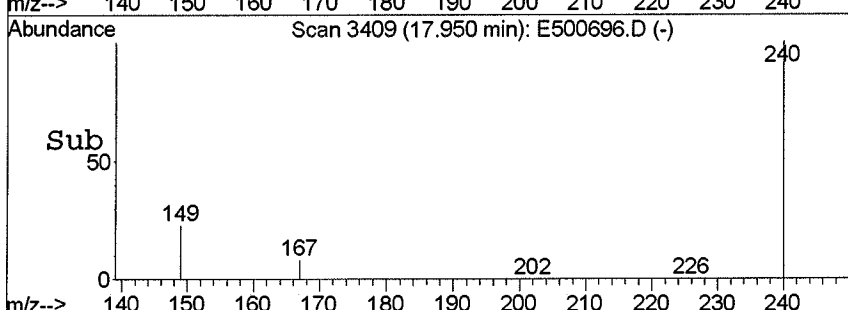
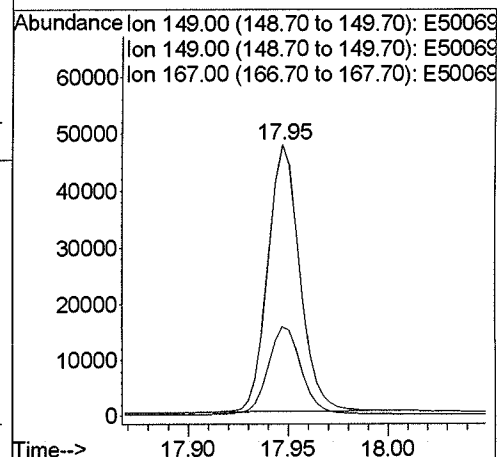
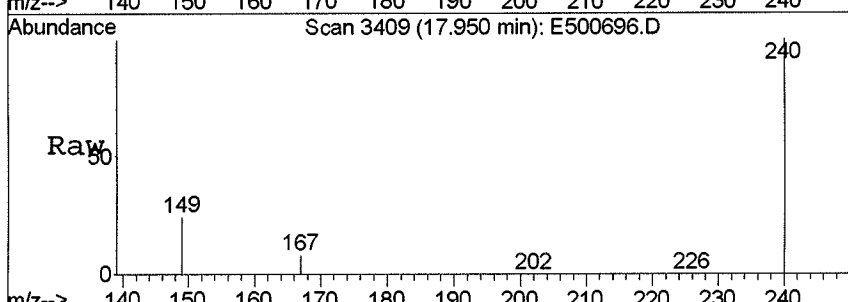
#19
 Chrysene-d12
 Concen: 2.00 ug/mL
 RT: 17.94 min Scan# 3405
 Delta R.T. -0.01 min
 Lab File: E500696.D
 Acq: 16 Mar 2016 12:02 pm

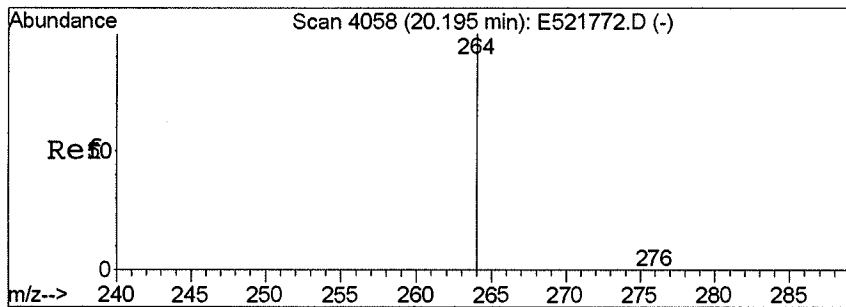
Tgt Ion: 240 Resp: 9418769
 Ion Ratio Lower Upper
 240 100
 240 100.0 50.0 150.0



#21
 Bis(2-ethylhexyl) phthalate
 Concen: 0.19 ug/mL
 RT: 17.95 min Scan# 3409
 Delta R.T. -0.02 min
 Lab File: E500696.D
 Acq: 16 Mar 2016 12:02 pm

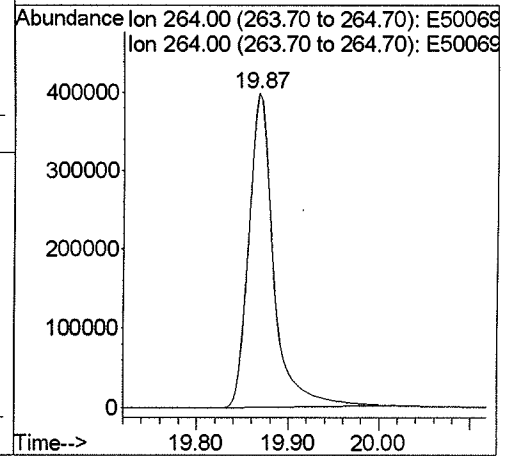
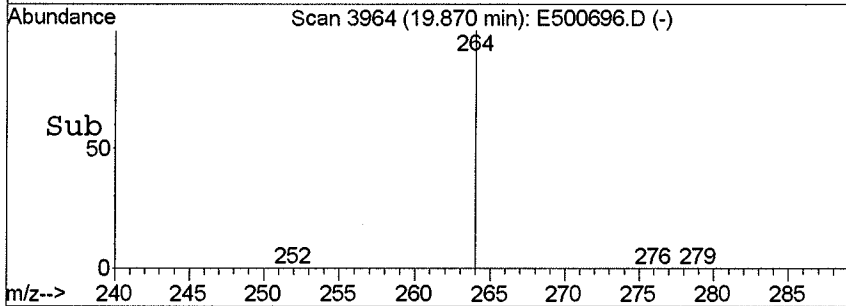
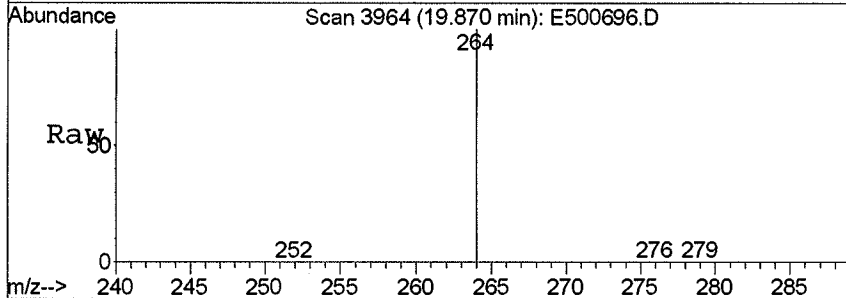
Tgt Ion: 149 Resp: 527825
 Ion Ratio Lower Upper
 149 100
 149 100.0 80.0 120.0
 167 34.3 16.2 48.5





#24
Perylene-d12
Concen: 2.00 ug/mL
RT: 19.87 min Scan# 3964
Delta R.T. -0.01 min
Lab File: E500696.D
Acq: 16 Mar 2016 12:02 pm

Tgt Ion: 264 Resp: 7470256
Ion Ratio Lower Upper
264 100
264 100.0 50.0 150.0



Response Factor Report BNA#2

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration

HP Software lists up to 6 calibration points. Others used are included in the Av. RF & % RSD calculations.

Calibration Files

10 =E201047.D 20 =E201049.D 40.0 =E201051.D
 15.0 =E201048.D 2.5 =E201045.D 5 =E201046.D

	Compound	10	20	40.0	15.0	2.5	5	Avg	%RSD
1) I	1,4-Dichlorobenzene-d	-----ISTD-----							
2) t	N-Nitrosodimethylam	0.741	0.939	0.905	0.881	0.685	0.909	0.835	10.70
3) t	Pyridine	1.650	1.432	1.524	1.442		1.212	1.411	12.38
4) s	2-Fluorophenol	1.623	1.576	1.778	1.612		1.692	1.655	4.31
5) s	Phenol-d5	1.960	1.830	1.658	1.865		2.056	1.852	7.79
6) t	Benzaldehyde	1.536	1.300	1.038	1.371		1.771	1.373	18.58
7) t	Aniline	2.056	1.963	1.903	1.922		1.959	1.956	2.77
8) t	Phenol	2.343	2.173	2.044	2.087	2.231	2.305	2.208	5.36
9) t	Bis(2-chloroethyl)e	2.193	1.993	2.074	1.889	2.434	2.513	2.169	10.45
10) t	2-Chlorophenol	1.829	1.767	1.757	1.750	1.837	1.984	1.823	5.04
11) t	1,3-Dichlorobenzene	1.831	1.727	1.674	1.728		1.961	1.763	6.52
12) t	1,4-Dichlorobenzene	1.946	1.859	1.684	1.900		2.073	1.877	7.03
13) t	Benzyl Alcohol	1.099	1.020	0.995	1.042		1.153	1.047	6.47
14) t	1,2-Dichlorobenzene	1.960	1.753	1.513	1.783		2.119	1.795	12.14
15) t	2-Methylphenol	1.384	1.332	1.284	1.356	1.494	1.524	1.414	9.32
16) t	Acetophenone	2.499	2.248	2.094	2.274		2.844	2.351	11.86
17) t	Bis(2-chloroisoprop	3.242	3.110	3.324	3.159		3.407	3.237	3.44
18) t	N-Nitroso-di-n-prop	1.548	1.352	1.273	1.381	1.608	1.611	1.453	9.94
19) t	4-Methylphenol	1.876	1.644	1.353	1.762		2.012	1.689	14.49
20) t	Hexachloroethane	0.797	0.730	0.677	0.721	0.817	0.859	0.774	9.65
21) I	Naphthalene-d8	-----ISTD-----							
22) s	Nitrobenzene-d5	0.670	0.654	0.834	0.644		0.697	0.689	10.84
23) t	Nitrobenzene	0.732	0.688	0.628	0.672	0.659	0.737	0.682	6.04
24) t	Isophorone	1.349	1.265	1.311	1.223	1.229	1.431	1.295	5.63
25) t	2-Nitrophenol	0.384	0.367	0.336	0.352		0.375	0.359	5.52
26) t	2,4-Dimethylphenol	0.486	0.444	0.381	0.449	0.472	0.505	0.454	9.33
27) t	Bis(2-chloroethoxy)	0.747	0.673	0.612	0.681		0.782	0.689	9.35
28) t	Benzoic acid	0.287	0.337	0.360	0.285		0.226	0.301	15.54
29) t	2,4-Dichlorophenol	0.596	0.552	0.442	0.539	0.533	0.621	0.537	10.57
30) t	1,2,4-Trichlorobenz	0.653	0.580	0.473	0.575	0.635	0.670	0.597	13.01
31) t	Naphthalene	1.439	1.253	0.876	1.266		1.574	1.243	20.34
32) t	Alpha-Terpineol	0.439	0.449	0.402	0.433		0.503	0.443	7.56
33) t	4-Chloroaniline	0.681	0.586	0.461	0.587		0.703	0.590	15.64
34) t	Hexachlorobutadiene	0.376	0.334	0.249	0.318	0.349	0.346	0.328	12.56
35) t	Caprolactam	0.199	0.174	0.175	0.162		0.254	0.188	18.44
36) t	4-Chloro-3-methylph	0.634	0.589	0.491	0.557		0.636	0.574	9.85
37) t	1-Methylnaphthalene	1.071	0.870		0.894		1.214	0.960	19.06
38) t	2-Methylnaphthalene	1.053	0.896	0.708	0.915		1.125	0.909	17.81
39) I	Acenaphthene-d10	-----ISTD-----							
40) t	1,2,4,5-tetrachloro	1.016	0.739		0.913		1.223	0.902	26.12
41) t	Hexachlorocyclopent	0.436	0.415	0.313	0.400		0.320	0.376	13.43

(#) = Out of Range ### Number of calibration levels exceeded format ###
 BNA2M269.M Tue Mar 15 14:48:43 2016 Page 1

Response Factor Report BNA#2

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration

Calibration Files

10 =E201047.D 20 =E201049.D 40.0 =E201051.D
 15.0 =E201048.D 2.5 =E201045.D 5 =E201046.D

	Compound	10	20	40.0	15.0	2.5	5	Avg	%RSD
42)	t Biphenyl	1.030	0.753		0.828		1.210	0.896	24.78
43)	t 2,4,6-Trichlorophen	0.804	0.674	0.545	0.682	0.760	0.768	0.683	13.22
44)	t 2,4,5-Trichlorophen	0.879	0.770	0.640	0.768		0.883	0.772	12.60
45)	s 2-Fluorobiphenyl	2.221	1.716	1.286	1.892		2.370	1.836	~~22.42~~
46)	t 2-Chloronaphthalene	1.935	1.539	1.120	1.664		2.128	1.624	22.81
47)	t 2-Nitroaniline	0.785	0.683	0.676	0.701		0.737	0.710	6.10
48)	t Dimethylphthalate	2.539	2.113	1.798	2.219		2.766	2.233	16.21
49)	t 2,6-Dinitrotoluene	0.571	0.491	0.437	0.508	0.518	0.577	0.505	10.08
50)	t Acenaphthylene	2.814	2.295		2.439		3.263	2.563	19.03
51)	t 3-Nitroaniline	0.379	0.352	0.386	0.354		0.394	0.375	4.64
52)	t Acenaphthene	1.643	1.327		1.437		1.887	1.490	18.99
53)	t 2,4-Dinitrophenol	0.356	0.352	0.399	0.318	0.116	0.249	0.309	31.58
54)	t Dibenzofuran	2.689	2.192	1.796	2.329		2.961	2.324	18.80
55)	t 2,4-Dinitrotoluene	0.892	0.774	0.687	0.785	0.753	0.859	0.753	13.42
56)	t 4-Nitrophenol	0.571	0.549	0.572	0.554		0.532	0.556	2.66
57)	t 2,3,4,6-Tetrachloro	0.274	0.248	0.214	0.272		0.278	0.254	10.02
58)	t Diethyl phthalate	2.540	2.153	1.806	2.307		2.905	2.276	17.71
59)	t Fluorene	1.921	1.521		1.681		2.264	1.731	22.02
60)	t 4-Chlorophenyl phen	1.069	0.842		0.932		1.320	0.970	24.74
61)	t 4-Nitroaniline	0.562	0.450		0.505		0.639	0.509	19.05
62)	I Phenanthrene-d10	-----ISTD-----							
63)	t 4,6-Dinitro-2-methy	0.232	0.239	0.134	0.225	0.192	0.221	0.203	18.67
64)	t Diphenylamine	0.778	0.680		0.683		0.854	0.694	20.43
65)	t N-Nitrosodiphenylam	0.249	0.254		0.257	0.268	0.313	0.270	21.29
66)	t Azobenzene	1.466	1.454	1.046	1.374	1.561	1.558	1.405	14.74
67)	s 2,4,6-Tribromopheno	0.251	0.254	0.168	0.216		0.226	0.216	16.17
68)	t 4-Bromophenyl pheny	0.417	0.394		0.358		0.438	0.377	16.93
69)	t Atrazine	0.429	0.389	0.262	0.371	0.373	0.486	0.373	19.22
70)	t Hexachlorobenzene	0.139	0.136	0.094	0.130	0.156	0.160	0.136	18.80
71)	t Pentachlorophenol	0.209	0.248		0.192	0.075	0.167	0.180	32.26
72)	t Pentachloronitroben	0.166	0.172	0.120	0.149		0.178	0.153	15.46
73)	t Phenanthrene	1.444		0.863	1.301		1.594	1.241	24.41
74)	t Anthracene	1.587		0.932	1.444		1.743	1.366	24.43
75)	t Carbazole	1.338	1.059		1.017		1.480	1.131	25.05
76)	t Di-n-butyl phthalat	2.192	2.060		1.965		2.440	2.043	15.94
77)	t Fluoranthene	1.828	1.628		1.622		2.057	1.683	17.08
78)	t Benizidine	0.683	0.591	0.373	0.571	0.549		0.539	19.82
79)	I Chrysene-d12	-----ISTD-----							
80)	t Pyrene	2.437	2.400	2.688	2.152		2.486	2.409	7.52
81)	s Terphenyl-d14	1.629	1.622	1.715	1.497		1.724	1.608	6.76
82)	t Benzyl butyl phthal	1.375	1.408	1.576	1.191		1.296	1.370	9.31
83)	t Bis(2-ethylhexyl) p	0.933	1.066	1.143	0.965		0.950	1.015	7.98

Response Factor Report BNA#2

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration

Calibration Files

10	=E201047.D	20	=E201049.D	40.0	=E201051.D
15.0	=E201048.D	2.5	=E201045.D	5	=E201046.D

	Compound	10	20	40.0	15.0	2.5	5	Avg	%RSD
84) t	Benz (a) anthracene	1.709	1.536	1.379	1.468	1.906	1.931	1.664	15.61
85) t	3,3-Dichlorobenzidi	0.482	0.411	0.332	0.379	0.329	0.489	0.421	19.60
86) t	Chrysene	1.806	1.765	2.011	1.603	1.736	1.999	1.859	11.47
87) t	Di-n-octyl phthalat	3.331	3.433	3.716	2.981		3.267	3.330	7.25
88) t	Benzo(b)fluoranthen	1.957	2.204	2.646	1.898		1.537	2.057	17.87
89) t	Benzo(k)fluoranthen	2.129	2.057	2.405	1.804	1.802	2.249	2.096	11.45
90) t	Benzo(a)pyrene	2.196	2.181	2.785	1.992	1.840	2.079	2.148	13.16
91) I	Perylene-d12	-----ISTD-----							
92) t	Indeno(1,2,3-cd)pyr	1.757	1.519	1.666	1.684	1.861	1.958	1.726	9.40
93) t	Dibenz(a,h)anthrace	1.414	1.225	1.289	1.242	1.448	1.642	1.372	11.15
94) t	Benzo(g,h,i)perylene	1.542	1.346	1.427	1.427		1.612	1.459	6.77

Data File : C:\HPCHEM\1\DATA\E2031416\E201044.D
 Acq On : 14 Mar 2016 1:12 pm
 Sample : 1.25 ppm - ICAL
 Misc : QBSV2031416A

Vial: 5
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:11 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:09:00 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.02	152	5186361	40.00	ug/mL	-0.01
21) Naphthalene-d8	9.63	136	16146889	40.00	ug/mL	-0.01
39) Acenaphthene-d10	12.05	164	9181705	40.00	ug/mL	-0.01
62) Phenanthrene-d10	14.14	188	16909661	40.00	ug/mL	-0.02
79) Chrysene-d12	17.96	240	15925970	40.00	ug/mL	-0.04
91) Perylene-d12	19.98	264	17759775	40.00	ug/mL	-0.01

System Monitoring Compounds

4) 2-Fluorophenol	6.67	112	207425	0.97	ug/mL	0.02
Spiked Amount	75.000	Range	15 - 87	Recovery	=	1.29%#
5) Phenol-d5	7.75	99	301426	1.26	ug/mL	0.02
Spiked Amount	75.000	Range	10 - 100	Recovery	=	1.68%#
22) Nitrobenzene-d5	8.75	82	290620	1.05	ug/mL	-0.02
Spiked Amount	50.000	Range	26 - 120	Recovery	=	2.10%#
45) 2-Fluorobiphenyl	11.10	172	696015	1.65	ug/mL	-0.01
Spiked Amount	50.000	Range	29 - 120	Recovery	=	3.30%#
67) 2,4,6-Tribromophenol	13.20	330	96344	1.05	ug/mL	-0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	1.40%#
81) Terphenyl-d14	16.42	244	826465	1.30	ug/mL	-0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	2.60%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.89	74	131894m	1.30	ug/mL	
7) Aniline	7.71	93	321746	1.27	ug/mL#	38
8) Phenol	7.77	94	381421	2.53	ug/mL#	54
9) Bis(2-chloroethyl) ether	7.76	93	370269	1.32	ug/mL	92
10) 2-Chlorophenol	7.86	128	312592	1.33	ug/mL#	94
11) 1,3-Dichlorobenzene	7.98	146	318829	1.40	ug/mL	94
12) 1,4-Dichlorobenzene	8.04	146	365090m	1.50	ug/mL	
13) Benzyl Alcohol	8.24	108	167722	1.24	ug/mL	95
14) 1,2-Dichlorobenzene	8.27	146	365158	1.57	ug/mL	97
15) 2-Methylphenol	8.43	107	268221	1.47	ug/mL	93
17) Bis(2-chloroisopropyl) eth	8.40	45	569781	1.36	ug/mL	96
18) N-Nitroso-di-n-propylamine	8.58	70	253901	1.35	ug/mL#	80
19) 4-Methylphenol	8.61	107	316339	1.45	ug/mL#	34
20) Hexachloroethane	8.64	117	142894	1.42	ug/mL	97
23) Nitrobenzene	8.77	77	354917	1.29	ug/mL#	91
24) Isophorone	9.05	82	668182	1.28	ug/mL	95
25) 2-Nitrophenol	9.18	139	153574	1.06	ug/mL#	86
26) 2,4-Dimethylphenol	9.24	122	245374	1.34	ug/mL	97
27) Bis(2-chloroethoxy) methan	9.33	93	370667	1.33	ug/mL	96
29) 2,4-Dichlorophenol	9.54	162	264931	1.22	ug/mL#	86

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201044.D

Vial: 5

Acq On : 14 Mar 2016 1:12 pm

Operator: KH

Sample : 1.25 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:11 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:09:00 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) 1,2,4-Trichlorobenzene	9.57	180	344675	1.43	ug/mL	95
31) Naphthalene	9.65	128	811220	1.62	ug/mL#	90
33) 4-Chloroaniline	9.77	127	304750	1.28	ug/mL	96
34) Hexachlorobutadiene	9.87	225	182370	1.38	ug/mL	89
36) 4-Chloro-3-methylphenol	10.48	107	272195	1.18	ug/mL	96
38) 2-Methylnaphthalene	10.57	142	556269	1.51	ug/mL	96
43) 2,4,6-Trichlorophenol	11.04	196	184237	1.17	ug/mL	96
44) 2,4,5-Trichlorophenol	11.16	196	221466	1.36	ug/mL	88
46) 2-Chloronaphthalene	11.25	162	599646	1.61	ug/mL	94
47) 2-Nitroaniline	11.48	138	154614	0.95	ug/mL	93
48) Dimethylphthalate	11.73	163	728664	1.42	ug/mL	97
49) 2,6-Dinitrotoluene	11.85	165	139753	1.21	ug/mL	90
50) Acenaphthylene	11.83	152	925299	1.65	ug/mL	98
51) 3-Nitroaniline	12.07	138	100574	1.17	ug/mL#	3
52) Acenaphthene	12.09	154	604349	1.88	ug/mL	94
54) Dibenzofuran	12.31	168	869670	1.63	ug/mL	99
55) 2,4-Dinitrotoluene	12.40	165	163795	0.95	ug/mL#	89
56) 4-Nitrophenol	12.49	65	86361m	0.79	ug/mL	
57) 2,3,4,6-Tetrachlorophenol	12.59	131	68730	1.18	ug/mL#	95
58) Diethyl phthalate	12.70	149	804035	1.54	ug/mL	99
59) Fluorene	12.80	166	670002	1.80	ug/mL	98
60) 4-Chlorophenyl phenylether	12.79	204	395769	1.92	ug/mL#	86
61) 4-Nitroaniline	12.94	138	149225	1.37	ug/mL#	82
63) 4,6-Dinitro-2-methylphenol	12.98	198	80025	0.93	ug/mL#	37
64) Diphenylamine	12.98	169	498601	1.81	ug/mL	95
65) N-Nitrosodiphenylamine	12.98	167	193829	1.65	ug/mL	94
66) Azobenzene	13.01	77	861205	1.44	ug/mL#	82
68) 4-Bromophenyl phenylether	13.48	248	237620	1.57	ug/mL	95
69) Atrazine	13.78	200	204986	1.29	ug/mL	93
70) Hexachlorobenzene	13.70	142	86873	1.51	ug/mL	92
73) Phenanthrene	14.17	178	981821	2.20	ug/mL	97
74) Anthracene	14.23	178	1070123	2.19	ug/mL	98
75) Carbazole	14.49	167	953128	2.10	ug/mL#	100
76) Di-n-butyl phthalate	15.00	149	1314214	1.61	ug/mL	97
77) Fluoranthene	15.88	202	1111008	1.65	ug/mL	98
80) Pyrene	16.20	202	1197522	1.26	ug/mL	98
82) Benzyl butyl phthalate	17.15	149	603368	1.11	ug/mL	92
83) Bis(2-ethylhexyl) phthalat	17.96	149	503540	1.25	ug/mL#	96
84) Benz (a) anthracene	17.91	228	1000374	1.51	ug/mL	97
85) 3,3-Dichlorobenzidine	17.91	252	279886m	1.68	ug/mL	
86) Chrysene	17.99	228	1122960	1.52	ug/mL	96

(#)=qualifier out of range (m)=manual integration

E201044.D BNA2M269.M

Tue Mar 15 14:51:04 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031416\E201044.D

Vial: 5

Acq On : 14 Mar 2016 1:12 pm

Operator: KH

Sample : 1.25 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:11 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:09:00 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
87) Di-n-octyl phthalate	18.78	149	1455850	1.10	ug/mL	99
88) Benzo(b)fluoranthene	19.39	252	1008668m	0.89	ug/mL	
89) Benzo(k)fluoranthene	19.43	252	1188229	1.25	ug/mL#	95
90) Benzo(a)pyrene	19.86	252	988043	1.17	ug/mL	97
92) Indeno(1,2,3-cd)pyrene	21.71	276	1030089	1.40	ug/mL#	96
93) Dibenz(a,h)anthracene	21.71	278	828245	1.36	ug/mL	97
94) Benzo(g,h,i)perylene	22.23	276	972597	1.50	ug/mL#	92

(#) = qualifier out of range (m) = manual integration

E201044.D BNA2M269.M

Tue Mar 15 14:51:05 2016

Page 3

463 of 1077

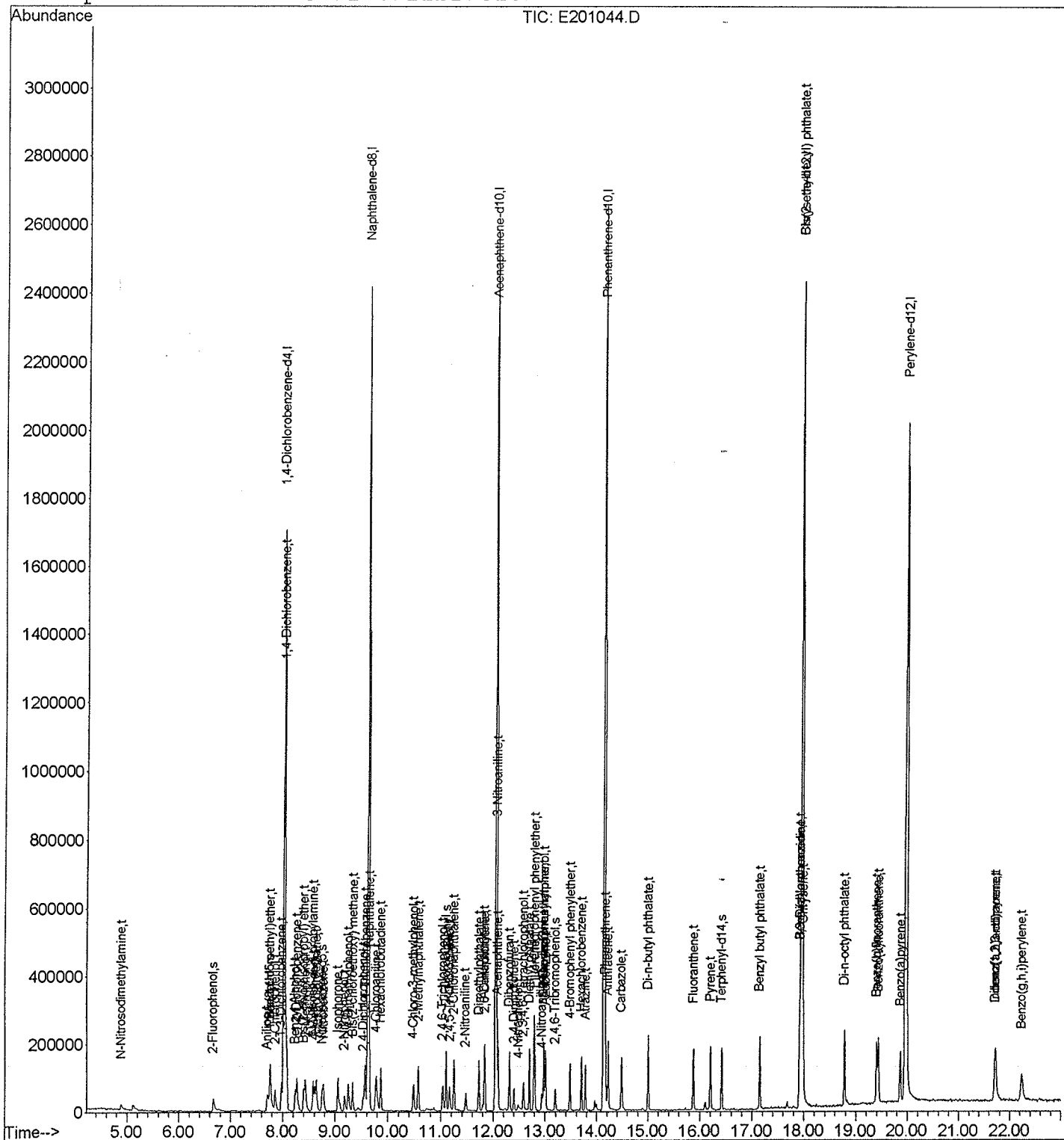
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201044.D
 Acq On : 14 Mar 2016 1:12 pm
 Sample : 1.25 ppm - ICAL
 Misc : QBSV2031416A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 15 14:11 2016

Vial: 5
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Quant Results File: BNA2M269.RES

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\E2031416\E201045.D
 Acq On : 14 Mar 2016 1:43 pm
 Sample : 2.5 ppm - ICAL
 Misc : QBSV2031416A

Vial: 6
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:43 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:11:30 2016
 Response via : Initial Calibration
 DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.02	152	5290381	40.00	ug/mL	0.00
21) Naphthalene-d8	9.63	136	16288124	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.05	164	8858541	40.00	ug/mL	0.00
62) Phenanthrene-d10	14.14	188	16288800	40.00	ug/mL	0.00
79) Chrysene-d12	17.96	240	16334884	40.00	ug/mL	0.00
91) Perylene-d12	19.98	264	17344504	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.67	112	515396	2.36	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	3.15%#
5) Phenol-d5	7.75	99	682835	2.79	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	3.72%#
22) Nitrobenzene-d5	8.75	82	617543	2.20	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	4.40%#
45) 2-Fluorobiphenyl	11.10	172	1295373	3.18	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	6.36%#
67) 2,4,6-Tribromophenol	13.20	330	213780	2.41	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	3.21%#
81) Terphenyl-d14	16.42	244	1518279	2.32	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	4.64%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.88	74	226618	2.15	ug/mL#	87
7) Aniline	7.70	93	583888	2.26	ug/mL#	32
8) Phenol	7.76	94	737534	4.81	ug/mL#	67
9) Bis(2-chloroethyl) ether	7.76	93	804945	2.81	ug/mL	91
10) 2-Chlorophenol	7.86	128	607239	2.52	ug/mL	94
11) 1,3-Dichlorobenzene	7.98	146	664093	2.85	ug/mL	98
12) 1,4-Dichlorobenzene	8.04	146	740666	2.99	ug/mL	93
13) Benzyl Alcohol	8.24	108	354777	2.56	ug/mL	90
14) 1,2-Dichlorobenzene	8.27	146	706883	2.98	ug/mL	98
15) 2-Methylphenol	8.43	107	493868	2.64	ug/mL	94
17) Bis(2-chloroisopropyl) eth	8.40	45	1103896	2.58	ug/mL	96
18) N-Nitroso-di-n-propylamine	8.58	70	531715	2.77	ug/mL#	74
19) 4-Methylphenol	8.60	107	676605	3.04	ug/mL#	35
20) Hexachloroethane	8.64	117	270112	2.64	ug/mL	99
23) Nitrobenzene	8.77	77	671156	2.42	ug/mL	97
24) Isophorone	9.05	82	1251187	2.37	ug/mL	96
25) 2-Nitrophenol	9.17	139	331782	2.27	ug/mL#	85
26) 2,4-Dimethylphenol	9.24	122	480276	2.61	ug/mL	97
27) Bis(2-chloroethoxy) methan	9.32	93	760672	2.71	ug/mL	97
28) Benzoic acid	9.42	105	141706	1.43	ug/mL	85

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201045.D

Vial: 6

Acq On : 14 Mar 2016 1:43 pm

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:43 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:11:30 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 2,4-Dichlorophenol	9.52	162	542190	2.48	ug/mL	94
30) 1,2,4-Trichlorobenzene	9.57	180	646488	2.66	ug/mL	98
31) Naphthalene	9.65	128	1564701	3.09	ug/mL	95
33) 4-Chloroaniline	9.77	127	632747	2.63	ug/mL	92
34) Hexachlorobutadiene	9.87	225	355040	2.66	ug/mL	90
36) 4-Chloro-3-methylphenol	10.47	107	519504	2.23	ug/mL	93
38) 2-Methylnaphthalene	10.57	142	1037324	2.80	ug/mL	95
41) Hexachlorocyclopentadiene	10.87	237	71270	0.85	ug/mL#	90
43) 2,4,6-Trichlorophenol	11.03	196	421054	2.78	ug/mL	92
44) 2,4,5-Trichlorophenol	11.15	196	403397	2.56	ug/mL	95
46) 2-Chloronaphthalene	11.24	162	1203831	3.34	ug/mL	92
47) 2-Nitroaniline	11.47	138	346605	2.20	ug/mL	97
48) Dimethylphthalate	11.72	163	1473519	2.98	ug/mL	100
49) 2,6-Dinitrotoluene	11.85	165	286786	2.57	ug/mL	89
50) Acenaphthylene	11.83	152	1751006	3.24	ug/mL	99
51) 3-Nitroaniline	12.06	138	216211	2.60	ug/mL#	65
52) Acenaphthene	12.09	154	1064215	3.42	ug/mL	99
53) 2,4-Dinitrophenol	12.22	184	64255	0.93	ug/mL	86
54) Dibenzofuran	12.31	168	1661386	3.23	ug/mL	96
55) 2,4-Dinitrotoluene	12.40	165	416645	2.49	ug/mL	93
56) 4-Nitrophenol	12.46	65	196864	1.88	ug/mL#	81
57) 2,3,4,6-Tetrachlorophenol	12.58	131	116933	2.08	ug/mL#	85
58) Diethyl phthalate	12.70	149	1532253	3.04	ug/mL	98
59) Fluorene	12.80	166	1255361	3.49	ug/mL	97
60) 4-Chlorophenyl phenylether	12.79	204	710798	3.57	ug/mL#	86
61) 4-Nitroaniline	12.94	138	295263	2.81	ug/mL#	84
63) 4,6-Dinitro-2-methylphenol	12.98	198	195650	2.36	ug/mL#	26
64) Diphenylamine	12.98	169	974689	3.67	ug/mL	93
65) N-Nitrosodiphenylamine	12.98	167	273220m	2.41	ug/mL	
66) Azobenzene	13.01	77	1589106	2.77	ug/mL#	79
68) 4-Bromophenyl phenylether	13.48	248	443978	3.05	ug/mL	94
69) Atrazine	13.78	200	380090	2.49	ug/mL	98
70) Hexachlorobenzene	13.70	142	158964	2.87	ug/mL	90
71) Pentachlorophenol	13.99	266	76610m	1.06	ug/mL	
73) Phenanthrene	14.17	178	1760237	4.10	ug/mL	99
74) Anthracene	14.23	178	1942755	4.13	ug/mL	99
75) Carbazole	14.49	167	1765622	4.03	ug/mL#	91
76) Di-n-butyl phthalate	15.00	149	2465847	3.13	ug/mL	98
77) Fluoranthene	15.88	202	2122816	3.27	ug/mL	98
78) Benzidine	16.10	184	558919	2.38	ug/mL#	93
80) Pyrene	16.20	202	2222067	2.27	ug/mL	98

(#)=qualifier out of range (m)=manual integration

E201045.D BNA2M269.M Tue Mar 15 14:51:19 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031416\E201045.D

Vial: 6

Acq On : 14 Mar 2016 1:43 pm

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:43 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:11:30 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82) Benzyl butyl phthalate	17.15	149	1121072	2.02	ug/mL	95
83) Bis(2-ethylhexyl) phthalat	17.96	149	1003190	2.43	ug/mL	97
84) Benz (a) anthracene	17.91	228	1945611	2.87	ug/mL	99
85) 3,3-Dichlorobenzidine	17.92	252	335695	1.94	ug/mL	98
86) Chrysene	17.99	228	1772287	2.35	ug/mL	100
87) Di-n-octyl phthalate	18.78	149	2799160	2.07	ug/mL	99
88) Benzo(b)fluoranthene	19.40	252	1917723	1.66	ug/mL#	99
89) Benzo(k)fluoranthene	19.43	252	1839698	1.87	ug/mL#	91
90) Benzo(a)pyrene	19.86	252	1879012	2.15	ug/mL	98
92) Indeno(1,2,3-cd)pyrene	21.71	276	2017546	2.81	ug/mL#	97
93) Dibenz(a,h)anthracene	21.71	278	1570196	2.63	ug/mL	98
94) Benzo(g,h,i)perylene	22.22	276	1655032	2.61	ug/mL	97

(#) = qualifier out of range (m) = manual integration

E201045.D BNA2M269.M

Tue Mar 15 14:51:19 2016

Page 3

Quantitation Report

```

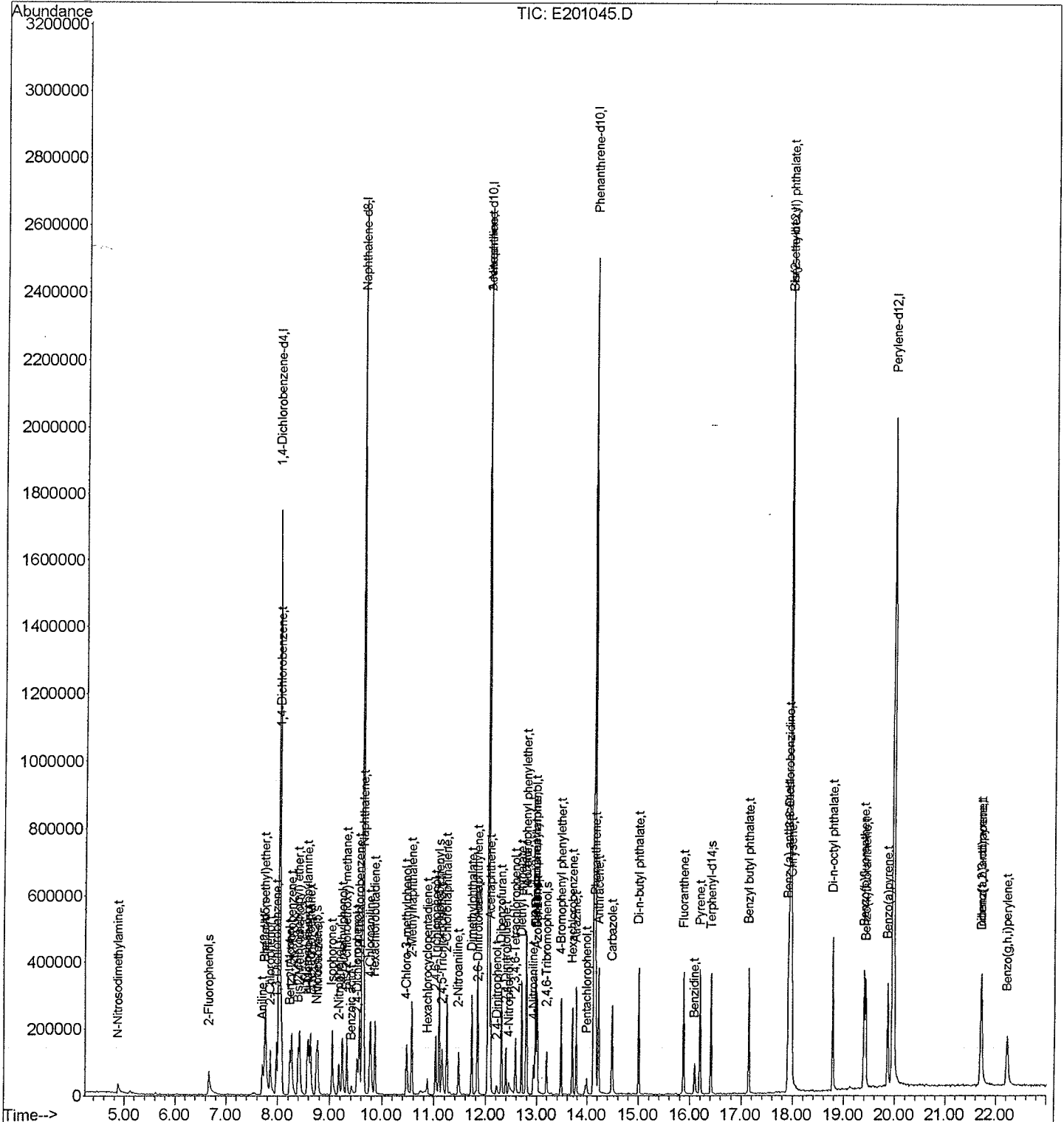
Data File   : C:\HPCHEM\1\DATA\E2031416\E201045.D
Acq On      : 14 Mar 2016    1:43 pm
Sample      : 2.5 ppm - ICAL
Misc        : QBSV2031416A
MS Integration Params: EVENTS.E
Quant Time  : Mar 15 14:43 2016

```

Vial: 6
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Data File : C:\HPCHEM\1\DATA\E2031416\E201046.D

Vial: 7

Acq On : 14 Mar 2016 2:14 pm

Operator: KH

Sample : 5 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:41 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:12:48 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.02	152	6203622	40.00	ug/mL	0.00
21) Naphthalene-d8	9.63	136	17648092	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.06	164	9960303	40.00	ug/mL	0.00
62) Phenanthrene-d10	14.14	188	19957835m	40.00	ug/mL	0.00
79) Chrysene-d12	17.96	240	17435948	40.00	ug/mL	0.00
91) Perylene-d12	19.97	264	19805668	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	1311715	5.11	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	6.81%#
5) Phenol-d5	7.74	99	1594264	5.55	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	7.40%#
22) Nitrobenzene-d5	8.75	82	1536496	5.06	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	10.12%#
45) 2-Fluorobiphenyl	11.09	172	2950295	6.45	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	12.90%#
67) 2,4,6-Tribromophenol	13.19	330	564562	5.20	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	6.93%#
81) Terphenyl-d14	16.42	244	3757189	5.38	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	10.76%#

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.87	74	704651m	5.78	ug/mL
3) Pyridine	4.80	79	939912m	8.12	ug/mL
6) Benzaldehyde	7.54	105	1373061	6.45	ug/mL
7) Aniline	7.71	93	1518975	5.01	ug/mL#
8) Phenol	7.76	94	1787213	8.11	ug/mL#
9) Bis(2-chloroethyl) ether	7.76	93	1948734	5.79	ug/mL
10) 2-Chlorophenol	7.86	128	1538396	5.44	ug/mL
11) 1,3-Dichlorobenzene	7.98	146	1520728	5.57	ug/mL
12) 1,4-Dichlorobenzene	8.04	146	1607603	5.53	ug/mL
13) Benzyl Alcohol	8.24	108	894265	5.51	ug/mL
14) 1,2-Dichlorobenzene	8.27	146	1643437	5.90	ug/mL
15) 2-Methylphenol	8.42	107	1182177	5.39	ug/mL
16) Acetophenone	8.55	105	2205454	6.05	ug/mL
17) Bis(2-chloroisopropyl) eth	8.40	45	2642325	5.26	ug/mL
18) N-Nitroso-di-n-propylamine	8.58	70	1249275	5.54	ug/mL
19) 4-Methylphenol	8.60	107	1560376	5.97	ug/mL#
20) Hexachloroethane	8.64	117	666166	5.55	ug/mL
23) Nitrobenzene	8.77	77	1626837	5.41	ug/mL
24) Isophorone	9.05	82	3157158	5.52	ug/mL
25) 2-Nitrophenol	9.17	139	827562	5.23	ug/mL

(#) = qualifier out of range (m) = manual integration

E201046.D BNA2M269.M Tue Mar 15 14:51:42 2016

Data File : C:\HPCHEM\1\DATA\E2031416\E201046.D

Vial: 7

Acq On : 14 Mar 2016 2:14 pm

Operator: KH

Sample : 5 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:41 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:12:48 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.23	122	1113530	5.57	ug/mL	99
27) Bis(2-chloroethoxy) methan	9.32	93	1724017	5.67	ug/mL	99
28) Benzoic acid	9.43	105	498658m	4.63	ug/mL	
29) 2,4-Dichlorophenol	9.51	162	1370275	5.78	ug/mL	95
30) 1,2,4-Trichlorobenzene	9.57	180	1478348	5.62	ug/mL	98
31) Naphthalene	9.66	128	3471390	6.33	ug/mL	100
32) Alpha-Terpineol	9.63	59	1109631	5.68	ug/mL#	1
33) 4-Chloroaniline	9.77	127	1550644	5.95	ug/mL	94
34) Hexachlorobutadiene	9.87	225	764088	5.28	ug/mL#	86
35) Caprolactam	10.23	113	559261	6.74	ug/mL	93
36) 4-Chloro-3-methylphenol	10.47	107	1402267	5.55	ug/mL	98
37) 1-Methylnaphthalene	10.72	141	2678711	6.67	ug/mL	97
38) 2-Methylnaphthalene	10.57	142	2482123	6.18	ug/mL	97
40) 1,2,4,5-tetrachlorobenzene	10.86	216	1522097	7.29	ug/mL#	94
41) Hexachlorocyclopentadiene	10.87	237	398308	4.25	ug/mL	96
42) Biphenyl	11.22	153	1506664	7.27	ug/mL	99
43) 2,4,6-Trichlorophenol	11.03	196	956547	5.62	ug/mL	97
44) 2,4,5-Trichlorophenol	11.14	196	1099923	6.21	ug/mL	91
46) 2-Chloronaphthalene	11.24	162	2649699	6.55	ug/mL	97
47) 2-Nitroaniline	11.47	138	917386	5.19	ug/mL	95
48) Dimethylphthalate	11.72	163	3444041	6.19	ug/mL	99
49) 2,6-Dinitrotoluene	11.84	165	718032	5.71	ug/mL	95
50) Acenaphthylene	11.83	152	4062812	6.69	ug/mL	99
51) 3-Nitroaniline	12.06	138	490657	5.25	ug/mL#	84
52) Acenaphthene	12.09	154	2349435	6.72	ug/mL	98
53) 2,4-Dinitrophenol	12.21	184	310222	4.03	ug/mL	94
54) Dibenzofuran	12.31	168	3686951	6.37	ug/mL	97
55) 2,4-Dinitrotoluene	12.40	165	1069447	5.69	ug/mL	99
56) 4-Nitrophenol	12.43	65	662981	5.62	ug/mL	94
57) 2,3,4,6-Tetrachlorophenol	12.58	131	346020	5.47	ug/mL	96
58) Diethyl phthalate	12.70	149	3617357	6.38	ug/mL	98
59) Fluorene	12.80	166	2818736	6.96	ug/mL	99
60) 4-Chlorophenyl phenylether	12.79	204	1643344	7.34	ug/mL	88
61) 4-Nitroaniline	12.94	138	795658	6.73	ug/mL#	76
63) 4,6-Dinitro-2-methylphenol	12.97	198	551690	5.44	ug/mL#	31
64) Diphenylamine	12.97	169	2130249m	6.54	ug/mL	
65) N-Nitrosodiphenylamine	12.97	167	780905m	5.63	ug/mL	
66) Azobenzene	13.01	77	3885667	5.52	ug/mL#	77
68) 4-Bromophenyl phenylether	13.48	248	1093147	6.14	ug/mL	93
69) Atrazine	13.79	200	1212619	6.48	ug/mL	93
70) Hexachlorobenzene	13.70	142	399603	5.88	ug/mL	93

(#)=qualifier out of range (m)=manual integration

E201046.D BNA2M269.M Tue Mar 15 14:51:42 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031416\E201046.D

Vial: 7

Acq On : 14 Mar 2016 2:14 pm

Operator: KH

Sample : 5 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:41 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:12:48 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.99	266	415876m	4.70	ug/mL	
72) Pentachloronitrobenzene	14.09	237	444813	5.81	ug/mL	94
73) Phenanthrene	14.17	178	3976815m	7.55	ug/mL	
74) Anthracene	14.22	178	4349418m	7.54	ug/mL	
75) Carbazole	14.49	167	3692336m	6.89	ug/mL	
76) Di-n-butyl phthalate	15.01	149	6086446	6.31	ug/mL	98
77) Fluoranthene	15.88	202	5131233	6.44	ug/mL	99
78) Benzidine	16.09	184	1939504	6.74	ug/mL	95
80) Pyrene	16.20	202	5418433	5.20	ug/mL	100
82) Benzyl butyl phthalate	17.15	149	2824753	4.76	ug/mL	96
83) Bis(2-ethylhexyl) phthalat	17.96	149	2071154	4.70	ug/mL	96
84) Benz (a) anthracene	17.92	228	4209401	5.82	ug/mL	97
85) 3,3-Dichlorobenzidine	17.92	252	2129387m	11.53	ug/mL	
86) Chrysene	17.99	228	4356080	5.41	ug/mL	98
87) Di-n-octyl phthalate	18.78	149	7120006	4.94	ug/mL	100
88) Benzo(b)fluoranthene	19.40	252	3350800m	2.71	ug/mL	
89) Benzo(k)fluoranthene	19.43	252	4901154	4.68	ug/mL#	96
90) Benzo(a)pyrene	19.86	252	4532000	4.87	ug/mL	99
92) Indeno(1,2,3-cd)pyrene	21.72	276	4846389	5.91	ug/mL#	97
93) Dibenz(a,h)anthracene	21.72	278	4065565	5.97	ug/mL	99
94) Benzo(g,h,i)perylene	22.23	276	3989635	5.51	ug/mL	98

(#) = qualifier out of range (m) = manual integration

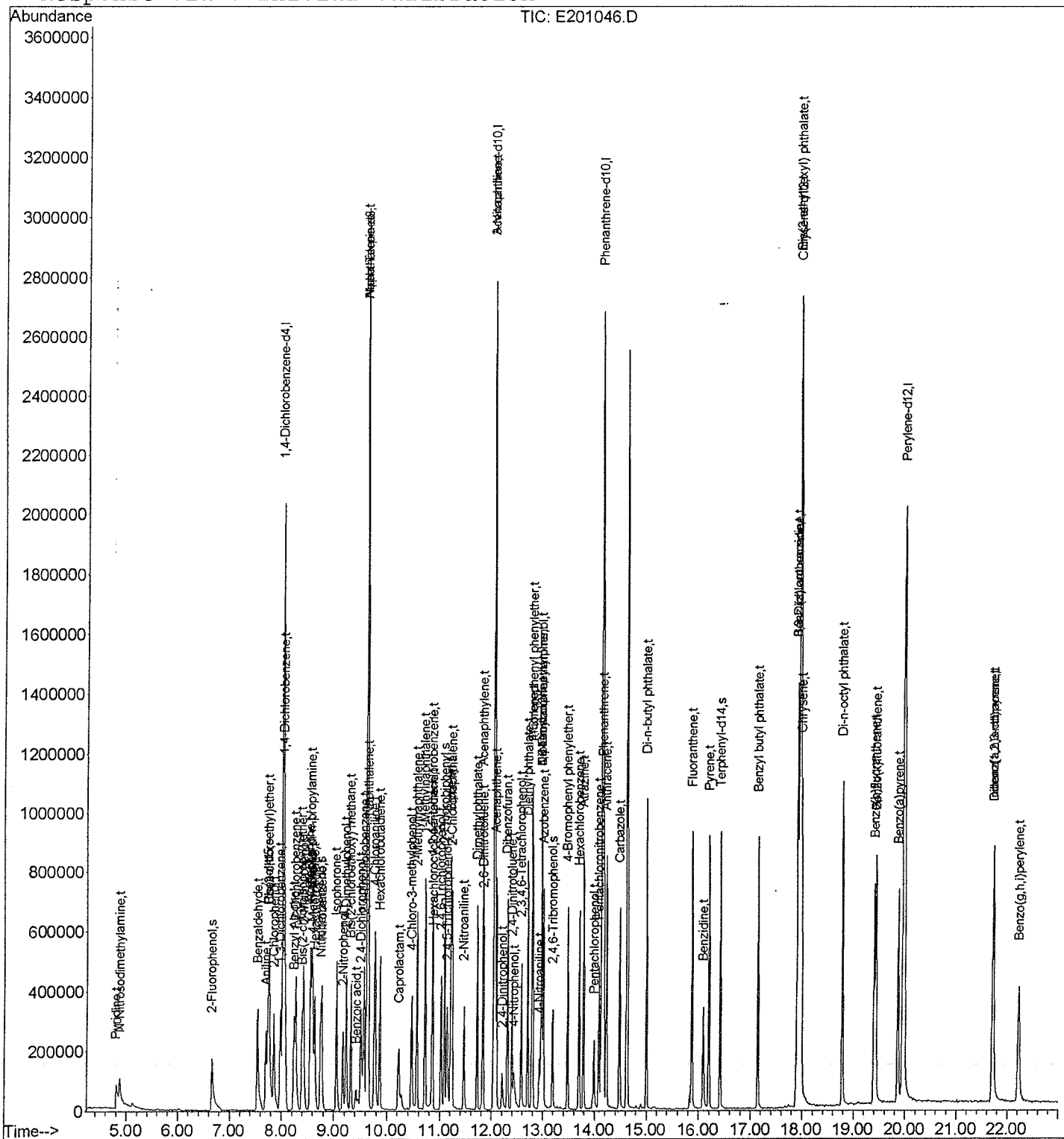
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201046.D
 Acq On : 14 Mar 2016 2:14 pm
 Sample : 5 ppm - ICAL
 Misc : QBSV2031416A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 15 14:41 2016

Vial: 7
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Quant Results File: BNA2M269.RES

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\E2031416\E201047.D

Vial: 8

Acq On : 14 Mar 2016 2:45 pm

Operator: KH

Sample : 10 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:47 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 10:43:52 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	6112293	40.00	ug/mL	0.07
21) Naphthalene-d8	9.64	136	17272979	40.00	ug/mL	0.07
39) Acenaphthene-d10	12.06	164	9889293	40.00	ug/mL	0.07
62) Phenanthrene-d10	14.15	188	18806406	40.00	ug/mL	0.07
79) Chrysene-d12	17.97	240	14578252	40.00	ug/mL	0.06
91) Perylene-d12	19.99	264	19006365	40.00	ug/mL	0.08

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	2480478	17.28	ug/mL	0.12
Spiked Amount	75.000	Range	15 - 87	Recovery	=	23.04%
5) Phenol-d5	7.74	99	2994661	17.18	ug/mL	0.10
Spiked Amount	75.000	Range	10 - 100	Recovery	=	22.91%
22) Nitrobenzene-d5	8.75	82	2894536	31.22	ug/mL	0.06
Spiked Amount	50.000	Range	26 - 120	Recovery	=	62.44%
45) 2-Fluorobiphenyl	11.10	172	5491631	35.23	ug/mL	0.06
Spiked Amount	50.000	Range	29 - 120	Recovery	=	70.46%
67) 2,4,6-Tribromophenol	13.20	330	1181073	16.07	ug/mL	0.06
Spiked Amount	75.000	Range	35 - 126	Recovery	=	21.43%#
81) Terphenyl-d14	16.42	244	5935295	39.43	ug/mL	0.06
Spiked Amount	50.000	Range	35 - 127	Recovery	=	78.86%

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.87	74	1132623	5.57	ug/mL# 75
3) Pyridine	4.78	79	2521311m	8.63	ug/mL
6) Benzaldehyde	7.54	105	2347492	9.76	ug/mL 99
7) Aniline	7.71	93	3142461	8.40	ug/mL# 52
8) Phenol	7.75	94	3579841m	9.32	ug/mL
9) Bis(2-chloroethyl) ether	7.76	93	3350807	10.33	ug/mL 87
10) 2-Chlorophenol	7.86	128	2794098	9.94	ug/mL 95
11) 1,3-Dichlorobenzene	7.98	146	2798361	9.81	ug/mL 99
12) 1,4-Dichlorobenzene	8.05	146	2974028	10.42	ug/mL 98
13) Benzyl Alcohol	8.24	108	1678785	9.42	ug/mL 98
14) 1,2-Dichlorobenzene	8.27	146	2994538	10.88	ug/mL 95
15) 2-Methylphenol	8.42	107	2114347	9.15	ug/mL 95
16) Acetophenone	8.56	105	3818253	10.10	ug/mL 97
17) Bis(2-chloroisopropyl) eth	8.40	45	4953570	8.30	ug/mL 94
18) N-Nitroso-di-n-propylamine	8.59	70	2366193	9.27	ug/mL 97
19) 4-Methylphenol	8.60	107	2866554	9.82	ug/mL# 49
20) Hexachloroethane	8.64	117	1218016	10.43	ug/mL# 79
23) Nitrobenzene	8.78	77	3159035	12.19	ug/mL 96
24) Isophorone	9.06	82	5823247	11.31	ug/mL# 94
25) 2-Nitrophenol	9.18	139	1656123	11.73	ug/mL 92

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201047.D

Vial: 8

Acq On : 14 Mar 2016 2:45 pm

Operator: KH

Sample : 10 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:47 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 10:43:52 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.24	122	2097046	11.16	ug/mL	95
27) Bis(2-chloroethoxy) methan	9.33	93	3227491	11.13	ug/mL	99
28) Benzoic acid	9.45	105	1240862	6.84	ug/mL	97
29) 2,4-Dichlorophenol	9.51	162	2573787	13.94	ug/mL#	87
30) 1,2,4-Trichlorobenzene	9.57	180	2820070	13.46	ug/mL#	95
31) Naphthalene	9.66	128	6212335	12.05	ug/mL	99
32) Alpha-Terpineol	9.63	59	1897369	11.55	ug/mL#	1
33) 4-Chloroaniline	9.77	127	2941769	17.91	ug/mL	94
34) Hexachlorobutadiene	9.87	225	1625187	13.51	ug/mL	92
35) Caprolactam	10.25	113	857586	10.31	ug/mL#	1
36) 4-Chloro-3-methylphenol	10.46	107	2737245	12.63	ug/mL	90
37) 1-Methylnaphthalene	10.72	141	4626237	11.27	ug/mL	98
38) 2-Methylnaphthalene	10.57	142	4549253	12.68	ug/mL	98
40) 1,2,4,5-tetrachlorobenzene	10.86	216	2512873	12.10	ug/mL#	93
41) Hexachlorocyclopentadiene	10.87	237	1079047	9.24	ug/mL	97
42) Biphenyl	11.22	153	2547538	12.04	ug/mL	96
43) 2,4,6-Trichlorophenol	11.03	196	1986918	13.47	ug/mL#	90
44) 2,4,5-Trichlorophenol	11.14	196	2173760m	12.95	ug/mL	
46) 2-Chloronaphthalene	11.25	162	4783585	13.02	ug/mL	95
47) 2-Nitroaniline	11.47	138	1941724	11.92	ug/mL#	84
48) Dimethylphthalate	11.73	163	6276372	12.62	ug/mL	99
49) 2,6-Dinitrotoluene	11.85	165	1411093	14.13	ug/mL	85
50) Acenaphthylene	11.84	152	6956976	12.12	ug/mL	99
51) 3-Nitroaniline	12.07	138	936056	10.20	ug/mL#	93
52) Acenaphthene	12.10	154	4061573	11.93	ug/mL	98
53) 2,4-Dinitrophenol	12.21	184	880739	12.47	ug/mL	87
54) Dibenzofuran	12.32	168	6648632	12.41	ug/mL#	70
55) 2,4-Dinitrotoluene	12.40	165	2204853	13.30	ug/mL#	85
56) 4-Nitrophenol	12.42	65	1412435	10.36	ug/mL#	85
57) 2,3,4,6-Tetrachlorophenol	12.58	131	676905	11.17	ug/mL#	73
58) Diethyl phthalate	12.71	149	6279931	13.04	ug/mL	99
59) Fluorene	12.81	166	4749542	12.69	ug/mL	99
60) 4-Chlorophenyl phenylether	12.79	204	2641679	12.49	ug/mL#	83
61) 4-Nitroaniline	12.95	138	1390580	9.49	ug/mL#	46
63) 4,6-Dinitro-2-methylphenol	12.98	198	1089690	10.96	ug/mL#	14
64) Diphenylamine	12.99	169	3657849	11.53	ug/mL	98
65) N-Nitrosodiphenylamine	12.98	167	1172082m	10.03	ug/mL	
66) Azobenzene	13.02	77	6891147	11.33	ug/mL#	81
68) 4-Bromophenyl phenylether	13.48	248	1962433	10.91	ug/mL#	75
69) Atrazine	13.80	200	2017192	11.93	ug/mL	95
70) Hexachlorobenzene	13.70	142	652133	11.45	ug/mL	58

(#)=qualifier out of range (m)=manual integration

E201047.D BNA2M269.M Tue Mar 15 14:51:58 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031416\E201047.D

Vial: 8

Acq On : 14 Mar 2016 2:45 pm

Operator: KH

Sample : 10 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:47 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 10:43:52 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.99	266	982823	7.19	ug/mL	95
72) Pentachloronitrobenzene	14.09	237	779657	10.70	ug/mL	95
73) Phenanthrene	14.18	178	6787852	11.83	ug/mL	99
74) Anthracene	14.24	178	7463097	11.79	ug/mL	99
75) Carbazole	14.49	167	6290437	10.81	ug/mL#	100
76) Di-n-butyl phthalate	15.01	149	10306189	12.89	ug/mL	98
77) Fluoranthene	15.88	202	8595168	12.44	ug/mL	98
78) Benzidine	16.10	184	3209914	15.28	ug/mL#	91
80) Pyrene	16.21	202	8882635	14.17	ug/mL	99
82) Benzyl butyl phthalate	17.15	149	5011978	14.67	ug/mL#	86
83) Bis(2-ethylhexyl) phthalat	17.97	149	3400089	9.29	ug/mL#	91
84) Benz (a) anthracene	17.93	228	6228719	12.46	ug/mL	97
85) 3,3-Dichlorobenzidine	17.93	252	3511524	23.02	ug/mL#	91
86) Chrysene	18.00	228	6583265	12.24	ug/mL	96
87) Di-n-octyl phthalate	18.79	149	12139671	14.15	ug/mL	100
88) Benzo(b)fluoranthene	19.41	252	7133648	11.15	ug/mL#	100
89) Benzo(k)fluoranthene	19.45	252	7761054	10.98	ug/mL#	57
90) Benzo(a)pyrene	19.87	252	8002514	12.34	ug/mL#	93
92) Indeno(1,2,3-cd)pyrene	21.74	276	8349096	10.94	ug/mL	97
93) Dibenz(a,h)anthracene	21.75	278	6716917	10.77	ug/mL#	92
94) Benzo(g,h,i)perylene	22.25	276	7328506	11.07	ug/mL	94

(#) = qualifier out of range (m) = manual integration

E201047.D BNA2M269.M Tue Mar 15 14:51:58 2016

Page 3

475 of 1077

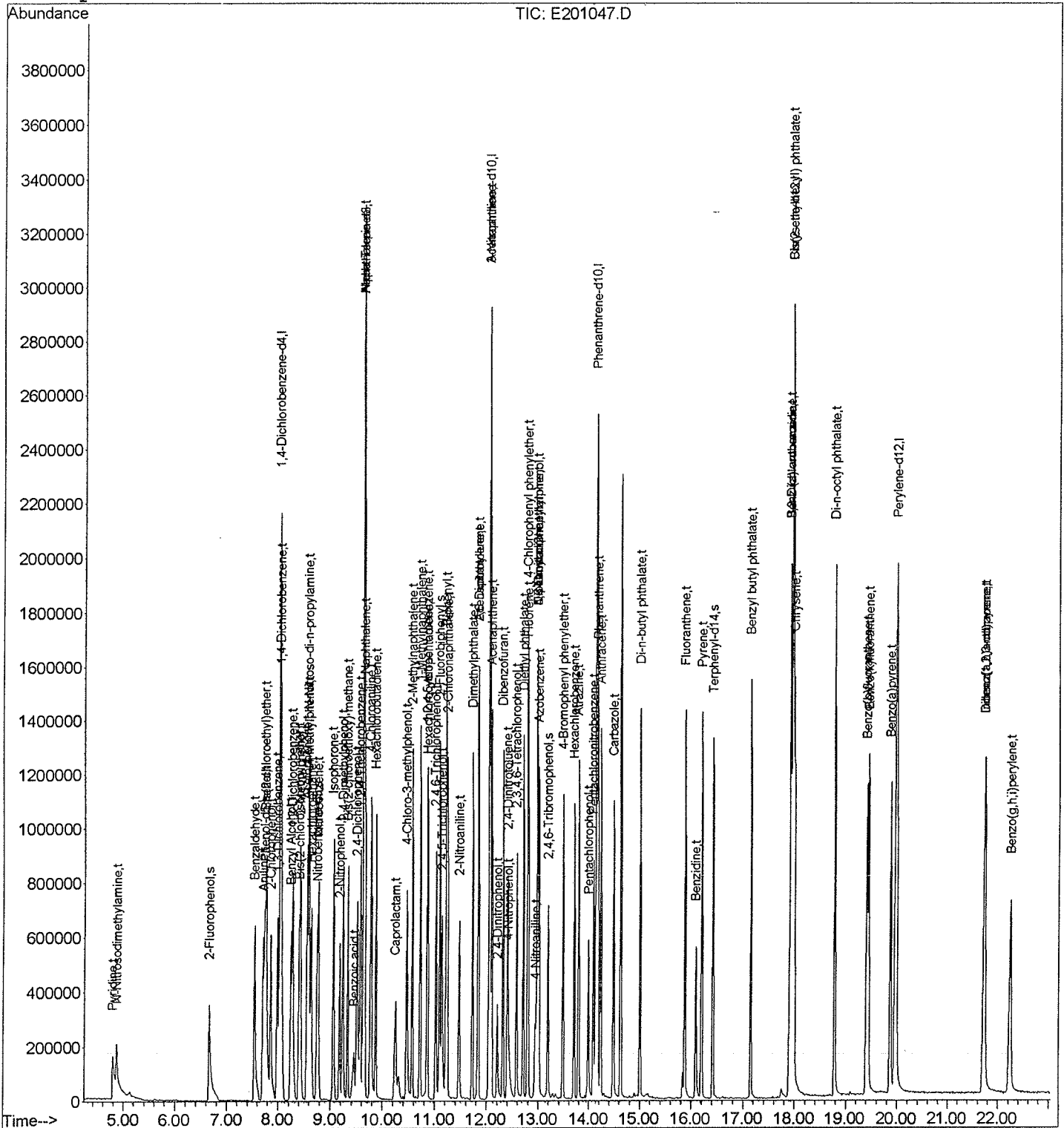
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201047.D
Acq On : 14 Mar 2016 2:45 pm
Sample : 10 ppm - ICAL
Misc : QBSV2031416A
MS Integration Params: EVENTS.E
Quant Time: Mar 15 14:47 2016 Quan

Vial: 8
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Data File : C:\HPCHEM\1\DATA\E2031416\E201048.D

Vial: 9

Acq On : 14 Mar 2016 3:16 pm

Operator: KH

Sample : 15 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:15 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:15:20 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.02	152	5010892	40.00	ug/mL	0.00
21) Naphthalene-d8	9.63	136	14309225	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.06	164	8229573	40.00	ug/mL	0.00
62) Phenanthrene-d10	14.15	188	15826173	40.00	ug/mL	0.00
79) Chrysene-d12	17.96	240	12121920	40.00	ug/mL	0.00
91) Perylene-d12	19.98	264	15476434	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	3029331	14.62	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	19.49%
5) Phenol-d5	7.73	99	3505192	15.11	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	20.15%
22) Nitrobenzene-d5	8.75	82	3454525	14.02	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	28.04%
45) 2-Fluorobiphenyl	11.10	172	5837425	15.44	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	30.88%
67) 2,4,6-Tribromophenol	13.20	330	1282115	14.91	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	19.88%#
81) Terphenyl-d14	16.42	244	6804090	14.01	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	28.02%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.86	74	1655655	16.24	ug/mL	88
3) Pyridine	4.78	79	2710283m	22.74	ug/mL	
6) Benzaldehyde	7.54	105	2577072	14.98	ug/mL	98
7) Aniline	7.71	93	3610855	14.75	ug/mL#	30
8) Phenol	7.75	94	3920868	15.94	ug/mL#	65
9) Bis(2-chloroethyl) ether	7.76	93	3550025	13.07	ug/mL	96
10) 2-Chlorophenol	7.85	128	3288496	14.41	ug/mL	98
11) 1,3-Dichlorobenzene	7.98	146	3247982	14.72	ug/mL	99
12) 1,4-Dichlorobenzene	8.04	146	3569434	15.19	ug/mL	99
13) Benzyl Alcohol	8.24	108	1958306	14.93	ug/mL	95
14) 1,2-Dichlorobenzene	8.27	146	3350508	14.90	ug/mL	98
15) 2-Methylphenol	8.42	107	2547998	14.38	ug/mL	98
16) Acetophenone	8.56	105	4272323	14.51	ug/mL	100
17) Bis(2-chloroisopropyl) eth	8.40	45	5935203	14.64	ug/mL	97
18) N-Nitroso-di-n-propylamine	8.59	70	2595361	14.25	ug/mL	97
19) 4-Methylphenol	8.60	107	3310868	15.67	ug/mL	88
20) Hexachloroethane	8.64	117	1354954	13.97	ug/mL	94
23) Nitrobenzene	8.78	77	3608004	14.79	ug/mL	98
24) Isophorone	9.06	82	6560338	14.14	ug/mL	98
25) 2-Nitrophenol	9.18	139	1890882	14.72	ug/mL	93

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201048.D

Vial: 9

Acq On : 14 Mar 2016 3:16 pm

Operator: KH

Sample : 15 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:15 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:15:20 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.24	122	2410148	14.86	ug/mL	99
27) Bis(2-chloroethoxy) methan	9.33	93	3655927	14.83	ug/mL	99
28) Benzoic acid	9.46	105	1528027	17.24	ug/mL	95
29) 2,4-Dichlorophenol	9.51	162	2894879	15.07	ug/mL	97
30) 1,2,4-Trichlorobenzene	9.57	180	3087717	14.47	ug/mL	98
31) Naphthalene	9.66	128	6793324	15.28	ug/mL	99
32) Alpha-Terpineol	9.63	59	2322154	14.66	ug/mL#	1
33) 4-Chloroaniline	9.77	127	3151480	14.94	ug/mL	93
34) Hexachlorobutadiene	9.87	225	1704395	14.51	ug/mL	93
35) Caprolactam	10.26	113	867799	12.90	ug/mL	99
36) 4-Chloro-3-methylphenol	10.46	107	2989106	14.55	ug/mL	97
37) 1-Methylnaphthalene	10.72	141	4798141	14.72	ug/mL	97
38) 2-Methylnaphthalene	10.57	142	4907528	15.07	ug/mL	98
40) 1,2,4,5-tetrachlorobenzene	10.86	216	2816224	16.33	ug/mL#	94
41) Hexachlorocyclopentadiene	10.87	237	1233028	15.92	ug/mL	95
42) Biphenyl	11.22	153	2554696	14.92	ug/mL	97
43) 2,4,6-Trichlorophenol	11.03	196	2105961	14.98	ug/mL	99
44) 2,4,5-Trichlorophenol	11.14	196	2369317	15.51	ug/mL	94
46) 2-Chloronaphthalene	11.25	162	5134908	15.37	ug/mL	98
47) 2-Nitroaniline	11.47	138	2163246	14.80	ug/mL	95
48) Dimethylphthalate	11.73	163	6846812	14.90	ug/mL	99
49) 2,6-Dinitrotoluene	11.85	165	1567753	15.10	ug/mL	91
50) Acenaphthylene	11.84	152	7527505	14.99	ug/mL	99
51) 3-Nitroaniline	12.07	138	1093229	14.15	ug/mL#	98
52) Acenaphthene	12.10	154	4436084	15.37	ug/mL	99
53) 2,4-Dinitrophenol	12.21	184	981569	15.43	ug/mL	95
54) Dibenzofuran	12.32	168	7186965	15.02	ug/mL	99
55) 2,4-Dinitrotoluene	12.40	165	2422481	15.63	ug/mL	97
56) 4-Nitrophenol	12.42	65	1710769	14.95	ug/mL	92
57) 2,3,4,6-Tetrachlorophenol	12.58	131	840538	16.09	ug/mL	91
58) Diethyl phthalate	12.71	149	7118521	15.20	ug/mL	100
59) Fluorene	12.81	166	5186278	15.50	ug/mL	97
60) 4-Chlorophenyl phenylether	12.79	204	2877564	15.55	ug/mL	94
61) 4-Nitroaniline	12.95	138	1558288	15.97	ug/mL#	80
63) 4,6-Dinitro-2-methylphenol	12.98	198	1336040	16.63	ug/mL#	29
64) Diphenylamine	12.99	169	4055078	15.71	ug/mL	98
65) N-Nitrosodiphenylamine	12.99	167	1524887	13.87	ug/mL	98
66) Azobenzene	13.02	77	8156725	14.61	ug/mL#	78
68) 4-Bromophenyl phenylether	13.48	248	2124390	15.04	ug/mL	94
69) Atrazine	13.80	200	2199501	14.81	ug/mL	99
70) Hexachlorobenzene	13.70	142	769626	14.29	ug/mL	91

(#)=qualifier out of range (m)=manual integration

E201048.D BNA2M269.M

Tue Mar 15 14:52:06 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031416\E201048.D

Vial: 9

Acq On : 14 Mar 2016 3:16 pm

Operator: KH

Sample : 15 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:15 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:15:20 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	13.99	266	1137808	16.22	ug/mL	98
72) Pentachloronitrobenzene	14.09	237	884219	14.56	ug/mL	99
73) Phenanthrene	14.18	178	7718458	18.48	ug/mL	100
74) Anthracene	14.24	178	8571182	18.75	ug/mL	99
75) Carbazole	14.49	167	6035286	14.20	ug/mL#	91
76) Di-n-butyl phthalate	15.01	149	11663267	15.24	ug/mL	99
77) Fluoranthene	15.88	202	9625132	15.25	ug/mL	99
78) Benzidine	16.10	184	3386059	14.86	ug/mL	99
80) Pyrene	16.21	202	9780268	13.48	ug/mL	99
82) Benzyl butyl phthalate	17.15	149	5412628	13.11	ug/mL	98
83) Bis(2-ethylhexyl) phthalat	17.97	149	4385083	14.32	ug/mL#	97
84) Benz (a) anthracene	17.92	228	6675341	13.28	ug/mL	97
85) 3,3-Dichlorobenzidine	17.92	252	3443077	26.79	ug/mL	96
86) Chrysene	18.00	228	7288402	13.00	ug/mL	97
87) Di-n-octyl phthalate	18.79	149	13552048	13.50	ug/mL	100
88) Benzo(b)fluoranthene	19.41	252	8625878	11.92	ug/mL#	98
89) Benzo(k)fluoranthene	19.45	252	8202613	11.26	ug/mL#	96
90) Benzo(a)pyrene	19.88	252	9055380	13.98	ug/mL	99
92) Indeno(1,2,3-cd)pyrene	21.75	276	9775905	15.24	ug/mL#	96
93) Dibenz(a,h)anthracene	21.75	278	7208204	13.52	ug/mL	100
94) Benzo(g,h,i)perylene	22.26	276	8284647	14.62	ug/mL	98

(#) = qualifier out of range (m) = manual integration

E201048.D BNA2M269.M

Tue Mar 15 14:52:06 2016

Page 3

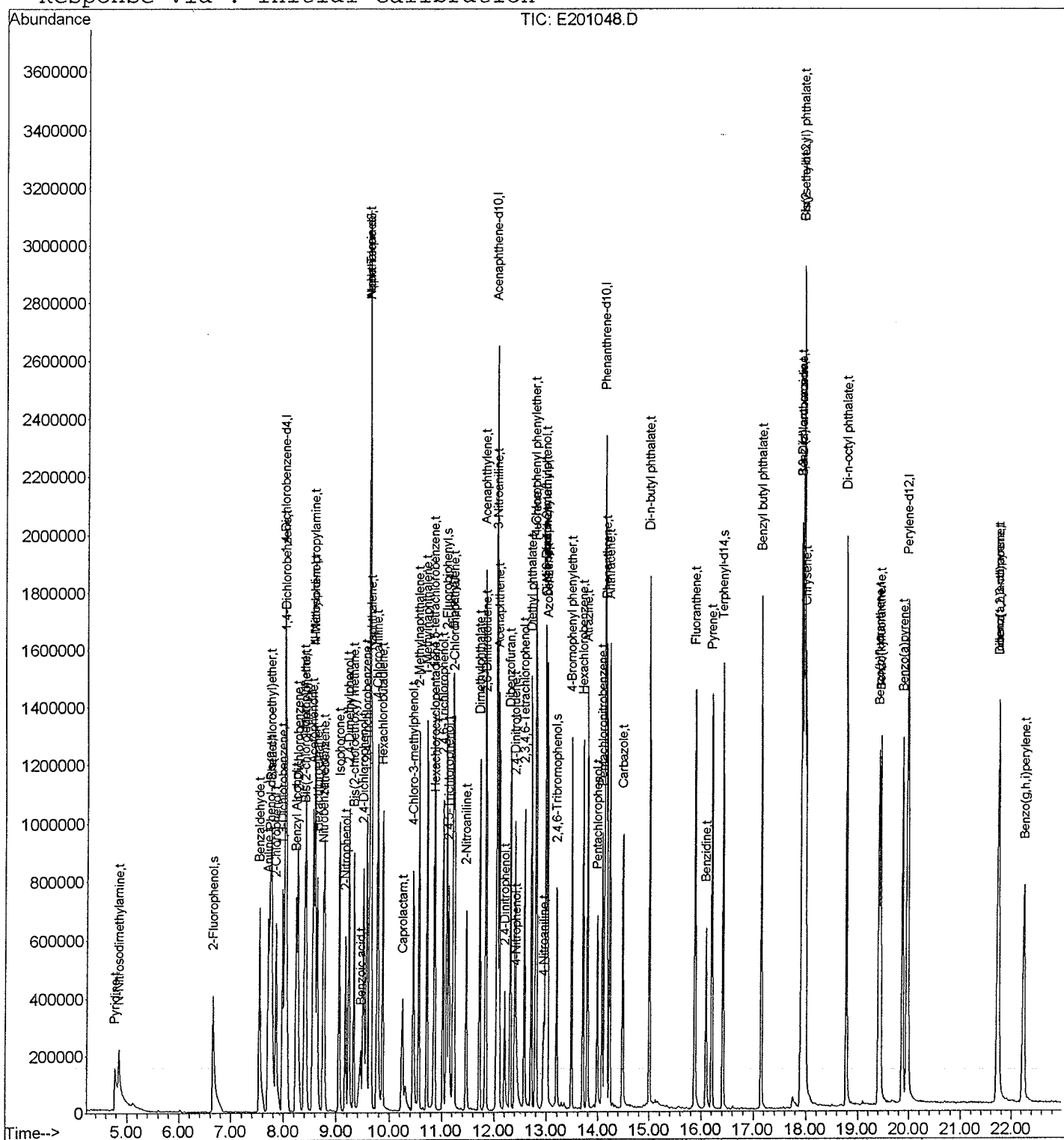
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201048.D
Acq On : 14 Mar 2016 3:16 pm
Sample : 15 ppm - ICAL
Misc : QBSV2031416A
MS Integration Params: EVENTS.E
Quant Time: Mar 15 14:15 2016 Quan

Vial: 9
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Data File : C:\HPCHEM\1\DATA\E2031416\E201049.D

Vial: 10

Acq On : 14 Mar 2016 3:47 pm

Operator: KH

Sample : 20 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:17 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:16:27 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	5191475	40.00	ug/mL	0.00
21) Naphthalene-d8	9.63	136	14481494	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.06	164	8912103	40.00	ug/mL	0.00
62) Phenanthrene-d10	14.15	188	15100944	40.00	ug/mL	0.00
79) Chrysene-d12	17.96	240	10547200	40.00	ug/mL	0.00
91) Perylene-d12	19.99	264	18552186	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.65	112	4091551	19.07	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	25.43%
5) Phenol-d5	7.73	99	4751049	19.77	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	26.36%
22) Nitrobenzene-d5	8.76	82	4736299	18.99	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	37.98%
45) 2-Fluorobiphenyl	11.10	172	7645710	18.69	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	37.38%
67) 2,4,6-Tribromophenol	13.20	330	1914150	23.34	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	31.12%#
81) Terphenyl-d14	16.43	244	8553638	20.26	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	40.52%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.85	74	2437428m	22.71	ug/mL	
3) Pyridine	4.77	79	3717971m	25.92	ug/mL	
6) Benzaldehyde	7.54	105	3373883	18.93	ug/mL	98
7) Aniline	7.71	93	5095388	20.09	ug/mL#	31
8) Phenol	7.75	94	5641277	19.68	ug/mL#	63
9) Bis(2-chloroethyl) ether	7.77	93	5173485	18.38	ug/mL	99
10) 2-Chlorophenol	7.85	128	4587661	19.40	ug/mL	99
11) 1,3-Dichlorobenzene	7.98	146	4483222	19.61	ug/mL	99
12) 1,4-Dichlorobenzene	8.05	146	4824186	19.82	ug/mL	99
13) Benzyl Alcohol	8.24	108	2646771	19.48	ug/mL	96
14) 1,2-Dichlorobenzene	8.27	146	4551327	19.54	ug/mL	100
15) 2-Methylphenol	8.42	107	3457988	18.83	ug/mL	97
16) Acetophenone	8.56	105	5834058	19.12	ug/mL	99
17) Bis(2-chloroisopropyl) eth	8.40	45	8073955	19.22	ug/mL	98
18) N-Nitroso-di-n-propylamine	8.59	70	3510138	18.61	ug/mL	96
19) 4-Methylphenol	8.60	107	4268605	19.50	ug/mL	92
20) Hexachloroethane	8.64	117	1893803	18.84	ug/mL	96
23) Nitrobenzene	8.78	77	4983029	20.19	ug/mL	98
24) Isophorone	9.07	82	9158621	19.51	ug/mL	98
25) 2-Nitrophenol	9.18	139	2657922	20.47	ug/mL	94

(#) = qualifier out of range (m) = manual integration

E201049.D BNA2M269.M Tue Mar 15 14:52:21 2016

Data File : C:\HPCHEM\1\DATA\E2031416\E201049.D

Vial: 10

Acq On : 14 Mar 2016 3:47 pm

Operator: KH

Sample : 20 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:17 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:16:27 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.24	122	3212330	19.56	ug/mL	97
27) Bis(2-chloroethoxy) methan	9.33	93	4871630	19.52	ug/mL	99
28) Benzoic acid	9.49	105	2440032	27.20	ug/mL	96
29) 2,4-Dichlorophenol	9.51	162	4000264	20.58	ug/mL	98
30) 1,2,4-Trichlorobenzene	9.58	180	4197791	19.43	ug/mL	97
31) Naphthalene	9.66	128	9070339	20.16	ug/mL	99
32) Alpha-Terpineol	9.64	59	3248342	20.28	ug/mL#	47
33) 4-Chloroaniline	9.77	127	4242303	19.87	ug/mL	97
34) Hexachlorobutadiene	9.88	225	2421684	20.38	ug/mL	97
35) Caprolactam	10.28	113	1256406	18.47	ug/mL	96
36) 4-Chloro-3-methylphenol	10.46	107	4265111	20.52	ug/mL	99
37) 1-Methylnaphthalene	10.73	141	6298177	19.09	ug/mL	97
38) 2-Methylnaphthalene	10.57	142	6490651	19.72	ug/mL	97
40) 1,2,4,5-tetrachlorobenzene	10.86	216	3292828	17.64	ug/mL	94
41) Hexachlorocyclopentadiene	10.87	237	1848185	22.03	ug/mL	96
42) Biphenyl	11.23	153	3354751	18.09	ug/mL	99
43) 2,4,6-Trichlorophenol	11.03	196	3002853	19.72	ug/mL	96
44) 2,4,5-Trichlorophenol	11.13	196	3431818	20.36	ug/mL	94
46) 2-Chloronaphthalene	11.25	162	6860020	18.96	ug/mL	98
47) 2-Nitroaniline	11.48	138	3045493	19.25	ug/mL	97
48) Dimethylphthalate	11.73	163	9415483	18.92	ug/mL	100
49) 2,6-Dinitrotoluene	11.86	165	2188419	19.47	ug/mL	92
50) Acenaphthylene	11.84	152	10227518	18.81	ug/mL	99
51) 3-Nitroaniline	12.08	138	1570696	18.77	ug/mL	95
52) Acenaphthene	12.10	154	5912933	18.91	ug/mL	99
53) 2,4-Dinitrophenol	12.21	184	1566863	22.75	ug/mL	96
54) Dibenzofuran	12.32	168	9767135	18.86	ug/mL	99
55) 2,4-Dinitrotoluene	12.41	165	3447208	20.54	ug/mL	97
56) 4-Nitrophenol	12.41	65	2444213	19.73	ug/mL	98
57) 2,3,4,6-Tetrachlorophenol	12.59	131	1106173	19.56	ug/mL	90
58) Diethyl phthalate	12.72	149	9593752	18.91	ug/mL	99
59) Fluorene	12.81	166	6776611	18.71	ug/mL	97
60) 4-Chlorophenyl phenylether	12.80	204	3753469	18.74	ug/mL	93
61) 4-Nitroaniline	12.96	138	2004246	18.96	ug/mL	89
63) 4,6-Dinitro-2-methylphenol	12.99	198	1802623	23.52	ug/mL#	12
64) Diphenylamine	13.00	169	5131351	20.82	ug/mL	94
65) N-Nitrosodiphenylamine	13.00	167	1919868	18.31	ug/mL	94
66) Azobenzene	13.02	77	10977759	20.61	ug/mL#	81
68) 4-Bromophenyl phenylether	13.49	248	2972025	22.06	ug/mL	93
69) Atrazine	13.80	200	2937828	20.73	ug/mL	100
70) Hexachlorobenzene	13.71	142	1023879	19.93	ug/mL	89

(#)=qualifier out of range (m)=manual integration

E201049.D BNA2M269.M Tue Mar 15 14:52:21 2016

Data File : C:\HPCHEM\1\DATA\E2031416\E201049.D

Vial: 10

Acq On : 14 Mar 2016 3:47 pm

Operator: KH

Sample : 20 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:17 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:16:27 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	14.00	266	1873187	27.99	ug/mL	98
72) Pentachloronitrobenzene	14.10	237	1297713	22.39	ug/mL	97
75) Carbazole	14.49	167	7997365	19.73	ug/mL#	100
76) Di-n-butyl phthalate	15.02	149	15557294	21.30	ug/mL	99
77) Fluoranthene	15.89	202	12295520	20.42	ug/mL	100
78) Benzidine	16.10	184	4465221	20.51	ug/mL	100
80) Pyrene	16.21	202	12654351	20.06	ug/mL	99
82) Benzyl butyl phthalate	17.16	149	7427475	20.70	ug/mL	98
83) Bis(2-ethylhexyl) phthalat	17.97	149	5619237	21.11	ug/mL#	94
84) Benz (a) anthracene	17.93	228	8102667	18.53	ug/mL	98
85) 3,3-Dichlorobenzidine	17.93	252	4330766	38.76	ug/mL	97
86) Chrysene	18.01	228	9309532	19.10	ug/mL	99
87) Di-n-octyl phthalate	18.79	149	18105006	20.75	ug/mL	100
88) Benzo(b)fluoranthene	19.42	252	11622114	18.48	ug/mL#	97
89) Benzo(k)fluoranthene	19.46	252	10849670	17.13	ug/mL#	95
90) Benzo(a)pyrene	19.88	252	11501244	20.42	ug/mL	97
92) Indeno(1,2,3-cd)pyrene	21.78	276	14087478m	18.36	ug/mL	
93) Dibenz(a,h)anthracene	21.77	278	11362241	17.80	ug/mL	98
94) Benzo(g,h,i)perylene	22.28	276	12482711	18.37	ug/mL	97

(#) = qualifier out of range (m) = manual integration

E201049.D BNA2M269.M Tue Mar 15 14:52:22 2016

Page 3

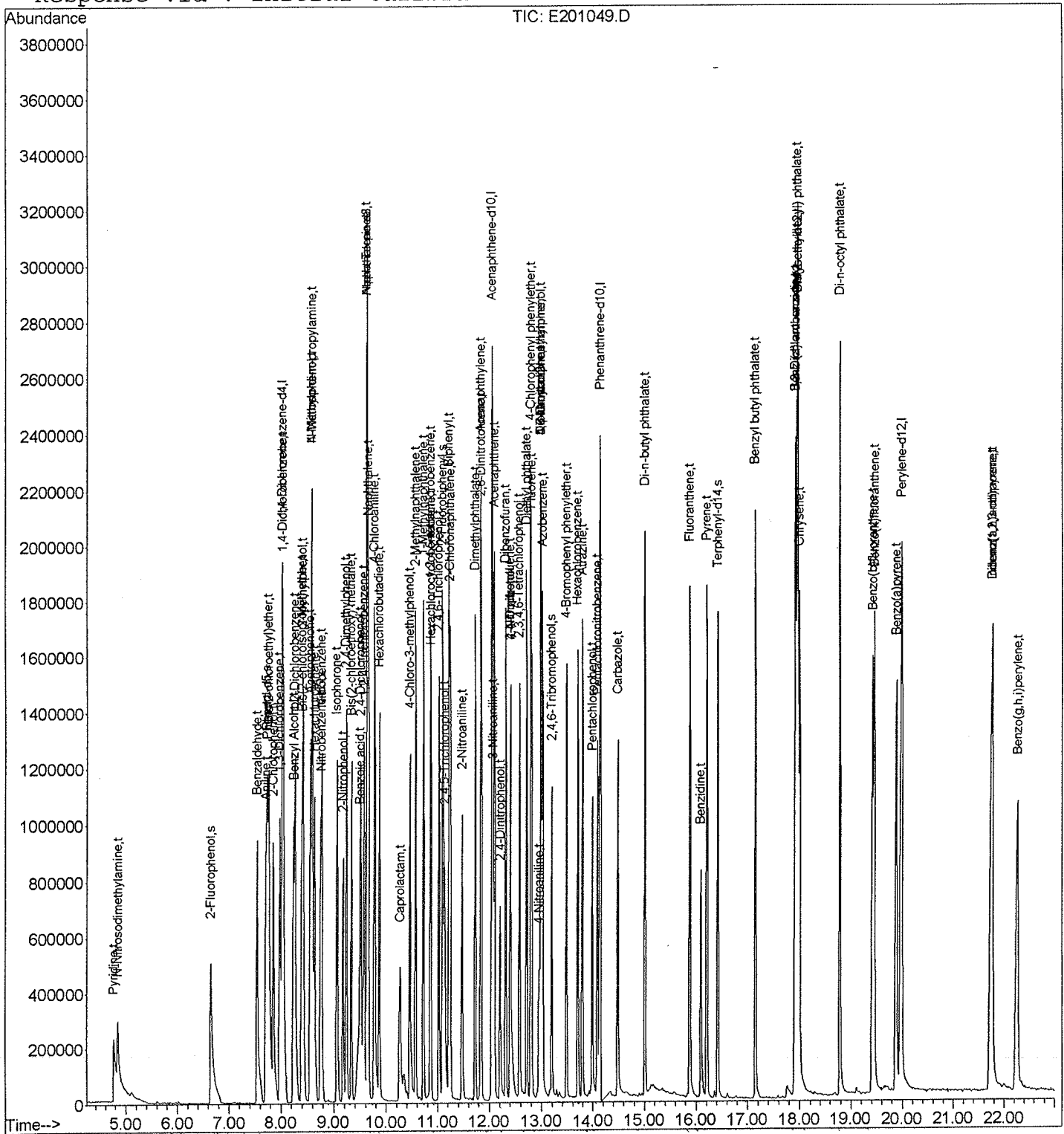
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201049.D
Acq On : 14 Mar 2016 3:47 pm
Sample : 20 ppm - ICAL
Misc : QBSV2031416A
MS Integration Params: EVENTS.E
Quant Time: Mar 15 14:17 2016 Quan

Vial: 10
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Data File : C:\HPCHEM\1\DATA\E2031416\E201050.D

Vial: 11

Acq On : 14 Mar 2016 4:17 pm

Operator: KH

Sample : 30 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:19 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:18:03 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	4781922	40.00	ug/mL	0.00
21) Naphthalene-d8	9.64	136	13921339	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.06	164	8128138	40.00	ug/mL	0.00
62) Phenanthrene-d10	14.15	188	16515759	40.00	ug/mL	0.00
79) Chrysene-d12	17.97	240	9468870	40.00	ug/mL	0.00
91) Perylene-d12	19.99	264	14821119	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.65	112	5920950	29.94	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	39.92%
5) Phenol-d5	7.73	99	6244839	28.21	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	37.61%
22) Nitrobenzene-d5	8.76	82	6611119	27.58	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	55.16%
45) 2-Fluorobiphenyl	11.11	172	9325943	25.00	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	50.00%
67) 2,4,6-Tribromophenol	13.21	330	2269343	25.30	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	33.73%#
81) Terphenyl-d14	16.43	244	10385190	27.42	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	54.84%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.86	74	2882523	27.96	ug/mL	90
3) Pyridine	4.77	79	4327746	29.06	ug/mL#	49
6) Benzaldehyde	7.54	105	4378530	26.68	ug/mL	100
7) Aniline	7.71	93	6932249	29.65	ug/mL#	100
8) Phenol	7.75	94	7638821	28.94	ug/mL#	64
9) Bis(2-chloroethyl) ether	7.77	93	7073904	27.28	ug/mL	100
10) 2-Chlorophenol	7.86	128	6197498	28.46	ug/mL	100
11) 1,3-Dichlorobenzene	7.98	146	5934238	28.17	ug/mL	100
12) 1,4-Dichlorobenzene	8.05	146	6458342	28.79	ug/mL	100
13) Benzyl Alcohol	8.25	108	3488081	27.87	ug/mL	100
14) 1,2-Dichlorobenzene	8.28	146	5888222	27.44	ug/mL	100
15) 2-Methylphenol	8.43	107	4603126	27.23	ug/mL	100
16) Acetophenone	8.57	105	7703892	27.41	ug/mL	100
17) Bis(2-chloroisopropyl) eth	8.40	45	11410542	29.49	ug/mL	100
18) N-Nitroso-di-n-propylamine	8.60	70	4614976	26.56	ug/mL	100
19) 4-Methylphenol	8.60	107	5338072	26.48	ug/mL	99
20) Hexachloroethane	8.64	117	2557816	27.63	ug/mL	100
23) Nitrobenzene	8.79	77	6616527	27.88	ug/mL	100
24) Isophorone	9.08	82	12842372	28.46	ug/mL	100
25) 2-Nitrophenol	9.18	139	3521595	28.21	ug/mL	100

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201050.D

Vial: 11

Acq On : 14 Mar 2016 4:17 pm

Operator: KH

Sample : 30 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:19 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:18:03 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.24	122	4250009	26.92	ug/mL	99
27) Bis(2-chloroethoxy) methan	9.34	93	6666181	27.80	ug/mL	100
28) Benzoic acid	9.52	105	3256471	37.69	ug/mL	99
29) 2,4-Dichlorophenol	9.51	162	5074552	27.16	ug/mL	100
30) 1,2,4-Trichlorobenzene	9.58	180	5264791	25.35	ug/mL	100
31) Naphthalene	9.67	128	10973928	25.37	ug/mL	100
32) Alpha-Terpineol	9.64	59	4478467	29.08	ug/mL	100
33) 4-Chloroaniline	9.78	127	5440641	26.50	ug/mL	100
34) Hexachlorobutadiene	9.88	225	3054320	26.73	ug/mL	100
35) Caprolactam	10.30	113	1725080	26.38	ug/mL	100
36) 4-Chloro-3-methylphenol	10.47	107	5634229	28.19	ug/mL	100
37) 1-Methylnaphthalene	10.73	141	7823124	24.66	ug/mL	100
38) 2-Methylnaphthalene	10.58	142	7909187	24.99	ug/mL	100
40) 1,2,4,5-tetrachlorobenzene	10.86	216	3779223	22.20	ug/mL	100
41) Hexachlorocyclopentadiene	10.88	237	2282090	29.84	ug/mL	100
42) Biphenyl	11.23	153	4026759	23.82	ug/mL	100
43) 2,4,6-Trichlorophenol	11.03	196	3603183	25.95	ug/mL	100
44) 2,4,5-Trichlorophenol	11.13	196	4231003	26.96	ug/mL	99
46) 2-Chloronaphthalene	11.26	162	8260855	25.04	ug/mL	100
47) 2-Nitroaniline	11.49	138	4128289	28.61	ug/mL	100
48) Dimethylphthalate	11.74	163	11958335	26.36	ug/mL	100
49) 2,6-Dinitrotoluene	11.86	165	2727612	26.61	ug/mL	100
50) Acenaphthylene	11.84	152	12220606	24.65	ug/mL	100
51) 3-Nitroaniline	12.08	138	2339831	30.72	ug/mL	100
52) Acenaphthene	12.11	154	7059866	24.77	ug/mL	100
53) 2,4-Dinitrophenol	12.22	184	2277776	36.27	ug/mL	98
54) Dibenzofuran	12.33	168	12063778	25.54	ug/mL	100
55) 2,4-Dinitrotoluene	12.42	165	4316939	28.20	ug/mL	100
56) 4-Nitrophenol	12.41	65	3390552	30.02	ug/mL	100
57) 2,3,4,6-Tetrachlorophenol	12.59	131	1437252	27.87	ug/mL	100
58) Diethyl phthalate	12.73	149	11863194	25.65	ug/mL	100
59) Fluorene	12.82	166	7730745	23.40	ug/mL	100
60) 4-Chlorophenyl phenylether	12.80	204	4184664	22.91	ug/mL	100
61) 4-Nitroaniline	12.97	138	2373347	24.62	ug/mL#	69
63) 4,6-Dinitro-2-methylphenol	13.00	198	2170180	25.80	ug/mL	100
64) Diphenylamine	13.01	169	5896110	21.89	ug/mL	99
65) N-Nitrosodiphenylamine	13.01	167	2253320	19.65	ug/mL	99
66) Azobenzene	13.03	77	14226994	24.42	ug/mL#	83
68) 4-Bromophenyl phenylether	13.49	248	3415615	23.18	ug/mL	100
69) Atrazine	13.81	200	3560228	22.97	ug/mL	99
70) Hexachlorobenzene	13.71	142	1302483	23.18	ug/mL	100

(#)= qualifier out of range (m) = manual integration

E201050.D BNA2M269.M Tue Mar 15 14:52:29 2016

Data File : C:\HPCHEM\1\DATA\E2031416\E201050.D

Vial: 11

Acq On : 14 Mar 2016 4:17 pm

Operator: KH

Sample : 30 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:19 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:18:03 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	14.00	266	2339005	31.96	ug/mL	100
72) Pentachloronitrobenzene	14.10	237	1612193	25.44	ug/mL	100
73) Phenanthrene	14.19	178	12453636	28.52	ug/mL	100
74) Anthracene	14.25	178	13895940m	29.05	ug/mL	
75) Carbazole	14.50	167	9405877	21.22	ug/mL#	100
76) Di-n-butyl phthalate	15.02	149	19263402	24.12	ug/mL	100
77) Fluoranthene	15.89	202	15848077	24.06	ug/mL	100
78) Benzidine	16.11	184	5805203	24.40	ug/mL	100
80) Pyrene	16.22	202	16283763	28.76	ug/mL	100
82) Benzyl butyl phthalate	17.16	149	9767166	30.32	ug/mL	100
83) Bis(2-ethylhexyl) phthalat	17.98	149	7331582	30.71	ug/mL	98
84) Benz (a) anthracene	17.93	228	9745619	24.83	ug/mL	100
85) 3,3-Dichlorobenzidine	17.94	252	5486608	54.59	ug/mL	99
86) Chrysene	18.01	228	12058982	27.53	ug/mL	100
87) Di-n-octyl phthalate	18.80	149	23106263	29.50	ug/mL	100
88) Benzo(b)fluoranthene	19.43	252	14912885	26.29	ug/mL#	99
89) Benzo(k)fluoranthene	19.46	252	13754442m	24.24	ug/mL	
90) Benzo(a)pyrene	19.89	252	15081334	29.82	ug/mL	100
92) Indeno(1,2,3-cd)pyrene	21.80	276	16790839m	26.21	ug/mL	
93) Dibenz(a,h)anthracene	21.79	278	13560056	26.63	ug/mL	100
94) Benzo(g,h,i)perylene	22.29	276	15541231	28.71	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E201050.D BNA2M269.M

Tue Mar 15 14:52:29 2016

Page 3

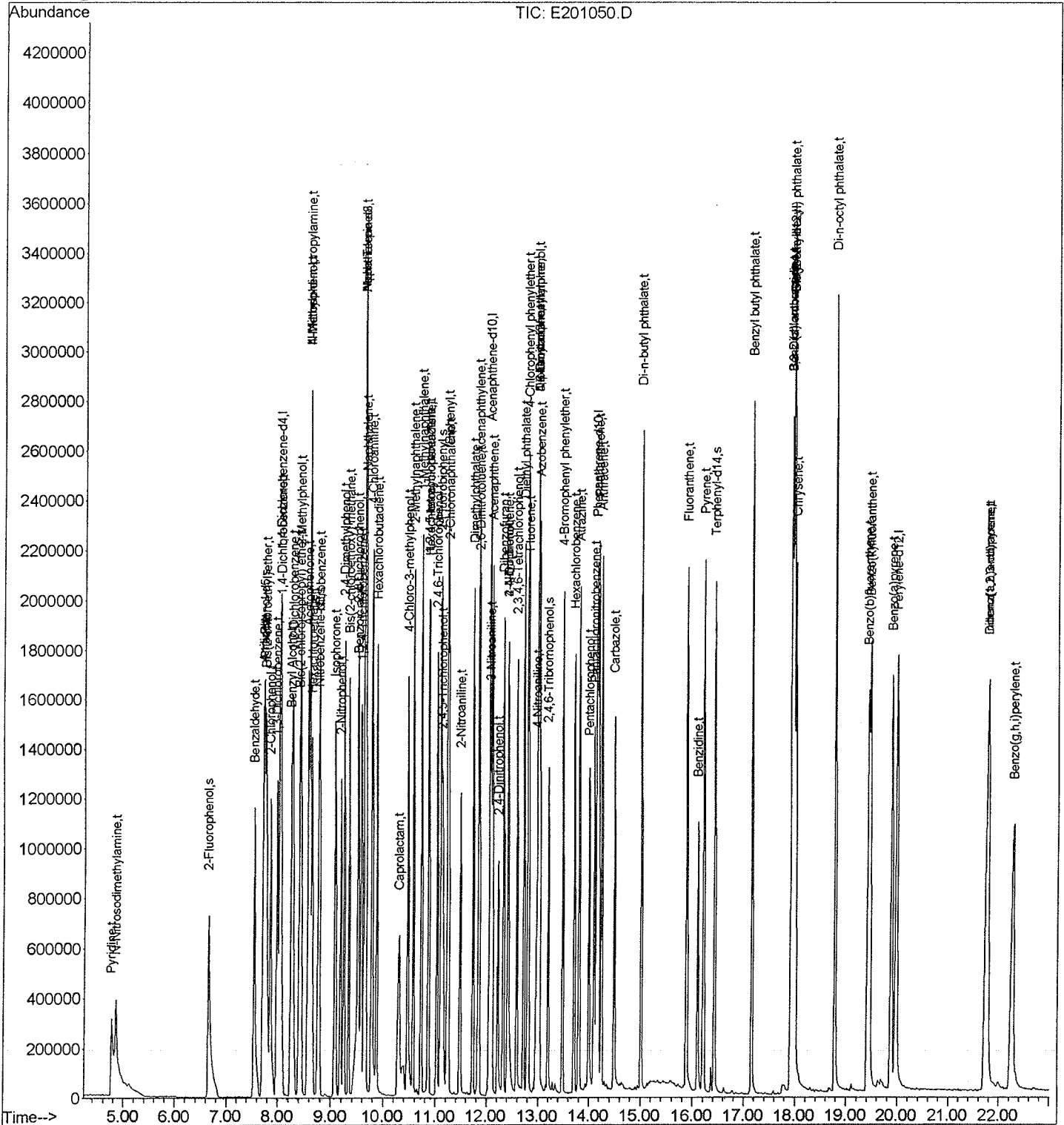
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201050.D
 Acq On : 14 Mar 2016 4:17 pm
 Sample : 30 ppm - ICAL
 Misc : QBSV2031416A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 15 14:19 2016

Vial: 11
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Quant Results File: BNA2M269.RES

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\E2031416\E201051.D

Vial: 12

Acq On : 14 Mar 2016 4:48 pm

Operator: KH

Sample : 40 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:27 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:19:50 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	4948328	40.00	ug/mL	0.00
21) Naphthalene-d8	9.64	136	15057282	40.00	ug/mL	0.00
39) Acenaphthene-d10	12.07	164	9163198	40.00	ug/mL	0.00
62) Phenanthrene-d10	14.16	188	18925352	40.00	ug/mL	0.00
79) Chrysene-d12	17.99	240	7958957	40.00	ug/mL	0.02
91) Perylene-d12	19.99	264	17604913	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.65	112	8797496	42.99	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	57.32%
5) Phenol-d5	7.73	99	8202189	35.81	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	47.75%
22) Nitrobenzene-d5	8.77	82	9420183	36.33	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	72.66%
45) 2-Fluorobiphenyl	11.11	172	11786427	28.03	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	56.06%
67) 2,4,6-Tribromophenol	13.21	330	3181522	30.95	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	41.27%
81) Terphenyl-d14	16.44	244	13649735	42.92	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	85.84%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.87	74	4478533	42.80	ug/mL#	85
3) Pyridine	4.77	79	7541604m	45.34	ug/mL	
6) Benzaldehyde	7.55	105	5138577	30.26	ug/mL	100
7) Aniline	7.72	93	9417013	38.92	ug/mL#	1
8) Phenol	7.75	94	10112256	37.02	ug/mL#	79
9) Bis(2-chloroethyl) ether	7.78	93	10262260	38.25	ug/mL	99
10) 2-Chlorophenol	7.86	128	8694122	38.56	ug/mL	97
11) 1,3-Dichlorobenzene	7.99	146	8284759	37.99	ug/mL	99
12) 1,4-Dichlorobenzene	8.05	146	8334585	35.88	ug/mL	99
13) Benzyl Alcohol	8.26	108	4925973	38.03	ug/mL	99
14) 1,2-Dichlorobenzene	8.28	146	7484678	33.71	ug/mL	98
15) 2-Methylphenol	8.43	107	6353875	36.32	ug/mL	99
16) Acetophenone	8.58	105	10361632	35.63	ug/mL	100
17) Bis(2-chloroisopropyl) eth	8.41	45	16450580	41.08	ug/mL	98
18) N-Nitroso-di-n-propylamine	8.62	70	6301553	35.04	ug/mL	98
19) 4-Methylphenol	8.61	107	6696366	32.04	ug/mL	93
20) Hexachloroethane	8.64	117	3348867	34.96	ug/mL	99
23) Nitrobenzene	8.80	77	9457164	36.85	ug/mL	97
24) Isophorone	9.09	82	19740696	40.45	ug/mL	100
25) 2-Nitrophenol	9.19	139	5062239	37.50	ug/mL	98

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201051.D

Vial: 12

Acq On : 14 Mar 2016 4:48 pm

Operator: KH

Sample : 40 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:27 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:19:50 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.25	122	5743412	33.63	ug/mL	100
27) Bis(2-chloroethoxy) methan	9.34	93	9215825	35.54	ug/mL	98
28) Benzoic acid	9.56	105	5419439m	58.01	ug/mL	
29) 2,4-Dichlorophenol	9.52	162	6660704	32.96	ug/mL	95
30) 1,2,4-Trichlorobenzene	9.58	180	7116351	31.68	ug/mL	97
31) Naphthalene	9.67	128	13193757	28.20	ug/mL	99
32) Alpha-Terpineol	9.66	59	6057698	36.37	ug/mL#	75
33) 4-Chloroaniline	9.79	127	6938159	31.25	ug/mL	97
34) Hexachlorobutadiene	9.88	225	3745751	30.31	ug/mL	95
35) Caprolactam	10.34	113	2630788	37.20	ug/mL	100
36) 4-Chloro-3-methylphenol	10.48	107	7388866	34.18	ug/mL	98
37) 1-Methylnaphthalene	10.73	141	10587456m	30.86	ug/mL	
38) 2-Methylnaphthalene	10.58	142	10660608	31.15	ug/mL	99
40) 1,2,4,5-tetrachlorobenzene	10.87	216	4734168	24.67	ug/mL	95
41) Hexachlorocyclopentadiene	10.88	237	2871757	33.31	ug/mL	95
42) Biphenyl	11.24	153	4672359	24.51	ug/mL	99
43) 2,4,6-Trichlorophenol	11.04	196	4993714	31.90	ug/mL	97
44) 2,4,5-Trichlorophenol	11.13	196	5867617	33.16	ug/mL	98
46) 2-Chloronaphthalene	11.27	162	10265101	27.60	ug/mL	98
47) 2-Nitroaniline	11.50	138	6198048	38.10	ug/mL	98
48) Dimethylphthalate	11.75	163	16476094	32.21	ug/mL	100
49) 2,6-Dinitrotoluene	11.87	165	4003962	34.65	ug/mL	97
50) Acenaphthylene	11.85	152	16688509	29.86	ug/mL	99
51) 3-Nitroaniline	12.09	138	3535961	41.18	ug/mL	94
52) Acenaphthene	12.12	154	8869013	27.60	ug/mL	96
53) 2,4-Dinitrophenol	12.23	184	3653009	51.60	ug/mL	96
54) Dibenzofuran	12.34	168	16456207	30.90	ug/mL	97
55) 2,4-Dinitrotoluene	12.43	165	6292973	36.46	ug/mL	97
56) 4-Nitrophenol	12.42	65	5239537	41.14	ug/mL	98
57) 2,3,4,6-Tetrachlorophenol	12.60	131	1965001	33.80	ug/mL	97
58) Diethyl phthalate	12.74	149	16544384	31.73	ug/mL	99
59) Fluorene	12.83	166	10036458	26.95	ug/mL	100
60) 4-Chlorophenyl phenylether	12.81	204	4987434	24.22	ug/mL	96
61) 4-Nitroaniline	12.99	138	2755654	25.36	ug/mL#	87
63) 4,6-Dinitro-2-methylphenol	13.02	198	2534617	26.30	ug/mL	87
64) Diphenylamine	13.01	169	7599969	24.61	ug/mL	99
65) N-Nitrosodiphenylamine	13.01	167	2876759	21.89	ug/mL	99
66) Azobenzene	13.04	77	19790045	29.64	ug/mL#	79
68) 4-Bromophenyl phenylether	13.50	248	4614837	27.33	ug/mL	98
69) Atrazine	13.83	200	4961862	27.96	ug/mL	98
70) Hexachlorobenzene	13.72	142	1782440	27.68	ug/mL	94

(#)= qualifier out of range (m) = manual integration

E201051.D BNA2M269.M Tue Mar 15 14:52:37 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031416\E201051.D

Vial: 12

Acq On : 14 Mar 2016 4:48 pm

Operator: KH

Sample : 40 ppm - ICAL

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:27 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:19:50 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	14.01	266	3341166	39.84	ug/mL	93
72) Pentachloronitrobenzene	14.11	237	2272804	31.29	ug/mL	99
73) Phenanthrene	14.20	178	16339177	32.66	ug/mL	99
74) Anthracene	14.26	178	17645444	32.10	ug/mL	97
75) Carbazole	14.50	167	12834595	25.24	ug/mL#	91
76) Di-n-butyl phthalate	15.02	149	24951858	27.26	ug/mL	99
77) Fluoranthene	15.90	202	20666101	27.38	ug/mL	99
78) Benzidine	16.11	184	7054829	25.85	ug/mL	98
80) Pyrene	16.23	202	21391311	44.92	ug/mL	100
82) Benzyl butyl phthalate	17.17	149	12540907	46.31	ug/mL	96
83) Bis(2-ethylhexyl) phthalat	17.98	149	9100852	45.37	ug/mL	94
84) Benz (a) anthracene	17.93	228	10975896	33.27	ug/mL	96
85) 3,3-Dichlorobenzidine	17.95	252	5288006	62.43	ug/mL#	87
86) Chrysene	18.03	228	16002043	43.47	ug/mL	97
87) Di-n-octyl phthalate	18.80	149	29578794	44.93	ug/mL	100
88) Benzo(b)fluoranthene	19.46	252	21058389m	44.35	ug/mL	
89) Benzo(k)fluoranthene	19.49	252	19139150m	40.55	ug/mL	
90) Benzo(a)pyrene	19.91	252	22162469	52.16	ug/mL	99
92) Indeno(1,2,3-cd)pyrene	21.83	276	29329113	38.55	ug/mL	98
93) Dibenz(a,h)anthracene	21.81	278	22685685	37.53	ug/mL	98
94) Benzo(g,h,i)perylene	22.31	276	25119638	39.04	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E201051.D BNA2M269.M Tue Mar 15 14:52:37 2016

Page 3

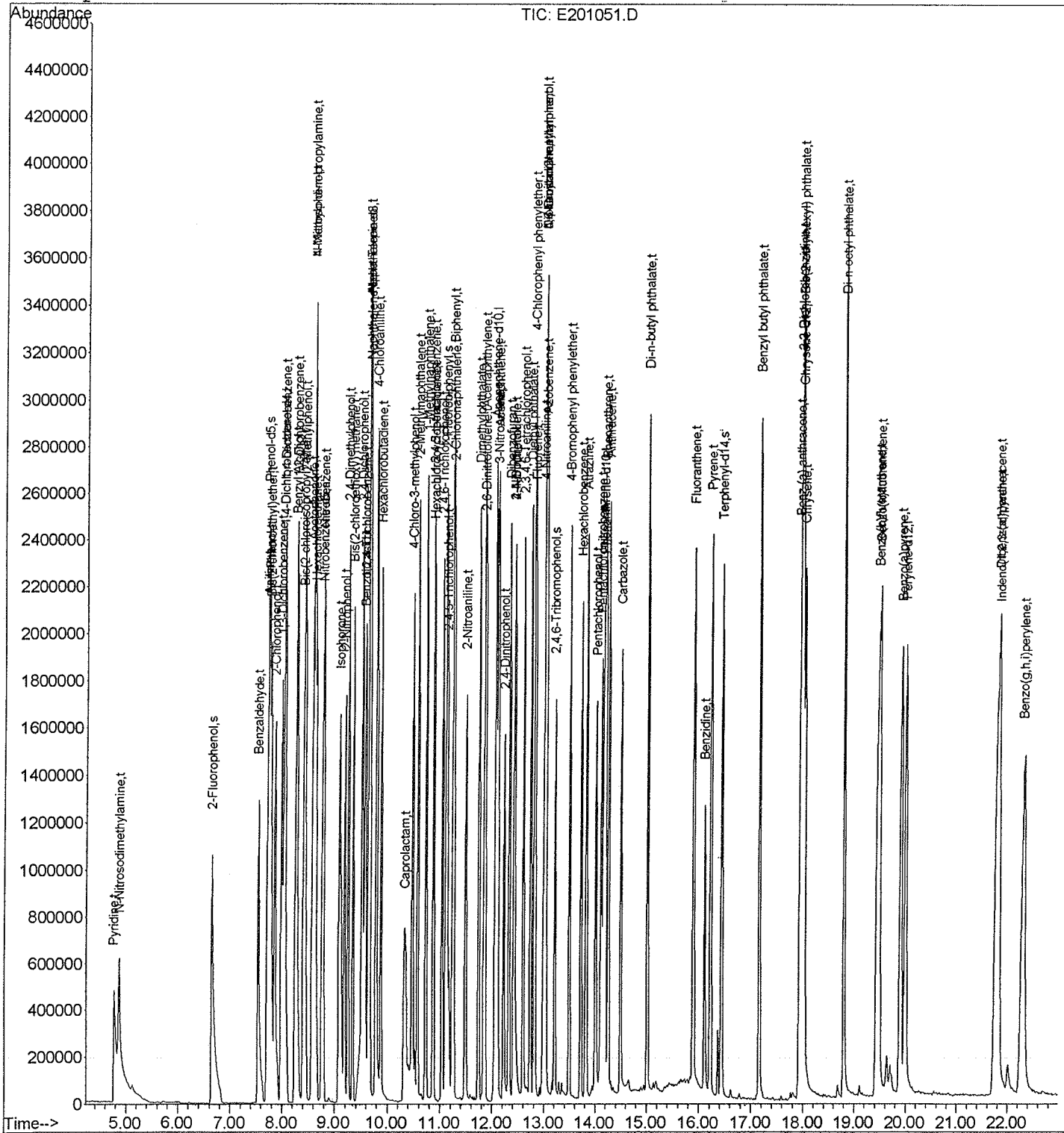
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201051.D
Acq On : 14 Mar 2016 4:48 pm
Sample : 40 ppm - ICAL
Misc : QBSV2031416A
MS Integration Params: EVENTS.E
Quant Time: Mar 15 14:27 2016

Vial: 12
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Data File : C:\HPCHEM\1\DATA\E2031416\E201052.D

Vial: 13

Acq On : 14 Mar 2016 5:19 pm

Operator: KH

Sample : ICV - 30 ppm

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:50 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.03	152	4665480	40.00	ug/mL	0.00
21) Naphthalene-d8	9.64	136	15122626	40.00	ug/mL	0.01
39) Acenaphthene-d10	12.06	164	8012215	40.00	ug/mL	0.01
62) Phenanthrene-d10	14.16	188	15959029	40.00	ug/mL	0.01
79) Chrysene-d12	17.98	240	10294978	40.00	ug/mL	0.02
91) Perylene-d12	19.99	264	17462483	40.00	ug/mL	0.01

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	
Spiked Amount	75.000	Range	15 - 87	Recovery	=	0.00%#
5) Phenol-d5	0.00	99	0	0.00	ug/mL	
Spiked Amount	75.000	Range	10 - 100	Recovery	=	0.00%#
22) Nitrobenzene-d5	0.00	82	0	0.00	ug/mL	
Spiked Amount	50.000	Range	26 - 120	Recovery	=	0.00%#
45) 2-Fluorobiphenyl	0.00	172	0	0.00	ug/mL	
Spiked Amount	50.000	Range	29 - 120	Recovery	=	0.00%#
67) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	
Spiked Amount	75.000	Range	35 - 126	Recovery	=	0.00%#
81) Terphenyl-d14	0.00	244	0	0.00	ug/mL	
Spiked Amount	50.000	Range	35 - 127	Recovery	=	0.00%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.88	74	2977628	30.58	ug/mL#	93
3) Pyridine	4.78	79	5570838m	33.84	ug/mL	
7) Aniline	7.71	93	5960092	26.12	ug/mL#	31
8) Phenol	7.75	94	7670028	29.78	ug/mL	94
9) Bis(2-chloroethyl) ether	7.77	93	7225920	28.56	ug/mL	99
10) 2-Chlorophenol	7.86	128	6146850	28.92	ug/mL	98
11) 1,3-Dichlorobenzene	7.98	146	5987881	29.12	ug/mL	99
12) 1,4-Dichlorobenzene	8.05	146	6252568	28.56	ug/mL	98
13) Benzyl Alcohol	8.25	108	3726154	30.51	ug/mL	98
14) 1,2-Dichlorobenzene	8.28	146	5897682	28.17	ug/mL	99
15) 2-Methylphenol	8.42	107	4295687	26.05	ug/mL	94
17) Bis(2-chloroisopropyl) eth	8.40	45	12132328	32.13	ug/mL	94
18) N-Nitroso-di-n-propylamine	8.60	70	4871126	28.73	ug/mL#	80
19) 4-Methylphenol	8.61	107	5161414	26.19	ug/mL#	36
20) Hexachloroethane	8.64	117	2545174	28.18	ug/mL	96
23) Nitrobenzene	8.78	77	6889385	26.73	ug/mL	98
24) Isophorone	9.07	82	12333066	25.19	ug/mL	99
25) 2-Nitrophenol	9.18	139	3435386	25.34	ug/mL	99
26) 2,4-Dimethylphenol	9.24	122	4130456	24.08	ug/mL	97
27) Bis(2-chloroethoxy) methan	9.34	93	6534205	25.09	ug/mL	98

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\E2031416\E201052.D

Vial: 13

Acq On : 14 Mar 2016 5:19 pm

Operator: KH

Sample : ICV - 30 ppm

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:50 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 2,4-Dichlorophenol	9.51	162	5106240	25.16	ug/mL	99
30) 1,2,4-Trichlorobenzene	9.58	180	5331424	23.63	ug/mL	98
31) Naphthalene	9.67	128	11509578	24.49	ug/mL	99
32) Alpha-Terpineol	9.87	59	120808	0.72	ug/mL#	1
33) 4-Chloroaniline	9.77	127	5808898m	26.05	ug/mL	
34) Hexachlorobutadiene	9.88	225	2740364	22.08	ug/mL	88
36) 4-Chloro-3-methylphenol	10.45	107	5347749	24.63	ug/mL	98
37) 1-Methylnaphthalene	10.73	141	7035138	19.39	ug/mL	97
38) 2-Methylnaphthalene	10.58	142	8097327	23.56	ug/mL	99
41) Hexachlorocyclopentadiene	10.88	237	2581335	34.24	ug/mL	98
43) 2,4,6-Trichlorophenol	11.03	196	3438485	25.12	ug/mL	99
44) 2,4,5-Trichlorophenol	11.12	196	4175259	26.98	ug/mL	97
46) 2-Chloronaphthalene	11.25	162	8276821	25.45	ug/mL	96
47) 2-Nitroaniline	11.49	138	4127266	29.02	ug/mL	99
48) Dimethylphthalate	11.75	163	12611218	28.20	ug/mL	99
49) 2,6-Dinitrotoluene	11.87	165	2801270	27.72	ug/mL	85
50) Acenaphthylene	11.85	152	11679202	22.75	ug/mL	99
51) 3-Nitroaniline	12.09	138	1362370	18.14	ug/mL	98
52) Acenaphthene	12.11	154	6852953	22.95	ug/mL	98
53) 2,4-Dinitrophenol	12.22	184	2258358	36.48	ug/mL	97
54) Dibenzofuran	12.33	168	11438826	24.57	ug/mL	99
55) 2,4-Dinitrotoluene	12.42	165	4240518	28.10	ug/mL	99
56) 4-Nitrophenol	12.41	65	3051281	27.41	ug/mL	96
57) 2,3,4,6-Tetrachlorophenol	12.59	131	1414264	27.82	ug/mL	95
58) Diethyl phthalate	12.73	149	11387673	24.98	ug/mL	99
59) Fluorene	12.82	166	7813180	22.54	ug/mL	97
60) 4-Chlorophenyl phenylether	12.80	204	4160022	21.41	ug/mL	96
61) 4-Nitroaniline	13.02	138	547894	5.37	ug/mL#	1
63) 4,6-Dinitro-2-methylphenol	13.00	198	2092923	25.89	ug/mL#	12
64) Diphenylamine	13.01	169	6221498	22.46	ug/mL	96
65) N-Nitrosodiphenylamine	13.01	167	2294986	21.30	ug/mL	96
66) Azobenzene	13.03	77	13671890	24.40	ug/mL#	82
68) 4-Bromophenyl phenylether	13.49	248	3519026	23.42	ug/mL#	50
70) Hexachlorobenzene	13.71	142	1270501	23.50	ug/mL	96
71) Pentachlorophenol	14.00	266	2207944	30.76	ug/mL	95
72) Pentachloronitrobenzene	14.10	237	1768517	29.06	ug/mL	98
73) Phenanthrene	14.19	178	12685587	25.61	ug/mL	99
74) Anthracene	14.25	178	13512291	24.80	ug/mL	98
75) Carbazole	14.49	167	7256884m	16.09	ug/mL	
76) Di-n-butyl phthalate	15.02	149	18928235	23.23	ug/mL	99
77) Fluoranthene	15.89	202	16396965	24.42	ug/mL	100

(#)=qualifier out of range (m)=manual integration

E201052.D BNA2M269.M Tue Mar 15 14:50:50 2016

Data File : C:\HPCHEM\1\DATA\E2031416\E201052.D

Vial: 13

Acq On : 14 Mar 2016 5:19 pm

Operator: KH

Sample : ICV - 30 ppm

Inst : BNA#2

Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:50 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Pyrene	16.22	202	16847366	27.17	ug/mL	99
82) Benzyl butyl phthalate	17.16	149	9743851	27.63	ug/mL	99
83) Bis(2-ethylhexyl) phthalat	17.97	149	8013162	30.68	ug/mL	95
84) Benz (a) anthracene	17.94	228	16304044	38.07	ug/mL	95
86) Chrysene	18.01	228	13726939	28.68	ug/mL	98
87) Di-n-octyl phthalate	18.79	149	23604859	27.54	ug/mL	99
88) Benzo(b)fluoranthene	19.44	252	18466172m	34.88	ug/mL	
89) Benzo(k)fluoranthene	19.47	252	13802022m	25.58	ug/mL	
90) Benzo(a)pyrene	19.89	252	16770479	30.34	ug/mL	98
92) Indeno(1,2,3-cd)pyrene	21.80	276	18211823m	24.16	ug/mL	
93) Dibenz(a,h)anthracene	21.79	278	15414308	25.74	ug/mL	99
94) Benzo(g,h,i)perylene	22.29	276	17841857	28.02	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E201052.D BNA2M269.M

Tue Mar 15 14:50:50 2016

Page 3

495 of 1077

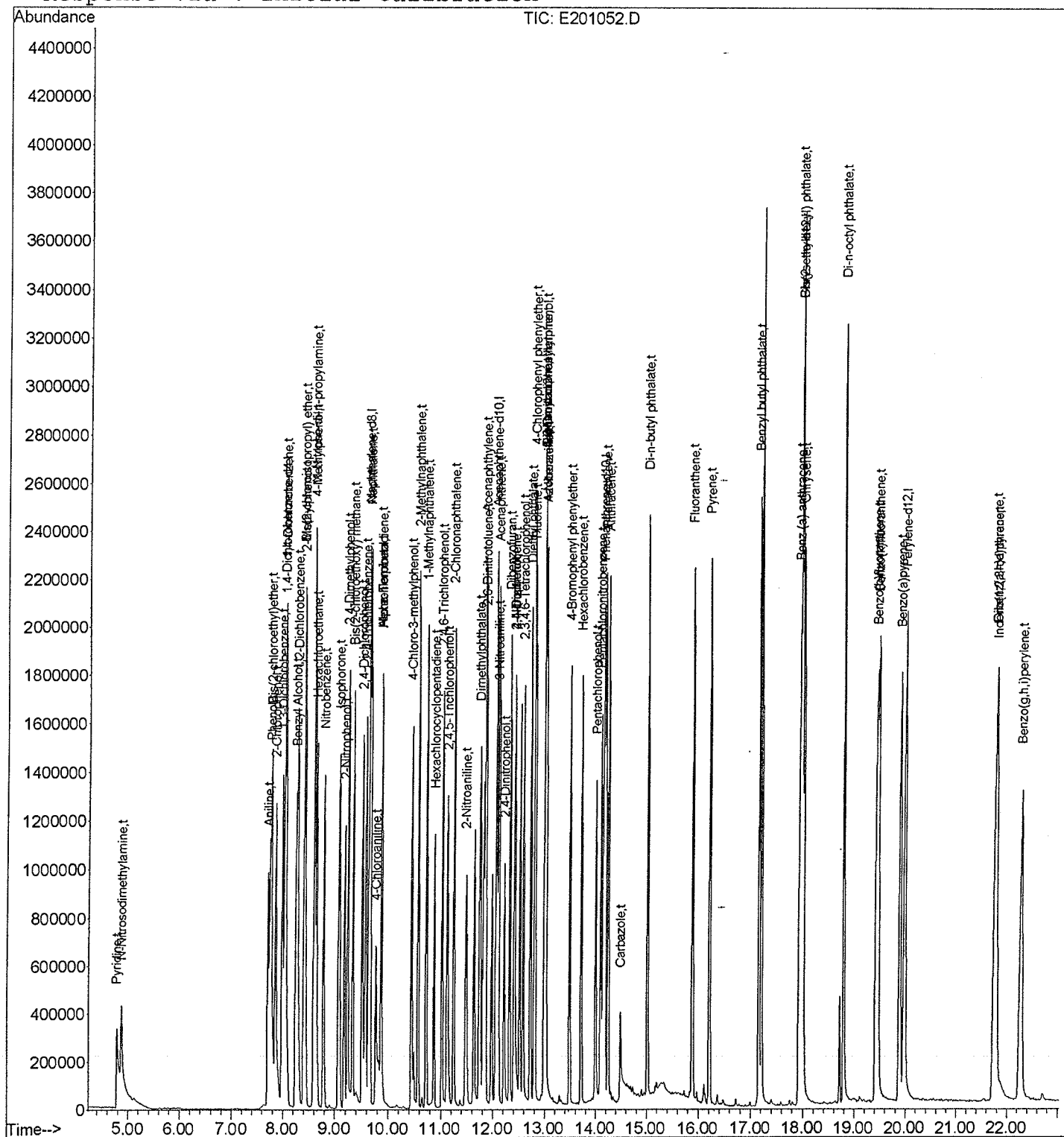
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031416\E201052.D
Acq On : 14 Mar 2016 5:19 pm
Sample : ICV - 30 ppm
Misc : QBSV2031416A
MS Integration Params: EVENTS.E
Quant Time: Mar 15 14:50 2016 Quan

Vial: 13
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D

Vial: 2

Acq On : 15 Mar 2016 9:17 am

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031516A Y16B033

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Multiple Level Calibration

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

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.02
2 t	N-Nitrosodimethylamine	0.835	0.897	-7.4	109	0.00
3 t	Pyridine	1.411	1.437	-1.8	117	-0.01
4 s	2-Fluorophenol	1.655	1.610	2.7	96	0.00
5 s	Phenol-d5	1.852	1.724	6.9	97	0.00
6 t	Benzaldehyde	1.373	0.942	31.4#	76	0.01
7 t	Aniline	1.956	1.779	9.0	90	0.02
8 t	Phenol	2.208	2.045	7.4	94	0.00
9 t	Bis(2-chloroethyl) ether	2.169	1.967	9.3	98	0.02
10 t	2-Chlorophenol	1.823	1.674	8.2	95	0.01
11 t	1,3-Dichlorobenzene	1.763	1.647	6.6	98	0.02
12 t	1,4-Dichlorobenzene	1.877	1.799	4.2	98	0.02
13 t	Benzyl Alcohol	1.047	0.961	8.2	97	0.02
14 t	1,2-Dichlorobenzene	1.795	1.647	8.2	98	0.02
15 t	2-Methylphenol	1.414	1.237	12.5	94	0.01
16 t	Acetophenone	2.351	2.092	11.0	95	0.34
17 t	Bis(2-chloroisopropyl) ethe	3.237	3.034	6.3	93	0.02
18 t	N-Nitroso-di-n-propylamine	1.453	1.286	11.5	98	0.03
19 t	4-Methylphenol	1.689	1.476	12.6	97	0.00
20 t	Hexachloroethane	0.774	0.710	8.3	98	0.02
21 I	Naphthalene-d8	1.000	1.000	0.0	98	0.02
22 s	Nitrobenzene-d5	0.689	0.612	11.2	95	0.02
23 t	Nitrobenzene	0.682	0.615	9.8	95	0.03
24 t	Isophorone	1.295	1.195	7.7	95	0.04
25 t	2-Nitrophenol	0.359	0.348	3.1	101	0.02
26 t	2,4-Dimethylphenol	0.454	0.368	18.9	89	0.02
27 t	Bis(2-chloroethoxy) methane	0.689	0.598	13.2	92	0.02
28 t	Benzoic acid	0.301	0.311	-3.3	98	0.09
29 t	2,4-Dichlorophenol	0.537	0.495	7.8	100	0.00
30 t	1,2,4-Trichlorobenzene	0.597	0.492	17.6	96	0.02
31 t	Naphthalene	1.243	1.060	14.7	99	0.02
32 t	Alpha-Terpineol	0.443	0.426	3.8	97	0.03
33 t	4-Chloroaniline	0.590	0.515	12.7	97	0.02
34 t	Hexachlorobutadiene	0.328	0.305	7.0	102	0.02
35 t	Caprolactam	0.188	0.208	-10.6	123	-0.26
36 t	4-Chloro-3-methylphenol	0.574	0.524	8.7	95	0.00
37 t	1-Methylnaphthalene	0.960	0.765	20.3	100	0.02
38 t	2-Methylnaphthalene	0.909	0.796	12.4	103	0.02
39 I	Acenaphthene-d10	1.000	1.000	0.0	104	0.02

(#) = Out of Range

E201056.D BNA2M269.M

Tue Mar 15 14:54:58 2016

Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D

Vial: 2

Acq On : 15 Mar 2016 9:17 am

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031516A Y16B033

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Multiple Level Calibration

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

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40 t	1,2,4,5-tetrachlorobenzene	0.902	0.680	24.6	114	0.02
41 t	Hexachlorocyclopentadiene	0.376	0.399	-6.1	111	0.02
42 t	Biphenyl	0.896	0.638	28.8	101	0.15
43 t	2,4,6-Trichlorophenol	0.683	0.609	10.8	107	0.01
44 t	2,4,5-Trichlorophenol	0.772	0.713	7.6	107	-0.01
45 s	2-Fluorobiphenyl	1.836	1.559	15.1	106	0.02
46 t	2-Chloronaphthalene	1.624	1.309	19.4	101	0.02
47 t	2-Nitroaniline	0.710	0.656	7.6	101	0.03
48 t	Dimethylphthalate	2.233	1.889	15.4	100	0.03
49 t	2,6-Dinitrotoluene	0.505	0.430	14.9	100	0.03
50 t	Acenaphthylene	2.563	1.989	22.4	103	0.02
51 t	3-Nitroaniline	0.375	0.337	10.1	92	0.03
52 t	Acenaphthene	1.490	1.144	23.2	103	0.03
53 t	2,4-Dinitrophenol	0.309	0.371	-20.1	103	0.01
54 t	Dibenzofuran	2.324	1.939	16.6	102	0.03
55 t	2,4-Dinitrotoluene	0.753	0.698	7.3	103	0.03
56 t	4-Nitrophenol	0.556	0.519	6.7	97	-0.03
57 t	2,3,4,6-Tetrachlorophenol	0.254	0.221	13.0	98	0.02
58 t	Diethyl phthalate	2.276	1.871	17.8	100	0.03
59 t	Fluorene	1.731	1.289	25.5	106	0.03
60 t	4-Chlorophenyl phenylether	0.970	0.707	27.1	107	0.02
61 t	4-Nitroaniline	0.509	0.337	33.8#	90	0.04
62 I	Phenanthrene-d10	1.000	1.000	0.0	105	0.02
63 t	4,6-Dinitro-2-methylphenol	0.203	0.181	10.8	108	0.03
64 t	Diphenylamine	0.694	0.462	33.4#	102	0.04
65 t	N-Nitrosodiphenylamine	0.270	0.181	33.0#	104	0.04
66 t	Azobenzene	1.405	1.285	8.5	117	0.02
67 s	2,4,6-Tribromophenol	0.216	0.193	10.6	110	0.02
68 t	4-Bromophenyl phenylether	0.377	0.290	23.1	110	0.02
69 t	Atrazine	0.373	0.275	26.3	100	0.04
70 t	Hexachlorobenzene	0.136	0.100	26.5	99	0.02
71 t	Pentachlorophenol	0.180	0.193	-7.2	107	0.02
72 t	Pentachloronitrobenzene	0.153	0.134	12.4	108	0.02
73 t	Phenanthrene	1.241	0.997	19.7	104	0.03
74 t	Anthracene	1.366	1.100	19.5	103	0.03
75 t	Carbazole	1.131	0.604	46.6#	83	0.02
76 t	Di-n-butyl phthalate	2.043	1.487	27.2	100	0.02
77 t	Fluoranthene	1.683	1.120	33.5#	92	0.03
78 t	Benzidine	0.539	0.292	45.8#	65	0.02

(#)= Out of Range

E201056.D BNA2M269.M

Tue Mar 15 14:54:59 2016

Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D
 Acq On : 15 Mar 2016 9:17 am
 Sample : SEQ-CCV1
 Misc : QBSV2031516A Y16B033
 MS Integration Params: EVENTS.E

Vial: 2
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80 t	Pyrene	2.409	2.323	3.6	105	0.03
81 s	Terphenyl-d14	1.608	1.391	13.5	99	0.02
82 t	Benzyl butyl phthalate	1.370	1.289	5.9	98	0.02
83 t	Bis(2-ethylhexyl) phthalate	1.015	1.035	-2.0	104	0.02
84 t	Benz (a) anthracene	1.664	1.438	13.6	109	0.03
85 t	3,3-Dichlorobenzidine	0.421	0.395	6.2	107	0.03
86 t	Chrysene	1.859	1.612	13.3	99	0.03
87 t	Di-n-octyl phthalate	3.330	2.819	15.3	90	0.02
88 t	Benzo(b)fluoranthene	2.057	1.991	3.2	99	0.05
89 t	Benzo(k)fluoranthene	2.096	1.744	16.8	94	0.04
90 t	Benzo(a)pyrene	2.148	1.977	8.0	97	0.04
91 I	Perylene-d12	1.000	1.000	0.0	97	0.02
92 t	Indeno(1,2,3-cd)pyrene	1.726	1.672	3.1	107	0.09
93 t	Dibenz(a,h)anthracene	1.372	1.251	8.8	99	0.08
94 t	Benzo(g,h,i)perylene	1.459	1.240	15.0	86	0.07

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D

Vial: 2

Acq On : 15 Mar 2016 9:17 am

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031516A Y16B033

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:54 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.04	152	4687892	40.00	ug/mL	0.02
21) Naphthalene-d8	9.65	136	13628461	40.00	ug/mL	0.02
39) Acenaphthene-d10	12.07	164	8465159	40.00	ug/mL	0.02
62) Phenanthrene-d10	14.16	188	17280318	40.00	ug/mL	0.02
79) Chrysene-d12	17.98	240	9857633	40.00	ug/mL	0.02
91) Perylene-d12	20.00	264	14305962	40.00	ug/mL	0.02

System Monitoring Compounds

4) 2-Fluorophenol	6.67	112	5661050	29.18	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	38.91%
5) Phenol-d5	7.74	99	6063160	27.94	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	37.25%
22) Nitrobenzene-d5	8.77	82	6258589	26.67	ug/mL	0.02
Spiked Amount	50.000	Range	26 - 120	Recovery	=	53.34%
45) 2-Fluorobiphenyl	11.12	172	9899942	25.48	ug/mL	0.02
Spiked Amount	50.000	Range	29 - 120	Recovery	=	50.96%
67) 2,4,6-Tribromophenol	13.21	330	2501551	26.76	ug/mL	0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	35.68%
81) Terphenyl-d14	16.44	244	10285566	25.95	ug/mL	0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	51.90%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.88	74	3154584m	32.25	ug/mL	
3) Pyridine	4.79	79	5052476m	30.55	ug/mL	
6) Benzaldehyde	7.56	105	3311479	20.58	ug/mL	98
7) Aniline	7.72	93	6256505	27.29	ug/mL#	31
8) Phenol	7.76	94	7190707	27.79	ug/mL	97
9) Bis(2-chloroethyl) ether	7.78	93	6914891	27.20	ug/mL	98
10) 2-Chlorophenol	7.87	128	5885917	27.56	ug/mL	99
11) 1,3-Dichlorobenzene	7.99	146	5791113	28.03	ug/mL	99
12) 1,4-Dichlorobenzene	8.06	146	6326831	28.76	ug/mL	98
13) Benzyl Alcohol	8.26	108	3380125	27.55	ug/mL	98
14) 1,2-Dichlorobenzene	8.29	146	5792129	27.53	ug/mL	99
15) 2-Methylphenol	8.44	107	4349616	26.25	ug/mL	99
16) Acetophenone	8.58	105	7354692	26.69	ug/mL	100
17) Bis(2-chloroisopropyl) eth	8.41	45	10668303	28.12	ug/mL	99
18) N-Nitroso-di-n-propylamine	8.61	70	4521163	26.54	ug/mL	98
19) 4-Methylphenol	8.61	107	5191116	26.22	ug/mL	96
20) Hexachloroethane	8.65	117	2495485	27.50	ug/mL	96
23) Nitrobenzene	8.80	77	6288360	27.07	ug/mL	99
24) Isophorone	9.09	82	12214410	27.68	ug/mL	99
25) 2-Nitrophenol	9.19	139	3558932	29.13	ug/mL	95

(#)=qualifier out of range (m)=manual integration

E201056.D BNA2M269.M Tue Mar 15 14:54:52 2016

Page 1

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D

Vial: 2

Acq On : 15 Mar 2016 9:17 am

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031516A Y16B033

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:54 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.25	122	3763916	24.35	ug/mL	99
27) Bis(2-chloroethoxy) methan	9.35	93	6111432	26.04	ug/mL	99
28) Benzoic acid	9.50	105	3175983	30.95	ug/mL	97
29) 2,4-Dichlorophenol	9.52	162	5059733	27.66	ug/mL	98
30) 1,2,4-Trichlorobenzene	9.59	180	5031710	24.75	ug/mL	98
31) Naphthalene	9.68	128	10829855	25.57	ug/mL	99
32) Alpha-Terpineol	9.66	59	4359049	28.91	ug/mL	99
33) 4-Chloroaniline	9.79	127	5268207	26.21	ug/mL	98
34) Hexachlorobutadiene	9.89	225	3121910	27.91	ug/mL	98
35) Caprolactam	10.31	113	2129658m	33.27	ug/mL	
36) 4-Chloro-3-methylphenol	10.48	107	5353715	27.36	ug/mL	98
37) 1-Methylnaphthalene	10.74	141	7822751	23.92	ug/mL	98
38) 2-Methylnaphthalene	10.59	142	8136004	26.26	ug/mL	97
40) 1,2,4,5-tetrachlorobenzene	10.88	216	4319468	22.63	ug/mL	94
41) Hexachlorocyclopentadiene	10.89	237	2530467	31.77	ug/mL	99
42) Biphenyl	11.24	153	4048521	21.34	ug/mL	98
43) 2,4,6-Trichlorophenol	11.04	196	3865755	26.73	ug/mL	98
44) 2,4,5-Trichlorophenol	11.14	196	4526132	27.69	ug/mL	96
46) 2-Chloronaphthalene	11.27	162	8312391	24.19	ug/mL	99
47) 2-Nitroaniline	11.50	138	4164461	27.71	ug/mL	98
48) Dimethylphthalate	11.75	163	11996165	25.39	ug/mL	100
49) 2,6-Dinitrotoluene	11.87	165	2727912	25.55	ug/mL	98
50) Acenaphthylene	11.85	152	12626539	23.28	ug/mL	99
51) 3-Nitroaniline	12.09	138	2142136	27.00	ug/mL	95
52) Acenaphthene	12.12	154	7260610	23.02	ug/mL	99
53) 2,4-Dinitrophenol	12.23	184	2354621	36.00	ug/mL	94
54) Dibenzofuran	12.34	168	12312421	25.03	ug/mL	99
55) 2,4-Dinitrotoluene	12.43	165	4429772	27.78	ug/mL	98
56) 4-Nitrophenol	12.42	65	3291907	27.99	ug/mL	96
57) 2,3,4,6-Tetrachlorophenol	12.60	131	1406034	26.18	ug/mL	90
58) Diethyl phthalate	12.74	149	11880848	24.66	ug/mL	98
59) Fluorene	12.83	166	8183638	22.34	ug/mL	98
60) 4-Chlorophenyl phenylether	12.81	204	4490260	21.88	ug/mL	96
61) 4-Nitroaniline	12.98	138	2140672	19.87	ug/mL	95
63) 4,6-Dinitro-2-methylphenol	13.01	198	2343130	26.77	ug/mL	91
64) Diphenylamine	13.01	169	5988578	19.97	ug/mL	99
65) N-Nitrosodiphenylamine	13.01	167	2347629	20.12	ug/mL	97
66) Azobenzene	13.03	77	16656227m	27.45	ug/mL	
68) 4-Bromophenyl phenylether	13.50	248	3756227	23.09	ug/mL#	69
69) Atrazine	13.82	200	3563905	22.10	ug/mL	95
70) Hexachlorobenzene	13.72	142	1290974	22.05	ug/mL	82

(#)=qualifier out of range (m)=manual integration

E201056.D BNA2M269.M Tue Mar 15 14:54:53 2016

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D

Vial: 2

Acq On : 15 Mar 2016 9:17 am

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031516A Y16B033

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 15 14:54 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	14.01	266	2500359	32.17	ug/mL	97
72) Pentachloronitrobenzene	14.11	237	1734794	26.33	ug/mL	94
73) Phenanthrene	14.20	178	12926741	24.10	ug/mL	100
74) Anthracene	14.26	178	14251912	24.15	ug/mL	97
75) Carbazole	14.51	167	7823824	16.02	ug/mL#	91
76) Di-n-butyl phthalate	15.03	149	19273753	21.84	ug/mL	99
77) Fluoranthene	15.90	202	14521442	19.97	ug/mL	100
78) Benzidine	16.11	184	3786532	16.26	ug/mL	99
80) Pyrene	16.23	202	17171700	28.92	ug/mL	100
82) Benzyl butyl phthalate	17.17	149	9529445	28.22	ug/mL	99
83) Bis(2-ethylhexyl) phthalat	17.98	149	7652514	30.60	ug/mL#	96
84) Benz (a) anthracene	17.94	228	10628966	25.92	ug/mL	99
85) 3,3-Dichlorobenzidine	17.95	252	5844811m	56.31	ug/mL	
86) Chrysene	18.02	228	11917078	26.01	ug/mL	97
87) Di-n-octyl phthalate	18.80	149	20843757	25.40	ug/mL	99
88) Benzo(b)fluoranthene	19.44	252	14719854m	29.04	ug/mL	
89) Benzo(k)fluoranthene	19.47	252	12896666m	24.96	ug/mL	
90) Benzo(a)pyrene	19.91	252	14619593	27.62	ug/mL	98
92) Indeno(1,2,3-cd)pyrene	21.80	276	17936454	29.05	ug/mL	100
93) Dibenz(a,h)anthracene	21.80	278	13422624	27.36	ug/mL	97
94) Benzo(g,h,i)perylene	22.30	276	13301889	25.50	ug/mL	98

(#) = qualifier out of range (m) = manual integration

E201056.D BNA2M269.M Tue Mar 15 14:54:53 2016

Page 3

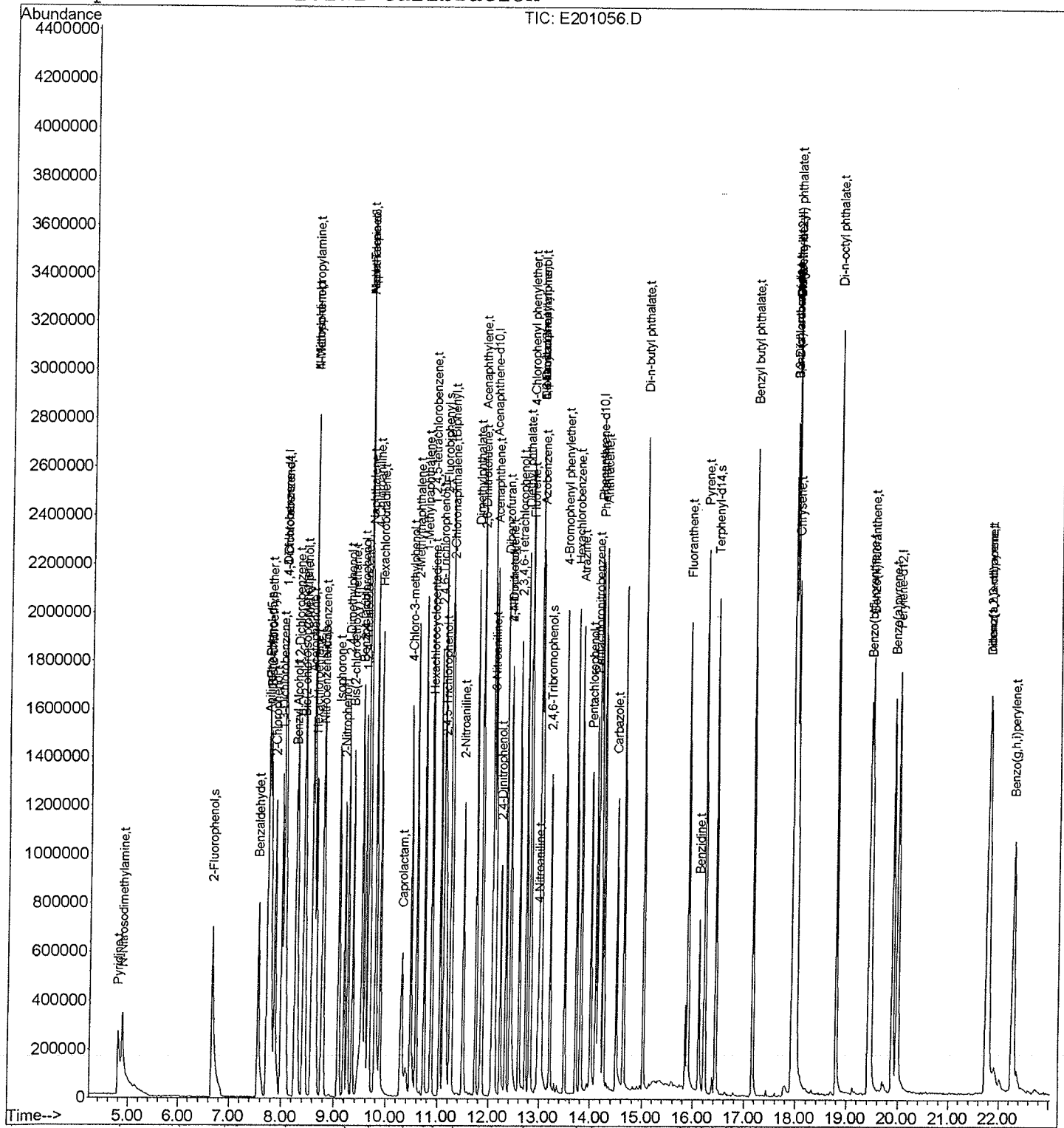
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201056.D
Acq On : 15 Mar 2016 9:17 am
Sample : SEQ-CCV1
Misc : QBSV2031516A Y16B033
MS Integration Params: EVENTS.E
Quant Time: Mar 15 14:54 2016

Vial: 2
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D
 Acq On : 16 Mar 2016 1:41 pm
 Sample : SEQ-CCV1
 Misc : QBSV2031616A
 MS Integration Params: EVENTS.E

Vial: 11
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.02
2 t	N-Nitrosodimethylamine	0.835	0.696	16.6	88	-0.01
3 t	Pyridine	1.411	1.076	23.7	90	-0.02
4 s	2-Fluorophenol	1.655	1.595	3.6	98	0.00
5 s	Phenol-d5	1.852	1.643	11.3	96	-0.01
6 t	Benzaldehyde	1.373	0.932	32.1#	77	0.01
7 t	Aniline	1.956	1.676	14.3	88	0.02
8 t	Phenol	2.208	2.017	8.7	96	0.00
9 t	Bis(2-chloroethyl) ether	2.169	1.856	14.4	95	0.02
10 t	2-Chlorophenol	1.823	1.685	7.6	99	0.00
11 t	1,3-Dichlorobenzene	1.763	1.653	6.2	101	0.01
12 t	1,4-Dichlorobenzene	1.877	1.851	1.4	104	0.02
13 t	Benzyl Alcohol	1.047	0.948	9.5	99	0.02
14 t	1,2-Dichlorobenzene	1.795	1.670	7.0	103	0.01
15 t	2-Methylphenol	1.414	1.200	15.1	95	0.00
16 t	Acetophenone	2.351	1.995	15.1	94	0.34
17 t	Bis(2-chloroisopropyl) ethe	3.237	2.863	11.6	91	0.01
18 t	N-Nitroso-di-n-propylamine	1.453	1.207	16.9	95	0.03
19 t	4-Methylphenol	1.689	1.450	14.2	99	0.00
20 t	Hexachloroethane	0.774	0.674	12.9	96	0.02
21 I	Naphthalene-d8	1.000	1.000	0.0	97	0.02
22 s	Nitrobenzene-d5	0.689	0.601	12.8	92	0.02
23 t	Nitrobenzene	0.682	0.612	10.3	94	0.02
24 t	Isophorone	1.295	1.169	9.7	92	0.03
25 t	2-Nitrophenol	0.359	0.354	1.4	102	0.02
26 t	2,4-Dimethylphenol	0.454	0.393	13.4	94	0.01
27 t	Bis(2-chloroethoxy) methane	0.689	0.619	10.2	94	0.02
28 t	Benzoic acid	0.301	0.327	-8.6	102	0.10
29 t	2,4-Dichlorophenol	0.537	0.512	4.7	102	0.00
30 t	1,2,4-Trichlorobenzene	0.597	0.542	9.2	105	0.02
31 t	Naphthalene	1.243	1.081	13.0	100	0.02
32 t	Alpha-Terpineol	0.443	0.397	10.4	90	0.02
33 t	4-Chloroaniline	0.590	0.534	9.5	100	0.02
34 t	Hexachlorobutadiene	0.328	0.315	4.0	105	0.02
35 t	Caprolactam	0.188	0.195	-3.7	115	-0.27
36 t	4-Chloro-3-methylphenol	0.574	0.536	6.6	96	0.00
37 t	1-Methylnaphthalene	0.960	0.793	17.4	103	0.02
38 t	2-Methylnaphthalene	0.909	0.774	14.9	99	0.02
39 I	Acenaphthene-d10	1.000	1.000	0.0	103	0.02

(#) = Out of Range

E201082.D BNA2M269.M

Thu Mar 17 09:34:31 2016

Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D
 Acq On : 16 Mar 2016 1:41 pm
 Sample : SEQ-CCV1
 Misc : QBSV2031616A
 MS Integration Params: EVENTS.E

Vial: 11
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40 t	1,2,4,5-tetrachlorobenzene	0.902	0.721	20.1	120	0.01
41 t	Hexachlorocyclopentadiene	0.376	0.413	-9.8	114	0.02
42 t	Biphenyl	0.896	0.645	28.0	101	0.15
43 t	2,4,6-Trichlorophenol	0.683	0.621	9.1	108	0.01
44 t	2,4,5-Trichlorophenol	0.772	0.736	4.7	109	-0.02
45 s	2-Fluorobiphenyl	1.836	1.572	14.4	106	0.02
46 t	2-Chloronaphthalene	1.624	1.343	17.3	102	0.02
47 t	2-Nitroaniline	0.710	0.648	8.7	99	0.02
48 t	Dimethylphthalate	2.233	1.892	15.3	99	0.03
49 t	2,6-Dinitrotoluene	0.505	0.436	13.7	100	0.02
50 t	Acenaphthylene	2.563	1.998	22.0	103	0.02
51 t	3-Nitroaniline	0.375	0.307	18.1	82	0.03
52 t	Acenaphthene	1.490	1.158	22.3	103	0.02
53 t	2,4-Dinitrophenol	0.309	0.339	-9.7	94	0.00
54 t	Dibenzofuran	2.324	1.993	14.2	104	0.02
55 t	2,4-Dinitrotoluene	0.753	0.709	5.8	103	0.03
56 t	4-Nitrophenol	0.556	0.489	12.1	91	-0.04
57 t	2,3,4,6-Tetrachlorophenol	0.254	0.213	16.1	93	0.02
58 t	Diethyl phthalate	2.276	1.905	16.3	101	0.03
59 t	Fluorene	1.731	1.287	25.6	105	0.03
60 t	4-Chlorophenyl phenylether	0.970	0.732	24.5	110	0.02
61 t	4-Nitroaniline	0.509	0.370	27.3	98	0.03
62 I	Phenanthrene-d10	1.000	1.000	0.0	104	0.02
63 t	4,6-Dinitro-2-methylphenol	0.203	0.185	8.9	110	0.03
64 t	Diphenylamine	0.694	0.460	33.7#	101	0.03
65 t	N-Nitrosodiphenylamine	0.270	0.181	33.0#	104	0.04
66 t	Azobenzene	1.405	1.030	26.7	94	0.03
67 s	2,4,6-Tribromophenol	0.216	0.180	16.7	102	0.02
68 t	4-Bromophenyl phenylether	0.377	0.311	17.5	118	0.02
69 t	Atrazine	0.373	0.272	27.1	99	0.03
70 t	Hexachlorobenzene	0.136	0.099	27.2	98	0.02
71 t	Pentachlorophenol	0.180	0.189	-5.0	104	0.02
72 t	Pentachloronitrobenzene	0.153	0.135	11.8	108	0.02
73 t	Phenanthrene	1.241	1.026	17.3	106	0.03
74 t	Anthracene	1.366	1.142	16.4	106	0.03
75 t	Carbazole	1.131	0.712	37.0#	98	0.01
76 t	Di-n-butyl phthalate	2.043	1.511	26.0	101	0.02
77 t	Fluoranthene	1.683	1.341	20.3	109	0.03
78 t	Benzidine	0.539	0.262	51.4#	58	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D
 Acq On : 16 Mar 2016 1:41 pm
 Sample : SEQ-CCV1
 Misc : QBSV2031616A
 MS Integration Params: EVENTS.E

Vial: 11
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80 t	Pyrene	2.409	2.330	3.3	107	0.03
81 s	Terphenyl-d14	1.608	1.626	-1.1	117	0.02
82 t	Benzyl butyl phthalate	1.370	1.278	6.7	98	0.02
83 t	Bis(2-ethylhexyl) phthalate	1.015	1.002	1.3	102	0.02
84 t	Benz (a) anthracene	1.664	1.405	15.6	108	0.02
85 t	3,3-Dichlorobenzidine	0.421	0.369	12.4	101	0.03
86 t	Chrysene	1.859	1.863	-0.2	116	0.03
87 t	Di-n-octyl phthalate	3.330	2.977	10.6	96	0.02
88 t	Benzo(b)fluoranthene	2.057	2.282	-10.9	115	0.04
89 t	Benzo(k)fluoranthene	2.096	1.930	7.9	105	0.04
90 t	Benzo(a)pyrene	2.148	2.127	1.0	106	0.04
91 I	Perylene-d12	1.000	1.000	0.0	106	0.02
92 t	Indeno(1,2,3-cd)pyrene	1.726	1.554	10.0	109	0.09
93 t	Dibenz(a,h)anthracene	1.372	1.181	13.9	103	0.08
94 t	Benzo(g,h,i)perylene	1.459	1.331	8.8	101	0.08

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D

Vial: 11

Acq On : 16 Mar 2016 1:41 pm

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 15:31 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M269

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.04	152	4849952	40.00	ug/mL	0.02
21) Naphthalene-d8	9.65	136	13528883	40.00	ug/mL	0.02
39) Acenaphthene-d10	12.07	164	8377415	40.00	ug/mL	0.02
62) Phenanthrene-d10	14.16	188	17233577	40.00	ug/mL	0.02
79) Chrysene-d12	17.97	240	9981228	40.00	ug/mL	0.02
91) Perylene-d12	20.00	264	15739704	40.00	ug/mL	0.02

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	5801484	28.91	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	38.55%
5) Phenol-d5	7.74	99	5975378	26.61	ug/mL	-0.01
Spiked Amount	75.000	Range	10 - 100	Recovery	=	35.48%
22) Nitrobenzene-d5	8.77	82	6094514	26.17	ug/mL	0.02
Spiked Amount	50.000	Range	26 - 120	Recovery	=	52.34%
45) 2-Fluorobiphenyl	11.11	172	9876732	25.69	ug/mL	0.02
Spiked Amount	50.000	Range	29 - 120	Recovery	=	51.38%
67) 2,4,6-Tribromophenol	13.21	330	2320689	24.89	ug/mL	0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	33.19%#
81) Terphenyl-d14	16.44	244	12172601	30.34	ug/mL	0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	60.68%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.87	74	2532098m	25.02	ug/mL	
3) Pyridine	4.78	79	3913723m	22.87	ug/mL	
6) Benzaldehyde	7.55	105	3388455	20.36	ug/mL	98
7) Aniline	7.72	93	6098139	25.71	ug/mL#	96
8) Phenol	7.75	94	7337405	27.41	ug/mL#	30
9) Bis(2-chloroethyl) ether	7.78	93	6752916	25.68	ug/mL	96
10) 2-Chlorophenol	7.87	128	6128081	27.73	ug/mL	97
11) 1,3-Dichlorobenzene	7.99	146	6011953	28.13	ug/mL	98
12) 1,4-Dichlorobenzene	8.06	146	6731641	29.58	ug/mL	98
13) Benzyl Alcohol	8.26	108	3446746	27.15	ug/mL	95
14) 1,2-Dichlorobenzene	8.29	146	6074974	27.91	ug/mL	98
15) 2-Methylphenol	8.43	107	4363854	25.45	ug/mL	98
16) Acetophenone	8.58	105	7255089	25.45	ug/mL	100
17) Bis(2-chloroisopropyl) eth	8.41	45	10413726	26.53	ug/mL	98
18) N-Nitroso-di-n-propylamine	8.61	70	4389648m	24.91	ug/mL	
19) 4-Methylphenol	8.61	107	5273705	25.75	ug/mL	92
20) Hexachloroethane	8.65	117	2451143	26.10	ug/mL	92
23) Nitrobenzene	8.79	77	6213004	26.94	ug/mL	100
24) Isophorone	9.08	82	11860261	27.07	ug/mL	99
25) 2-Nitrophenol	9.19	139	3588237	29.58	ug/mL	91

(#)=qualifier out of range (m)=manual integration

E201082.D BNA2M269.M Thu Mar 17 09:34:25 2016

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D

Vial: 11

Acq On : 16 Mar 2016 1:41 pm

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 15:31 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M269

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dimethylphenol	9.25	122	3983855	25.96	ug/mL	97
27) Bis(2-chloroethoxy) methan	9.34	93	6278315	26.94	ug/mL	99
28) Benzoic acid	9.51	105	3313858	32.53	ug/mL	95
29) 2,4-Dichlorophenol	9.52	162	5198799	28.63	ug/mL	95
30) 1,2,4-Trichlorobenzene	9.59	180	5503177	27.27	ug/mL	97
31) Naphthalene	9.68	128	10966789	26.09	ug/mL	99
32) Alpha-Terpineol	9.65	59	4029170	26.92	ug/mL	89
33) 4-Chloroaniline	9.79	127	5415877	27.15	ug/mL	98
34) Hexachlorobutadiene	9.89	225	3195385	28.78	ug/mL	95
35) Caprolactam	10.30	113	1976079m	31.10	ug/mL	
36) 4-Chloro-3-methylphenol	10.48	107	5435135	27.98	ug/mL	98
37) 1-Methylnaphthalene	10.73	141	8046918m	24.79	ug/mL	
38) 2-Methylnaphthalene	10.59	142	7850314	25.53	ug/mL	98
40) 1,2,4,5-tetrachlorobenzene	10.87	216	4530815m	23.98	ug/mL	
41) Hexachlorocyclopentadiene	10.89	237	2592111	32.88	ug/mL	97
42) Biphenyl	11.24	153	4049932m	21.57	ug/mL	
43) 2,4,6-Trichlorophenol	11.04	196	3900818	27.26	ug/mL	95
44) 2,4,5-Trichlorophenol	11.14	196	4621576	28.57	ug/mL	95
46) 2-Chloronaphthalene	11.27	162	8435509	24.81	ug/mL	98
47) 2-Nitroaniline	11.50	138	4069967	27.37	ug/mL	96
48) Dimethylphthalate	11.75	163	11885918	25.42	ug/mL	99
49) 2,6-Dinitrotoluene	11.87	165	2738880	25.92	ug/mL	93
50) Acenaphthylene	11.85	152	12556190m	23.39	ug/mL	
51) 3-Nitroaniline	12.09	138	1925886	24.53	ug/mL	91
52) Acenaphthene	12.11	154	7273952m	23.30	ug/mL	
53) 2,4-Dinitrophenol	12.22	184	2131263m	32.93	ug/mL	
54) Dibenzofuran	12.33	168	12521982	25.72	ug/mL	98
55) 2,4-Dinitrotoluene	12.42	165	4455278	28.23	ug/mL	94
56) 4-Nitrophenol	12.42	65	3072182	26.39	ug/mL	95
57) 2,3,4,6-Tetrachlorophenol	12.60	131	1337936	25.18	ug/mL#	75
58) Diethyl phthalate	12.73	149	11972179	25.11	ug/mL	99
59) Fluorene	12.83	166	8087185	22.31	ug/mL	99
60) 4-Chlorophenyl phenylether	12.81	204	4596714	22.63	ug/mL	91
61) 4-Nitroaniline	12.97	138	2326518m	21.82	ug/mL	
63) 4,6-Dinitro-2-methylphenol	13.01	198	2388027	27.36	ug/mL#	11
64) Diphenylamine	13.01	169	5950620	19.90	ug/mL	98
65) N-Nitrosodiphenylamine	13.01	167	2333729	20.06	ug/mL	98
66) Azobenzene	13.04	77	13309286	21.99	ug/mL	96
68) 4-Bromophenyl phenylether	13.50	248	4015789m	24.75	ug/mL	
69) Atrazine	13.81	200	3514074m	21.85	ug/mL	
70) Hexachlorobenzene	13.72	142	1275647	21.85	ug/mL	79

(#) = qualifier out of range (m) = manual integration

E201082.D BNA2M269.M Thu Mar 17 09:34:25 2016

Page 2

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D

Vial: 11

Acq On : 16 Mar 2016 1:41 pm

Operator: KH

Sample : SEQ-CCV1

Inst : BNA#2

Misc : QBSV2031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 15:31 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M269

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachlorophenol	14.01	266	2441060	31.49	ug/mL	90
72) Pentachloronitrobenzene	14.11	237	1739145	26.46	ug/mL	94
73) Phenanthrene	14.20	178	13258450	24.79	ug/mL	100
74) Anthracene	14.26	178	14762450m	25.09	ug/mL	
75) Carbazole	14.50	167	9208073m	18.90	ug/mL	
76) Di-n-butyl phthalate	15.03	149	19529507	22.19	ug/mL	99
77) Fluoranthene	15.90	202	17330162m	23.90	ug/mL	
78) Benzidine	16.12	184	3386792	14.58	ug/mL	96
80) Pyrene	16.23	202	17443809	29.02	ug/mL	99
82) Benzyl butyl phthalate	17.17	149	9569353	27.99	ug/mL	96
83) Bis(2-ethylhexyl) phthalat	17.98	149	7501277	29.62	ug/mL	98
84) Benz (a) anthracene	17.93	228	10521263	25.34	ug/mL	97
85) 3,3-Dichlorobenzidine	17.95	252	5518566	52.51	ug/mL	94
86) Chrysene	18.02	228	13949907	30.07	ug/mL	97
87) Di-n-octyl phthalate	18.80	149	22287730	26.82	ug/mL	99
88) Benzo(b)fluoranthene	19.43	252	17083188m	33.28	ug/mL	
89) Benzo(k)fluoranthene	19.47	252	14446392m	27.62	ug/mL	
90) Benzo(a)pyrene	19.90	252	15923349	29.71	ug/mL	98
92) Indeno(1,2,3-cd)pyrene	21.81	276	18349124	27.01	ug/mL	99
93) Dibenz(a,h)anthracene	21.80	278	13937540	25.83	ug/mL	98
94) Benzo(g,h,i)perylene	22.30	276	15715651	27.38	ug/mL	98

(#) = qualifier out of range (m) = manual integration

E201082.D BNA2M269.M Thu Mar 17 09:34:26 2016

Page 3

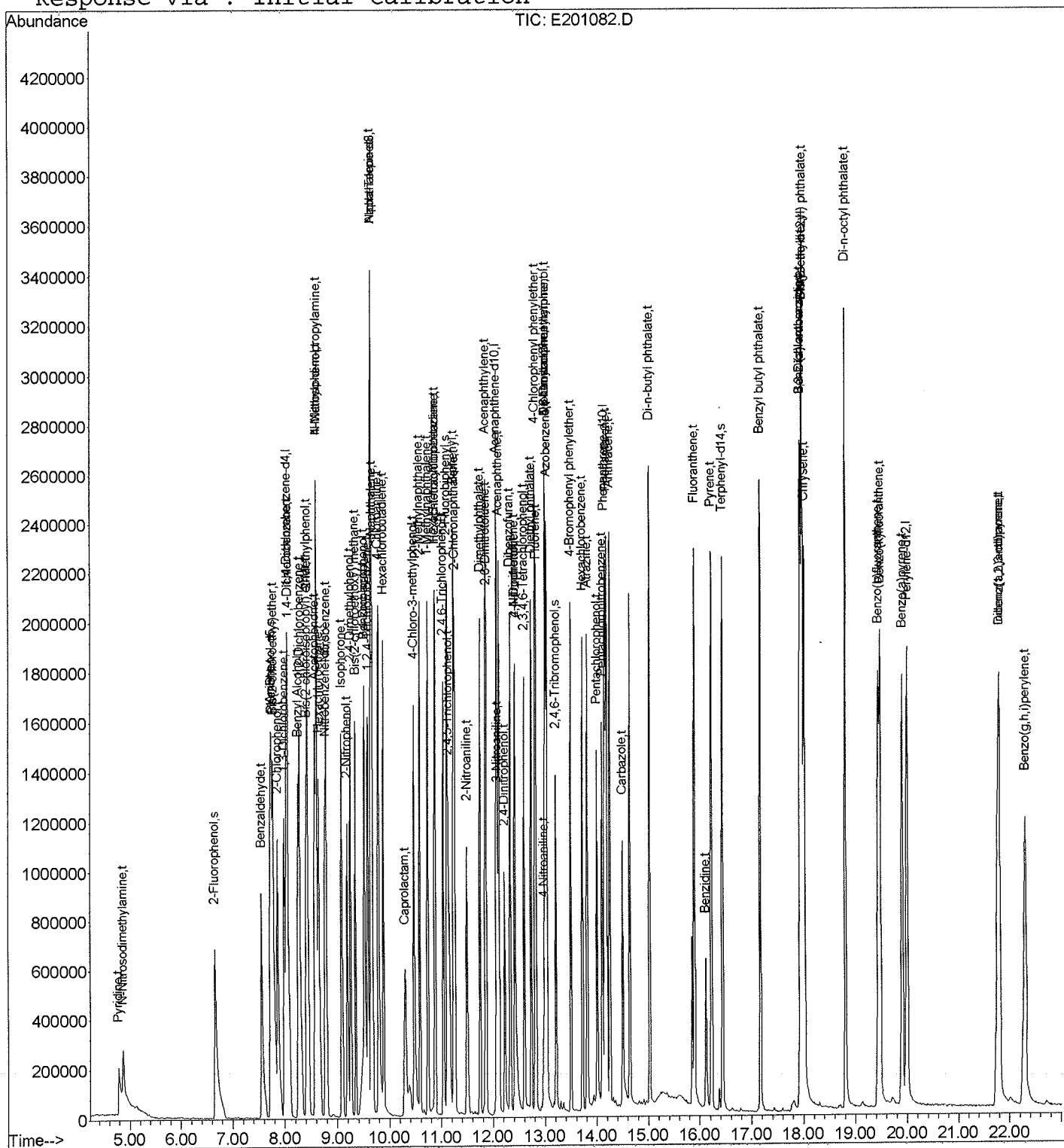
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031616\E201082.D
 Acq On : 16 Mar 2016 1:41 pm
 Sample : SEQ-CCV1
 Misc : QBSV2031616A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 16 15:31 2016

Vial: 11
 Operator: KH
 Inst : BNA#2
 Multiplr: 1.00

Quant Results File: BNA2M269.RES

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
 Title : GC MS BNA 2 Semi Volatiles Calibration
 Last Update : Tue Mar 15 14:48:37 2016
 Response via : Initial Calibration



Response Factor Report BNA #5

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Jan 15 12:43:30 2016
 Response via : Initial Calibration

Calibration Files

1	=E522140.D	2	=E522141.D	3	=E522142.D
4	=E522143.D	5	=E522144.D	6	=E522145.D

	Compound	1	2	3	4	5	6	Avg	%RSD

1) i	1,4-Dichlorobenzene-d	-----ISTD-----							
2) t	N-nitrosodimethylam	0.317	0.336	0.337	0.329	0.337	0.318	0.330	2.75
3) t	Hexachlorethane	0.175	0.166	0.164	0.165	0.171	0.168	0.170	3.00
4) t	Nitrobenzene	0.414	0.388	0.390	0.390	0.409	0.394	0.404	4.98
5) I	Naphthalene-d8	-----ISTD-----							
6) t	Naphthalene	0.671	0.647	0.628	0.605	0.524	0.515	0.586	11.63
7) c	Hexachlorobutadiene	0.121	0.114	0.113	0.111	0.112	0.109	0.113	3.51#
8) I	Acenaphthene-d10	-----ISTD-----							
9) t	Acenaphthylene	1.042	0.988	0.969	0.956	0.845	0.846	0.930	8.48
10) c,m	Acenaphthene	0.646	0.636	0.618	0.599	0.525	0.523	0.582	9.52#
11) t	Fluorene	0.750	0.722	0.706	0.697	0.615	0.623	0.678	7.93
12) I	Phenanthrene-d10	-----ISTD-----							
13) t	Atrazine	0.109	0.105	0.103	0.103	0.106	0.105	0.106	2.36
14) t	Hexachlorobenzene	0.072	0.062	0.056	0.054	0.054	0.052	0.058	12.56
15) c,m	Pentachlorophenol	0.027	0.030	0.031	0.033	0.036	0.034	0.033	12.46#
16) t	Phenanthrene	0.651	0.629	0.607	0.586	0.514	0.516	0.573	10.47
17) t	Anthracene	0.631	0.612	0.606	0.600	0.540	0.543	0.581	6.83
18) c	Fluoranthene	0.639	0.611	0.604	0.600	0.533	0.546	0.583	6.99#
19) I	Chrysene-d12	-----ISTD-----							
20) m	Pyrene	0.873	0.843	0.831	0.810	0.725	0.721	0.788	8.42
21) t	Bis(2-ethylhexyl) p	0.622	0.595	0.557	0.537	0.543	0.529	0.579	8.97
22) t	Benz (a) anthracene	0.822	0.738	0.694	0.676	0.599	0.602	0.677	12.27
23) t	Chrysene	0.792	0.790	0.769	0.739	0.644	0.632	0.712	10.84
24) I	Perylene-d12	-----ISTD-----							
25) t	Benzo(b)fluoranthene	0.685	0.666	0.659	0.655	0.593	0.601	0.639	5.60
26) t	Benzo(k)fluoranthene	0.787	0.755	0.758	0.757	0.678	0.680	0.728	6.36
27) c	Benzo(a)pyrene	0.687	0.651	0.643	0.644	0.574	0.595	0.629	6.11#
28) t	Indeno(1,2,3-cd)pyr	0.668	0.653	0.651	0.662	0.602	0.628	0.643	3.53
29) t	Dibenz(a,h)anthracene	0.521	0.513	0.518	0.533	0.486	0.510	0.514	2.80
30) t	Benzo(g,h,i)perylene	0.575	0.557	0.544	0.549	0.498	0.515	0.536	5.17

(#) = Out of Range ### Number of calibration levels exceeded format ###
 BN5SIM24.M Fri Jan 15 12:44:35 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522140.D
 Acq On : 10 Jan 2016 9:21 pm
 Sample : Cal Level 1 - Various Conc.
 Misc : QBSV5011016A

Vial: 3
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:39 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Nov 06 11:28:06 2015
 Response via : Initial Calibration
 DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	6359362	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.63	136	15473760	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	9084129	2.00	ug/mL	-0.32
12) Phenanthrene-d10	14.14	188	15185227	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	11344155	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	9734797	2.00	ug/mL	-0.36

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.99	74	504528	0.67	ug/mL	95
3) Hexachlorethane	8.64	117	278253	0.36	ug/mL#	100
4) Nitrobenzene	8.77	77	329075	0.23	ug/mL#	100
6) Naphthalene	9.65	128	259674	0.07	ug/mL	100
7) Hexachlorobutadiene	9.87	225	469354	0.53	ug/mL	100
9) Acenaphthylene	11.83	152	236681	0.06	ug/mL	99
10) Acenaphthene	12.09	154	146663	0.06	ug/mL	100
11) Fluorene	12.80	166	170327	0.06	ug/mL	100
13) Atrazine	13.77	200	413209	0.55	ug/mL	98
14) Hexachlorobenzene	13.70	284	10999m	0.02	ug/mL	
15) Pentachlorophenol	13.97	266	62488	0.27	ug/mL	100
16) Phenanthrene	14.17	178	247001	0.06	ug/mL	100
17) Anthracene	14.23	178	239389	0.06	ug/mL	100
18) Fluoranthene	15.88	202	242457	0.06	ug/mL	100
20) Pyrene	16.21	202	247638	0.07	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	1764253	0.58	ug/mL	100
22) Benz (a) anthracene	17.92	228	232998	0.07	ug/mL	99
23) Chrysene	17.98	228	224624	0.06	ug/mL	100
25) Benzo(b)fluoranthene	19.38	252	166615	0.06	ug/mL	100
26) Benzo(k)fluoranthene	19.41	252	191601	0.05	ug/mL	100
27) Benzo(a)pyrene	19.80	252	167199	0.05	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	162594	0.04	ug/mL	100
29) Dibenz(a,h)anthracene	21.37	278	126736	0.04	ug/mL	99
30) Benzo(g,h,i)perylene	21.78	276	139929	0.05	ug/mL	100

(#) = qualifier out of range (m) = manual integration
 E522140.D BN5SIM24.M Fri Jan 15 12:44:43 2016

Page 1

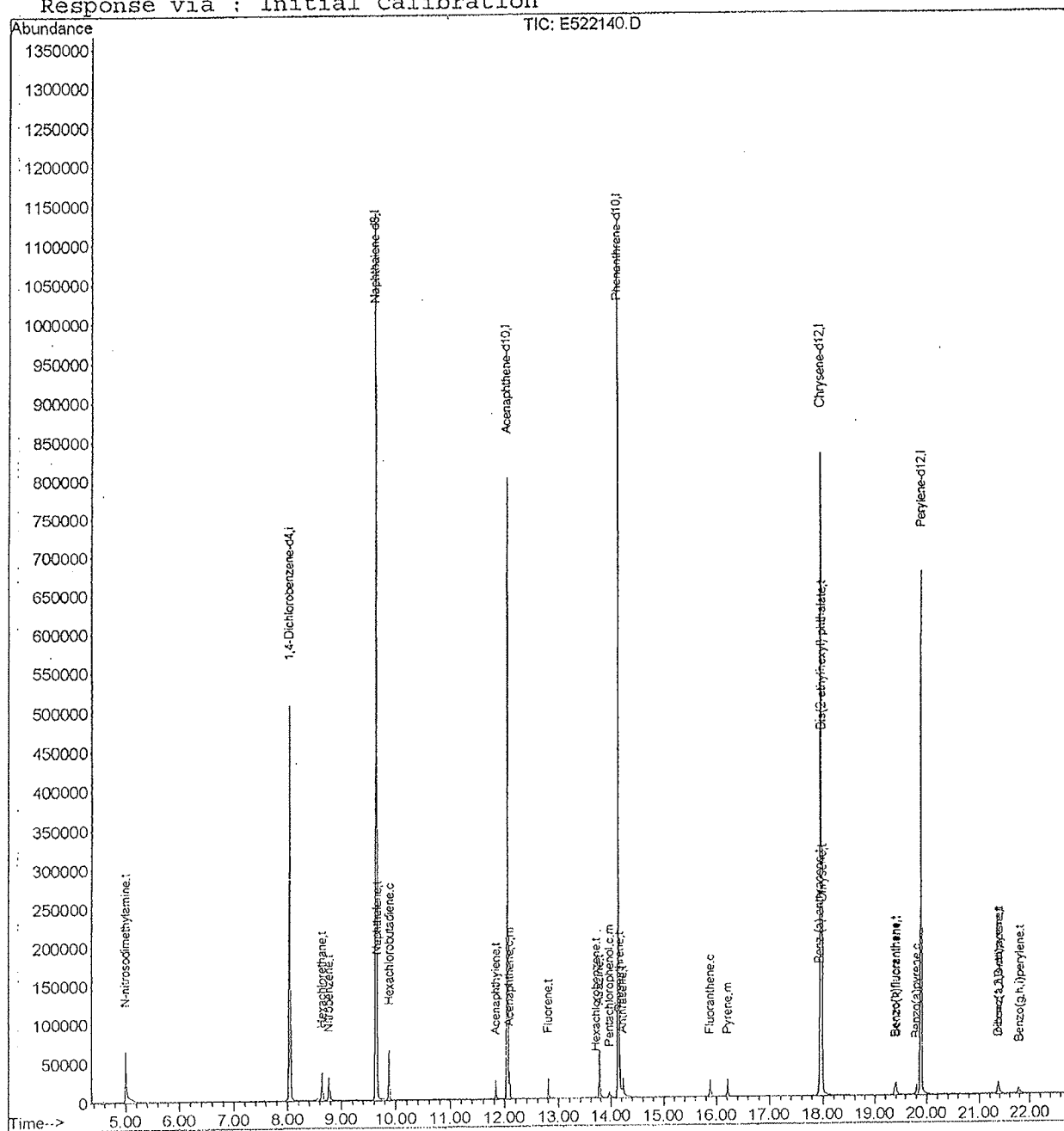
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522140.D
Acq On : 10 Jan 2016 9:21 pm
Sample : Cal Level 1 - Various Conc.
Misc : QBSV5011016A
MS Integration Params: EVENTS.E
Quant Time: Jan 15 12:39 2016

Vial: 3
Operator: SR
Inst : BNA #5
Multiplr: 1.00

Quant Results File: BN5SIM24.RES

```
Method       : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
Title        : 8270D Target  SVOA by SIM
Last Update  : Fri Jan 15 12:43:30 2016
Response via : Initial Calibration
```



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522141.D

Acq On : 10 Jan 2016 9:52 pm

Sample : Cal Level 2 - Various Conc.

Misc : QBSV5011016A

MS Integration Params: EVENTS.E

Quant Time: Jan 15 12:40 2016

Vial: 4

Operator: SR

Inst : BNA #5

Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Fri Nov 06 11:28:06 2015

Response via : Initial Calibration

DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	6614548	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.62	136	16050916	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	9455021	2.00	ug/mL	-0.32
12) Phenanthrene-d10	14.14	188	15641221	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	11704399	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	10181178	2.00	ug/mL	-0.36
Target Compounds						Qvalue
2) N-nitrosodimethylamine	4.99	74	1110789	1.43	ug/mL	96
3) Hexachlorethane	8.64	117	549245	0.68	ug/mL#	100
4) Nitrobenzene	8.77	77	641107	0.43	ug/mL#	100
6) Naphthalene	9.65	128	519491	0.13	ug/mL	100
7) Hexachlorobutadiene	9.87	225	911086	0.99	ug/mL	100
9) Acenaphthylene	11.83	152	467110	0.12	ug/mL	100
10) Acenaphthene	12.09	154	300451	0.11	ug/mL	100
11) Fluorene	12.80	166	341440	0.12	ug/mL	100
13) Atrazine	13.77	200	824579	1.07	ug/mL	98
14) Hexachlorobenzene	13.70	284	19505m	0.04	ug/mL	
15) Pentachlorophenol	13.97	266	142301	0.59	ug/mL	99
16) Phenanthrene	14.17	178	492092	0.12	ug/mL	100
17) Anthracene	14.23	178	478324	0.11	ug/mL	100
18) Fluoranthene	15.88	202	478168	0.11	ug/mL	100
20) Pyrene	16.21	202	493105	0.13	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	3481677	1.10	ug/mL	100
22) Benz (a) anthracene	17.92	228	431819	0.12	ug/mL	100
23) Chrysene	17.98	228	462156	0.13	ug/mL	100
25) Benzo(b) fluoranthene	19.38	252	339037	0.11	ug/mL	100
26) Benzo(k) fluoranthene	19.41	252	384213	0.10	ug/mL	100
27) Benzo(a) pyrene	19.80	252	331591	0.10	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	332562	0.09	ug/mL	100
29) Dibenz(a,h)anthracene	21.37	278	261163	0.08	ug/mL	100
30) Benzo(g,h,i)perylene	21.78	276	283763	0.09	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E522141.D BN5SIM24.M

Fri Jan 15 12:44:52 2016

Page 1

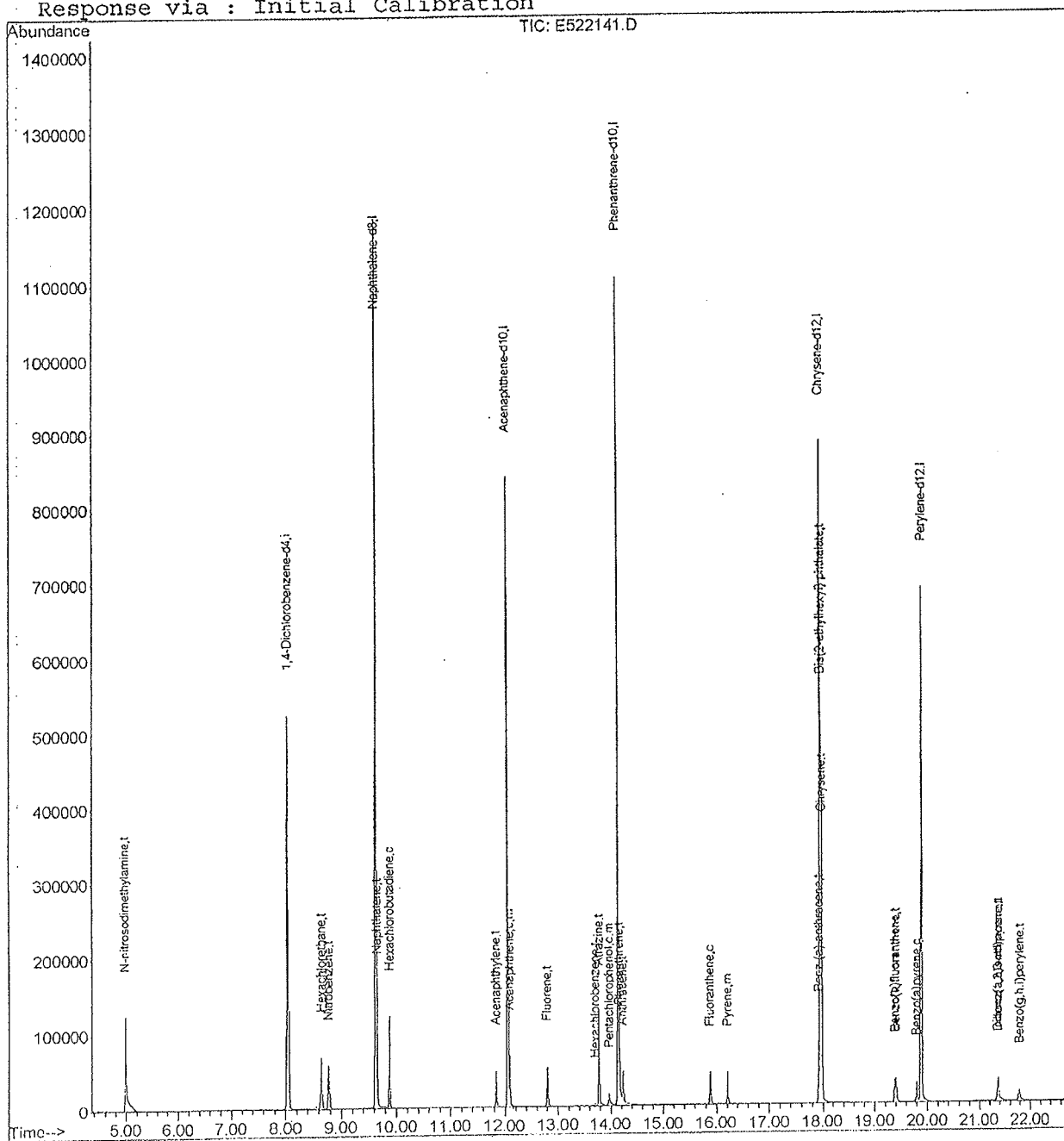
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522141.D
 Acq On : 10 Jan 2016 9:52 pm
 Sample : Cal Level 2 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:40 2016

Vial: 4
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Jan 15 12:43:30 2016
 Response via : Initial Calibration



E522141.D BN5SIM24.M

Fri Jan 15 12:44:52 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522142.D
 Acq On : 10 Jan 2016 10:23 pm
 Sample : Cal Level 3 - Various Conc.
 Misc : QBSV5011016A

Vial: 5
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:38 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Nov 06 11:28:06 2015
 Response via : Initial Calibration
 DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	6617270	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.63	136	16008472	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	9342109	2.00	ug/mL	-0.32
12) Phenanthrene-d10	14.14	188	15326577	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	11472197	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	9892322	2.00	ug/mL	-0.36

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.98	74	1672581	2.15	ug/mL	96
3) Hexachlorethane	8.64	117	816372	1.02	ug/mL#	100
4) Nitrobenzene	8.77	77	967071	0.65	ug/mL#	100
6) Naphthalene	9.65	128	1005222	0.25	ug/mL	100
7) Hexachlorobutadiene	9.87	225	1357298	1.48	ug/mL	100
9) Acenaphthylene	11.83	152	905369	0.24	ug/mL	100
10) Acenaphthene	12.09	154	577574	0.22	ug/mL	100
11) Fluorene	12.80	166	659438	0.24	ug/mL	100
13) Atrazine	13.77	200	1187034	1.57	ug/mL	99
14) Hexachlorobenzene	13.71	284	25949	0.06	ug/mL#	78
15) Pentachlorophenol	13.97	266	215516	0.91	ug/mL	100
16) Phenanthrene	14.17	178	930385	0.23	ug/mL	100
17) Anthracene	14.23	178	929402	0.22	ug/mL	100
18) Fluoranthene	15.88	202	926022	0.22	ug/mL	100
20) Pyrene	16.21	202	953862	0.26	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	4794846	1.55	ug/mL	100
22) Benz (a) anthracene	17.92	228	796315	0.23	ug/mL	100
23) Chrysene	17.98	228	881643	0.25	ug/mL	100
25) Benzo(b) fluoranthene	19.38	252	651711	0.22	ug/mL	100
26) Benzo(k) fluoranthene	19.41	252	749633	0.20	ug/mL	100
27) Benzo(a)pyrene	19.80	252	636043	0.20	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	644166	0.17	ug/mL	100
29) Dibenz(a,h)anthracene	21.36	278	512517	0.17	ug/mL	100
30) Benzo(g,h,i)perylene	21.78	276	537961	0.18	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E522142.D BN5SIM24.M Fri Jan 15 12:45:03 2016

Page 1

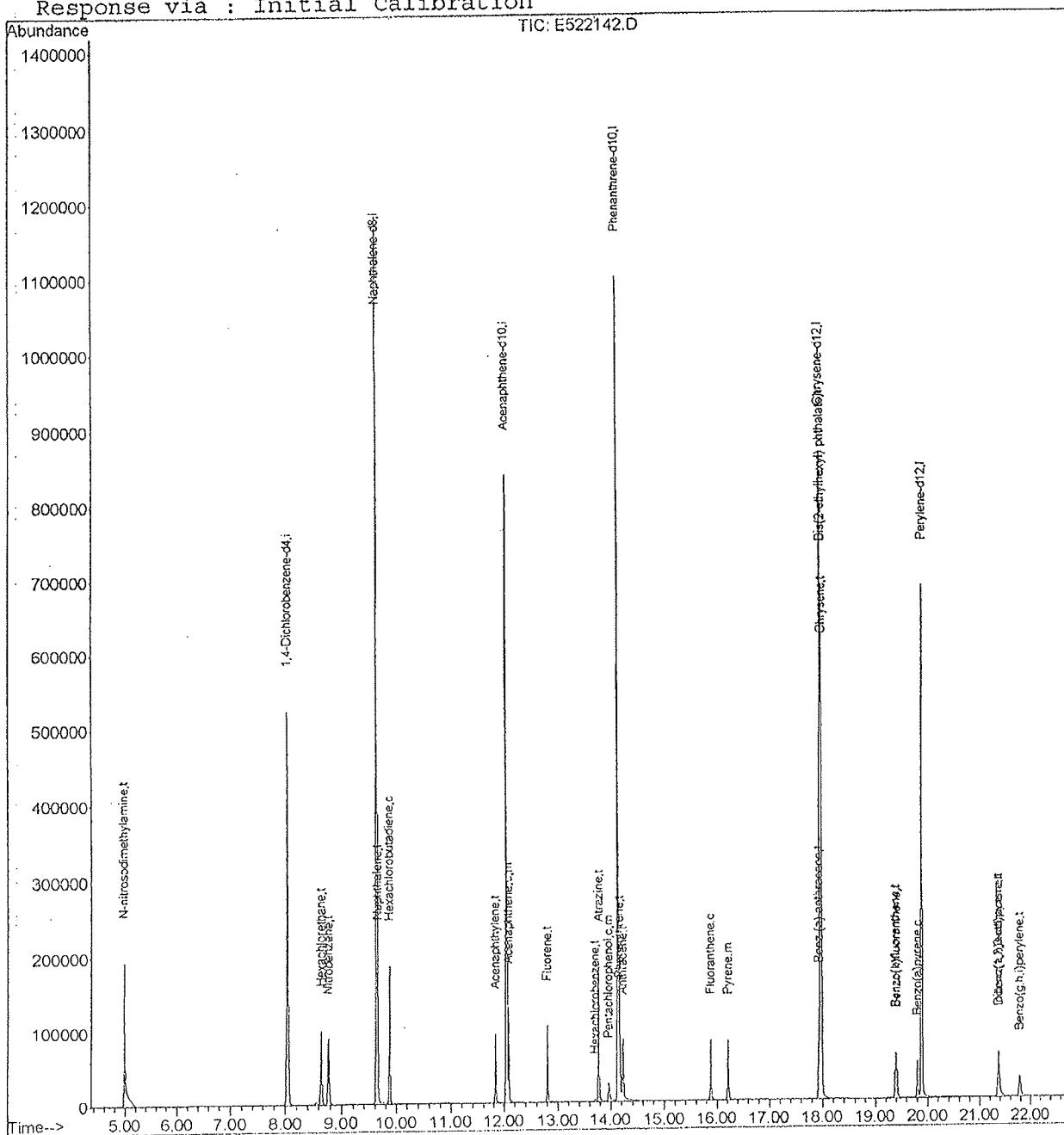
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522142.D
 Acq On : 10 Jan 2016 10:23 pm
 Sample : Cal Level 3 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:38 2016

Vial: 5
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Jan 15 12:43:30 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522143.D
 Acq On : 10 Jan 2016 10:54 pm
 Sample : Cal Level 4 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:38 2016

Vial: 6
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Nov 06 11:28:06 2015
 Response via : Initial Calibration
 DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	6747377	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.63	136	16351123	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	9612981	2.00	ug/mL	-0.32
12) Phenanthrene-d10	14.14	188	15935066	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	12239642	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	10583859	2.00	ug/mL	-0.36

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.98	74	2217783	2.79	ug/mL	97
3) Hexachlorethane	8.64	117	1113706	1.36	ug/mL#	100
4) Nitrobenzene	8.77	77	1316965	0.87	ug/mL#	100
6) Naphthalene	9.65	128	2471911	0.59	ug/mL	100
7) Hexachlorobutadiene	9.87	225	1814584	1.93	ug/mL	100
9) Acenaphthylene	11.83	152	2298490	0.58	ug/mL	100
10) Acenaphthene	12.09	154	1439810	0.54	ug/mL	100
11) Fluorene	12.80	166	1675443	0.59	ug/mL	100
13) Atrazine	13.78	200	1645770	2.09	ug/mL	99
14) Hexachlorobenzene	13.71	284	34107	0.07	ug/mL#	78
15) Pentachlorophenol	13.97	266	311215	1.26	ug/mL	100
16) Phenanthrene	14.17	178	2334045	0.56	ug/mL	100
17) Anthracene	14.23	178	2389102	0.55	ug/mL	100
18) Fluoranthene	15.88	202	2388950	0.56	ug/mL	100
20) Pyrene	16.21	202	2478357	0.64	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	6574030	1.99	ug/mL	100
22) Benz (a) anthracene	17.92	228	2067298	0.55	ug/mL	100
23) Chrysene	17.98	228	2261069	0.59	ug/mL	100
25) Benzo(b) fluoranthene	19.38	252	1732586	0.54	ug/mL	100
26) Benzo(k) fluoranthene	19.41	252	2002915	0.50	ug/mL	100
27) Benzo(a) pyrene	19.80	252	1705039	0.51	ug/mL	100
28) Indeno(1,2,3-cd) pyrene	21.36	276	1751643	0.44	ug/mL	100
29) Dibenz(a,h) anthracene	21.36	278	1409350	0.43	ug/mL	100
30) Benzo(g,h,i) perylene	21.78	276	1451732	0.45	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E522143.D BN5SIM24.M Fri Jan 15 12:45:11 2016

Page 1

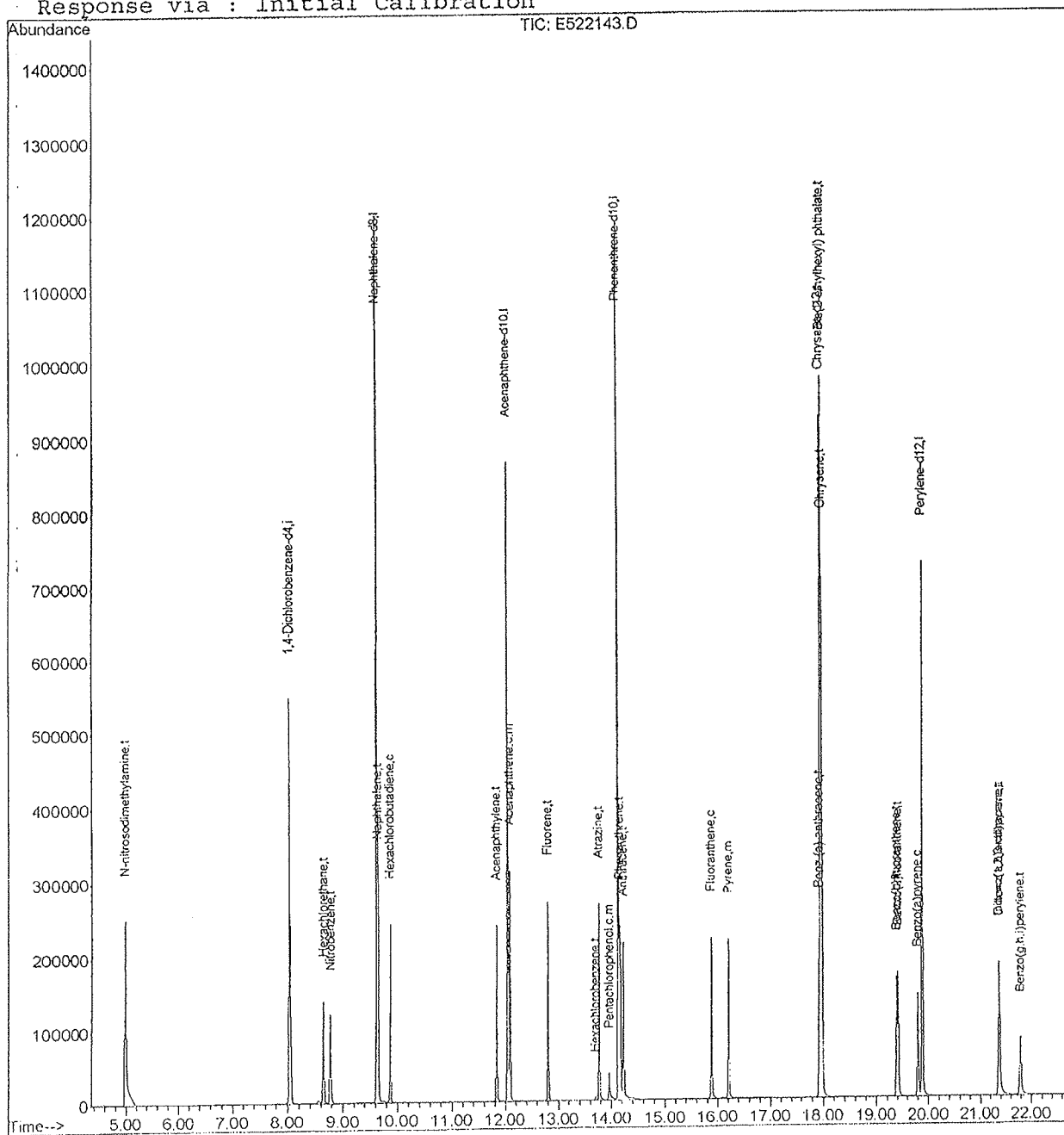
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522143.D
 Acq On : 10 Jan 2016 10:54 pm
 Sample : Cal Level 4 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:38 2016

Vial: 6
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Jan 15 12:43:30 2016
 Response via : Initial Calibration



E522143.D BN5SIM24.M

Fri Jan 15 12:45:11 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522144.D

Vial: 7

Acq On : 10 Jan 2016 11:24 pm

Operator: SR

Sample : Cal Level 5 - Various Conc.

Inst : BNA #5

Misc : QBSV5011016A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Jan 15 12:38 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Fri Nov 06 11:28:06 2015

Response via : Initial Calibration

DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	6584267	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.62	136	15973975	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	9350779	2.00	ug/mL	-0.32
12) Phenanthrene-d10	14.14	188	15354471	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	11688258	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	9988828	2.00	ug/mL	-0.36

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.98	74	2771444	3.57	ug/mL	97
3) Hexachlorethane	8.64	117	1411106	1.76	ug/mL#	100
4) Nitrobenzene	8.77	77	1681508	1.13	ug/mL#	100
6) Naphthalene	9.65	128	4185118	1.03	ug/mL	100
7) Hexachlorobutadiene	9.87	225	2244084	2.45	ug/mL	100
9) Acenaphthylene	11.83	152	3951938	1.03	ug/mL	100
10) Acenaphthene	12.09	154	2456345	0.95	ug/mL	100
11) Fluorene	12.80	166	2873059	1.04	ug/mL	100
13) Atrazine	13.78	200	2025847	2.68	ug/mL	99
14) Hexachlorobenzene	13.71	284	41396	0.09	ug/mL#	96
15) Pentachlorophenol	13.97	266	410450	1.73	ug/mL	99
16) Phenanthrene	14.17	178	3948478	0.98	ug/mL	100
17) Anthracene	14.23	178	4149137	1.00	ug/mL	100
18) Fluoranthene	15.88	202	4093736	0.99	ug/mL	100
20) Pyrene	16.21	202	4234958	1.14	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	7933259	2.51	ug/mL	100
22) Benz (a) anthracene	17.92	228	3500492	0.97	ug/mL	100
23) Chrysene	17.98	228	3762696	1.03	ug/mL	100
25) Benzo(b) fluoranthene	19.38	252	2962046	0.98	ug/mL	100
26) Benzo(k) fluoranthene	19.41	252	3385965	0.89	ug/mL	100
27) Benzo(a)pyrene	19.80	252	2864682	0.90	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	3005799	0.80	ug/mL	100
29) Dibenzo(a,h)anthracene	21.36	278	2426146	0.79	ug/mL	100
30) Benzo(g,h,i)perylene	21.78	276	2486220	0.81	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E522144.D BN5SIM24.M Fri Jan 15 12:45:17 2016

Page 1

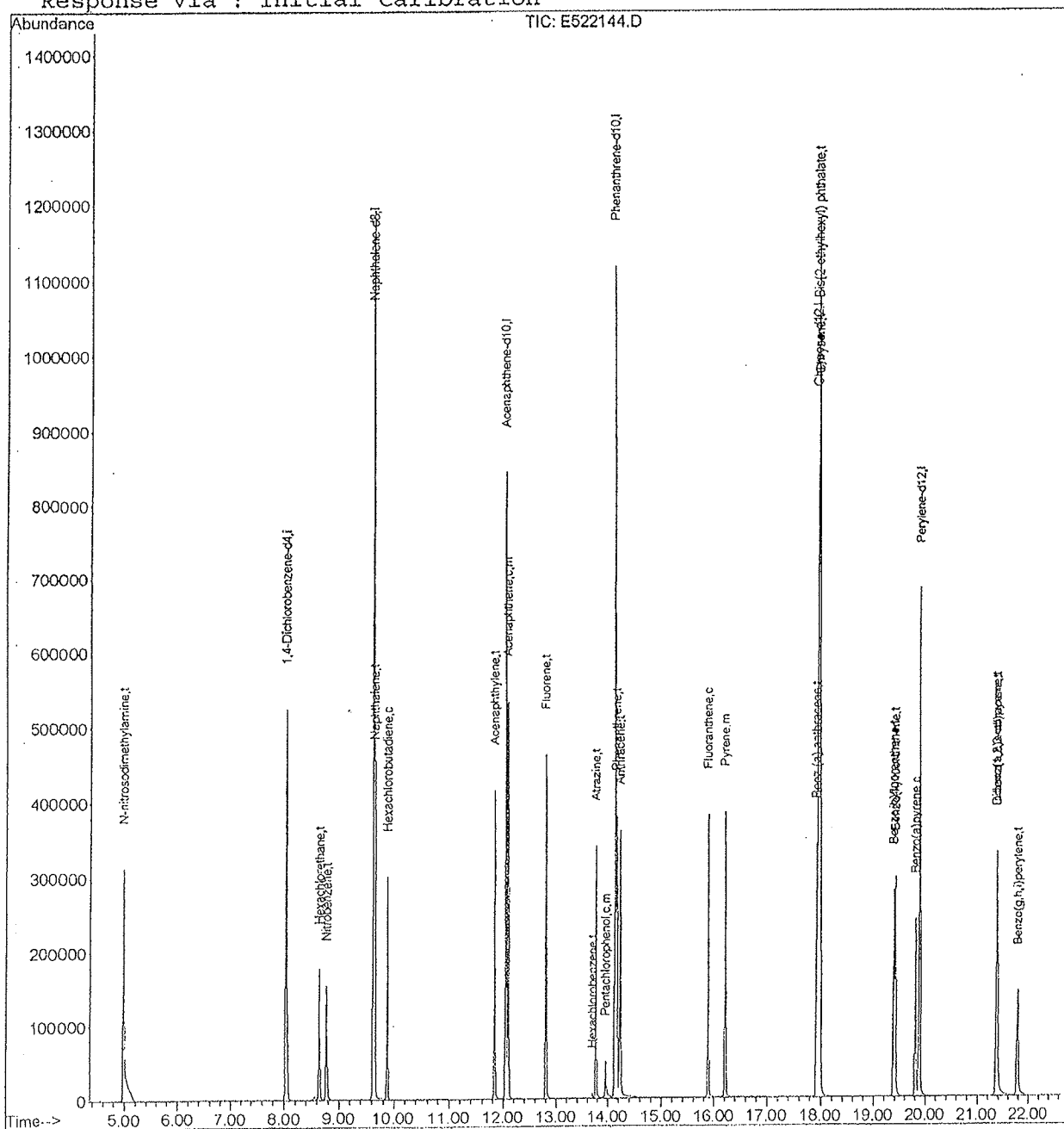
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522144.D
 Acq On : 10 Jan 2016 11:24 pm
 Sample : Cal Level 5 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:38 2016

Vial: 7
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Jan 15 12:43:30 2016
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522145.D

Vial: 8

Acq On : 10 Jan 2016 11:55 pm

Operator: SR

Sample : Cal Level 6 - Various Conc.

Inst : BNA #5

Misc : QBSV5011016A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Jan 15 12:39 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Fri Nov 06 11:28:06 2015

Response via : Initial Calibration

DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	6061123	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.62	136	14738647	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	8671785	2.00	ug/mL	-0.33
12) Phenanthrene-d10	14.14	188	14196346	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	11106559	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	9553962	2.00	ug/mL	-0.36

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.98	74	2887628	4.05	ug/mL	97
3) Hexachlorethane	8.64	117	1523343	2.07	ug/mL#	100
4) Nitrobenzene	8.77	77	1791544	1.31	ug/mL#	100
6) Naphthalene	9.65	128	7591228	2.03	ug/mL	100
7) Hexachlorobutadiene	9.87	225	2414053	2.85	ug/mL	100
9) Acenaphthylene	11.83	152	7340256	2.07	ug/mL	100
10) Acenaphthene	12.09	154	4539458	1.89	ug/mL	100
11) Fluorene	12.80	166	5402195	2.10	ug/mL	100
13) Atrazine	13.78	200	2242059	3.20	ug/mL	99
14) Hexachlorobenzene	13.71	284	44350	0.10	ug/mL#	96
15) Pentachlorophenol	13.96	266	436827	1.99	ug/mL	100
16) Phenanthrene	14.17	178	7322370	1.96	ug/mL	100
17) Anthracene	14.23	178	7706497	2.01	ug/mL	100
18) Fluoranthene	15.88	202	7747734	2.02	ug/mL	100
20) Pyrene	16.21	202	8013286	2.26	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	8805752	2.93	ug/mL	100
22) Benz (a) anthracene	17.92	228	6687465	1.96	ug/mL	100
23) Chrysene	17.98	228	7024269	2.02	ug/mL	100
25) Benzo(b) fluoranthene	19.38	252	5742197	1.99	ug/mL	100
26) Benzo(k) fluoranthene	19.41	252	6500734	1.79	ug/mL	100
27) Benzo(a) pyrene	19.80	252	5688175	1.87	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	5999804	1.67	ug/mL	100
29) Dibenz(a,h)anthracene	21.36	278	4868787	1.65	ug/mL	100
30) Benzo(g,h,i)perylene	21.78	276	4923447	1.68	ug/mL	100

 (#) = qualifier out of range (m) = manual integration

E522145.D BN5SIM24.M Fri Jan 15 12:45:24 2016

Page 1

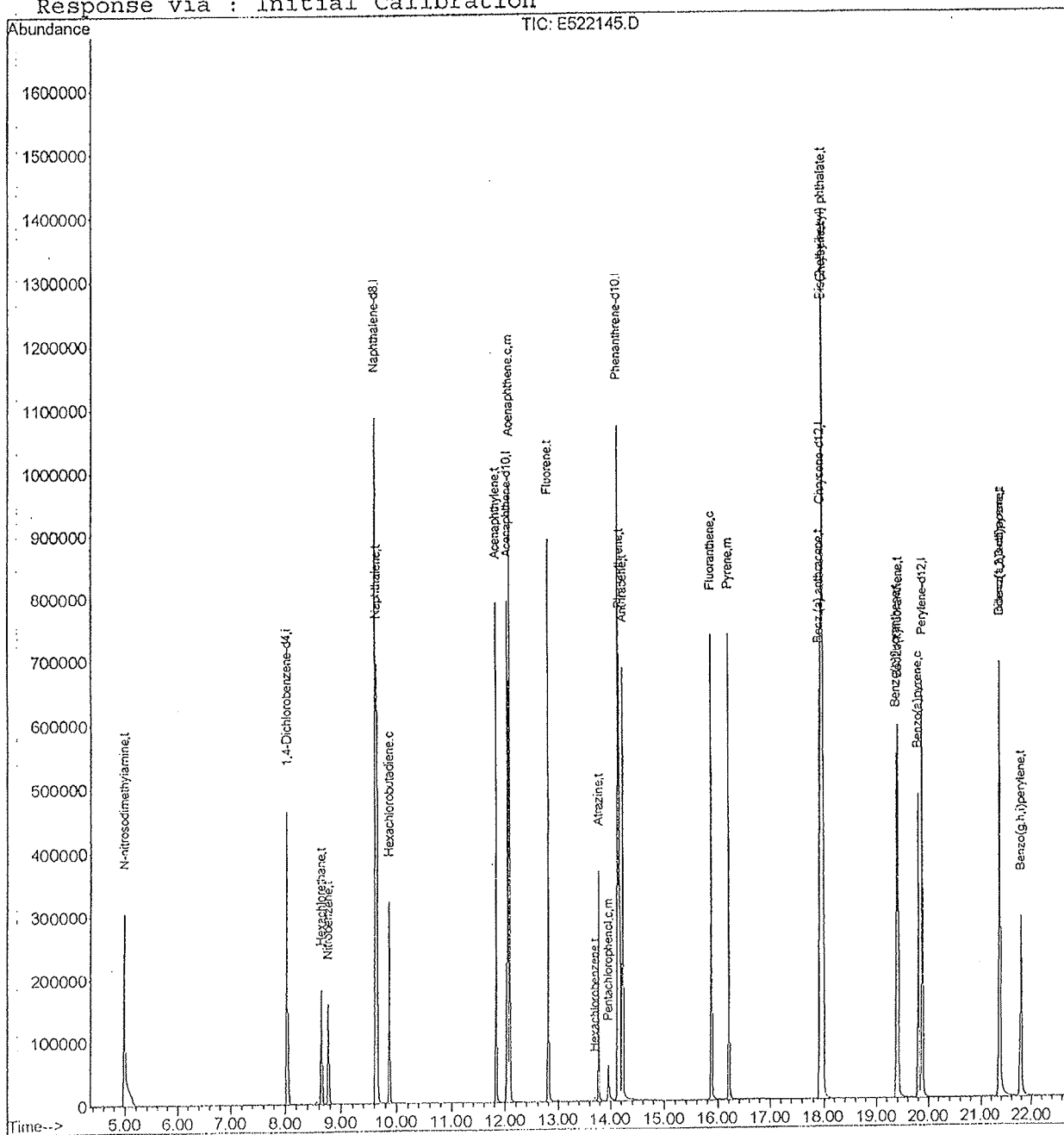
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522145.D
Acq On : 10 Jan 2016 11:55 pm
Sample : Cal Level 6 - Various Conc.
Misc : QBSV5011016A
MS Integration Params: EVENTS.E
Quant Time: Jan 15 12:39 2016

Vial: 8
Operator: SR
Inst : BNA #5
Multiplr: 1.00

Quant Results File: BN5SIM24.RES

```
Method       : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
Title        : 8270D Target SVOA by SIM
Last Update  : Fri Jan 15 12:43:30 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522146.D
 Acq On : 11 Jan 2016 12:26 am
 Sample : Cal Level 7 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:39 2016

Vial: 9
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Nov 06 11:28:06 2015
 Response via : Initial Calibration
 DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	5978716	2.00	ug/mL	-0.29
5) Naphthalene-d8	9.62	136	14680506	2.00	ug/mL	-0.32
8) Acenaphthene-d10	12.05	164	8580107	2.00	ug/mL	-0.33
12) Phenanthrene-d10	14.14	188	14256676	2.00	ug/mL	-0.33
19) Chrysene-d12	17.95	240	11215501	2.00	ug/mL	-0.33
24) Perylene-d12	19.88	264	9391493	2.00	ug/mL	-0.35

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.98	74	5039025	7.16	ug/mL	97
3) Hexachlorethane	8.64	117	2649938	3.65	ug/mL#	100
4) Nitrobenzene	8.77	77	3313732	2.46	ug/mL#	100
6) Naphthalene	9.65	128	14968369	4.01	ug/mL	100
7) Hexachlorobutadiene	9.87	225	4060517	4.82	ug/mL	100
9) Acenaphthylene	11.83	152	14756572	4.20	ug/mL	100
10) Acenaphthene	12.09	154	9011845	3.78	ug/mL	100
11) Fluorene	12.80	166	10867371	4.27	ug/mL	100
13) Atrazine	13.78	200	3908978	5.56	ug/mL	99
14) Hexachlorobenzene	13.71	284	77117	0.18	ug/mL#	96
15) Pentachlorophenol	13.96	266	860318	3.90	ug/mL	100
16) Phenanthrene	14.17	178	14458338	3.85	ug/mL	100
17) Anthracene	14.23	178	15304504	3.97	ug/mL	100
18) Fluoranthene	15.88	202	15539482	4.04	ug/mL	100
20) Pyrene	16.21	202	16025077	4.48	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	14991898	4.95	ug/mL	99
22) Benz (a) anthracene	17.92	228	13632052	3.95	ug/mL	100
23) Chrysene	17.99	228	13913255	3.96	ug/mL	100
25) Benzo(b) fluoranthene	19.39	252	11512024	4.05	ug/mL	100
26) Benzo(k) fluoranthene	19.42	252	12803770	3.58	ug/mL	100
27) Benzo(a) pyrene	19.80	252	11454546	3.84	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.37	276	11999045	3.40	ug/mL	100
29) Dibenz(a,h)anthracene	21.37	278	9726708	3.35	ug/mL	100
30) Benzo(g,h,i)perylene	21.79	276	9639385	3.34	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E522146.D BN5SIM24.M Fri Jan 15 12:45:30 2016

Page 1

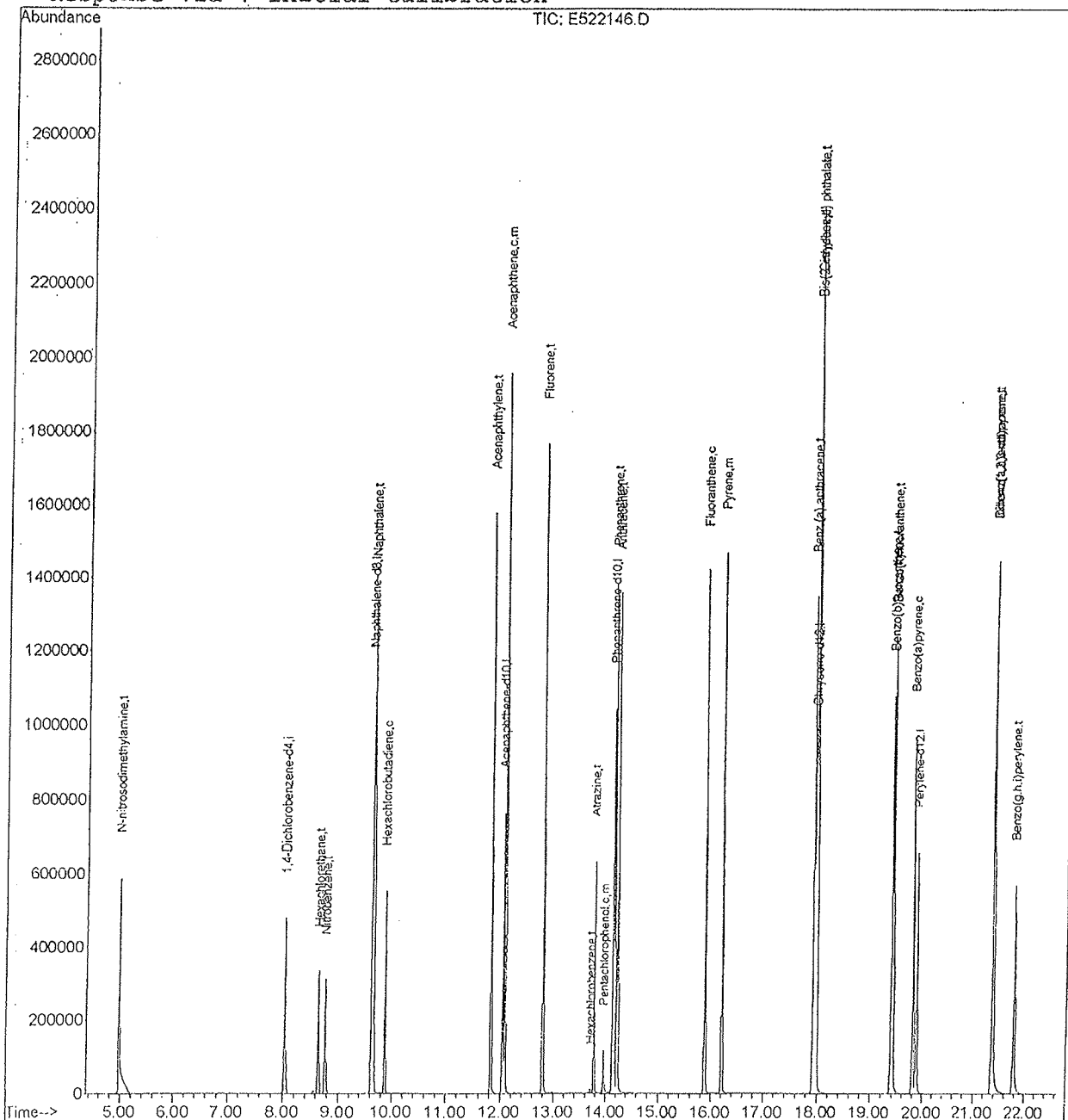
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522146.D
 Acq On : 11 Jan 2016 12:26 am
 Sample : Cal Level 7 - Various Conc.
 Misc : QBSV5011016A
 MS Integration Params: EVENTS.E
 Quant Time: Jan 15 12:39 2016

Vial: 9
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Fri Jan 15 12:43:30 2016
 Response via : Initial Calibration



Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011016A\E522147.D

Acq On : 11 Jan 2016 12:56 am

Sample : SIM ICV - Level 5 Various Conc.

Misc : QBSV5011016A

MS Integration Params: EVENTS.E

Quant Time: Jan 15 12:46 2016

Vial: 10

Operator: SR

Inst : BNA #5

Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Fri Jan 15 12:43:30 2016

Response via : Initial Calibration

DataAcq Meth : BN5SIM23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.03	150	5439087	2.00	ug/mL	0.00
5) Naphthalene-d8	9.62	136	13010245	2.00	ug/mL	0.00
8) Acenaphthene-d10	12.05	164	7570253	2.00	ug/mL	0.00
12) Phenanthrene-d10	14.14	188	12462723	2.00	ug/mL	0.00
19) Chrysene-d12	17.95	240	9493104	2.00	ug/mL	0.00
24) Perylene-d12	19.88	264	7914377	2.00	ug/mL	0.00

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.99	74	871606	0.97	ug/mL	97
3) Hexachlorethane	8.64	117	438652	0.95	ug/mL#	100
4) Nitrobenzene	8.77	77	940447	0.86	ug/mL#	100
6) Naphthalene	9.65	128	3710565	0.97	ug/mL	100
7) Hexachlorobutadiene	9.87	225	563906	0.77	ug/mL	100
9) Acenaphthylene	11.83	152	3489414	0.99	ug/mL	100
10) Acenaphthene	12.09	154	2230418	1.01	ug/mL	100
11) Fluorene	12.80	166	2692950	1.05	ug/mL	100
13) Atrazine	13.96	200	28478	0.04	ug/mL#	72
14) Hexachlorobenzene	13.70	284	566284	1.57	ug/mL#	78
15) Pentachlorophenol	13.96	266	157448m	0.76	ug/mL	
16) Phenanthrene	14.17	178	3747690	1.05	ug/mL	100
17) Anthracene	14.23	178	3655009	1.01	ug/mL	100
18) Fluoranthene	15.88	202	3714382	1.02	ug/mL	100
20) Pyrene	16.21	202	3852180	1.03	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.97	149	2256558	0.82	ug/mL	100
22) Benz (a) anthracene	17.92	228	3134048	0.98	ug/mL	100
23) Chrysene	17.98	228	3310676	0.98	ug/mL	100
25) Benzo(b)fluoranthene	19.38	252	2607260	1.03	ug/mL	100
26) Benzo(k)fluoranthene	19.41	252	2966434	1.03	ug/mL	100
27) Benzo(a)pyrene	19.80	252	2525794	1.01	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	2539425	1.00	ug/mL	100
29) Dibenz(a,h)anthracene	21.36	278	2063512	1.01	ug/mL	100
30) Benzo(g,h,i)perylene	21.78	276	2180990	1.03	ug/mL	100

(#) = qualifier out of range (m) = manual integration
 E522147.D BN5SIM24.M Fri Jan 15 12:46:45 2016

Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011016A\E522147.D

Acq On : 11 Jan 2016 12:56 am

Sample : SIM ICV - Level 5 Various Conc.

Misc : QBSV5011016A

MS Integration Params: EVENTS.E

Quant Time: Jan 15 12:46 2016

Vial: 10

Operator: SR

Inst : BNA #5

Multiplr: 1.00

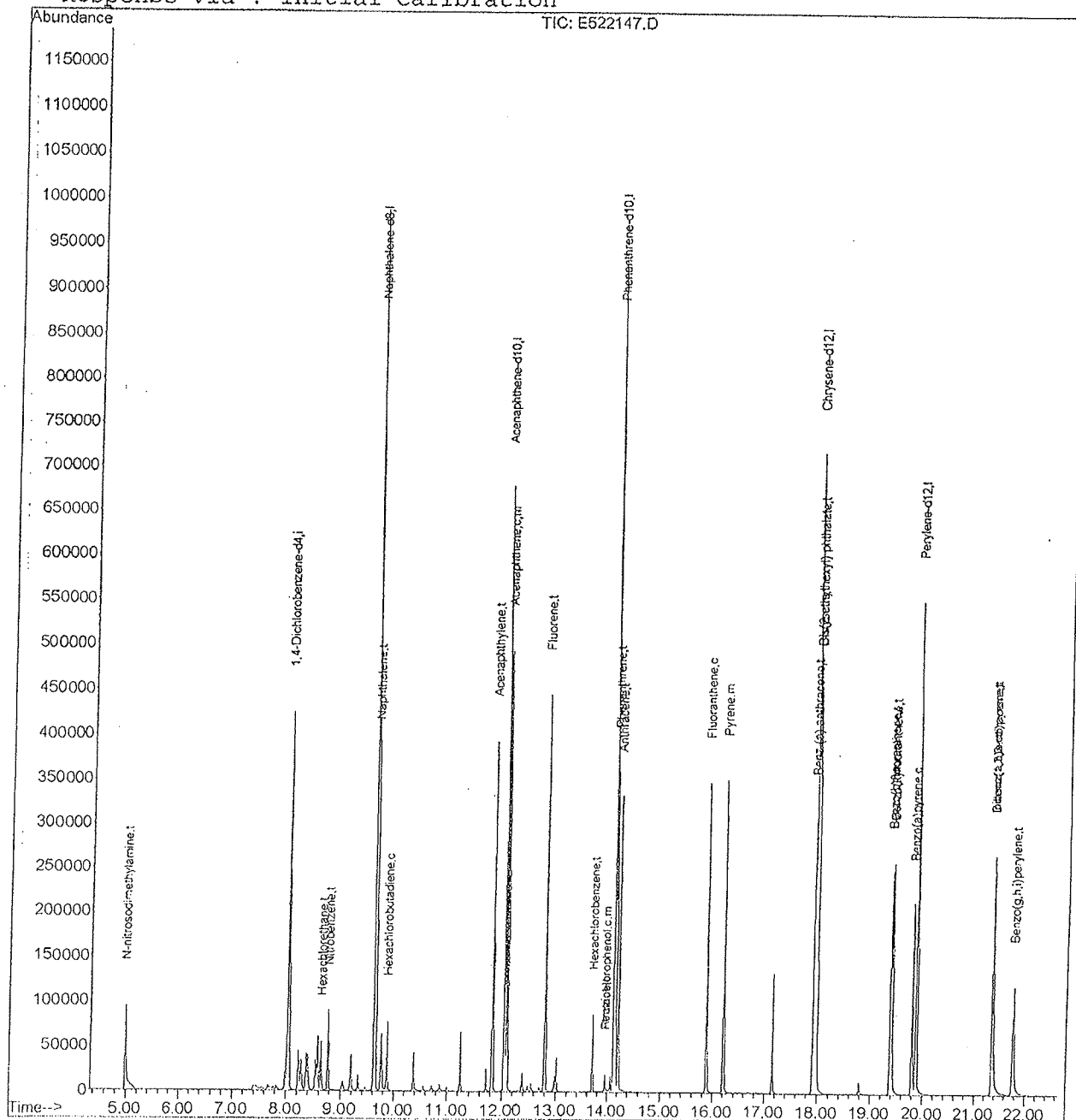
Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Fri Jan 15 12:43:30 2016

Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616A\E500692.D
 Acq On : 16 Mar 2016 8:56 am
 Sample : SEQ-CCV1
 Misc : QBSV5031616A Y16B034
 MS Integration Params: EVENTS.E

Vial: 2
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Wed Feb 24 15:45:54 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	59	-0.01
2 t	N-nitrosodimethylamine	0.330	0.275	16.7	48#	0.00
3 t	Hexachlorethane	0.170	0.195	-14.7	67	-0.02
4 t	Nitrobenzene	0.404	0.440	-8.9	64	0.00
5 I	Naphthalene-d8	1.000	1.000	0.0	61	-0.01
6 t	Naphthalene	0.586	0.499	14.8	58	-0.01
7 c	Hexachlorobutadiene	0.113	0.122	-8.0#	66	-0.02
8 I	Acenaphthene-d10	1.000	1.000	0.0	62	-0.01
9 t	Acenaphthylene	0.930	0.776	16.6	57	-0.01
10 c,m	Acenaphthene	0.582	0.498	14.4#	59	-0.01
11 t	Fluorene	0.678	0.571	15.8	58	0.00
12 I	Phenanthrene-d10	1.000	1.000	0.0	68	-0.01
13 t	Atrazine	0.106	0.104	1.9	67	-0.01
14 t	Hexachlorobenzene	0.058	0.051	12.1	64	-0.01
15 c,m	Pentachlorophenol	0.033	0.031	6.1#	59	0.01
16 t	Phenanthrene	0.573	0.401	30.0#	53	-0.01
17 t	Anthracene	0.581	0.593	-2.1	75	-0.01
18 c	Fluoranthene	0.583	0.529	9.3#	68	-0.01
19 I	Chrysene-d12	1.000	1.000	0.0	79	-0.01
20 m	Pyrene	0.788	0.644	18.3	70	-0.01
21 t	Bis(2-ethylhexyl) phthalate	0.579	0.549	5.2	79	-0.02
22 t	Benz (a) anthracene	0.677	0.547	19.2	72	-0.01
23 t	Chrysene	0.712	0.631	11.4	77	-0.02
24 I	Perylene-d12	1.000	1.000	0.0	74	-0.01
25 t	Benzo(b) fluoranthene	0.639	0.547	14.4	68	-0.01
26 t	Benzo(k) fluoranthene	0.728	0.797	-9.5	87	-0.02
27 c	Benzo(a) pyrene	0.629	0.662	-5.2#	85	-0.01
28 t	Indeno(1,2,3-cd)pyrene	0.643	0.626	2.6	77	0.00
29 t	Dibenz(a,h)anthracene	0.514	0.501	2.5	76	0.00
30 t	Benzo(g,h,i) perylene	0.536	0.510	4.9	76	-0.01

(#) = Out of Range

E500692.D BN5SIM24.M

SPCC's out = 0 CCC's out = 5

Wed Mar 16 12:10:05 2016

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616A\E500692.D

Vial: 2

Acq On : 16 Mar 2016 8:56 am

Operator: SR

Sample : SEQ-CCV1

Inst : BNA #5

Misc : QBSV5031616A Y16B034

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 9:25 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Wed Feb 24 15:45:54 2016

Response via : Initial Calibration

DataAcq Meth : BN5SIM24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.02	150	3890161	2.00	ug/mL	-0.01
5) Naphthalene-d8	9.61	136	9720776	2.00	ug/mL	-0.01
8) Acenaphthene-d10	12.03	164	5826728	2.00	ug/mL	-0.01
12) Phenanthrene-d10	14.13	188	10472370	2.00	ug/mL	-0.01
19) Chrysene-d12	17.94	240	9185264	2.00	ug/mL	-0.01
24) Perylene-d12	19.87	264	7368739	2.00	ug/mL	-0.01

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.98	74	1339122	2.09	ug/mL	100
3) Hexachlorethane	8.62	117	948865	2.88	ug/mL#	100
4) Nitrobenzene	8.76	77	1068979	1.36	ug/mL#	100
6) Naphthalene	9.64	128	2423072	0.85	ug/mL	100
7) Hexachlorobutadiene	9.85	225	1482067	2.70	ug/mL	100
9) Acenaphthylene	11.82	152	2260929	0.83	ug/mL	100
10) Acenaphthene	12.08	154	1451242	0.86	ug/mL	100
11) Fluorene	12.79	166	1663664	0.84	ug/mL	100
13) Atrazine	13.77	200	1358054	2.45	ug/mL	99
14) Hexachlorobenzene	13.69	284	26470	0.09	ug/mL#	78
15) Pentachlorophenol	13.98	266	243821	1.41	ug/mL	99
16) Phenanthrene	14.16	178	2101074	0.70	ug/mL	100
17) Anthracene	14.22	178	3106861	1.02	ug/mL	99
18) Fluoranthene	15.87	202	2768779	0.91	ug/mL	100
20) Pyrene	16.20	202	2956043	0.82	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.95	149	6298377	2.37	ug/mL	99
22) Benz (a) anthracene	17.91	228	2514191	0.81	ug/mL	100
23) Chrysene	17.97	228	2896123	0.89	ug/mL	100
25) Benzo(b)fluoranthene	19.37	252	2016259	0.86	ug/mL	100
26) Benzo(k)fluoranthene	19.40	252	2935652	1.09	ug/mL	100
27) Benzo(a)pyrene	19.79	252	2440569	1.05	ug/mL	100
28) Indeno(1,2,3-cd)pyrene	21.36	276	2305146	0.97	ug/mL	100
29) Dibenz(a,h)anthracene	21.37	278	1846165	0.97	ug/mL	100
30) Benzo(g,h,i)perylene	21.77	276	1877632	0.95	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E500692.D BN5SIM24.M

Wed Mar 16 12:10:04 2016

Page 1

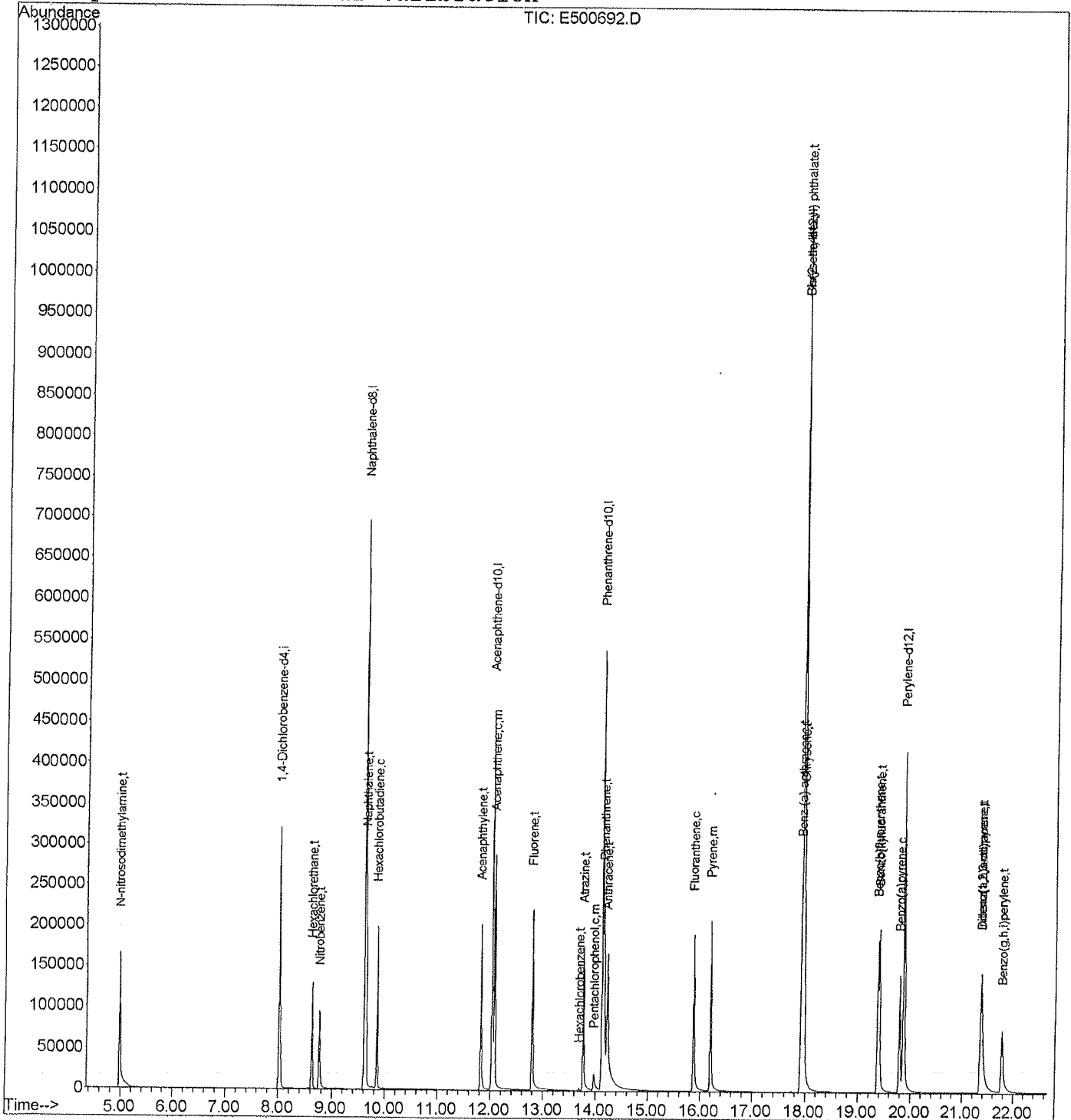
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031616A\E500692.D
 Acq On : 16 Mar 2016 8:56 am
 Sample : SEQ-CCV1
 Misc : QBSV5031616A Y16B034
 MS Integration Params: EVENTS.E
 Quant Time: Mar 16 9:25 2016

Vial: 2
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Wed Feb 24 15:45:54 2016
 Response via : Initial Calibration



Response Factor Report GC/MS BNA

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Fri Oct 30 09:30:23 2015
 Response via : Initial Calibration

Calibration Files

10 =E422943.D 20 =E422945.D 40.0 =E422947.D
 15.0 =E422944.D 2.5 =E422941.D 5 =E422942.D

	Compound	10	20	40.0	15.0	2.5	5	Avg	%RSD
1) i	1,4-Dichlorobenzene-d	-----ISTD-----							
2) t	N-Nitrosodimethylam	1.039	1.111	1.096	0.946	1.084	0.870	1.004	9.80
3) t	Pyridine	1.466	1.388	1.395	1.364		1.520	1.422	4.14
4) s	2-Fluorophenol	1.345	1.359	1.268	1.331		1.040	1.278	9.41
5) s	Phenol-d5	1.633	1.602	1.524	1.596		1.294	1.536	8.07
6) t	Benzaldehyde	1.315	1.151	0.905	1.158		1.526	1.185	18.15
7) t	Aniline	1.765	1.952	1.857	1.859	1.363	1.661	1.765	11.39
8) c,m	Phenol	2.202	2.114	2.039	2.131	2.113	2.279	2.104	5.38#
9) t	Bis(2-chloroethyl)e	2.006	1.939	1.830	1.934	1.987	2.135	1.962	4.62
10) m	2-Chlorophenol	1.753	1.718	1.594	1.708	1.723	1.825	1.700	4.38
11) t	1,3-Dichlorobenzene	1.721	1.691	1.558	1.664	1.715	1.790	1.683	4.31
12) c,m	1,4-Dichlorobenzene	2.115	2.045	2.020	2.032	1.987	2.209	2.061	3.70#
13) t	Benzyl Alcohol	1.029	1.016	0.953	0.998	0.956	1.041	0.998	3.40
14) t	1,2-Dichlorobenzene	1.810	1.762	1.619	1.748	1.799	1.921	1.768	5.23
15) t	2-Methylphenol	1.394	1.356	1.237	1.356	1.331	1.454	1.340	4.96
16) t	Bis(2-chloroisoprop	1.892	1.816	1.626	1.810	1.846	1.981	1.815	6.24
17) p,m	N-Nitroso-di-n-prop	1.226	1.197	1.088	1.188	1.227	1.267	1.185	4.82
18) t	4-Methylphenol	1.857	1.814	1.800	1.801	1.809	1.912	1.834	2.22
19) t	Hexachloroethane	0.831	0.814	0.736	0.811	0.814	0.850	0.800	4.67
20) I	Naphthalene-d8	-----ISTD-----							
21) s	Nitrobenzene-d5	0.348	0.337	0.318	0.337		0.360	0.338	4.48
22) t	Nitrobenzene	0.422	0.397	0.357	0.404	0.441	0.438	0.406	7.37
23) t	Isophorone	0.891	0.833	0.750	0.852	0.940	0.966	0.865	8.79
24) c	2-Nitrophenol	0.244	0.235	0.218	0.240	0.241	0.250	0.236	4.76#
25) t	2,4-Dimethylphenol	0.347	0.329	0.309	0.336	0.358	0.372	0.337	6.92
26) t	Bis(2-chloroethoxy)	0.490	0.450	0.415	0.468	0.492	0.530	0.467	8.88
27) t	Benzoic acid	0.187	0.232	0.253	0.209	0.045	0.123	0.185	41.02
28) c	2,4-Dichlorophenol	0.335	0.317	0.321	0.325	0.322	0.347	0.320	5.77#
29) m	1,2,4-Trichlorobenz	0.378	0.358	0.339	0.365	0.393	0.408	0.371	6.85
30) t	Naphthalene	0.985	0.911	0.893	0.948	1.059	1.062	0.967	7.31
31) t	4-Chloroaniline	0.338	0.383	0.389	0.364	0.305	0.345	0.360	8.95
32) c	Acetophenone	0.489	0.438	0.416	0.441		0.586	0.468	13.46#
33) c	Hexachlorobutadiene	0.228	0.218	0.220	0.220	0.226	0.239	0.224	3.06#
34) t	Caprolactam	0.110	0.098	0.087	0.097		0.143	0.104	19.54
35) c,m	4-Chloro-3-methylph	0.326	0.315	0.295	0.318	0.278	0.327	0.309	5.83#
36) t	1-Methylnaphthalene	0.585	0.539	0.532	0.557		0.635	0.563	7.21
37) t	2-Methylnaphthalene	0.694	0.642	0.631	0.658	0.726	0.755	0.677	7.33
38) I	Acenaphthene-d10	-----ISTD-----							
39) t	1,2,4,5-tetrachloro	0.567	0.576	0.612	0.576		0.683	0.604	7.10
40) t	Hexachlorocyclopent	0.369	0.389	0.443	0.377	0.273	0.344	0.375	15.25
41) c	2,4,6-Trichlorophen	0.415	0.422	0.452	0.416	0.354	0.422	0.402	11.32#

(#) = Out of Range ### Number of calibration levels exceeded format ###
 BNA4M49A.M Mon Nov 23 10:39:42 2015 BNA4 Page 1

Response Factor Report GC/MS BNA

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Fri Oct 30 09:30:23 2015
 Response via : Initial Calibration

Calibration Files

10 =E422943.D 20 =E422945.D 40.0 =E422947.D
 15.0 =E422944.D 2.5 =E422941.D 5 =E422942.D

	Compound	10	20	40.0	15.0	2.5	5	Avg	%RSD
42)	t 2,4,5-Trichlorophen	0.443	0.455	0.473	0.439	0.389	0.443	0.442	5.86
43)	s 2-Fluorobiphenyl	1.163	1.102	1.099	1.108		1.205	1.129	3.98
44)	t 2-Chloronaphthalene	1.245	1.185	1.284	1.188	1.199	1.314	1.238	4.02
45)	c Biphenyl	0.592	0.540	0.572	0.542		0.687	0.584	9.28#
46)	t 2-Nitroaniline	0.448	0.454	0.449	0.446	0.374	0.452	0.439	6.53
47)	t Dimethylphthalate	1.493	1.428	1.410	1.429	1.454	1.581	1.453	4.64
48)	t 2,6-Dinitrotoluene	0.383	0.384	0.398	0.370	0.326	0.378	0.363	11.48
49)	t Acenaphthylene	1.866	1.843	1.822	1.792	1.823	1.964	1.850	2.97
50)	t 3-Nitroaniline	0.320	0.368	0.362	0.345	0.266	0.306	0.333	11.29
51)	c,m Acenaphthene	1.015	0.970	1.031	0.977	1.008	1.086	1.013	3.81#
52)	p 2,4-Dinitrophenol	0.187	0.221	0.244	0.203	0.068	0.135	0.184	33.99
53)	t Dibenzofuran	1.591	1.547	1.600	1.577	1.598	1.720	1.597	3.64
54)	m 2,4-Dinitrotoluene	0.480	0.463	0.460	0.465	0.445	0.489	0.454	7.63
55)	p,m 4-Nitrophenol	0.246	0.231	0.257	0.223		0.243	0.242	5.32
56)	t 2,3,4,6-Tetrachloro	0.176	0.178	0.190	0.176	0.143	0.176	0.174	8.33
57)	t Diethyl phthalate	1.530	1.444	1.467	1.468	1.544	1.636	1.505	4.63
58)	t Fluorene	1.220	1.291	1.269	1.237	1.224	1.315	1.262	2.84
59)	t 4-Chlorophenyl phen	0.675	0.732	0.709	0.706	0.631	0.702	0.699	5.12
60)	t 4-Nitroaniline	0.328	0.326	0.306	0.325	0.305	0.307	0.312	5.18
61)	I Phenanthrene-d10	-----ISTD-----							
62)	t 4,6-Dinitro-2-methy	0.186	0.206	0.248	0.198	0.127	0.164	0.193	20.53
63)	c Diphenylamine	0.615	0.613	0.682	0.605	0.591	0.644	0.629	5.02#
64)	t N-Nitrosodiphenylam	0.214	0.216	0.239	0.211	0.205	0.219	0.215	6.44
65)	t Azobenzene	0.964	1.023	1.073	0.937	0.989	1.024	0.996	4.82
66)	s 2,4,6-Tribromopheno	0.175	0.182	0.190	0.178		0.170	0.179	3.78
67)	t 4-Bromophenyl pheny	0.280	0.287	0.324	0.283	0.258	0.284	0.288	6.88
68)	t Hexachlorobenzene	0.123	0.126	0.134	0.126	0.117	0.128	0.125	5.67
69)	t Atrazine	0.233	0.216	0.212	0.214	0.213	0.268	0.222	9.17
70)	c,m Pentachlorophenol	0.209	0.228	0.256	0.218	0.147	0.188	0.212	16.96#
71)	Pentachloronitroben	0.092	0.095	0.098	0.096		0.107	0.098	5.34
72)	t Phenanthrene	0.991	0.999	1.047	0.985	0.983	1.059	1.012	3.01
73)	t Anthracene	1.076	1.056	1.127	1.072	1.079	1.139	1.091	2.78
74)	t Carbazole	1.071	0.977	0.948	1.021	1.105	1.147	1.026	8.34
75)	t Di-n-butyl phthalat	1.664	1.669	1.630	1.650	1.662	1.762	1.668	2.61
76)	c Fluoranthene	1.216	1.190	1.247	1.202	1.152	1.244	1.210	2.72#
77)	t Benzidine	0.207	0.273	0.255	0.245		0.193	0.241	14.12
78)	I Chrysene-d12	-----ISTD-----							
79)	m Pyrene	1.183	1.139	1.150	1.138	1.164	1.232	1.165	2.88
80)	s Terphenyl-d14	0.616	0.611	0.590	0.601		0.626	0.606	2.23
81)	t Benzyl butyl phthal	0.751	0.754	0.769	0.728	0.719	0.785	0.753	3.06
82)	t Bis(2-ethylhexyl) p	1.094	1.121	0.969	1.098	0.983	1.074	1.055	5.57
83)	t Benz (a) anthracene	1.174	1.277	1.155	1.242	1.130	1.221	1.192	4.49

(#) = Out of Range ### Number of calibration levels exceeded format ###
 BNA4M49A.M Mon Nov 23 10:39:42 2015 BNA4 Page 2

Response Factor Report GC/MS BNA

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Fri Oct 30 09:30:23 2015
 Response via : Initial Calibration

Calibration Files

10 =E422943.D 20 =E422945.D 40.0 =E422947.D
 15.0 =E422944.D 2.5 =E422941.D 5 =E422942.D

	Compound	10	20	40.0	15.0	2.5	5	Avg	%RSD
84) t	3,3-Dichlorobenzidi	0.336	0.430	0.383	0.394	0.257	0.345	0.350	19.67
85) t	Chrysene	1.067	1.096	1.080	1.051	1.074	1.138	1.085	2.36
86) c	Di-n-octyl phthalat	1.583	1.634	1.592	1.575	1.403	1.582	1.523	10.29#
87) t	Benzo(b)fluoranthen	1.038	1.067	1.290	1.038	0.982	1.075	1.092	9.31
88) t	Benzo(k)fluoranthen	1.139	1.107	1.265	1.104	1.160	1.214	1.147	7.08
89) c	Benzo(a)pyrene	0.991	0.996	1.007	0.980	0.933	1.008	0.967	5.59#
90) I	Perylene-d12	-----ISTD-----							
91) t	Indeno(1,2,3-cd)pyr	1.073	1.130	1.108	1.109	0.857	1.047	1.036	11.68
92) t	Dibenz(a,h)anthrace	0.872	0.938	0.945	0.910	0.656	0.836	0.843	15.11
93) t	Benzo(g,h,i)perylen	0.790	0.826	0.757	0.804	0.648	0.802	0.763	8.82

(#) = Out of Range ### Number of calibration levels exceeded format ###
 BNA4M49A.M Mon Nov 23 10:39:42 2015 BNA4 Page 3

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422940.D
 Acq On : 30 Sep 2015 10:46 am
 Sample : 1.25 ppm - ICAL
 Misc : QBSV4093015A

Vial: 4
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:24 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Sep 30 15:04:13 2015
 Response via : Initial Calibration
 DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	5318253	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	19947868	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	11765201	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	18449679	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	18476454	40.00	ug/mL	-0.01
90) Perylene-d12	19.99	264	16957762	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	143390	1.00	ug/mL	0.00
Spiked Amount 75.000	Range 15 - 87		Recovery =		1.33%#	
5) Phenol-d5	7.60	99	183464	1.03	ug/mL	-0.02
Spiked Amount 75.000	Range 10 - 100		Recovery =		1.37%#	
21) Nitrobenzene-d5	8.70	82	106467	0.66	ug/mL	0.00
Spiked Amount 50.000	Range 26 - 120		Recovery =		1.32%#	
43) 2-Fluorobiphenyl	11.07	172	202017	0.66	ug/mL	0.00
Spiked Amount 50.000	Range 29 - 120		Recovery =		1.32%#	
66) 2,4,6-Tribromophenol	13.16	330	52071	0.77	ug/mL	0.00
Spiked Amount 75.000	Range 35 - 126		Recovery =		1.03%#	
80) Terphenyl-d14	16.42	244	154802	0.60	ug/mL	0.00
Spiked Amount 50.000	Range 35 - 127		Recovery =		1.20%#	

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.77	74	168836m	1.72	ug/mL
7) Aniline	7.65	93	175357	0.87	ug/mL#
8) Phenol	7.62	94	315853	2.86	ug/mL#
9) Bis(2-chloroethyl) ether	7.71	93	329076	1.43	ug/mL#
10) 2-Chlorophenol	7.77	128	268959	1.36	ug/mL#
11) 1,3-Dichlorobenzene	7.93	146	280889	1.45	ug/mL
12) 1,4-Dichlorobenzene	7.99	146	333023m	1.41	ug/mL
13) Benzyl Alcohol	8.17	108	143794	1.26	ug/mL#
14) 1,2-Dichlorobenzene	8.22	146	291751	1.43	ug/mL
15) 2-Methylphenol	8.32	107	214391	1.37	ug/mL#
16) Bis(2-chloroisopropyl) eth	8.35	45	295757	1.37	ug/mL#
17) N-Nitroso-di-n-propylamine	8.53	70	189708	1.33	ug/mL#
18) 4-Methylphenol	8.49	107	267181	1.56	ug/mL#
19) Hexachloroethane	8.59	117	126931	1.36	ug/mL#
22) Nitrobenzene	8.72	77	259842	1.38	ug/mL#
23) Isophorone	9.00	82	565505	1.42	ug/mL#
24) 2-Nitrophenol	9.13	139	129678	1.25	ug/mL#
25) 2,4-Dimethylphenol	9.16	122	212663	1.42	ug/mL
26) Bis(2-chloroethoxy) methan	9.28	93	317817	1.53	ug/mL#
28) 2,4-Dichlorophenol	9.42	162	177841	1.44	ug/mL#

(#) = qualifier out of range (m) = manual integration
 E422940.D BNA4M049.M Thu Oct 01 11:48:27 2015

BNA4

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422940.D

Vial: 4

Acq On : 30 Sep 2015 10:46 am

Operator: KH

Sample : 1.25 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:24 2015

Quant Results File: BNA4M049.RBS

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Sep 30 15:04:13 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) 1,2,4-Trichlorobenzene	9.53	180	243578	1.42	ug/mL	98
30) Naphthalene	9.61	128	638089	1.48	ug/mL#	83
31) 4-Chloroaniline	9.72	127	167281	1.07	ug/mL#	83
33) Hexachlorobutadiene	9.84	225	139157	1.37	ug/mL	99
35) 4-Chloro-3-methylphenol	10.35	107	147489	1.09	ug/mL	93
37) 2-Methylnaphthalene	10.53	142	441406	1.48	ug/mL#	93
40) Hexachlorocyclopentadiene	10.84	237	71666	0.88	ug/mL	97
41) 2,4,6-Trichlorophenol	10.97	196	114908	1.06	ug/mL	99
42) 2,4,5-Trichlorophenol	11.03	196	122578m	1.07	ug/mL	
44) 2-Chloronaphthalene	11.21	162	432845	1.39	ug/mL	90
46) 2-Nitroaniline	11.42	138	112080	1.01	ug/mL#	65
47) Dimethylphthalate	11.69	163	512052	1.36	ug/mL	97
48) 2,6-Dinitrotoluene	11.81	165	101223	1.09	ug/mL#	80
49) Acenaphthylene	11.81	152	623239	1.32	ug/mL	99
50) 3-Nitroaniline	12.01	138	82217m	1.33	ug/mL	
51) Acenaphthene	12.07	154	360421	1.39	ug/mL	99
53) Dibenzofuran	12.29	168	562161	1.37	ug/mL	94
54) 2,4-Dinitrotoluene	12.36	165	137998	1.34	ug/mL	87
55) 4-Nitrophenol	12.24	65	40256m	2.44	ug/mL	
56) 2,3,4,6-Tetrachlorophenol	12.53	131	40568	2.08	ug/mL#	84
57) Diethyl phthalate	12.68	149	549792	1.43	ug/mL	94
58) Fluorene	12.78	166	416167	1.29	ug/mL	96
59) 4-Chlorophenyl phenylether	12.77	204	225049	1.26	ug/mL	97
60) 4-Nitroaniline	12.88	138	69081m	1.42	ug/mL	
63) Diphenylamine	12.95	169	314573	1.28	ug/mL	99
64) N-Nitrosodiphenylamine	12.95	167	110809	1.30	ug/mL	95
65) Azobenzene	12.99	77	540597	1.35	ug/mL#	67
67) 4-Bromophenyl phenylether	13.46	248	138411	1.25	ug/mL#	1
68) Hexachlorobenzene	13.68	142	65056	1.32	ug/mL	83
69) Atrazine	13.76	200	118385	1.26	ug/mL#	100
72) Phenanthrene	14.15	178	570066	1.40	ug/mL#	89
73) Anthracene	14.21	178	626520	1.43	ug/mL#	90
74) Carbazole	14.46	167	609800	1.47	ug/mL#	91
75) Di-n-butyl phthalate	15.00	149	917199	1.40	ug/mL	94
76) Fluoranthene	15.87	202	646666m	1.32	ug/mL	
77) Benzidine	16.09	184	59310	0.74	ug/mL#	91
79) Pyrene	16.20	202	686904	1.41	ug/mL#	86
81) Benzyl butyl phthalate	17.16	149	383717	1.21	ug/mL#	31
82) Bis(2-ethylhexyl) phthalat	17.98	149	514165	1.21	ug/mL#	94
83) Benz (a) anthracene	17.92	228	652858	1.32	ug/mL	94
84) 3,3-Dichlorobenzidine	17.92	252	141606	0.97	ug/mL#	91

(#)= qualifier out of range (m) = manual integration

E422940.D BNA4M049.M

Thu Oct 01 11:48:27 2015

BNA4

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422940.D Vial: 4
 Acq On : 30 Sep 2015 10:46 am Operator: KH
 Sample : 1.25 ppm - ICAL Inst : GC/MS BNA
 Misc : QBSV4093015A Multiplr: 1.00
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:24 2015 Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Sep 30 15:04:13 2015
 Response via : Initial Calibration
 DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) Chrysene	17.99	228	626676	1.37	ug/mL#	95
86) Di-n-octyl phthalate	18.81	149	681424	1.10	ug/mL#	95
87) Benzo(b)fluoranthene	19.41	252	581192m	1.27	ug/mL	
88) Benzo(k)fluoranthene	19.44	252	686573	1.43	ug/mL#	94
89) Benzo(a)pyrene	19.88	252	489401	1.21	ug/mL#	93
91) Indeno(1,2,3-cd)pyrene	21.73	276	442197	1.06	ug/mL#	87
92) Dibenz(a,h)anthracene	21.74	278	337103	1.00	ug/mL#	94
93) Benzo(g,h,i)perylene	22.24	276	354698	1.11	ug/mL#	89

(#) = qualifier out of range (m) = manual integration

E422940.D BNA4M049.M

Thu Oct 01 11:48:27 2015

BNA4

Page 3

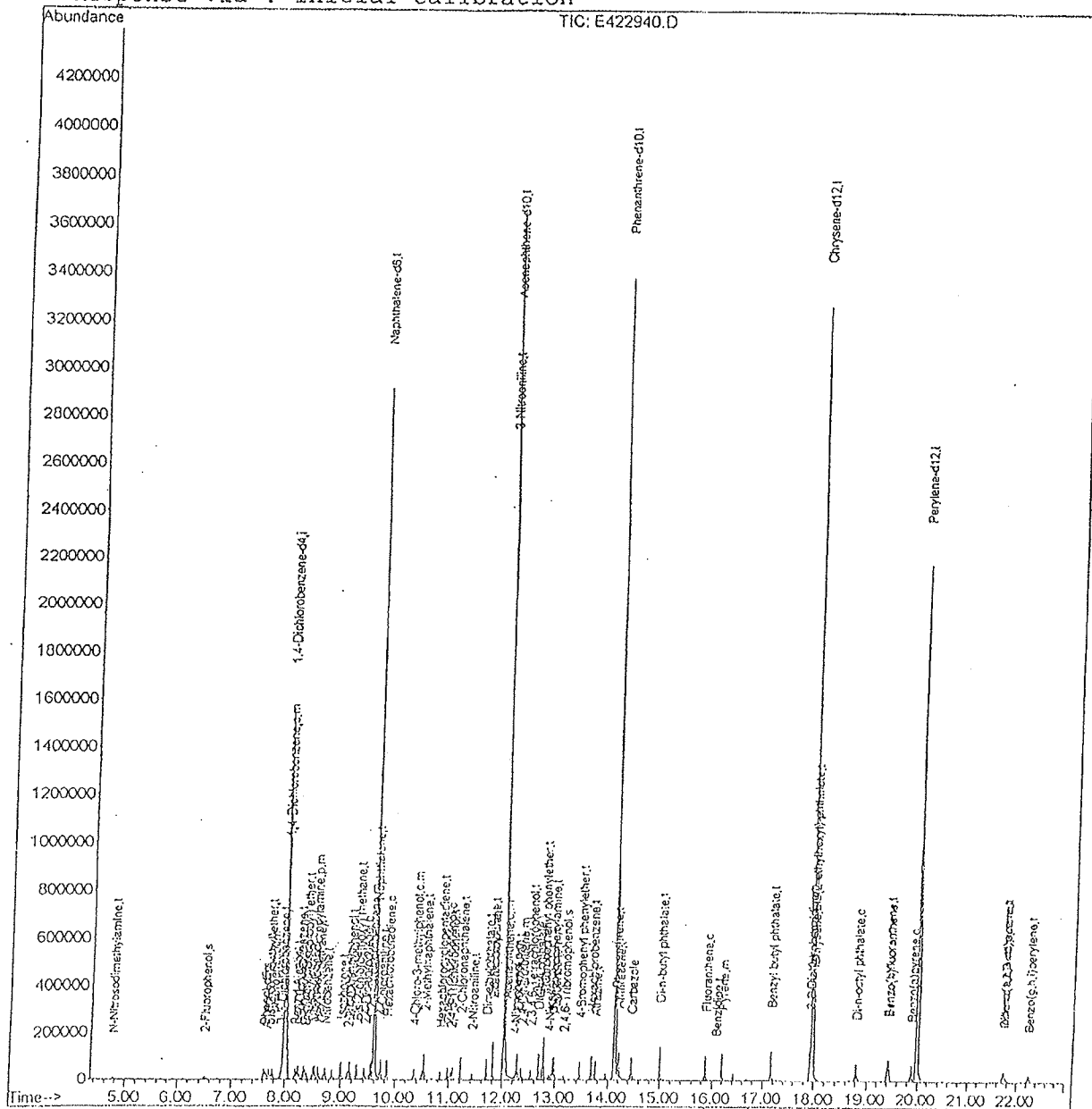
Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422940.D
 Acq On : 30 Sep 2015 10:46 am
 Sample : 1.25 ppm - ICAL
 Misc : QBSV4093015A
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:24 2015

Vial: 4
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant. Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Thu Oct 01 11:47:42 2015
 Response via : Initial Calibration



E422940.D BNA4M049.M

Thu Oct 01 11:48:27 2015

BNA4

Page 4

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422941.D

Vial: 5

Acq On : 30 Sep 2015 11:19 am

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:25 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:24:58 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	6609533	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	25364501	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	14914382	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	23425216	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	23792374	40.00	ug/mL	0.00
90) Perylene-d12	20.00	264	22780748	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	410886	1.95	ug/mL	0.00
Spiked Amount	75.000	Range 15 - 87	Recovery =	2.60%#		
5) Phenol-d5	7.60	99	499824	1.97	ug/mL	0.00
Spiked Amount	75.000	Range 10 - 100	Recovery =	2.63%#		
21) Nitrobenzene-d5	8.70	82	284792	1.33	ug/mL	0.00
Spiked Amount	50.000	Range 26 - 120	Recovery =	2.66%#		
43) 2-Fluorobiphenyl	11.06	172	507664	1.20	ug/mL	0.00
Spiked Amount	50.000	Range 29 - 120	Recovery =	2.40%#		
66) 2,4,6-Tribromophenol	13.16	330	157238	1.50	ug/mL	0.00
Spiked Amount	75.000	Range 35 - 126	Recovery =	2.00%#		
80) Terphenyl-d14	16.42	244	431217	1.20	ug/mL	0.00
Spiked Amount	50.000	Range 35 - 127	Recovery =	2.40%#		

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.78	74	447983m	2.82	ug/mL	
7) Aniline	7.65	93	562868	1.93	ug/mL#	71
8) Phenol	7.62	94	872674	2.53	ug/mL#	52
9) Bis(2-chloroethyl) ether	7.71	93	820657	2.53	ug/mL	100
10) 2-Chlorophenol	7.76	128	711596	2.53	ug/mL	99
11) 1,3-Dichlorobenzene	7.93	146	708363	2.55	ug/mL	97
12) 1,4-Dichlorobenzene	7.99	146	820934m	2.40	ug/mL	
13) Benzyl Alcohol	8.17	108	395085	2.40	ug/mL	98
14) 1,2-Dichlorobenzene	8.22	146	743343	2.54	ug/mL	99
15) 2-Methylphenol	8.32	107	549733	2.48	ug/mL#	78
16) Bis(2-chloroisopropyl) eth	8.35	45	762440	2.54	ug/mL#	63
17) N-Nitroso-di-n-propylamine	8.53	70	507007	2.59	ug/mL	95
18) 4-Methylphenol	8.49	107	747396	2.47	ug/mL#	59
19) Hexachloroethane	8.59	117	336428	2.54	ug/mL	94
22) Nitrobenzene	8.72	77	698667	2.72	ug/mL	97
23) Isophorone	9.00	82	1490299	2.72	ug/mL	98
24) 2-Nitrophenol	9.12	139	382778	2.56	ug/mL#	92
25) 2,4-Dimethylphenol	9.15	122	567463	2.65	ug/mL	97
26) Bis(2-chloroethoxy) methan	9.28	93	780471	2.64	ug/mL	98
27) Benzoic acid	9.28	105	71305m	0.72	ug/mL	

(#)=qualifier out of range (m)=manual integration

E422941.D BNA4M049.M

Thu Oct 01 11:48:33 2015

BNA4

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422941.D

Vial: 5

Acq On : 30 Sep 2015 11:19 am

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:25 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:24:58 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
28) 2,4-Dichlorophenol	9.41	162	510662	2.51	ug/mL	98
29) 1,2,4-Trichlorobenzene	9.53	180	622352	2.64	ug/mL	99
30) Naphthalene	9.61	128	1678429	2.74	ug/mL#	97
31) 4-Chloroaniline	9.72	127	483722	2.12	ug/mL	97
33) Hexachlorobutadiene	9.83	225	358716	2.52	ug/mL	99
35) 4-Chloro-3-methylphenol	10.35	107	440863	2.28	ug/mL	98
36) 1-Methylnaphthalene	10.53	141	970773	2.72	ug/mL	95
37) 2-Methylnaphthalene	10.53	142	1151192	2.67	ug/mL	99
40) Hexachlorocyclopentadiene	10.84	237	254291	1.82	ug/mL	98
41) 2,4,6-Trichlorophenol	10.97	196	329661	2.20	ug/mL	98
42) 2,4,5-Trichlorophenol	11.02	196	363054	2.19	ug/mL	94
44) 2-Chloronaphthalene	11.21	162	1117837	2.43	ug/mL	93
46) 2-Nitroaniline	11.42	138	348965	2.12	ug/mL	98
47) Dimethylphthalate	11.69	163	1354957	2.50	ug/mL	98
48) 2,6-Dinitrotoluene	11.81	165	303598	2.24	ug/mL	89
49) Acenaphthylene	11.80	152	1699497	2.46	ug/mL	96
50) 3-Nitroaniline	12.01	138	247818	2.66	ug/mL#	69
51) Acenaphthene	12.07	154	939325	2.49	ug/mL	98
52) 2,4-Dinitrophenol	12.16	184	63382	0.92	ug/mL#	87
53) Dibenzofuran	12.28	168	1489360	2.50	ug/mL	99
54) 2,4-Dinitrotoluene	12.36	165	414381	2.44	ug/mL	95
55) 4-Nitrophenol	12.23	65	170896	28.07	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	12.53	131	133506	2.06	ug/mL#	98
57) Diethyl phthalate	12.68	149	1439025	2.56	ug/mL	96
58) Fluorene	12.77	166	1141204	2.43	ug/mL	99
59) 4-Chlorophenyl phenylether	12.77	204	588427	2.26	ug/mL	97
60) 4-Nitroaniline	12.88	138	284019	3.85	ug/mL#	1
62) 4,6-Dinitro-2-methylphenol	12.93	198	185836	1.65	ug/mL	100
63) Diphenylamine	12.95	169	865466	2.35	ug/mL	99
64) N-Nitrosodiphenylamine	12.95	167	299885	2.38	ug/mL	99
65) Azobenzene	12.99	77	1447702	2.48	ug/mL	98
67) 4-Bromophenyl phenylether	13.46	248	378110	2.24	ug/mL	96
68) Hexachlorobenzene	13.68	142	171199	2.34	ug/mL	99
69) Atrazine	13.76	200	311479	2.40	ug/mL#	99
70) Pentachlorophenol	13.95	266	214760	1.73	ug/mL	98
72) Phenanthrene	14.15	178	1439660	2.43	ug/mL#	98
73) Anthracene	14.21	178	1580326	2.47	ug/mL#	97
74) Carbazole	14.46	167	1617154	2.69	ug/mL	99
75) Di-n-butyl phthalate	15.00	149	2433154	2.49	ug/mL	98
76) Fluoranthene	15.87	202	1686382	2.37	ug/mL#	83
77) Benzidine	16.08	184	203675	1.44	ug/mL#	93

(#) = qualifier out of range (m) = manual integration
 E422941.D BNA4M049.M Thu Oct 01 11:48:33 2015

BNA4

Page 2

Quantitation Report (QT reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422941.D

Vial: 5

Acq On : 30 Sep 2015 11:19 am

Operator: KH

Sample : 2.5 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:25 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:24:58 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79) Pyrene	16.19	202	1730537	2.50	ug/mL#	95
81) Benzyl butyl phthalate	17.16	149	1069633	2.39	ug/mL	97
82) Bis(2-ethylhexyl) phthalat	17.98	149	1461971	2.33	ug/mL	96
83) Benz (a) anthracene	17.92	228	1680642	2.37	ug/mL	97
84) 3,3-Dichlorobenzidine	17.92	252	382639	1.84	ug/mL	98
85) Chrysene	17.99	228	1597390	2.48	ug/mL#	96
86) Di-n-octyl phthalate	18.81	149	2085714	2.30	ug/mL#	95
87) Benzo(b)fluoranthene	19.41	252	1460074	2.11	ug/mL	98
88) Benzo(k)fluoranthene	19.44	252	1724676	2.61	ug/mL	98
89) Benzo(a)pyrene	19.88	252	1387104	2.41	ug/mL	99
91) Indeno(1,2,3-cd)pyrene	21.73	276	1220549	2.04	ug/mL#	98
92) Dibenzo(a,h)anthracene	21.74	278	934517	1.95	ug/mL	97
93) Benzo(g,h,i)perylene	22.24	276	922387	2.07	ug/mL	96

(#) = qualifier out of range (m) = manual integration

E422941.D BNA4M049.M

Thu Oct 01 11:48:33 2015

BNA4

Page 3

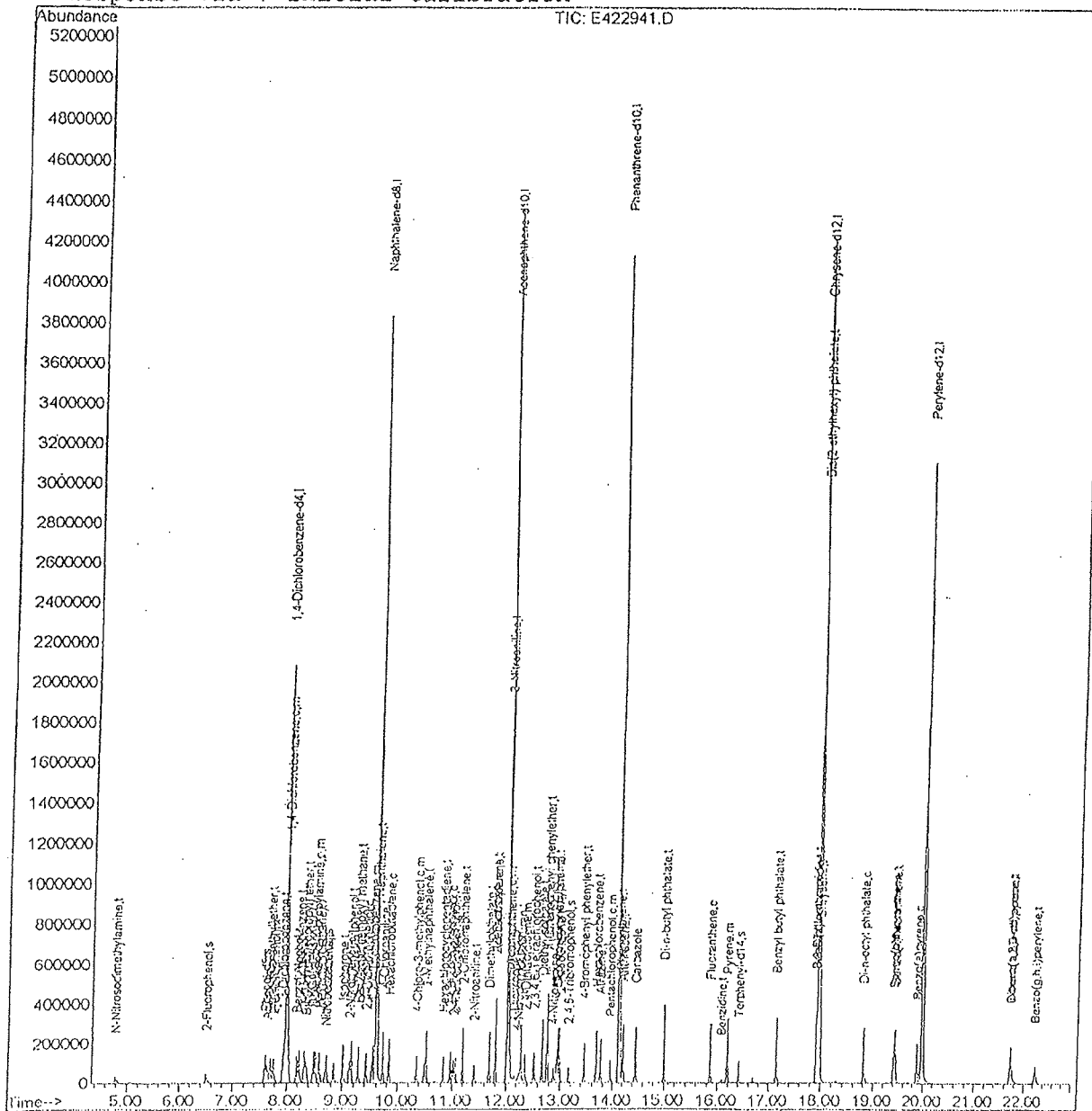
Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422941.D
 Acq On : 30 Sep 2015 11:19 am
 Sample : 2.5 ppm - ICAL
 Misc : QBSV4093015A
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:25 2015

Vial: 5
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Thu Oct 01 11:47:42 2015
 Response via : Initial Calibration



E422941.D BNA4M049.M

Thu Oct 01 11:48:34 2015

BNA4

Page 4

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422942.D

Vial: 6

Acq On : 30 Sep 2015 11:53 am

Operator: KH

Sample : 5.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:26:41 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	6031796	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	24074978	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	13550556	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	21677588	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	21711473	40.00	ug/mL	0.00
90) Perylene-d12	19.99	264	20171605	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	784489	4.07	ug/mL	0.00
Spiked Amount	75.000	Range 15 - 87	Recovery	=	5.43%#	
5) Phenol-d5	7.60	99	975740	4.21	ug/mL	0.00
Spiked Amount	75.000	Range 10 - 100	Recovery	=	5.61%#	
21) Nitrobenzene-d5	8.70	82	542424	2.67	ug/mL	0.00
Spiked Amount	50.000	Range 26 - 120	Recovery	=	5.34%#	
43) 2-Fluorobiphenyl	11.06	172	1020401	2.66	ug/mL	0.00
Spiked Amount	50.000	Range 29 - 120	Recovery	=	5.32%#	
66) 2,4,6-Tribromophenol	13.16	330	345226	3.56	ug/mL	0.00
Spiked Amount	75.000	Range 35 - 126	Recovery	=	4.75%#	
80) Terphenyl-d14	16.42	244	848858	2.58	ug/mL	0.00
Spiked Amount	50.000	Range 35 - 127	Recovery	=	5.16%#	

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.76	74	655690	4.33	ug/mL	97
3) Pyridine	4.70	79	1146157m	6.93	ug/mL	
6) Benzaldehyde	7.48	105	1150864	6.44	ug/mL#	99
7) Aniline	7.65	93	1252538	4.71	ug/mL#	72
8) Phenol	7.62	94	1718097	5.46	ug/mL#	50
9) Bis(2-chloroethyl) ether	7.71	93	1609977	5.44	ug/mL	99
10) 2-Chlorophenol	7.76	128	1376237	5.37	ug/mL	99
11) 1,3-Dichlorobenzene	7.93	146	1349912	5.32	ug/mL	98
12) 1,4-Dichlorobenzene	7.99	146	1665204	5.36	ug/mL	96
13) Benzyl Alcohol	8.17	108	784718	5.21	ug/mL	99
14) 1,2-Dichlorobenzene	8.22	146	1448054	5.43	ug/mL	99
15) 2-Methylphenol	8.32	107	1096538	5.42	ug/mL#	86
16) Bis(2-chloroisopropyl) eth	8.35	45	1493535	5.46	ug/mL#	75
17) N-Nitroso-di-n-propylamine	8.53	70	954982	5.34	ug/mL#	85
18) 4-Methylphenol	8.49	107	1441683	5.21	ug/mL	91
19) Hexachloroethane	8.59	117	640902	5.31	ug/mL	97
22) Nitrobenzene	8.72	77	1316731	5.39	ug/mL	99
23) Isophorone	9.00	82	2906787	5.59	ug/mL	99
24) 2-Nitrophenol	9.12	139	752876	5.30	ug/mL	96
25) 2,4-Dimethylphenol	9.15	122	1118855	5.50	ug/mL	99

(#) = qualifier out of range (m) = manual integration
 E422942.D BNA4M049.M Thu Oct 01 11:48:40 2015

BNA4

Page 1

QUANTIFICATION REPORT

(Q1 Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422942.D

Vial: 6

Acq On : 30 Sep 2015 11:53 am

Operator: KH

Sample : 5.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:26:41 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	9.28	93	1594994	5.68	ug/mL	99
27) Benzoic acid	9.28	105	368988m	3.85	ug/mL	
28) 2,4-Dichlorophenol	9.41	162	1044947	5.42	ug/mL	99
29) 1,2,4-Trichlorobenzene	9.53	180	1227374	5.49	ug/mL	98
30) Naphthalene	9.61	128	3197175	5.49	ug/mL#	97
31) 4-Chloroaniline	9.72	127	1038602	4.81	ug/mL	98
32) Acetophenone	8.50	105	1763882m	6.27	ug/mL	
33) Hexachlorobutadiene	9.83	225	718684	5.33	ug/mL	99
34) Caprolactam	10.17	113	430579m	13.50	ug/mL	
35) 4-Chloro-3-methylphenol	10.35	107	984134	5.34	ug/mL	94
36) 1-Methylnaphthalene	10.53	141	1912248	5.65	ug/mL	96
37) 2-Methylnaphthalene	10.53	142	2273014	5.54	ug/mL	99
39) 1,2,4,5-tetrachlorobenzene	10.82	216	1156415	5.66	ug/mL	99
40) Hexachlorocyclopentadiene	10.84	237	582137	4.57	ug/mL	97
41) 2,4,6-Trichlorophenol	10.97	196	714661	5.24	ug/mL	98
42) 2,4,5-Trichlorophenol	11.03	196	750838	4.98	ug/mL	99
44) 2-Chloronaphthalene	11.21	162	2225241	5.31	ug/mL	97
45) Biphenyl	11.19	153	1164164m	5.88	ug/mL	
46) 2-Nitroaniline	11.42	138	765261	5.12	ug/mL	99
47) Dimethylphthalate	11.69	163	2677082	5.43	ug/mL	98
48) 2,6-Dinitrotoluene	11.81	165	639441	5.19	ug/mL	93
49) Acenaphthylene	11.80	152	3325837	5.29	ug/mL	98
50) 3-Nitroaniline	12.01	138	518366	5.34	ug/mL#	84
51) Acenaphthene	12.07	154	1839511	5.36	ug/mL	98
52) 2,4-Dinitrophenol	12.15	184	227877m	3.65	ug/mL	
53) Dibenzofuran	12.29	168	2912587	5.38	ug/mL	98
54) 2,4-Dinitrotoluene	12.36	165	827823	5.37	ug/mL	99
55) 4-Nitrophenol	12.23	65	412442	74.57	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	12.53	131	298156	5.06	ug/mL	97
57) Diethyl phthalate	12.68	149	2770666	5.43	ug/mL	98
58) Fluorene	12.78	166	2226895	5.21	ug/mL	99
59) 4-Chlorophenyl phenylether	12.77	204	1189282	5.02	ug/mL	98
60) 4-Nitroaniline	12.89	138	520801	7.81	ug/mL#	1
62) 4,6-Dinitro-2-methylphenol	12.93	198	444081	4.25	ug/mL	98
63) Diphenylamine	12.95	169	1745763	5.13	ug/mL	99
64) N-Nitrosodiphenylamine	12.95	167	592996	5.09	ug/mL	97
65) Azobenzene	12.99	77	2775757	5.14	ug/mL	96
67) 4-Bromophenyl phenylether	13.46	248	770096	4.94	ug/mL	97
68) Hexachlorobenzene	13.68	142	347202	5.13	ug/mL	99
69) Atrazine	13.76	200	726035	6.04	ug/mL#	98
70) Pentachlorophenol	13.95	266	508620	4.43	ug/mL	97

(#) = qualifier out of range (m) = manual integration

E422942.D BNA4M049.M

Thu Oct 01 11:48:40 2015

BNA4

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422942.D

Vial: 6

Acq On : 30 Sep 2015 11:53 am

Operator: KH

Sample : 5.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:26:41 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	14.06	237	291002	5.50	ug/mL	99
72) Phenanthrene	14.16	178	2868345	5.23	ug/mL#	98
73) Anthracene	14.21	178	3085770	5.21	ug/mL#	98
74) Carbazole	14.46	167	3108172	5.59	ug/mL	100
75) Di-n-butyl phthalate	15.00	149	4773147	5.28	ug/mL	98
76) Fluoranthene	16.20	202	3372113	5.14	ug/mL	99
77) Benzidine	16.08	184	523015	4.00	ug/mL	100
79) Pyrene	16.20	202	3344810	5.29	ug/mL	99
81) Benzyl butyl phthalate	17.16	149	2130624	5.21	ug/mL	97
82) Bis(2-ethylhexyl) phthalat	17.98	149	2913487	5.09	ug/mL	96
83) Benz (a) anthracene	17.92	228	3313109	5.12	ug/mL	98
84) 3,3-Dichlorobenzidine	17.92	252	1870249	9.83	ug/mL	97
85) Chrysene	17.99	228	3088135	5.25	ug/mL#	98
86) Di-n-octyl phthalate	18.81	149	4292311	5.19	ug/mL#	96
87) Benzo(b)fluoranthene	19.41	252	2918198	4.74	ug/mL	98
88) Benzo(k)fluoranthene	19.45	252	3294842	5.48	ug/mL	99
89) Benzo(a)pyrene	19.88	252	2736956	5.21	ug/mL	98
91) Indeno(1,2,3-cd)pyrene	21.73	276	2640763	5.05	ug/mL#	98
92) Dibenz(a,h)anthracene	21.74	278	2108542	4.96	ug/mL	98
93) Benzo(g,h,i)perylene	22.25	276	2021335	5.19	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422942.D BNA4M049.M

Thu Oct 01 11:48:40 2015

BNA4

Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422942.D

Acq Ori : 30 Sep 2015 11:53 am

Sample : 5.0 ppm .. ICAL

Misc : QBSV4093015A

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Vial: 6

Operator: KH

Inst : GC/MS BNA

Multiplier: 1.00

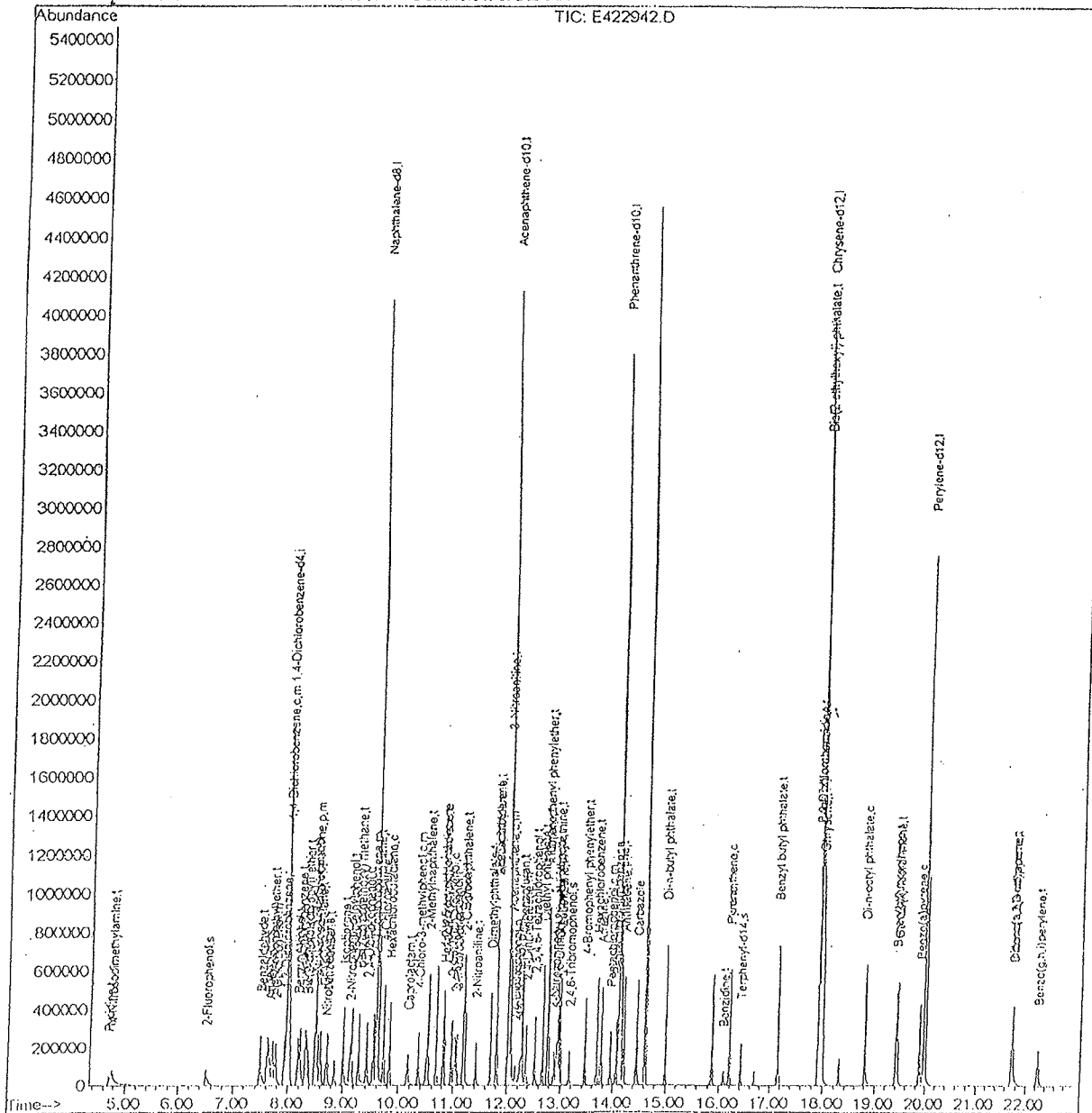
Quant Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:47:42 2015

Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\093015\E422943.D

Vial: 7

Acq On : 30 Sep 2015 12:27 pm

Operator: KH

Sample : 10.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:28:31 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	6457085	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	26390336	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	14734750	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	23293948	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	23772047	40.00	ug/mL	0.00
90) Perylene-d12	20.00	264	22055181	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	1628104	7.89	ug/mL	0.00
Spiked Amount	75.000	Range 15 - 87	Recovery	=	10.52%#	
5) Phenol-d5	7.61	99	1976827	7.98	ug/mL	0.00
Spiked Amount	75.000	Range 10 - 100	Recovery	=	10.64%	
21) Nitrobenzene-d5	8.70	82	1149034	5.15	ug/mL	0.00
Spiked Amount	50.000	Range 26 - 120	Recovery	=	10.30%#	
43) 2-Fluorobiphenyl	11.06	172	2142244	5.13	ug/mL	0.00
Spiked Amount	50.000	Range 29 - 120	Recovery	=	10.26%#	
66) 2,4,6-Tribromophenol	13.16	330	765206	7.33	ug/mL	0.00
Spiked Amount	75.000	Range 35 - 126	Recovery	=	9.77%#	
80) Terphenyl-d14	16.42	244	1830118	5.08	ug/mL	0.00
Spiked Amount	50.000	Range 35 - 127	Recovery	=	10.16%#	

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.76	74	1676644	10.35	ug/mL# 80
3) Pyridine	4.69	79	2367074	11.55	ug/mL# 86
6) Benzaldehyde	7.48	105	2122378	11.10	ug/mL# 100
7) Aniline	7.65	93	2848419	10.00	ug/mL# 70
8) Phenol	7.62	94	3554803	10.51	ug/mL# 49
9) Bis(2-chloroethyl) ether	7.71	93	3238204	10.21	ug/mL 99
10) 2-Chlorophenol	7.76	128	2829915	10.31	ug/mL 99
11) 1,3-Dichlorobenzene	7.93	146	2778003	10.22	ug/mL 98
12) 1,4-Dichlorobenzene	7.99	146	3413444	10.26	ug/mL 99
13) Benzyl Alcohol	8.17	108	1661408	10.31	ug/mL 99
14) 1,2-Dichlorobenzene	8.22	146	2921912	10.24	ug/mL 100
15) 2-Methylphenol	8.32	107	2250485	10.40	ug/mL 99
16) Bis(2-chloroisopropyl) eth	8.35	45	3054726	10.43	ug/mL# 74
17) N-Nitroso-di-n-propylamine	8.53	70	1978739	10.34	ug/mL# 88
18) 4-Methylphenol	8.50	107	2998054	10.13	ug/mL 96
19) Hexachloroethane	8.59	117	1340904	10.38	ug/mL 98
22) Nitrobenzene	8.72	77	2785717	10.41	ug/mL 97
23) Isophorone	9.01	82	5880667	10.31	ug/mL 100
24) 2-Nitrophenol	9.12	139	1607647	10.32	ug/mL 98
25) 2,4-Dimethylphenol	9.16	122	2287660	10.25	ug/mL 100

(#) = qualifier out of range (m) = manual integration

E422943.D BNA4M049.M

Thu Oct 01 11:48:47 2015

BNA4

Page 1

Quantitation Report (Q1' Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422943.D

Vial: 7

Acq On : 30 Sep 2015 12:27 pm

Operator: KH

Sample : 10.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:28:31 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	9.28	93	3233818	10.50	ug/mL	99
27) Benzoic acid	9.32	105	1230618m	11.99	ug/mL	
28) 2,4-Dichlorophenol	9.42	162	2207236	10.44	ug/mL	99
29) 1,2,4-Trichlorobenzene	9.53	180	2495300	10.19	ug/mL	99
30) Naphthalene	9.61	128	6498253	10.19	ug/mL#	98
31) 4-Chloroaniline	9.72	127	2230851	9.40	ug/mL	99
32) Acetophenone	8.50	105	3228020	10.47	ug/mL#	98
33) Hexachlorobutadiene	9.83	225	1502802	10.16	ug/mL	99
34) Caprolactam	10.19	113	724049	14.30	ug/mL#	100
35) 4-Chloro-3-methylphenol	10.36	107	2151268	10.64	ug/mL	98
36) 1-Methylnaphthalene	10.53	141	3858030	10.63	ug/mL	96
37) 2-Methylnaphthalene	10.53	142	4580267	10.26	ug/mL	100
39) 1,2,4,5-tetrachlorobenzene	10.82	216	2090085	9.41	ug/mL	100
40) Hexachlorocyclopentadiene	10.84	237	1360244	9.83	ug/mL	97
41) 2,4,6-Trichlorophenol	10.97	196	1528300	10.31	ug/mL	99
42) 2,4,5-Trichlorophenol	11.02	196	1630719	9.92	ug/mL	97
44) 2-Chloronaphthalene	11.21	162	4585552	10.07	ug/mL	97
45) Biphenyl	11.19	153	2181357	10.13	ug/mL#	100
46) 2-Nitroaniline	11.42	138	1651414	10.18	ug/mL	99
47) Dimethylphthalate	11.70	163	5500399	10.28	ug/mL	99
48) 2,6-Dinitrotoluene	11.81	165	1410891	10.53	ug/mL	97
49) Acenaphthylene	11.81	152	6875006	10.08	ug/mL	98
50) 3-Nitroaniline	12.01	138	1179100	11.17	ug/mL#	92
51) Acenaphthene	12.07	154	3738445	10.02	ug/mL	99
52) 2,4-Dinitrophenol	12.16	184	688324	10.14	ug/mL#	94
53) Dibenzofuran	12.29	168	5861127	9.97	ug/mL	99
54) 2,4-Dinitrotoluene	12.36	165	1769453	10.56	ug/mL	99
55) 4-Nitrophenol	12.24	65	905851	44.31	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	12.53	131	647622	10.12	ug/mL#	97
57) Diethyl phthalate	12.69	149	5637602	10.16	ug/mL	98
58) Fluorene	12.78	166	4493724	9.66	ug/mL	99
59) 4-Chlorophenyl phenylether	12.77	204	2487612	9.66	ug/mL	97
60) 4-Nitroaniline	12.90	138	1208386	13.76	ug/mL#	1
62) 4,6-Dinitro-2-methylphenol	12.94	198	1081716	9.63	ug/mL	99
63) Diphenylamine	12.96	169	3580372	9.79	ug/mL	100
64) N-Nitrosodiphenylamine	12.96	167	1244113	9.94	ug/mL	100
65) Azobenzene	12.99	77	5614172	9.68	ug/mL	96
67) 4-Bromophenyl phenylether	13.46	248	1630232	9.73	ug/mL	98
68) Hexachlorobenzene	13.68	142	717936	9.88	ug/mL	99
69) Atrazine	13.77	200	1359293	10.53	ug/mL#	99
70) Pentachlorophenol	13.95	266	1215158	9.85	ug/mL	99

(#)=qualifier out of range (m)=manual integration

E422943.D BNA4M049.M

Thu Oct 01 11:48:47 2015

BNA4

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422943.D

Vial: 7

Acq On : 30 Sep 2015 12:27 pm

Operator: KH

Sample : 10.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:47 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:28:31 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
71) Pentachloronitrobenzene	14.07	237	537114	9.45 ug/mL	99
72) Phenanthrene	14.16	178	5771001	9.79 ug/mL#	98
73) Anthracene	14.22	178	6266369	9.85 ug/mL#	99
74) Carbazole	14.46	167	6235746	10.44 ug/mL	100
75) Di-n-butyl phthalate	15.00	149	9692831	9.98 ug/mL	98
76) Fluoranthene	16.20	202	7081650	10.05 ug/mL	98
77) Benzidine	16.08	184	1207750	8.59 ug/mL	99
79) Pyrene	16.20	202	7032442	10.16 ug/mL	98
81) Benzyl butyl phthalate	17.16	149	4464344	9.98 ug/mL	98
82) Bis(2-ethylhexyl) phthalat	17.98	149	6504617	10.37 ug/mL	97
83) Benz (a) anthracene	17.93	228	6977624	9.85 ug/mL	98
84) 3,3-Dichlorobenzidine	17.93	252	3988799	19.15 ug/mL	97
85) Chrysene	18.00	228	6339348	9.83 ug/mL#	97
86) Di-n-octyl phthalate	18.81	149	9407833	10.39 ug/mL	97
87) Benzo(b)fluoranthene	19.42	252	6166437	9.32 ug/mL	99
88) Benzo(k)fluoranthene	19.45	252	6769230	10.29 ug/mL	98
89) Benzo(a)pyrene	19.89	252	5891879	10.25 ug/mL	99
91) Indeno(1,2,3-cd)pyrene	21.75	276	5913837	10.35 ug/mL#	99
92) Dibenzo(a,h)anthracene	21.75	278	4810460	10.36 ug/mL	98
93) Benzo(g,h,i)perylene	22.26	276	4355521	10.26 ug/mL	98

(#) = qualifier out of range (m) = manual integration

E422943.D BNA4M049.M

Thu Oct 01 11:48:47 2015

BNA4

Page 3

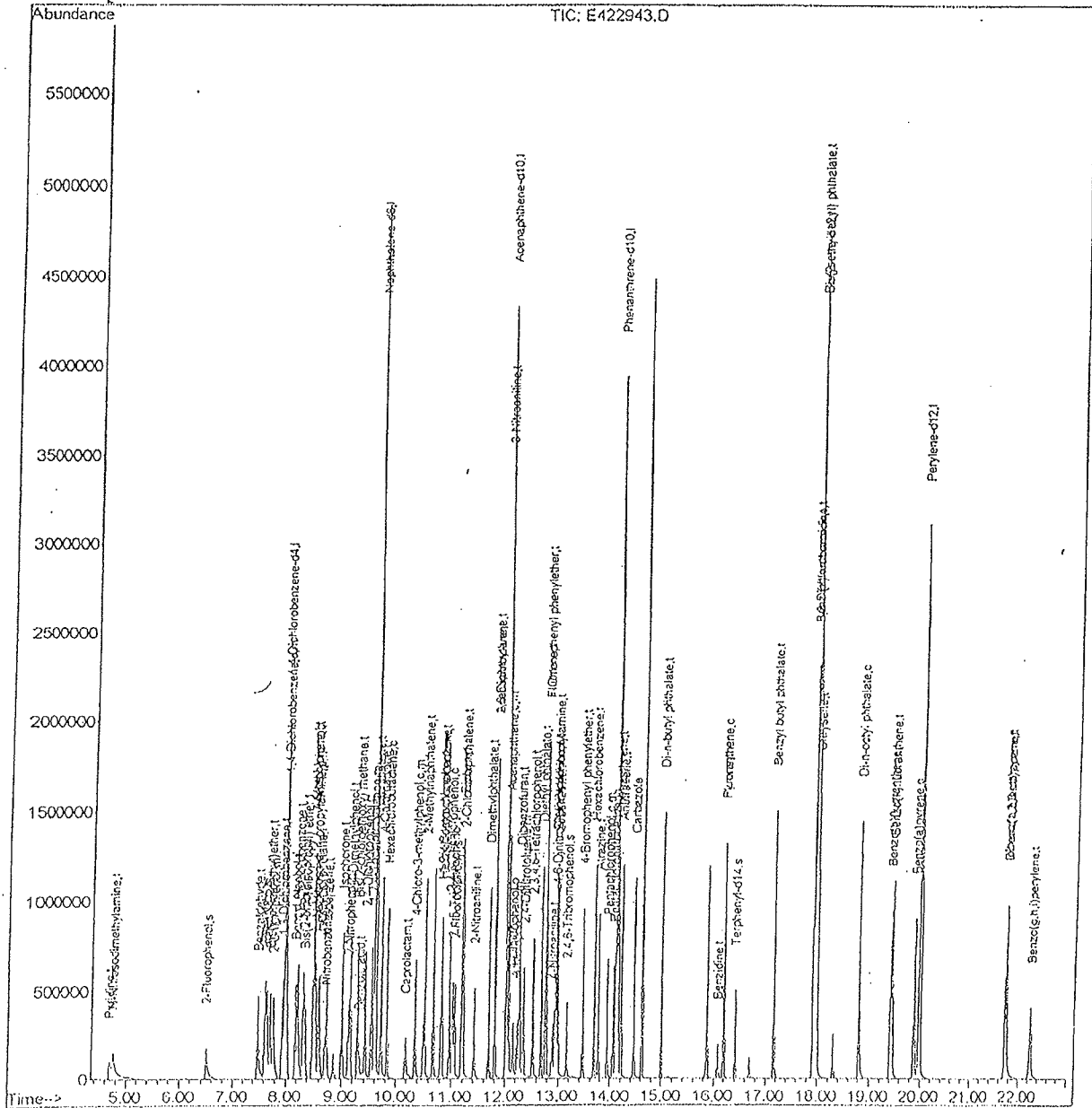
Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422943.D
Acq On : 30 Sep 2015 12:27 pm
Sample : 10.0 ppm - ICAL
Misc : QBSV4093015A
MS Integration Params: EVENTS.E
Quant Time: Oct 1 11:47 2015

Vial: 7
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
Title : GC MS BNA 4 Semi Volatiles Calibration
Last Update : Thu Oct 01 11:47:42 2015
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\093015\E422944.D

Vial: 8

Acq On : 30 Sep 2015 1:00 pm

Operator: KH

Sample : 15.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:36 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:36:01 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	6677275	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	27367621	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	15095666	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	23503720	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	24741618	40.00	ug/mL	0.00
90) Perylene-d12	20.00	264	22782724	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	2499991	11.72	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	15.63%
5) Phenol-d5	7.61	99	2996841	11.69	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	15.59%
21) Nitrobenzene-d5	8.70	82	1731822	7.49	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	14.98%#
43) 2-Fluorobiphenyl	11.06	172	3136384	7.35	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	14.70%#
66) 2,4,6-Tribromophenol	13.16	330	1173699	11.15	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	14.87%#
80) Terphenyl-d14	16.42	244	2790060	7.44	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	14.88%#

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.76	74	2369580	14.14	ug/mL 92
3) Pyridine	4.68	79	3416139	16.02	ug/mL# 65
6) Benzaldehyde	7.48	105	2899619	14.66	ug/mL# 100
7) Aniline	7.65	93	4655398	15.80	ug/mL# 69
8) Phenol	7.62	94	5336698	15.23	ug/mL# 50
9) Bis(2-chloroethyl)ether	7.71	93	4842544	14.78	ug/mL 99
10) 2-Chlorophenol	7.76	128	4276151	15.07	ug/mL 99
11) 1,3-Dichlorobenzene	7.93	146	4167218	14.83	ug/mL 98
12) 1,4-Dichlorobenzene	7.99	146	5087789	14.79	ug/mL 99
13) Benzyl Alcohol	8.18	108	2497863	14.99	ug/mL 100
14) 1,2-Dichlorobenzene	8.22	146	4376552	14.83	ug/mL 100
15) 2-Methylphenol	8.32	107	3395831	15.18	ug/mL 99
16) Bis(2-chloroisopropyl) eth	8.35	45	4532799	14.96	ug/mL 98
17) N-Nitroso-di-n-propylamine	8.54	70	2973786	15.03	ug/mL 97
18) 4-Methylphenol	8.50	107	4510142	14.74	ug/mL 98
19) Hexachloroethane	8.59	117	2030319	15.20	ug/mL 97
22) Nitrobenzene	8.72	77	4144169	14.93	ug/mL 99
23) Isophorone	9.01	82	8745215	14.78	ug/mL 100
24) 2-Nitrophenol	9.13	139	2459775	15.23	ug/mL 98
25) 2,4-Dimethylphenol	9.16	122	3452978	14.92	ug/mL 99

(#)= qualifier out of range (m) = manual integration

E422944.D BNA4M049.M

Thu Oct 01 11:48:53 2015

BNA4

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422944.D

Vial: 8

Acq On : 30 Sep 2015 1:00 pm

Operator: KH

Sample : 15.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:36 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:36:01 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	9.29	93	4800527	15.04	ug/mL	99
27) Benzoic acid	9.35	105	2144109	18.63	ug/mL	96
28) 2,4-Dichlorophenol	9.42	162	3338975	15.24	ug/mL	99
29) 1,2,4-Trichlorobenzene	9.53	180	3745100	14.74	ug/mL	100
30) Naphthalene	9.62	128	9725029	14.70	ug/mL#	99
31) 4-Chloroaniline	9.72	127	3736759	15.18	ug/mL	99
32) Acetophenone	8.51	105	4526307	14.16	ug/mL#	99
33) Hexachlorobutadiene	9.83	225	2258646	14.73	ug/mL	99
34) Caprolactam	10.20	113	997337	15.91	ug/mL#	99
35) 4-Chloro-3-methylphenol	10.36	107	3263721	15.56	ug/mL	98
36) 1-Methylnaphthalene	10.53	141	5713141	15.25	ug/mL	96
37) 2-Methylnaphthalene	10.53	142	6754433	14.59	ug/mL	99
39) 1,2,4,5-tetrachlorobenzene	10.82	216	3260945	14.32	ug/mL	98
40) Hexachlorocyclopentadiene	10.84	237	2131808	15.04	ug/mL	99
41) 2,4,6-Trichlorophenol	10.97	196	2357258	15.52	ug/mL	99
42) 2,4,5-Trichlorophenol	11.02	196	2486122	14.81	ug/mL	98
44) 2-Chloronaphthalene	11.21	162	6722512	14.41	ug/mL	99
45) Biphenyl	11.19	153	3069700	13.91	ug/mL#	97
46) 2-Nitroaniline	11.43	138	2527481	15.24	ug/mL	99
47) Dimethylphthalate	11.70	163	8087959	14.74	ug/mL	99
48) 2,6-Dinitrotoluene	11.81	165	2096437	15.28	ug/mL	98
49) Acenaphthylene	11.81	152	10141677	14.52	ug/mL	99
50) 3-Nitroaniline	12.02	138	1954421	18.17	ug/mL#	94
51) Acenaphthene	12.07	154	5531282	14.46	ug/mL	98
52) 2,4-Dinitrophenol	12.16	184	1150538	16.50	ug/mL#	95
53) Dibenzofuran	12.29	168	8929520	14.82	ug/mL	98
54) 2,4-Dinitrotoluene	12.37	165	2630265	15.32	ug/mL	100
55) 4-Nitrophenol	12.24	65	1264622	37.49	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	12.53	131	995543	15.19	ug/mL#	98
57) Diethyl phthalate	12.69	149	8312009	14.62	ug/mL	98
58) Fluorene	12.78	166	7000920	14.69	ug/mL	99
59) 4-Chlorophenyl phenylether	12.77	204	3994341	15.14	ug/mL	99
60) 4-Nitroaniline	12.91	138	1841789	20.55	ug/mL#	1
62) 4,6-Dinitro-2-methylphenol	12.95	198	1743045	15.38	ug/mL	100
63) Diphenylamine	12.97	169	5334756	14.45	ug/mL	99
64) N-Nitrosodiphenylamine	12.96	167	1856927	14.71	ug/mL	99
65) Azobenzene	13.00	77	8262655	14.12	ug/mL	95
67) 4-Bromophenyl phenylether	13.47	248	2492501	14.75	ug/mL	99
68) Hexachlorobenzene	13.69	142	1107303	15.10	ug/mL	99
69) Atrazine	13.77	200	1881918	14.45	ug/mL#	99
70) Pentachlorophenol	13.95	266	1925726	15.47	ug/mL	99

(#)=qualifier out of range (m)=manual integration

E422944.D BNA4M049.M

Thu Oct 01 11:48:53 2015

BNA4

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422944.D

Vial: 8

Acq On : 30 Sep 2015 1:00 pm

Operator: KH

Sample : 15.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:36 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:36:01 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	Qlon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	14.07	237	842008	14.68	ug/mL	99
72) Phenanthrene	14.16	178	8682239	14.60	ug/mL#	98
73) Anthracene	14.22	178	9451206	14.73	ug/mL#	99
74) Carbazole	14.47	167	8994873	14.93	ug/mL	100
75) Di-n-butyl phthalate	15.01	149	14547168	14.84	ug/mL	99
76) Fluoranthene	16.20	202	10598546	14.91	ug/mL	99
77) Benzidine	16.08	184	2161610	15.24	ug/mL	99
79) Pyrene	16.20	202	10554613	14.64	ug/mL	99
81) Benzyl butyl phthalate	17.16	149	6753472	14.50	ug/mL	98
82) Bis(2-ethylhexyl) phthalat	17.99	149	10190475	15.61	ug/mL	99
83) Benz (a) anthracene	17.93	228	11522777	15.62	ug/mL	99
84) 3,3-Dichlorobenzidine	17.93	252	7318208	33.76	ug/mL	99
85) Chrysene	18.00	228	9751845	14.52	ug/mL#	98
86) Di-n-octyl phthalate	18.81	149	14609352	15.51	ug/mL	97
87) Benzo(b)fluoranthene	19.42	252	9628185	14.16	ug/mL	99
88) Benzo(k)fluoranthene	19.46	252	10245864	14.96	ug/mL	99
89) Benzo(a)pyrene	19.89	252	9088990	15.19	ug/mL	99
91) Indeno(1,2,3-cd)pyrene	21.76	276	9475479	16.05	ug/mL#	100
92) Dibenzo(a,h)anthracene	21.77	278	7775719	16.21	ug/mL	99
93) Benzo(g,h,i)perylene	22.27	276	6870080	15.71	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422944.D BNA4M049.M

Thu Oct 01 11:48:53 2015

BNA4

Page 3

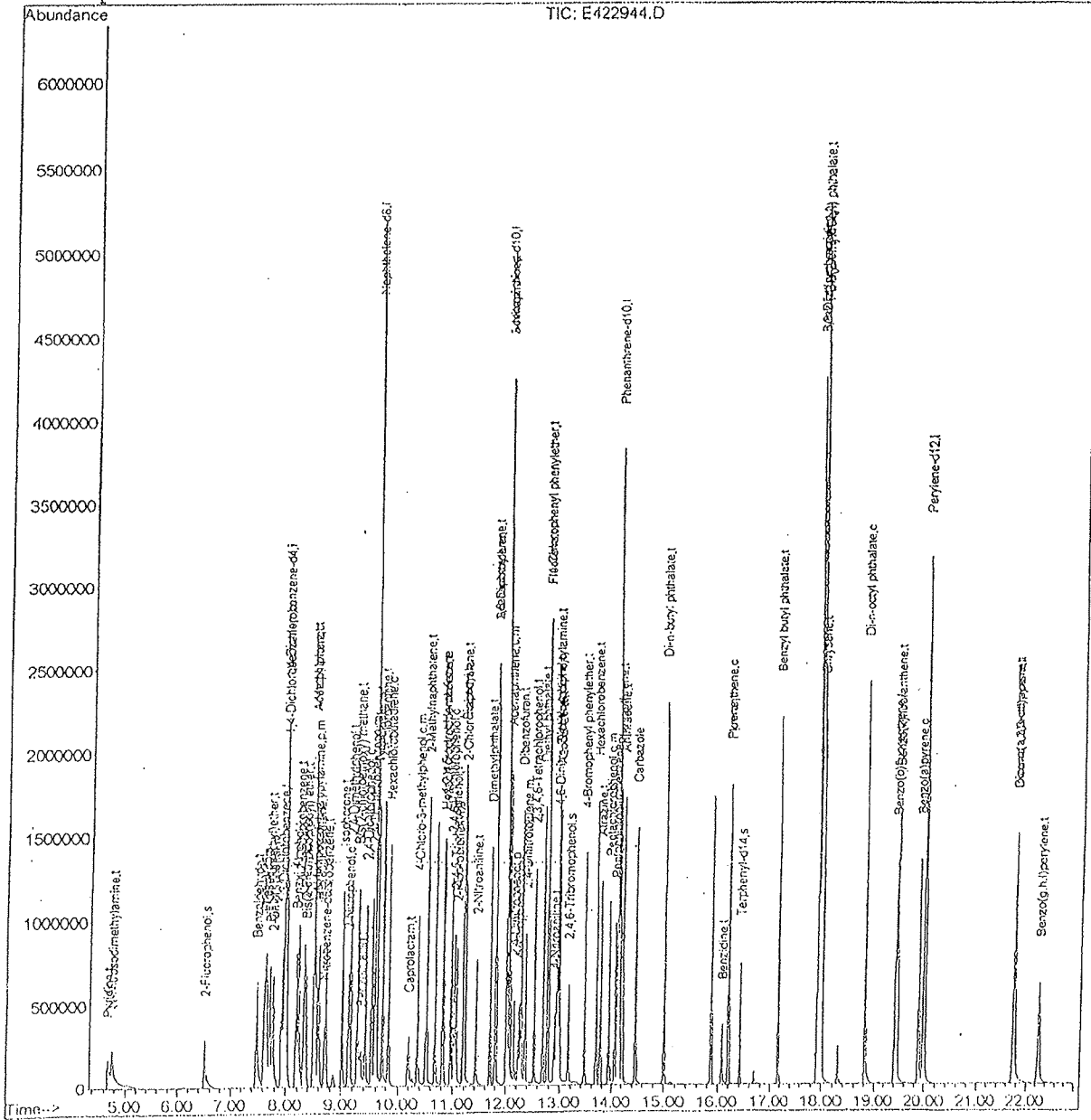
Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422944.D
Acq On : 30 Sep 2015 1:00 pm
Sample : 15.0 ppm - ICAL
Misc : QBSV4093015A
MS Integration Params: EVENTS.E
Quant Time: Oct 1 11:36 2015 Qu

Vial: 8
Operator: KH
Inst : GC/MS BNA
Multiplier: 1.00

Quant Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
Title : GC MS BNA 4 Semi Volatiles Calibration
Last Update : Thu Oct 01 11:47:42 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422945.D

Vial: 9

Acq On : 30 Sep 2015 1:33 pm

Operator: KH

Sample : 20.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:40 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:39:51 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	6635728	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	27928507	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	15098981	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	23500987	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	24438541	40.00	ug/mL	0.00
90) Perylene-d12	20.00	264	22358206	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	3380952	15.95	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	21.27%
5) Phenol-d5	7.61	99	3985277	15.64	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	20.85%
21) Nitrobenzene-d5	8.70	82	2356120	9.98	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	19.96%#
43) 2-Fluorobiphenyl	11.06	172	4157961	9.75	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	19.50%#
66) 2,4,6-Tribromophenol	13.17	330	1601393	15.20	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	20.27%#
80) Terphenyl-d14	16.42	244	3733570	10.08	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	20.16%#

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.76	74	3687751	22.14	ug/mL	86
3) Pyridine	4.66	79	4604800m	20.70	ug/mL	
6) Benzaldehyde	7.48	105	3818882	19.43	ug/mL#	100
7) Aniline	7.65	93	6475362	22.11	ug/mL	99
8) Phenol	7.63	94	7015552	20.10	ug/mL	99
9) Bis(2-chloroethyl) ether	7.71	93	6433078	19.76	ug/mL	100
10) 2-Chlorophenol	7.77	128	5699862	20.21	ug/mL	99
11) 1,3-Dichlorobenzene	7.93	146	5611280	20.09	ug/mL	99
12) 1,4-Dichlorobenzene	7.99	146	6783752	19.85	ug/mL	100
13) Benzyl Alcohol	8.18	108	3372053	20.37	ug/mL	99
14) 1,2-Dichlorobenzene	8.22	146	5845885	19.93	ug/mL	99
15) 2-Methylphenol	8.33	107	4498276	20.23	ug/mL	99
16) Bis(2-chloroisopropyl) eth	8.35	45	6025399	20.01	ug/mL	99
17) N-Nitroso-di-n-propylamine	8.54	70	3972009	20.20	ug/mL	99
18) 4-Methylphenol	8.51	107	6019622	19.79	ug/mL	98
19) Hexachloroethane	8.59	117	2701596	20.36	ug/mL	98
22) Nitrobenzene	8.73	77	5543734	19.57	ug/mL	99
23) Isophorone	9.02	82	11636671	19.28	ug/mL	100
24) 2-Nitrophenol	9.13	139	3281070	19.91	ug/mL	99
25) 2,4-Dimethylphenol	9.16	122	4597388	19.47	ug/mL	99

(#)=qualifier out of range (m)=manual integration

E422945.D BNA4M049.M

Thu Oct 01 11:49:02 2015

BNA4

Page 1

Data File : C:\HPCHEM\1\DATA\093015\E422945.D

Acq On : 30 Sep 2015 1:33 pm

Sample : 20.0 ppm - ICAL

Misc : QBSV4093015A

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:40 2015

Vial: 9

Operator: KH

Inst : GC/MS BNA

Multiplr: 1.00

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:39:51 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	9.29	93	6280025	19.28	ug/mL	100
27) Benzoic acid	9.37	105	3244991	27.66	ug/mL	96
28) 2,4-Dichlorophenol	9.42	162	4431060	19.83	ug/mL	99
29) 1,2,4-Trichlorobenzene	9.53	180	5002457	19.30	ug/mL	100
30) Naphthalene	9.62	128	12719098	18.84	ug/mL#	99
31) 4-Chloroaniline	9.72	127	5341797	21.27	ug/mL	99
32) Acetophenone	8.51	105	6116969	18.75	ug/mL#	98
33) Hexachlorobutadiene	9.84	225	3041274	19.43	ug/mL	100
34) Caprolactam	10.22	113	1363382	18.70	ug/mL#	99
35) 4-Chloro-3-methylphenol	10.37	107	4398036	20.48	ug/mL	99
36) 1-Methylnaphthalene	10.53	141	7531340	19.54	ug/mL	96
37) 2-Methylnaphthalene	10.53	142	8959269	18.96	ug/mL	100
39) 1,2,4,5-tetrachlorobenzene	10.82	216	4350898	19.07	ug/mL	99
40) Hexachlorocyclopentadiene	10.84	237	2934788	20.71	ug/mL	99
41) 2,4,6-Trichlorophenol	10.97	196	3185395	20.98	ug/mL	99
42) 2,4,5-Trichlorophenol	11.02	196	3435220	20.55	ug/mL	100
44) 2-Chloronaphthalene	11.21	162	8948259	19.19	ug/mL	98
45) Biphenyl	11.19	153	4076361	18.46	ug/mL#	99
46) 2-Nitroaniline	11.43	138	3425047	20.65	ug/mL	100
47) Dimethylphthalate	11.70	163	10783931	19.67	ug/mL	99
48) 2,6-Dinitrotoluene	11.82	165	2901711	21.18	ug/mL	98
49) Acenaphthylene	11.81	152	13911346	19.92	ug/mL	100
50) 3-Nitroaniline	12.02	138	2781074	26.01	ug/mL#	93
51) Acenaphthene	12.07	154	7326313	19.17	ug/mL	99
52) 2,4-Dinitrophenol	12.16	184	1670721	24.02	ug/mL	97
53) Dibenzofuran	12.29	168	11676562	19.37	ug/mL	99
54) 2,4-Dinitrotoluene	12.37	165	3494387	20.36	ug/mL	99
55) 4-Nitrophenol	12.25	65	1742546	36.55	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	12.54	131	1345863	20.54	ug/mL#	99
57) Diethyl phthalate	12.70	149	10904748	19.19	ug/mL	99
58) Fluorene	12.78	166	9745115	20.46	ug/mL	100
59) 4-Chlorophenyl phenylether	12.77	204	5525243	20.95	ug/mL	99
60) 4-Nitroaniline	12.91	138	2461968	27.59	ug/mL#	1
62) 4,6-Dinitro-2-methylphenol	12.95	198	2422436	21.38	ug/mL	99
63) Diphenylamine	12.97	169	7203505	19.50	ug/mL	100
64) N-Nitrosodiphenylamine	12.97	167	2540294	20.12	ug/mL	98
65) Azobenzene	13.00	77	12024921	20.55	ug/mL	99
67) 4-Bromophenyl phenylether	13.47	248	3373477	19.96	ug/mL	99
68) Hexachlorobenzene	13.69	142	1481068	20.20	ug/mL	98
69) Atrazine	13.78	200	2541591	19.51	ug/mL#	100
70) Pentachlorophenol	13.95	266	2678264	21.52	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422945.D BNA4M049.M

Thu Oct 01 11:49:02 2015

BNA4

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422945.D

Vial: 9

Acq On : 30 Sep 2015 1:33 pm

Operator: KH

Sample : 20.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:40 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:39:51 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	14.08	237	1117231	19.48	ug/mL	99.
72) Phenanthrene	14.17	178	11740816	19.75	ug/mL#	99
73) Anthracene	14.23	178	12408556	19.32	ug/mL#	100
74) Carbazole	14.47	167	11482705	19.04	ug/mL	100
75) Di-n-butyl phthalate	15.01	149	19605913	20.01	ug/mL	99
76) Fluoranthene	16.21	202	13984608	19.68	ug/mL	99
77) Benzidine	16.08	184	3213523	22.66	ug/mL	99
79) Pyrene	16.21	202	13921391	19.55	ug/mL	99
81) Benzyl butyl phthalate	17.17	149	9216722	20.03	ug/mL	99
82) Bis(2-ethylhexyl) phthalat	17.99	149	13693075	21.24	ug/mL	99
83) Benz (a) anthracene	17.93	228	15602536	21.42	ug/mL	99
84) 3,3-Dichlorobenzidine	17.93	252	10511795	49.12	ug/mL	99
85) Chrysene	18.01	228	13387689	20.19	ug/mL#	99
86) Di-n-octyl phthalate	18.82	149	19969301	21.46	ug/mL	98
87) Benzo(b)fluoranthene	19.43	252	13036177	19.57	ug/mL	99
88) Benzo(k)fluoranthene	19.47	252	13528431	19.99	ug/mL	100
89) Benzo(a)pyrene	19.90	252	12173469	20.59	ug/mL	99
91) Indeno(1,2,3-cd)pyrene	21.77	276	12635611	21.82	ug/mL#	100
92) Dibenzo(a,h)anthracene	21.78	278	10482384	22.26	ug/mL	99
93) Benzo(g,h,i)perylene	22.28	276	9229506	21.57	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422945.D BNA4M049.M

Thu Oct 01 11:49:02 2015

BNA4

Page 3

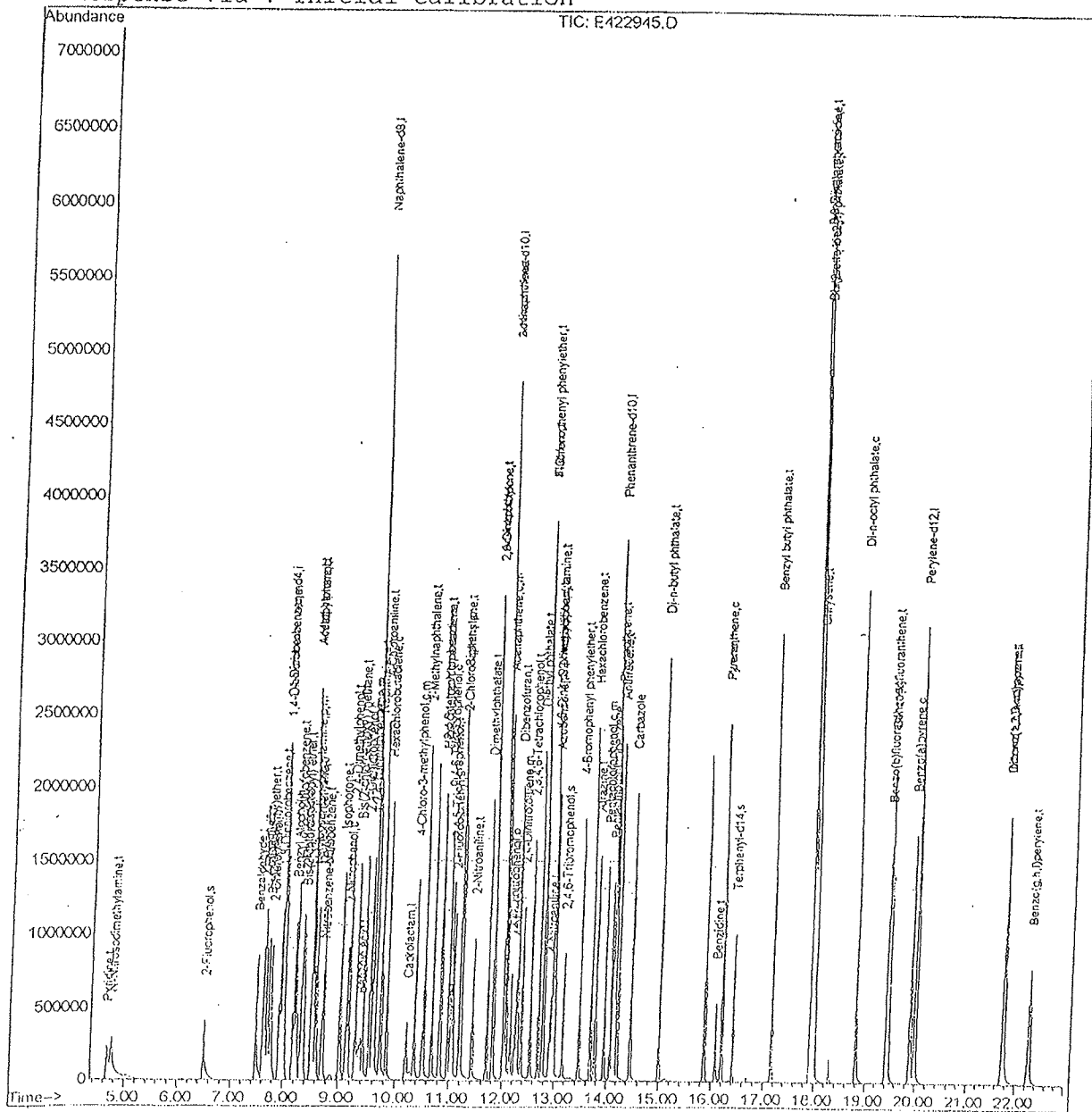
Quantification Report

Data File : C:\HPCHEM\1\DATA\093015\E422945.D
 Acq On : 30 Sep 2015 1:33 pm
 Sample : 20.0 ppm - ICAL
 Misc : QBSV4093015A
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:40 2015

Vial: 9
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Thu Oct 01 11:47:42 2015
 Response via : Initial Calibration



Quantitation Report (Q' Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422946.D

Vial: 10

Acq On : 30 Sep 2015 2:07 pm

Operator: KH

Sample : 30.0 ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:41 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:40:55 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	14.08	237	1663585	29.86	ug/mL	100
72) Phenanthrene	14.17	178	17478263	30.25	ug/mL#	100
73) Anthracene	14.23	178	18657711	29.95	ug/mL#	100
74) Carbazole	14.48	167	15655777	26.72	ug/mL	100
75) Di-n-butyl phthalate	15.01	149	28071392	29.48	ug/mL	100
76) Fluoranthene	16.21	202	20868730	30.21	ug/mL	100
77) Benzidine	16.09	184	4697540	34.08	ug/mL	100
79) Pyrene	16.21	202	20796390	29.62	ug/mL	100
81) Benzyl butyl phthalate	17.17	149	13817229	30.46	ug/mL	100
82) Bis(2-ethylhexyl) phthalat	17.99	149	18916135	29.76	ug/mL	100
83) Benz (a) anthracene	17.94	228	21855716	30.43	ug/mL	100
84) 3,3-Dichlorobenzidine	17.94	252	14935803	70.75	ug/mL	100
85) Chrysene	18.02	228	19747242	30.20	ug/mL#	100
86) Di-n-octyl phthalate	18.82	149	29583947	32.24	ug/mL	100
87) Benzo(b)fluoranthene	19.45	252	20851189	31.74	ug/mL	100
88) Benzo(k)fluoranthene	19.48	252	18036084	27.03	ug/mL	100
89) Benzo(a)pyrene	19.91	252	17625029	30.24	ug/mL	100
91) Indeno(1,2,3-cd)pyrene	21.79	276	18309166	32.77	ug/mL#	100
92) Dibenzo(a,h)anthracene	21.79	278	15335680	33.77	ug/mL	100
93) Benzo(g,h,i)perylene	22.30	276	13020741	31.63	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422946.D BNA4M049.M

Thu Oct 01 11:49:09 2015

BNA4

Page 3

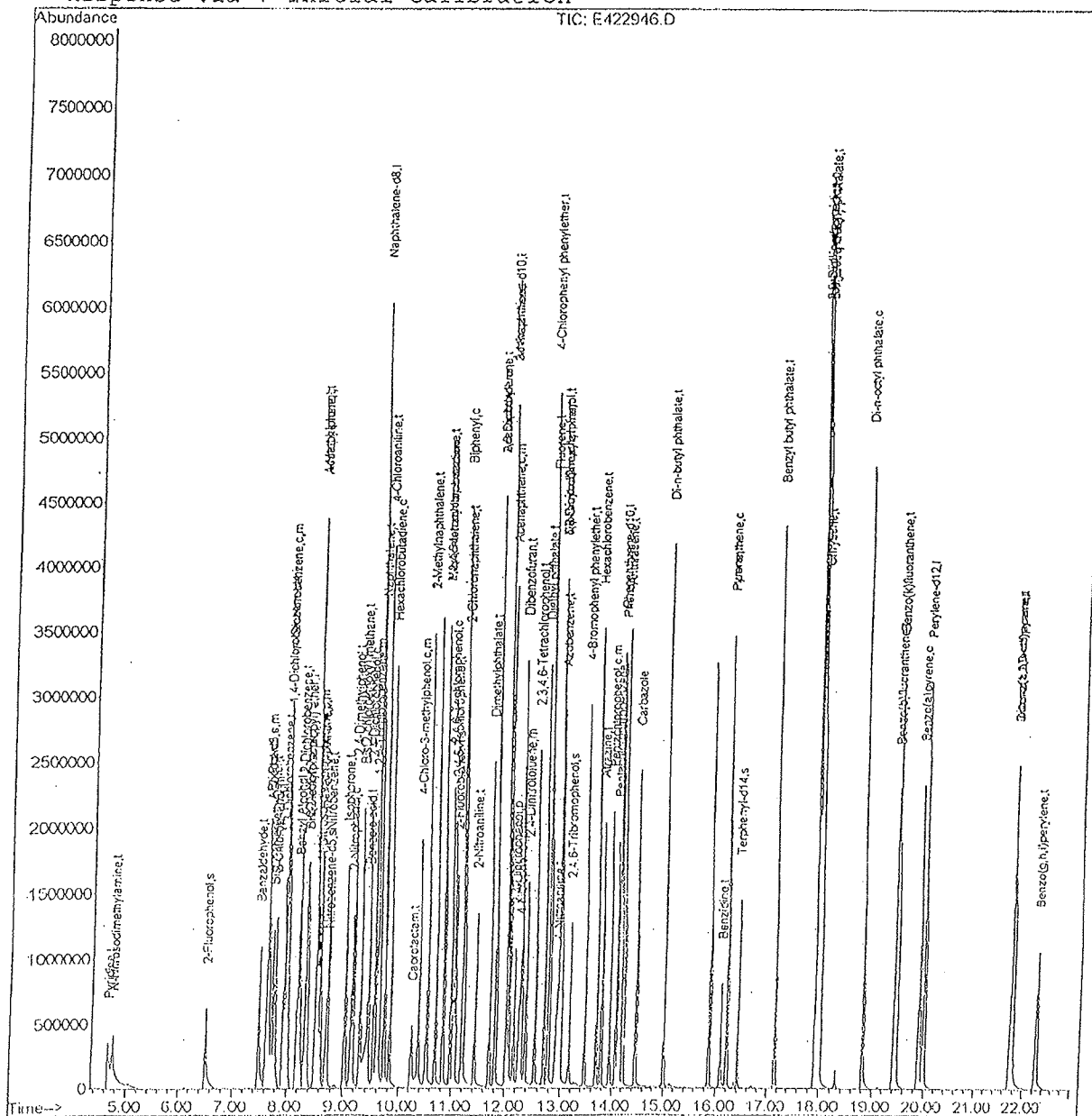
Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422946.D
 Acq On : 30 Sep 2015 2:07 pm
 Sample : 30.0 ppm - ICAL
 Misc : QBSV4093015A
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:41 2015

Vial: 10
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M049.RES

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Thu Oct 01 11:47:42 2015
 Response via : Initial Calibration



E422946.D BNA4M049.M

Thu Oct 01 11:49:09 2015

BNA4

Page 4

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422947.D Vial: 11
 Acq On : 30 Sep 2015 2:40 pm Operator: KH
 Sample : 40ppm - ICAL Inst : GC/MS BNA
 Misc : QBSV4093015A Multiplr: 1.00
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:43 2015 Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Thu Oct 01 11:42:00 2015
 Response via : Initial Calibration
 DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.98	152	6905800	40.00	ug/mL	0.00
20) Naphthalene-d8	9.60	136	29373730	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	15033570	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.14	188	22739735	40.00	ug/mL	0.00
78) Chrysene-d12	17.98	240	24540939	40.00	ug/mL	0.00
90) Perylene-d12	20.01	264	21744386	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.51	112	6567315	29.77	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	39.69%
5) Phenol-d5	7.63	99	7893874	29.78	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	39.71%
21) Nitrobenzene-d5	8.71	82	4668697	18.81	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	37.62%
43) 2-Fluorobiphenyl	11.07	172	8259701	19.47	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	38.94%
66) 2,4,6-Tribromophenol	13.18	330	3234970	31.73	ug/mL	0.00
Spiked Amount	75.000	Range	35 - 126	Recovery	=	42.31%
80) Terphenyl-d14	16.43	244	7240364	19.46	ug/mL	0.00
Spiked Amount	50.000	Range	35 - 127	Recovery	=	38.92%

Target Compounds

					Qvalue
2) N-Nitrosodimethylamine	4.76	74	7571216	43.69	ug/mL 88
3) Pyridine	4.65	79	9633412m	41.41	ug/mL
6) Benzaldehyde	7.48	105	6250175	30.56	ug/mL# 100
7) Aniline	7.65	93	12823963	42.09	ug/mL 99
8) Phenol	7.64	94	14083862	38.78	ug/mL 100
9) Bis(2-chloroethyl) ether	7.72	93	12634220	37.30	ug/mL 99
10) 2-Chlorophenol	7.77	128	11009398	37.51	ug/mL 99
11) 1,3-Dichlorobenzene	7.93	146	10762375	37.03	ug/mL 100
12) 1,4-Dichlorobenzene	8.00	146	13948833	39.21	ug/mL 100
13) Benzyl Alcohol	8.19	108	6583227	38.21	ug/mL 100
14) 1,2-Dichlorobenzene	8.22	146	11178003	36.62	ug/mL 99
15) 2-Methylphenol	8.34	107	8539951	36.90	ug/mL 99
16) Bis(2-chloroisopropyl) eth	8.36	45	11226799	35.83	ug/mL 99
17) N-Nitroso-di-n-propylamine	8.57	70	7513919	36.72	ug/mL 99
18) 4-Methylphenol	8.52	107	12429418	39.26	ug/mL 98
19) Hexachloroethane	8.59	117	5083384	36.80	ug/mL 99
22) Nitrobenzene	8.74	77	10472711	35.14	ug/mL 99
23) Isophorone	9.03	82	22021012	34.68	ug/mL 100
24) 2-Nitrophenol	9.13	139	6413455	37.00	ug/mL 99
25) 2,4-Dimethylphenol	9.18	122	9062655	36.64	ug/mL 98

(#) = qualifier out of range (m) = manual integration
 E422947.D BNA4M049.M Thu Oct 01 11:49:15 2015

BNA4 Page 1

QUANTIFICATION REPORT

(Q1 Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422947.D

Vial: 11

Acq On : 30 Sep 2015 2:40 pm

Operator: KH

Sample : 40ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:43 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:42:00 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	9.30	93	12180137	35.55	ug/mL	100
27) Benzoic acid	9.44	105	7420343	60.15	ug/mL	97
28) 2,4-Dichlorophenol	9.44	162	9442763	40.19	ug/mL	99
29) 1,2,4-Trichlorobenzene	9.53	180	9965503	36.55	ug/mL	100
30) Naphthalene	9.62	128	26231449	36.94	ug/mL#	99
31) 4-Chloroaniline	9.73	127	11424603	43.25	ug/mL	99
32) Acetophenone	8.52	105	12231683	35.62	ug/mL#	99
33) Hexachlorobutadiene	9.84	225	6455391	39.22	ug/mL	99
34) Caprolactam	10.26	113	2558148	33.36	ug/mL#	99
35) 4-Chloro-3-methylphenol	10.39	107	8661963	38.22	ug/mL	99
36) 1-Methylnaphthalene	10.54	141	15639538	38.15	ug/mL	100
37) 2-Methylnaphthalene	10.54	142	18546099	37.32	ug/mL	100
39) 1,2,4,5-tetrachlorobenzene	10.83	216	9199870	40.51	ug/mL	99
40) Hexachlorocyclopentadiene	10.84	237	6655822	47.18	ug/mL	99
41) 2,4,6-Trichlorophenol	10.98	196	6795984	44.96	ug/mL	99
42) 2,4,5-Trichlorophenol	11.04	196	7109061	42.76	ug/mL	99
44) 2-Chloronaphthalene	11.22	162	19304410	41.50	ug/mL	99
45) Biphenyl	11.20	153	8594113	39.13	ug/mL#	100
46) 2-Nitroaniline	11.44	138	6755424	40.93	ug/mL	99
47) Dimethylphthalate	11.72	163	21200657	38.83	ug/mL	100
48) 2,6-Dinitrotoluene	11.83	165	5978189	43.81	ug/mL	99
49) Acenaphthylene	11.82	152	27390466	39.39	ug/mL	99
50) 3-Nitroaniline	12.04	138	5436647	43.47	ug/mL	96
51) Acenaphthene	12.08	154	15492814	40.71	ug/mL	100
52) 2,4-Dinitrophenol	12.18	184	3664285	52.93	ug/mL#	95
53) Dibenzofuran	12.30	168	24049902	40.06	ug/mL#	78
54) 2,4-Dinitrotoluene	12.39	165	6920364	40.55	ug/mL	99
55) 4-Nitrophenol	12.28	65	3860407	49.67	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	12.55	131	2859114	43.71	ug/mL#	99
57) Diethyl phthalate	12.71	149	22058083	38.99	ug/mL	99
58) Fluorene	12.80	166	19074227	40.23	ug/mL	99
59) 4-Chlorophenyl phenylether	12.78	204	10665924	40.62	ug/mL	100
60) 4-Nitroaniline	12.95	138	4594984	39.12	ug/mL	98
62) 4,6-Dinitro-2-methylphenol	12.98	198	5649210	51.45	ug/mL	97
63) Diphenylamine	12.99	169	15511716	43.40	ug/mL	100
64) N-Nitrosodiphenylamine	12.99	167	5426301	44.37	ug/mL	99
65) Azobenzene	13.02	77	24401834	43.08	ug/mL	97
67) 4-Bromophenyl phenylether	13.48	248	7359325	45.00	ug/mL	98
68) Hexachlorobenzene	13.70	142	3053558	43.04	ug/mL	97
69) Atrazine	13.80	200	4812645	38.18	ug/mL#	98
70) Pentachlorophenol	13.97	266	5826234	48.39	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422947.D BNA4M049.M

Thu Oct 01 11:49:16 2015

BNA4

Page 2

QUANTIFICATION REPORT (QI Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422947.D

Vial: 11

Acq On : 30 Sep 2015 2:40 pm

Operator: KH

Sample : 40ppm - ICAL

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:43 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:42:00 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	14.09	237	2232854	40.25	ug/mL	99
72) Phenanthrene	14.18	178	23797646	41.36	ug/mL#	99
73) Anthracene	14.24	178	25626168	41.31	ug/mL#	99
74) Carbazole	14.48	167	21551534m	36.94	ug/mL	
75) Di-n-butyl phthalate	15.02	149	37062722	39.09	ug/mL	99
76) Fluoranthene	16.22	202	28354571	41.22	ug/mL#	96
77) Benzidine	16.09	184	5801170	42.27	ug/mL	99
79) Pyrene	16.22	202	28211374	39.46	ug/mL#	96
81) Benzyl butyl phthalate	17.18	149	18865227	40.84	ug/mL	100
82) Bis(2-ethylhexyl) phthalat	18.00	149	23777736	36.73	ug/mL#	97
83) Benz (a) anthracene	17.94	228	28349935	38.75	ug/mL	99
84) 3,3-Dichlorobenzidine	17.95	252	18793016	87.41	ug/mL	100
85) Chrysene	18.03	228	26506760	39.80	ug/mL#	99
86) Di-n-octyl phthalate	18.82	149	39076547	41.82	ug/mL	98
87) Benzo(b)fluoranthene	19.46	252	31657023	47.26	ug/mL	99
88) Benzo(k)fluoranthene	19.49	252	31050100m	45.73	ug/mL	
89) Benzo(a)pyrene	19.92	252	24719133	41.65	ug/mL	100
91) Indeno(1,2,3-cd)pyrene	21.81	276	24084624	42.75	ug/mL#	100
92) Dibenzo(a,h)anthracene	21.81	278	20547038	44.85	ug/mL	100
93) Benzo(g,h,i)perylene	22.31	276	16453342	39.69	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E422947.D BNA4M049.M

Thu Oct 01 11:49:16 2015

BNA4

Page 3

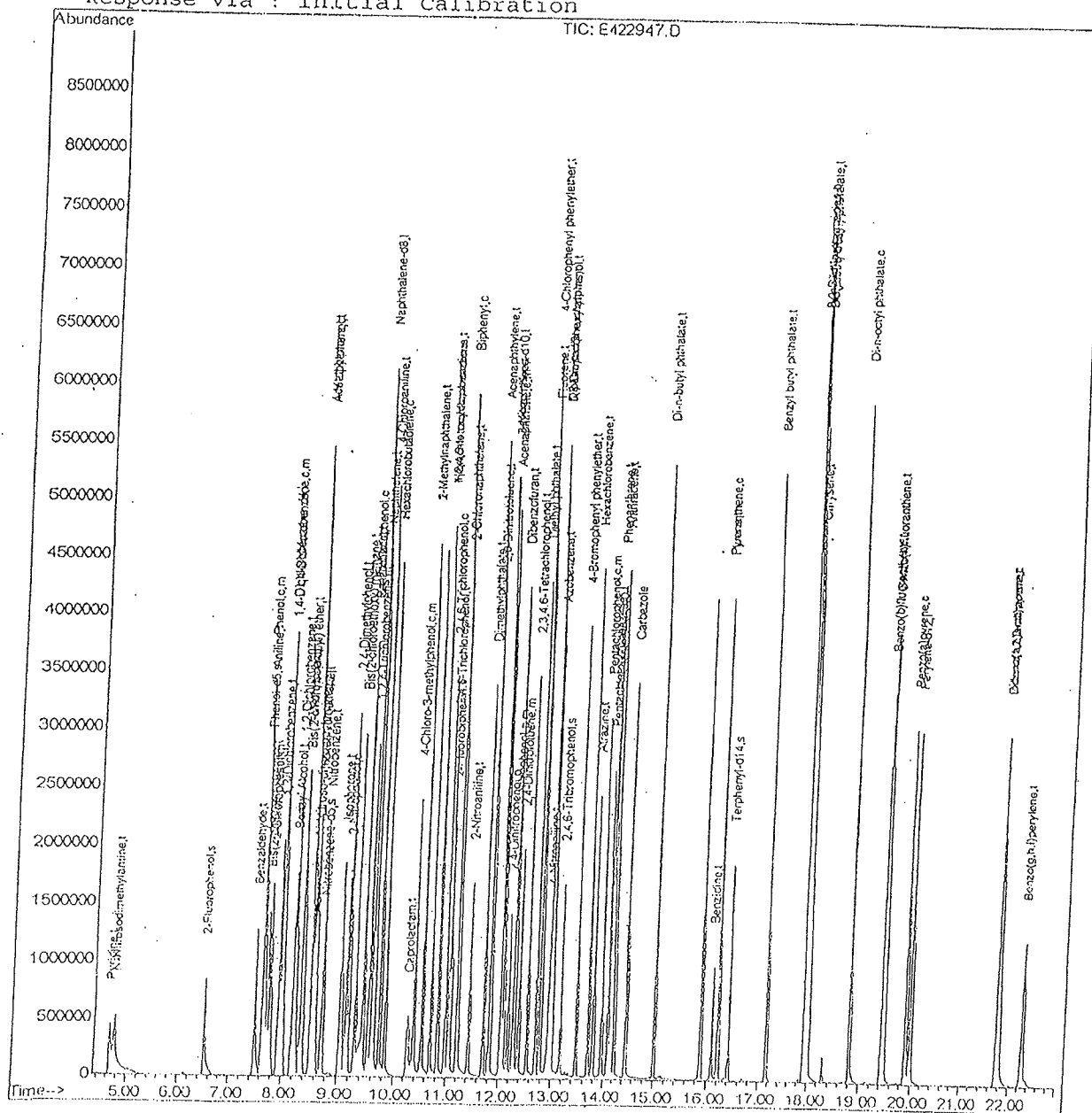
Qualification Report

Data File : C:\HPCHEM\1\DATA\093015\B422947.D
Acq On : 30 Sep 2015 2:40 pm
Sample : 40ppm - ICAL
Misc : QBSV4093015A
MS Integration Params: EVENTS.E
Quant Time: Oct 1 11:43 2015

Vial: 11
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M049.RES

```
Method      : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
Title       : GC MS BNA 4 Semi Volatiles Calibration
Last Update : Thu Oct 01 11:47:42 2015
Response via : Initial Calibration
```



E422947.D BNA4M049.M

Thu Oct 01 11:49:16 2015

BNA 4

Page 4

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422948.D

Acq On : 30 Sep 2015 3:13 pm

Sample : ICV-30

Misc : QBSV4093015A

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:50 2015

Vial: 12

Operator: KH

Inst : GC/MS BNA

Multiplr: 1.00

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:47:42 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.97	152	5705712	40.00	ug/mL	0.00
20) Naphthalene-d8	9.59	136	21516669	40.00	ug/mL	0.00
38) Acenaphthene-d10	12.03	164	13064144	40.00	ug/mL	0.00
61) Phenanthrene-d10	14.13	188	19562702	40.00	ug/mL	0.00
78) Chrysene-d12	17.97	240	21300477	40.00	ug/mL	0.00
90) Perylene-d12	20.00	264	18795538	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	
Spiked Amount	75.000	Range 15 - 87	Recovery =	0.00%#		
5) Phenol-d5	7.76	99	358227	1.64	ug/mL	0.16
Spiked Amount	75.000	Range 10 - 100	Recovery =	2.19%#		
21) Nitrobenzene-d5	0.00	82	0d	0.00	ug/mL	
Spiked Amount	50.000	Range 26 - 120	Recovery =	0.00%#		
43) 2-Fluorobiphenyl	11.01	172	5581	0.02	ug/mL	-0.05
Spiked Amount	50.000	Range 29 - 120	Recovery =	0.04%#		
66) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	
Spiked Amount	75.000	Range 35 - 126	Recovery =	0.00%#		
80) Terphenyl-d14	0.00	244	0	0.00	ug/mL	
Spiked Amount	50.000	Range 35 - 127	Recovery =	0.00%#		

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.76	74	4514781	31.53	ug/mL#	82
3) Pyridine	4.68	79	6010110	29.63	ug/mL	98
7) Aniline	7.65	93	6950455	27.61	ug/mL#	88
8) Phenol	7.62	94	7795545	25.98	ug/mL#	33
9) Bis(2-chloroethyl) ether	7.71	93	7583375	27.10	ug/mL	97
10) 2-Chlorophenol	7.77	128	6179155	25.48	ug/mL	99
11) 1,3-Dichlorobenzene	7.93	146	6024246	25.09	ug/mL	99
12) 1,4-Dichlorobenzene	7.99	146	7341679	24.98	ug/mL	99
13) Benzyl Alcohol	8.18	108	3830023	26.91	ug/mL	99
14) 1,2-Dichlorobenzene	8.22	146	6425898	25.48	ug/mL	100
15) 2-Methylphenol	8.32	107	4667863	24.41	ug/mL#	78
16) Bis(2-chloroisopropyl) eth	8.35	45	7653594	29.57	ug/mL#	67
17) N-Nitroso-di-n-propylamine	8.55	70	4462622	26.39	ug/mL	98
18) 4-Methylphenol	8.51	107	5982800	22.87	ug/mL#	57
19) Hexachloroethane	8.59	117	2913358	25.53	ug/mL	98
22) Nitrobenzene	8.72	77	6109596	27.99	ug/mL	99
23) Isophorone	9.02	82	12239107	26.31	ug/mL	100
24) 2-Nitrophenol	9.13	139	3461483	27.26	ug/mL	99
25) 2,4-Dimethylphenol	9.16	122	5039274	27.81	ug/mL	96
26) Bis(2-chloroethoxy) methan	9.29	93	6971486	27.78	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E422948.D BNA4M049.M

Thu Oct 01 11:53:58 2015

BNA4

Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422948.D

Vial: 12

Acq On : 30 Sep 2015 3:13 pm

Operator: KH

Sample : ICV-30

Inst : GC/MS BNA

Misc : QBSV4093015A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Oct 1 11:50 2015

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Thu Oct 01 11:47:42 2015

Response via : Initial Calibration

DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
28) 2,4-Dichlorophenol	9.42	162	4859418	28.24	ug/mL	99
29) 1,2,4-Trichlorobenzene	9.53	180	5507526	27.58	ug/mL	99
30) Naphthalene	9.62	128	14930773	28.71	ug/mL#	100
31) 4-Chloroaniline	9.72	127	6096435	31.51	ug/mL	98
33) Hexachlorobutadiene	9.84	225	3372966	27.97	ug/mL	100
35) 4-Chloro-3-methylphenol	10.35	107	4655635	28.04	ug/mL	98
36) 1-Methylnaphthalene	10.54	141	9347966	30.85	ug/mL	99
37) 2-Methylnaphthalene	10.54	142	10981744	30.17	ug/mL	99
40) Hexachlorocyclopentadiene	10.84	237	2933601	23.93	ug/mL	98
41) 2,4,6-Trichlorophenol	10.97	196	3301501	25.13	ug/mL	99
42) 2,4,5-Trichlorophenol	11.02	196	3652845	25.29	ug/mL	100
44) 2-Chloronaphthalene	11.21	162	9561167	23.65	ug/mL	97
46) 2-Nitroaniline	11.43	138	3829035	26.70	ug/mL	99
47) Dimethylphthalate	11.72	163	11568341	24.38	ug/mL	99
48) 2,6-Dinitrotoluene	11.82	165	3075943	25.94	ug/mL	98
49) Acenaphthylene	11.81	152	15562311	25.75	ug/mL	100
50) 3-Nitroaniline	12.03	138	3027234	27.85	ug/mL	99
51) Acenaphthene	12.08	154	8864185	26.80	ug/mL	99
52) 2,4-Dinitrophenol	12.17	184	1795293	29.84	ug/mL#	95
53) Dibenzofuran	12.30	168	12576991	24.11	ug/mL	99
54) 2,4-Dinitrotoluene	12.38	165	3770453	25.42	ug/mL	100
55) 4-Nitrophenol	12.25	65	1861733	23.53	ug/mL	96
56) 2,3,4,6-Tetrachlorophenol	12.47	131	1247239	21.94	ug/mL	87
57) Diethyl phthalate	12.70	149	11616746	23.63	ug/mL	99
58) Fluorene	12.79	166	11356224	27.56	ug/mL	99
59) 4-Chlorophenyl phenylether	12.78	204	5970424	26.17	ug/mL	99
60) 4-Nitroaniline	12.90	138	1736854m	17.07	ug/mL	
62) 4,6-Dinitro-2-methylphenol	12.96	198	2504103	26.51	ug/mL	99
63) Diphenylamine	12.97	169	9075843	29.51	ug/mL	100
64) N-Nitrosodiphenylamine	12.97	167	3175511	30.18	ug/mL	99
65) Azobenzene	13.00	77	12861190	26.39	ug/mL	99
67) 4-Bromophenyl phenylether	13.47	248	3585388	25.49	ug/mL	100
68) Hexachlorobenzene	13.69	142	1508468	24.72	ug/mL	99
70) Pentachlorophenol	13.95	266	2731666	26.37	ug/mL	100
71) Pentachloronitrobenzene	14.08	237	1497476	31.37	ug/mL	99
72) Phenanthrene	14.17	178	14216428	28.72	ug/mL#	99
73) Anthracene	14.23	178	14277115	26.75	ug/mL#	100
74) Carbazole	14.47	167	11275770	22.47	ug/mL#	96
75) Di-n-butyl phthalate	15.01	149	20566914	25.21	ug/mL	100
76) Fluoranthene	16.21	202	16320156	27.58	ug/mL	100
79) Pyrene	16.21	202	16254840	26.20	ug/mL	99

(H) = qualifier out of range (m) = manual integration

E422948.D BNA4M049.M

Thu Oct 01 11:53:58 2015

BNA4

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\093015\E422948.D
 Acq On : 30 Sep 2015 3:13 pm
 Sample : ICV-30
 Misc : QBSV4093015A
 MS Integration Params: EVENTS.E
 Quant Time: Oct 1 11:50 2015

Vial: 12
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M049.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Thu Oct 01 11:47:42 2015
 Response via : Initial Calibration
 DataAcq Meth : BNA4M048

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81) Benzyl butyl phthalate	17.17	149	9617045	23.98	ug/mL	99
82) Bis(2-ethylhexyl) phthalat	17.99	149	14679583	26.13	ug/mL	99
83) Benz (a) anthracene	17.94	228	15225213	23.98	ug/mL	99
85) Chrysene	18.01	228	15442813	26.72	ug/mL#	99
86) Di-n-octyl phthalate	18.82	149	21545629	26.56	ug/mL	99
87) Benzo(b)fluoranthene	19.43	252	15094463	25.96	ug/mL	100
88) Benzo(k)fluoranthene	19.47	252	15216878	24.91	ug/mL	100
89) Benzo(a)pyrene	19.90	252	13971933	27.12	ug/mL	99
91) Indeno(1,2,3-cd)pyrene	21.77	276	13838713	28.42	ug/mL#	99
92) Dibenzo(a,h)anthracene	21.78	278	11548432	29.16	ug/mL	98
93) Benzo(g,h,i)perylene	22.29	276	10401841	29.03	ug/mL	99

(#) = qualifier out of range (m) = manual integration
 E422948.D BNA4M049.M Thu Oct 01 11:53:58 2015

BNA4

Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\093015\E422948.D
Acq On : 30 Sep 2015 3:13 pm
Sample : ICV-30
Misc : QBSV4093015A
MS Integration Params: EVENTS.E
Quant Time: Oct 1 11:50 2015

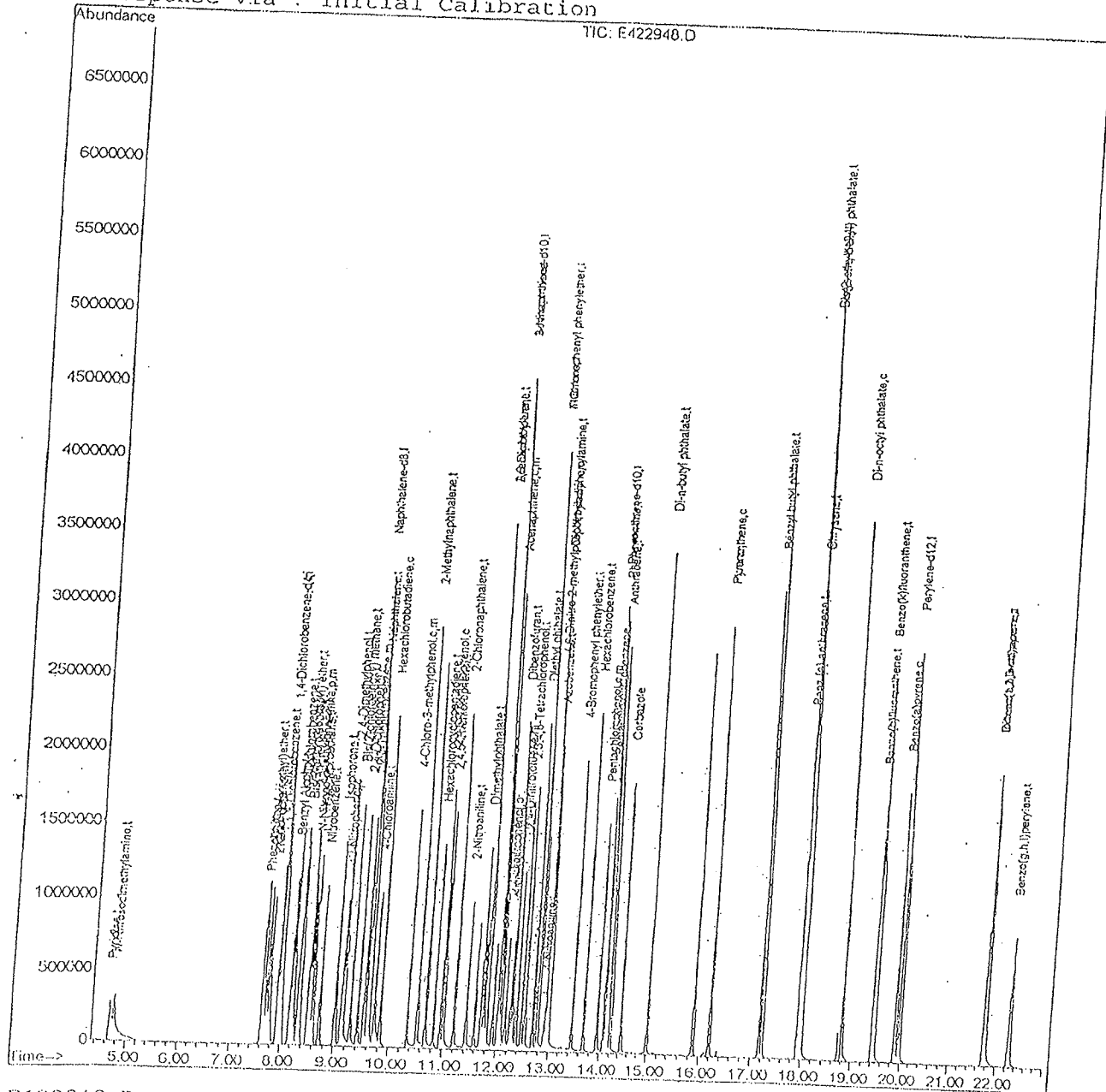
Vial: 12
Operator: KH
Inst: GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M049.RE

```

Method       : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)
Title        : GC MS BNA 4 Semi Volatiles Calibration
Last Update  : Thu Oct 01 11:47:42 2015
Response via : Initial Calibration

```



E422948.D BNA.4M049.M

Thu Oct 01 11:53:58 2015

BNA 1

Page 4

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616\E401232.D
 Acq On : 16 Mar 2016 9:09 am
 Sample : SEQ-CCV1
 Misc : QBSV4031616A Y16C105
 MS Integration Params: EVENTS.E

Vial: 2
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1 i	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	-0.01
2 t	N-Nitrosodimethylamine	1.035	1.121	-8.3	96	-0.03
3 t	Pyridine	1.461	1.624	-11.2	96	-0.02
4 s	2-Fluorophenol	1.336	2.158	-61.5#	124	-0.17
5 s	Phenol-d5	1.599	2.648	-65.6#	131	-0.12
6 t	Benzaldehyde	1.158	1.024	11.6	110	0.00
7 t	Aniline	1.752	1.928	-10.0	103	-0.02
8 c,m	Phenol	2.110	2.333	-10.6#	107	-0.13
9 t	Bis(2-chloroethyl)ether	1.974	2.345	-18.8	114	0.00
10 m	2-Chlorophenol	1.692	1.627	3.8	98	-0.06
11 t	1,3-Dichlorobenzene	1.655	1.438	13.1	96	-0.01
12 c,m	1,4-Dichlorobenzene	2.028	1.871	7.7#	100	-0.01
13 t	Benzyl Alcohol	1.001	1.068	-6.7	102	-0.02
14 t	1,2-Dichlorobenzene	1.743	1.565	10.2	98	0.00
15 t	2-Methylphenol	1.341	1.430	-6.6	105	-0.08
16 t	Bis(2-chloroisopropyl) ethe	1.881	2.879	-33.1#	126	0.00
17 p,m	N-Nitroso-di-n-propylamine	1.194	1.442	-20.8	114	-0.01
18 t	4-Methylphenol	1.819	1.921	-5.6	106	-0.07
19 t	Hexachloroethane	0.788	0.736	6.6	104	-0.01
20 I	Naphthalene-d8	1.000	1.000	0.0	105	-0.02
21 s	Nitrobenzene-d5	0.348	0.745	-114.1#	203#	0.00
22 t	Nitrobenzene	0.405	0.372	8.1	106	0.00
23 t	Isophorone	0.871	0.863	0.9	109	0.00
24 c	2-Nitrophenol	0.235	0.201	14.5#	97	0.00
25 t	2,4-Dimethylphenol	0.340	0.315	7.4	100	-0.06
26 t	Bis(2-chloroethoxy) methane	0.469	0.478	-1.9	114	-0.02
27 t	Benzoic acid	0.183	0.185	-1.1	82	-0.07
28 c	2,4-Dichlorophenol	0.317	0.250	21.1#	93	-0.08
29 m	1,2,4-Trichlorobenzene	0.368	0.283	26.1	95	-0.02
30 t	Naphthalene	0.971	0.915	5.8	102	-0.02
31 t	4-Chloroaniline	0.355	0.349	1.7	102	-0.02
32 c	Acetophenone	0.481	0.499	-3.7#	102	0.00
33 c	Hexachlorobutadiene	0.222	0.164	26.1#	86	-0.02
34 t	Caprolactam	0.110	0.128	-16.4	108	-0.01
35 c,m	4-Chloro-3-methylphenol	0.315	0.238	24.4#	72	-0.10
36 t	1-Methylnaphthalene	0.571	0.591	-3.5	107	-0.02
37 t	2-Methylnaphthalene	0.679	0.624	8.1	101	-0.02
38 I	Acenaphthene-d10	1.000	1.000	0.0	94	-0.02
39	1,2,4,5-tetrachlorobenzene	0.605	0.562	7.1	86	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616\E401232.D
 Acq On : 16 Mar 2016 9:09 am
 Sample : SEQ-CCV1
 Misc : QBSV4031616A Y16C105
 MS Integration Params: EVENTS.E

Vial: 2
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40 t	Hexachlorocyclopentadiene	0.336	0.118	64.9#	70	-0.02
41 c	2,4,6-Trichlorophenol	0.398	0.361	9.3#	88	-0.04
42 t	2,4,5-Trichlorophenol	0.438	0.387	11.6	86	-0.10
43 s	2-Fluorobiphenyl	1.089	1.721	58.0#	189	-0.02
44 t	2-Chloronaphthalene	1.212	1.087	10.3	96	-0.02
45 c	Biphenyl	0.586	0.610	-4.1#	99	-0.02
46 t	2-Nitroaniline	0.439	0.451	-2.7	95	-0.02
47 t	Dimethylphthalate	1.459	1.439	1.4	96	-0.02
48 t	2,6-Dinitrotoluene	0.357	0.370	-3.6	101	-0.02
49 t	Acenaphthylene	1.837	1.907	-3.8	103	-0.02
50 t	3-Nitroaniline	0.324	0.307	5.2	97	-0.02
51 c,m	Acenaphthene	1.010	1.065	-5.4#	102	-0.03
52 p	2,4-Dinitrophenol	0.178	0.169	5.1	85	-0.02
53 t	Dibenzofuran	1.593	1.560	2.1	97	-0.02
54 m	2,4-Dinitrotoluene	0.454	0.438	3.5	90	-0.01
55 p,m	4-Nitrophenol	0.241	0.203	15.8	77	-0.21
56 t	2,3,4,6-Tetrachlorophenol	0.172	0.159	7.6	90	-0.05
57 t	Diethyl phthalate	1.506	1.521	-1.0	99	-0.03
58 t	Fluorene	1.250	1.237	1.0	97	-0.02
59 t	4-Chlorophenyl phenylether	0.689	0.647	6.1	92	-0.03
60 t	4-Nitroaniline	0.313	0.278	11.2	89	-0.03
61 I	Phenanthrene-d10	1.000	1.000	0.0	86	-0.03
62 t	4,6-Dinitro-2-methylphenol	0.186	0.192	-3.2	95	-0.02
63 c	Diphenylamine	0.612	0.614	-0.3#	98	-0.03
64 t	N-Nitrosodiphenylamine	0.210	0.214	-1.9	99	-0.03
65 t	Azobenzene	0.983	1.187	20.8	111	-0.02
66 s	2,4,6-Tribromophenol	0.195	0.299	53.3#	93	-0.04
67 t	4-Bromophenyl phenylether	0.284	0.265	6.7	82	-0.03
68 t	Hexachlorobenzene	0.121	0.116	4.1	96	-0.02
69 t	Atrazine	0.226	0.244	-8.0	85	-0.03
70 c,m	Pentachlorophenol	0.204	0.166	18.6#	78	-0.05
71	Pentachloronitrobenzene	0.099	0.097	2.0	80	-0.03
72 t	Phenanthrene	1.000	1.008	-0.8	92	-0.03
73 t	Anthracene	1.082	1.118	-3.3	93	-0.03
74	Carbazole	1.018	0.912	10.4	91	-0.04
75 t	Di-n-butyl phthalate	1.646	1.718	-4.4	99	-0.03
76 c	Fluoranthene	1.207	1.216	-0.7#	87	-0.36
77 t	Benzidine	0.231	0.183	20.8	75	-0.02
78 I	Chrysene-d12	1.000	1.000	0.0	83	-0.03

(#) = Out of Range

E401232.D BNA4M49A.M

Wed Mar 16 12:04:39 2016

BNA4

Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616\E401232.D

Vial: 2

Acq On : 16 Mar 2016 9:09 am

Operator: KH

Sample : SEQ-CCV1

Inst : GC/MS BNA

Misc : QBSV4031616A Y16C105

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79 m	Pyrene	1.165	1.201	-3.1	87	-0.03
80 s	Terphenyl-d14	0.596	1.287	-115.9#	202#	-0.03
81 t	Benzyl butyl phthalate	0.741	0.829	-11.9	101	-0.04
82 t	Bis(2-ethylhexyl) phthalate	1.024	1.211	-18.3	122	-0.04
83 t	Benz (a) anthracene	1.178	1.317	-11.8	100	-0.03
84 t	3,3-Dichlorobenzidine	0.345	0.406	-17.7	92	-0.04
85 t	Chrysene	1.080	1.069	1.0	85	-0.03
86 c	Di-n-octyl phthalate	1.504	1.688	-12.2#	95	-0.04
87 t	Benzo(b)fluoranthene	1.076	0.968	10.0	77	-0.03
88 t	Benzo(k)fluoranthene	1.170	1.084	7.4	77	-0.04
89 c	Benzo(a)pyrene	0.973	0.985	-1.2#	81	-0.04
90 I	Perylene-d12	1.000	1.000	0.0	82	-0.04
91 t	Indeno(1,2,3-cd)pyrene	1.021	0.836	18.1	68	-0.06
92 t	Dibenz(a,h)anthracene	0.831	0.705	15.2	68	-0.06
93 t	Benzo(g,h,i)perylene	0.750	0.617	17.7	72	-0.04

(#) = Out of Range

SPCC's out = 0 CCC's out = 15

E401232.D BNA4M49A.M

Wed Mar 16 12:04:39 2016

BNA4

Page 3

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616\E401232.D

Vial: 2

Acq On : 16 Mar 2016 9:09 am

Operator: KH

Sample : SEQ-CCV1

Inst : GC/MS BNA

Misc : QBSV4031616A Y16C105

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 12:04 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.94	152	4603558	40.00	ug/mL	-0.01
20) Naphthalene-d8	10.57	136	20974136	40.00	ug/mL	-0.02
38) Acenaphthene-d10	12.98	164	10253094	40.00	ug/mL	-0.02
61) Phenanthrene-d10	15.07	188	15869830	40.00	ug/mL	-0.03
78) Chrysene-d12	18.85	240	16159324	40.00	ug/mL	-0.03
90) Perylene-d12	20.94	264	13037807	40.00	ug/mL	-0.04

System Monitoring Compounds

4) 2-Fluorophenol	7.47	112	5588222	36.35	ug/mL	-0.17
Spiked Amount	75.000	Range	15 - 87	Recovery	=	48.47%
5) Phenol-d5	8.60	99	6857467	37.25	ug/mL	-0.12
Spiked Amount	75.000	Range	10 - 100	Recovery	=	49.67%
21) Nitrobenzene-d5	9.69	82	5860037	32.13	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	64.26%
43) 2-Fluorobiphenyl	12.02	172	9927784	35.56	ug/mL	-0.02
Spiked Amount	50.000	Range	29 - 120	Recovery	=	71.12%
66) 2,4,6-Tribromophenol	14.12	330	1782105	23.01	ug/mL	-0.04
Spiked Amount	75.000	Range	35 - 126	Recovery	=	30.68%#
80) Terphenyl-d14	17.31	244	11698378	48.61	ug/mL	-0.03
Spiked Amount	50.000	Range	35 - 127	Recovery	=	97.22%

Target Compounds

Qvalue

2) N-Nitrosodimethylamine	5.67	74	3870901m	32.48	ug/mL	
3) Pyridine	5.60	79	5606898m	33.36	ug/mL	
6) Benzaldehyde	8.46	105	3536663	26.53	ug/mL#	100
7) Aniline	8.62	93	6656099	33.01	ug/mL	92
8) Phenol	8.61	94	8056115	33.17	ug/mL	96
9) Bis(2-chloroethyl)ether	8.67	93	8097582	35.65	ug/mL	96
10) 2-Chlorophenol	8.75	128	5618638	28.86	ug/mL#	93
11) 1,3-Dichlorobenzene	8.90	146	4965341	26.07	ug/mL	96
12) 1,4-Dichlorobenzene	8.96	146	6458305	27.66	ug/mL	96
13) Benzyl Alcohol	9.16	108	3688953	32.03	ug/mL	98
14) 1,2-Dichlorobenzene	9.20	146	5404641	26.94	ug/mL	97
15) 2-Methylphenol	9.32	107	4935686	31.98	ug/mL	98
16) Bis(2-chloroisopropyl) eth	9.32	45	9939705	45.91	ug/mL#	78
17) N-Nitroso-di-n-propylamine	9.51	70	4977901	36.24	ug/mL#	73
18) 4-Methylphenol	9.50	107	6633789	31.68	ug/mL	92
19) Hexachloroethane	9.57	117	2540376	28.02	ug/mL	90
22) Nitrobenzene	9.71	77	5849151	27.52	ug/mL	94
23) Isophorone	10.00	82	13574890	29.72	ug/mL	96
24) 2-Nitrophenol	10.11	139	3166104	25.69	ug/mL#	78
25) 2,4-Dimethylphenol	10.15	122	4957534	27.80	ug/mL	93

(#)=qualifier out of range (m)=manual integration

E401232.D BNA4M49A.M

Wed Mar 16 12:04:37 2016

BNA4

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616\E401232.D
 Acq On : 16 Mar 2016 9:09 am
 Sample : SEQ-CCV1
 Misc : QBSV4031616A Y16C105
 MS Integration Params: EVENTS.E
 Quant Time: Mar 16 12:04 2016

Vial: 2
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Initial Calibration
 DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	10.25	93	7526786	30.60	ug/mL	96
27) Benzoic acid	10.38	105	2915707m	30.31	ug/mL	
28) 2,4-Dichlorophenol	10.42	162	3939747m	23.70	ug/mL	
29) 1,2,4-Trichlorobenzene	10.51	180	4448461m	23.05	ug/mL	
30) Naphthalene	10.60	128	14397756	28.29	ug/mL#	99
31) 4-Chloroaniline	10.71	127	5487338	29.51	ug/mL	95
32) Acetophenone	9.49	105	7844378	31.11	ug/mL#	99
33) Hexachlorobutadiene	10.80	225	2581932m	22.21	ug/mL	
34) Caprolactam	11.23	113	2018247m	35.04	ug/mL	
35) 4-Chloro-3-methylphenol	11.36	107	3740102	22.65	ug/mL	87
36) 1-Methylnaphthalene	11.66	141	9297206	31.04	ug/mL	97
37) 2-Methylnaphthalene	11.51	142	9822189	27.58	ug/mL	97
39) 1,2,4,5-tetrachlorobenzene	11.80	216	4318272	27.86	ug/mL#	98
40) Hexachlorocyclopentadiene	11.80	237	906222	10.52	ug/mL	99
41) 2,4,6-Trichlorophenol	11.95	196	2776619	27.24	ug/mL	95
42) 2,4,5-Trichlorophenol	12.05	196	2979668	26.51	ug/mL	97
44) 2-Chloronaphthalene	12.19	162	8362609	26.91	ug/mL	95
45) Biphenyl	12.15	153	4691694	31.23	ug/mL#	99
46) 2-Nitroaniline	12.42	138	3466445	30.83	ug/mL#	86
47) Dimethylphthalate	12.65	163	11067512	29.60	ug/mL	100
48) 2,6-Dinitrotoluene	12.78	165	2846268	31.07	ug/mL#	82
49) Acenaphthylene	12.77	152	14666582	31.14	ug/mL	98
50) 3-Nitroaniline	13.01	138	2357450	28.42	ug/mL#	81
51) Acenaphthene	13.03	154	8191763	31.64	ug/mL	99
52) 2,4-Dinitrophenol	13.15	184	1300294	28.50	ug/mL#	96
53) Dibenzofuran	13.25	168	11998452	29.38	ug/mL#	88
54) 2,4-Dinitrotoluene	13.34	165	3365292	28.91	ug/mL	93
55) 4-Nitrophenol	13.28	65	1557499m	25.20	ug/mL	
56) 2,3,4,6-Tetrachlorophenol	13.50	131	1220045	27.63	ug/mL	93
57) Diethyl phthalate	13.62	149	11697540	30.31	ug/mL	99
58) Fluorene	13.73	166	9513450	29.69	ug/mL	98
59) 4-Chlorophenyl phenylether	13.71	204	4973377	28.18	ug/mL	97
60) 4-Nitroaniline	13.89	138	2136383	26.64	ug/mL#	58
62) 4,6-Dinitro-2-methylphenol	13.91	198	2284674	30.97	ug/mL#	27
63) Diphenylamine	13.90	169	7302109	30.06	ug/mL	100
64) N-Nitrosodiphenylamine	13.90	167	2542583	30.52	ug/mL	100
65) Azobenzene	13.93	77	14122673	36.22	ug/mL#	88
67) 4-Bromophenyl phenylether	14.39	248	3148706	27.90	ug/mL#	91
68) Hexachlorobenzene	14.62	142	1379664	28.65	ug/mL	88
69) Atrazine	14.70	200	2904354	32.39	ug/mL#	99
70) Pentachlorophenol	14.90	266	1974037m	24.39	ug/mL	

(#) = qualifier out of range (m) = manual integration

E401232.D BNA4M49A.M

Wed Mar 16 12:04:37 2016

BNA4

Page 2

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616\E401232.D
Acq On : 16 Mar 2016 9:09 am
Sample : SEQ-CCV1
Misc : QBSV4031616A Y16C105
MS Integration Params: EVENTS.E
Quant Time: Mar 16 12:04 2016

Vial: 2
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
Title : GC MS BNA 4 Semi Volatiles Calibration
Last Update : Wed Feb 24 15:44:14 2016
Response via : Initial Calibration
DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	15.00	237	1150466	29.41	ug/mL	99
72) Phenanthrene	15.10	178	11991873	30.22	ug/mL#	99
73) Anthracene	15.16	178	13301676	30.98	ug/mL#	99
74) Carbazole	15.40	167	10859388m	26.90	ug/mL	
75) Di-n-butyl phthalate	15.89	149	20454199	31.32	ug/mL	99
76) Fluoranthene	16.79	202	14467729m	30.22	ug/mL	
77) Benzidine	17.00	184	2176741m	23.80	ug/mL	
79) Pyrene	17.12	202	14553135	30.92	ug/mL	99
81) Benzyl butyl phthalate	18.02	149	10041435	33.54	ug/mL	94
82) Bis(2-ethylhexyl) phthalat	18.81	149	14680883	35.48	ug/mL	98
83) Benz (a) anthracene	18.82	228	15963583	33.53	ug/mL	99
84) 3,3-Dichlorobenzidine	18.80	252	9845786	70.68	ug/mL	98
85) Chrysene	18.89	228	12953558	29.68	ug/mL#	98
86) Di-n-octyl phthalate	19.62	149	20456792	33.67	ug/mL	99
87) Benzo(b)fluoranthene	20.34	252	11732628	26.99	ug/mL#	97
88) Benzo(k)fluoranthene	20.38	252	13143029m	27.81	ug/mL	
89) Benzo(a)pyrene	20.85	252	11941545	30.38	ug/mL	96
91) Indeno(1,2,3-cd)pyrene	22.87	276	8173793m	24.55	ug/mL	
92) Dibenz(a,h)anthracene	22.87	278	6890790m	25.44	ug/mL	
93) Benzo(g,h,i)perylene	23.45	276	6032307m	24.68	ug/mL	

(#) = qualifier out of range (m) = manual integration
E401232.D BNA4M49A.M Wed Mar 16 12:04:37 2016

BNA4

Page 3

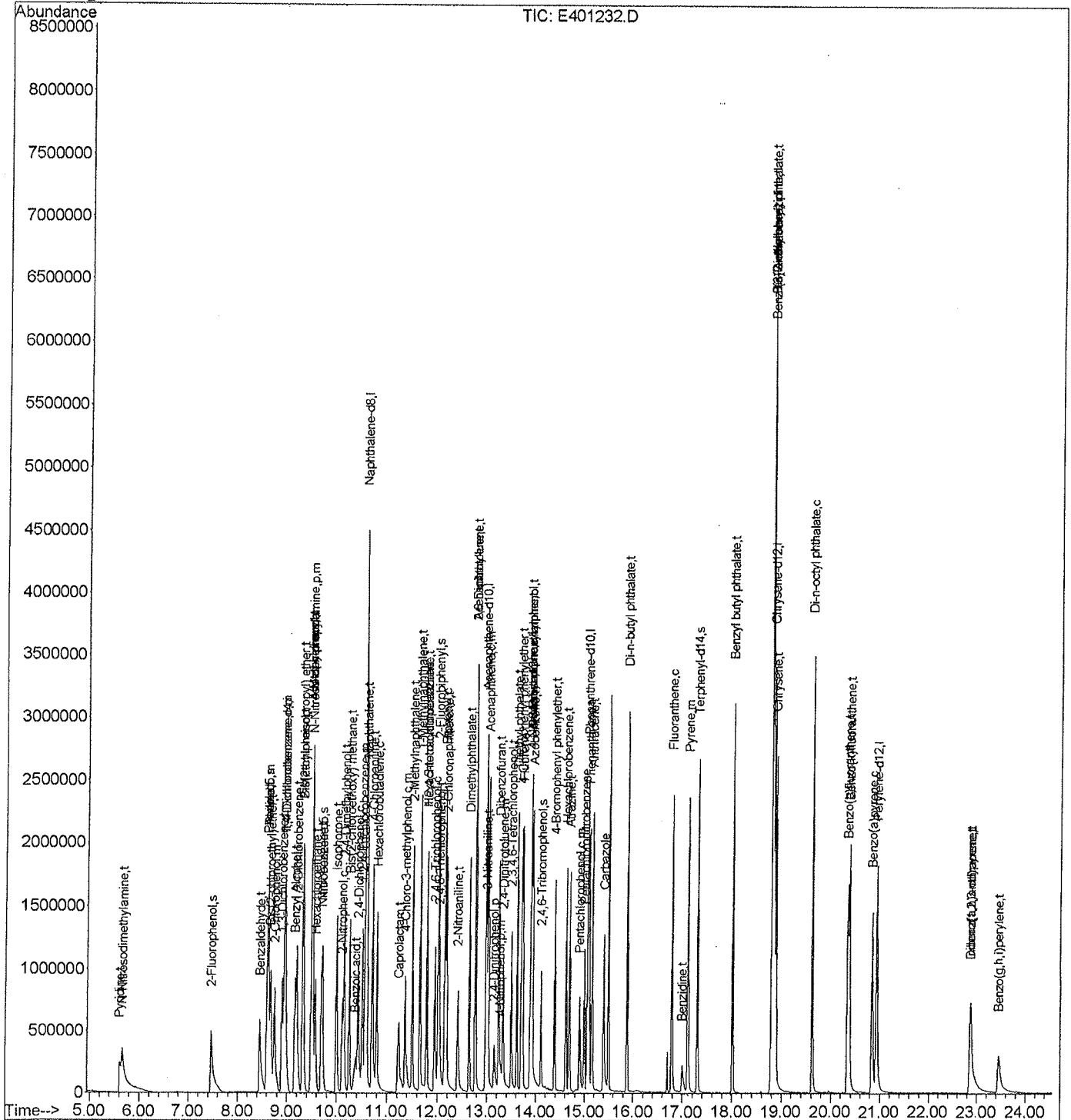
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031616\E401232.D
Acq On : 16 Mar 2016 9:09 am
Sample : SEQ-CCV1
Misc : QBSV4031616A Y16C105
MS Integration Params: EVENTS.E
Quant Time: Mar 16 12:04 2016

Vial: 2
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M49A.RES

```
Method      : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
Title       : GC MS BNA 4 Semi Volatiles Calibration
Last Update : Wed Feb 24 15:44:14 2016
Response via : Initial Calibration
```



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616\E401240.D
 Acq On : 16 Mar 2016 2:05 pm
 Sample : SEQ-CCV1
 Misc : QBSV4031616A
 MS Integration Params: EVENTS.E

Vial: 10
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Multiple Level Calibration

7

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00
2 t	N-Nitrosodimethylamine	1.035	1.227	-18.6	150	0.00
3 t	Pyridine	1.461	1.725	-18.1	145	0.00
4 s	2-Fluorophenol	1.336	2.155	-61.3#	177	-0.16
5 s	Phenol-d5	1.599	2.678	-67.5#	189	-0.11
6 t	Benzaldehyde	1.158	0.999	13.7	153	0.00
7 t	Aniline	1.752	1.947	-11.1	148	0.00
8 c,m	Phenol	2.110	2.348	-11.3#	153	-0.12
9 t	Bis(2-chloroethyl) ether	1.974	2.301	-16.6	160	0.00
10 m	2-Chlorophenol	1.692	1.612	4.7	139	-0.06
11 t	1,3-Dichlorobenzene	1.655	1.430	13.6	136	0.00
12 c,m	1,4-Dichlorobenzene	2.028	1.836	9.5#	141	0.00
13 t	Benzyl Alcohol	1.001	1.087	-8.6	148	-0.01
14 t	1,2-Dichlorobenzene	1.743	1.546	11.3	138	0.00
15 t	2-Methylphenol	1.341	1.416	-5.6	148	-0.07
16 t	Bis(2-chloroisopropyl) ethe	1.881	2.745	-45.9#	172	0.00
17 p,m	N-Nitroso-di-n-propylamine	1.194	1.408	-17.9	159	0.00
18 t	4-Methylphenol	1.819	1.979	-8.8	156	-0.06
19 t	Hexachloroethane	0.788	0.723	8.2	146	0.00
20 I	Naphthalene-d8	1.000	1.000	0.0	150	0.00
21 s	Nitrobenzene-d5	0.348	0.738	-112.1#	288#	0.00
22 t	Nitrobenzene	0.405	0.365	9.9	149	0.00
23 t	Isophorone	0.871	0.817	6.2	148	0.00
24 c	2-Nitrophenol	0.235	0.204	13.2#	142	0.00
25 t	2,4-Dimethylphenol	0.340	0.306	10.0	139	-0.05
26 t	Bis(2-chloroethoxy) methane	0.469	0.456	2.8	156	0.00
27 t	Benzoic acid	0.183	0.209	-14.2	133	-0.03
28 c	2,4-Dichlorophenol	0.317	0.253	20.2#	134	-0.07
29 m	1,2,4-Trichlorobenzene	0.368	0.277	24.7	133	0.00
30 t	Naphthalene	0.971	0.879	9.5	141	0.00
31 t	4-Chloroaniline	0.355	0.378	-6.5	159	0.00
32 c	Acetophenone	0.481	0.492	-2.3#	144	0.00
33 c	Hexachlorobutadiene	0.222	0.157	29.3#	118	-0.01
34 t	Caprolactam	0.110	0.127	-15.5	153	0.02
35 c,m	4-Chloro-3-methylphenol	0.315	0.292	7.3#	127	-0.09
36 t	1-Methylnaphthalene	0.571	0.568	0.5	147	0.00
37 t	2-Methylnaphthalene	0.679	0.604	11.0	140	0.00
38 I	Acenaphthene-d10	1.000	1.000	0.0	138	-0.01
39	1,2,4,5-tetrachlorobenzene	0.605	0.569	6.0	128	0.00

(#) = Out of Range

E401240.D BNA4M49A.M

Wed Mar 16 15:20:50 2016

BNA4

Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616\E401240.D
 Acq On : 16 Mar 2016 2:05 pm
 Sample : SEQ-CCV1
 Misc : QBSV4031616A
 MS Integration Params: EVENTS.E

Vial: 10
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40 t	Hexachlorocyclopentadiene	0.336	0.168	50.0#	147	-0.01
41 c	2,4,6-Trichlorophenol	0.398	0.353	11.3#	126	-0.03
42 t	2,4,5-Trichlorophenol	0.438	0.408	6.8	132	-0.11
43 s	2-Fluorobiphenyl	1.089	1.728	-58.7#	279#	0.00
44 t	2-Chloronaphthalene	1.212	1.060	12.5	137	0.00
45 c	Biphenyl	0.586	0.576	1.7#	137	0.00
46 t	2-Nitroaniline	0.439	0.458	-4.3	142	-0.01
47 t	Dimethylphthalate	1.459	1.345	7.8	132	0.00
48 t	2,6-Dinitrotoluene	0.357	0.376	-5.3	151	-0.01
49 t	Acenaphthylene	1.837	1.849	-0.7	146	-0.01
50 t	3-Nitroaniline	0.324	0.333	-2.8	155	-0.01
51 c,m	Acenaphthene	1.010	1.010	0.0	142	-0.01
52 p	2,4-Dinitrophenol	0.178	0.188	-5.6	138	0.00
53 t	Dibenzofuran	1.593	1.490	6.5	135	-0.01
54 m	2,4-Dinitrotoluene	0.454	0.430	5.3	130	0.00
55 p,m	4-Nitrophenol	0.241	0.254	-5.4	143	-0.20
56 t	2,3,4,6-Tetrachlorophenol	0.172	0.160	7.0	133	-0.04
57 t	Diethyl phthalate	1.506	1.418	5.8	135	-0.01
58 t	Fluorene	1.250	1.191	4.7	138	-0.01
59 t	4-Chlorophenyl phenylether	0.689	0.629	8.7	131	-0.01
60 t	4-Nitroaniline	0.313	0.293	6.4	138	-0.01
61 I	Phenanthrene-d10	1.000	1.000	0.0	122	-0.01
62 t	4,6-Dinitro-2-methylphenol	0.186	0.211	-13.4	149	0.00
63 c	Diphenylamine	0.612	0.623	-1.8#	142	-0.02
64 t	N-Nitrosodiphenylamine	0.210	0.211	-0.5	139	-0.02
65 t	Azobenzene	0.983	1.161	-18.1	155	-0.01
66 s	2,4,6-Tribromophenol	0.195	0.314	-61.0#	138	-0.02
67 t	4-Bromophenyl phenylether	0.284	0.266	6.3	118	-0.02
68 t	Hexachlorobenzene	0.121	0.117	3.3	138	-0.01
69 t	Atrazine	0.226	0.237	-4.9	117	-0.01
70 c,m	Pentachlorophenol	0.204	0.177	13.2#	118	-0.04
71	Pentachloronitrobenzene	0.099	0.096	3.0	114	0.00
72 t	Phenanthrene	1.000	1.016	-1.6	132	-0.01
73 t	Anthracene	1.082	1.104	-2.0	131	-0.01
74	Carbazole	1.018	0.875	14.0	125	-0.02
75 t	Di-n-butyl phthalate	1.646	1.682	-2.2	138	-0.02
76 c	Fluoranthene	1.207	1.233	-2.2#	126	-0.35
77 t	Benzidine	0.231	0.182	21.2	107	-0.01
78 I	Chrysene-d12	1.000	1.000	0.0	126	-0.02

(#) = Out of Range
 E401240.D BNA4M49A.M

Wed Mar 16 15:20:50 2016

BNA4

Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031616\E401240.D

Vial: 10

Acq On : 16 Mar 2016 2:05 pm

Operator: KH

Sample : SEQ-CCV1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Multiple Level Calibration

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

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
79 m	Pyrene	1.165	1.160	0.4	127	-0.02
80 s	Terphenyl-d14	0.596	1.324	-122.1#	315#	-0.02
81 t	Benzyl butyl phthalate	0.741	0.828	-11.7	153	-0.02
82 t	Bis(2-ethylhexyl) phthalate	1.024	0.945	7.7	143	-0.03
83 t	Benz (a) anthracene	1.178	1.214	-3.1	139	-0.01
84 t	3,3-Dichlorobenzidine	0.345	0.404	-17.1	138	-0.03
85 t	Chrysene	1.080	1.105	-2.3	133	-0.01
86 c	Di-n-octyl phthalate	1.504	1.751	-16.4#	149	-0.03
87 t	Benzo(b)fluoranthene	1.076	0.949	11.8	115	-0.01
88 t	Benzo(k)fluoranthene	1.170	1.135	3.0	121	-0.02
89 c	Benzo(a)pyrene	0.973	0.909	6.6#	112	-0.02
90 I	Perylene-d12	1.000	1.000	0.0	128	-0.02
91 t	Indeno(1,2,3-cd)pyrene	1.021	0.789	22.7	100	-0.03
92 t	Dibenz(a,h)anthracene	0.831	0.700	15.8	105	-0.04
93 t	Benzo(g,h,i)perylene	0.750	0.536	28.9	98	-0.03

(#) = Out of Range

SPCC's out = 0 CCC's out = 14

E401240.D BNA4M49A.M

Wed Mar 16 15:20:50 2016

BNA4

Page 3

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616\E401240.D
 Acq On : 16 Mar 2016 2:05 pm
 Sample : SEQ-CCV1
 Misc : QBSV4031616A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 16 15:20 2016

Vial: 10
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Initial Calibration
 DataAcq Meth : BNA4M49A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.95	152	6567972	40.00	ug/mL	0.00
20) Naphthalene-d8	10.58	136	30073102	40.00	ug/mL	0.00
38) Acenaphthene-d10	13.00	164	15051815	40.00	ug/mL	-0.01
61) Phenanthrene-d10	15.08	188	22606290	40.00	ug/mL	-0.01
78) Chrysene-d12	18.87	240	24427684	40.00	ug/mL	-0.02
90) Perylene-d12	20.96	264	20461448	40.00	ug/mL	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	7.47	112	7960910	36.30	ug/mL	-0.16
Spiked Amount	75.000	Range	15 - 87	Recovery	=	48.40%
5) Phenol-d5	8.61	99	9894925	37.68	ug/mL	-0.11
Spiked Amount	75.000	Range	10 - 100	Recovery	=	50.24%
21) Nitrobenzene-d5	9.70	82	8319290	31.81	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	63.62%
43) 2-Fluorobiphenyl	12.04	172	14629280	35.70	ug/mL	0.00
Spiked Amount	50.000	Range	29 - 120	Recovery	=	71.40%
66) 2,4,6-Tribromophenol	14.13	330	2658636	24.09	ug/mL	-0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	32.12%#
80) Terphenyl-d14	17.32	244	18191000	50.00	ug/mL	-0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	100.00%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	5.69	74	6045036	35.56	ug/mL	92
3) Pyridine	5.62	79	8494889m	35.42	ug/mL	
6) Benzaldehyde	8.46	105	4918743	25.86	ug/mL#	98
7) Aniline	8.63	93	9589286	33.33	ug/mL	92
8) Phenol	8.62	94	11565780	33.38	ug/mL	97
9) Bis(2-chloroethyl)ether	8.68	93	11332449	34.97	ug/mL	96
10) 2-Chlorophenol	8.76	128	7938545	28.58	ug/mL#	94
11) 1,3-Dichlorobenzene	8.91	146	7045321	25.93	ug/mL	96
12) 1,4-Dichlorobenzene	8.97	146	9041769	27.15	ug/mL	96
13) Benzyl Alcohol	9.17	108	5353517	32.58	ug/mL	99
14) 1,2-Dichlorobenzene	9.21	146	7614211	26.61	ug/mL	97
15) 2-Methylphenol	9.33	107	6973193	31.66	ug/mL	99
16) Bis(2-chloroisopropyl) eth	9.33	45	13523244	43.78	ug/mL#	79
17) N-Nitroso-di-n-propylamine	9.53	70	6936992	35.40	ug/mL#	75
18) 4-Methylphenol	9.51	107	9750151	32.64	ug/mL	95
19) Hexachloroethane	9.58	117	3563883	27.56	ug/mL	91
22) Nitrobenzene	9.72	77	8231898	27.01	ug/mL	94
23) Isophorone	10.01	82	18432818	28.14	ug/mL#	96
24) 2-Nitrophenol	10.12	139	4605041	26.06	ug/mL#	89
25) 2,4-Dimethylphenol	10.16	122	6893448	26.96	ug/mL	93

(#) = qualifier out of range (m) = manual integration

E401240.D BNA4M49A.M

Wed Mar 16 15:20:48 2016

BNA4

Page 1

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616\E401240.D

Vial: 10

Acq On : 16 Mar 2016 2:05 pm

Operator: KH

Sample : SEQ-CCV1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 15:20 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	10.26	93	10290816	29.18	ug/mL	95
27) Benzoic acid	10.42	105	4710303m	34.15	ug/mL	
28) 2,4-Dichlorophenol	10.43	162	5699117m	23.91	ug/mL	
29) 1,2,4-Trichlorobenzene	10.52	180	6236419m	22.54	ug/mL	
30) Naphthalene	10.61	128	19815338	27.15	ug/mL#	100
31) 4-Chloroaniline	10.72	127	8535473	32.02	ug/mL	95
32) Acetophenone	9.50	105	11089268	30.67	ug/mL#	98
33) Hexachlorobutadiene	10.81	225	3548330	21.29	ug/mL	100
34) Caprolactam	11.26	113	2862824m	34.67	ug/mL	
35) 4-Chloro-3-methylphenol	11.37	107	6576537m	27.78	ug/mL	
36) 1-Methylnaphthalene	11.67	141	12809424	29.83	ug/mL	97
37) 2-Methylnaphthalene	11.52	142	13625025	26.68	ug/mL	97
39) 1,2,4,5-tetrachlorobenzene	11.80	216	6428204	28.25	ug/mL	98
40) Hexachlorocyclopentadiene	11.81	237	1896826	15.00	ug/mL	99
41) 2,4,6-Trichlorophenol	11.96	196	3989519	26.66	ug/mL	96
42) 2,4,5-Trichlorophenol	12.04	196	4608488	27.93	ug/mL	97
44) 2-Chloronaphthalene	12.20	162	11965209	26.23	ug/mL	96
45) Biphenyl	12.16	153	6503297	29.49	ug/mL#	100
46) 2-Nitroaniline	12.43	138	5165287	31.29	ug/mL	87
47) Dimethylphthalate	12.66	163	15181455	27.66	ug/mL	100
48) 2,6-Dinitrotoluene	12.78	165	4248946m	31.59	ug/mL	
49) Acenaphthylene	12.78	152	20869986	30.19	ug/mL	99
50) 3-Nitroaniline	13.02	138	3762476	30.89	ug/mL#	85
51) Acenaphthene	13.04	154	11404848	30.01	ug/mL	99
52) 2,4-Dinitrophenol	13.16	184	2124440	31.72	ug/mL	96
53) Dibenzofuran	13.26	168	16821410	28.05	ug/mL#	84
54) 2,4-Dinitrotoluene	13.35	165	4858007	28.43	ug/mL	94
55) 4-Nitrophenol	13.28	65	2866939m	31.60	ug/mL	
56) 2,3,4,6-Tetrachlorophenol	13.51	131	1808293	27.89	ug/mL#	92
57) Diethyl phthalate	13.63	149	16011912	28.26	ug/mL	99
58) Fluorene	13.75	166	13440378	28.57	ug/mL	98
59) 4-Chlorophenyl phenylether	13.72	204	7101712	27.41	ug/mL	97
60) 4-Nitroaniline	13.90	138	3302069	28.04	ug/mL#	59
62) 4,6-Dinitro-2-methylphenol	13.93	198	3581996	34.09	ug/mL#	33
63) Diphenylamine	13.91	169	10557581	30.51	ug/mL	99
64) N-Nitrosodiphenylamine	13.91	167	3581508	30.18	ug/mL	97
65) Azobenzene	13.95	77	19686395	35.44	ug/mL#	76
67) 4-Bromophenyl phenylether	14.40	248	4502142	28.00	ug/mL#	56
68) Hexachlorobenzene	14.63	142	1984845	28.94	ug/mL	88
69) Atrazine	14.71	200	4011491	31.40	ug/mL#	98
70) Pentachlorophenol	14.91	266	2996600m	25.99	ug/mL	

(#)=qualifier out of range (m)=manual integration

E401240.D BNA4M49A.M

Wed Mar 16 15:20:48 2016

BNA4

Page 2

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031616\E401240.D

Vial: 10

Acq On : 16 Mar 2016 2:05 pm

Operator: KH

Sample : SEQ-CCV1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 15:20 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	15.01	237	1629612	29.25	ug/mL	99
72) Phenanthrene	15.11	178	17226668	30.48	ug/mL#	100
73) Anthracene	15.17	178	18710660	30.59	ug/mL#	99
74) Carbazole	15.42	167	14840906m	25.80	ug/mL	
75) Di-n-butyl phthalate	15.90	149	28510386	30.65	ug/mL	99
76) Fluoranthene	16.80	202	20912575m	30.67	ug/mL	
77) Benzidine	17.01	184	3087250	23.70	ug/mL#	95
79) Pyrene	17.13	202	21259763	29.88	ug/mL	99
81) Benzyl butyl phthalate	18.03	149	15169387	33.52	ug/mL	95
82) Bis(2-ethylhexyl) phthalat	18.82	149	17304941	27.67	ug/mL	98
83) Benz (a) anthracene	18.83	228	22249671	30.92	ug/mL	99
84) 3,3-Dichlorobenzidine	18.81	252	14793279	70.25	ug/mL	100
85) Chrysene	18.91	228	20247734	30.69	ug/mL#	100
86) Di-n-octyl phthalate	19.63	149	32081973	34.93	ug/mL	99
87) Benzo(b)fluoranthene	20.36	252	17387300	26.46	ug/mL#	97
88) Benzo(k)fluoranthene	20.40	252	20799731m	29.12	ug/mL	
89) Benzo(a)pyrene	20.86	252	16647336	28.02	ug/mL#	97
91) Indeno(1,2,3-cd)pyrene	22.91	276	12107383m	23.17	ug/mL	
92) Dibenz(a,h)anthracene	22.89	278	10739992m	25.27	ug/mL	
93) Benzo(g,h,i)perylene	23.47	276	8232230m	21.46	ug/mL	

(#) = qualifier out of range (m) = manual integration

E401240.D BNA4M49A.M

Wed Mar 16 15:20:48 2016

BNA4

Page 3

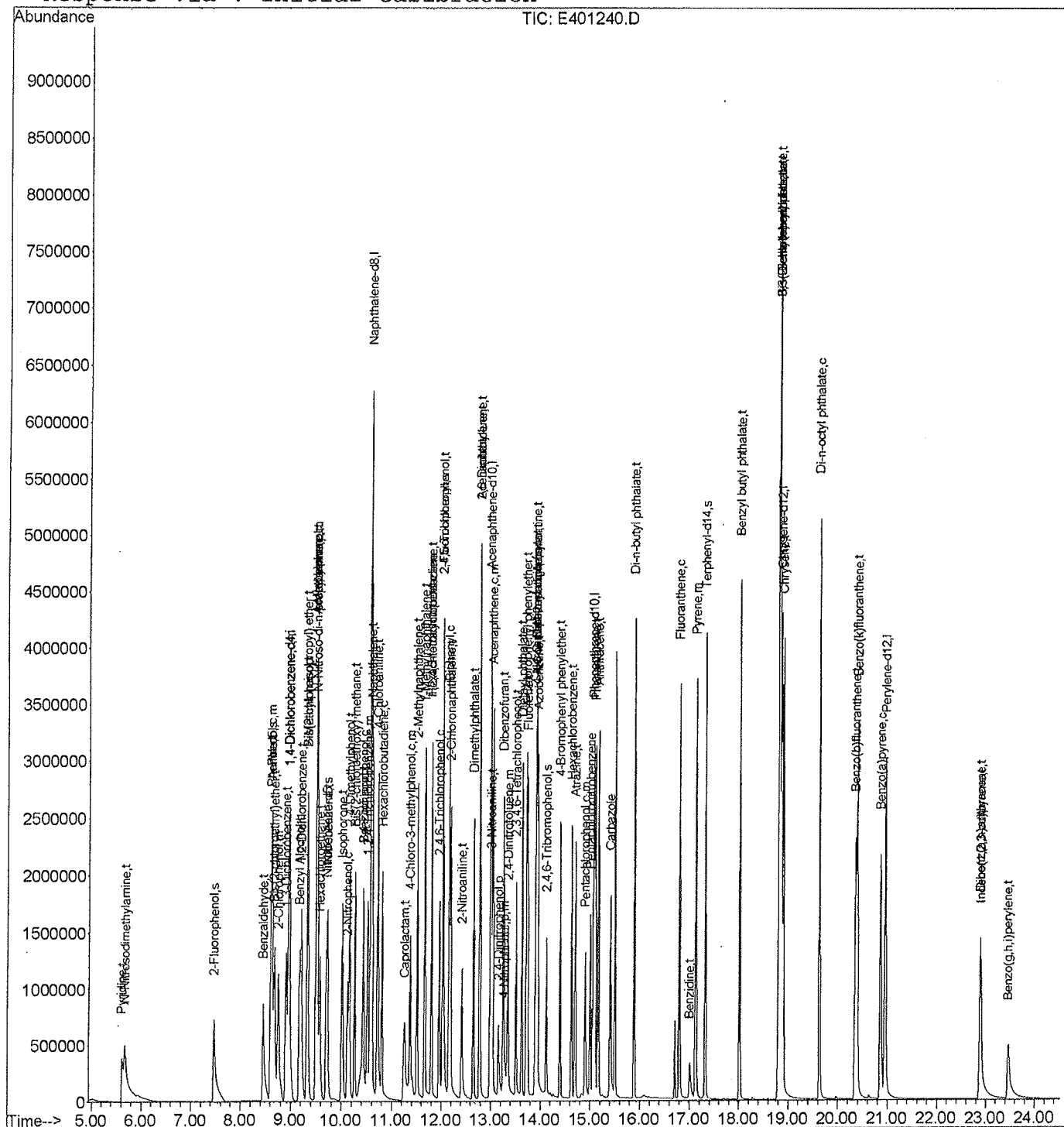
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031616\E401240.D
Acq On : 16 Mar 2016 2:05 pm
Sample : SEQ-CCV1
Misc : QBSV4031616A
MS Integration Params: EVENTS.E
Quant Time: Mar 16 15:20 2016 Qu

Vial: 10
Operator: KH
Inst: GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M49A.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
Title        : GC MS BNA 4 Semi Volatiles Calibration
Last Update  : Wed Feb 24 15:44:14 2016
Response via : Initial Calibration
```



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8270D**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	BC60754-BLK1	E201057.D	03/15/16 10:24
LCS	BC60754-BS1	E201058.D	03/15/16 10:55
LCS Dup	BC60754-BSD1	E201059.D	03/15/16 11:26
Blank	BC60798-BLK2	E500693.D	03/16/16 09:32
Blank	BC60798-BLK1	E401233.D	03/16/16 09:43
LCS	BC60798-BS2	E500694.D	03/16/16 10:03
LCS	BC60798-BS1	E401234.D	03/16/16 10:17
LCS Dup	BC60798-BSD1	E401235.D	03/16/16 10:51
04/FB20160309	16C0466-04	E401242.D	03/16/16 12:02
01/LSB-3	16C0466-01	E201099.D	03/16/16 22:34
02/DUP	16C0466-02	E201100.D	03/16/16 23:05
03/LSB-3	16C0466-03	E201101.D	03/16/16 23:37

DFTPP

Data File : C:\HPCHEM\1\DATA\E2031416\E201042.D

Vial: 3

Acq On : 14 Mar 2016 12:10 pm

Operator: KH

Sample : SEQ-TUN1

Inst : BNA#2

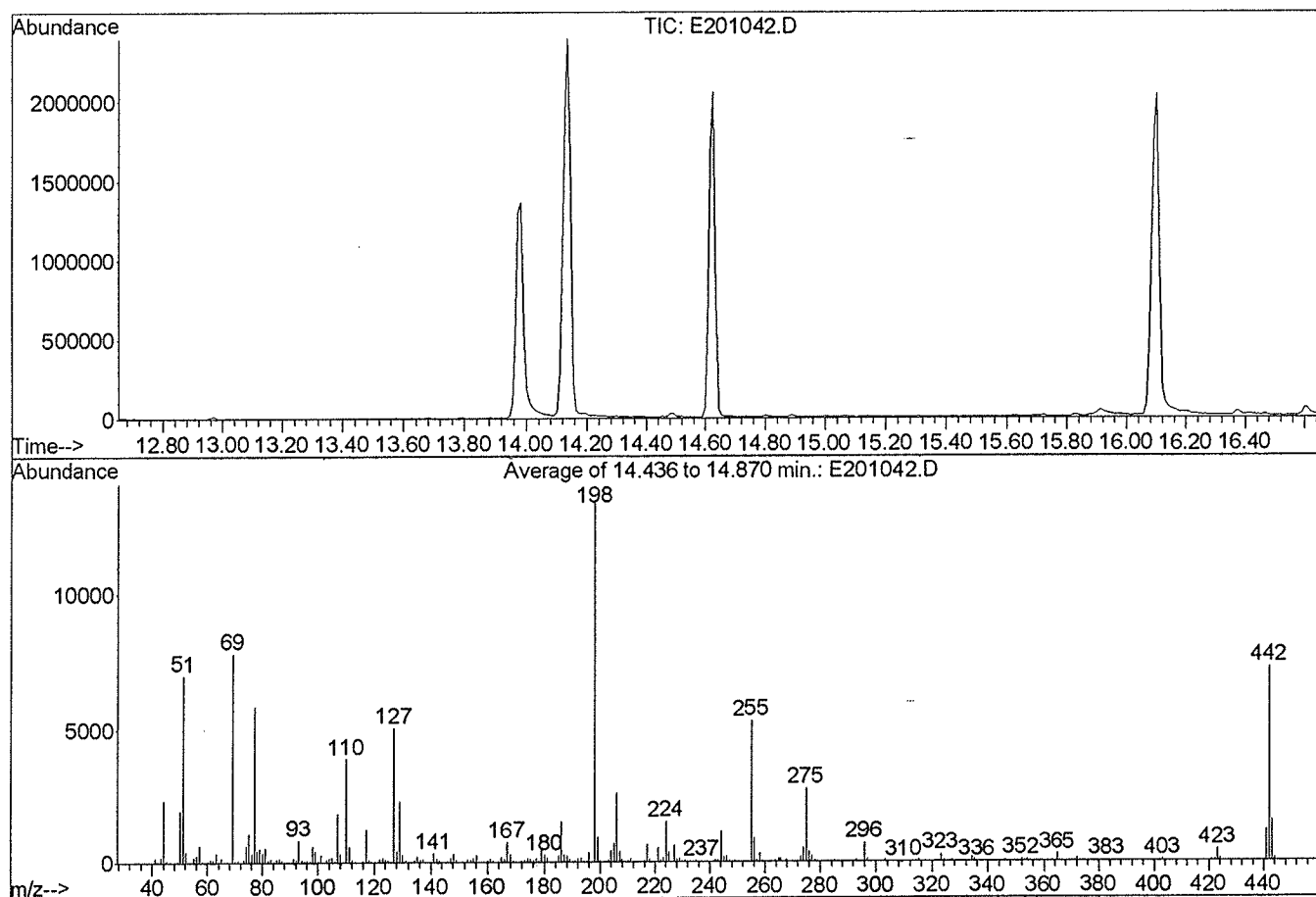
Misc : QBSV2031416A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

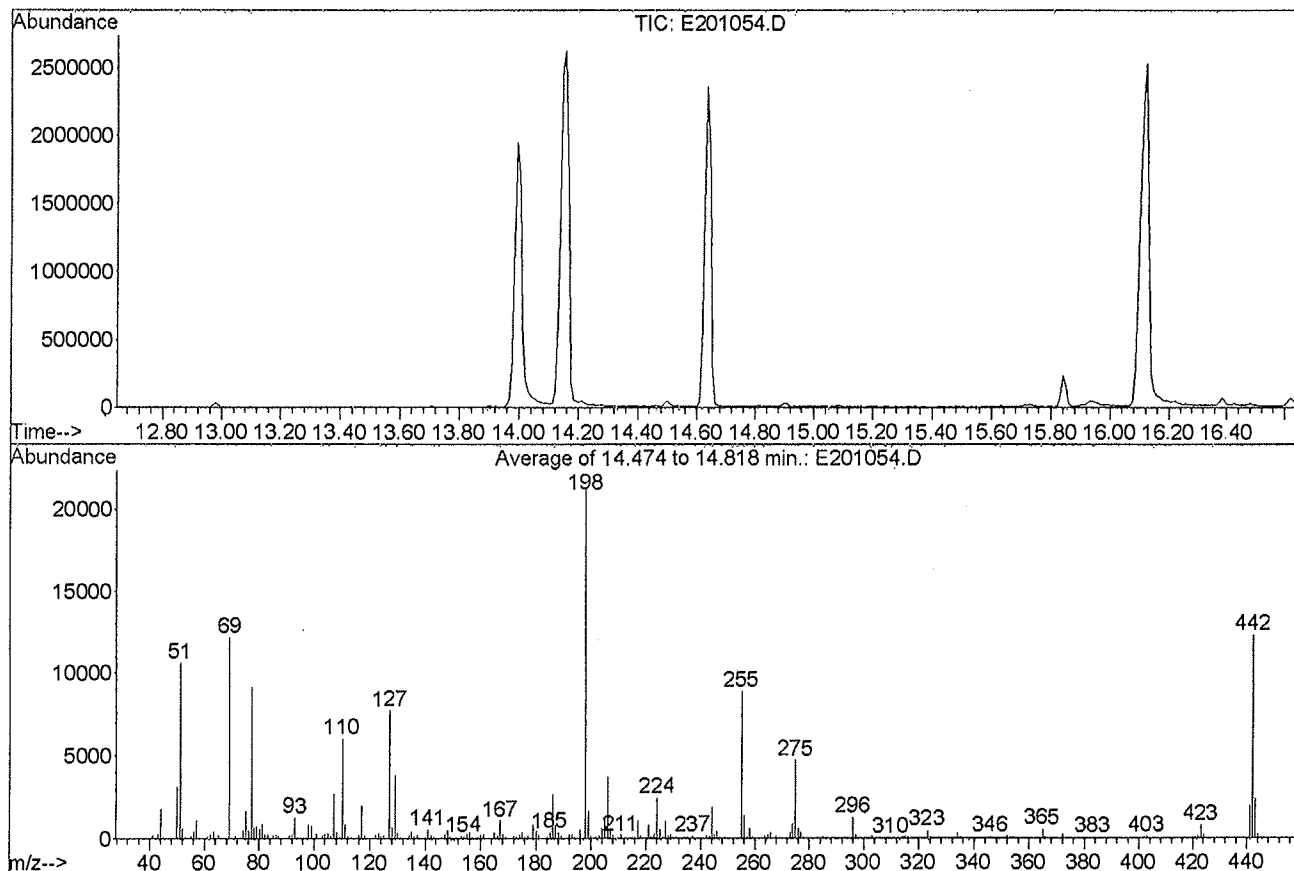


Spectrum Information: Average of 14.436 to 14.870 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.1	7017	PASS
68	69	0.00	2	0.3	23	PASS
70	69	0.00	2	0.6	47	PASS
127	198	10	80	37.7	5079	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	13458	PASS
199	198	5	9	7.0	944	PASS
275	198	10	60	20.7	2787	PASS
365	198	1	100	2.1	281	PASS
441	442	0.01	24	16.3	1189	PASS
442	198	50	100	54.3	7304	PASS
443	442	15	24	21.2	1549	PASS

DFTPP

Data File : C:\HPCHEM\1\DATA\E2031516\E201054.D Vial: 1
Acq On : 15 Mar 2016 8:16 am Operator: KH
Sample : SEQ-TUN1 Inst : BNA#2
Misc : QBSV2031516A Multiplr: 1.00
MS Integration Params: EVENTS.E
Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title : GC MS BNA 2 Semi Volatiles Calibration



Spectrum Information: Average of 14.474 to 14.818 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.7	10611	PASS
68	69	0.00	2	0.1	16	PASS
70	69	0.00	2	0.5	55	PASS
127	198	10	80	36.2	7725	PASS
197	198	0.00	2	0.1	11	PASS
198	198	100	100	100.0	21360	PASS
199	198	5	9	7.7	1653	PASS
275	198	10	60	22.0	4707	PASS
365	198	1	100	2.5	525	PASS
441	442	0.01	24	16.1	1973	PASS
442	198	50	100	57.4	12270	PASS
443	442	15	24	19.4	2382	PASS

DFTPP

Data File : C:\HPCHEM\1\DATA\E2031616\E201081.D

Vial: 10

Acq On : 16 Mar 2016 1:11 pm

Operator: KH

Sample : SEQ-TUN1

Inst : BNA#2

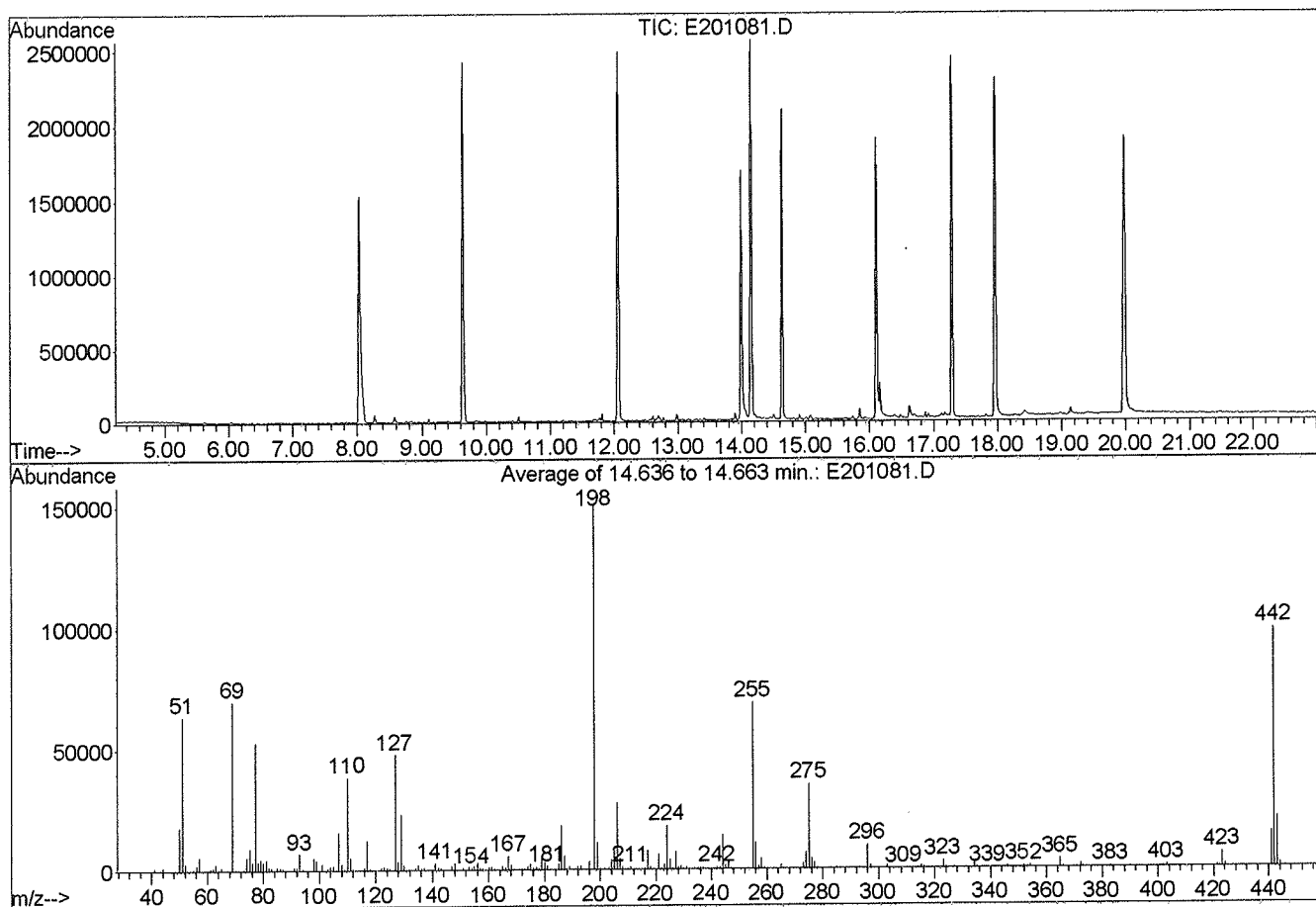
Misc : QBSV2031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration



Spectrum Information: Average of 14.636 to 14.663 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	42.0	63552	PASS
68	69	0.00	2	0.4	285	PASS
70	69	0.00	2	0.9	656	PASS
127	198	10	80	31.8	48096	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	151266	PASS
199	198	5	9	7.6	11457	PASS
275	198	10	60	23.4	35404	PASS
365	198	1	100	2.6	3948	PASS
441	442	0.01	24	15.3	15161	PASS
442	198	50	100	65.7	99350	PASS
443	442	15	24	21.4	21273	PASS

DFTPP

Data File : C:\HPCHEM\1\DATA\011016A\E522138.D

Acq On : 10 Jan 2016 8:20 pm

Sample : TUNE CHECK

Misc : QBSV5011016A

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

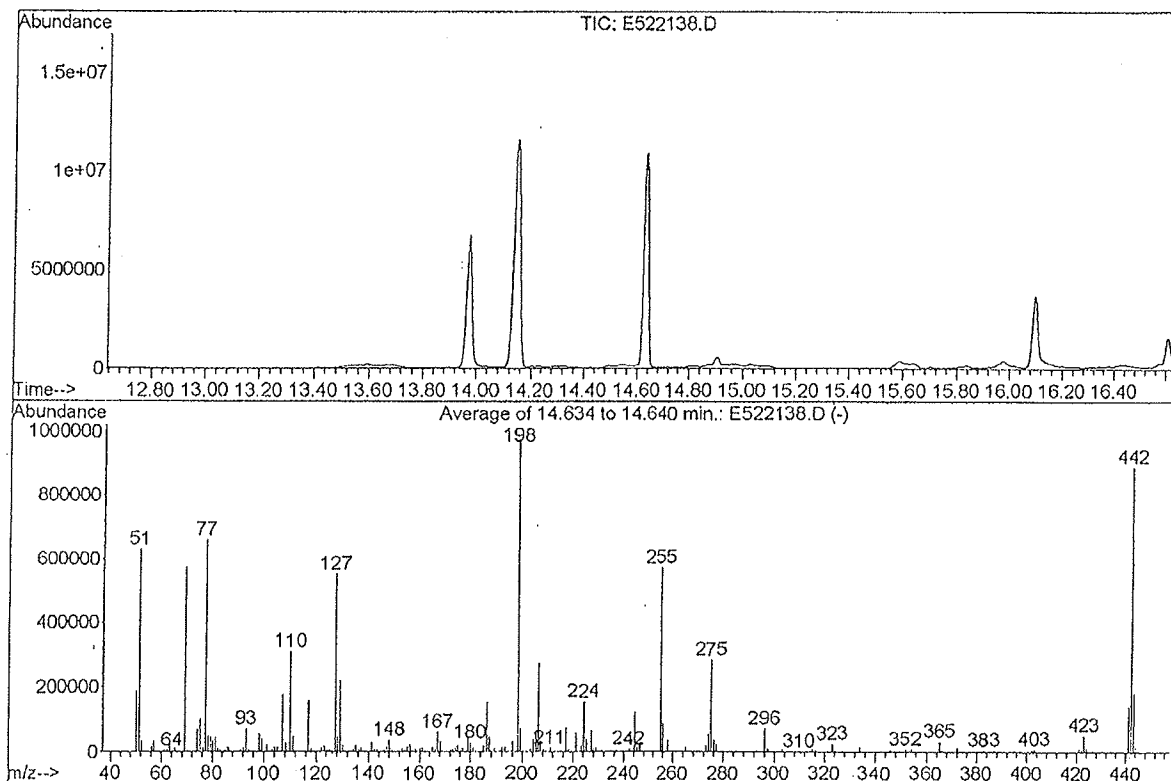
Title : 8270D Target SVOA by SIM

Vial: 1

Operator: SR

Inst : BNA #5

Multiplr: 1.00



Spectrum Information: Average of 14.634 to 14.640 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	85	64.8	630208	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	59.1	574809	PASS
70	69	0.00	2	0.4	2128	PASS
127	198	10	80	56.7	551701	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	972800	PASS
199	198	3	9	7.3	71437	PASS
275	198	10	60	29.1	283029	PASS
365	198	1	100	3.2	30925	PASS
441	443	0.01	100	78.2	141181	PASS
442	198	40	100	91.6	891136	PASS
443	442	15	24	20.3	180651	PASS

E522138.D BN5SIM24.M

Fri Jan 15 12:44:31 2016

DFTPP

Data File : C:\HPCHEM\1\DATA\031616A\E500691.D

Vial: 1

Acq On : 16 Mar 2016 8:26 am

Operator: SR

Sample : SEQ-TUN1

Inst : BNA #5

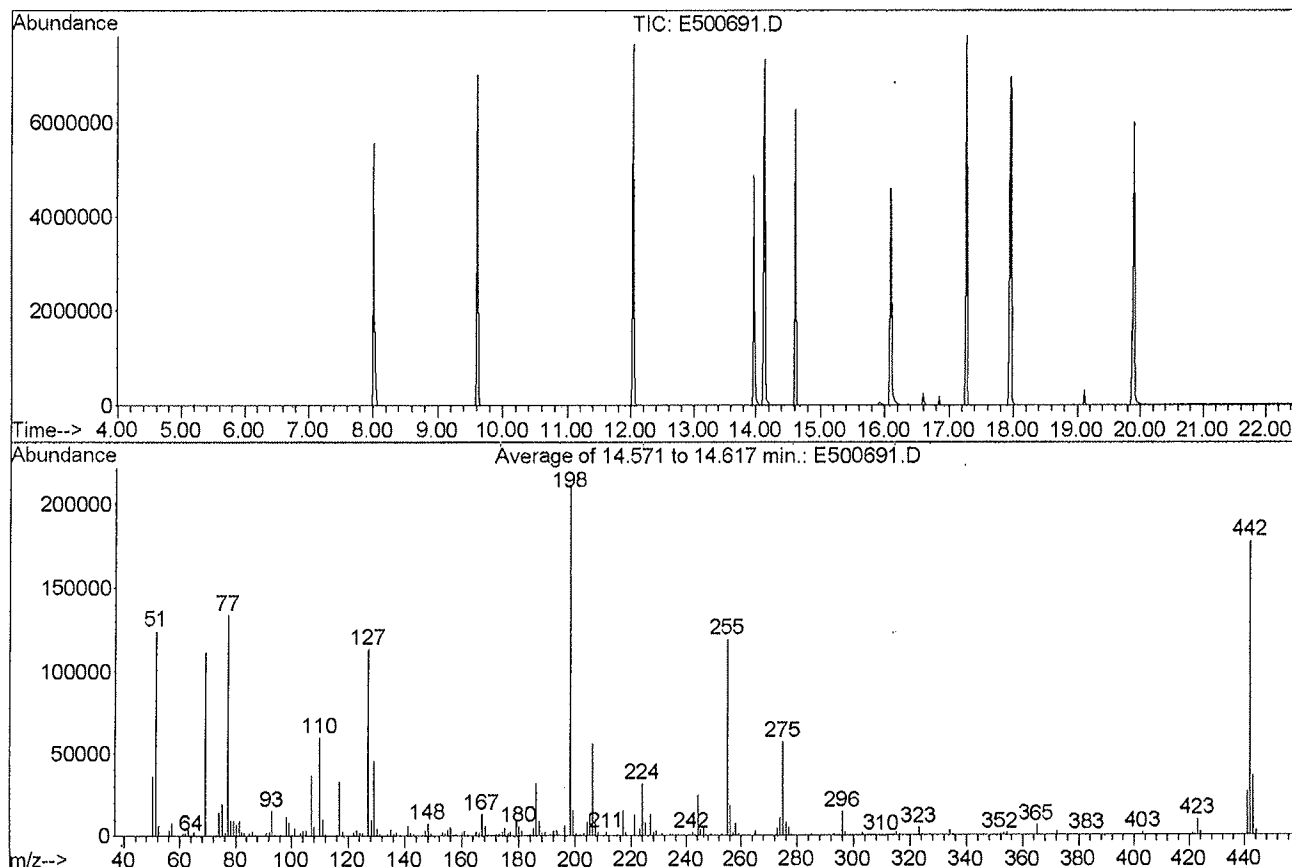
Misc : QBSV5031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM



Spectrum Information: Average of 14.571 to 14.617 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	85	58.9	124370	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	53.0	111843	PASS
70	69	0.00	2	0.5	550	PASS
127	198	10	80	53.8	113597	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	211136	PASS
199	198	3	9	7.4	15529	PASS
275	198	10	60	27.1	57173	PASS
365	198	1	100	3.0	6251	PASS
441	443	0.01	100	74.0	26891	PASS
442	198	40	100	84.5	178443	PASS
443	442	15	24	20.4	36363	PASS

DFTPP

Data File : C:\HPCHEM\1\DATA\093015\E422937.D

Acq On : 30 Sep 2015 8:45 am

Sample : TUNE CHECK

Misc : QBSV4093015A

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA4M049.M (Chemstation Integrator)

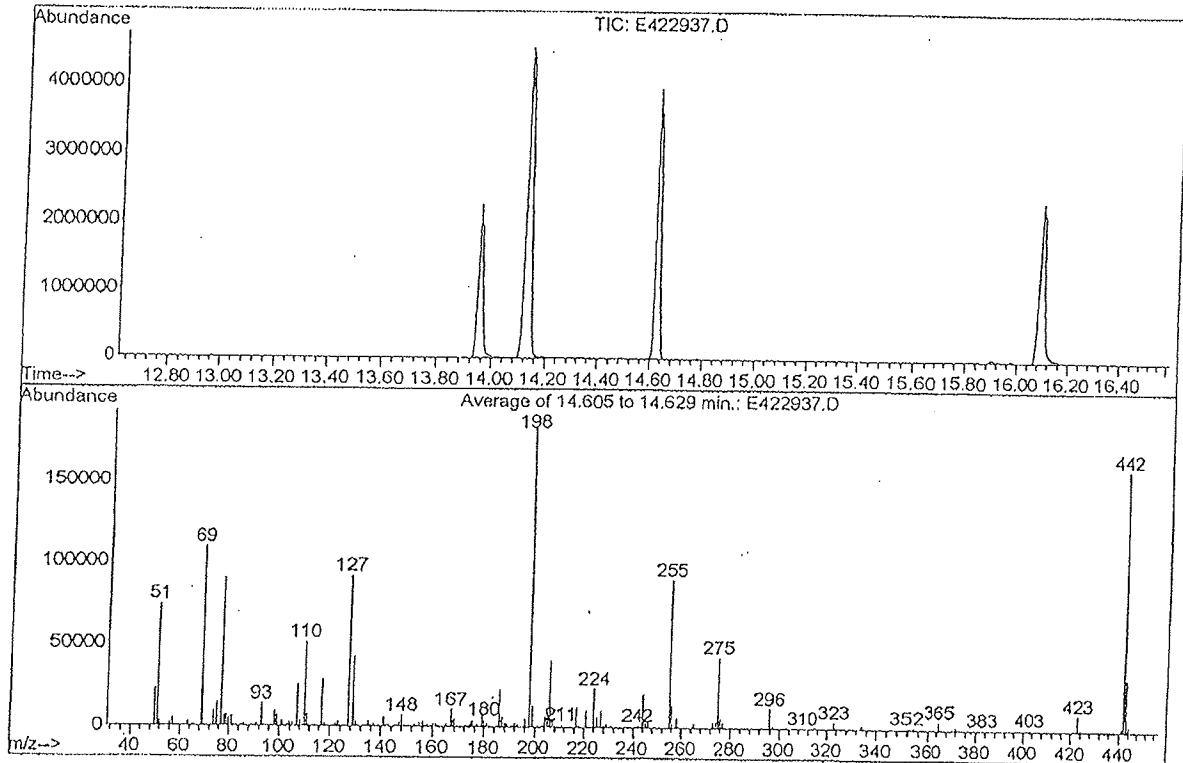
Title : GC MS BNA 4 Semi Volatiles Calibration

Vial: 1

Operator: KH

Inst : GC/MS BNA

Multiplr: 1.00



Spectrum Information: Average of 14.605 to 14.629 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	40.4	74147	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	253	PASS
127	198	10	80	50.1	91861	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	183412	PASS
199	198	5	9	7.2	13221	PASS
275	198	10	60	23.4	42827	PASS
365	198	1	100	2.8	5102	PASS
441	442	0.01	24	1.5	2398	PASS
442	198	50	100	86.6	158776	PASS
443	442	15	24	20.1	31857	PASS

E422937.D BNA4M049.M

Thu Oct 01 11:49:33 2015 BNA4

DFTPP

Data File : C:\HPCHEM\1\DATA\031616\E401231.D

Acq On : 16 Mar 2016 8:34 am

Sample : SEQ-TUN1

Misc : QBSV4031616A

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

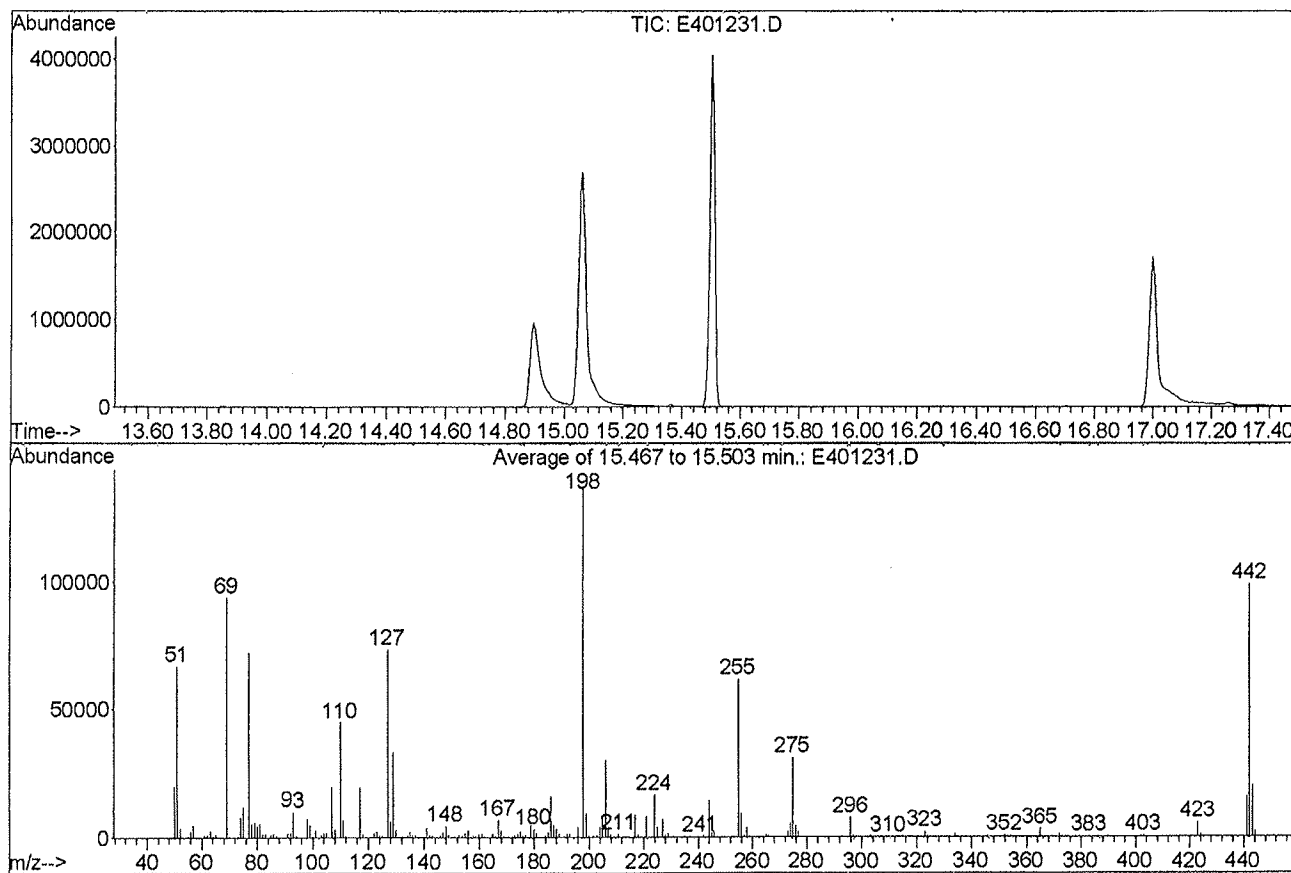
Title : GC MS BNA 4 Semi Volatiles Calibration

Vial: 1

Operator: KH

Inst : GC/MS BNA

Multiplr: 1.00



Spectrum Information: Average of 15.467 to 15.503 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.1	67040	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	227	PASS
127	198	10	80	53.8	73448	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	136594	PASS
199	198	5	9	6.8	9303	PASS
275	198	10	60	22.6	30894	PASS
365	198	1	100	2.3	3098	PASS
441	442	0.01	24	15.8	15706	PASS
442	198	50	100	72.7	99340	PASS
443	442	15	24	20.1	19963	PASS

DFTPP

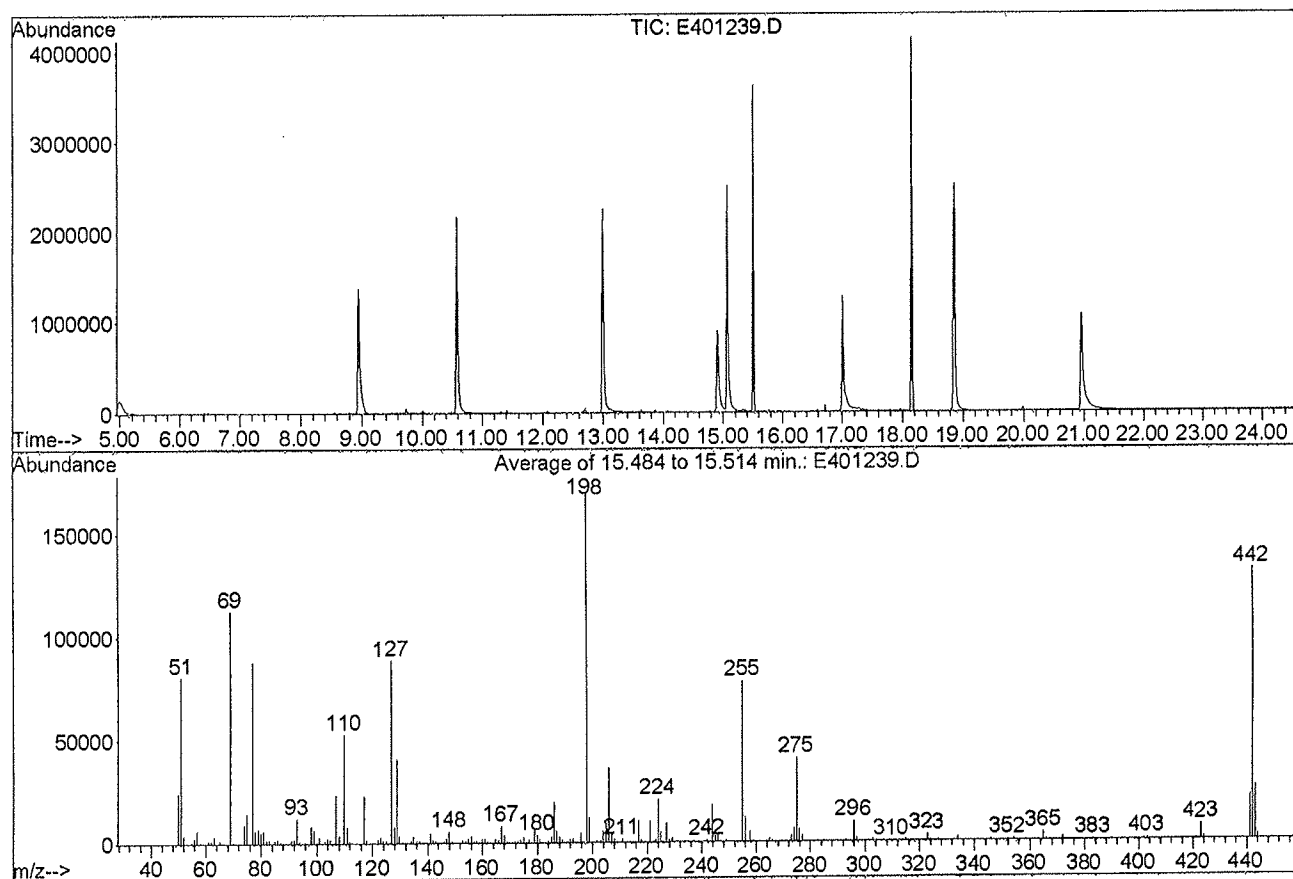
Data File : C:\HPCHEM\1\DATA\031616\E401239.D
Acq On : 16 Mar 2016 1:32 pm
Sample : SEQ-TUN1
Misc : QBSV4031616A

Vial: 9
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

MS Integration Params: EVENTS.E

Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration



Spectrum Information: Average of 15.484 to 15.514 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.2	80409	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	660	PASS
127	198	10	80	51.9	88393	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	170434	PASS
199	198	5	9	7.1	12038	PASS
275	198	10	60	23.8	40555	PASS
365	198	1	100	2.4	4172	PASS
441	442	0.01	24	16.4	21607	PASS
442	198	50	100	77.3	131742	PASS
443	442	15	24	19.6	25886	PASS

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60754-BLK1 File ID: E201057.D
 Prepared: 03/15/16 07:11 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Analyzed: 03/15/16 10:24 Instrument: BNA#2
 Batch: BC60754 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
92-52-4	1,1'-Biphenyl	0.0417	U
95-94-3	1,2,4,5-Tetrachlorobenzene	0.0833	U
120-82-1	1,2,4-Trichlorobenzene	0.0417	U
95-50-1	1,2-Dichlorobenzene	0.0417	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	0.0417	U
541-73-1	1,3-Dichlorobenzene	0.0417	U
106-46-7	1,4-Dichlorobenzene	0.0417	U
58-90-2	2,3,4,6-Tetrachlorophenol	0.0833	U
95-95-4	2,4,5-Trichlorophenol	0.0417	U
88-06-2	2,4,6-Trichlorophenol	0.0417	U
120-83-2	2,4-Dichlorophenol	0.0417	U
105-67-9	2,4-Dimethylphenol	0.0417	U
51-28-5	2,4-Dinitrophenol	0.0833	U
121-14-2	2,4-Dinitrotoluene	0.0417	U
606-20-2	2,6-Dinitrotoluene	0.0417	U
91-58-7	2-Chloronaphthalene	0.0417	U
95-57-8	2-Chlorophenol	0.0417	U
91-57-6	2-Methylnaphthalene	0.0417	U
95-48-7	2-Methylphenol	0.0417	U
88-74-4	2-Nitroaniline	0.0833	U
88-75-5	2-Nitrophenol	0.0417	U
65794-96-9	3- & 4-Methylphenols	0.0417	U
91-94-1	3,3'-Dichlorobenzidine	0.0417	U
99-09-2	3-Nitroaniline	0.0833	U
534-52-1	4,6-Dinitro-2-methylphenol	0.0833	U
101-55-3	4-Bromophenyl phenyl ether	0.0417	U
59-50-7	4-Chloro-3-methylphenol	0.0417	U
106-47-8	4-Chloroaniline	0.0417	U
7005-72-3	4-Chlorophenyl phenyl ether	0.0417	U
100-01-6	4-Nitroaniline	0.0833	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60754-BLK1 File ID: E201057.D
 Prepared: 03/15/16 07:11 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Analyzed: 03/15/16 10:24 Instrument: BNA#2
 Batch: BC60754 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
100-02-7	4-Nitrophenol	0.0833	U
83-32-9	Acenaphthene	0.0417	U
208-96-8	Acenaphthylene	0.0417	U
98-86-2	Acetophenone	0.0417	U
62-53-3	Aniline	0.167	U
120-12-7	Anthracene	0.0417	U
1912-24-9	Atrazine	0.0417	U
100-52-7	Benzaldehyde	0.0417	U
92-87-5	Benzidine	0.167	U
56-55-3	Benzo(a)anthracene	0.0417	U
50-32-8	Benzo(a)pyrene	0.0417	U
205-99-2	Benzo(b)fluoranthene	0.0417	U
191-24-2	Benzo(g,h,i)perylene	0.0417	U
207-08-9	Benzo(k)fluoranthene	0.0417	U
65-85-0	Benzoic acid	0.0417	U
100-51-6	Benzyl alcohol	0.0417	U
85-68-7	Benzyl butyl phthalate	0.0417	U
111-91-1	Bis(2-chloroethoxy)methane	0.0417	U
111-44-4	Bis(2-chloroethyl)ether	0.0417	U
108-60-1	Bis(2-chloroisopropyl)ether	0.0417	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.0417	U
105-60-2	Caprolactam	0.0833	U
86-74-8	Carbazole	0.0417	U
218-01-9	Chrysene	0.0417	U
53-70-3	Dibenzo(a,h)anthracene	0.0417	U
132-64-9	Dibenzofuran	0.0417	U
84-66-2	Diethyl phthalate	0.0417	U
131-11-3	Dimethyl phthalate	0.0417	U
84-74-2	Di-n-butyl phthalate	0.0417	U
117-84-0	Di-n-octyl phthalate	0.0417	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60754-BLK1 File ID: E201057.D
 Prepared: 03/15/16 07:11 Preparation: EPA 3550C Initial/Final: 30 g / 1 mL
 Analyzed: 03/15/16 10:24 Instrument: BNA#2
 Batch: BC60754 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
206-44-0	Fluoranthene	0.0417	U
86-73-7	Fluorene	0.0417	U
118-74-1	Hexachlorobenzene	0.0417	U
87-68-3	Hexachlorobutadiene	0.0417	U
77-47-4	Hexachlorocyclopentadiene	0.0417	U
67-72-1	Hexachloroethane	0.0417	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0417	U
78-59-1	Isophorone	0.0417	U
91-20-3	Naphthalene	0.0417	U
98-95-3	Nitrobenzene	0.0417	U
62-75-9	N-Nitrosodimethylamine	0.0417	U
621-64-7	N-nitroso-di-n-propylamine	0.0417	U
86-30-6	N-Nitrosodiphenylamine	0.0417	U
87-86-5	Pentachlorophenol	0.0417	U
85-01-8	Phenanthrene	0.0417	U
108-95-2	Phenol	0.0417	U
129-00-0	Pyrene	0.0417	U
110-86-1	Pyridine	0.167	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	2.51	0.774	30.9	20 - 108	
Phenol-d5	2.50	0.853	34.1	23 - 114	
Nitrobenzene-d5	1.67	0.582	34.8	22 - 108	
2-Fluorobiphenyl	1.67	0.593	35.4	21 - 113	
2,4,6-Tribromophenol	2.51	0.645	25.7	19 - 110	
Terphenyl-d14	1.67	0.518	31.1	24 - 116	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E2031516\E201057.D

Vial: 3

Acq On : 15 Mar 2016 10:24 am

Operator: KH

Sample : BC60754-BLK1

Inst : BNA#2

Misc : QBSV2031516A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 10:09 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.04	152	4938787	40.00	ug/mL	0.01
21) Naphthalene-d8	9.64	136	15259087	40.00	ug/mL	0.01
39) Acenaphthene-d10	12.07	164	8187829	40.00	ug/mL	0.02
62) Phenanthrene-d10	14.16	188	15707268	40.00	ug/mL	0.02
79) Chrysene-d12	17.97	240	16101284	40.00	ug/mL	0.01
91) Perylene-d12	19.99	264	16463692	40.00	ug/mL	0.00

System Monitoring Compounds

4) 2-Fluorophenol	6.66	112	5261108	25.74	ug/mL	0.00
Spiked Amount	75.000	Range	15 - 87	Recovery	=	34.32%
5) Phenol-d5	7.74	99	7172119	31.37	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	41.83%
22) Nitrobenzene-d5	8.76	82	4282067	16.30	ug/mL	0.02
Spiked Amount	50.000	Range	26 - 120	Recovery	=	32.60%
45) 2-Fluorobiphenyl	11.11	172	7137693	19.00	ug/mL	0.01
Spiked Amount	50.000	Range	29 - 120	Recovery	=	38.00%
67) 2,4,6-Tribromophenol	13.21	330	2564195	30.18	ug/mL	0.01
Spiked Amount	75.000	Range	35 - 126	Recovery	=	40.24%
81) Terphenyl-d14	16.44	244	7955431	12.29	ug/mL	0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	24.58%#

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

E201057.D BNA2M269.M

Wed Mar 16 10:28:46 2016

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201057.D

Vial: 3

Acq On : 15 Mar 2016 10:24 am

Operator: KH

Sample : BC60754-BLK1

Inst : BNA#2

Misc : QBSV2031516A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 10:09 2016

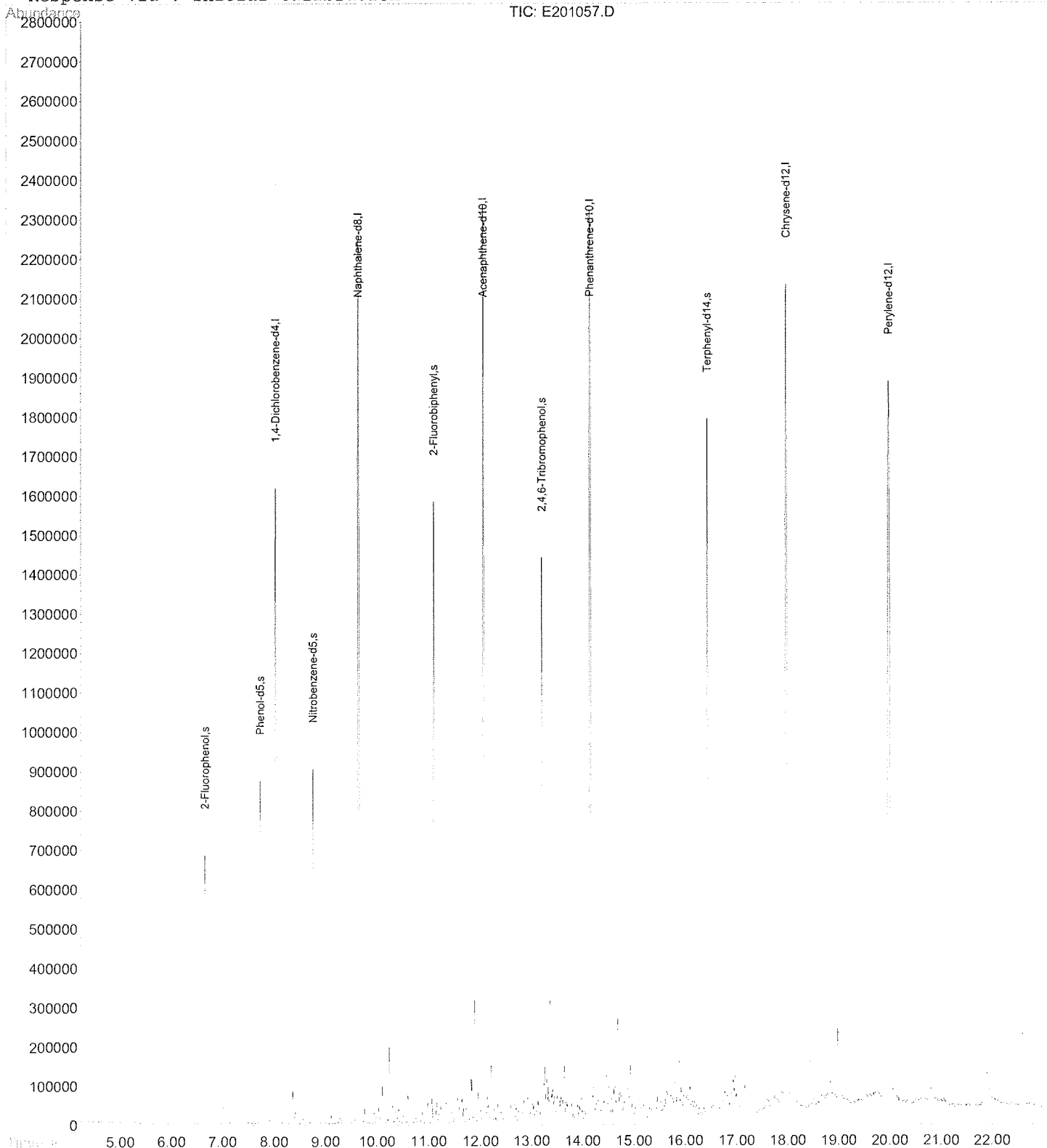
Quant Results File: BNA2M269.RES

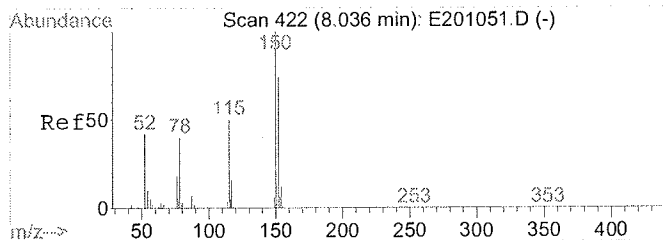
Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

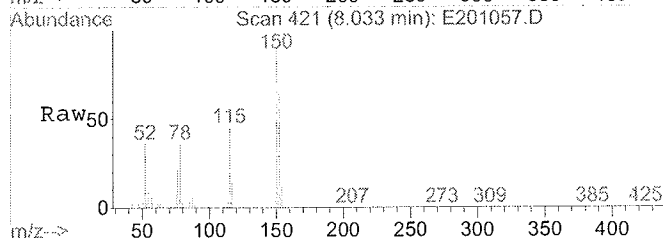
Response via : Initial Calibration





#1
 1,4-Dichlorobenzene-d4
 Concen: 40.00 ug/mL
 RT: 8.04 min Scan# 421
 Delta R.T. 0.01 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am

Tgt Ion:152 Resp: 4938787
 Ion Ratio Lower Upper
 152 100
 150 150.4 90.0 269.9
 115 64.0 33.8 101.3
 78 52.1 28.1 84.2



Abundance

Ion 152.00 (151.70 to 152.70):

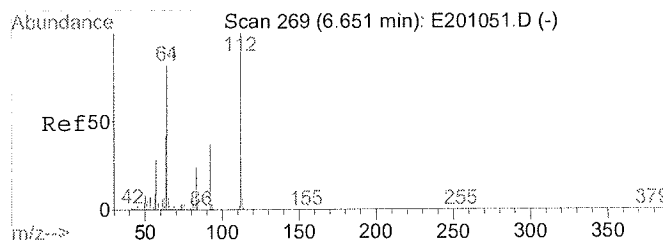
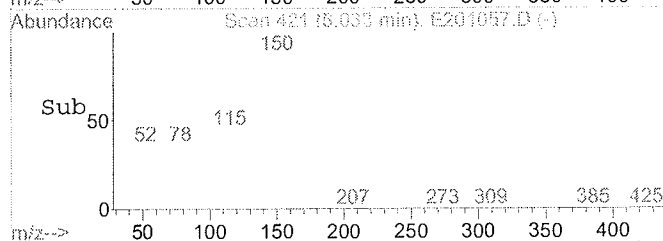
Ion 150.00 (149.70 to 150.70):

Ion 115.00 (114.70 to 115.70):

Ion 78.00 (77.70 to 78.70): E2

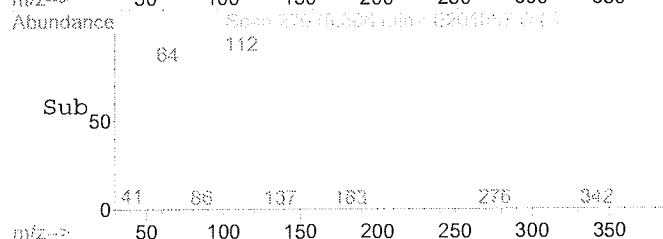
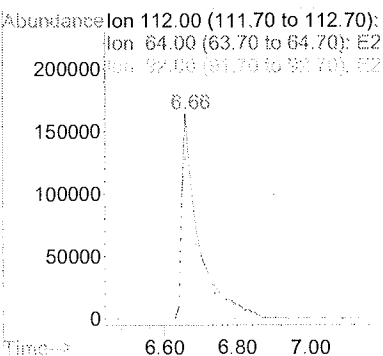
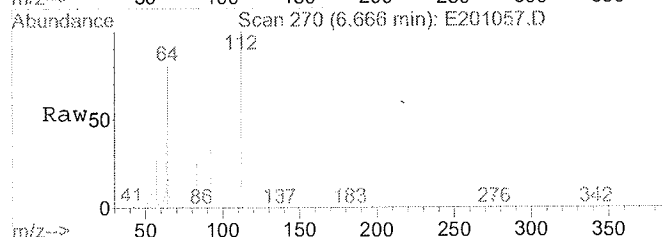
8.03

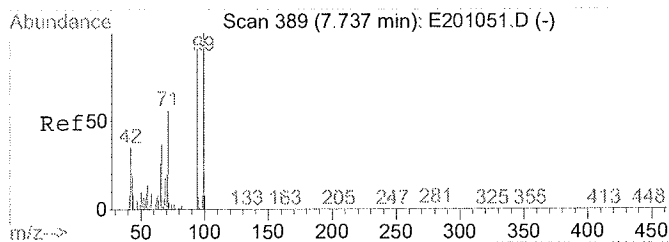
Time-->



#4
 2-Fluorophenol
 Concen: N.D. ug/mL
 RT: 6.66 min Scan# 270
 Delta R.T. -0.01 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am

Tgt Ion:112 Resp: 5261108
 Ion Ratio Lower Upper
 112 100
 64 81.7 63.0 94.6
 92 34.5 20.3 30.5#

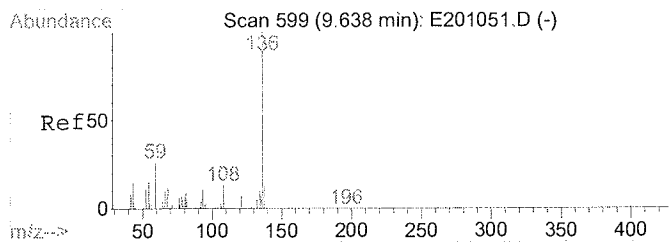
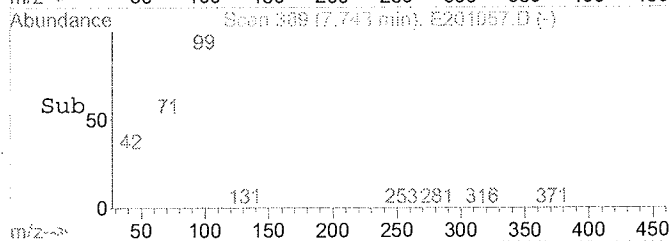
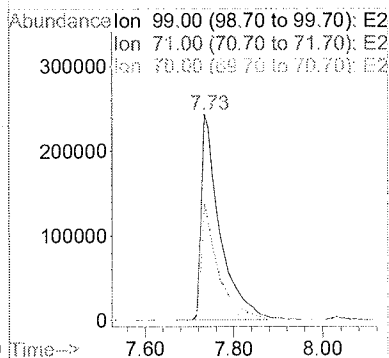
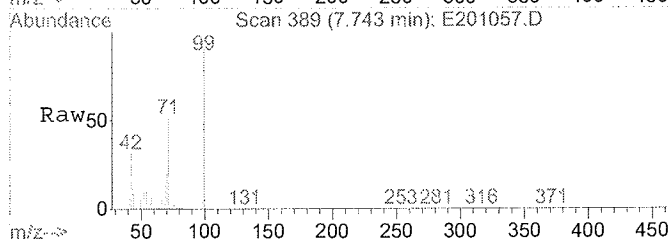




#5
Phenol-d5
Concen: N.D. ug/mL
RT: 7.74 min Scan# 389
Delta R.T. -0.01 min
Lab File: E201057.D
Acq: 15 Mar 2016 10:24 am

Tgt Ion: 99 Resp: 7172119

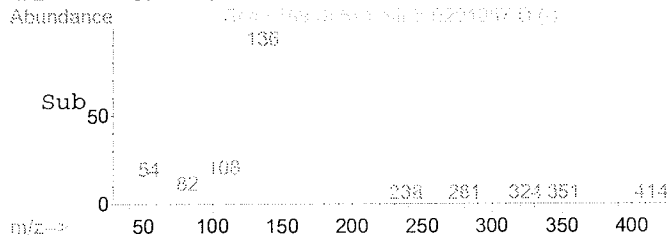
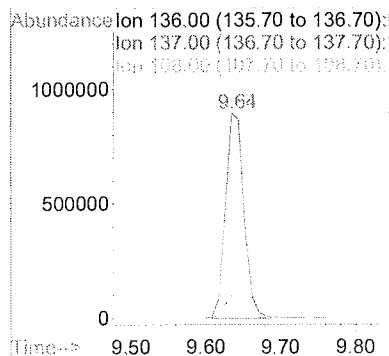
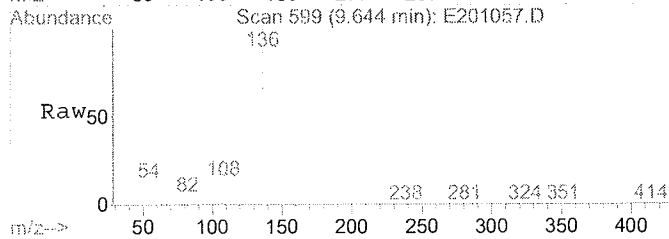
Ion	Ratio	Lower	Upper
99	100		
71	52.0	43.1	64.7
70	19.7	17.1	25.7

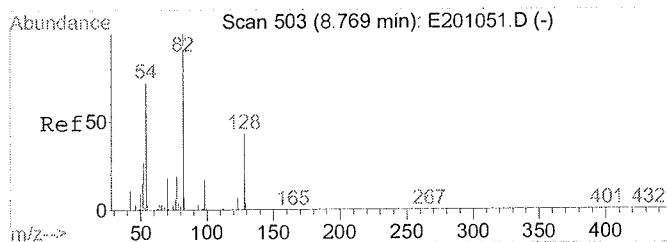


#21
Naphthalene-d8
Concen: 40.00 ug/mL
RT: 9.64 min Scan# 599
Delta R.T. 0.01 min
Lab File: E201057.D
Acq: 15 Mar 2016 10:24 am

Tgt Ion: 136 Resp: 15259087

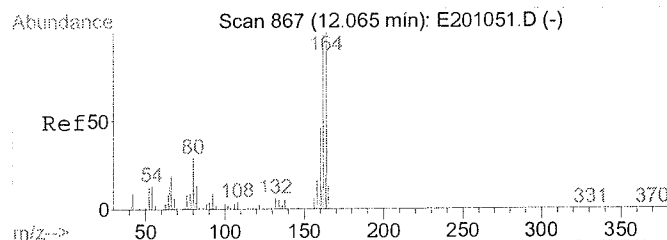
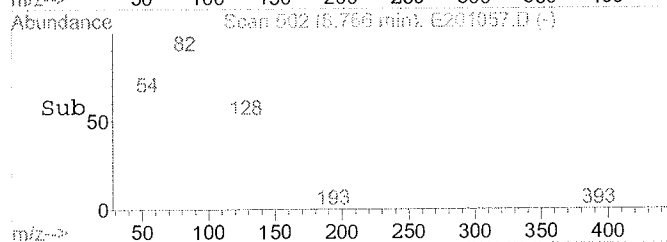
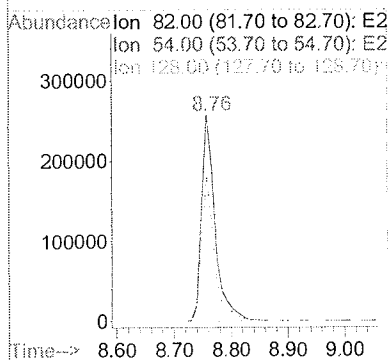
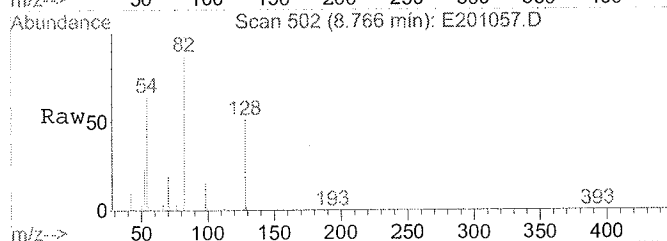
Ion	Ratio	Lower	Upper
136	100		
137	11.6	6.1	18.3
108	13.4	7.3	22.0





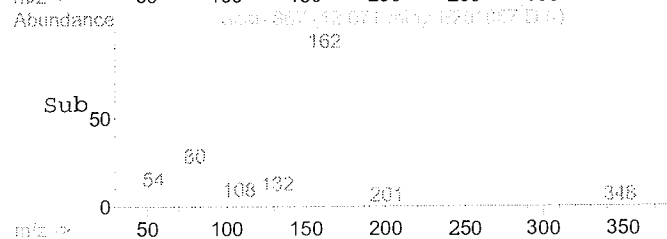
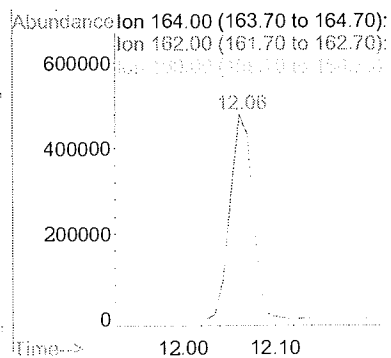
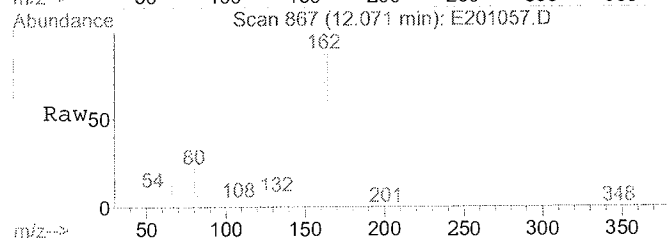
#22
 Nitrobenzene-d5
 Concen: 40.00 ug/mL
 RT: 8.76 min Scan# 502
 Delta R.T. 0.02 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am

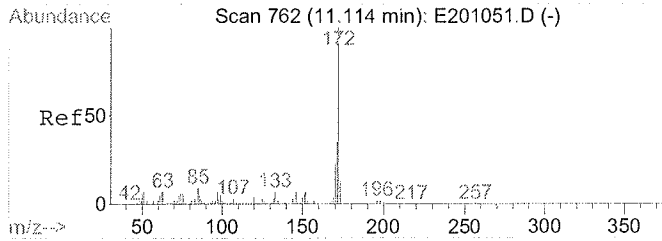
Tgt Ion: 82 Resp: 4282067
 Ion Ratio Lower Upper
 82 100
 54 68.2 55.7 83.5
 128 47.3 35.6 53.4



#39
 Acenaphthene-d10
 Concen: 40.00 ug/mL
 RT: 12.07 min Scan# 867
 Delta R.T. 0.02 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am

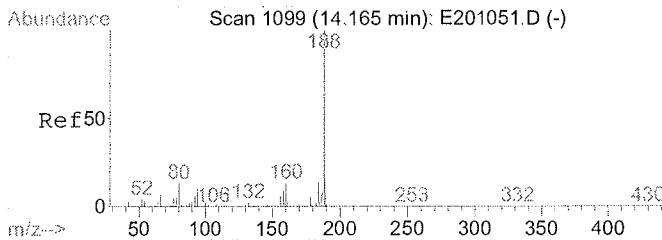
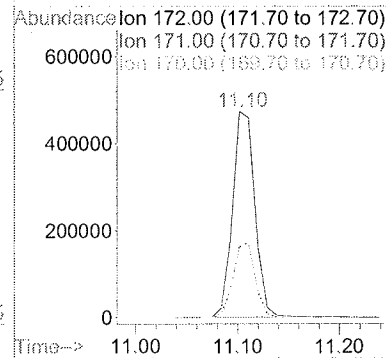
Tgt Ion: 164 Resp: 8187829
 Ion Ratio Lower Upper
 164 100
 162 99.6 50.0 149.8
 160 44.1 22.6 67.7





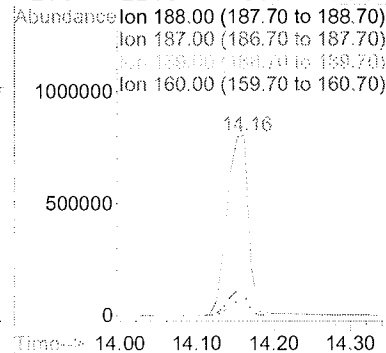
#45
2-Fluorobiphenyl
Concen: N.D. ug/mL
RT: 11.11 min Scan# 761
Delta R.T. 0.01 min
Lab File: E201057.D
Acq: 15 Mar 2016 10:24 am

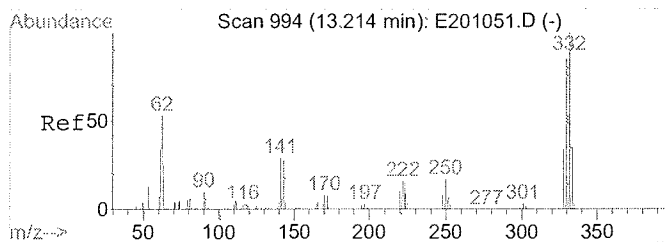
Tgt Ion:172 Resp: 7137693
Ion Ratio Lower Upper
172 100
171 36.6 29.2 43.8
170 24.2 19.4 29.2



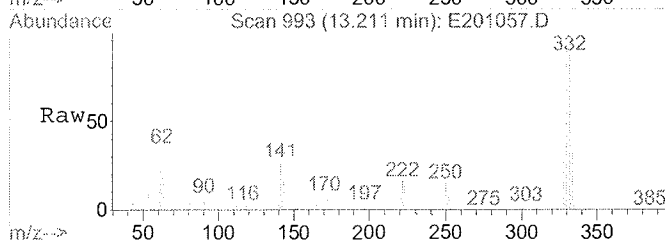
#62
Phenanthrene-d10
Concen: 40.00 ug/mL
RT: 14.16 min Scan# 1098
Delta R.T. 0.02 min
Lab File: E201057.D
Acq: 15 Mar 2016 10:24 am

Tgt Ion:188 Resp:15707268
Ion Ratio Lower Upper
188 100
187 9.1 7.4 11.0
189 16.0 8.2 24.4
160 12.5 6.5 19.4

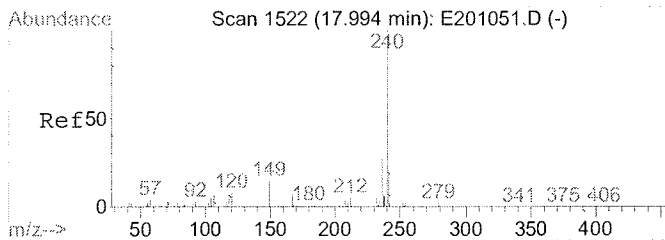
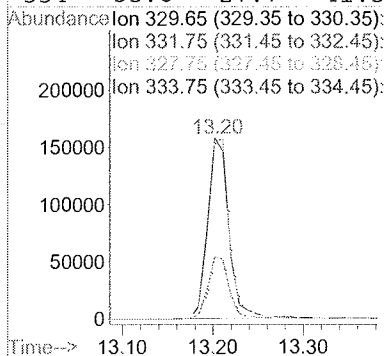
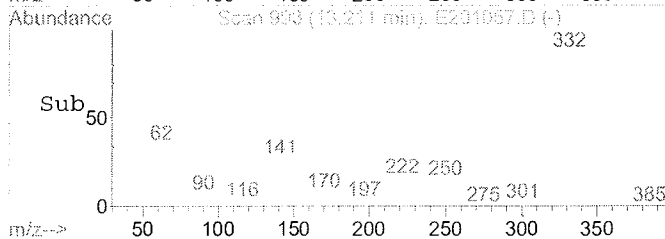




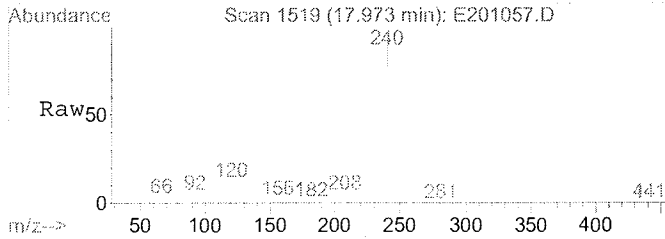
#67
 2,4,6-Tribromophenol
 Concen: N.D. ug/mL
 RT: 13.21 min Scan# 993
 Delta R.T. 0.01 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am



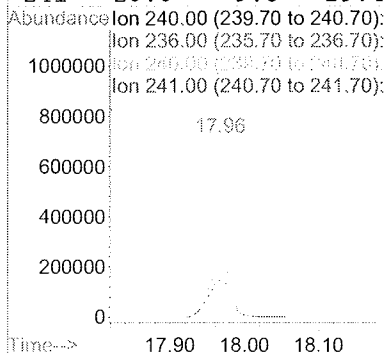
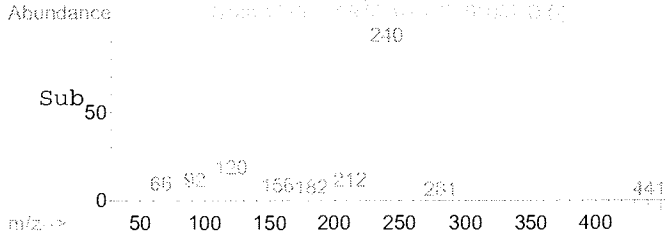
Tgt Ion:330 Resp: 2564195
 Ion Ratio Lower Upper
 330 100
 332 102.8 80.2 120.4
 328 33.4 26.5 39.7
 334 35.8 27.7 41.5

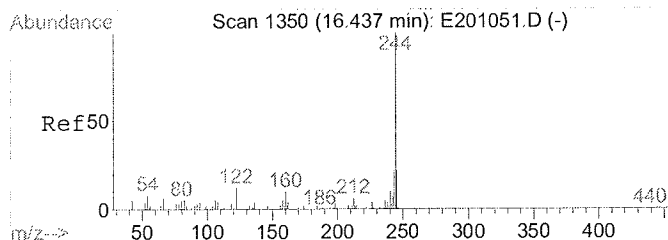


#79
 Chrysene-d12
 Concen: 40.00 ug/mL
 RT: 17.97 min Scan# 1519
 Delta R.T. 0.01 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am



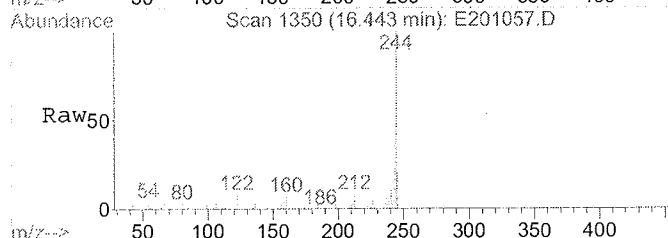
Tgt Ion:240 Resp:16101284
 Ion Ratio Lower Upper
 240 100
 236 27.9 14.1 42.2
 240 100.0 50.0 150.0
 241 20.0 9.8 29.4





#81
 Terphenyl-d14
 Concen: N.D. ug/mL
 RT: 16.44 min Scan# 1350
 Delta R.T. 0.02 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am

Tgt Ion:	244	Resp:	7955431
Ion Ratio	Lower	Upper	
244	100		
243	32.1	16.7	25.1#
245	21.0	17.3	25.9
240	10.1	8.6	12.8



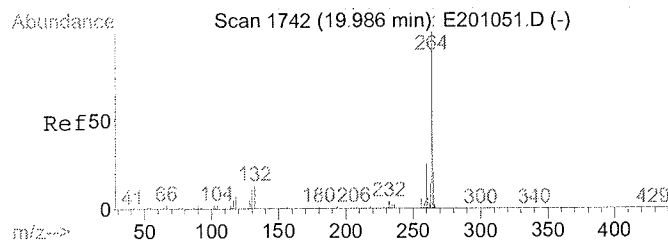
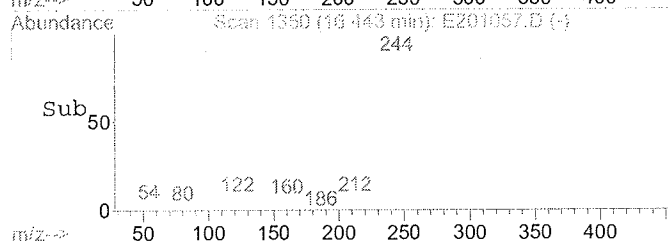
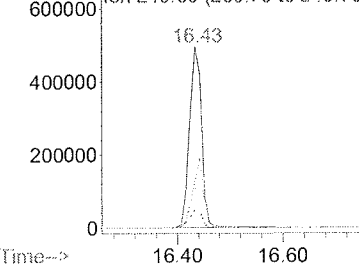
Abundance

Ion 244.00 (243.70 to 244.70):

Ion 243.00 (242.70 to 243.70):

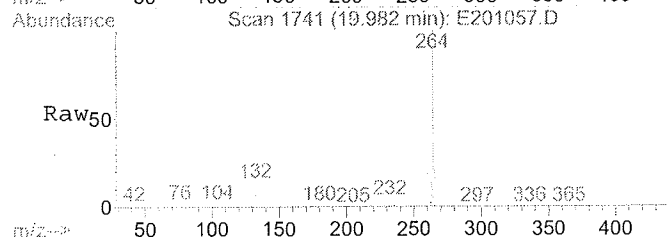
Ion 245.00 (244.70 to 245.70):

Ion 240.00 (239.70 to 240.70):



#91
 Perylene-d12
 Concen: 40.00 ug/mL
 RT: 19.99 min Scan# 1741
 Delta R.T. 0.01 min
 Lab File: E201057.D
 Acq: 15 Mar 2016 10:24 am

Tgt Ion:	264	Resp:	16463692
Ion Ratio	Lower	Upper	
264	100		
265	22.4	18.8	28.2
260	28.1	23.3	34.9
260	28.1	20.4	37.8

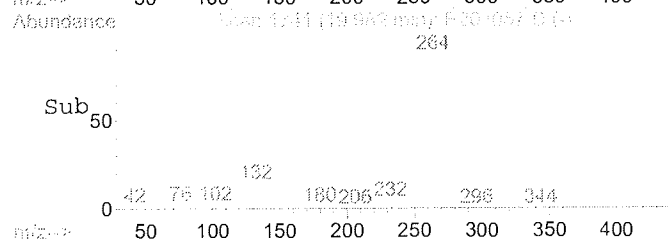
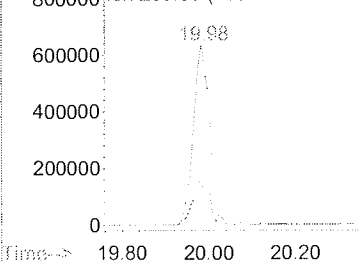


Abundance

Ion 264.00 (263.70 to 264.70):

Ion 265.00 (264.70 to 265.70):

Ion 260.00 (259.70 to 260.70):



FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK1 File ID: E401233.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:43 Instrument: GC/MS BNA
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
92-52-4	1,1'-Biphenyl	5.00	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.00	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	5.00	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.00	U
95-95-4	2,4,5-Trichlorophenol	5.00	U
88-06-2	2,4,6-Trichlorophenol	5.00	U
120-82-1	1,2,4-Trichlorobenzene	5.00	U
120-83-2	2,4-Dichlorophenol	5.00	U
105-67-9	2,4-Dimethylphenol	5.00	U
51-28-5	2,4-Dinitrophenol	5.00	U
121-14-2	2,4-Dinitrotoluene	5.00	U
95-50-1	1,2-Dichlorobenzene	5.00	U
606-20-2	2,6-Dinitrotoluene	5.00	U
91-58-7	2-Chloronaphthalene	5.00	U
95-57-8	2-Chlorophenol	5.00	U
91-57-6	2-Methylnaphthalene	5.00	U
541-73-1	1,3-Dichlorobenzene	5.00	U
95-48-7	2-Methylphenol	5.00	U
88-74-4	2-Nitroaniline	5.00	U
106-46-7	1,4-Dichlorobenzene	5.00	U
88-75-5	2-Nitrophenol	5.00	U
65794-96-9	3- & 4-Methylphenols	5.00	U
91-94-1	3,3'-Dichlorobenzidine	5.00	U
99-09-2	3-Nitroaniline	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol	5.00	U
101-55-3	4-Bromophenyl phenyl ether	5.00	U
59-50-7	4-Chloro-3-methylphenol	5.00	U
106-47-8	4-Chloroaniline	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether	5.00	U
100-01-6	4-Nitroaniline	5.00	U

FORM I

METHOD BLANK DATA SHEET

EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK1 File ID: E401233.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:43 Instrument: GC/MS BNA
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
100-02-7	4-Nitrophenol	5.00	U
83-32-9	Accenaphthene	0.0500	U
208-96-8	Accenaphthylene	0.0500	U
98-86-2	Acetophenone	5.00	U
62-53-3	Aniline	5.00	U
120-12-7	Anthracene	0.0500	U
1912-24-9	Atrazine	0.500	U
100-52-7	Benzaldehyde	5.00	U
92-87-5	Benzidine	20.0	U
56-55-3	Benzo(a)anthracene	0.0500	U
50-32-8	Benzo(a)pyrene	0.0500	U
205-99-2	Benzo(b)fluoranthene	0.0500	U
191-24-2	Benzo(g,h,i)perylene	0.0500	U
207-08-9	Benzo(k)fluoranthene	0.0500	U
65-85-0	Benzoic acid	50.0	U
100-51-6	Benzyl alcohol	5.00	U
85-68-7	Benzyl butyl phthalate	5.00	U
111-91-1	Bis(2-chloroethoxy)methane	5.00	U
111-44-4	Bis(2-chloroethyl)ether	5.00	U
108-60-1	Bis(2-chloroisopropyl)ether	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.500	U
105-60-2	Caprolactam	5.00	U
86-74-8	Carbazole	5.00	U
87-68-3	Hexachlorobutadiene	0.500	U
218-01-9	Chrysene	0.0500	U
53-70-3	Dibenzo(a,h)anthracene	0.0500	U
132-64-9	Dibenzofuran	5.00	U
84-66-2	Diethyl phthalate	5.00	U
131-11-3	Dimethyl phthalate	5.00	U
84-74-2	Di-n-butyl phthalate	5.00	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK1 File ID: E401233.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:43 Instrument: GC/MS BNA
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
117-84-0	Di-n-octyl phthalate	5.00	U
91-20-3	Naphthalene	0.0500	U
206-44-0	Fluoranthene	0.0500	U
86-73-7	Fluorene	0.0500	U
118-74-1	Hexachlorobenzene	0.0200	U
77-47-4	Hexachlorocyclopentadiene	5.00	U
67-72-1	Hexachloroethane	0.500	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0500	U
78-59-1	Isophorone	5.00	U
98-95-3	Nitrobenzene	0.250	U
62-75-9	N-Nitrosodimethylamine	0.500	U
621-64-7	N-nitroso-di-n-propylamine	5.00	U
86-30-6	N-Nitrosodiphenylamine	5.00	U
87-86-5	Pentachlorophenol	0.250	U
85-01-8	Phenanthrene	0.0500	U
108-95-2	Phenol	5.00	U
129-00-0	Pyrene	0.0500	U
110-86-1	Pyridine	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	75.2	12.3	16.3	12 - 64	
Phenol-d5	75.1	7.58	10.1	10 - 82	
Nitrobenzene-d5	50.2	34.3	68.3	12 - 96	
2-Fluorobiphenyl	50.2	35.9	71.4	16 - 84	
2,4,6-Tribromophenol	75.2	33.7	44.8	15 - 104	
Terphenyl-d14	50.0	44.1	88.2	15 - 106	

Data File : C:\HPCHEM\1\DATA\031616\E401233.D
 Acq On : 16 Mar 2016 9:43 am
 Sample : BC60798-BLK1
 Misc : QBSV4031616A

Vial: 3
 Operator: KH
 Inst : GC/MS BNA
 Multiplr: 1.00

MS Integration Params: EVENTS.E
 Quant Time: Mar 16 13:39 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
 Title : GC MS BNA 4 Semi Volatiles Calibration
 Last Update : Wed Feb 24 15:44:14 2016
 Response via : Initial Calibration
 DataAcq Meth : BNA4M49A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.94	152	5340886	40.00	ug/mL	-0.02
20) Naphthalene-d8	10.57	136	21435424	40.00	ug/mL	-0.02
38) Acenaphthene-d10	12.98	164	11457488	40.00	ug/mL	-0.03
61) Phenanthrene-d10	15.06	188	18132201	40.00	ug/mL	-0.03
78) Chrysene-d12	18.85	240	17380311	40.00	ug/mL	-0.04
90) Perylene-d12	20.94	264	13759840	40.00	ug/mL	-0.04

System Monitoring Compounds

4) 2-Fluorophenol	7.48	112	2187986m	12.27	ug/mL	-0.16
Spiked Amount	75.000	Range	15 - 87	Recovery	=	16.36%
5) Phenol-d5	8.61	99	1619526m	7.58	ug/mL	-0.11
Spiked Amount	75.000	Range	10 - 100	Recovery	=	10.11%
21) Nitrobenzene-d5	9.69	82	6387508	34.27	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	68.54%
43) 2-Fluorobiphenyl	12.03	172	11185378	35.86	ug/mL	-0.02
Spiked Amount	50.000	Range	29 - 120	Recovery	=	71.72%
66) 2,4,6-Tribromophenol	14.12	330	2979041	33.66	ug/mL	-0.03
Spiked Amount	75.000	Range	35 - 126	Recovery	=	44.88%
80) Terphenyl-d14	17.31	244	11415417	44.10	ug/mL	-0.03
Spiked Amount	50.000	Range	35 - 127	Recovery	=	88.20%

Target Compounds

Qvalue

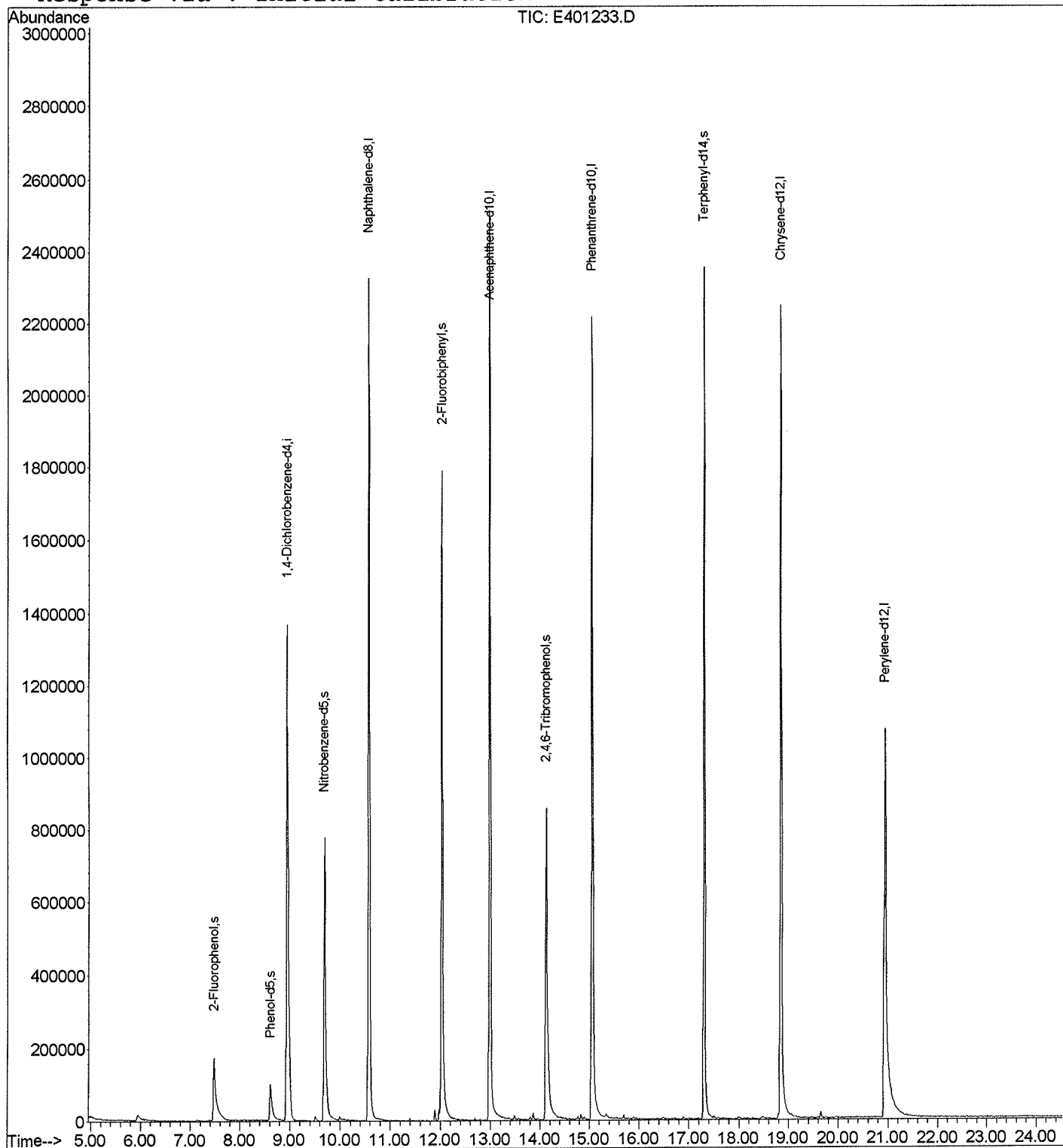
Quantitation Report

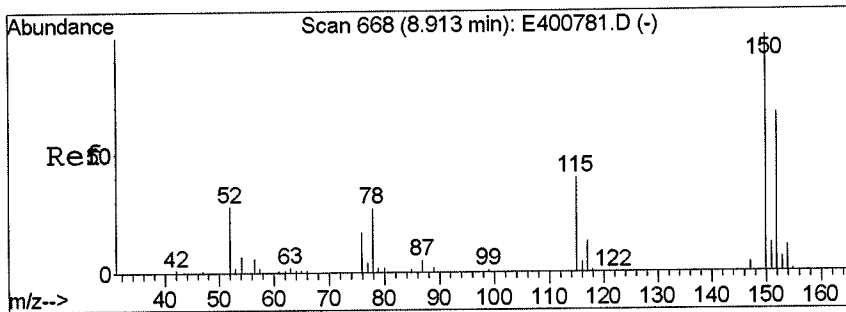
Data File : C:\HPCHEM\1\DATA\031616\E401233.D
Acq On : 16 Mar 2016 9:43 am
Sample : BC60798-BLK1
Misc : QBSV4031616A
MS Integration Params: EVENTS.E
Quant Time: Mar 16 13:39 2016

Vial: 3
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M49A.RES

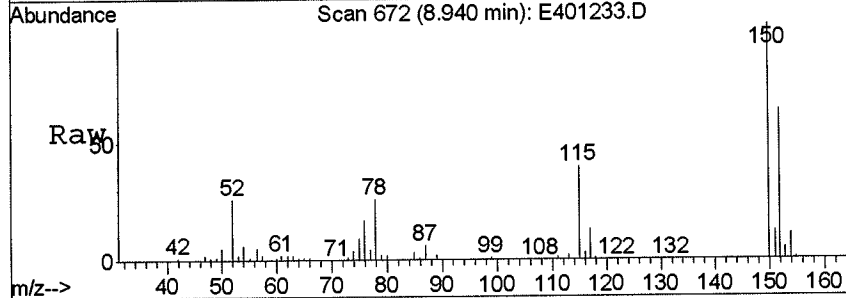
Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
Title : GC MS BNA 4 Semi Volatiles Calibration
Last Update : Wed Feb 24 15:44:14 2016
Response via : Initial Calibration





#1
 1,4-Dichlorobenzene-d4
 Concen: 40.00 ug/mL
 RT: 8.94 min Scan# 672
 Delta R.T. -0.02 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

Tgt Ion:	152	Resp:	5340886
Ion	Ratio	Lower	Upper
152	100		
150	154.9	80.2	240.5
115	61.2	33.1	99.3
78	41.3	22.5	67.5



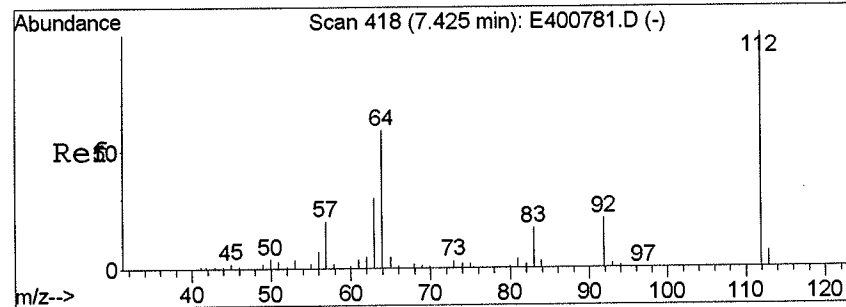
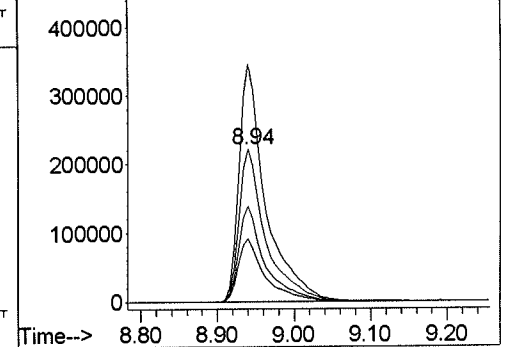
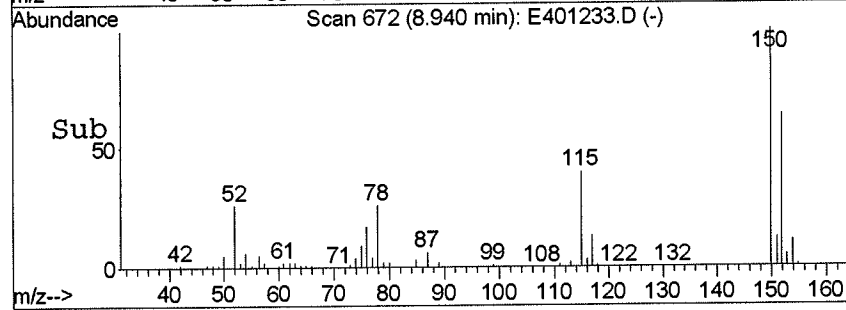
Abundance

Ion 152.00 (151.70 to 152.70): E401233.D

Ion 150.00 (149.70 to 150.70): E401233.D

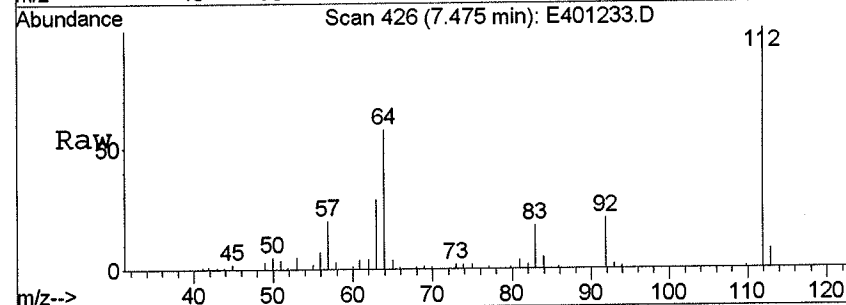
Ion 115.00 (114.70 to 115.70): E401233.D

Ion 78.00 (77.70 to 78.70): E401233.D



#4
 2-Fluorophenol
 Concen: N.D. ug/mL m
 RT: 7.48 min Scan# 426
 Delta R.T. -0.16 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

Tgt Ion:	112	Resp:	2187986
Ion	Ratio	Lower	Upper
112	100		
64	61.5	41.5	62.3
92	17.6	15.8	23.8

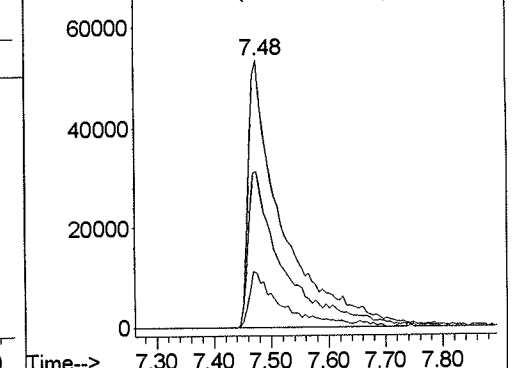
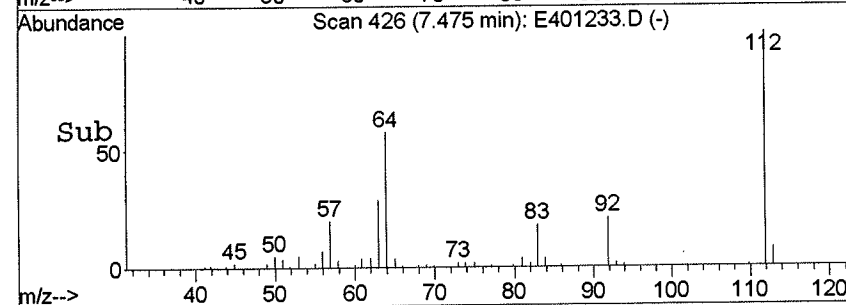


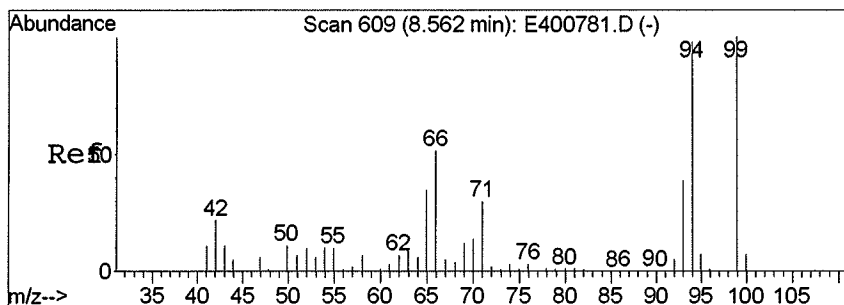
Abundance

Ion 112.00 (111.70 to 112.70): E401233.D

Ion 64.00 (63.70 to 64.70): E401233.D

Ion 92.00 (91.70 to 92.70): E401233.D





#5

Phenol-d5

Concen: N.D. ug/mL m

RT: 8.61 min Scan# 616

Delta R.T. -0.11 min

Lab File: E401233.D

Acq: 16 Mar 2016 9:43 am

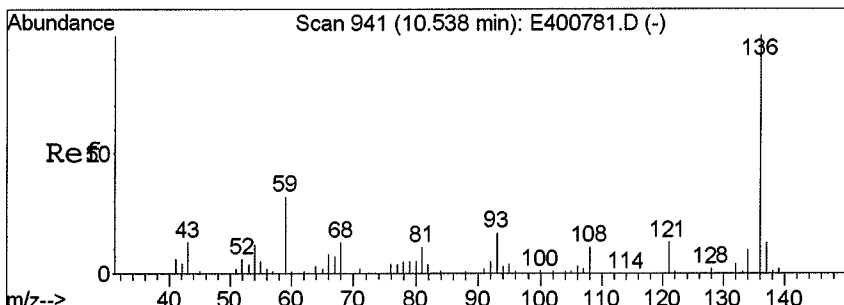
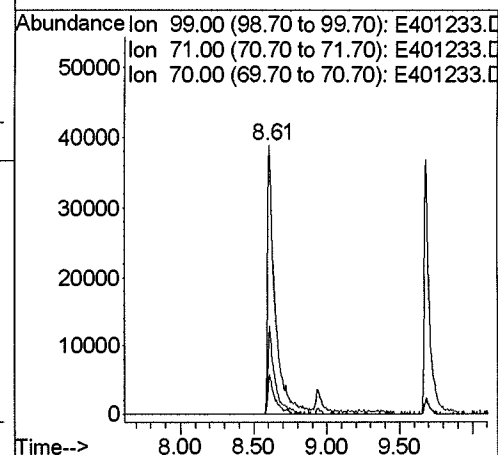
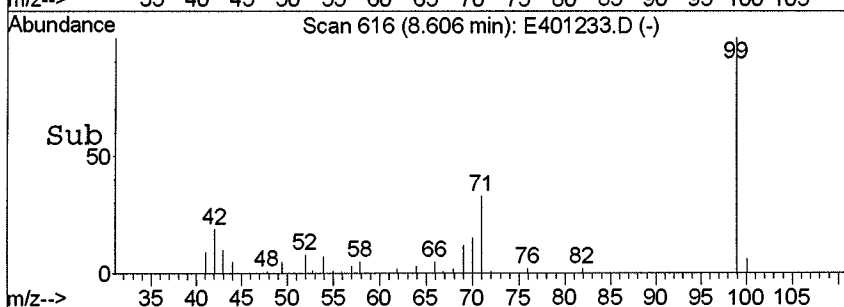
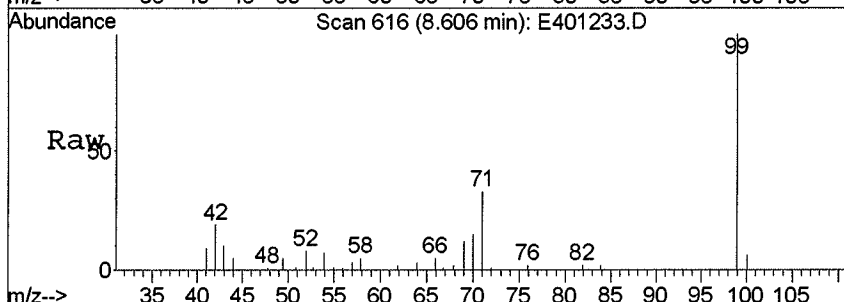
Tgt Ion: 99 Resp: 1619526

Ion Ratio Lower Upper

99 100

71 25.0 26.3 39.5#

70 11.8 12.4 18.6#



#20

Naphthalene-d8

Concen: 40.00 ug/mL

RT: 10.57 min Scan# 945

Delta R.T. -0.02 min

Lab File: E401233.D

Acq: 16 Mar 2016 9:43 am

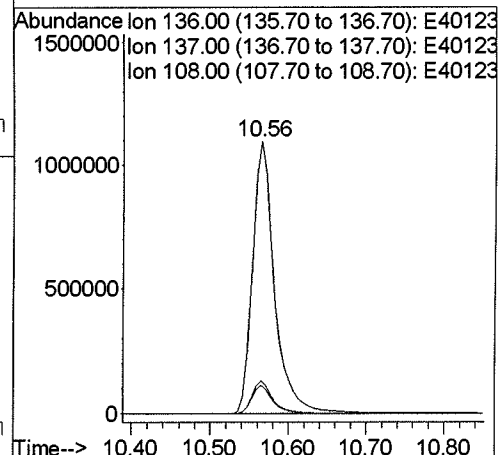
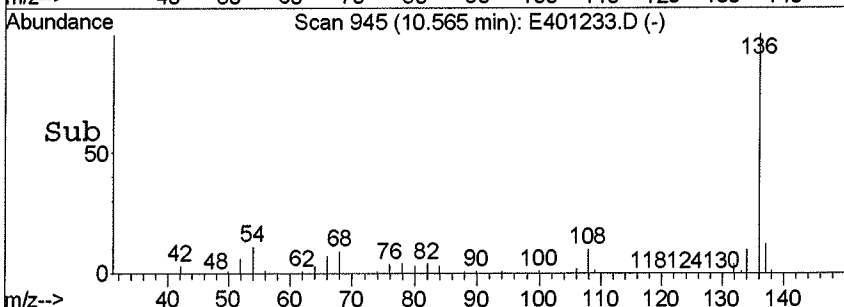
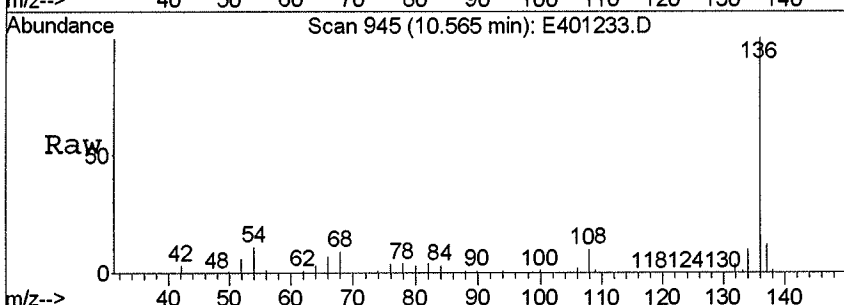
Tgt Ion: 136 Resp: 21435424

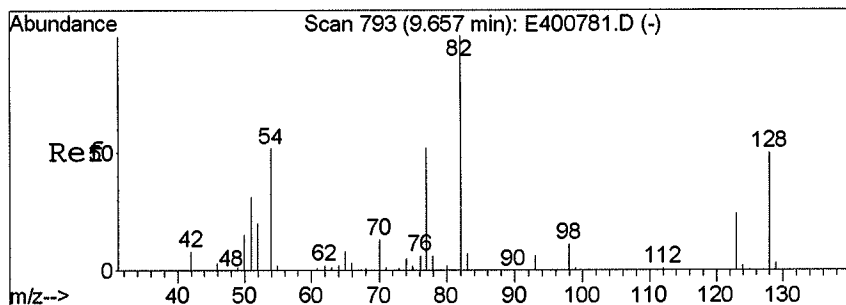
Ion Ratio Lower Upper

136 100

137 11.4 6.2 18.4

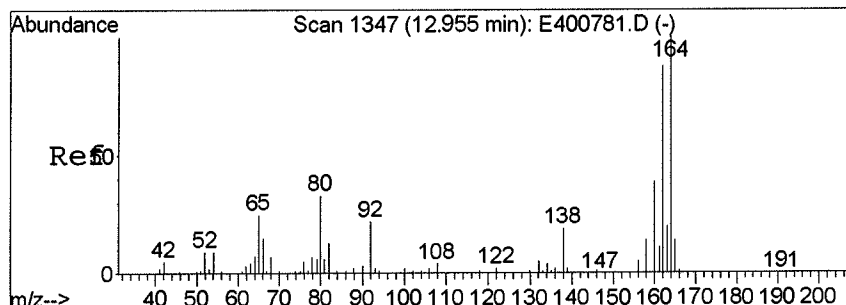
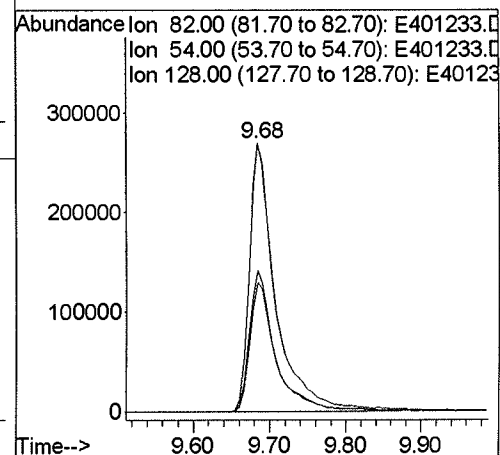
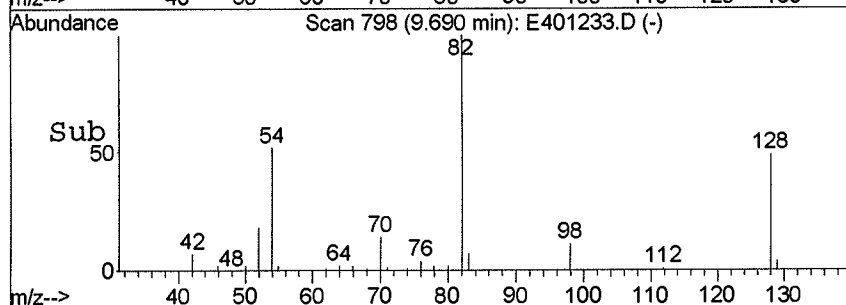
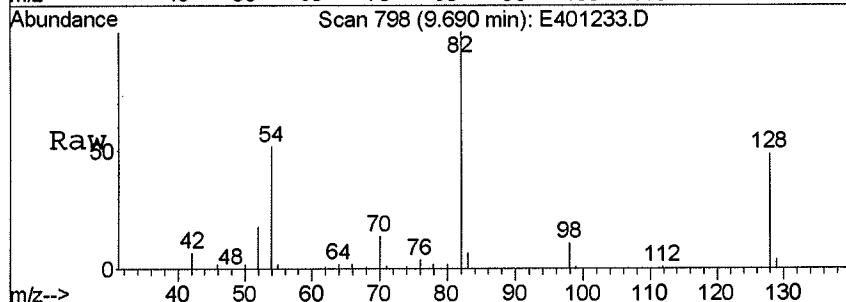
108 9.9 6.2 18.4





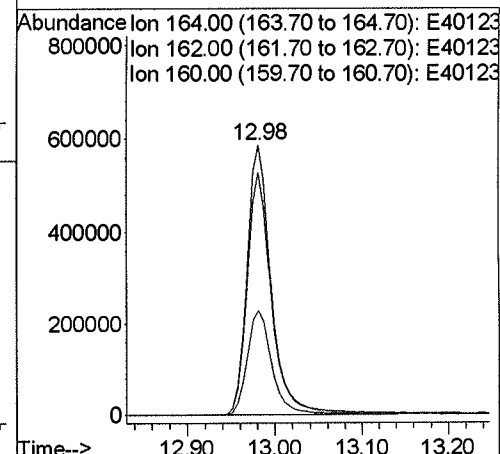
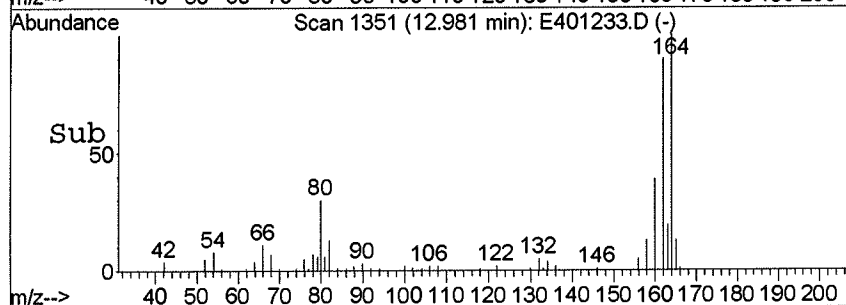
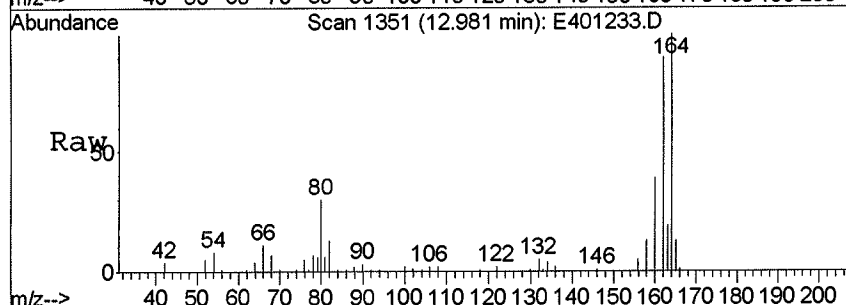
#21
 Nitrobenzene-d5
 Concen: 40.00 ug/mL
 RT: 9.69 min Scan# 798
 Delta R.T. -0.01 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

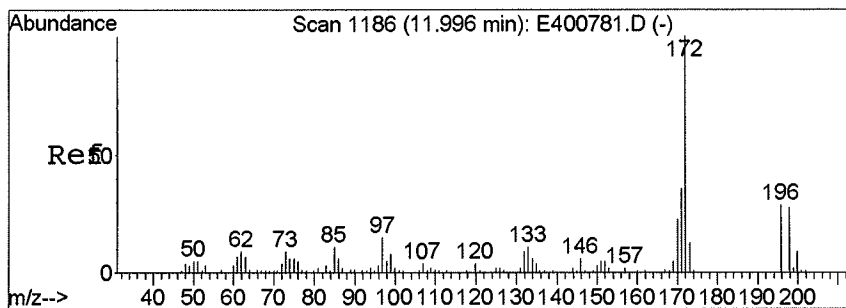
Tgt Ion: 82 Resp: 6387508
 Ion Ratio Lower Upper
 82 100
 54 52.1 36.5 54.7
 128 47.3 40.9 61.3



#38
 Acenaphthene-d10
 Concen: 40.00 ug/mL
 RT: 12.98 min Scan# 1351
 Delta R.T. -0.03 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

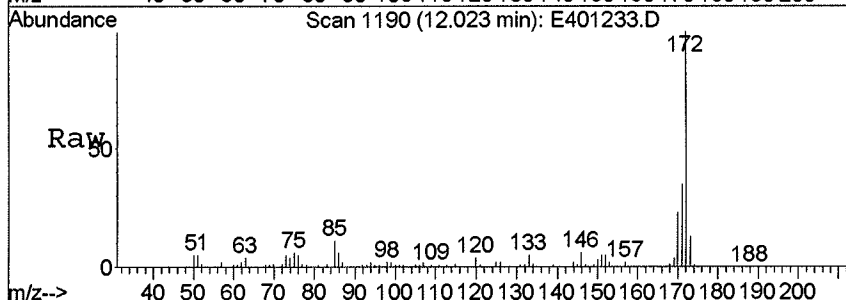
Tgt Ion: 164 Resp: 11457488
 Ion Ratio Lower Upper
 164 100
 162 90.3 45.0 135.0
 160 39.5 20.2 60.6



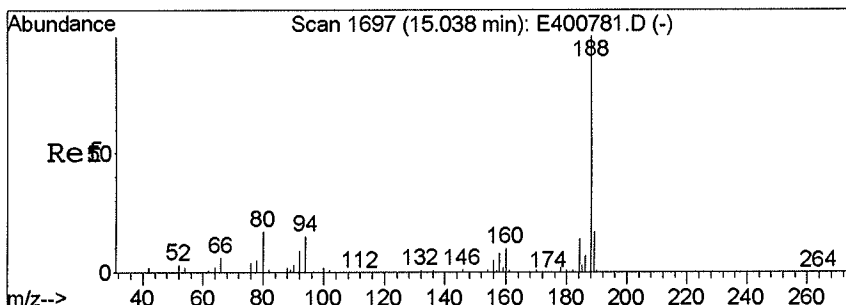
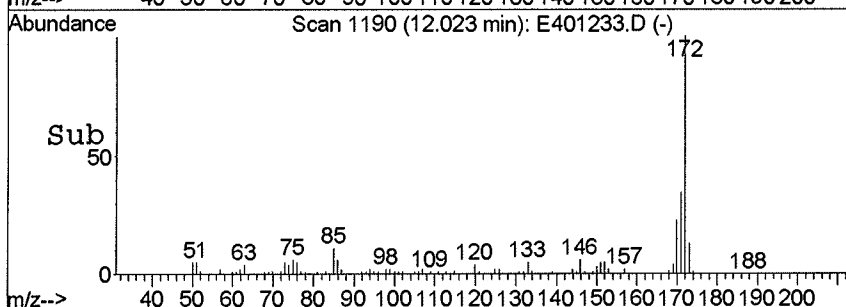
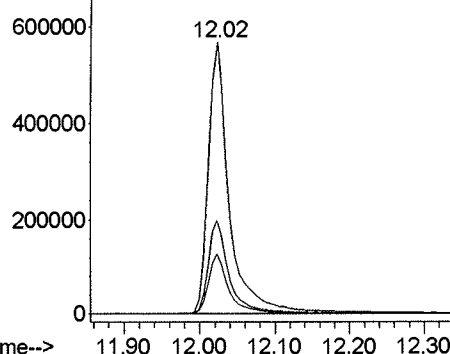


#43
 2-Fluorobiphenyl
 Concen: N.D. ug/mL
 RT: 12.03 min Scan# 1190
 Delta R.T. -0.02 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

Tgt Ion:172 Resp:11185378
 Ion Ratio Lower Upper
 172 100
 171 35.8 29.2 43.8
 170 22.3 18.6 28.0

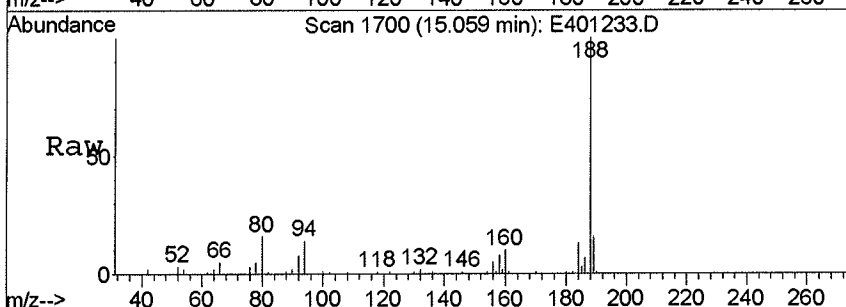


Abundance Ion 172.00 (171.70 to 172.70): E401233
 Ion 171.00 (170.70 to 171.70): E401233
 Ion 170.00 (169.70 to 170.70): E401233

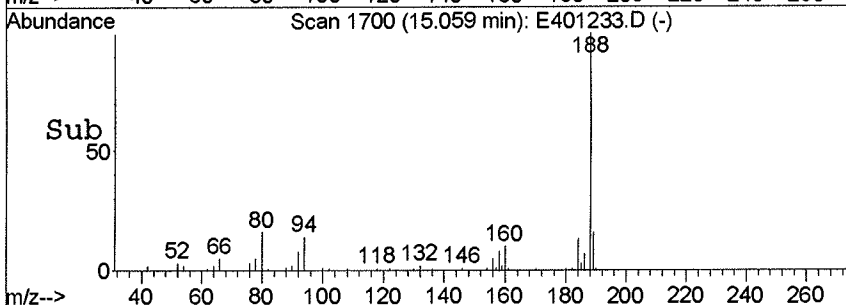
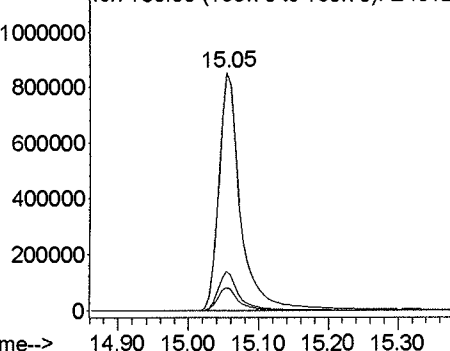


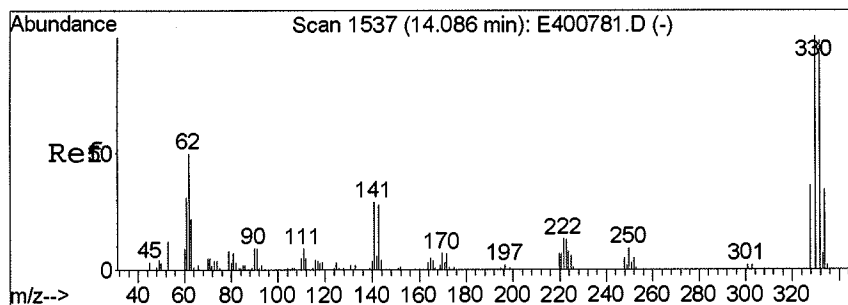
#61
 Phenanthrene-d10
 Concen: 40.00 ug/mL
 RT: 15.06 min Scan# 1700
 Delta R.T. -0.03 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

Tgt Ion:188 Resp:18132201
 Ion Ratio Lower Upper
 188 100
 187 0.2 0.0 0.0#
 189 15.8 8.3 25.1
 160 9.5 5.6 16.8



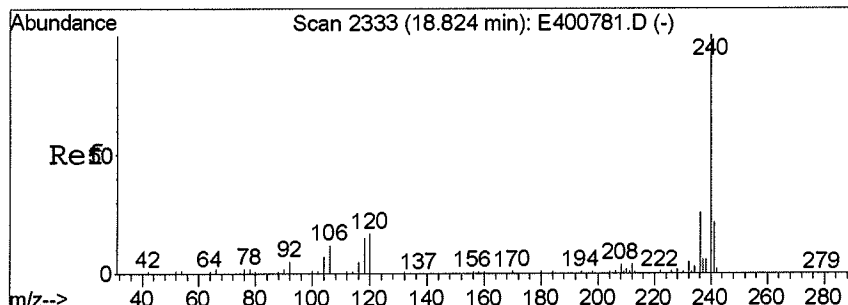
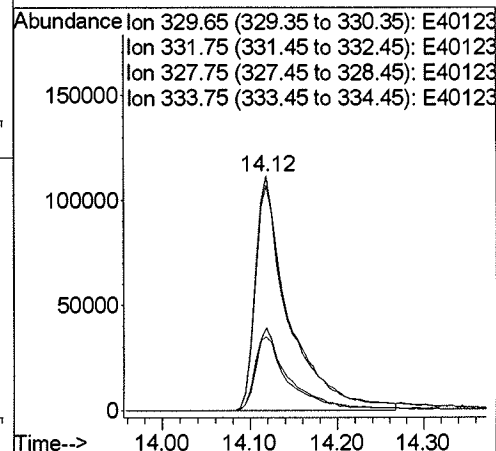
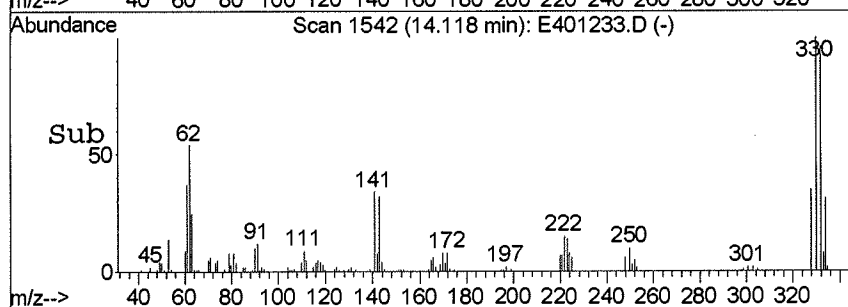
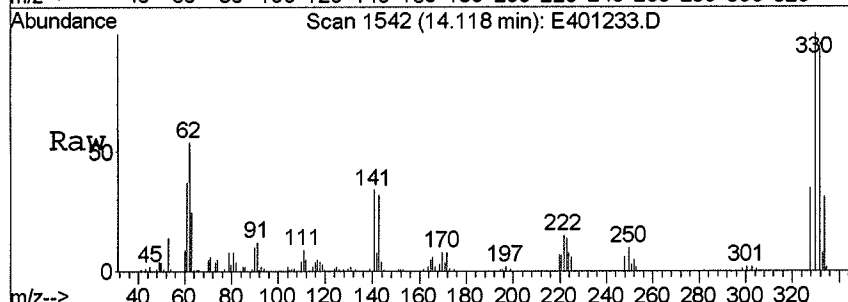
Abundance Ion 188.00 (187.70 to 188.70): E401233
 Ion 187.00 (186.70 to 187.70): E401233
 Ion 189.00 (188.70 to 189.70): E401233
 Ion 160.00 (159.70 to 160.70): E401233





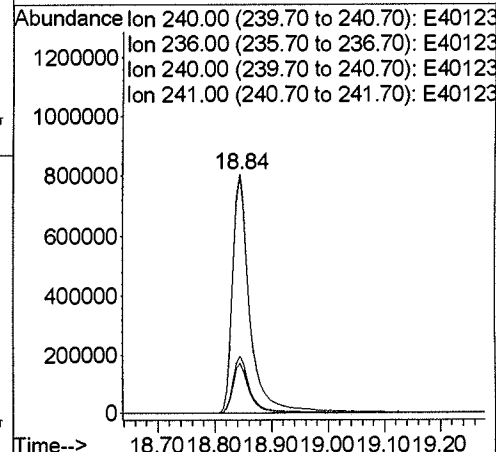
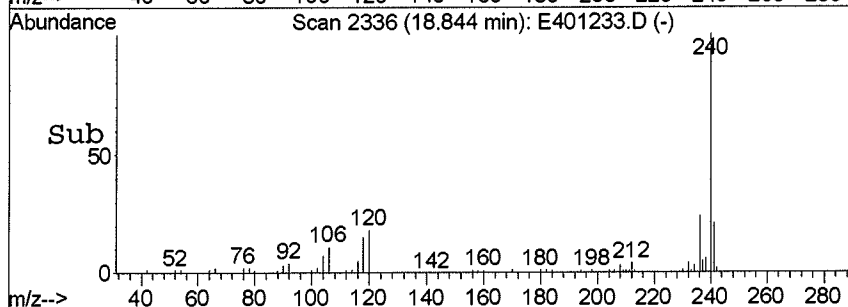
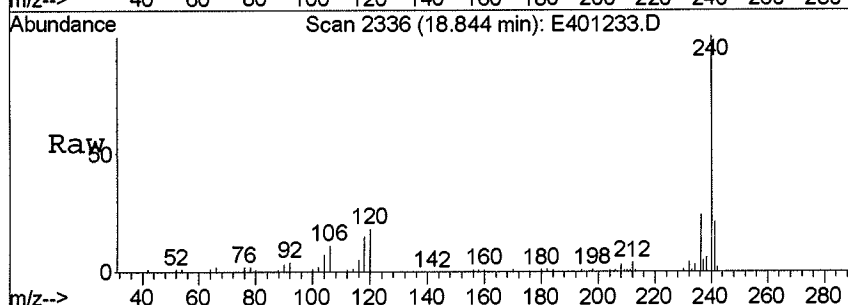
#66
 2,4,6-Tribromophenol
 Concen: Below ug/mL
 RT: 14.12 min Scan# 1542
 Delta R.T. -0.03 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

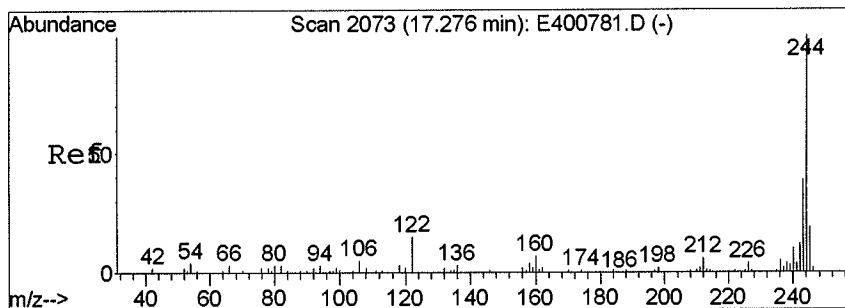
Tgt Ion:	330	Resp:	2979041
Ion Ratio	Lower	Upper	
330	100		
332	96.4	77.9	116.9
328	35.1	27.6	41.4
334	30.3	25.4	38.0



#78
 Chrysene-d12
 Concen: 40.00 ug/mL
 RT: 18.85 min Scan# 2336
 Delta R.T. -0.04 min
 Lab File: E401233.D
 Acq: 16 Mar 2016 9:43 am

Tgt Ion:	240	Resp:	17380311
Ion Ratio	Lower	Upper	
240	100		
236	0.0	11.7	35.1#
240	100.0	50.0	150.0
241	19.7	10.9	32.7





#80

Terphenyl-d14

Concen: N.D. ug/mL

RT: 17.31 min Scan# 2078

Delta R.T. -0.03 min

Lab File: E401233.D

Acq: 16 Mar 2016 9:43 am

Tgt Ion:244 Resp:11415417

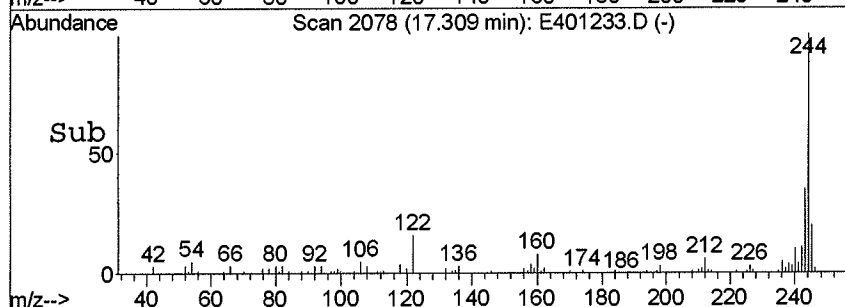
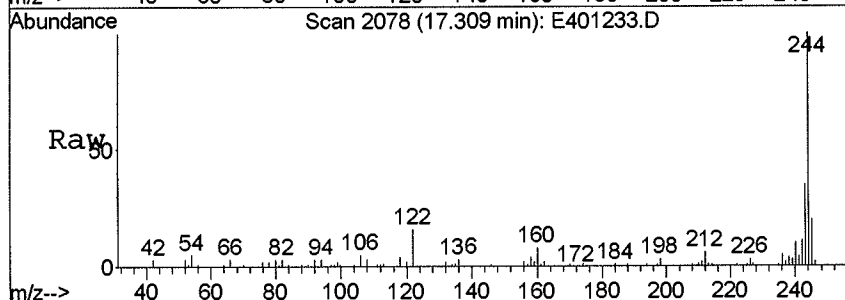
Ion Ratio Lower Upper

244 100

243 34.5 28.0 42.0

245 19.6 15.6 23.4

240 9.7 7.7 11.5

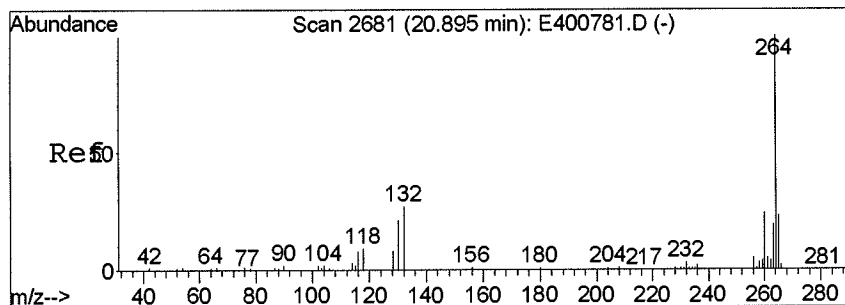
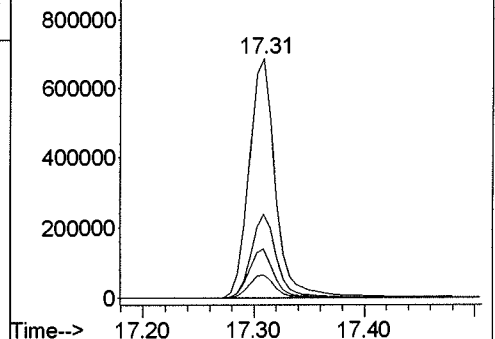


Abundance Ion 244.00 (243.70 to 244.70): E401233.D

Ion 243.00 (242.70 to 243.70): E401233.D

Ion 245.00 (244.70 to 245.70): E401233.D

Ion 240.00 (239.70 to 240.70): E401233.D



#90

Perylene-d12

Concen: 40.00 ug/mL

RT: 20.94 min Scan# 2688

Delta R.T. -0.04 min

Lab File: E401233.D

Acq: 16 Mar 2016 9:43 am

Tgt Ion:264 Resp:13759840

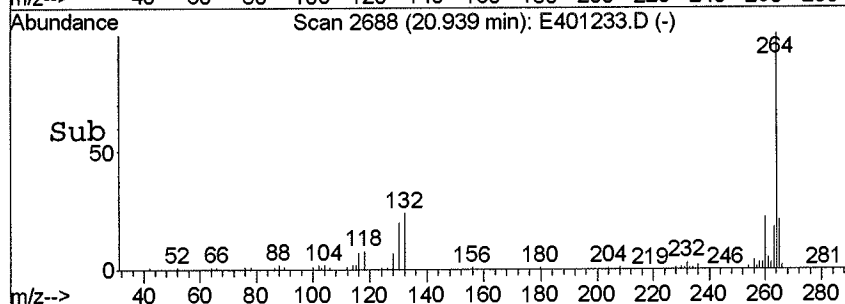
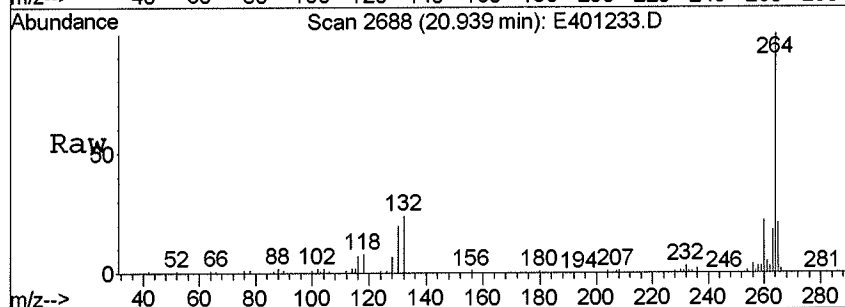
Ion Ratio Lower Upper

264 100

260 20.8 17.9 26.9

265 21.5 18.1 27.1

265 21.5 18.1 27.1

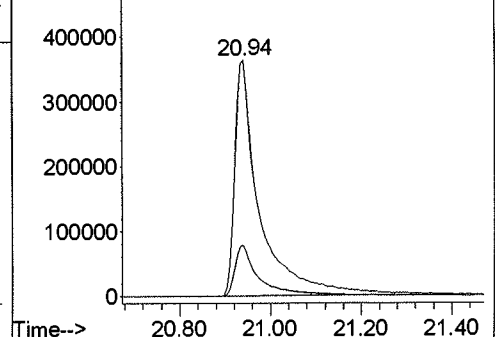


Abundance Ion 264.00 (263.70 to 264.70): E401233.D

Ion 260.00 (259.70 to 260.70): E401233.D

Ion 265.00 (264.70 to 265.70): E401233.D

Ion 265.00 (264.70 to 265.70): E401233.D



FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK2 File ID: E500693.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:32 Instrument: BNA #5
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
92-52-4	1,1'-Biphenyl	5.00	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.00	U
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	5.00	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.00	U
95-95-4	2,4,5-Trichlorophenol	5.00	U
88-06-2	2,4,6-Trichlorophenol	5.00	U
120-82-1	1,2,4-Trichlorobenzene	5.00	U
120-83-2	2,4-Dichlorophenol	5.00	U
105-67-9	2,4-Dimethylphenol	5.00	U
51-28-5	2,4-Dinitrophenol	5.00	U
121-14-2	2,4-Dinitrotoluene	5.00	U
95-50-1	1,2-Dichlorobenzene	5.00	U
606-20-2	2,6-Dinitrotoluene	5.00	U
91-58-7	2-Chloronaphthalene	5.00	U
95-57-8	2-Chlorophenol	5.00	U
91-57-6	2-Methylnaphthalene	5.00	U
541-73-1	1,3-Dichlorobenzene	5.00	U
95-48-7	2-Methylphenol	5.00	U
88-74-4	2-Nitroaniline	5.00	U
106-46-7	1,4-Dichlorobenzene	5.00	U
88-75-5	2-Nitrophenol	5.00	U
65794-96-9	3- & 4-Methylphenols	5.00	U
91-94-1	3,3'-Dichlorobenzidine	5.00	U
99-09-2	3-Nitroaniline	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol	5.00	U
101-55-3	4-Bromophenyl phenyl ether	5.00	U
59-50-7	4-Chloro-3-methylphenol	5.00	U
106-47-8	4-Chloroaniline	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether	5.00	U
100-01-6	4-Nitroaniline	5.00	U

FORM I

METHOD BLANK DATA SHEET
EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK2 File ID: E500693.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:32 Instrument: BNA #5
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
100-02-7	4-Nitrophenol	5.00	U
83-32-9	Acenaphthene	0.0500	U
208-96-8	Acenaphthylene	0.0500	U
98-86-2	Acetophenone	5.00	U
62-53-3	Aniline	5.00	U
120-12-7	Anthracene	0.0500	U
1912-24-9	Atrazine	0.500	U
100-52-7	Benzaldehyde	5.00	U
92-87-5	Benzidine	20.0	U
56-55-3	Benzo(a)anthracene	0.0500	U
50-32-8	Benzo(a)pyrene	0.0500	U
205-99-2	Benzo(b)fluoranthene	0.0500	U
191-24-2	Benzo(g,h,i)perylene	0.0500	U
207-08-9	Benzo(k)fluoranthene	0.0500	U
65-85-0	Benzoic acid	50.0	U
100-51-6	Benzyl alcohol	5.00	U
85-68-7	Benzyl butyl phthalate	5.00	U
111-91-1	Bis(2-chlorooctoxy)methane	5.00	U
111-44-4	Bis(2-chloroethyl)ether	5.00	U
108-60-1	Bis(2-chloroisopropyl)ether	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.500	U
105-60-2	Caprolactam	5.00	U
86-74-8	Carbazole	5.00	U
87-68-3	Hexachlorobutadiene	0.500	U
218-01-9	Chrysene	0.0500	U
53-70-3	Dibenzo(a,h)anthracene	0.0500	U
132-64-9	Dibenzofuran	5.00	U
84-66-2	Diethyl phthalate	5.00	U
131-11-3	Dimethyl phthalate	5.00	U
84-74-2	Di-n-butyl phthalate	5.00	U

FORM I

METHOD BLANK DATA SHEET EPA 8270D

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60798-BLK2 File ID: E500693.D
 Prepared: 03/15/16 14:32 Preparation: EPA 3510C Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/16/16 09:32 Instrument: BNA #5
 Batch: BC60798 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (ug/L)	Q
117-84-0	Di-n-octyl phthalate	5.00	U
91-20-3	Naphthalene	0.0500	U
206-44-0	Fluoranthene	0.0500	U
86-73-7	Fluorene	0.0500	U
118-74-1	Hexachlorobenzene	0.0200	U
77-47-4	Hexachlorocyclopentadiene	5.00	U
67-72-1	Hexachloroethane	0.500	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0500	U
78-59-1	Isophorone	5.00	U
98-95-3	Nitrobenzene	0.250	U
62-75-9	N-Nitrosodimethylamine	0.500	U
621-64-7	N-nitroso-di-n-propylamine	5.00	U
86-30-6	N-Nitrosodiphenylamine	5.00	U
87-86-5	Pentachlorophenol	0.250	U
85-01-8	Phenanthrene	0.0500	U
108-95-2	Phenol	5.00	U
129-00-0	Pyrene	0.0500	U
110-86-1	Pyridine	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	75.2	0.00		12 - 64	*
Phenol-d5	75.1	0.00		10 - 82	*
Nitrobenzene-d5	50.2	0.00		12 - 96	*
2-Fluorobiphenyl	50.2	0.00		16 - 84	*
2,4,6-Tribromophenol	75.2	0.00		15 - 104	*
Terphenyl-d14	50.0	0.00		15 - 106	*

Data File : C:\HPCHEM\1\DATA\031616A\E500693.D

Vial: 3

Acq On : 16 Mar 2016 9:32 am

Operator: SR

Sample : BC60798-BLK2

Inst : BNA #5

Misc : QBSV5031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 17 12:18 2016

Quant Results File: BN5SIM24.RES

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Wed Feb 24 15:45:54 2016

Response via : Initial Calibration

DataAcq Meth : BN5SIM24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.02	150	4245160	2.00	ug/mL	-0.01
5) Naphthalene-d8	9.61	136	10748814	2.00	ug/mL	-0.01
8) Acenaphthene-d10	12.03	164	6386796	2.00	ug/mL	-0.01
12) Phenanthrene-d10	14.13	188	11599417	2.00	ug/mL	-0.01
19) Chrysene-d12	17.94	240	10007733	2.00	ug/mL	-0.01
24) Perylene-d12	19.87	264	7899790	2.00	ug/mL	-0.01

Target Compounds

Qvalue

21) Bis(2-ethylhexyl) phthalat	17.95	149	329194	0.11	ug/mL	99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\031616A\E500693.D

Acq On : 16 Mar 2016 9:32 am

Sample : BC60798-BLK2

Misc : QBSV5031616A

MS Integration Params: EVENTS.E

Quant Time: Mar 17 12:18 2016

Vial: 3

Operator: SR

Inst : BNA #5

Multiplr: 1.00

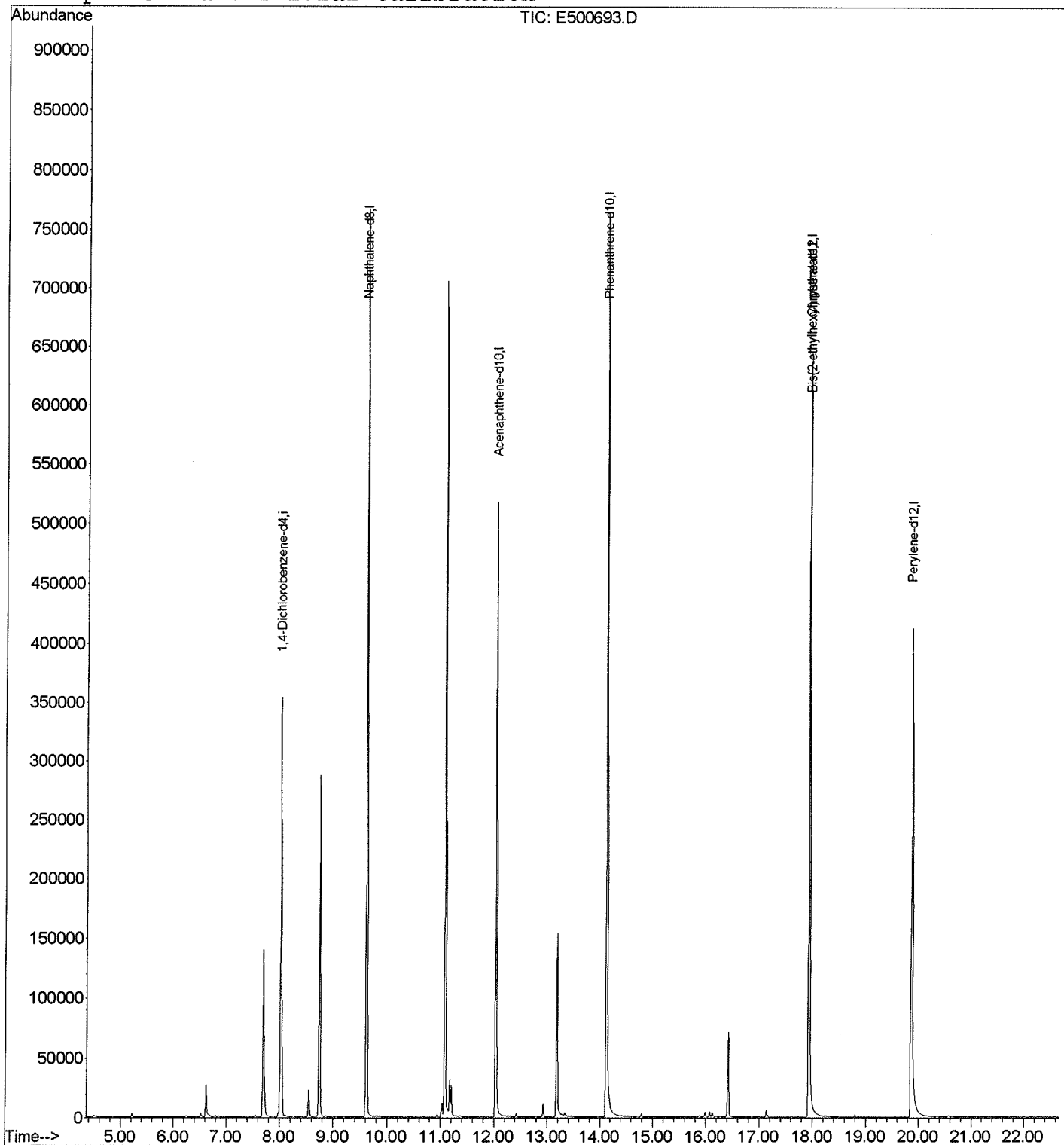
Quant Results File: BN5SIM24.RES

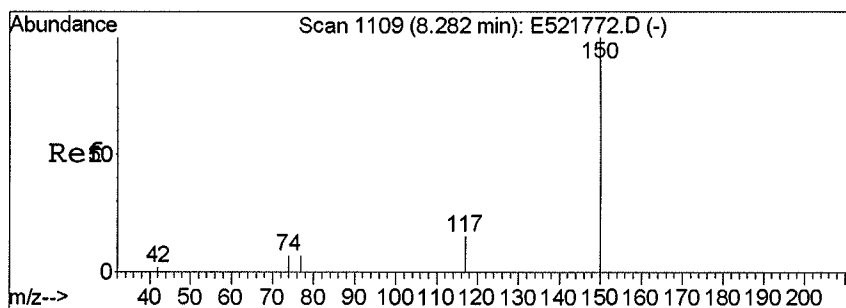
Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Tue Mar 22 14:15:51 2016

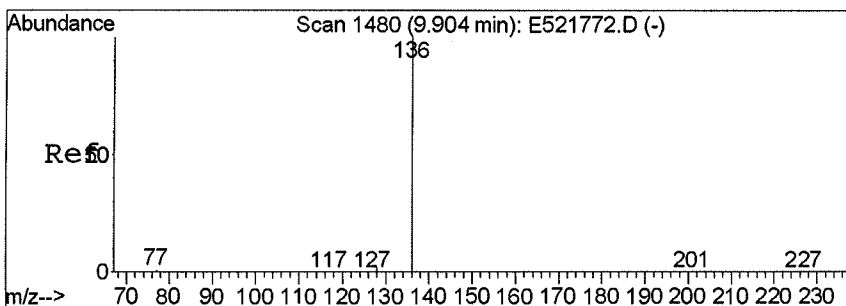
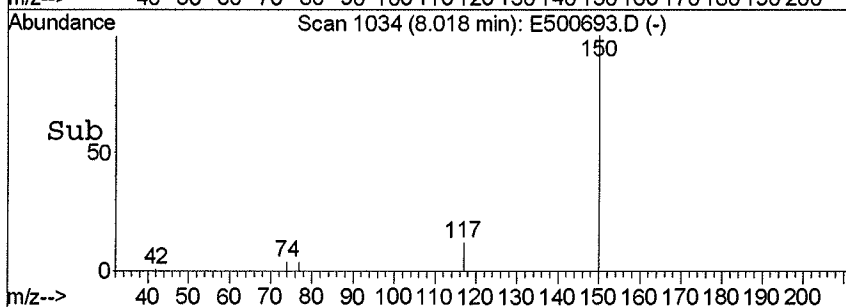
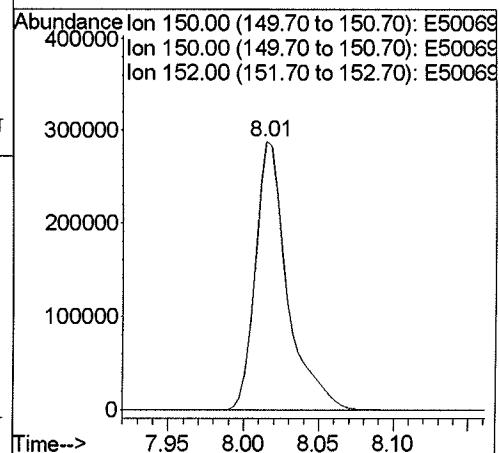
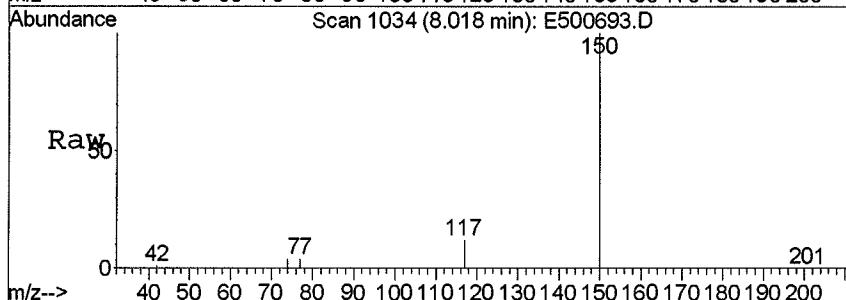
Response via : Initial Calibration





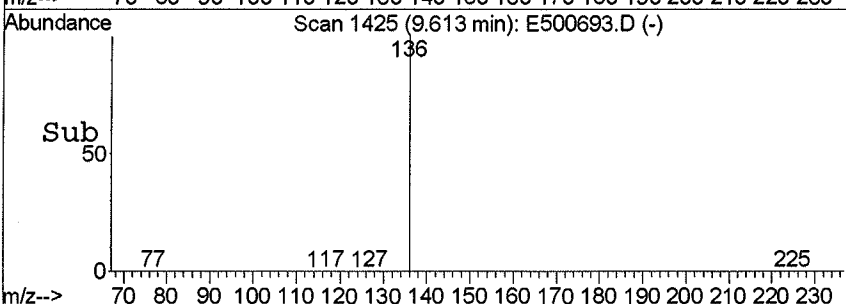
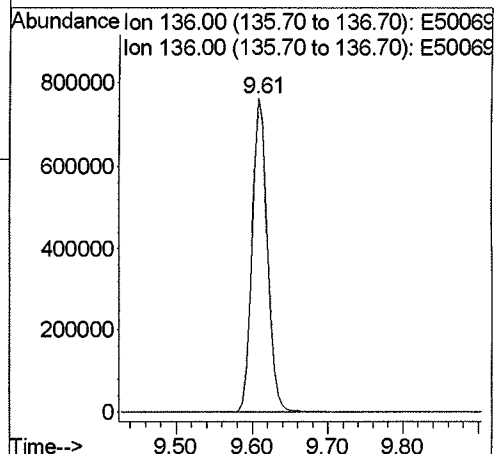
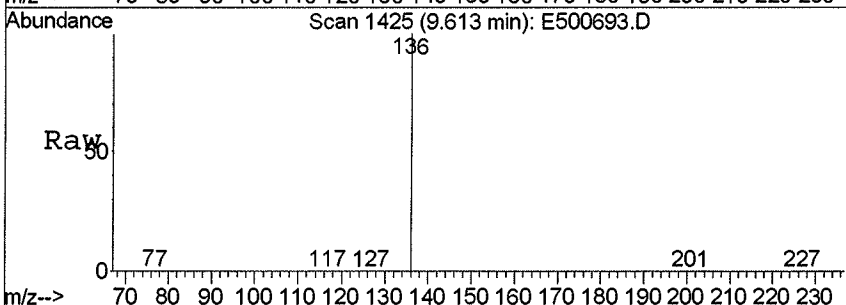
#1
 1,4-Dichlorobenzene-d4
 Concen: 2.00 ug/mL
 RT: 8.02 min Scan# 1034
 Delta R.T. -0.01 min
 Lab File: E500693.D
 Acq: 16 Mar 2016 9:32 am

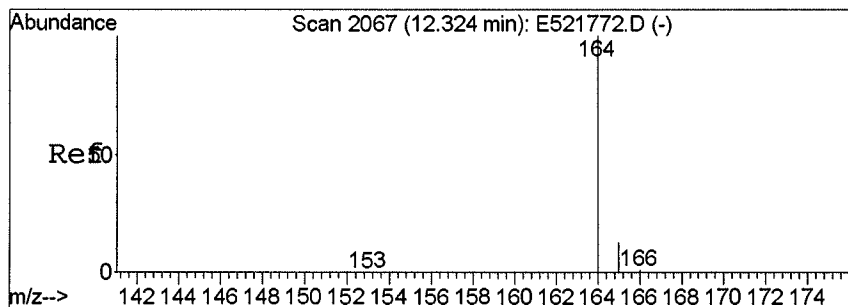
Tgt Ion:150 Resp: 4245160
 Ion Ratio Lower Upper
 150 100
 150 100.0 50.0 150.0
 152 0.0 0.0 0.0



#5
 Naphthalene-d8
 Concen: 2.00 ug/mL
 RT: 9.61 min Scan# 1425
 Delta R.T. -0.01 min
 Lab File: E500693.D
 Acq: 16 Mar 2016 9:32 am

Tgt Ion:136 Resp:10748814
 Ion Ratio Lower Upper
 136 100
 136 100.0 50.0 150.0





#8

Acenaphthene-d10

Concen: 2.00 ug/mL

RT: 12.03 min Scan# 1982

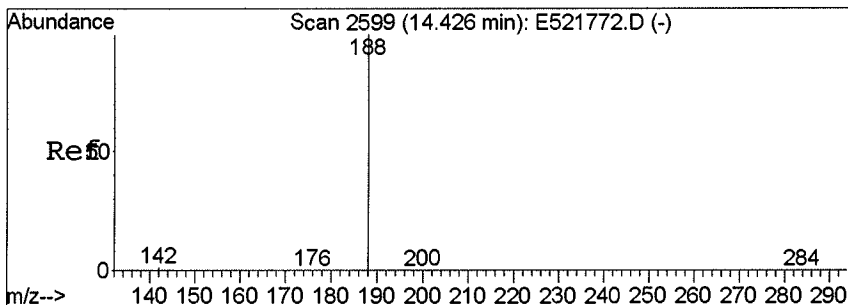
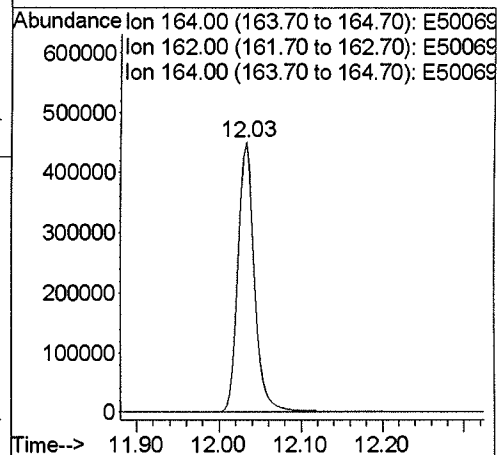
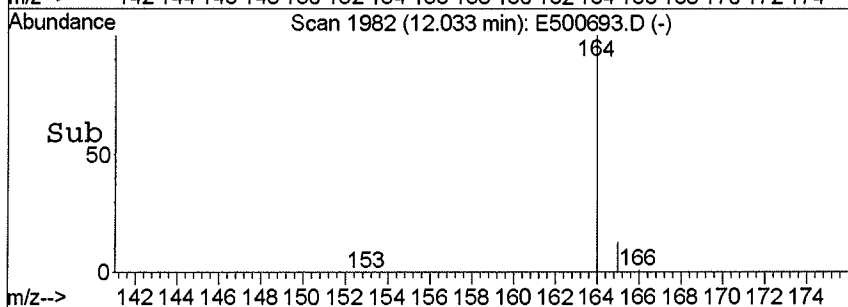
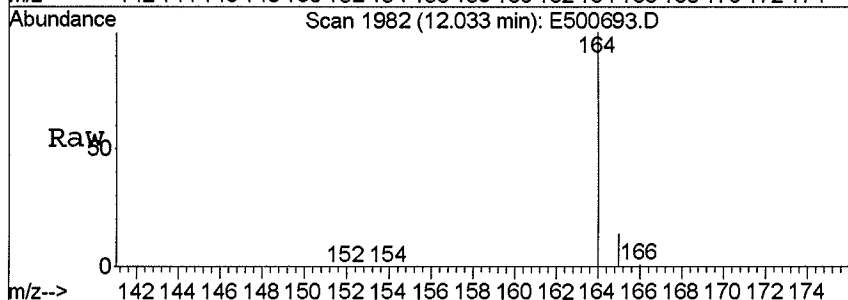
Delta R.T. -0.01 min

Lab File: E500693.D

Acq: 16 Mar 2016 9:32 am

Tgt Ion:164 Resp: 6386796

Ion	Ratio	Lower	Upper
164	100		
162	0.0	0.0	0.0
164	100.0	50.0	150.0



#12

Phenanthrene-d10

Concen: 2.00 ug/mL

RT: 14.13 min Scan# 2535

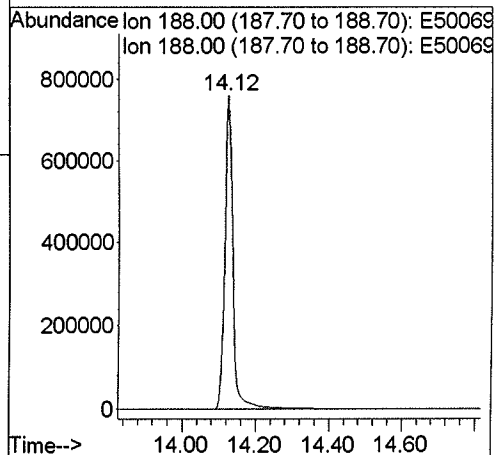
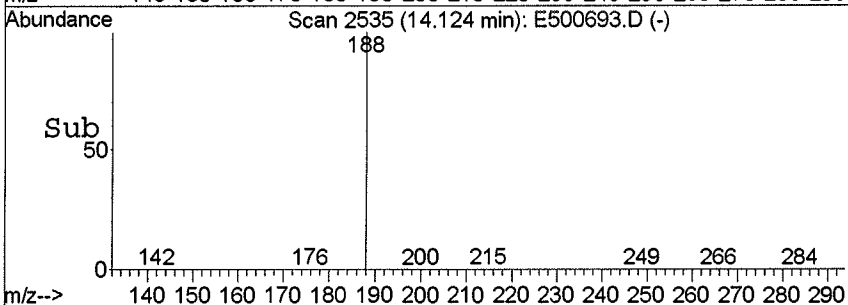
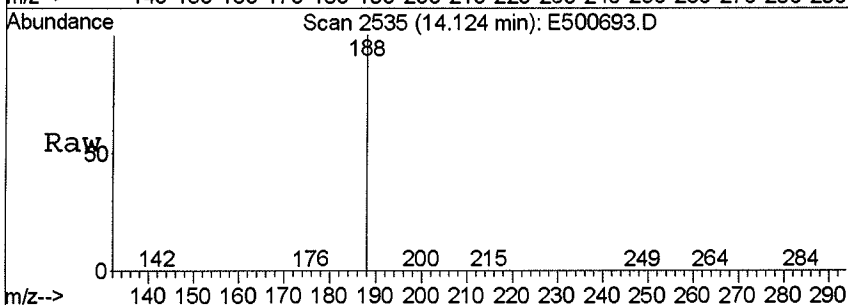
Delta R.T. -0.01 min

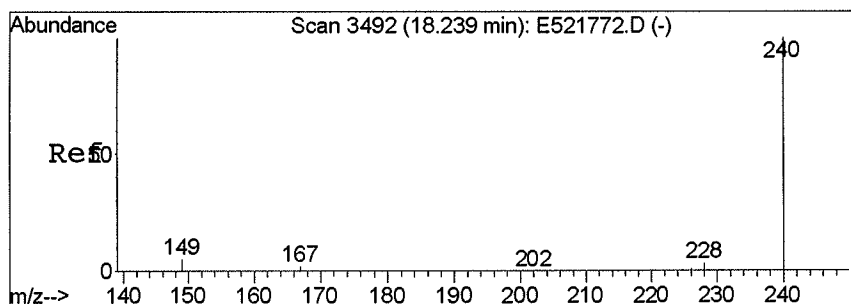
Lab File: E500693.D

Acq: 16 Mar 2016 9:32 am

Tgt Ion:188 Resp:11599417

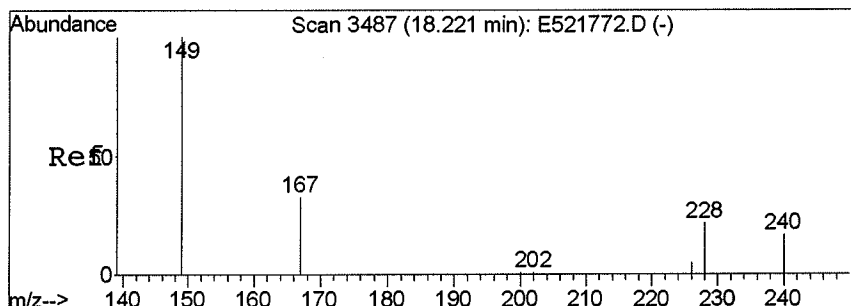
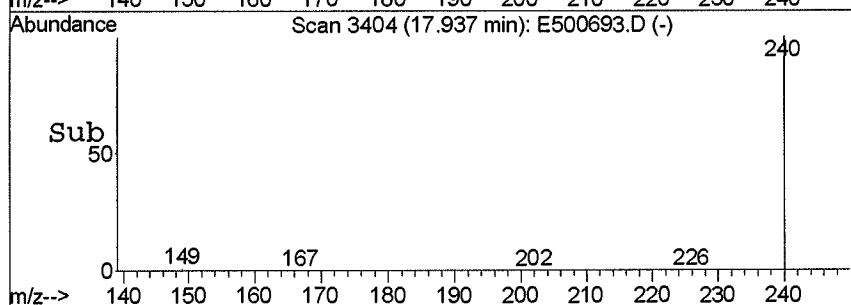
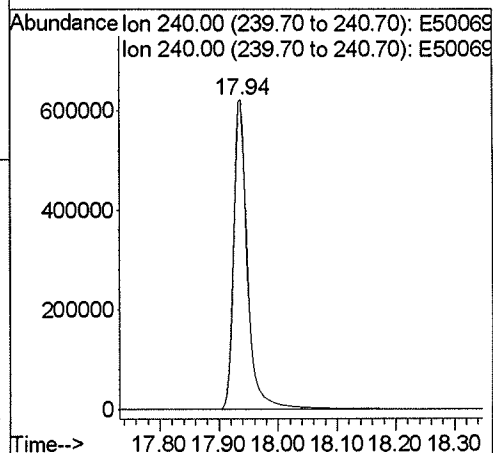
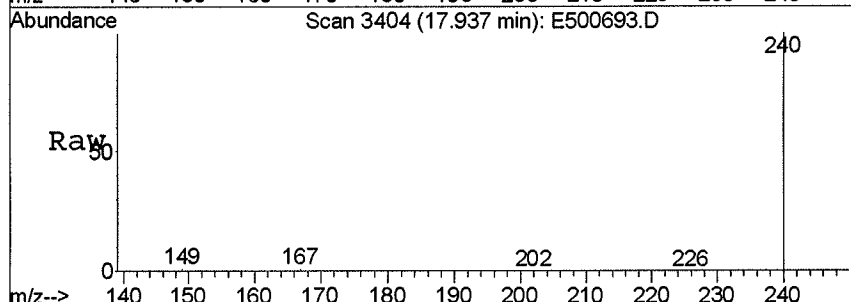
Ion	Ratio	Lower	Upper
188	100		
188	100.0	80.0	120.0





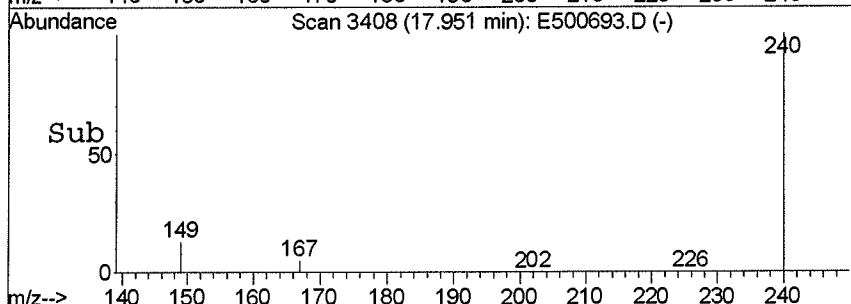
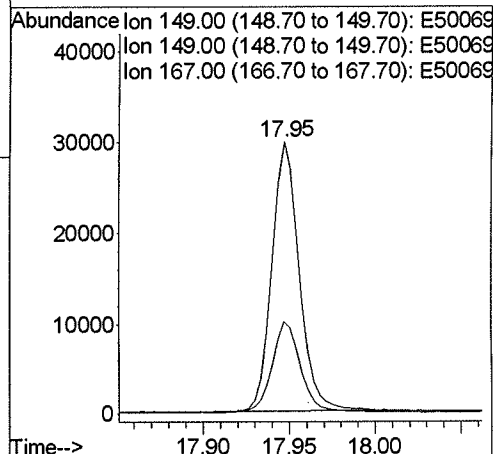
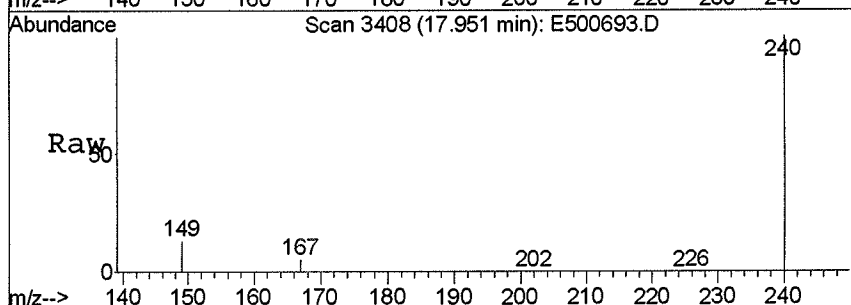
#19
 Chrysene-d12
 Concen: 2.00 ug/mL
 RT: 17.94 min Scan# 3404
 Delta R.T. -0.01 min
 Lab File: E500693.D
 Acq: 16 Mar 2016 9:32 am

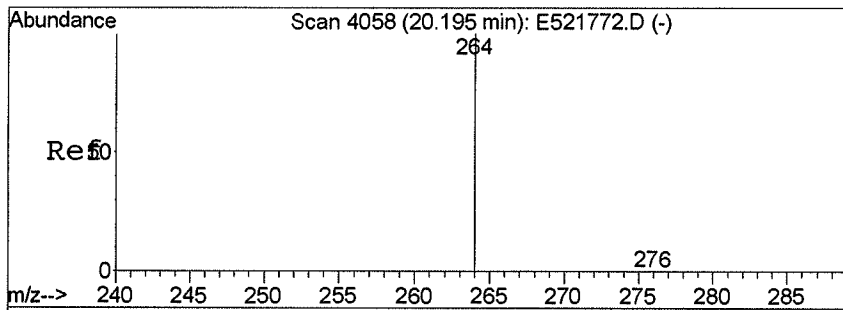
Tgt Ion: 240 Resp: 10007733
 Ion Ratio Lower Upper
 240 100
 240 100.0 50.0 150.0



#21
 Bis(2-ethylhexyl) phthalate
 Concen: 0.11 ug/mL
 RT: 17.95 min Scan# 3408
 Delta R.T. -0.02 min
 Lab File: E500693.D
 Acq: 16 Mar 2016 9:32 am

Tgt Ion: 149 Resp: 329194
 Ion Ratio Lower Upper
 149 100
 149 100.0 80.0 120.0
 167 35.1 16.2 48.5





#24

Perylene-d12

Concen: 2.00 ug/mL

RT: 19.87 min Scan# 3963

Delta R.T. -0.01 min

Lab File: E500693.D

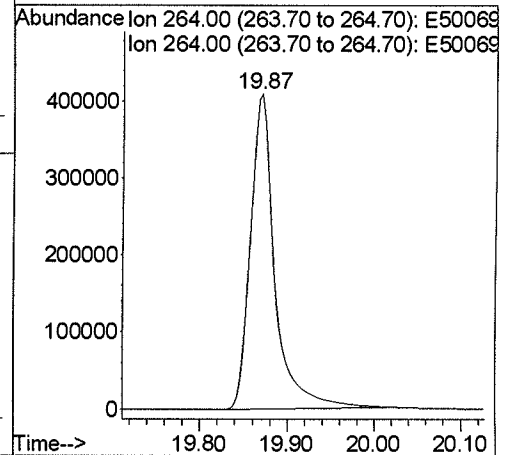
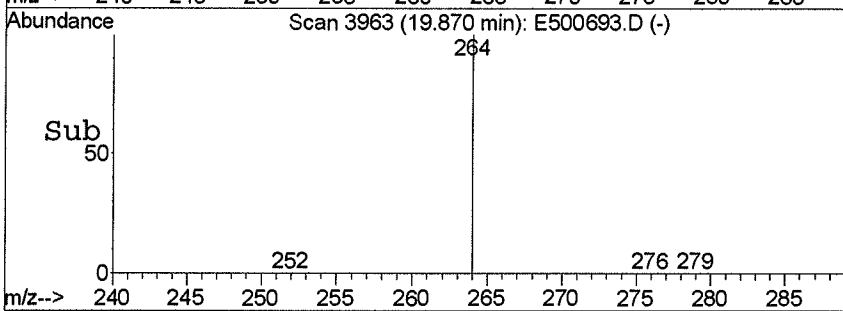
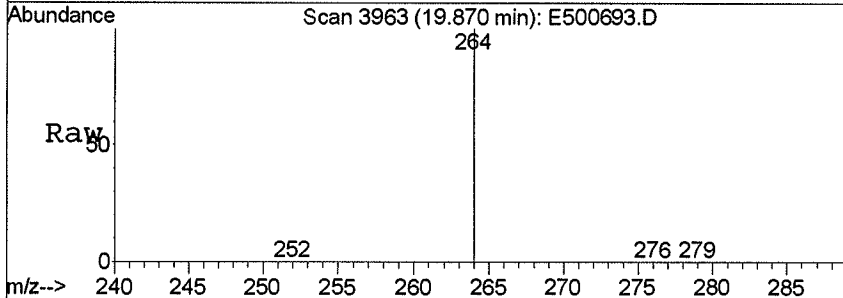
Acq: 16 Mar 2016 9:32 am

Tgt Ion: 264 Resp: 7899790

Ion Ratio Lower Upper

264 100

264 100.0 50.0 150.0



FORM III
LCS / LCS DUPLICATE RECOVERY
EPA 8270D

 Laboratory: York Analytical Laboratories, Inc.

 SDG: 16C0466

 Client: Langan Engineering & Environmental Services (NJ)

 Project: 100433202

 Matrix: Soil

 Batch: BC60754

 Laboratory ID: BC60754-BS1

 Preparation: EPA 3550C

 Initial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
1,1'-Biphenyl		0.828		22 - 103
1,2,4,5-Tetrachlorobenzene	1.67	0.837	50.2	10 - 144
1,2,4-Trichlorobenzene	1.67	0.971	58.3	23 - 130
1,2-Dichlorobenzene	1.67	0.912	54.7	26 - 113
1,2-Diphenylhydrazine (as Azobenzene)	1.67	0.870	52.2	10 - 140
1,3-Dichlorobenzene	1.67	0.866	52.0	32 - 113
1,4-Dichlorobenzene	1.67	0.931	55.8	28 - 111
2,3,4,6-Tetrachlorophenol	1.67	1.61	96.5	30 - 130
2,4,5-Trichlorophenol	1.67	0.899	54.0	14 - 138
2,4,6-Trichlorophenol	1.67	1.02	61.4	27 - 122
2,4-Dichlorophenol	1.67	1.05	63.1	23 - 133
2,4-Dimethylphenol	1.67	0.831	49.9	15 - 131
2,4-Dinitrophenol	1.67	1.37	82.2	10 - 149
2,4-Dinitrotoluene	1.67	1.13	68.0	30 - 123
2,6-Dinitrotoluene	1.67	1.22	73.2	30 - 125
2-Chloronaphthalene	1.67	0.950	57.0	22 - 115
2-Chlorophenol	1.67	0.900	54.0	25 - 121
2-Methylnaphthalene	1.67	0.831	49.8	16 - 127
2-Methylphenol	1.67	0.831	49.9	10 - 146
2-Nitroaniline	1.67	1.04	62.3	24 - 126
2-Nitrophenol	1.67	0.895	53.7	17 - 129
3- & 4-Methylphenols	1.67	0.786	47.2	20 - 109
3,3'-Dichlorobenzidine	1.67	1.23	74.0	10 - 147
3-Nitroaniline	1.67	1.06	63.8	23 - 123
4,6-Dinitro-2-methylphenol	1.67	0.773	46.4	10 - 149
4-Bromophenyl phenyl ether	1.67	0.819	49.2	30 - 138
4-Chloro-3-methylphenol	1.67	0.972	58.3	16 - 138
4-Chloroaniline	1.67	1.07	64.1	10 - 117
4-Chlorophenyl phenyl ether	1.67	0.892	53.5	18 - 132
4-Nitroaniline	1.67	0.791	47.4	14 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BS1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
4-Nitrophenol	1.67	0.928	55.7	10 - 136
Acenaphthene	1.67	0.919	55.1	17 - 124
Acenaphthylene	1.67	0.901	54.1	16 - 124
Acetophenone	3.33	0.887	26.6 *	28 - 105
Aniline	1.67	0.628	37.7	10 - 111
Anthracene	1.67	0.869	52.2	24 - 124
Atrazine	3.33	0.933	28.0	22 - 120
Benzaldehyde	3.33	0.826	24.8	21 - 100
Benzo(a)anthracene	1.67	1.17	70.1	25 - 134
Benzo(a)pyrene	1.67	1.24	74.5	29 - 144
Benzo(b)fluoranthene	1.67	1.02	61.1	20 - 151
Benzo(g,h,i)perylene	1.67	1.11	66.4	10 - 153
Benzo(k)fluoranthene	1.67	1.05	62.9	10 - 148
Benzoic acid	1.67	0.633	38.0	10 - 116
Benzyl alcohol	1.67	0.848	50.9	17 - 128
Benzyl butyl phthalate	1.67	1.40	84.0	10 - 132
Bis(2-chloroethoxy)methane	1.67	0.859	51.5	10 - 129
Bis(2-chloroethyl)ether	1.67	0.834	50.0	14 - 125
Bis(2-chloroisopropyl)ether	1.67	0.879	52.7	14 - 122
Bis(2-ethylhexyl)phthalate	1.67	1.11	66.9	10 - 141
Caprolactam	3.33	0.0533	1.60 *	10 - 123
Carbazole	1.67	0.867	52.0	31 - 120
Chrysene	1.67	1.16	69.4	24 - 116
Dibenzo(a,h)anthracene	1.67	1.04	62.3	17 - 147
Dibenzofuran	1.67	0.954	57.3	23 - 123
Diethyl phthalate	1.67	1.06	63.3	23 - 122
Dimethyl phthalate	1.67	1.13	68.1	28 - 127
Di-n-butyl phthalate	1.67	0.934	56.0	19 - 123
Di-n-octyl phthalate	1.67	1.35	81.0	10 - 132
Fluoranthene	1.67	0.916	54.9	36 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Batch: BC60754

Laboratory ID: BC60754-BS1

Preparation: EPA 3550C

Initial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Fluorene	1.67	0.944	56.7	16 - 130
Hexachlorobenzene	1.67	0.899	54.0	10 - 129
Hexachlorobutadiene	1.67	0.958	57.5	22 - 153
Hexachlorocyclopentadiene	1.67	0.748	44.9	10 - 134
Hexachloroethane	1.67	0.874	52.4	20 - 112
Indeno(1,2,3-cd)pyrene	1.67	1.04	62.1	10 - 155
Isophorone	1.67	0.927	55.6	14 - 131
Naphthalene	1.67	0.857	51.4	20 - 121
Nitrobenzene	1.67	0.918	55.1	20 - 121
N-Nitrosodimethylamine	1.67	0.647	38.8	10 - 124
N-nitroso-di-n-propylamine	1.67	0.800	48.0	21 - 119
N-Nitrosodiphenylamine	1.67	0.887	53.2	10 - 163
Pentachlorophenol	1.67	0.635	38.1	10 - 143
Phenanthrene	1.67	0.902	54.1	24 - 123
Phenol	1.67	0.770	46.2	15 - 123
Pyrene	1.67	1.35	80.9	24 - 132
Pyridine	1.67	0.588	35.3	10 - 92

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BSD1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1'-Biphenyl		0.801		3.32	30	22 - 103
1,2,4,5-Tetrachlorobenzene	1.67	0.815	48.9	2.62	30	10 - 144
1,2,4-Trichlorobenzene	1.67	0.886	53.2	9.12	30	23 - 130
1,2-Dichlorobenzene	1.67	0.838	50.3	8.45	30	26 - 113
1,2-Diphenylhydrazine (as Azobenzene)	1.67	0.786	47.2	10.1	30	10 - 140
1,3-Dichlorobenzene	1.67	0.794	47.6	8.67	30	32 - 113
1,4-Dichlorobenzene	1.67	0.847	50.8	9.41	30	28 - 111
2,3,4,6-Tetrachlorophenol	1.67	1.49	89.7	7.37	30	30 - 130
2,4,5-Trichlorophenol	1.67	0.822	49.3	9.03	30	14 - 138
2,4,6-Trichlorophenol	1.67	0.935	56.1	9.02	30	27 - 122
2,4-Dichlorophenol	1.67	0.936	56.2	11.7	30	23 - 133
2,4-Dimethylphenol	1.67	0.745	44.7	11.0	30	15 - 131
2,4-Dinitrophenol	1.67	1.16	69.7	16.5	30	10 - 149
2,4-Dinitrotoluene	1.67	1.04	62.5	8.37	30	30 - 123
2,6-Dinitrotoluene	1.67	1.09	65.3	11.5	30	30 - 125
2-Chloronaphthalene	1.67	0.852	51.1	10.8	30	22 - 115
2-Chlorophenol	1.67	0.817	49.0	9.75	30	25 - 121
2-Methylnaphthalene	1.67	0.788	47.3	5.27	30	16 - 127
2-Methylphenol	1.67	0.736	44.2	12.1	30	10 - 146
2-Nitroaniline	1.67	0.912	54.7	12.9	30	24 - 126
2-Nitrophenol	1.67	0.828	49.7	7.74	30	17 - 129
3- & 4-Methylphenols	1.67	0.723	43.4	8.39	30	20 - 109
3,3'-Dichlorobenzidine	1.67	1.21	72.4	2.21	30	10 - 147
3-Nitroaniline	1.67	0.926	55.6	13.8	30	23 - 123
4,6-Dinitro-2-methylphenol	1.67	0.765	45.9	1.04	30	10 - 149
4-Bromophenyl phenyl ether	1.67	0.760	45.6	7.51	30	30 - 138
4-Chloro-3-methylphenol	1.67	0.879	52.8	10.0	30	16 - 138
4-Chloroaniline	1.67	1.03	61.9	3.52	30	10 - 117
4-Chlorophenyl phenyl ether	1.67	0.832	49.9	7.00	30	18 - 132
4-Nitroaniline	1.67	0.699	42.0	12.3	30	14 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60754Laboratory ID: BC60754-BSD1Preparation: EPA 3550CInitial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4-Nitrophenol	1.67	0.818	49.1	12.6	30	10 - 136
Acenaphthene	1.67	0.830	49.8	10.2	30	17 - 124
Acenaphthylene	1.67	0.813	48.8	10.3	30	16 - 124
Acetophenone	3.33	0.879	26.4 *	0.982	30	28 - 105
Aniline	1.67	0.582	34.9	7.60	30	10 - 111
Anthracene	1.67	0.808	48.5	7.31	30	24 - 124
Atrazine	3.33	0.911	27.3	2.35	30	22 - 120
Benzaldehyde	3.33	0.795	23.8	3.78	30	21 - 100
Benzo(a)anthracene	1.67	0.991	59.5	16.4	30	25 - 134
Benzo(a)pyrene	1.67	1.20	72.3	3.08	30	29 - 144
Benzo(b)fluoranthene	1.67	1.15	68.7	11.7	30	20 - 151
Benzo(g,h,i)perylene	1.67	0.927	55.6	17.6	30	10 - 153
Benzo(k)fluoranthene	1.67	1.04	62.6	0.414	30	10 - 148
Benzoic acid	1.67	0.708	42.5	11.1	30	10 - 116
Benzyl alcohol	1.67	0.761	45.7	10.7	30	17 - 128
Benzyl butyl phthalate	1.67	1.19	71.3	16.3	30	10 - 132
Bis(2-chloroethoxy)methane	1.67	0.757	45.4	12.6	30	10 - 129
Bis(2-chloroethyl)ether	1.67	0.766	46.0	8.50	30	14 - 125
Bis(2-chloroisopropyl)ether	1.67	0.785	47.1	11.3	30	14 - 122
Bis(2-ethylhexyl)phthalate	1.67	0.930	55.8	18.0	30	10 - 141
Caprolactam	3.33	0.0493	1.48 *	7.79	30	10 - 123
Carbazole	1.67	0.808	48.5	7.01	30	31 - 120
Chrysene	1.67	1.02	61.1	12.8	30	24 - 116
Dibenzo(a,h)anthracene	1.67	0.888	53.3	15.5	30	17 - 147
Dibenzofuran	1.67	0.853	51.2	11.3	30	23 - 123
Diethyl phthalate	1.67	0.954	57.3	10.1	30	23 - 122
Dimethyl phthalate	1.67	1.01	60.7	11.4	30	28 - 127
Di-n-butyl phthalate	1.67	0.866	51.9	7.59	30	19 - 123
Di-n-octyl phthalate	1.67	1.19	71.5	12.5	30	10 - 132
Fluoranthene	1.67	0.878	52.7	4.16	30	36 - 125

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Batch: BC60754

Laboratory ID: BC60754-BSD1

Preparation: EPA 3550C

Initial/Final: 30 g / 1 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Fluorene	1.67	0.868	52.1	8.42	30	16 - 130
Hexachlorobenzene	1.67	0.825	49.5	8.62	30	10 - 129
Hexachlorobutadiene	1.67	0.887	53.2	7.73	30	22 - 153
Hexachlorocyclopentadiene	1.67	0.710	42.6	5.26	30	10 - 134
Hexachloroethane	1.67	0.818	49.1	6.58	30	20 - 112
Indeno(1,2,3-cd)pyrene	1.67	0.884	53.1	15.7	30	10 - 155
Isophorone	1.67	0.824	49.4	11.8	30	14 - 131
Naphthalene	1.67	0.779	46.7	9.54	30	20 - 121
Nitrobenzene	1.67	0.819	49.1	11.4	30	20 - 121
N-Nitrosodimethylamine	1.67	0.476	28.6	30.3 *	30	10 - 124
N-nitroso-di-n-propylamine	1.67	0.727	43.6	9.47	30	21 - 119
N-Nitrosodiphenylamine	1.67	0.832	49.9	6.36	30	10 - 163
Pentachlorophenol	1.67	0.650	39.0	2.34	30	10 - 143
Phenanthrene	1.67	0.850	51.0	5.86	30	24 - 123
Phenol	1.67	0.713	42.8	7.60	30	15 - 123
Pyrene	1.67	1.16	69.5	15.2	30	24 - 132
Pyridine	1.67	0.433	26.0	30.3 *	30	10 - 92

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1'-Biphenyl		36.1		21 - 102
1,2,4,5-Tetrachlorobenzene	50.0	40.4	80.9	28 - 105
1,2-Diphenylhydrazine (as Azobenzene)	50.0	43.5	87.0	16 - 137
2,3,4,6-Tetrachlorophenol	50.0	69.2	138 *	30 - 130
2,4,5-Trichlorophenol	50.0	33.4	66.7	36 - 112
2,4,6-Trichlorophenol	50.0	30.9	61.8	41 - 107
1,2,4-Trichlorobenzene	50.0	30.2	60.3	35 - 91
2,4-Dichlorophenol	50.0	27.5	55.0	43 - 92
2,4-Dimethylphenol	50.0	28.1	56.3	25 - 92
2,4-Dinitrophenol	50.0	34.5	69.1	10 - 149
2,4-Dinitrotoluene	50.0	37.5	75.0	41 - 114
1,2-Dichlorobenzene	50.0	30.7	61.4	42 - 85
2,6-Dinitrotoluene	50.0	39.5	79.0	49 - 106
2-Chloronaphthalene	50.0	33.1	66.1	40 - 96
2-Chlorophenol	50.0	21.9	43.8	35 - 84
2-Methylnaphthalene	50.0	38.2	76.4	33 - 101
1,3-Dichlorobenzene	50.0	28.9	57.9	45 - 80
2-Methylphenol	50.0	16.8	33.6	10 - 90
2-Nitroaniline	50.0	39.4	78.7	31 - 122
1,4-Dichlorobenzene	50.0	31.0	62.1	42 - 82
2-Nitrophenol	50.0	31.3	62.6	37 - 97
3- & 4-Methylphenols	50.0	13.2	26.4	10 - 101
3,3'-Dichlorobenzidine	50.0	60.0	120	25 - 155
3-Nitroaniline	50.0	37.3	74.6	29 - 128
4,6-Dinitro-2-methylphenol	50.0	37.8	75.6	10 - 135
4-Bromophenyl phenyl ether	50.0	35.0	70.1	38 - 116
4-Chloro-3-methylphenol	50.0	29.9	59.9	28 - 101
4-Chloroaniline	50.0	39.6	79.1	10 - 154
4-Chlorophenyl phenyl ether	50.0	35.0	70.0	34 - 112
4-Nitroaniline	50.0	35.0	70.0	15 - 143

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
4-Nitrophenol	50.0	2.52	5.04 *	10 - 112
Acenaphthene	50.0	40.2	80.5	24 - 114
Acenaphthylene	50.0	36.6	73.1	26 - 112
Acetophenone	100	40.4	40.4 *	47 - 92
Aniline	50.0	25.4	50.7	10 - 107
Anthracene	50.0	38.0	75.9	35 - 114
Atrazine	100	42.9	42.9 *	43 - 101
Benzaldehyde	100	41.4	41.4	17 - 117
Benzo(a)anthracene	50.0	41.7	83.5	38 - 127
Benzo(a)pyrene	50.0	38.1	76.1	30 - 146
Benzo(b)fluoranthene	50.0	35.0	69.9	36 - 145
Benzo(g,h,i)perylene	50.0	28.2	56.4	10 - 163
Benzo(k)fluoranthene	50.0	37.3	74.6	16 - 149
Benzoic acid	50.0	ND	*	30 - 130
Benzyl alcohol	50.0	19.5	38.9	18 - 75
Benzyl butyl phthalate	50.0	41.8	83.6	28 - 129
Bis(2-chloroethoxy)methane	50.0	41.1	82.3	27 - 112
Bis(2-chloroethyl)ether	50.0	39.8	79.5	24 - 114
Bis(2-chloroisopropyl)ether	50.0	59.1	118	21 - 124
Bis(2-ethylhexyl)phthalate	50.0	42.5	85.1	10 - 171
Caprolactam	100	5.38	5.38 *	10 - 29
Carbazole	50.0	37.5	75.0	49 - 116
Hexachlorobutadiene	50.0	30.0	60.1	25 - 106
Chrysene	50.0	39.7	79.5	33 - 120
Dibenzo(a,h)anthracene	50.0	31.5	63.0	10 - 149
Dibenzofuran	50.0	36.8	73.6	42 - 105
Diethyl phthalate	50.0	37.7	75.3	38 - 112
Dimethyl phthalate	50.0	36.2	72.3	49 - 106
Di-n-butyl phthalate	50.0	38.8	77.5	36 - 110
Di-n-octyl phthalate	50.0	44.3	88.6	12 - 149

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Naphthalene	50.0	37.2	74.5	30 - 99
Fluoranthene	50.0	39.2	78.5	33 - 126
Fluorene	50.0	38.0	76.0	28 - 117
Hexachlorobenzene	50.0	35.6	71.3	27 - 120
Hexachlorocyclopentadiene	50.0	13.8	27.5	10 - 99
Hexachloroethane	50.0	30.5	61.1	33 - 84
Indeno(1,2,3-cd)pyrene	50.0	30.4	60.7	10 - 150
Isophorone	50.0	39.9	79.7	29 - 115
Nitrobenzene	50.0	35.5	70.9	32 - 113
N-Nitrosodimethylamine	50.0	12.5	24.9	10 - 63
N-nitroso-di-n-propylamine	50.0	43.6	87.2	36 - 118
N-Nitrosodiphenylamine	50.0	43.4	86.8	27 - 145
Pentachlorophenol	50.0	24.6	49.3	19 - 127
Phenanthrene	50.0	39.7	79.3	31 - 112
Phenol	50.0	8.32	16.6	10 - 37
Pyrene	50.0	39.8	79.6	42 - 125
Pyridine	50.0	11.9	23.7	10 - 46

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BSD1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1'-Biphenyl		44.6		20.9 *	20	21 - 102
1,2,4,5-Tetrachlorobenzene	50.0	47.8	95.6	16.7	20	28 - 105
1,2-Diphenylhydrazine (as Azobenzene)	50.0	47.8	95.7	9.48	20	16 - 137
2,3,4,6-Tetrachlorophenol	50.0	81.9	164 *	16.9	20	30 - 130
2,4,5-Trichlorophenol	50.0	38.2	76.3	13.4	20	36 - 112
2,4,6-Trichlorophenol	50.0	33.8	67.6	9.00	20	41 - 107
1,2,4-Trichlorobenzene	50.0	33.4	66.8	10.1	20	35 - 91
2,4-Dichlorophenol	50.0	31.3	62.5	12.8	20	43 - 92
2,4-Dimethylphenol	50.0	32.0	64.0	12.9	20	25 - 92
2,4-Dinitrophenol	50.0	42.0	84.1	19.6	20	10 - 149
2,4-Dinitrotoluene	50.0	40.3	80.5	7.18	20	41 - 114
1,2-Dichlorobenzene	50.0	32.9	65.8	6.98	20	42 - 85
2,6-Dinitrotoluene	50.0	45.7	91.5	14.7	20	49 - 106
2-Chloronaphthalene	50.0	35.4	70.8	6.78	20	40 - 96
2-Chlorophenol	50.0	24.2	48.3	9.77	20	35 - 84
2-Methylnaphthalene	50.0	41.9	83.8	9.16	20	33 - 101
1,3-Dichlorobenzene	50.0	31.0	62.1	7.00	20	45 - 80
2-Methylphenol	50.0	19.0	38.0	12.1	20	10 - 90
2-Nitroaniline	50.0	43.3	86.7	9.60	20	31 - 122
1,4-Dichlorobenzene	50.0	32.6	65.1	4.75	20	42 - 82
2-Nitrophenol	50.0	35.9	71.8	13.7	20	37 - 97
3- & 4-Methylphenols	50.0	15.6	31.3	16.9	20	10 - 101
3,3'-Dichlorobenzidine	50.0	58.7	117	2.21	20	25 - 155
3-Nitroaniline	50.0	41.4	82.8	10.4	20	29 - 128
4,6-Dinitro-2-methylphenol	50.0	50.6	101	28.9 *	20	10 - 135
4-Bromophenyl phenyl ether	50.0	42.7	85.5	19.8	20	38 - 116
4-Chloro-3-methylphenol	50.0	34.2	68.4	13.3	20	28 - 101
4-Chloroaniline	50.0	44.2	88.4	11.1	20	10 - 154
4-Chlorophenyl phenyl ether	50.0	41.8	83.5	17.7	20	34 - 112
4-Nitroaniline	50.0	42.1	84.1	18.4	20	15 - 143

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BSD1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4-Nitrophenol	50.0	3.93	7.86 *	43.7 *	20	10 - 112
Acenaphthene	50.0	45.1	90.1	11.3	20	24 - 114
Acenaphthylene	50.0	40.9	81.9	11.3	20	26 - 112
Acetophenone	100	47.4	47.4	15.9	20	47 - 92
Aniline	50.0	27.7	55.5	8.97	20	10 - 107
Anthracene	50.0	43.8	87.7	14.4	20	35 - 114
Atrazine	100	50.8	50.8	16.8	20	43 - 101
Benzaldehyde	100	46.6	46.6	11.6	20	17 - 117
Benzo(a)anthracene	50.0	41.2	82.3	1.40	20	38 - 127
Benzo(a)pyrene	50.0	38.1	76.2	0.0525	20	30 - 146
Benzo(b)fluoranthene	50.0	36.2	72.4	3.49	20	36 - 145
Benzo(g,h,i)perylene	50.0	21.6	43.3	26.2 *	20	10 - 163
Benzo(k)fluoranthene	50.0	37.8	75.5	1.23	20	16 - 149
Benzoic acid	50.0	ND	*		20	30 - 130
Benzyl alcohol	50.0	22.5	44.9	14.3	20	18 - 75
Benzyl butyl phthalate	50.0	45.5	91.0	8.45	20	28 - 129
Bis(2-chloroethoxy)methane	50.0	45.9	91.8	10.9	20	27 - 112
Bis(2-chloroethyl)ether	50.0	42.3	84.6	6.12	20	24 - 114
Bis(2-chloroisopropyl)ether	50.0	62.5	125 *	5.59	20	21 - 124
Bis(2-ethylhexyl)phthalate	50.0	35.5	71.0	18.0	20	10 - 171
Caprolactam	100	6.41	6.41 *	17.5	20	10 - 29
Carbazole	50.0	42.3	84.7	12.1	20	49 - 116
Hexachlorobutadiene	50.0	32.9	65.8	9.18	20	25 - 106
Chrysene	50.0	41.6	83.1	4.48	20	33 - 120
Dibenzo(a,h)anthracene	50.0	28.1	56.2	11.3	20	10 - 149
Dibenzofuran	50.0	39.4	78.9	6.95	20	42 - 105
Diethyl phthalate	50.0	40.1	80.1	6.17	20	38 - 112
Dimethyl phthalate	50.0	39.1	78.1	7.68	20	49 - 106
Di-n-butyl phthalate	50.0	42.5	85.0	9.28	20	36 - 110
Di-n-octyl phthalate	50.0	44.3	88.5	0.0452	20	12 - 149

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BSD1Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Naphthalene	50.0	40.3	80.6	7.94	20	30 - 99
Fluoranthene	50.0	45.6	91.2	14.9	20	33 - 126
Fluorene	50.0	42.6	85.3	11.5	20	28 - 117
Hexachlorobenzene	50.0	41.4	82.9	15.1	20	27 - 120
Hexachlorocyclopentadiene	50.0	21.6	43.3	44.5 *	20	10 - 99
Hexachloroethane	50.0	32.8	65.5	7.02	20	33 - 84
Indeno(1,2,3-cd)pyrene	50.0	26.3	52.6	14.4	20	10 - 150
Isophorone	50.0	43.7	87.4	9.17	20	29 - 115
Nitrobenzene	50.0	39.6	79.3	11.1	20	32 - 113
N-Nitrosodimethylamine	50.0	15.0	29.9	18.2	20	10 - 63
N-nitroso-di-n-propylamine	50.0	47.4	94.7	8.31	20	36 - 118
N-Nitrosodiphenylamine	50.0	53.9	108	21.6 *	20	27 - 145
Pentachlorophenol	50.0	29.4	58.9	17.7	20	19 - 127
Phenanthrene	50.0	47.4	94.8	17.8	20	31 - 112
Phenol	50.0	9.55	19.1	13.8	20	10 - 37
Pyrene	50.0	43.0	86.1	7.85	20	42 - 125
Pyridine	50.0	11.5	23.0	2.99	20	10 - 46

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS2Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1'-Biphenyl		ND		21 - 102
1,2,4,5-Tetrachlorobenzene		ND		28 - 105
1,2-Diphenylhydrazine (as Azobenzene)		ND		16 - 137
2,3,4,6-Tetrachlorophenol		ND		30 - 130
2,4,5-Trichlorophenol		ND		36 - 112
2,4,6-Trichlorophenol		ND		41 - 107
1,2,4-Trichlorobenzene		ND		35 - 91
2,4-Dichlorophenol		ND		43 - 92
2,4-Dimethylphenol		ND		25 - 92
2,4-Dinitrophenol		ND		10 - 149
2,4-Dinitrotoluene		ND		41 - 114
1,2-Dichlorobenzene		ND		42 - 85
2,6-Dinitrotoluene		ND		49 - 106
2-Chloronaphthalene		ND		40 - 96
2-Chlorophenol		ND		35 - 84
2-Methylnaphthalene		ND		33 - 101
1,3-Dichlorobenzene		ND		45 - 80
2-Methylphenol		ND		10 - 90
2-Nitroaniline		ND		31 - 122
1,4-Dichlorobenzene		ND		42 - 82
2-Nitrophenol		ND		37 - 97
3- & 4-Methylphenols		ND		10 - 101
3,3'-Dichlorobenzidine		ND		25 - 155
3-Nitroaniline		ND		29 - 128
4,6-Dinitro-2-methylphenol		ND		10 - 135
4-Bromophenyl phenyl ether		ND		38 - 116
4-Chloro-3-methylphenol		ND		28 - 101
4-Chloroaniline		ND		10 - 154
4-Chlorophenyl phenyl ether		ND		34 - 112
4-Nitroaniline		ND		15 - 143

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS2Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
4-Nitrophenol		ND		10 - 112
Accnaphthene	1.00	0.580	58.0	24 - 114
Accnaphthylene	1.00	0.580	58.0	26 - 112
Acetophenone		ND		47 - 92
Aniline		ND		10 - 107
Anthracene	1.00	0.610	61.0	35 - 114
Atrazine		ND		43 - 101
Benzaldehyde		ND		17 - 117
Benzo(a)anthracene	1.00	0.620	62.0	38 - 127
Benzo(a)pyrene	1.00	0.680	68.0	30 - 146
Benzo(b)fluoranthene	1.00	0.660	66.0	36 - 145
Benzo(g,h,i)perylene	1.00	0.700	70.0	10 - 163
Benzo(k)fluoranthene	1.00	0.800	80.0	16 - 149
Benzoic acid		ND		30 - 130
Benzyl alcohol		ND		18 - 75
Benzyl butyl phthalate		ND		28 - 129
Bis(2-chloroethoxy)methane		ND		27 - 112
Bis(2-chloroethyl)ether		ND		24 - 114
Bis(2-chloroisopropyl)ether		ND		21 - 124
Bis(2-ethylhexyl)phthalate		ND		10 - 171
Caprolactam		ND		10 - 29
Carbazole		ND		49 - 116
Hexachlorobutadiene		ND		25 - 106
Chrysene	1.00	0.630	63.0	33 - 120
Dibenzo(a,h)anthracene	1.00	0.740	74.0	10 - 149
Dibenzofuran		ND		42 - 105
Diethyl phthalate		ND		38 - 112
Dimethyl phthalate		ND		49 - 106
Di-n-butyl phthalate		ND		36 - 110
Di-n-octyl phthalate		ND		12 - 149

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60798Laboratory ID: BC60798-BS2Preparation: EPA 3510CInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Naphthalene	1.00	0.570	57.0	30 - 99
Fluoranthene	1.00	0.690	69.0	33 - 126
Fluorene	1.00	0.590	59.0	28 - 117
Hexachlorobenzene		ND		27 - 120
Hexachlorocyclopentadiene		ND		10 - 99
Hexachloroethane		ND		33 - 84
Indeno(1,2,3-cd)pyrene	1.00	0.730	73.0	10 - 150
Isophorone		ND		29 - 115
Nitrobenzene		ND		32 - 113
N-Nitrosodimethylamine		ND		10 - 63
N-nitroso-di-n-propylamine		ND		36 - 118
N-Nitrosodiphenylamine		ND		27 - 145
Pentachlorophenol		ND		19 - 127
Phenanthrene	1.00	0.540	54.0	31 - 112
Phenol		ND		10 - 37
Pyrene	1.00	0.610	61.0	42 - 125
Pyridine		ND		10 - 46

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E2031516\E201058.D

Vial: 4

Acq On : 15 Mar 2016 10:55 am

Operator: KH

Sample : BC60754-BS1

Inst : BNA#2

Misc : QBSV2031516A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 10:10 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.04	152	4059573	40.00	ug/mL	0.02
21) Naphthalene-d8	9.65	136	13502840	40.00	ug/mL	0.02
39) Acenaphthene-d10	12.07	164	7224529	40.00	ug/mL	0.02
62) Phenanthrene-d10	14.17	188	14768355	40.00	ug/mL	0.02
79) Chrysene-d12	17.98	240	8674464	40.00	ug/mL	0.02
91) Perylene-d12	20.00	264	13809437	40.00	ug/mL	0.02

System Monitoring Compounds

4) 2-Fluorophenol	6.68	112	8048727	47.91	ug/mL	0.01
Spiked Amount	75.000	Range	15 - 87	Recovery	=	63.88%
5) Phenol-d5	7.75	99	8644604	46.00	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	61.33%
22) Nitrobenzene-d5	8.77	82	6258745	26.92	ug/mL	0.03
Spiked Amount	50.000	Range	26 - 120	Recovery	=	53.84%
45) 2-Fluorobiphenyl	11.12	172	9347538	28.19	ug/mL	0.02
Spiked Amount	50.000	Range	29 - 120	Recovery	=	56.38%
67) 2,4,6-Tribromophenol	13.22	330	3542810	44.34	ug/mL	0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	59.12%
81) Terphenyl-d14	16.44	244	9378494	26.89	ug/mL	0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	53.78%

Target Compounds

Qvalue

2) N-Nitrosodimethylamine	4.89	74	2072079	24.46	ug/mL	92
3) Pyridine	4.78	79	3411677m	23.82	ug/mL	
6) Benzaldehyde	7.56	105	3957112	28.40	ug/mL	99
7) Aniline	7.73	93	4680161	23.58	ug/mL#	32
8) Phenol	7.77	94	5893848	26.30	ug/mL	98
9) Bis(2-chloroethyl)ether	7.78	93	5392949	24.50	ug/mL	96
10) 2-Chlorophenol	7.88	128	5039493	27.25	ug/mL	99
11) 1,3-Dichlorobenzene	8.00	146	4923515	27.52	ug/mL	99
12) 1,4-Dichlorobenzene	8.06	146	5297542	27.81	ug/mL	100
13) Benzyl Alcohol	8.27	108	3010665	28.33	ug/mL	96
14) 1,2-Dichlorobenzene	8.29	146	5002654	27.46	ug/mL	99
15) 2-Methylphenol	8.45	107	3824999	26.65	ug/mL	95
16) Acetophenone	8.58	105	6683700	28.01	ug/mL	100
17) Bis(2-chloroisopropyl) eth	8.42	45	10450479	31.81	ug/mL	93
18) N-Nitroso-di-n-propylamine	8.61	70	4069281	27.59	ug/mL	85
19) 4-Methylphenol	8.62	107	4576215	26.69	ug/mL#	17
20) Hexachloroethane	8.65	117	2033236	25.87	ug/mL	95
23) Nitrobenzene	8.80	77	5578844	24.24	ug/mL	99
24) Isophorone	9.08	82	11193682	25.60	ug/mL	99
25) 2-Nitrophenol	9.19	139	2963234	24.48	ug/mL	97
26) 2,4-Dimethylphenol	9.26	122	3665371	23.93	ug/mL	98
27) Bis(2-chloroethoxy) methan	9.35	93	5836749	25.10	ug/mL	98
28) Benzoic acid	9.51	105	2679718	26.36	ug/mL	97
29) 2,4-Dichlorophenol	9.52	162	4558449	25.15	ug/mL	97
30) 1,2,4-Trichlorobenzene	9.59	180	4769435	23.68	ug/mL	96
31) Naphthalene	9.68	128	10359841	24.69	ug/mL	99
33) 4-Chloroaniline	9.78	127	4116836	20.67	ug/mL	95
34) Hexachlorobutadiene	9.89	225	2702275	24.38	ug/mL	99
35) Caprolactam	10.74	113	262387	4.14	ug/mL	91
36) 4-Chloro-3-methylphenol	10.48	107	4942119	25.49	ug/mL	99
37) 1-Methylnaphthalene	10.74	141	6458506	19.93	ug/mL	99
38) 2-Methylnaphthalene	10.59	142	6992323	22.78	ug/mL	100
40) 1,2,4,5-tetrachlorobenzene	10.88	216	3811417	23.39	ug/mL	95
41) Hexachlorocyclopentadiene	10.89	237	1916487	28.19	ug/mL	94
42) Biphenyl	11.24	153	3836900	23.70	ug/mL	99
43) 2,4,6-Trichlorophenol	11.04	196	3310688	26.82	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E201058.D BNA2M269.M

Wed Mar 16 10:28:52 2016

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E2031516\E201058.D

Vial: 4

Acq On : 15 Mar 2016 10:55 am

Operator: KH

Sample : BC60754-BS1

Inst : BNA#2

Misc : QBSV2031516A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 10:10 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2,4,5-Trichlorophenol	11.14	196	3768910	27.01	ug/mL	97
46) 2-Chloronaphthalene	11.27	162	7680296	26.19	ug/mL	98
47) 2-Nitroaniline	11.49	138	3705360	28.89	ug/mL	96
48) Dimethylphthalate	11.76	163	12362757	30.66	ug/mL	99
49) 2,6-Dinitrotoluene	11.87	165	2671371	29.32	ug/mL	94
50) Acenaphthylene	11.86	152	11335300	24.48	ug/mL	99
51) 3-Nitroaniline	12.09	138	2139391	31.60	ug/mL	93
52) Acenaphthene	12.12	154	6855759	25.47	ug/mL	99
53) 2,4-Dinitrophenol	12.23	184	2119592	37.97	ug/mL	91
54) Dibenzofuran	12.34	168	11200341	26.68	ug/mL	99
55) 2,4-Dinitrotoluene	12.43	165	4111201	30.21	ug/mL	98
56) 4-Nitrophenol	12.43	65	2780051	27.70	ug/mL	95
57) 2,3,4,6-Tetrachlorophenol	12.60	131	2136290	46.61	ug/mL	93
58) Diethyl phthalate	12.74	149	11141782	27.10	ug/mL	100
59) Fluorene	12.83	166	7747394	24.78	ug/mL	99
60) 4-Chlorophenyl phenylether	12.81	204	4135819	23.61	ug/mL	95
61) 4-Nitroaniline	12.98	138	2460701	26.76	ug/mL	97
63) 4,6-Dinitro-2-methylphenol	13.01	198	1817831	24.30	ug/mL#	12
64) Diphenylamine	13.01	169	6593836	25.73	ug/mL	97
65) N-Nitrosodiphenylamine	13.01	167	2441938	24.49	ug/mL	97
66) Azobenzene	13.04	77	12436260	23.98	ug/mL#	80
68) 4-Bromophenyl phenylether	13.50	248	3469726	24.96	ug/mL	94
69) Atrazine	13.82	200	3716730	26.97	ug/mL	99
70) Hexachlorobenzene	13.72	142	1206933	24.12	ug/mL	93
71) Pentachlorophenol	14.01	266	2044773	30.78	ug/mL	88
72) Pentachloronitrobenzene	14.11	237	1630774	28.96	ug/mL	94
73) Phenanthrene	14.20	178	12191907	26.60	ug/mL	99
74) Anthracene	14.26	178	12964782	25.71	ug/mL	97
75) Carbazole	14.51	167	11880569	28.46	ug/mL#	91
76) Di-n-butyl phthalate	15.03	149	17592229	23.33	ug/mL	99
77) Fluoranthene	15.91	202	14901082	23.98	ug/mL	99
78) Benzidine	16.44	184	158131	0.79	ug/mL#	1
80) Pyrene	16.23	202	15373782	29.43	ug/mL	100
82) Benzyl butyl phthalate	17.17	149	8690926	29.25	ug/mL	98
83) Bis(2-ethylhexyl) phthalat	17.98	149	7425957	33.74	ug/mL	96
84) Benz (a) anthracene	17.95	228	10622105	29.43	ug/mL	99
85) 3,3-Dichlorobenzidine	17.94	252	3421963	37.47	ug/mL#	86
86) Chrysene	18.02	228	11131945	27.61	ug/mL	98
87) Di-n-octyl phthalate	18.80	149	21080554	29.19	ug/mL	98
88) Benzo(b) fluoranthene	19.44	252	13074653	29.31	ug/mL	94
89) Benzo(k) fluoranthene	19.47	252	16712045m	36.76	ug/mL	
90) Benzo(a)pyrene	19.90	252	14652089	31.46	ug/mL	98
92) Indeno(1,2,3-cd)pyrene	21.80	276	17217393	28.89	ug/mL	99
93) Dibenz(a,h)anthracene	21.80	278	14120311	29.82	ug/mL	99
94) Benzo(g,h,i)perylene	22.31	276	15981661	31.74	ug/mL	97

(#) = qualifier out of range (m) = manual integration

E201058.D BNA2M269.M Wed Mar 16 10:28:52 2016

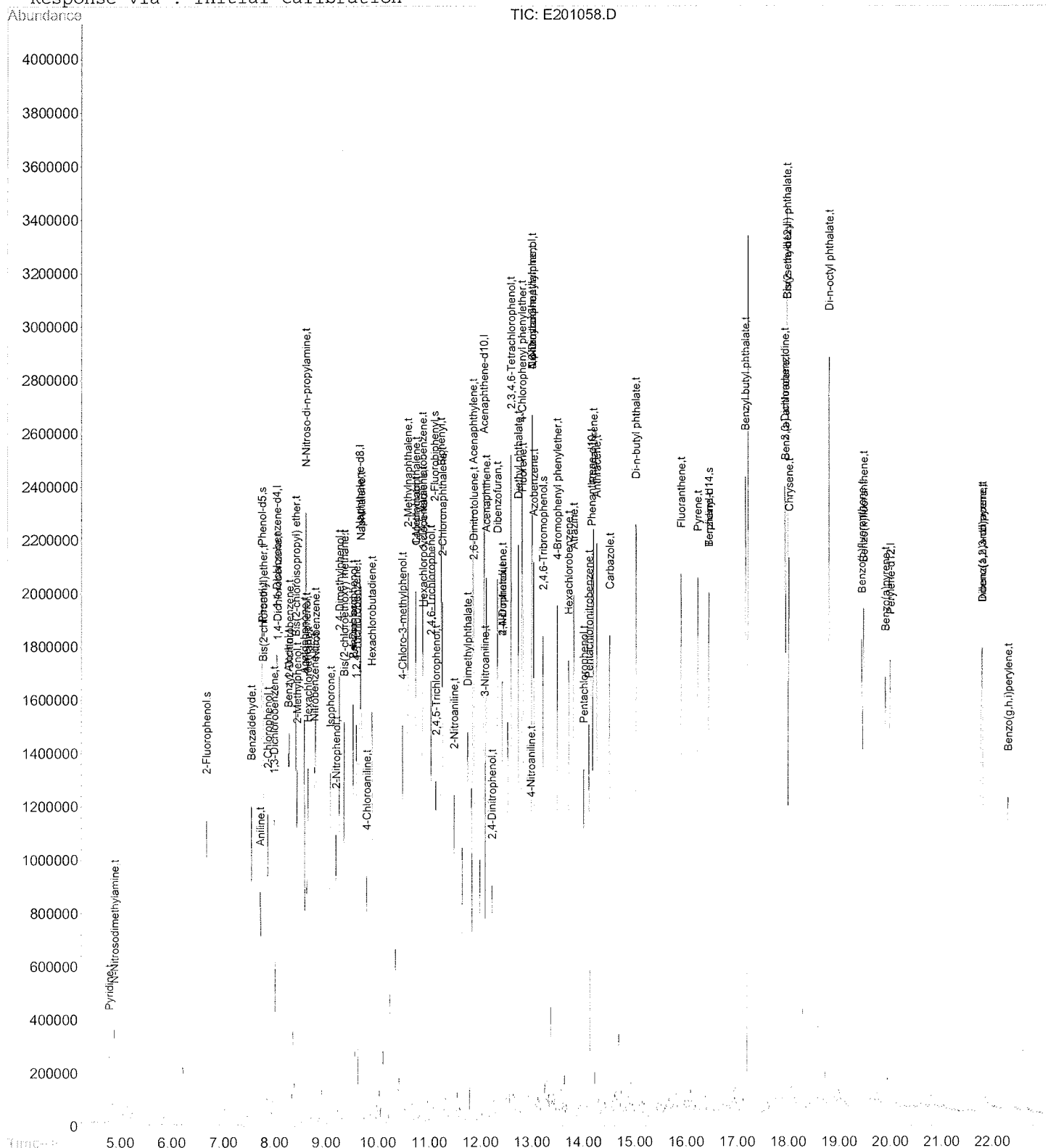
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201058.D
Acq On : 15 Mar 2016 10:55 am
Sample : BC60754-BS1
Misc : QBSV2031516A
MS Integration Params: EVENTS.E
Quant Time: Mar 16 10:10 2016 Quan

Vial: 4
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E2031516\E201059.D

Vial: 5

Acq On : 15 Mar 2016 11:26 am

Operator: KH

Sample : BC60754-BSD1

Inst : BNA#2

Misc : QBSV2031516A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 10:11 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.04	152	4103193	40.00	ug/mL	0.02
21) Naphthalene-d8	9.65	136	13668133	40.00	ug/mL	0.02
39) Acenaphthene-d10	12.07	164	7458011	40.00	ug/mL	0.02
62) Phenanthrene-d10	14.17	188	15031347	40.00	ug/mL	0.02
79) Chrysene-d12	17.98	240	10023785	40.00	ug/mL	0.02
91) Perylene-d12	20.00	264	15802559	40.00	ug/mL	0.02

System Monitoring Compounds

4) 2-Fluorophenol	6.68	112	7267096	42.80	ug/mL	0.01
Spiked Amount	75.000	Range	15 - 87	Recovery	=	57.07%
5) Phenol-d5	7.75	99	8033390	42.29	ug/mL	0.00
Spiked Amount	75.000	Range	10 - 100	Recovery	=	56.39%
22) Nitrobenzene-d5	8.77	82	5871686	24.95	ug/mL	0.03
Spiked Amount	50.000	Range	26 - 120	Recovery	=	49.90%
45) 2-Fluorobiphenyl	11.12	172	8751429	25.57	ug/mL	0.02
Spiked Amount	50.000	Range	29 - 120	Recovery	=	51.14%
67) 2,4,6-Tribromophenol	13.22	330	3272176	40.24	ug/mL	0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	53.65%
81) Terphenyl-d14	16.44	244	9212019	22.86	ug/mL	0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	45.72%

Target Compounds

					Qvalue	
2) N-Nitrosodimethylamine	4.89	74	1955717	22.84	ug/mL	88
3) Pyridine	4.79	79	2804548m	19.37	ug/mL	
6) Benzaldehyde	7.56	105	3853517	27.36	ug/mL	99
7) Aniline	7.73	93	4390329	21.88	ug/mL#	33
8) Phenol	7.77	94	5224512	23.07	ug/mL	96
9) Bis(2-chloroethyl) ether	7.78	93	5004777	22.49	ug/mL	97
10) 2-Chlorophenol	7.88	128	4620254	24.71	ug/mL	98
11) 1,3-Dichlorobenzene	8.00	146	4564811	25.24	ug/mL	99
12) 1,4-Dichlorobenzene	8.06	146	4882951	25.36	ug/mL	99
13) Benzyl Alcohol	8.27	108	2732066	25.44	ug/mL	97
14) 1,2-Dichlorobenzene	8.29	146	4646559	25.24	ug/mL	99
15) 2-Methylphenol	8.45	107	3430490	23.65	ug/mL	95
16) Acetophenone	8.58	105	6665321	27.64	ug/mL	99
17) Bis(2-chloroisopropyl) eth	8.42	45	9431387	28.40	ug/mL	94
18) N-Nitroso-di-n-propylamine	8.61	70	3732763	25.04	ug/mL#	83
19) 4-Methylphenol	8.62	107	4238408	24.46	ug/mL#	37
20) Hexachloroethane	8.65	117	1924136	24.22	ug/mL	94
23) Nitrobenzene	8.80	77	5040016	21.63	ug/mL	99
24) Isophorone	9.08	82	10068439	22.75	ug/mL	99
25) 2-Nitrophenol	9.19	139	2772894	22.63	ug/mL	95
26) 2,4-Dimethylphenol	9.25	122	3324877	21.45	ug/mL	96
27) Bis(2-chloroethoxy) methan	9.35	93	5206118	22.12	ug/mL	97
28) Benzoic acid	9.53	105	3009838	29.25	ug/mL	97
29) 2,4-Dichlorophenol	9.52	162	4104554	22.37	ug/mL	98
30) 1,2,4-Trichlorobenzene	9.59	180	4406594	21.61	ug/mL	98
31) Naphthalene	9.68	128	9532863	22.44	ug/mL	99
33) 4-Chloroaniline	9.79	127	3958338	19.64	ug/mL	95
34) Hexachlorobutadiene	9.89	225	2531761	22.57	ug/mL	95
35) Caprolactam	10.34	113	1988847	30.98	ug/mL	99
36) 4-Chloro-3-methylphenol	10.48	107	4497656	22.92	ug/mL	98
37) 1-Methylnaphthalene	10.74	141	6029595	18.39	ug/mL	99
38) 2-Methylnaphthalene	10.59	142	6712126	21.61	ug/mL	99
40) 1,2,4,5-tetrachlorobenzene	10.88	216	3829797	22.77	ug/mL	94
41) Hexachlorocyclopentadiene	10.89	237	1876416	26.74	ug/mL	98
42) Biphenyl	11.24	153	3832938	22.93	ug/mL	98
43) 2,4,6-Trichlorophenol	11.04	196	3124440	24.52	ug/mL	97

(#) = qualifier out of range (m) = manual integration

E201059.D BNA2M269.M

Wed Mar 16 10:29:10 2016

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\E2031516\E201059.D

Vial: 5

Acq On : 15 Mar 2016 11:26 am

Operator: KH

Sample : BC60754-BSD1

Inst : BNA#2

Misc : QBSV2031516A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 10:11 2016

Quant Results File: BNA2M269.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)

Title : GC MS BNA 2 Semi Volatiles Calibration

Last Update : Tue Mar 15 14:48:37 2016

Response via : Initial Calibration

DataAcq Meth : BNA2M267

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2,4,5-Trichlorophenol	11.14	196	3477798	24.15	ug/mL	96
46) 2-Chloronaphthalene	11.27	162	7081404	23.39	ug/mL	99
47) 2-Nitroaniline	11.49	138	3359938	25.38	ug/mL	99
48) Dimethylphthalate	11.76	163	11378169	27.33	ug/mL	99
49) 2,6-Dinitrotoluene	11.87	165	2457536	26.13	ug/mL	93
50) Acenaphthylene	11.86	152	10559619	22.10	ug/mL	99
51) 3-Nitroaniline	12.09	138	1929469	27.61	ug/mL	97
52) Acenaphthene	12.12	154	6392185	23.00	ug/mL	99
53) 2,4-Dinitrophenol	12.23	184	1855875	32.21	ug/mL	97
54) Dibenzofuran	12.34	168	10378876	23.95	ug/mL	99
55) 2,4-Dinitrotoluene	12.43	165	3904829	27.80	ug/mL	97
56) 4-Nitrophenol	12.43	65	2515847	24.28	ug/mL	92
57) 2,3,4,6-Tetrachlorophenol	12.61	131	2084271	44.05	ug/mL	92
58) Diethyl phthalate	12.74	149	10401220	24.51	ug/mL	100
59) Fluorene	12.83	166	7347744	22.77	ug/mL	99
60) 4-Chlorophenyl phenylether	12.81	204	3980311	22.01	ug/mL	94
61) 4-Nitroaniline	12.98	138	2345105	24.71	ug/mL#	76
63) 4,6-Dinitro-2-methylphenol	13.01	198	1822093	23.93	ug/mL#	13
64) Diphenylamine	13.01	169	6128023	23.49	ug/mL	98
65) N-Nitrosodiphenylamine	13.01	167	2336611	23.02	ug/mL	98
66) Azobenzene	13.04	77	11459577	21.71	ug/mL#	79
68) 4-Bromophenyl phenylether	13.50	248	3284309	23.21	ug/mL	92
69) Atrazine	13.82	200	3694306	26.34	ug/mL	95
70) Hexachlorobenzene	13.72	142	1126114	22.12	ug/mL	89
71) Pentachlorophenol	14.01	266	2129510	31.49	ug/mL	98
72) Pentachloronitrobenzene	14.11	237	1496170	26.10	ug/mL	97
73) Phenanthrene	14.20	178	11703648	25.09	ug/mL	99
74) Anthracene	14.26	178	12266755	23.90	ug/mL	97
75) Carbazole	14.51	167	11267899	26.52	ug/mL#	100
76) Di-n-butyl phthalate	15.03	149	16579723	21.60	ug/mL	100
77) Fluoranthene	15.90	202	14516446	22.95	ug/mL	100
78) Benzidine	16.44	184	143517	0.71	ug/mL#	1
80) Pyrene	16.23	202	15035336	24.90	ug/mL	99
82) Benzyl butyl phthalate	17.17	149	8359954	24.35	ug/mL	97
83) Bis(2-ethylhexyl) phthalat	17.98	149	7012848	27.57	ug/mL	98
84) Benz (a) anthracene	17.95	228	10198307	24.46	ug/mL	99
85) 3,3-Dichlorobenzidine	17.94	252	3734188	35.38	ug/mL	98
86) Chrysene	18.02	228	11271575	24.19	ug/mL	99
87) Di-n-octyl phthalate	18.80	149	21036492	25.21	ug/mL	99
88) Benzo(b) fluoranthene	19.44	252	15082820	29.26	ug/mL	99
89) Benzo(k) fluoranthene	19.48	252	13591195m	25.87	ug/mL	
90) Benzo(a)pyrene	19.90	252	16072824	29.86	ug/mL	98
92) Indeno(1,2,3-cd)pyrene	21.80	276	16832001	24.68	ug/mL#	87
93) Dibenz(a,h)anthracene	21.80	278	13807645	25.48	ug/mL	98
94) Benzo(g,h,i)perylene	22.30	276	15372869	26.68	ug/mL	99

(#) = qualifier out of range (m) = manual integration

E201059.D BNA2M269.M

Wed Mar 16 10:29:10 2016

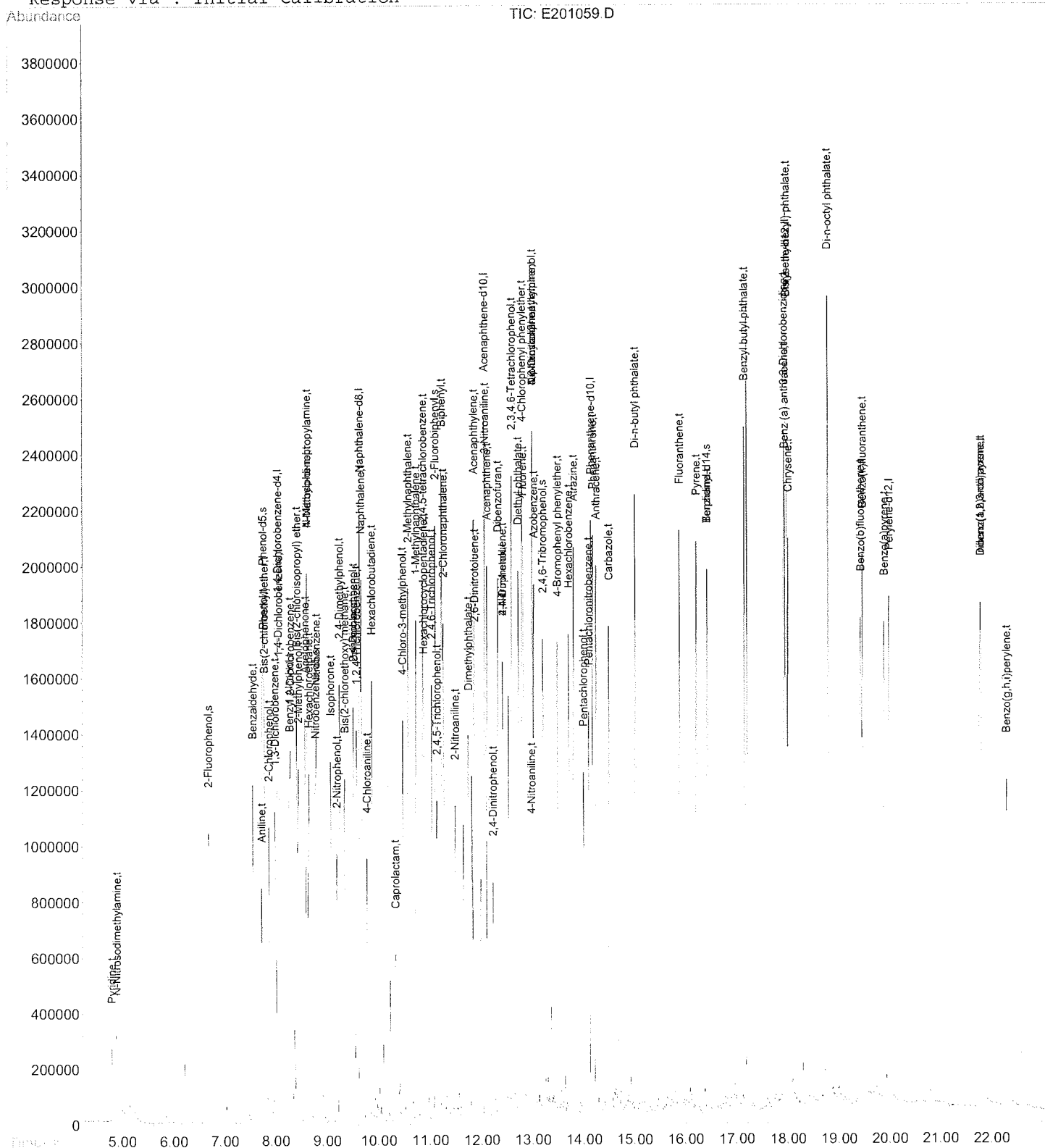
Quantitation Report

Data File : C:\HPCHEM\1\DATA\E2031516\E201059.D
Acq On : 15 Mar 2016 11:26 am
Sample : BC60754-BSD1
Misc : QBSV2031516A
MS Integration Params: EVENTS.E
Quant Time: Mar 16 10:11 2016

Vial: 5
Operator: KH
Inst : BNA#2
Multiplr: 1.00

Quant Results File: BNA2M269.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA2M269.M (Chemstation Integrator)
Title        : GC MS BNA 2 Semi Volatiles Calibration
Last Update  : Tue Mar 15 14:48:37 2016
Response via : Initial Calibration
```



Data File : C:\HPCHEM\1\DATA\031616\E401234.D

Vial: 4

Acq On : 16 Mar 2016 10:17 am

Operator: KH

Sample : BC60798-BS1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 13:40 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.95	152	4591561	40.00	ug/mL	-0.01
20) Naphthalene-d8	10.57	136	18729359	40.00	ug/mL	-0.01
38) Acenaphthene-d10	12.99	164	10175764	40.00	ug/mL	-0.02
61) Phenanthrene-d10	15.07	188	16120549	40.00	ug/mL	-0.02
78) Chrysene-d12	18.86	240	16237158	40.00	ug/mL	-0.03
90) Perylene-d12	20.94	264	12232833	40.00	ug/mL	-0.04

System Monitoring Compounds

4) 2-Fluorophenol	75.000	7.48	112	2926556	19.09	ug/mL	-0.15
Spiked Amount		Range	15 - 87	Recovery	=	25.45%	
5) Phenol-d5	75.000	8.61	99	2070531	11.28	ug/mL	-0.11
Spiked Amount		Range	10 - 100	Recovery	=	15.04%	
21) Nitrobenzene-d5	50.000	9.69	82	8121359	49.87	ug/mL	0.00
Spiked Amount		Range	26 - 120	Recovery	=	99.74%	
43) 2-Fluorobiphenyl	50.000	12.03	172	14378113	51.90	ug/mL	-0.01
Spiked Amount		Range	29 - 120	Recovery	=	103.80%	
66) 2,4,6-Tribromophenol	75.000	14.12	330	4636016	58.92	ug/mL	-0.03
Spiked Amount		Range	35 - 126	Recovery	=	78.56%	
80) Terphenyl-d14	50.000	17.31	244	14733135	60.93	ug/mL	-0.02
Spiked Amount		Range	35 - 127	Recovery	=	121.86%	

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	5.69	74	1481375	12.46	ug/mL	98
3) Pyridine	5.68	79	1989680m	11.87	ug/mL	
6) Benzaldehyde	8.45	105	5511495	41.45	ug/mL#	98
7) Aniline	8.62	93	5098231	25.35	ug/mL#	77
8) Phenol	8.62	94	2015044m	8.32	ug/mL	
9) Bis(2-chloroethyl) ether	8.67	93	9008807	39.77	ug/mL	93
10) 2-Chlorophenol	8.76	128	4254785	21.91	ug/mL#	93
11) 1,3-Dichlorobenzene	8.90	146	5496742	28.94	ug/mL	96
12) 1,4-Dichlorobenzene	8.96	146	7228571	31.05	ug/mL	96
13) Benzyl Alcohol	9.16	108	2236688	19.47	ug/mL	99
14) 1,2-Dichlorobenzene	9.20	146	6138917	30.68	ug/mL	97
15) 2-Methylphenol	9.32	107	2588901m	16.82	ug/mL	
16) Bis(2-chloroisopropyl) eth	9.32	45	12759681	59.09	ug/mL#	63
17) N-Nitroso-di-n-propylamine	9.51	70	5971534	43.59	ug/mL#	76
18) 4-Methylphenol	9.51	107	2757730	13.21	ug/mL#	2
19) Hexachloroethane	9.57	117	2760539	30.53	ug/mL	92
22) Nitrobenzene	9.72	77	6730214	35.46	ug/mL	94
23) Isophorone	9.99	82	16260419	39.86	ug/mL#	96
24) 2-Nitrophenol	10.12	139	3442819	31.29	ug/mL#	80
25) 2,4-Dimethylphenol	10.15	122	4480172	28.13	ug/mL	93

(#)= qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031616\E401234.D

Vial: 4

Acq On : 16 Mar 2016 10:17 am

Operator: KH

Sample : BC60798-BS1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 13:40 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	10.26	93	9036408	41.14	ug/mL	96
27) Benzoic acid	10.34	105	456225	5.31	ug/mL	76
28) 2,4-Dichlorophenol	10.43	162	4084653	27.51	ug/mL#	91
29) 1,2,4-Trichlorobenzene	10.51	180	5198669	30.17	ug/mL	99
30) Naphthalene	10.60	128	16918673	37.23	ug/mL#	99
31) 4-Chloroaniline	10.71	127	6566339	39.55	ug/mL	96
32) Acetophenone	9.49	105	9108423	40.45	ug/mL#	100
33) Hexachlorobutadiene	10.80	225	3117488	30.03	ug/mL	100
34) Caprolactam	11.27	113	276482	5.38	ug/mL#	96
35) 4-Chloro-3-methylphenol	11.35	107	4414256	29.94	ug/mL	91
36) 1-Methylnaphthalene	11.66	141	10139211	37.91	ug/mL	97
37) 2-Methylnaphthalene	11.51	142	12150061	38.21	ug/mL	98
39) 1,2,4,5-tetrachlorobenzene	11.80	216	6221848	40.44	ug/mL	97
40) Hexachlorocyclopentadiene	11.80	237	1175838	13.76	ug/mL	99
41) 2,4,6-Trichlorophenol	11.95	196	3124901	30.89	ug/mL	96
42) 2,4,5-Trichlorophenol	12.03	196	3720695	33.36	ug/mL	97
44) 2-Chloronaphthalene	12.19	162	10198420	33.06	ug/mL	96
45) Biphenyl	12.16	153	5386892	36.13	ug/mL#	99
46) 2-Nitroaniline	12.42	138	4392714	39.36	ug/mL#	87
47) Dimethylphthalate	12.66	163	13420259	36.17	ug/mL	100
48) 2,6-Dinitrotoluene	12.78	165	3590563	39.49	ug/mL#	72
49) Acenaphthylene	12.78	152	17085479	36.55	ug/mL	98
50) 3-Nitroaniline	13.01	138	3069660	37.28	ug/mL#	82
51) Acenaphthene	13.04	154	10343197	40.25	ug/mL	98
52) 2,4-Dinitrophenol	13.16	184	1563391	34.53	ug/mL	98
53) Dibenzofuran	13.25	168	14910357	36.78	ug/mL	95
54) 2,4-Dinitrotoluene	13.35	165	4329905	37.48	ug/mL	95
55) 4-Nitrophenol	13.25	65	154724m	2.52	ug/mL	
56) 2,3,4,6-Tetrachlorophenol	13.50	131	3031028	69.15	ug/mL	91
57) Diethyl phthalate	13.63	149	14429289	37.67	ug/mL	100
58) Fluorene	13.74	166	12082878	37.99	ug/mL	98
59) 4-Chlorophenyl phenylether	13.71	204	6127497	34.98	ug/mL	96
60) 4-Nitroaniline	13.89	138	2784740	34.98	ug/mL#	58
62) 4,6-Dinitro-2-methylphenol	13.91	198	2832301m	37.80	ug/mL	
63) Diphenylamine	13.91	169	10726920	43.48	ug/mL	98
64) N-Nitrosodiphenylamine	13.91	167	3674860	43.42	ug/mL	98
65) Azobenzene	13.94	77	17231450	43.50	ug/mL#	75
67) 4-Bromophenyl phenylether	14.40	248	4017166	35.04	ug/mL#	43
68) Hexachlorobenzene	14.63	142	1743190	35.64	ug/mL	86
69) Atrazine	14.70	200	3906083	42.88	ug/mL#	98
70) Pentachlorophenol	14.91	266	2026553	24.65	ug/mL	99

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\031616\E401234.D

Vial: 4

Acq On : 16 Mar 2016 10:17 am

Operator: KH

Sample : BC60798-BS1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 13:40 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	15.01	237	1721021	43.31	ug/mL	99
72) Phenanthrene	15.11	178	15984829	39.66	ug/mL#	99
73) Anthracene	15.17	178	16558892	37.96	ug/mL#	100
74) Carbazole	15.41	167	15377005	37.49	ug/mL	100
75) Di-n-butyl phthalate	15.89	149	25703124	38.75	ug/mL	100
76) Fluoranthene	16.80	202	19081334m	39.24	ug/mL	
79) Pyrene	17.12	202	18820365	39.79	ug/mL	99
81) Benzyl butyl phthalate	18.02	149	12573589	41.80	ug/mL	93
82) Bis(2-ethylhexyl) phthalat	18.81	149	17684635	42.54	ug/mL	98
83) Benz (a) anthracene	18.82	228	19959738	41.73	ug/mL	99
84) 3,3-Dichlorobenzidine	18.80	252	8395469	59.98	ug/mL	97
85) Chrysene	18.89	228	17427133	39.74	ug/mL#	99
86) Di-n-octyl phthalate	19.63	149	27039181	44.29	ug/mL	99
87) Benzo(b)fluoranthene	20.35	252	15263683	34.95	ug/mL#	97
88) Benzo(k)fluoranthene	20.38	252	17713741m	37.31	ug/mL	
89) Benzo(a)pyrene	20.85	252	15033338	38.07	ug/mL	96
91) Indeno(1,2,3-cd)pyrene	22.88	276	9482252	30.36	ug/mL#	98
92) Dibenz(a,h)anthracene	22.87	278	8005332	31.50	ug/mL#	93
93) Benzo(g,h,i)perylene	23.46	276	6464927	28.19	ug/mL#	91

(#) = qualifier out of range (m) = manual integration

E401234.D BNA4M49A.M

Thu Mar 24 14:48:59 2016

BNA4

Page 3

Data File : C:\HPCHEM\1\DATA\031616A\E500694.D

Vial: 4

Acq On : 16 Mar 2016 10:03 am

Operator: SR

Sample : BC60798-BS2

Inst : BNA #5

Misc : QBSV5031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Results File: BN5SIM24.RES

Quant Time: Mar 17 12:19 2016

Quant Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)

Title : 8270D Target SVOA by SIM

Last Update : Wed Feb 24 15:45:54 2016

Response via : Initial Calibration

DataAcq Meth : BN5SIM24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.02	150	4163513	2.00	ug/mL	-0.01
5) Naphthalene-d8	9.61	136	10673868	2.00	ug/mL	-0.01
8) Acenaphthene-d10	12.03	164	6344786	2.00	ug/mL	-0.01
12) Phenanthrene-d10	14.13	188	11469627	2.00	ug/mL	-0.01
19) Chrysene-d12	17.94	240	9930448	2.00	ug/mL	-0.01
24) Perylene-d12	19.87	264	7788538	2.00	ug/mL	-0.01

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) Naphthalene	9.64	128	1792758	0.57	ug/mL	100
9) Acenaphthylene	11.82	152	1715601	0.58	ug/mL	100
10) Acenaphthene	12.08	154	1069974	0.58	ug/mL	100
11) Fluorene	12.79	166	1262200	0.59	ug/mL	99
16) Phenanthrene	14.16	178	1770518	0.54	ug/mL	100
17) Anthracene	14.22	178	2031651	0.61	ug/mL	99
18) Fluoranthene	15.87	202	2302145	0.69	ug/mL	100
20) Pyrene	16.20	202	2390864	0.61	ug/mL	100
21) Bis(2-ethylhexyl) phthalat	17.95	149	275512	0.10	ug/mL	99
22) Benz (a) anthracene	17.91	228	2099294	0.62	ug/mL	100
23) Chrysene	17.97	228	2232822	0.63	ug/mL	100
25) Benzo(b) fluoranthene	19.37	252	1647740	0.66	ug/mL	100
26) Benzo(k) fluoranthene	19.40	252	2266957	0.80	ug/mL	100
27) Benzo(a) pyrene	19.79	252	1664595	0.68	ug/mL	100
28) Indeno(1,2,3-cd) pyrene	21.36	276	1817003	0.73	ug/mL	100
29) Dibenz(a,h) anthracene	21.37	278	1471855	0.74	ug/mL	100
30) Benzo(g,h,i) perylene	21.78	276	1470212	0.70	ug/mL	100

(#) = qualifier out of range (m) = manual integration

E500694.D BN5SIM24.M

Thu Mar 24 14:49:51 2016

Page 1

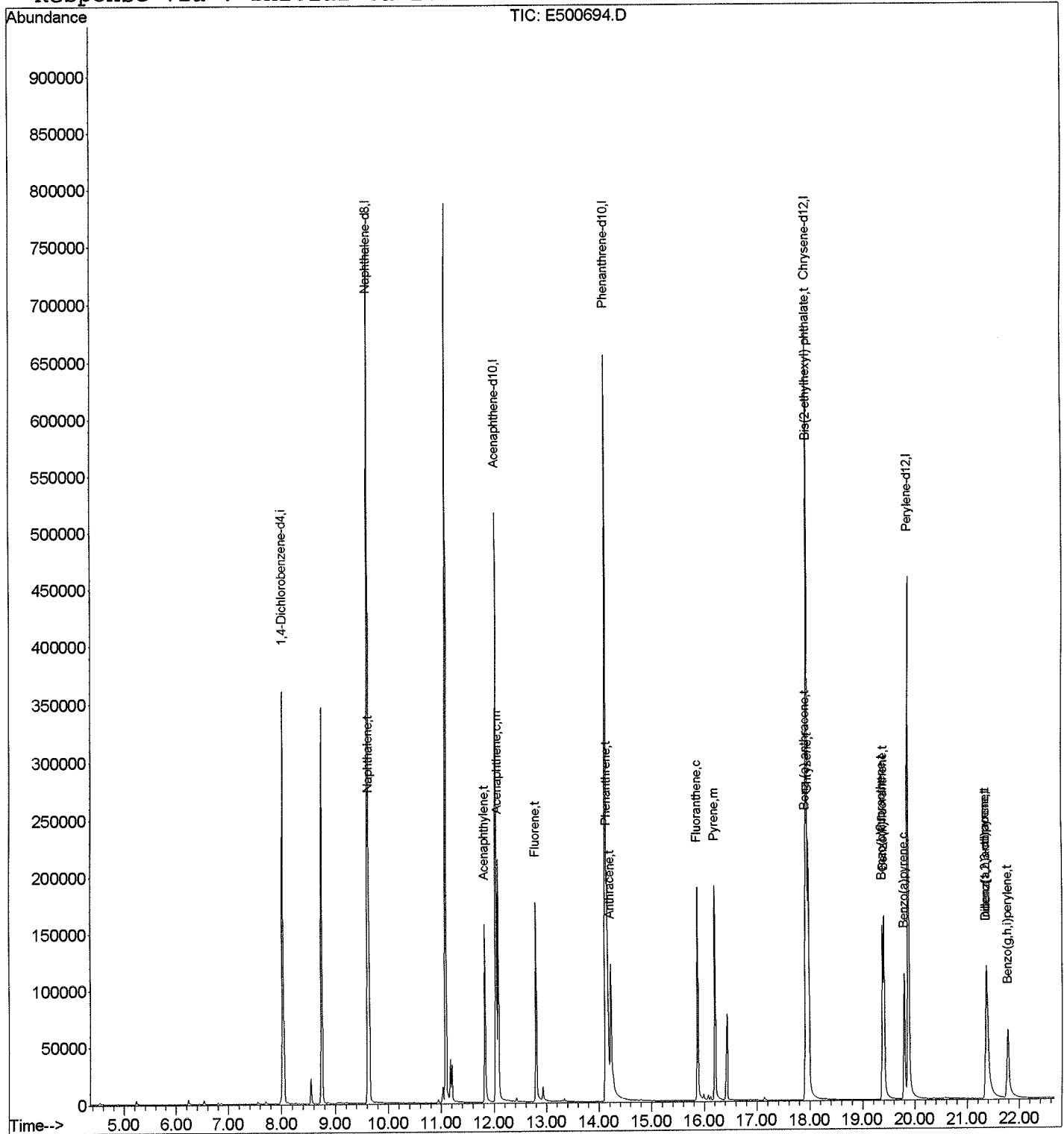
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031616A\E500694.D
 Acq On : 16 Mar 2016 10:03 am
 Sample : BC60798-BS2
 Misc : QBSV5031616A
 MS Integration Params: EVENTS.E
 Quant Time: Mar 17 12:19 2016

Vial: 4
 Operator: SR
 Inst : BNA #5
 Multiplr: 1.00

Quant Results File: BN5SIM24.RES

Method : C:\HPCHEM\1\METHODS\BN5SIM24.M (Chemstation Integrator)
 Title : 8270D Target SVOA by SIM
 Last Update : Tue Mar 22 14:15:51 2016
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\031616\E401235.D

Vial: 5

Acq On : 16 Mar 2016 10:51 am

Operator: KH

Sample : BC60798-BSD1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 13:41 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.95	152	5878964	40.00	ug/mL	-0.01
20) Naphthalene-d8	10.58	136	23510832	40.00	ug/mL	-0.01
38) Acenaphthene-d10	12.99	164	13310300	40.00	ug/mL	-0.02
61) Phenanthrene-d10	15.08	188	20372880	40.00	ug/mL	-0.02
78) Chrysene-d12	18.86	240	22191007	40.00	ug/mL	-0.02
90) Perylene-d12	20.95	264	14568025	40.00	ug/mL	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	7.49	112	3907492	19.91	ug/mL	-0.15
Spiked Amount	75.000	Range	15 - 87	Recovery	=	26.55%
5) Phenol-d5	8.61	99	2805914	11.94	ug/mL	-0.11
Spiked Amount	75.000	Range	10 - 100	Recovery	=	15.92%
21) Nitrobenzene-d5	9.70	82	10328299	50.52	ug/mL	0.00
Spiked Amount	50.000	Range	26 - 120	Recovery	=	101.04%
43) 2-Fluorobiphenyl	12.03	172	19017449	52.48	ug/mL	-0.01
Spiked Amount	50.000	Range	29 - 120	Recovery	=	104.96%
66) 2,4,6-Tribromophenol	14.13	330	6251749	62.87	ug/mL	-0.02
Spiked Amount	75.000	Range	35 - 126	Recovery	=	83.83%
80) Terphenyl-d14	17.31	244	19040224	57.61	ug/mL	-0.02
Spiked Amount	50.000	Range	35 - 127	Recovery	=	115.22%

Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	5.69	74	2276407m	14.96	ug/mL	
3) Pyridine	5.69	79	2473295m	11.52	ug/mL	
6) Benzaldehyde	8.45	105	7926048	46.55	ug/mL#	97
7) Aniline	8.62	93	7141280	27.73	ug/mL#	77
8) Phenol	8.62	94	2960488m	9.55	ug/mL	
9) Bis(2-chloroethyl) ether	8.67	93	12264886	42.28	ug/mL	93
10) 2-Chlorophenol	8.76	128	6006521	24.16	ug/mL#	94
11) 1,3-Dichlorobenzene	8.90	146	7550595	31.04	ug/mL	97
12) 1,4-Dichlorobenzene	8.97	146	9705939	32.56	ug/mL	96
13) Benzyl Alcohol	9.17	108	3305466	22.47	ug/mL	99
14) 1,2-Dichlorobenzene	9.20	146	8427445	32.90	ug/mL	97
15) 2-Methylphenol	9.33	107	3741530	18.98	ug/mL#	80
16) Bis(2-chloroisopropyl) eth	9.32	45	17275941	62.49	ug/mL#	63
17) N-Nitroso-di-n-propylamine	9.52	70	8309291	47.37	ug/mL#	76
18) 4-Methylphenol	9.51	107	4185221	15.65	ug/mL#	8
19) Hexachloroethane	9.57	117	3791769	32.75	ug/mL	93
22) Nitrobenzene	9.72	77	9444626	39.64	ug/mL	94
23) Isophorone	10.00	82	22371728	43.69	ug/mL#	96
24) 2-Nitrophenol	10.12	139	4955736	35.88	ug/mL	94
25) 2,4-Dimethylphenol	10.15	122	6399341	32.01	ug/mL	93

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\031616\E401235.D

Vial: 5

Acq On : 16 Mar 2016 10:51 am

Operator: KH

Sample : BC60798-BSD1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Results File: BNA4M49A.RES

Quant Time: Mar 16 13:41 2016

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) Bis(2-chloroethoxy) methan	10.26	93	12652950	45.89	ug/mL	95
27) Benzoic acid	10.34	105	571818m	5.30	ug/mL	
28) 2,4-Dichlorophenol	10.43	162	5825931m	31.26	ug/mL	
29) 1,2,4-Trichlorobenzene	10.51	180	7219288	33.38	ug/mL	99
30) Naphthalene	10.60	128	22997754	40.31	ug/mL#	99
31) 4-Chloroaniline	10.71	127	9207132	44.18	ug/mL	96
32) Acetophenone	9.49	105	13412011	47.44	ug/mL#	99
33) Hexachlorobutadiene	10.80	225	4289598	32.92	ug/mL	99
34) Caprolactam	11.30	113	413957	6.41	ug/mL#	94
35) 4-Chloro-3-methylphenol	11.35	107	6333005	34.22	ug/mL	93
36) 1-Methylnaphthalene	11.67	141	14175781	42.22	ug/mL	98
37) 2-Methylnaphthalene	11.51	142	16718071	41.88	ug/mL	98
39) 1,2,4,5-tetrachlorobenzene	11.80	216	9620429	47.81	ug/mL	99
40) Hexachlorocyclopentadiene	11.80	237	2418223	21.63	ug/mL	99
41) 2,4,6-Trichlorophenol	11.95	196	4472900	33.80	ug/mL	96
42) 2,4,5-Trichlorophenol	12.03	196	5569093	38.17	ug/mL	98
44) 2-Chloronaphthalene	12.19	162	14273480	35.38	ug/mL	95
45) Biphenyl	12.16	153	8692509	44.57	ug/mL#	100
46) 2-Nitroaniline	12.42	138	6324799	43.33	ug/mL#	87
47) Dimethylphthalate	12.67	163	18955145	39.06	ug/mL	100
48) 2,6-Dinitrotoluene	12.79	165	5439988	45.74	ug/mL#	78
49) Acenaphthylene	12.78	152	25025782	40.93	ug/mL	99
50) 3-Nitroaniline	13.02	138	4457583	41.39	ug/mL#	83
51) Acenaphthene	13.04	154	15146582	45.06	ug/mL	99
52) 2,4-Dinitrophenol	13.17	184	2489437	42.04	ug/mL	93
53) Dibenzofuran	13.26	168	20906179	39.43	ug/mL	97
54) 2,4-Dinitrotoluene	13.36	165	6085862	40.27	ug/mL	94
55) 4-Nitrophenol	13.25	65	315115m	3.93	ug/mL	
56) 2,3,4,6-Tetrachlorophenol	13.51	131	4694890	81.89	ug/mL#	96
57) Diethyl phthalate	13.64	149	20078308	40.07	ug/mL	99
58) Fluorene	13.75	166	17734808	42.63	ug/mL	98
59) 4-Chlorophenyl phenylether	13.72	204	9571090	41.77	ug/mL	98
60) 4-Nitroaniline	13.91	138	4380908	42.07	ug/mL#	62
62) 4,6-Dinitro-2-methylphenol	13.93	198	4788455m	50.56	ug/mL	
63) Diphenylamine	13.91	169	16720580	53.63	ug/mL	99
64) N-Nitrosodiphenylamine	13.91	167	5767111	53.92	ug/mL	99
65) Azobenzene	13.94	77	23940680	47.83	ug/mL#	76
67) 4-Bromophenyl phenylether	14.40	248	6192925	42.74	ug/mL#	55
68) Hexachlorobenzene	14.63	142	2562523	41.45	ug/mL	91
69) Atrazine	14.71	200	5841995	50.75	ug/mL#	99
70) Pentachlorophenol	14.91	266	3057838	29.43	ug/mL	99

(#)=qualifier out of range (m)=manual integration

Data File : C:\HPCHEM\1\DATA\031616\E401235.D

Vial: 5

Acq On : 16 Mar 2016 10:51 am

Operator: KH

Sample : BC60798-BSD1

Inst : GC/MS BNA

Misc : QBSV4031616A

Multiplr: 1.00

MS Integration Params: EVENTS.E

Quant Time: Mar 16 13:41 2016

Quant Results File: BNA4M49A.RES

Quant Method : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)

Title : GC MS BNA 4 Semi Volatiles Calibration

Last Update : Wed Feb 24 15:44:14 2016

Response via : Initial Calibration

DataAcq Meth : BNA4M49A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
71) Pentachloronitrobenzene	15.01	237	2433656	48.46	ug/mL	99
72) Phenanthrene	15.11	178	24147057	47.41	ug/mL#	99
73) Anthracene	15.17	178	24165520	43.84	ug/mL#	99
74) Carbazole	15.41	167	21941143	42.33	ug/mL	100
75) Di-n-butyl phthalate	15.89	149	35641655	42.52	ug/mL	99
76) Fluoranthene	16.80	202	28012846m	45.58	ug/mL	
79) Pyrene	17.13	202	27822236	43.04	ug/mL	99
81) Benzyl butyl phthalate	18.02	149	18702531	45.49	ug/mL	96
82) Bis(2-ethylhexyl) phthalat	18.81	149	20184109	35.52	ug/mL	97
83) Benz (a) anthracene	18.83	228	26902150	41.15	ug/mL	99
84) 3,3-Dichlorobenzidine	18.81	252	11224952	58.67	ug/mL	96
85) Chrysene	18.90	228	24908007	41.56	ug/mL#	99
86) Di-n-octyl phthalate	19.63	149	36939584	44.27	ug/mL	99
87) Benzo(b)fluoranthene	20.36	252	21602149	36.19	ug/mL#	97
88) Benzo(k)fluoranthene	20.39	252	24508892m	37.77	ug/mL	
89) Benzo(a)pyrene	20.86	252	20560145	38.09	ug/mL#	96
91) Indeno(1,2,3-cd)pyrene	22.88	276	9775800	26.28	ug/mL#	97
92) Dibenz(a,h)anthracene	22.87	278	8510546	28.12	ug/mL#	94
93) Benzo(g,h,i)perylene	23.46	276	5913589	21.65	ug/mL#	91

(#) = qualifier out of range (m) = manual integration

E401235.D BNA4M49A.M

Thu Mar 24 14:49:02 2016

BNA4

Page 3

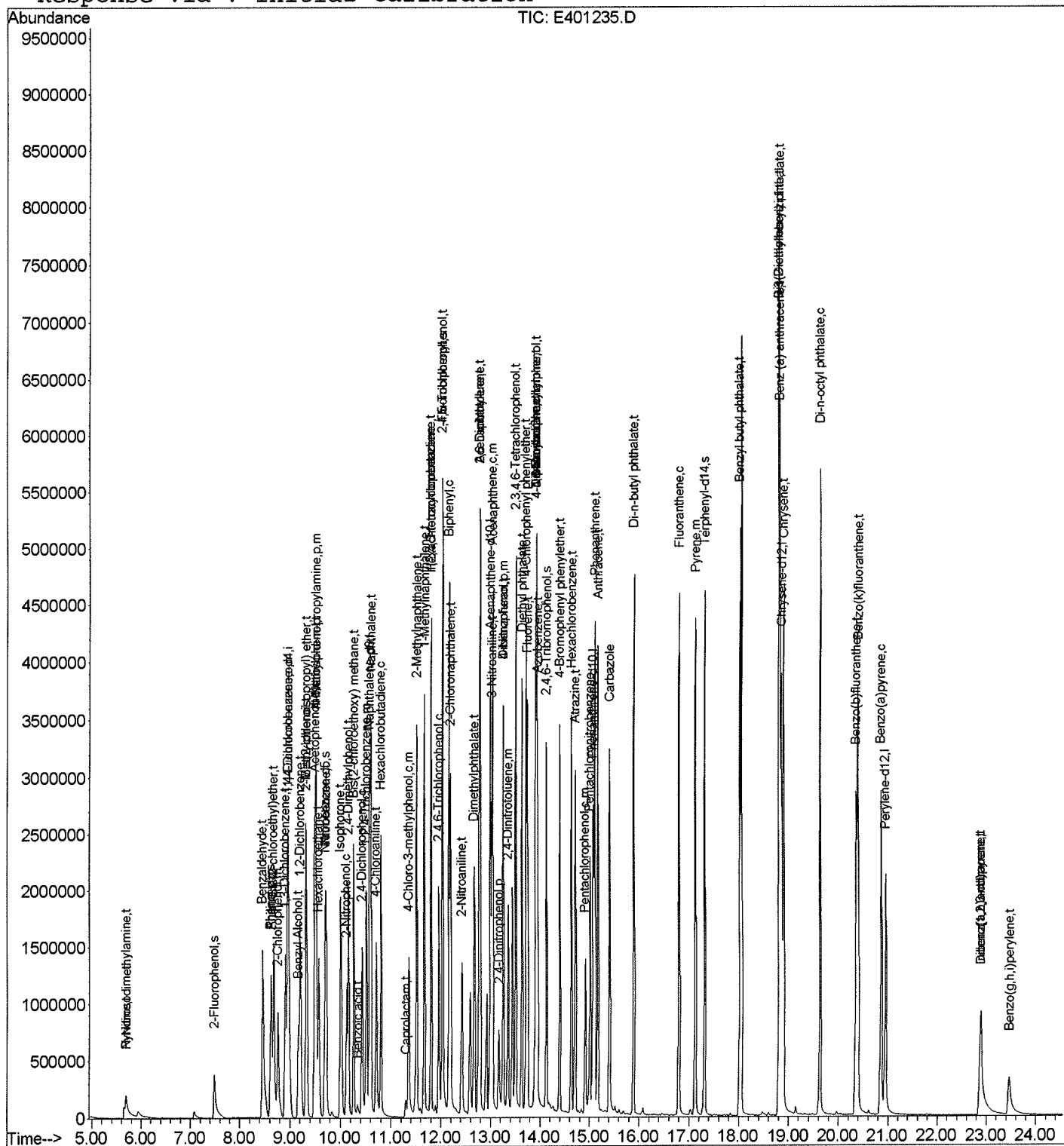
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031616\E401235.D
Acq On : 16 Mar 2016 10:51 am
Sample : BC60798-bsd1
Misc : QBSV4031616A
MS Integration Params: EVENTS.E
Quant Time: Mar 16 13:41 2016 Qu

Vial: 5
Operator: KH
Inst : GC/MS BNA
Multiplr: 1.00

Quant Results File: BNA4M49A.RES

```
Method       : C:\HPCHEM\1\METHODS\BNA4M49A.M (Chemstation Integrator)
Title        : GC MS BNA 4 Semi Volatiles Calibration
Last Update  : Wed Feb 24 15:44:14 2016
Response via : Initial Calibration
```



PREPARATION BENCH SHEET

BC60754

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:07:26PM

Surrogate used: Y16C097

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0407-12	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-13	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-14	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-15	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-16	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-17	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-18	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-19	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-20	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-21	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0407-22	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0410-01	Semi-Volatiles, CP-51 (form	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0411-01	Semi-Volatiles, CP-51 (form	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0456-01	Semi-Volatiles, Tentatively 1	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0456-01	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0456-01	Semi-Volatiles, NYSDEC P:	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0456-03	Semi-Volatiles, NYSDEC P:	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0456-03	Semi-Volatiles, Tentatively 1	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0456-03	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0466-01	Semi-Volatiles, 8270 - Com	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0466-02	Semi-Volatiles, 8270 - Com	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0466-03	Semi-Volatiles, 8270 - Com	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
16C0540-01	Semi-Volatiles, 8270 - Com	03/15/2016 07:1	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60754

PREPARATION BENCH SHEET

BC60754

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:07:26PM

Surrogate used: Y16C097

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0540-01	Semi-Volatiles, Tentatively I	03/15/2016 07:1	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60754
16C0540-01	Semi-Volatiles, NYSDDEC P	03/15/2016 07:1	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60754
16C0540-01	Semi-Volatiles, CP-51 (form	03/15/2016 07:1	TB	30	1				100	EPA 3550C	Added for BatchQC in: BC60754
16C0540-01	Semi-Volatiles, NJDEP/TCL	03/15/2016 07:1	CM	30	1				100	EPA 3550C	
BC60754-BLK1	QC	03/15/2016 07:1	TB	30	1				100	EPA 3550C	
BC60754-BS1	QC	03/15/2016 07:1	TB	30	1	Y16B018		500	100	EPA 3550C	
BC60754-BSD1	QC	03/15/2016 07:1	TB	30	1	Y16B018		500	100	EPA 3550C	
BC60754-MS1	QC	03/15/2016 07:1	TB	30	1	Y16B018	16C0540-01	500	100	EPA 3550C	

Batch Comments:

PREPARATION BENCH SHEET

BC60798

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:07:36PM

Matrix: Water

Surrogate used: Y16C097

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0454-02	Semi-Volatiles, CT RCP PAI	03/15/2016 14:3	RDS	975	1				100	EPA 3510C	
16C0466-04	Semi-Volatiles, 8270 - Com	03/15/2016 14:3	RDS	875	1				100	EPA 3510C	From BC60921 by RDS on 03/17/16
16C0467-01	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	1000	1				100	EPA 3510C	
16C0467-02	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	1000	1				100	EPA 3510C	
16C0467-03	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	1000	1				100	EPA 3510C	
16C0477-10	Semi-Volatiles, CP-51 (form	03/15/2016 14:3	RDS	1000	1				100	EPA 3510C	
16C0505-01	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	975	1				100	EPA 3510C	
16C0505-02	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	975	1				100	EPA 3510C	
16C0505-03	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	975	1				100	EPA 3510C	
16C0505-04	Semi-Volatiles, CT RCP B/N	03/15/2016 14:3	RDS	975	1				100	EPA 3510C	
16C0506-01	Semi-Volatiles, NYCDEP Se	03/15/2016 14:3	RDS	925	1				100	EPA 3510C	
16C0506-01	Semi-Volatiles, CP-51 (form	03/15/2016 14:3	RDS	925	1				100	EPA 3510C	
16C0513-05	Semi-Volatiles, CP-51 (form	03/15/2016 14:3	RDS	975	1				100	EPA 3510C	
16C0536-01	Semi-Volatiles, CT RCP PAI	03/15/2016 14:3	RDS	950	1				100	EPA 3510C	
BC60798-BLK1	QC	03/15/2016 14:3	RDS	1000	1				100	EPA 3510C	
BC60798-BLK2	QC	03/15/2016 14:3	RDS	1000	1				100	EPA 3510C	
BC60798-BS1	QC	03/15/2016 14:3	RDS	1000	1	Y16B018			500	EPA 3510C	
BC60798-BS2	QC	03/15/2016 14:3	RDS	1000	1	Y16B014			100	EPA 3510C	
BC60798-BSD1	QC	03/15/2016 14:3	RDS	1000	1	Y16B018			500	EPA 3510C	

Batch Comments:

Injection Log

Directory: C:\HPCHEM\1\DATA\E2031516

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	E201054.D	1.	SEQ-TUN1	QBSV2031516A	15 Mar 2016 08:1
2	2	E201055.D	1.	SEQ-CCV1	QBSV2031516A Y16B033	15 Mar 2016 08:4
3	2	E201056.D	1.	SEQ-CCV1	QBSV2031516A Y16B033	15 Mar 2016 09:1
4	3	E201057.D	1.	BC60754-BLK1	QBSV2031516A	15 Mar 2016 10:2
5	4	E201058.D	1.	BC60754-BS1	QBSV2031516A	15 Mar 2016 10:5
6	5	E201059.D	1.	BC60754-BSD1	QBSV2031516A	15 Mar 2016 11:2
7	6	E201060.D	2.	16C0407-12	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 13:0
8	7	E201061.D	2.	16C0407-13	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 13:3
9	8	E201062.D	2.	16C0407-14	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 14:0
10	9	E201063.D	2.	16C0407-15	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 14:3
11	10	E201064.D	2.	16C0407-16	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 15:1
12	11	E201065.D	2.	16C0407-17	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 15:4
13	12	E201066.D	2.	16C0407-18	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 16:1
14	13	E201067.D	2.	16C0407-19	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 16:4
15	14	E201068.D	2.	16C0407-20	QBSV2031516A 2X NJDEP/TCL/375	15 Mar 2016 17:1
16	15	E201069.D	2.	~~16C0466-01~~	QBSV2031516A 2X 8270 COMP ASPB	15 Mar 2016 17:4
17	16	E201070.D	2.	~~16C0466-02~~	QBSV2031516A 2X 8270 COMP ASPB	15 Mar 2016 18:1
18	17	E201071.D	2.	~~16C0466-03~~	QBSV2031516A 2X 8270 COMP ASPB	15 Mar 2016 18:4

Injection Log

Directory: C:\HPCHEM\1\DATA\E2031616

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	E201072.D	1.	SEQ-TUN1	QBSV2031616A	16 Mar 2016 08:3
2	2	E201073.D	1.	SEQ-CCV1	QBSV2031616A Y16C105	16 Mar 2016 09:0
3	3	E201074.D	1.	BC60797-BLK1	QBSV2031616A	16 Mar 2016 09:3
4	4	E201075.D	1.	BC60797-BS1	QBSV2031616A	16 Mar 2016 10:0
5	5	E201076.D	2.	16C0403-24	QBSV2031616A 2X CT RCP BNA	16 Mar 2016 10:3
6	6	E201077.D	2.	16C0403-25	QBSV2031616A 2X CT RCP BNA	16 Mar 2016 11:0
7	7	E201078.D	2.	16C0382-01	QBSV2031616A 2X 8270 COMP	16 Mar 2016 11:3
8	8	E201079.D	2.	16C0382-02	QBSV2031616A 2X 8270 COMP	16 Mar 2016 12:0
9	9	E201080.D	2.	16C0382-03	QBSV2031616A 2X CP51	16 Mar 2016 12:4
10	10	E201081.D	1.	SEQ-TUN1	QBSV2031616A	16 Mar 2016 13:1
11	11	E201082.D	1.	SEQ-CCV1	QBSV2031616A	16 Mar 2016 13:4
12	12	E201083.D	1.	16C0423-01	QBSV2031616A 1X CT RCP BNA	16 Mar 2016 14:1
13	13	E201084.D	1.	16C0423-05	QBSV2031616A 1X CT RCP BNA	16 Mar 2016 14:5
14	14	E201085.D	2.	16C0537-01	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 15:2
15	15	E201086.D	2.	16C0537-02	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 15:5
16	16	E201087.D	2.	16C0537-03	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 16:2
17	17	E201088.D	2.	16C0537-04	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 16:5
18	18	E201089.D	2.	16C0537-05	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 17:2
19	19	E201090.D	2.	16C0537-06	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 17:5
20	20	E201091.D	2.	16C0537-07	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 18:2
21	21	E201092.D	2.	16C0537-08	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 18:5
22	22	E201093.D	2.	16C0537-09	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 19:2
23	23	E201094.D	2.	16C0537-10	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 19:5
24	24	E201095.D	2.	16C0537-11	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 20:3
25	25	E201096.D	2.	16C0537-12	QBSV2031616A 2X CT RCP PAH	16 Mar 2016 21:0
26	26	E201097.D	2.	BC60797-MS1	QBSV2031616A 2X 16C0423-01	16 Mar 2016 21:3
27	27	E201098.D	2.	BC60797-MSD1	QBSV2031616A 2X 16C0423-01	16 Mar 2016 22:0
28	28	E201099.D	20.	16C0466-01	QBSV2031616A RE 20X 8270 COMP	16 Mar 2016 22:3
29	29	E201100.D	5.	16C0466-02	QBSV2031616A RE 8270 COMP	16 Mar 2016 23:0
30	31	E201101.D	5.	16C0466-03	QBSV2031616A RE 5X 8270 COMP	16 Mar 2016 23:3

Injection Log

Directory: C:\HPCHEM\1\DATA\031616

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	E401231.D	1.	SEQ-TUN1	QBSV4031616A	16 Mar 2016 08:3
2	2	E401232.D	1.	SEQ-CCV1	QBSV4031616A Y16C105	16 Mar 2016 09:0
3	3	E401233.D	1.	BC60798-BLK1	QBSV4031616A	16 Mar 2016 09:4
4	4	E401234.D	1.	BC60798-BS1	QBSV4031616A	16 Mar 2016 10:1
5	5	E401235.D	1.	BC60798-BSD1	QBSV4031616A	16 Mar 2016 10:5
6	6	E401236.D	2.	BC60795-MSD1	QBSV4031616A 2X	16 Mar 2016 11:2
7	7	E401237.D	2.	16C0407-11	QBSV4031616A 2X NJDEP/TCL/375 RE EXTRA	16 Mar 2016 12:0
8	8	E401238.D	20.	16C0407-22	QBSV4031616A RE IS 20X NJDEP/TCL/375	16 Mar 2016 12:3
9	9	E401239.D	1.	SEQ-TUN1	QBSV4031616A	16 Mar 2016 13:3
10	10	E401240.D	1.	SEQ-CCV1	QBSV4031616A	16 Mar 2016 14:0
11	11	E401241.D	1.	16C0454-02	QBSV4031616A 1X CT RCP PAH SIMSCAN	16 Mar 2016 14:3
12	12	E401242.D	1.	16C0466-04 <i>no Extract</i>	QBSV4031616A 1X 8270 COMP SIMSCAN	16 Mar 2016 15:1
13	13	E401243.D	1.	16C0467-01	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 15:4
14	14	E401244.D	1.	BC60868-BLK1	QBSV4031616A	16 Mar 2016 16:1
15	15	E401245.D	1.	BC60868-BS1	QBSV4031616A	16 Mar 2016 16:5
16	16	E401246.D	1.	16C0467-02	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 17:2
17	17	E401247.D	1.	16C0467-03	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 18:0
18	18	E401248.D	1.	16C0477-10	QBSV4031616A 1X CP51 SIMSCAN	16 Mar 2016 18:3
19	19	E401249.D	1.	16C0505-01	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 19:0
20	20	E401250.D	1.	16C0505-02	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 19:4
21	21	E401251.D	1.	16C0505-03	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 20:1
22	22	E401252.D	1.	16C0505-04	QBSV4031616A 1X CT RCP B/N SIMSCAN	16 Mar 2016 20:4
23	23	E401253.D	1.	16C0506-01	QBSV4031616A 1X CP51/NYCDEP SEWER SII	16 Mar 2016 21:2
24	24	E401254.D	1.	16C0536-01	QBSV4031616A 1X CT RCP PAH SIMSCAN	16 Mar 2016 21:5
25	25	E401255.D	1.	16C0513-05 <i>no</i>	QBSV4031616A 1X CP51 SIMSCAN	16 Mar 2016 22:3
26	26	E401256.D	1.	16C0423-13	QBSV4031616A 1X CT RCP BNA	16 Mar 2016 23:0
27	27	E401257.D	1.	16C0423-18 <i>no Extract</i>	QBSV4031616A 1X CT RCP BNA	16 Mar 2016 23:3
28	28	E401258.D	1.	16C0423-23 <i>no Extract</i>	QBSV4031616A 1X CT RCP BNA	17 Mar 2016 00:1
29	29	E401259.D	1.	16C0423-10 <i>no Extract</i>	QBSV4031616A 1X CT RCP BNA	17 Mar 2016 00:4

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: PEST

METHOD: EPA 8081B

DATA PACKAGE COVER PAGE

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY **EPA 8081B**

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1616Instrument: GC Dual EMatrix: WaterCalibration: UNASSIGNED

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (BC60750-BLK1) Lab File ID: P5014296.D Analyzed: 03/15/16 10:48								
Tetrachloro-m-xylene	0.201	46.3	30 - 120	2.55				
Decachlorobiphenyl	0.207	56.1	30 - 120	6.45				
LCS (BC60750-BS1) Lab File ID: P5014297.D Analyzed: 03/15/16 11:03								
Tetrachloro-m-xylene	0.201	44.7	30 - 120	2.55				
Decachlorobiphenyl	0.207	47.5	30 - 120	6.44				
LCS Dup (BC60750-BSD1) Lab File ID: P5014298.D Analyzed: 03/15/16 11:19								
Tetrachloro-m-xylene	0.201	46.2	30 - 120	2.55				
Decachlorobiphenyl	0.207	49.0	30 - 120	6.44				
04/FB20160309 (16C0466-04) Lab File ID: P5014299.D Analyzed: 03/15/16 11:34								
Tetrachloro-m-xylene	0.217	48.5	30 - 120	2.55				
Decachlorobiphenyl	0.224	70.6	30 - 120	6.44				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY **EPA 8081B**

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1710Instrument: GC Dual EMatrix: SoilCalibration: UNASSIGNED

Surrogate Compound	Spike Level mg/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (BC60827-BLK1) Lab File ID: P5014357.D Analyzed: 03/16/16 15:41								
Tetrachloro-m-xylene	0.100	110	30 - 140	2.55				
Decachlorobiphenyl	0.104	80.9	30 - 140					
LCS (BC60827-BS1) Lab File ID: P5014358.D Analyzed: 03/16/16 15:56								
Tetrachloro-m-xylene	0.100	111	30 - 140	2.54				
Decachlorobiphenyl	0.104	84.9	30 - 140	6.45				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Sequence: Y6C1810 Instrument:
 Matrix: Soil Calibration:

Surrogate Compound	Spike Level mg/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
01/LSB-3 (16C0466-01) Lab File ID: P5014378.D Analyzed: 03/17/16 10:16								
Tetrachloro-m-xylene	0.114	57.2	30 - 140	2.54				
Decachlorobiphenyl	0.117	50.2	30 - 140	6.44				
02/DUP (16C0466-02) Lab File ID: P5014379.D Analyzed: 03/17/16 10:31								
Tetrachloro-m-xylene	0.120	62.4	30 - 140	2.54				
Decachlorobiphenyl	0.124	59.1	30 - 140	6.44				
03/LSB-3 (16C0466-03) Lab File ID: P5014380.D Analyzed: 03/17/16 10:46								
Tetrachloro-m-xylene	0.120	59.5	30 - 140	2.54				
Decachlorobiphenyl	0.124	55.1	30 - 140	6.44				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60750Laboratory ID: BC60750-BS1Preparation: EPA SW846-3510C Low LevelInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
4,4'-DDD	0.100	0.0958	95.8	40 - 120
4,4'-DDE	0.100	0.0892	89.2	40 - 120
4,4'-DDT	0.100	0.0786	78.6	40 - 120
Aldrin	0.100	0.0572	57.2	40 - 120
alpha-BHC	0.100	0.0671	67.1	40 - 120
alpha-Chlordane	0.100	0.0739	73.9	40 - 120
beta-BHC	0.100	0.0704	70.4	40 - 120
delta-BHC	0.100	0.0720	72.0	40 - 120
Dieldrin	0.100	0.0768	76.8	40 - 120
Endosulfan I	0.100	0.0751	75.1	40 - 120
Endosulfan II	0.100	0.0869	86.9	40 - 120
Endosulfan sulfate	0.100	0.0734	73.4	40 - 120
Endrin	0.100	0.0936	93.6	40 - 120
Endrin aldehyde	0.100	0.0800	80.0	40 - 120
Endrin ketone	0.100	0.0885	88.5	40 - 120
gamma-BHC (Lindane)	0.100	0.0706	70.6	40 - 120
gamma-Chlordane	0.100	0.0728	72.8	40 - 120
Heptachlor	0.100	0.0653	65.3	40 - 120
Heptachlor epoxide	0.100	0.0752	75.2	40 - 120
Methoxychlor	0.100	0.0989	98.9	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60750Laboratory ID: BC60750-BSD1Preparation: EPA SW846-3510C Low LevelInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4,4'-DDD	0.100	0.0710	71.0	29.7	30	40 - 120
4,4'-DDE	0.100	0.0801	80.1	10.8	30	40 - 120
4,4'-DDT	0.100	0.0744	74.4	5.59	30	40 - 120
Aldrin	0.100	0.0574	57.4	0.195	30	40 - 120
alpha-BHC	0.100	0.0687	68.7	2.34	30	40 - 120
alpha-Chlordane	0.100	0.0701	70.1	5.29	30	40 - 120
beta-BHC	0.100	0.0685	68.5	2.77	30	40 - 120
delta-BHC	0.100	0.0696	69.6	3.44	30	40 - 120
Dieldrin	0.100	0.0724	72.4	5.95	30	40 - 120
Endosulfan I	0.100	0.0713	71.3	5.10	30	40 - 120
Endosulfan II	0.100	0.0741	74.1	15.9	30	40 - 120
Endosulfan sulfate	0.100	0.0717	71.7	2.37	30	40 - 120
Endrin	0.100	0.0799	79.9	15.7	30	40 - 120
Endrin aldehyde	0.100	0.0750	75.0	6.47	30	40 - 120
Endrin ketone	0.100	0.0855	85.5	3.47	30	40 - 120
gamma-BHC (Lindane)	0.100	0.0716	71.6	1.45	30	40 - 120
gamma-Chlordane	0.100	0.0684	68.4	6.30	30	40 - 120
Heptachlor	0.100	0.0660	66.0	0.976	30	40 - 120
Heptachlor epoxide	0.100	0.0712	71.2	5.53	30	40 - 120
Methoxychlor	0.100	0.0834	83.4	16.9	30	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY
EPA 8081BLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60827Laboratory ID: BC60827-BS1Preparation: EPA 3545AInitial/Final: 20 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
4,4'-DDD	0.0500	0.0611	122	40 - 140
4,4'-DDE	0.0500	0.0644	129	40 - 140
4,4'-DDT	0.0500	0.0610	122	40 - 140
Aldrin	0.0500	0.0605	121	40 - 140
alpha-BHC	0.0500	0.0614	123	40 - 140
alpha-Chlordane	0.0500	0.0591	118	40 - 140
beta-BHC	0.0500	0.0637	127	40 - 140
delta-BHC	0.0500	0.0627	125	40 - 140
Dieldrin	0.0500	0.0618	124	40 - 140
Endosulfan I	0.0500	0.0588	118	40 - 140
Endosulfan II	0.0500	0.0605	121	40 - 140
Endosulfan sulfate	0.0500	0.0594	119	40 - 140
Endrin	0.0500	0.0614	123	40 - 140
Endrin aldehyde	0.0500	0.0573	115	40 - 140
Endrin ketone	0.0500	0.0631	126	40 - 140
gamma-BHC (Lindane)	0.0500	0.0647	129	40 - 140
gamma-Chlordane	0.0500	0.0603	121	40 - 140
Heptachlor	0.0500	0.0606	121	40 - 140
Heptachlor epoxide	0.0500	0.0609	122	40 - 140
Methoxychlor	0.0500	0.0602	120	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM I

METHOD BLANK DATA SHEET
EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60750-BLK1 File ID: P5014296.D
 Prepared: 03/15/16 06:25 Preparation: EPA SW846-3510C Low Le Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/15/16 10:48 Instrument: GC Dual E
 Batch: BC60750 Sequence: Y6C1616 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
72-54-8	4,4'-DDD	0.00400	U
72-55-9	4,4'-DDE	0.00400	U
50-29-3	4,4'-DDT	0.00400	U
309-00-2	Aldrin	0.00400	U
319-84-6	alpha-BHC	0.00400	U
5103-71-9	alpha-Chlordane	0.00400	U
319-85-7	beta-BHC	0.00400	U
57-74-9	Chlordane, total	0.0400	U
319-86-8	delta-BHC	0.00400	U
60-57-1	Dieldrin	0.00200	U
959-98-8	Endosulfan I	0.00400	U
33213-65-9	Endosulfan II	0.00400	U
1031-07-8	Endosulfan sulfate	0.00400	U
72-20-8	Endrin	0.00400	U
7421-93-4	Endrin aldehyde	0.0100	U
53494-70-5	Endrin ketone	0.0100	U
58-89-9	gamma-BHC (Lindane)	0.00400	U
5566-34-7	gamma-Chlordane	0.0100	U
76-44-8	Heptachlor	0.00400	U
1024-57-3	Heptachlor epoxide	0.00400	U
72-43-5	Methoxychlor	0.00400	U
8001-35-2	Toxaphene	0.100	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.201	0.0930	46.3	30 - 120	
Decachlorobiphenyl	0.207	0.116	56.1	30 - 120	

FORM I

METHOD BLANK DATA SHEET
EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60827-BLK1 File ID: P5014357.D
 Prepared: 03/16/16 07:30 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Analyzed: 03/16/16 15:41 Instrument: GC Dual E
 Batch: BC60827 Sequence: Y6C1710 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
72-54-8	4,4'-DDD	0.000495	U
72-55-9	4,4'-DDE	0.000495	U
50-29-3	4,4'-DDT	0.000495	U
309-00-2	Aldrin	0.000495	U
319-84-6	alpha-BHC	0.000495	U
5103-71-9	alpha-Chlordane	0.000495	U
319-85-7	beta-BHC	0.000495	U
57-74-9	Chlordane, total	0.0198	U
319-86-8	delta-BHC	0.000495	U
60-57-1	Dieldrin	0.000495	U
959-98-8	Endosulfan I	0.000495	U
33213-65-9	Endosulfan II	0.000495	U
1031-07-8	Endosulfan sulfate	0.000495	U
72-20-8	Endrin	0.000495	U
7421-93-4	Endrin aldehyde	0.000495	U
53494-70-5	Endrin ketone	0.000495	U
58-89-9	gamma-BHC (Lindane)	0.000495	U
5566-34-7	gamma-Chlordane	0.000495	U
76-44-8	Heptachlor	0.000495	U
1024-57-3	Heptachlor epoxide	0.000495	U
72-43-5	Methoxychlor	0.00248	U
8001-35-2	Toxaphene	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.100	0.110	110	30 - 140	
Decachlorobiphenyl	0.104	0.0837	80.9	30 - 140	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8081B**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Batch: BC60750Batch Matrix: WaterPreparation: EPA SW846-3510C Low Level

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04	P5014299.D	03/15/16 06:25	
Blank	BC60750-BLK1	P5014296.D	03/15/16 06:25	
LCS	BC60750-BS1	P5014297.D	03/15/16 06:25	
LCS Dup	BC60750-BSD1	P5014298.D	03/15/16 06:25	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8081B**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60827 Batch Matrix: Soil Preparation: EPA 3545A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01	P5014378.D	03/16/16 07:30	
02/DUP	16C0466-02	P5014379.D	03/16/16 07:30	
03/LSB-3	16C0466-03	P5014380.D	03/16/16 07:30	
Blank	BC60827-BLK1	P5014357.D	03/16/16 07:30	
LCS	BC60827-BS1	P5014358.D	03/16/16 07:30	

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: GC Dual E

Analyte	LOD	LOQ	Units
4,4'-DDD	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
4,4'-DDE	0.00400	0.00400	ug/L
	0.000330	0.000330	mg/kg
4,4'-DDT	0.00400	0.00400	ug/L
	0.000330	0.000330	mg/kg
Aldrin	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
alpha-BHC	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
alpha-Chlordane	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
beta-BHC	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
Chlordane, total	0.0132	0.0132	mg/kg
	0.0400	0.0400	ug/L
delta-BHC	0.00400	0.00400	ug/L
	0.000330	0.000330	mg/kg
Dieldrin	0.000330	0.000330	mg/kg
	0.00200	0.00200	ug/L
Endosulfan I	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
Endosulfan II	0.00400	0.00400	ug/L
	0.000330	0.000330	mg/kg
Endosulfan sulfate	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
Endrin	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
Endrin aldehyde	0.000330	0.000330	mg/kg
	0.0100	0.0100	ug/L
Endrin ketone	0.000330	0.000330	mg/kg
	0.0100	0.0100	ug/L
gamma-BHC (Lindane)	0.000330	0.000330	mg/kg
	0.00400	0.00400	ug/L
gamma-Chlordane	0.000330	0.000330	mg/kg
	0.0100	0.0100	ug/L
Heptachlor	0.000330	0.000330	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: GC Dual E

Analyte	LOD	LOQ	Units
Heptachlor	0.00400	0.00400	ug/L
Heptachlor epoxide	0.00400	0.00400	ug/L
	0.000330	0.000330	mg/kg
Methoxychlor	0.00165	0.00165	mg/kg
	0.00400	0.00400	ug/L
Toxaphene	0.100	0.100	ug/L
	0.0167	0.0167	mg/kg

HOLDING TIME SUMMARY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/16/16 07:30	6.84	14.00	03/17/16 10:16	1.12	40.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/16/16 07:30	6.84	14.00	03/17/16 10:31	1.13	40.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/16/16 07:30	6.82	14.00	03/17/16 10:46	1.14	40.00	
04/FB20160309	03/09/16 12:55	03/10/16 19:54	03/15/16 06:25	5.73	7.00	03/15/16 11:34	0.21	40.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-01 File ID: P5014378.D
 Sampled: 03/09/16 11:15 Prepared: 03/16/16 07:30 Analyzed: 03/17/16 10:16
 Solids: 88.45 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Batch: BC60827 Sequence: Y6C1810 Calibration: UNASSIGNED Instrument: GC Dual E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.0597	D
72-55-9	4,4'-DDE	5	0.0365	D
50-29-3	4,4'-DDT	5	0.0966	D
309-00-2	Aldrin	5	0.00280	U
319-84-6	alpha-BHC	5	0.00280	U
5103-71-9	alpha-Chlordane	5	0.0163	D
319-85-7	beta-BHC	5	0.00280	U
57-74-9	Chlordane, total	5	0.167	D
319-86-8	delta-BHC	5	0.00280	U
60-57-1	Dieldrin	5	0.00280	U
959-98-8	Endosulfan I	5	0.00280	U
33213-65-9	Endosulfan II	5	0.00280	U
1031-07-8	Endosulfan sulfate	5	0.00280	U
72-20-8	Endrin	5	0.00280	U
7421-93-4	Endrin aldehyde	5	0.00280	U
53494-70-5	Endrin ketone	5	0.00280	U
58-89-9	gamma-BHC (Lindane)	5	0.00280	U
5566-34-7	gamma-Chlordane	5	0.0160	D
76-44-8	Heptachlor	5	0.00280	U
1024-57-3	Heptachlor epoxide	5	0.00280	U
72-43-5	Methoxychlor	5	0.0140	U
8001-35-2	Toxaphene	5	0.142	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.114	0.0650	57.2	30 - 140	
Decachlorobiphenyl	0.117	0.0587	50.2	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014378.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014378.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:16 am Operator: AMC
 Sample : 16C0466-01 Inst : GC DUAL E
 Misc : QBPEST5-031716A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:51 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

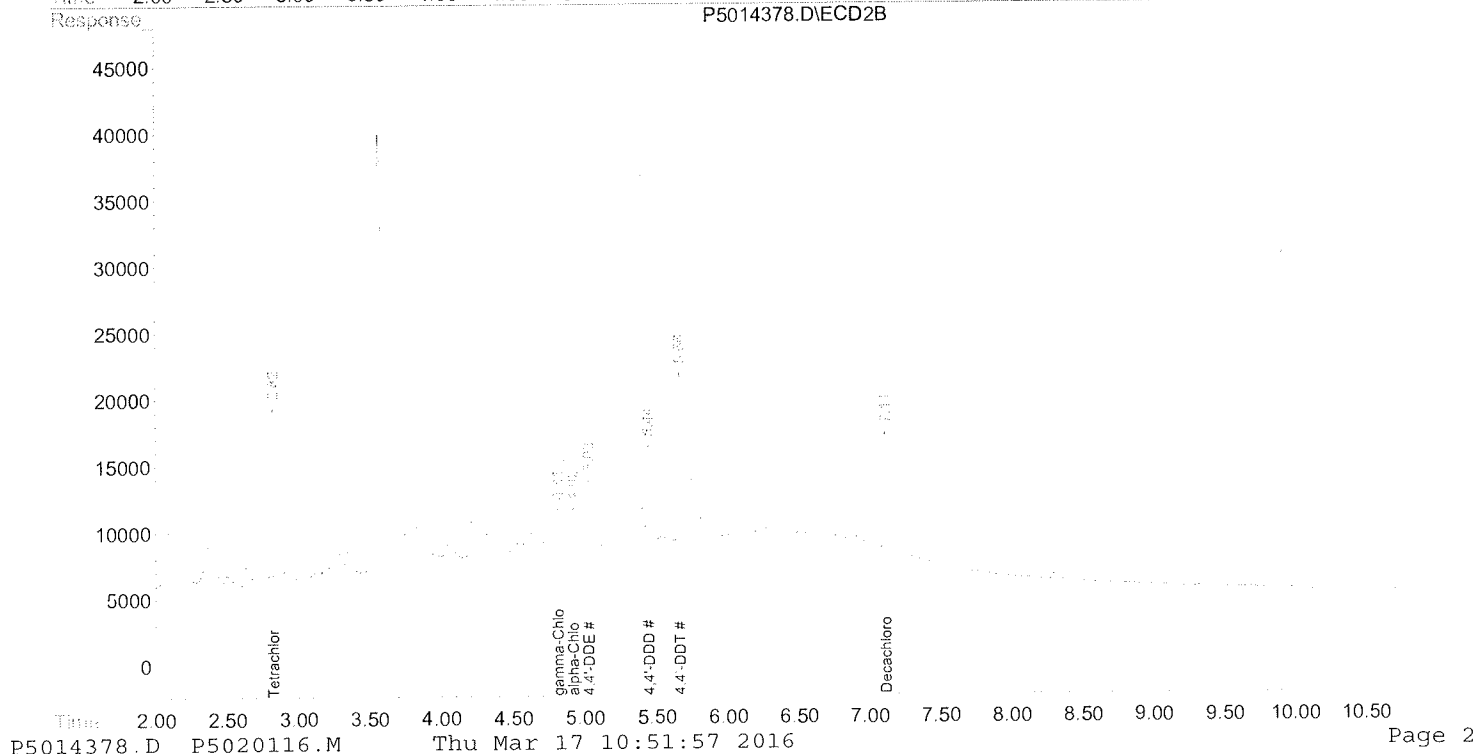
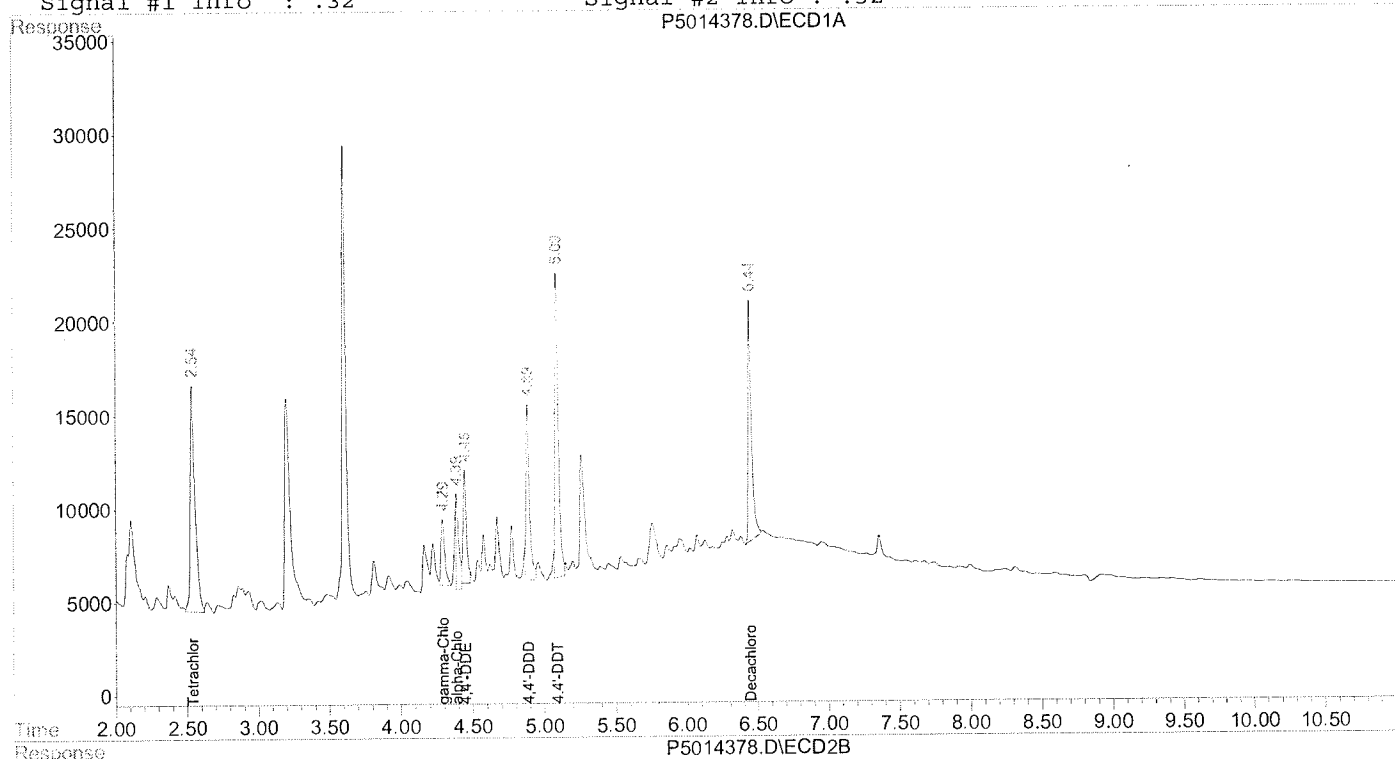
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	282854	359320	22.997	34.646m#
Spiked Amount	200.000	Range	30 - 150	Recovery	=	11.50%# 17.32%#
24) SA Decachlorobiphen	6.44	7.11	224695	201291	20.765m	20.511m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	10.38%# 10.26%#
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda)	0.00	0.00	0	0	N.D. d	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
5) M delta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
6) M Heptachlor	0.00	0.00	0	0	N.D. d	N.D. d
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D. d	N.D. d
10) M gamma-Chlordane	4.29	4.81	65125	56085	5.653m	5.129m
11) M alpha-Chlordane	4.39	4.92	64176	57144	5.750m	5.905m
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	4.45	5.03	100433	123729	12.907m	12.020m
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	0.00	0.00	0	0	N.D. d	N.D. d
16) M 4,4'-DDD	4.89	5.44	158575	148286	21.106m	20.169m
17) M Endosulfan II	0.00	0.00	0	0	N.D. d	N.D. d
18) M 4,4'-DDT	5.09	5.66	258756	225809	34.172m	35.919m
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D. d	N.D. d
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D. d
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	0.00	0.00	0	0	N.D. d	N.D. d

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014378.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014378.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:16 am Operator: AMC
 Sample : 16C0466-01 Inst : GC DUAL E
 Misc : QBPEST5-031716A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:51 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

ORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-02 File ID: P5014379.D
 Sampled: 03/09/16 11:15 Prepared: 03/16/16 07:30 Analyzed: 03/17/16 10:31
 Solids: 83.47 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Batch: BC60827 Sequence: Y6C1810 Calibration: UNASSIGNED Instrument: GC Dual E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.103	D
72-55-9	4,4'-DDE	5	0.0465	D
50-29-3	4,4'-DDT	5	0.154	D
309-00-2	Aldrin	5	0.00296	U
319-84-6	alpha-BHC	5	0.00296	U
5103-71-9	alpha-Chlordane	5	0.0274	D
319-85-7	beta-BHC	5	0.00296	U
57-74-9	Chlordane, total	5	0.255	D
319-86-8	delta-BHC	5	0.00296	U
60-57-1	Dieldrin	5	0.00296	U
959-98-8	Endosulfan I	5	0.00296	U
33213-65-9	Endosulfan II	5	0.00296	U
1031-07-8	Endosulfan sulfate	5	0.00296	U
72-20-8	Endrin	5	0.00296	U
7421-93-4	Endrin aldehyde	5	0.00296	U
53494-70-5	Endrin ketone	5	0.00296	U
58-89-9	gamma-BHC (Lindane)	5	0.00296	U
5566-34-7	gamma-Chlordane	5	0.0250	D
76-44-8	Heptachlor	5	0.00296	U
1024-57-3	Heptachlor epoxide	5	0.00296	U
72-43-5	Methoxychlor	5	0.0148	U
8001-35-2	Toxaphene	5	0.150	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.120	0.0751	62.4	30 - 140	
Decachlorobiphenyl	0.124	0.0733	59.1	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014379.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014379.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:31 am Operator: AMC
 Sample : 16C0466-02 Inst : GC DUAL E
 Misc : QBPEST5-031716A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:53 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

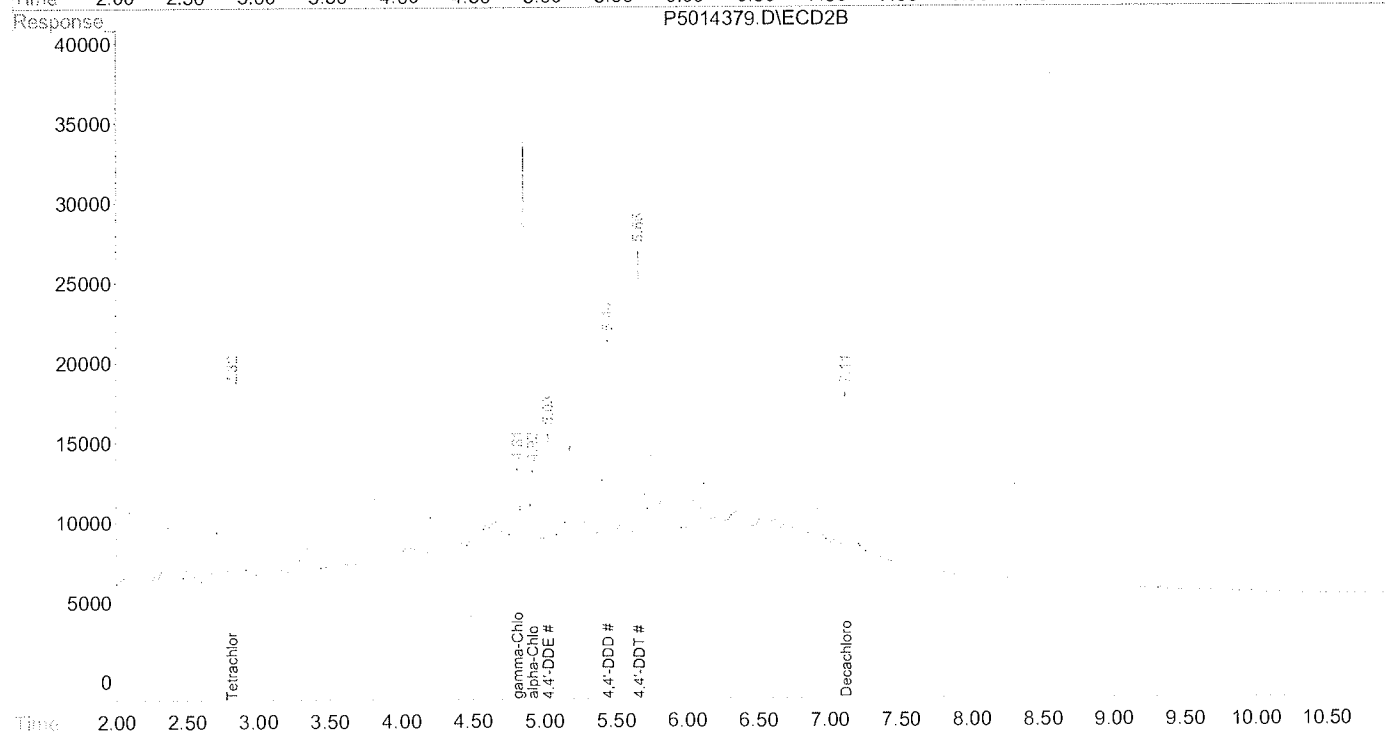
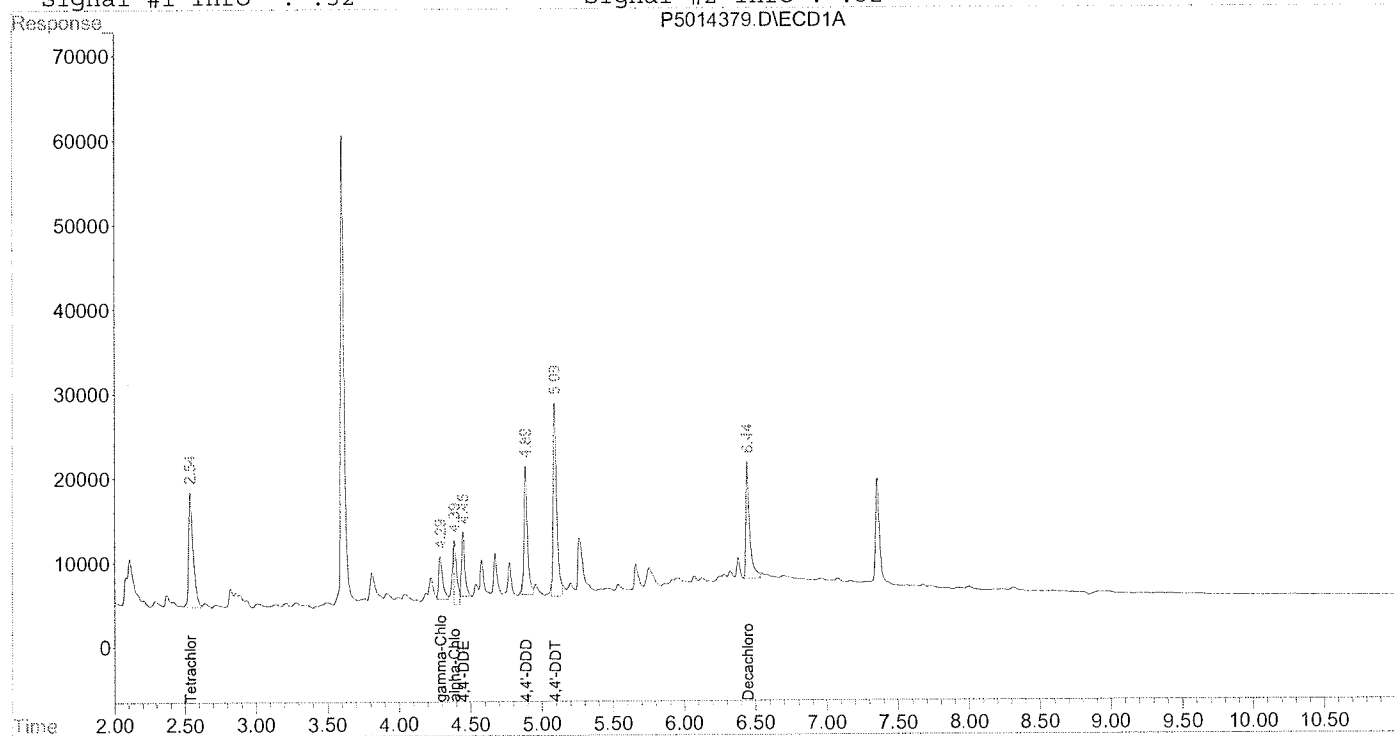
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	308535	345817	25.084	33.344 #
Spiked Amount	200.000	Range	30 - 150	Recovery	=	12.54%# 16.67%#
24) SA Decachlorobiphen	6.44	7.11	264867	233120	24.477m	23.754m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	12.24%# 11.88%#
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D. d	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D.	N.D.
6) M Heptachlor	0.00	0.00	0	0	N.D. d	N.D. d
7) M Aldrin	0.00	0.00	0	0	N.D.	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D. d	N.D. d
10) M gamma-Chlordane	4.29	4.81	96075	88186	8.339m	8.065m
11) M alpha-Chlordane	4.39	4.92	102028	84119	9.141m	8.693m
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.45	5.03	120868	152814	15.533m	14.845m
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	0.00	0.00	0	0	N.D.	N.D. d
16) M 4,4'-DDD	4.89	5.44	258039	233011	34.345m	31.692m
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D. d
18) M 4,4'-DDT	5.09	5.66	390157	315933	51.525m	50.255m
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D. d	N.D. d
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D. d
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	0.00	0.00	0	0	N.D. d	N.D. d

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014379.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014379.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:31 am Operator: AMC
 Sample : 16C0466-02 Inst : GC DUAL E
 Misc : QBPEST5-031716A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:53 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-03 File ID: P5014380.D
 Sampled: 03/09/16 11:50 Prepared: 03/16/16 07:30 Analyzed: 03/17/16 10:46
 Solids: 83.60 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Batch: BC60827 Sequence: Y6C1810 Calibration: UNASSIGNED Instrument: GC Dual E

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
72-54-8	4,4'-DDD	5	0.0138	D
72-55-9	4,4'-DDE	5	0.0147	D
50-29-3	4,4'-DDT	5	0.0769	D
309-00-2	Aldrin	5	0.00296	U
319-84-6	alpha-BHC	5	0.00296	U
5103-71-9	alpha-Chlordane	5	0.0105	D
319-85-7	beta-BHC	5	0.00296	U
57-74-9	Chlordane, total	5	0.147	D
319-86-8	delta-BHC	5	0.00296	U
60-57-1	Dieldrin	5	0.00296	U
959-98-8	Endosulfan I	5	0.00296	U
33213-65-9	Endosulfan II	5	0.00296	U
1031-07-8	Endosulfan sulfate	5	0.00296	U
72-20-8	Endrin	5	0.00296	U
7421-93-4	Endrin aldehyde	5	0.00296	U
53494-70-5	Endrin ketone	5	0.00296	U
58-89-9	gamma-BHC (Lindane)	5	0.00296	U
5566-34-7	gamma-Chlordane	5	0.00942	D
76-44-8	Heptachlor	5	0.00296	U
1024-57-3	Heptachlor epoxide	5	0.00296	U
72-43-5	Methoxychlor	5	0.0148	U
8001-35-2	Toxaphene	5	0.150	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.120	0.0715	59.5	30 - 140	
Decachlorobiphenyl	0.124	0.0682	55.1	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014380.D\ECD1A.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014380.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:46 am Operator: AMC
 Sample : 16C0466-03 Inst : GC DUAL E
 Misc : QBPEST5-031716A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 11:00 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

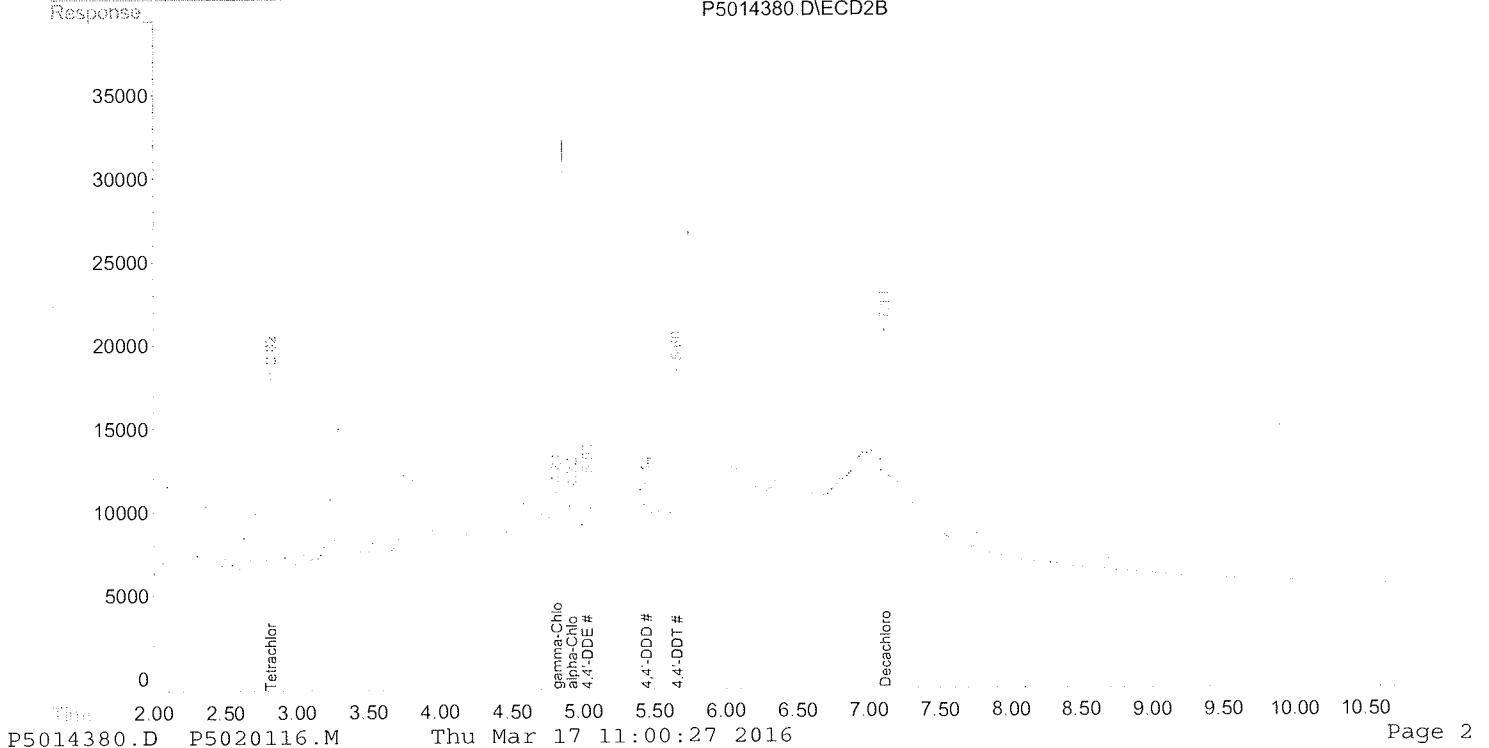
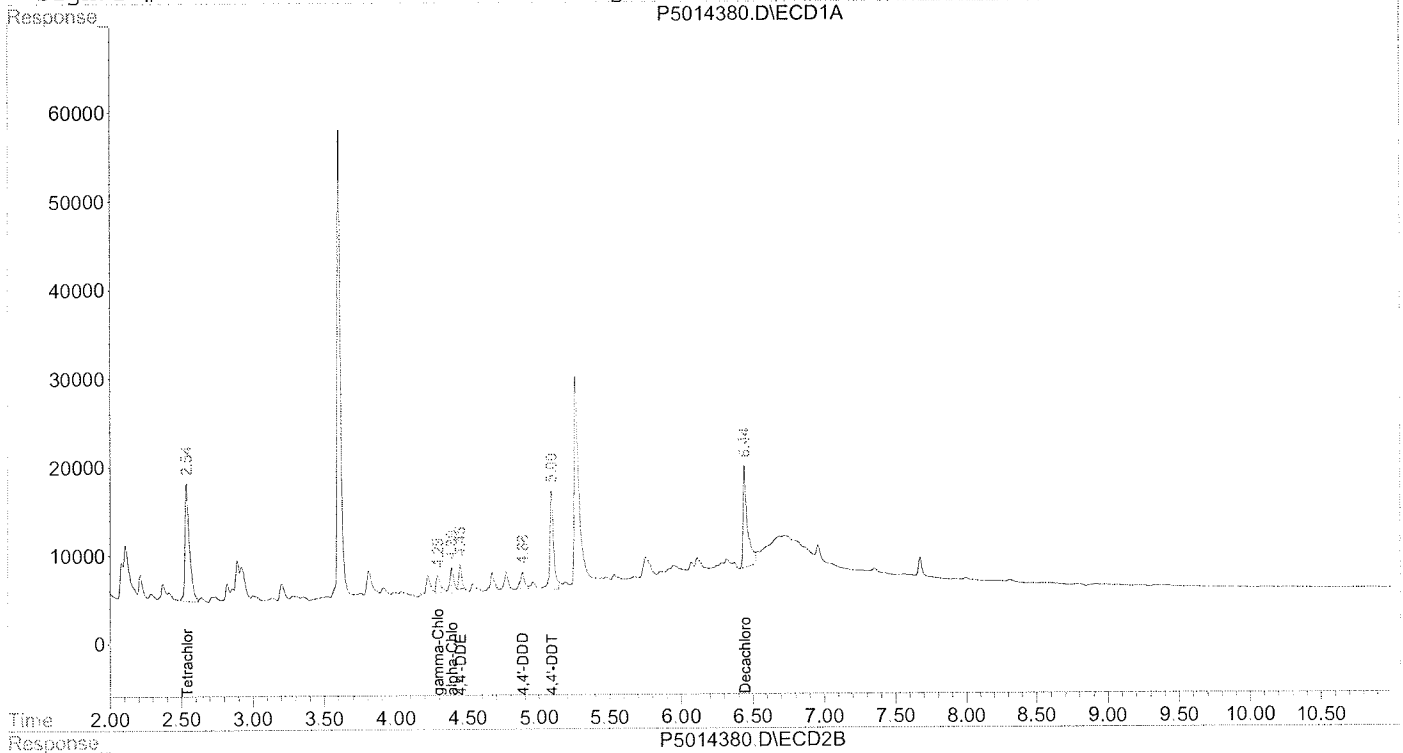
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	294230	355430	23.921	34.271 #
Spiked Amount	200.000	Range	30 - 150	Recovery	=	11.96%# 17.14%#
24) SA Decachlorobiphen	6.44	7.11	246849	217532	22.812m	22.166m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	11.41%# 11.08%#
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D. d	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
5) M delta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
6) M Heptachlor	0.00	0.00	0	0	N.D. d	N.D. d
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D. d	N.D. d
10) M gamma-Chlordane	4.29	4.81	36301	33288	3.151m	3.044m
11) M alpha-Chlordane	4.39	4.92	39191	31680	3.511m	3.274m
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.45	5.03	38258	50171	4.917m	4.874m
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	0.00	0.00	0	0	N.D.	N.D. d
16) M 4,4'-DDD	4.88	5.44	34552	29748	4.599m	4.046m
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D. d
18) M 4,4'-DDT	5.09	5.66	194719	172234	25.715m	27.397m
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D. d	N.D. d
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D. d
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D.	N.D.
23) M Endrin Ketone	0.00	0.00	0	0	N.D. d	N.D. d

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014380.D\ECD1A.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014380.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:46 am Operator: AMC
 Sample : 16C0466-03 Inst : GC DUAL E
 Misc : QBPEST5-031716A Multiplr: 5.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 11:00 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-04 File ID: P5014299.D
 Sampled: 03/09/16 12:55 Prepared: 03/15/16 06:25 Analyzed: 03/15/16 11:34
 Solids: Preparation: EPA SW846-3510C Low Le Initial/Final: 925 mL / 1 mL
 Batch: BC60750 Sequence: Y6C1616 Calibration: UNASSIGNED Instrument: GC Dual E

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
72-54-8	4,4'-DDD	1	0.00432	U
72-55-9	4,4'-DDE	1	0.00432	U
50-29-3	4,4'-DDT	1	0.00432	U
309-00-2	Aldrin	1	0.00432	U
319-84-6	alpha-BHC	1	0.00432	U
5103-71-9	alpha-Chlordane	1	0.00432	U
319-85-7	beta-BHC	1	0.00432	U
57-74-9	Chlordane, total	1	0.0432	U
319-86-8	delta-BHC	1	0.00432	U
60-57-1	Dieldrin	1	0.00216	U
959-98-8	Endosulfan I	1	0.00432	U
33213-65-9	Endosulfan II	1	0.00432	U
1031-07-8	Endosulfan sulfate	1	0.00432	U
72-20-8	Endrin	1	0.00432	U
7421-93-4	Endrin aldehyde	1	0.0108	U
53494-70-5	Endrin ketone	1	0.0108	U
58-89-9	gamma-BHC (Lindane)	1	0.00432	U
5566-34-7	gamma-Chlordane	1	0.0108	U
76-44-8	Heptachlor	1	0.00432	U
1024-57-3	Heptachlor epoxide	1	0.00432	U
72-43-5	Methoxychlor	1	0.00432	U
8001-35-2	Toxaphene	1	0.108	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.217	0.105	48.5	30 - 120	
Decachlorobiphenyl	0.224	0.158	70.6	30 - 120	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014299.D\ECD1A.CH Vial: 12
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014299.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:34 am Operator: AMC
 Sample : 16C0466-04 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 9:39 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

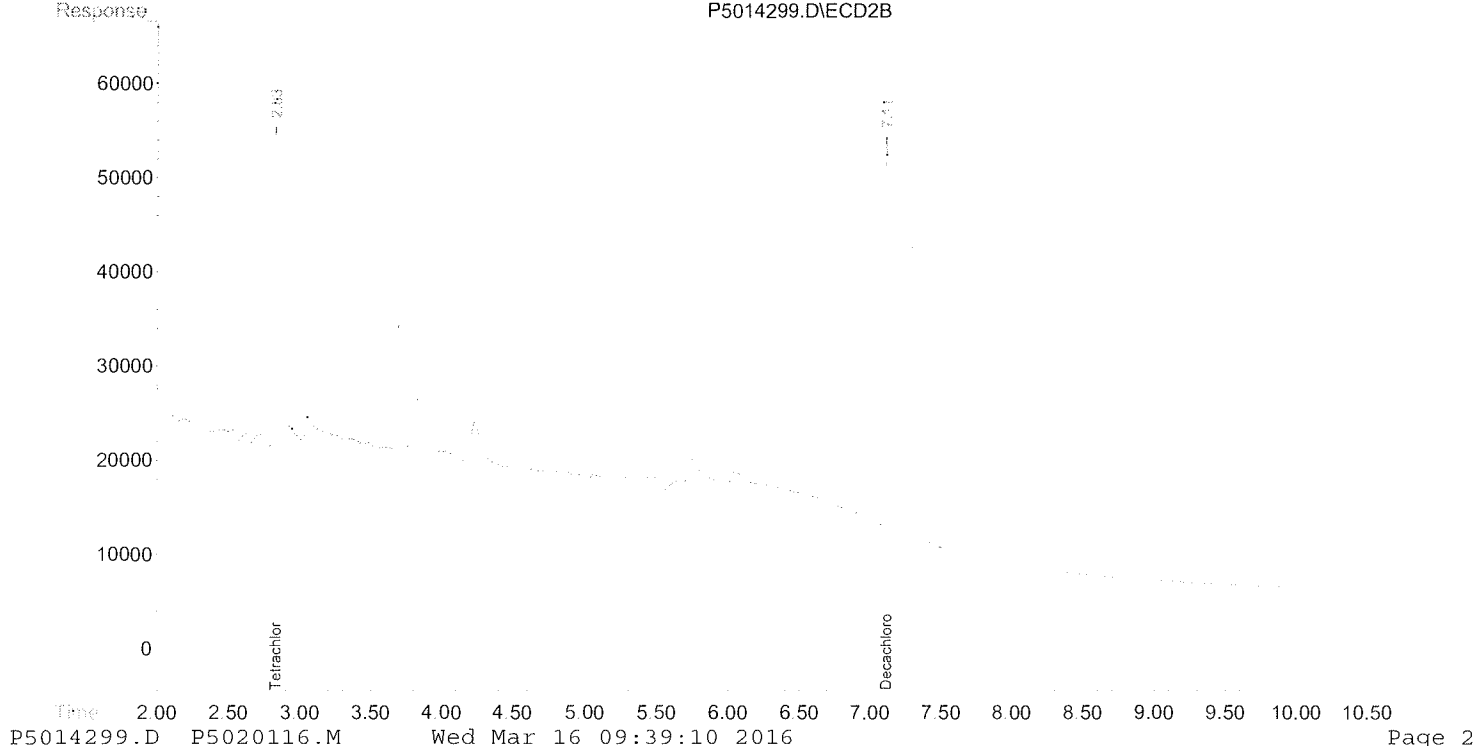
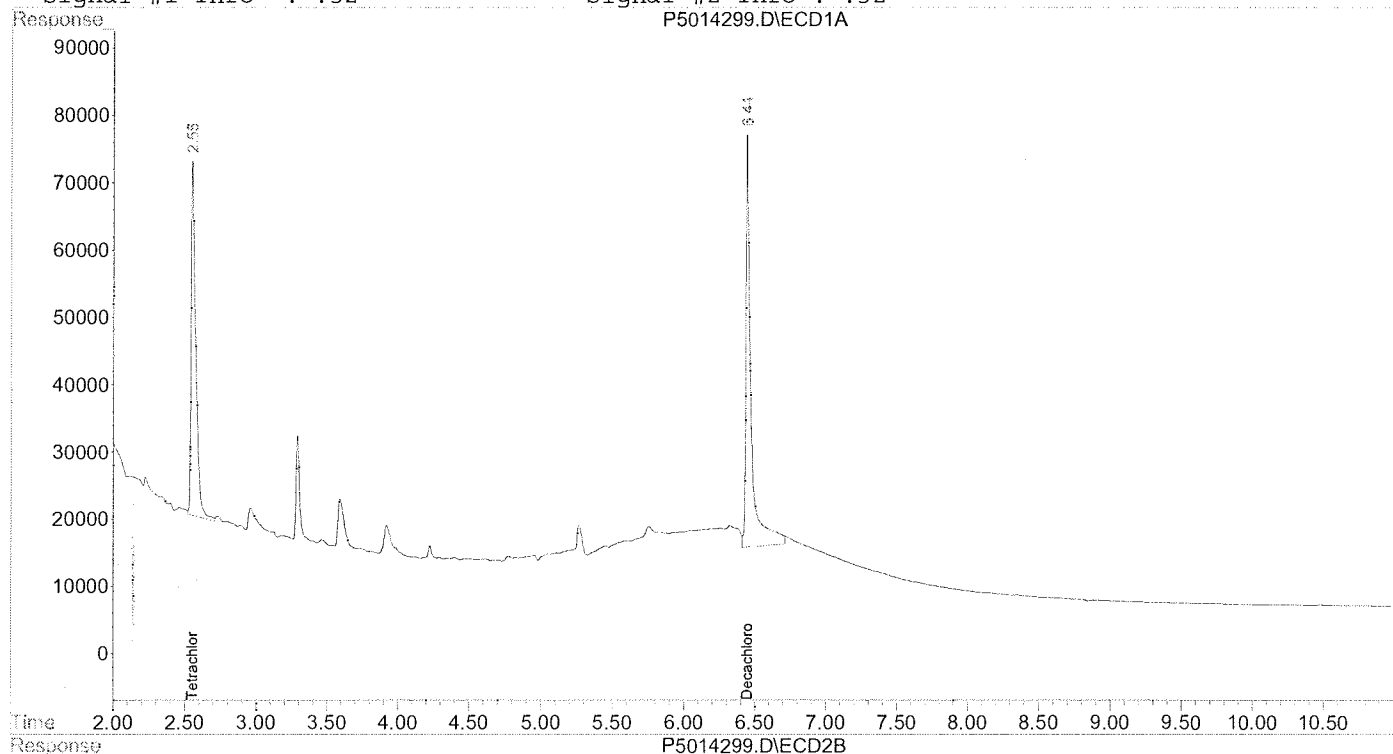
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.83	1198389	1036955	97.431	99.984
Spiked Amount	200.000	Range	30 - 150	Recovery	=	48.72% 49.99%
24) SA Decachlorobiphen	6.44	7.11	1582483	1294572	146.243m	131.914m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	73.12% 65.96%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D.	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D. d	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D.	N.D.
6) M Heptachlor	0.00	0.00	0	0	N.D. d	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D.	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D.	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D. d	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D. d	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D. d
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	0.00	0.00	0	0	N.D. d	N.D. d
16) M 4,4'-DDD	0.00	0.00	0	0	N.D.	N.D. d
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	0.00	0.00	0	0	N.D. d	N.D. d
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D. d
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D.
21) M Mirex	0.00	0.00	0	0	N.D.	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D.	N.D. d
23) M Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014299.D\ECD1A.CH Vial: 12
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014299.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:34 am Operator: AMC
 Sample : 16C0466-04 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 9:39 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Response Factor Report GC DUAL E

Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Wed Feb 17 14:41:11 2016

Calibration Files

200 =P5013259.D 100 =P5013258.D 50 =P5013640.D
 20 =P5013256.D 5 =P5013255.D 1 =P5013254.D

	Compound	200	100	50	20	5	1	Avg		%RSD
1) S	Tetrachloro-m-xylen	1.182	1.278	1.370	1.193	1.069	1.287	1.230	E4	8.51
2) M	alpha-BHC	1.303	1.445	1.424	1.124	1.100	1.383	1.297	E4	11.65
3) M	gamma-BHC (Lindane)	1.132	1.280	1.280	1.053	0.886	1.131	1.127	E4	13.21
4) M	beta-BHC	5.945	7.107	6.611	5.952	5.506	7.414	6.423	E3	11.60
5) M	delta-BHC	1.078	1.230	1.178	0.917	0.902	1.069	1.062	E4	12.54
6) M	Heptachlor	0.925	1.119	1.188	1.013	0.942	1.343	1.088	E4	14.76
7) M	Aldrin	1.133	1.303	1.318	1.071	1.029	1.281	1.189	E4	10.69
8) M	Alachlor	1.964	2.733	2.904	2.592	2.326	2.627	2.524	E3	13.21
9) M	Heptachlor Epoxide	0.922	1.118	1.165	1.054	0.926	1.329	1.086	E4	14.25
10) M	gamma-Chlordane	1.029	1.225	1.251	1.113	0.959	1.337	1.152	E4	12.47
11) M	alpha-Chlordane	0.979	1.172	1.195	1.091	0.947	1.312	1.116	E4	12.41
12) M	Endosulfan I	1.141	1.371	1.379	1.270	1.033	1.392	1.265	E4	11.71
13) M	4,4'-DDE	7.753	8.977	8.492	7.203	6.059	8.205	7.782	E3	13.38
14) M	Dieldrin	1.029	1.265	1.315	1.213	0.858	1.099	1.130	E4	15.03
15) M	Endrin	6.717	8.171	8.706	8.258	6.636	7.848	7.723	E3	11.08
16) M	4,4'-DDD	7.288	8.748	8.461	8.020	6.349	6.215	7.513	E3	14.30
17) M	Endosulfan II	0.815	1.011	1.038	1.043	0.843	0.864	0.936	E4	11.30
18) M	4,4'-DDT	6.688	8.272	8.733	8.551	6.134	7.056	7.572	E3	14.36
19) M	Endrin Aldehyde	7.283	9.426	9.604	7.820	7.373	8.210	8.286	E3	12.19
20) M	Methoxychlor	3.534	3.386	3.147	3.428	2.308	3.062	3.144	E3	14.19
21) M	Mirex	5.841	8.587	7.662	8.318	7.746	9.893	8.008	E3	16.63
22) M	Endosulfan sulfate	9.048	9.173	9.054	9.374	9.289	9.099	9.173	E3	1.45
23) M	Endrin Ketone	8.146	8.934	9.069	8.708	7.260	8.781	8.483	E3	7.99
24) SA	Decachlorobiphenyl	1.081	1.201	1.216	1.074	0.908	1.013	1.082	E4	10.73

Signal #2 Calibration Files

200 =P5013259.D 100 =P5013258.D 50 =P5013640.D
 20 =P5013256.D 5 =P5013255.D 1 =P5013254.D

	Compound	200	100	50	20	5	1	Avg		%RSD
1) SA	Tetrachloro-m-xylen	1.043	1.115	1.138	0.997	0.910	1.020	1.037	E4	7.99
2) M	alpha-BHC	1.542	1.663	1.483	1.205	1.156	1.333	1.397	E4	14.27
3) M	gamma-BHC (Lindane)	1.310	1.446	1.338	1.112	0.982	1.150	1.223	E4	13.98
4) M	beta-BHC	8.021	9.641	6.996	6.790	8.357	6.720	7.754	E3	14.78
5) M	delta-BHC	0.929	1.051	0.964	0.821	0.728	0.791	0.881	E4	13.73
6) M	Heptachlor	1.349	1.525	1.298	1.102	1.102	1.093	1.245	E4	14.21
7) M	Aldrin	1.416	1.363	1.335	1.088	1.099	1.277	1.263	E4	10.98
8) M	Alachlor	2.013	2.307	1.777	1.739	1.622	2.112	1.929	E3	13.45
9) M	Heptachlor Epoxide	1.137	1.161	1.074	0.961	0.804	1.113	1.042	E4	13.05
10) M	gamma-Chlordane	1.165	1.256	1.150	1.038	0.829	1.123	1.094	E4	13.47
11) M	alpha-Chlordane	0.929	1.110	1.017	0.935	0.771	1.045	0.968	E4	12.23
12) M	Endosulfan I	1.116	1.292	1.130	0.999	0.842	1.019	1.066	E4	14.20
13) M	4,4'-DDE	1.113	1.131	1.214	0.958	0.847	0.913	1.029	E4	13.96
14) M	Dieldrin	1.202	1.195	1.259	1.019	0.841	1.080	1.100	E4	14.01

(#) = Out of Range
 P5020116.M

Thu Feb 18 09:53:55 2016

Page 1

Response Factor Report GC DUAL E

Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Wed Feb 17 14:41:11 2016

Calibration Files

200	=P5013259.D	100	=P5013258.D	50	=P5013640.D
20	=P5013256.D	5	=P5013255.D	1	=P5013254.D

Compound		200	100	50	20	5	1	Avg	%RSD	
15)	M Endrin	6.985	7.440	7.833	6.602	5.465	6.945	6.879	E3	11.84
16)	M 4,4'-DDD	8.381	8.304	7.982	6.812	5.796	6.838	7.352	E3	14.05
17)	M Endosulfan II	0.975	1.014	1.035	0.844	0.708	0.849	0.904	E4	13.94
18)	M 4,4'-DDT	6.775	7.354	6.342	6.164	4.769	6.316	6.287	E3	13.68
19)	M Endrin Aldehyde	8.998	9.471	7.703	8.075	6.063	7.893	8.034	E3	14.74
20)	M Methoxychlor	3.375	3.069	3.061	3.370	2.354	2.753	2.997	E3	13.04
21)	M Mirex	4.631	4.679	4.366	5.955	6.024	5.496	5.192	E3	13.96
22)	M Endosulfan sulfate	8.356	7.924	7.500	7.049	5.997	6.726	7.259	E3	11.73
23)	M Endrin Ketone	1.111	1.339	1.233	1.131	0.948	0.958	1.120	E4	13.66
24)	SA Decachlorobiphenyl	1.099	0.984	1.116	0.987	0.816	0.887	0.981	E4	11.92

(#) = Out of Range
 P5020116.M

Thu Feb 18 09:53:57 2016

Page 2

Calibration Retention Time Report GC DUAL E

Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Wed Feb 17 14:41:11 2016
 Response via : Initial Calibration

First Calibration Standard : C:\HPCHEM\1\DATA\020116\P5013254.D\ECD1A.CH
 Second Calibration Standard : P5013256.D
 Third Calibration Standard : P5013258.D

Compound	RT of Standard			Mean RT	RT Window	
	First	Second	Third		From	To
1 Tetrachloro-m-xylene	2.542	2.543	2.543	2.543	2.503	2.563
2 alpha-BHC	2.904	2.905	2.905	2.905	2.863	2.923
3 gamma-BHC (Lindane)	3.125	3.125	3.126	3.125	3.083	3.143
4 beta-BHC	3.187	3.187	3.188	3.187	3.147	3.207
5 delta-BHC	3.321	3.321	3.322	3.321	3.279	3.339
6 Heptachlor	3.492	3.491	3.492	3.492	3.449	3.509
7 Aldrin	3.730	3.729	3.731	3.730	3.687	3.747
8 Alachlor	3.812	3.809	3.812	3.811	3.302	4.302
9 Heptachlor Epoxide	4.198	4.197	4.198	4.198	4.154	4.214
10 gamma-Chlordane	4.301	4.299	4.299	4.300	4.257	4.317
11 alpha-Chlordane	4.402	4.400	4.400	4.401	4.358	4.418
12 Endosulfan I	4.499	4.497	4.497	4.498	4.454	4.514
13 4,4'-DDE	4.461	4.460	4.459	4.460	4.422	4.482
14 Dieldrin	4.682	4.682	4.682	4.682	4.639	4.699
15 Endrin	4.850	4.849	4.849	4.849	4.807	4.867
16 4,4'-DDD	4.903	4.900	4.898	4.901	4.864	4.924
17 Endosulfan II	5.013	5.012	5.012	5.012	4.969	5.029
18 4,4'-DDT	5.105	5.103	5.102	5.103	5.065	5.125
19 Endrin Aldehyde	5.301	5.298	5.299	5.299	5.254	5.314
20 Methoxychlor	5.461	5.458	5.456	5.458	5.420	5.480
21 Mirex	5.566	5.564	5.563	5.565	5.055	6.055
22 Endosulfan sulfate	5.592	5.590	5.590	5.591	5.547	5.607
23 Endrin Ketone	5.789	5.787	5.786	5.787	5.742	5.802
24 Decachlorobiphenyl	6.454	6.451	6.453	6.453	6.415	6.475

Signal #2

First Calibration Standard : C:\HPCHEM\1\DATA\020116\P5013254.D\ECD2B.CH
 Second Calibration Standard : C:\HPCHEM\1\DATA\020116\P5013256.D\ECD2B.CH
 Third Calibration Standard : C:\HPCHEM\1\DATA\020116\P5013258.D\ECD2B.CH

Compound	RT of Standard			Mean RT	RT Window	
	First	Second	Third		From	To
1 Tetrachloro-m-xylene	2.821	2.822	2.825	2.823	2.783	2.843
2 alpha-BHC	3.282	3.285	3.287	3.285	3.240	3.300
3 gamma-BHC (Lindane)	3.575	3.578	3.579	3.577	3.531	3.591
4 beta-BHC	3.644	3.646	3.647	3.646	3.601	3.661
5 delta-BHC	3.905	3.907	3.909	3.907	3.862	3.922
6 Heptachlor	3.946	3.947	3.947	3.946	3.900	3.960
7 Aldrin	4.222	4.224	4.224	4.223	4.179	4.239
8 Alachlor	4.103	4.102	4.104	4.103	3.593	4.593
9 Heptachlor Epoxide	4.675	4.675	4.675	4.675	4.631	4.691
10 gamma-Chlordane	4.820	4.820	4.818	4.819	4.776	4.836
11 alpha-Chlordane	4.927	4.927	4.927	4.927	4.884	4.944
12 Endosulfan I	4.974	4.976	4.976	4.975	4.932	4.992
13 4,4'-DDE	5.038	5.037	5.037	5.037	4.997	5.057
14 Dieldrin	5.178	5.178	5.178	5.178	5.134	5.194
15 Endrin	5.400	5.400	5.401	5.400	5.358	5.418

16 4,4'-DDD	5.457	5.455	5.455	5.456	5.416	5.476
17 Endosulfan II	5.553	5.553	5.553	5.553	5.510	5.570
18 4,4'-DDT	5.670	5.669	5.669	5.669	5.629	5.689
19 Endrin Aldehyde	5.780	5.780	5.780	5.780	5.737	5.797
20 Methoxychlor	6.131	6.131	6.131	6.131	6.090	6.150
21 Mirex	6.305	6.305	6.305	6.305	5.780	6.780
22 Endosulfan sulfate	5.961	5.961	5.961	5.961	5.918	5.978
23 Endrin Ketone	6.327	6.327	6.327	6.327	6.285	6.345
24 Decachlorobiphenyl	7.123	7.122	7.124	7.123	7.081	7.141

P5020116.M

Thu Feb 18 09:54:06 2016

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013254.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013254.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:04 pm Operator: AMC
 Sample : PEST MIX @ 1.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:36 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	514865	407875	22.715m	25.637m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	11.36%# 12.82%#
24) SA Decachlorobiphen	6.45	7.12	405013	354606	24.913m	25.906m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	12.46%# 12.95%#
Target Compounds						
2) M alpha-BHC	2.90	3.28f	13834	13331	0.769m	0.758m
3) M gamma-BHC (Linda	3.12	3.57f	11309	11497	0.693m	0.711m
4) M beta-BHC	3.19	3.64	7414	6720	0.791m	0.752m
5) M delta-BHC	3.32	3.90	10686	7915	0.736m	0.748m
6) M Heptachlor	3.49	3.95	13426	10928	0.865m	0.599m#
7) M Aldrin	3.73	4.22	12810	12772	0.821m	0.801m
8) M Alachlor	3.81	4.10	2627	2112	NoCal m	NoCal m
9) M Heptachlor Epoxi	4.20	4.68	13291	11131	0.902m	0.841
10) M gamma-Chlordane	4.30	4.82	13365	11234	0.898	0.868
11) M alpha-Chlordane	4.40	4.93	13120	10449	0.893	0.957
12) M Endosulfan I	4.50	4.97	13923	10185	0.912	0.811m
13) M 4,4'-DDE	4.46	5.04	8205	9129	0.660m	0.685m
14) M Dieldrin	4.68	5.18	10995	10805	0.796m	0.814m
15) M Endrin	4.85	5.40	7848	6945	0.803m	0.840m
16) M 4,4'-DDD	4.90	5.46	6215	6838	0.719m	0.814m
17) M Endosulfan II	5.01	5.55	8641	8491	0.783m	0.823m
18) M 4,4'-DDT	5.10	5.67	7056	6316	0.807m	0.763m
19) M Endrin Aldehyde	5.30	5.78	8210	7893	0.810m	0.827m
20) M Methoxychlor	5.46	6.13	3062	2753	0.709m	0.703m
21) M Mirex	5.57	6.30	9893	5496	NoCal m	NoCal m
22) M Endosulfan sulfa	5.59	5.96	9099	6726	0.916m	0.760m
23) M Endrin Ketone	5.79	6.33	8781	9580	0.824m	0.920m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P5013254.D P5020116.M Thu Feb 18 09:53:32 2016

Page 1

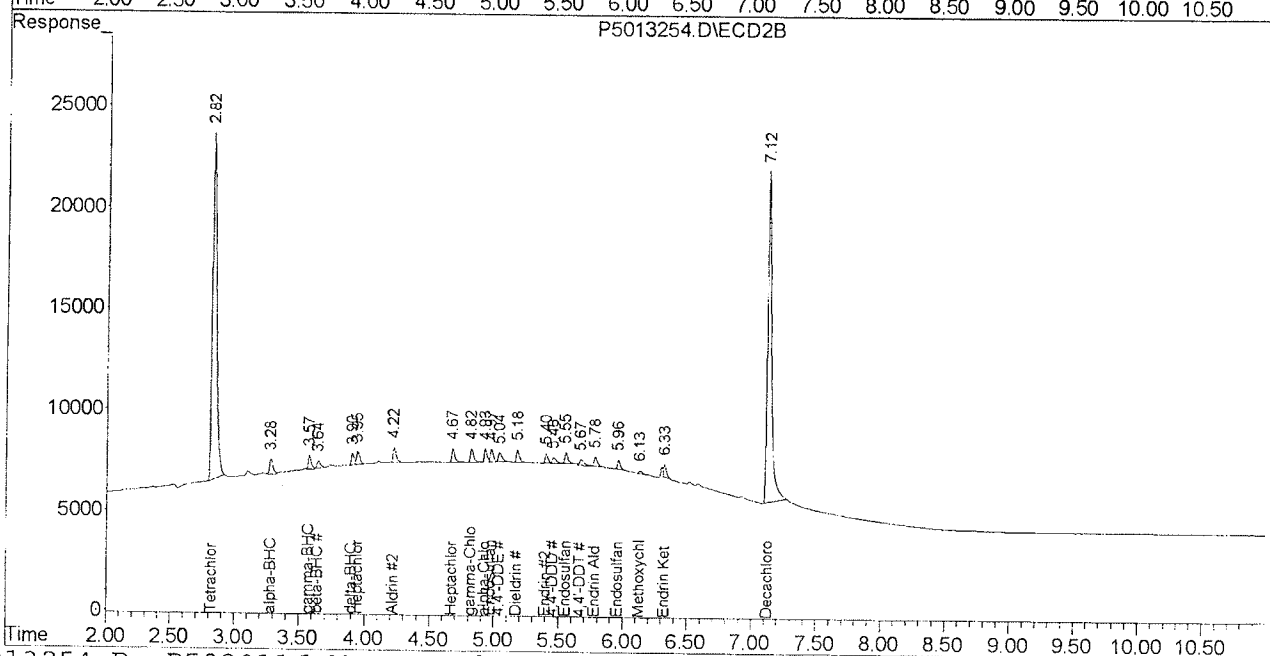
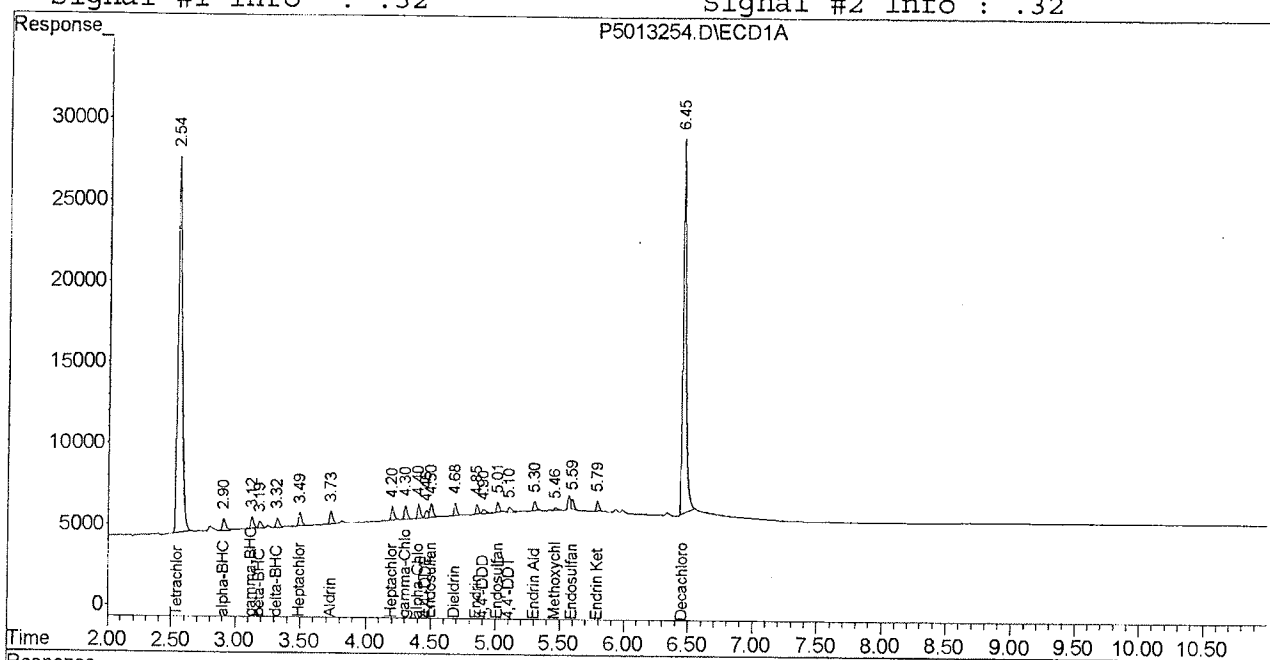
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013254.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013254.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:04 pm Operator: AMC
 Sample : PEST MIX @ 1.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:36 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013255.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013255.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:20 pm Operator: AMC
 Sample : PEST MIX @ 5.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:37 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	855138	728088	37.727	45.763
Spiked Amount	200.000	Range	30 - 150	Recovery	=	18.86%#
24) SA Decachlorobiphen	6.45	7.12	726310	652613	44.676m	47.677m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	22.34%#
Target Compounds						
2) M alpha-BHC	2.90	3.28	55023	57776	3.057m	3.285
3) M gamma-BHC (Linda	3.13	3.58	44282	49100	2.712	3.037m
4) M beta-BHC	3.19	3.65	27532	41785	2.937	4.674 #
5) M delta-BHC	3.32	3.91	45117	36407	3.106m	3.441
6) M Heptachlor	3.49	3.95	47111	55079	3.034	3.020
7) M Aldrin	3.73	4.22	51446	54960	3.299m	3.448m
8) M Alachlor	3.81	4.10	11630	8112	NoCal m	NoCal m
9) M Heptachlor Epoxi	4.20	4.68	46323	40214	3.144	3.037
10) M gamma-Chlordane	4.30	4.82	47940	41455	3.221	3.204
11) M alpha-Chlordane	4.40	4.93	47343	38539	3.224	3.531
12) M Endosulfan I	4.50	4.97	51656	42093	3.384	3.350m
13) M 4,4'-DDE	4.46	5.04	30294	42360	2.438m	3.179m#
14) M Dieldrin	4.68	5.18	42915	42063	3.108	3.168m
15) M Endrin	4.85	5.40	33178	27327	3.395	3.305m
16) M 4,4'-DDD	4.90	5.46	31744	28982	3.675m	3.451m
17) M Endosulfan II	5.01	5.55	42154	35392	3.822	3.429m
18) M 4,4'-DDT	5.10	5.67	30670	23847	3.508m	2.882m
19) M Endrin Aldehyde	5.30	5.78	36863	30317	3.636	3.177m
20) M Methoxychlor	5.46	6.13	11542	11769	2.674m	3.004m
21) M Mirex	5.56	6.30	38732	30120	NoCal m	NoCal m
22) M Endosulfan sulfa	5.59	5.96	46445	29985	4.675	3.389m#
23) M Endrin Ketone	5.79	6.33	36299	47377	3.407m	4.549m#

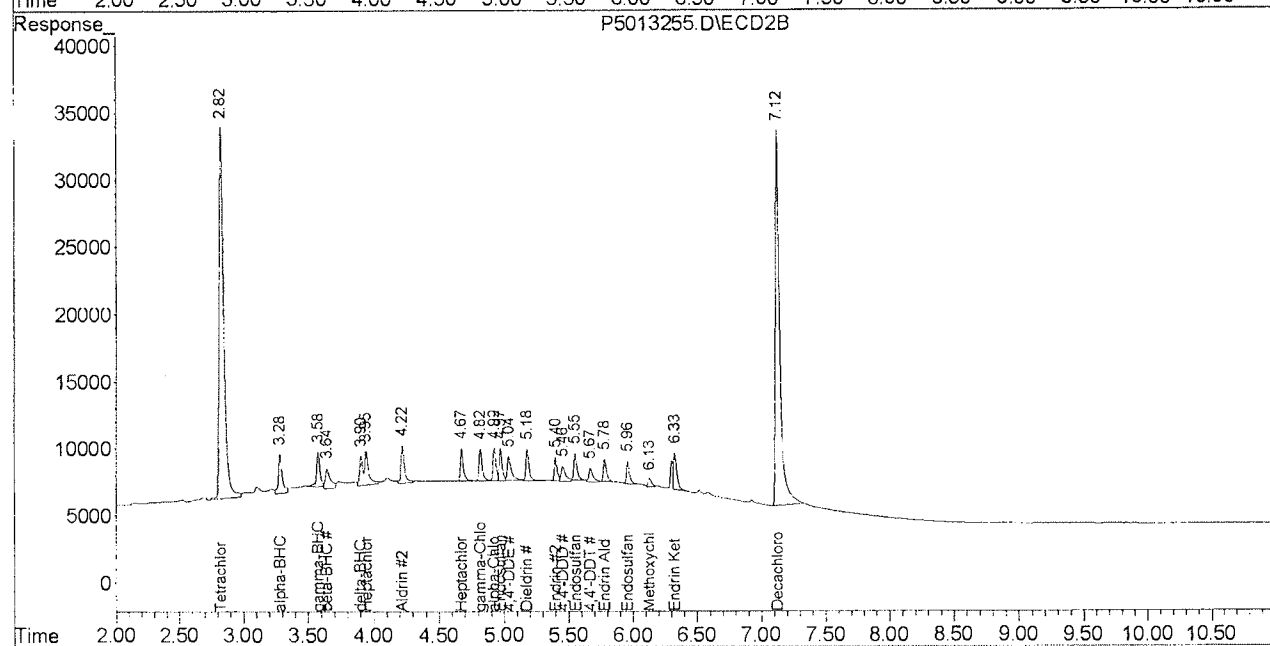
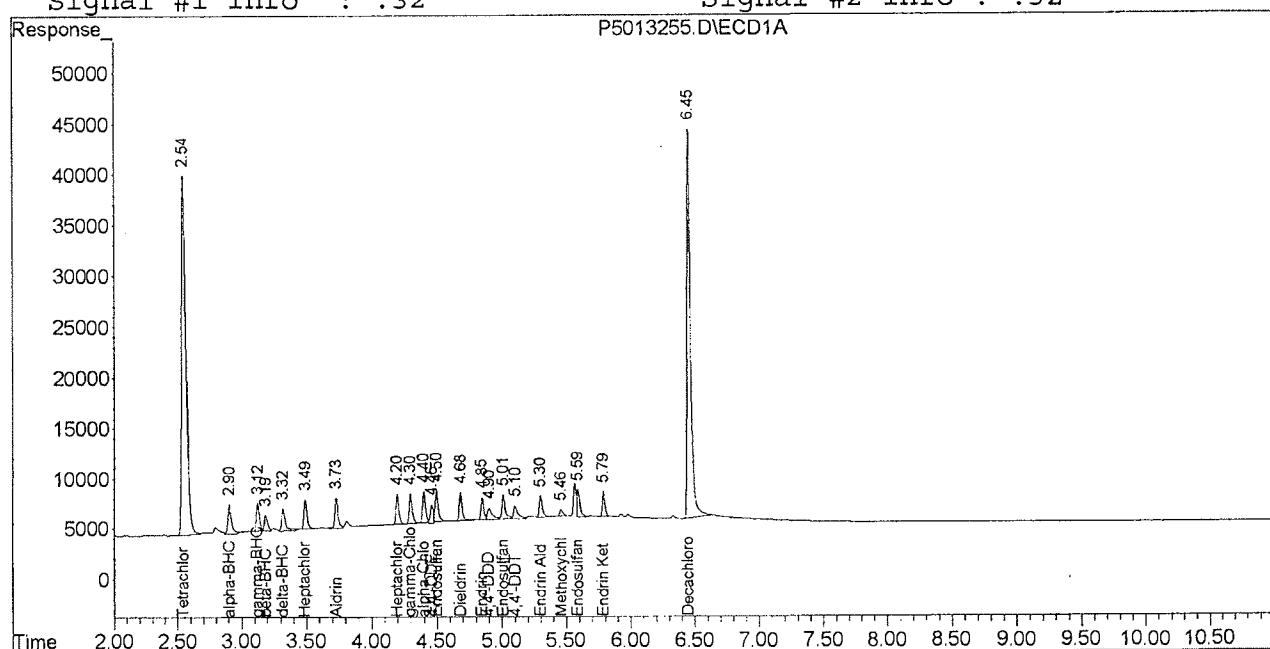
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P5013255.D P5020116.M Thu Feb 18 09:53:35 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013255.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013255.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:20 pm Operator: AMC
 Sample : PEST MIX @ 5.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:37 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013256.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013256.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:35 pm Operator: AMC
 Sample : PEST MIX @ 20.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:29 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1431665	1196425	63.163	75.200
Spiked Amount	200.000	Range	30 - 150	Recovery =	31.58%	37.60%
24) SA Decachlorobiphen	6.45	7.12	1289110	1184344	79.295m	86.524m
Spiked Amount	200.000	Range	30 - 150	Recovery =	39.65%	43.26%
Target Compounds						
2) M alpha-BHC	2.90	3.29	224803	240927	12.489	13.699
3) M gamma-BHC (Linda	3.13	3.58	210512	222444	12.894	13.758
4) M beta-BHC	3.19	3.65	119043	135797	12.700	15.191
5) M delta-BHC	3.32	3.91	183358	164180	12.624	15.518
6) M Heptachlor	3.49	3.95	202600	220305	13.050	12.078
7) M Aldrin	3.73	4.22	214290	217621	13.742	13.651
8) M Alachlor	3.81	4.10	51847	34789	NoCal m	NoCal m
9) M Heptachlor Epoxi	4.20	4.68	210738	192200	14.304	14.515
10) M gamma-Chlordane	4.30	4.82	222597	207546	14.958	16.041
11) M alpha-Chlordane	4.40	4.93	218265	186926	14.862	17.129
12) M Endosulfan I	4.50	4.98	253980	199867	16.639	15.908
13) M 4,4'-DDE	4.46	5.04	144063	191579	11.594	14.375m
14) M Dieldrin	4.68	5.18	242536	203808	17.564	15.348m
15) M Endrin	4.85	5.40	165168	132048	16.899	15.972m
16) M 4,4'-DDD	4.90	5.46	160393	136244	18.569	16.225m
17) M Endosulfan II	5.01	5.55	208538	168875	18.907	16.360m
18) M 4,4'-DDT	5.10	5.67	171022	123279	19.561	14.900m
19) M Endrin Aldehyde	5.30	5.78	156397	161491	15.427m	16.923m
20) M Methoxychlor	5.46	6.13	68555	67392	15.881m	17.202m
21) M Mirex	5.56	6.30	166363	119096	NoCal m	NoCal m
22) M Endosulfan sulfa	5.59	5.96	187474	140979	18.872m	15.933m
23) M Endrin Ketone	5.79	6.33	174169	226106	16.346m	21.709m#

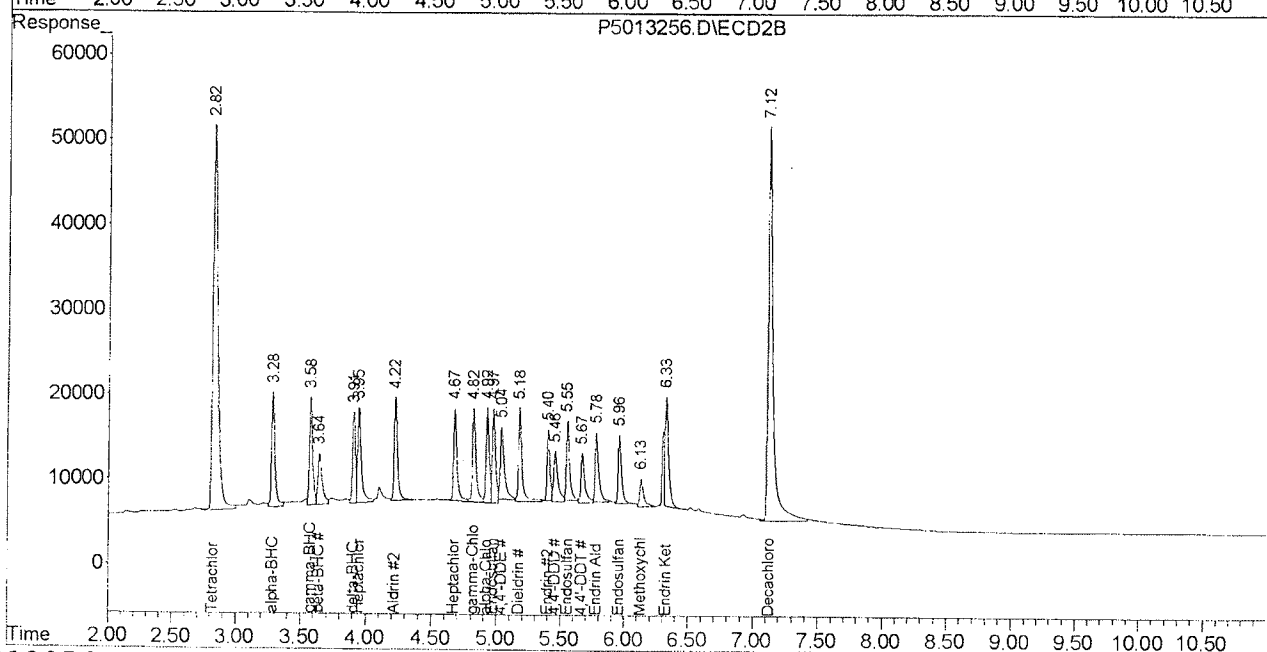
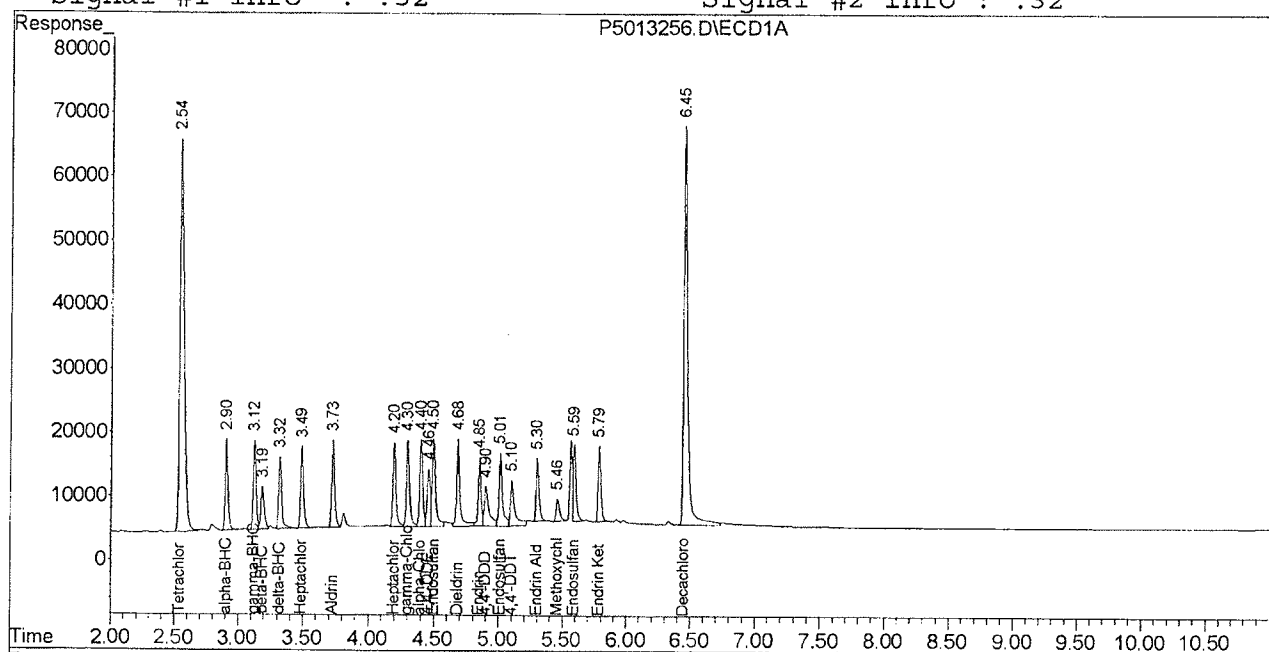
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013256.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013256.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:35 pm Operator: AMC
 Sample : PEST MIX @ 20.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:29 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013257.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013257.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:50 pm Operator: AMC
 Sample : PEST MIX @ 50.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:35 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2192537	1820423	96.731	114.421
Spiked Amount	200.000	Range	30 - 150	Recovery	= 48.37%	57.21%
24) SA Decachlorobiphen	6.45	7.12	1945543	1785821	119.673	130.465m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 59.84%	65.23%
Target Compounds						
2) M alpha-BHC	2.90	3.28	711837	741559	39.545	42.163
3) M gamma-BHC (Linda	3.12	3.58	640044	668781	39.203	41.363
4) M beta-BHC	3.19	3.65	330555	349799	35.265	39.129
5) M delta-BHC	3.32	3.91	589152	482044	40.562	45.562
6) M Heptachlor	3.49	3.95	593818	649185	38.249	35.590
7) M Aldrin	3.73	4.22	659047	667291	42.263	41.858
8) M Alachlor	3.81	4.10	145183	88866	NoCal m	NoCal m
9) M Heptachlor Epoxi	4.20	4.68	582558	537183	39.540	40.569
10) M gamma-Chlordane	4.30	4.82	625476	575140	42.031	44.453
11) M alpha-Chlordane	4.40	4.93	597564	508303	40.690	46.577
12) M Endosulfan I	4.50	4.98	689515	565033	45.172	44.973
13) M 4,4'-DDE	4.46	5.04	424609	606985	34.172	45.546m#
14) M Dieldrin	4.68	5.18	657650	629361	47.625	47.394
15) M Endrin	4.85	5.40	435278	391649	44.535	47.372
16) M 4,4'-DDD	4.90	5.46	423025	399109	48.975	47.528
17) M Endosulfan II	5.01	5.55	519017	517717	47.057	50.156
18) M 4,4'-DDT	5.10	5.67	436649	317098	49.943	38.325m
19) M Endrin Aldehyde	5.30	5.78	480184	385134	47.364	40.358m
20) M Methoxychlor	5.46	6.13	157352	153055	36.451m	39.069m
21) M Mirex	5.56	6.30	383107	218321	NoCal m	NoCal m
22) M Endosulfan sulfa	5.59	5.96	452683	375025	45.568m	42.384m
23) M Endrin Ketone	5.79	6.33	453453	616572	42.557m	59.200m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P5013257.D P5020116.M Thu Feb 18 09:53:41 2016

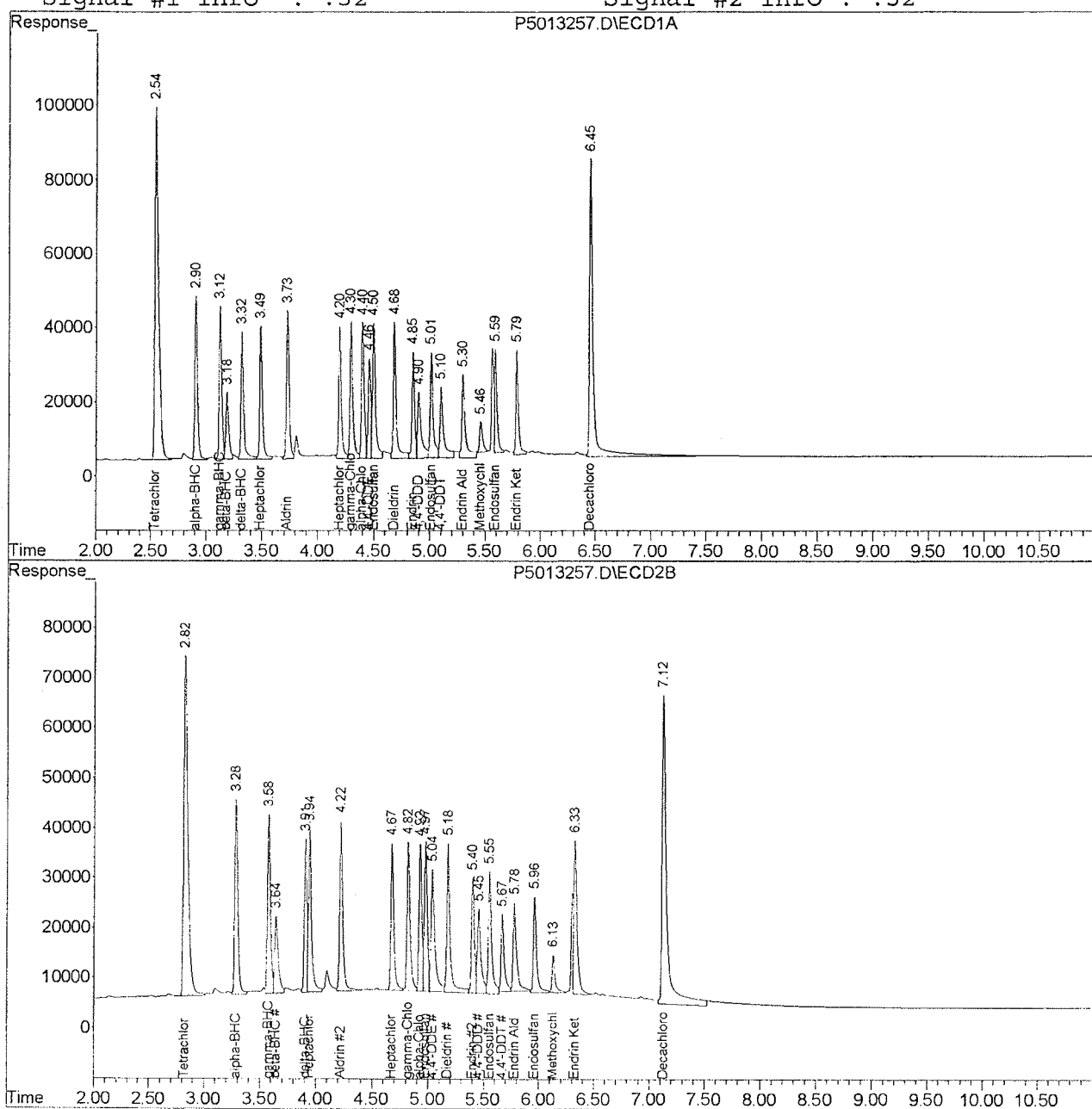
Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013257.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013257.D\ECD2B.CH
 Acq On : 1 Feb 2016 4:50 pm Operator: AMC
 Sample : PEST MIX @ 50.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:35 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013258.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013258.D\ECD2B.CH
 Acq On : 1 Feb 2016 5:06 pm Operator: AMC
 Sample : PEST MIX @ 100.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:36 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2556065	2230259	112.770	140.181
Spiked Amount	200.000	Range	30 - 150	Recovery	= 56.38%	70.09%
24) SA Decachlorobiphen	6.45	7.12	2402730	1968347	147.795	143.800m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 73.90%	71.90%
Target Compounds						
2) M alpha-BHC	2.91	3.29	1445212	1663074	80.286	94.559
3) M gamma-BHC (Linda	3.13	3.58	1280314	1445777	78.419	89.418
4) M beta-BHC	3.19	3.65	710687	964077	75.819	107.844 #
5) M delta-BHC	3.32	3.91	1230214	1050883	84.697	99.327
6) M Heptachlor	3.49	3.95	1118642	1524867	72.054	83.597
7) M Aldrin	3.73	4.22	1303216	1363260	83.572	85.516m
8) M Alachlor	3.81	4.10	273299	230678	NoCal	NoCal m
9) M Heptachlor Epoxi	4.20	4.67	1118130	1161101	75.891	87.688m
10) M gamma-Chlordane	4.30	4.82	1224924	1255814	82.313	97.063m
11) M alpha-Chlordane	4.40	4.93	1172416	1110074	79.834	101.719 #
12) M Endosulfan I	4.50	4.98	1371407	1291978	89.844	102.834
13) M 4,4'-DDE	4.46	5.04	897741	1131216	72.248	84.882m
14) M Dieldrin	4.68	5.18	1264548	1195367	91.576	90.016m
15) M Endrin	4.85	5.40	817115	744025	83.603	89.994m
16) M 4,4'-DDD	4.90	5.45	874813	830414	101.281	98.889m
17) M Endosulfan II	5.01	5.55	1010700	1013731	91.635	98.209m
18) M 4,4'-DDT	5.10	5.67	827184	735352	94.612	88.877m
19) M Endrin Aldehyde	5.30	5.78	942563	947132	92.972	99.250m
20) M Methoxychlor	5.46	6.13	338645	306912	78.449m	78.343m
21) M Mirex	5.56	6.30	858712	467910	NoCal m	NoCal m
22) M Endosulfan sulfa	5.59	5.96	917319	792434	92.339m	89.557m
23) M Endrin Ketone	5.79	6.33	893403	1339100	83.846m	128.573m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P5013258.D P5020116.M Thu Feb 18 09:53:44 2016

Page 1

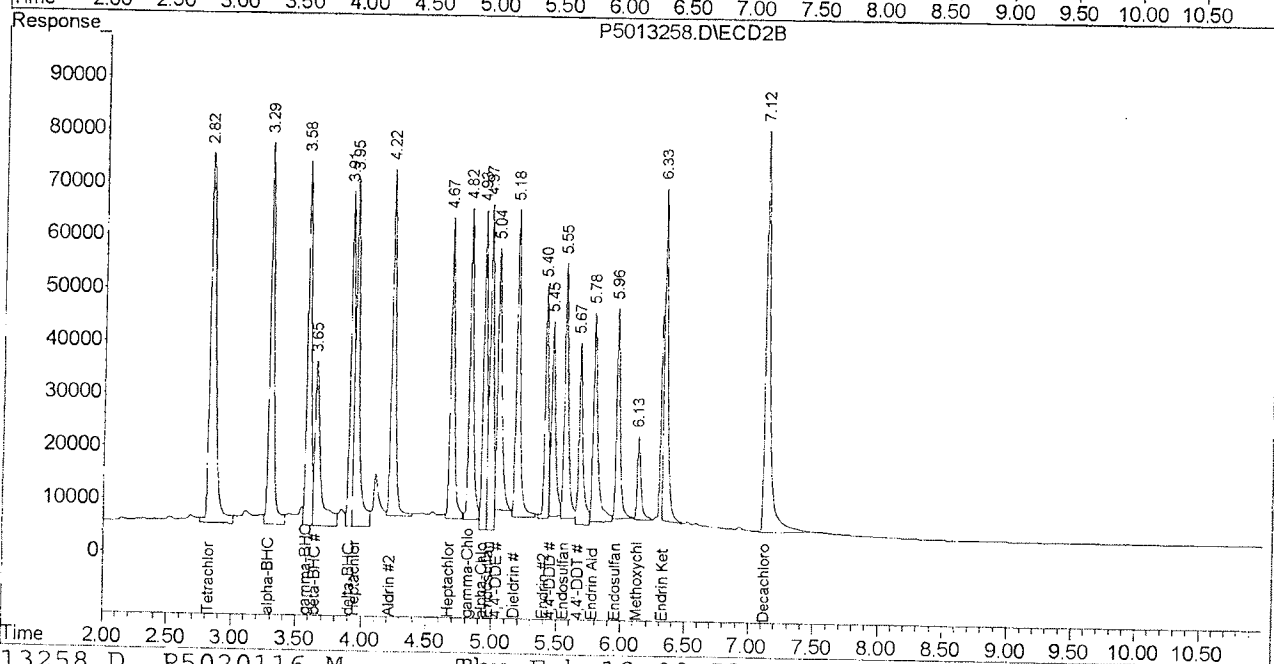
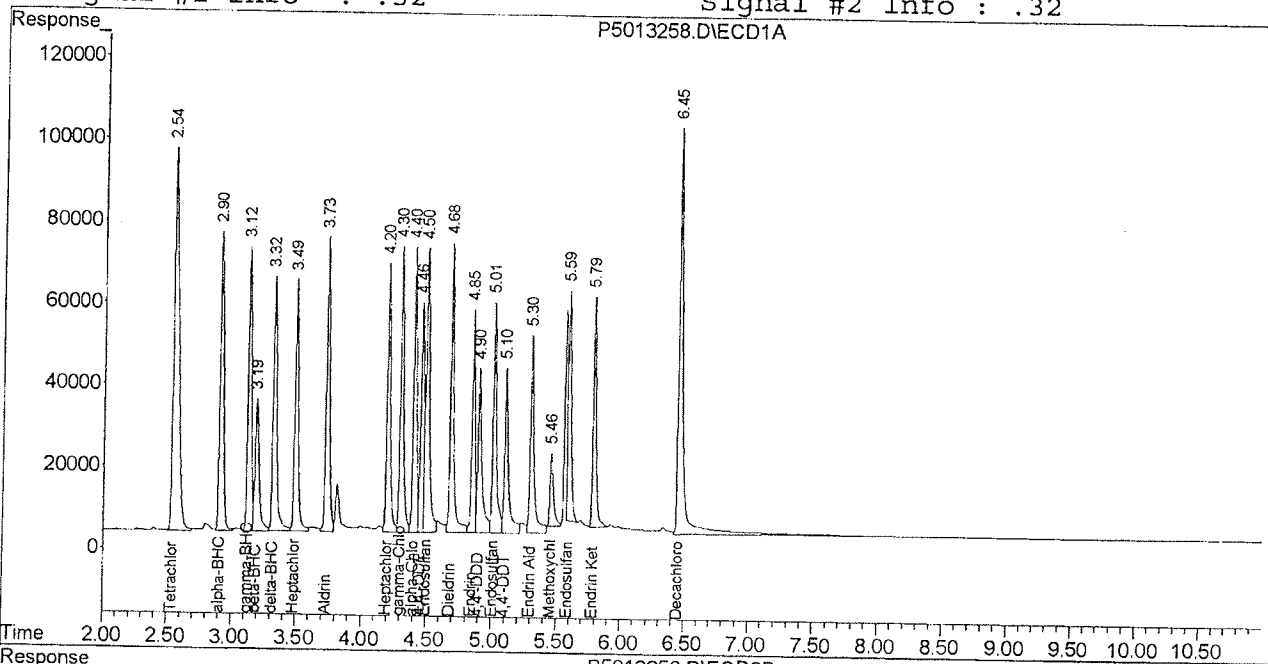
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013258.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013258.D\ECD2B.CH
 Acq On : 1 Feb 2016 5:06 pm Operator: AMC
 Sample : PEST MIX @ 100.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:36 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013259.D\ECD1A.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013259.D\ECD2B.CH
 Acq On : 1 Feb 2016 5:21 pm Operator: AMC
 Sample : PEST MIX @ 200.0ng/mL Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:26 2016 Quant Results File: P5SEQTEP.RES

Quant Method : C:\HPCHEM\1\METHODS\P5SEQTEP.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 08:39:54 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2837764	2503270	125.198	157.341 #
Spiked Amount	200.000	Range	30 - 150	Recovery =	62.60%	78.67%
24) SA Decachlorobiphen	6.45	7.12	2593279	2636896	159.516	192.641
Spiked Amount	200.000	Range	30 - 150	Recovery =	79.76%	96.32%
Target Compounds						
2) M alpha-BHC	2.90	3.28	2605957	3083819	144.770	175.339
3) M gamma-BHC (Linda	3.12	3.58	2264189	2619964	138.681	162.039
4) M beta-BHC	3.19	3.64	1189053	1604259	126.854	179.456 #
5) M delta-BHC	3.32	3.91	2156269	1858574	148.454	175.668
6) M Heptachlor	3.49	3.94	1850990	2698986	119.225	147.965
7) M Aldrin	3.73	4.22	2265905	2832030	145.306	177.650
8) M Alachlor	3.81	4.10	392816	402575	NoCal	NoCal m
9) M Heptachlor Epoxi	4.20	4.67	1844903	2273991	125.220	171.735 #
10) M gamma-Chlordane	4.30	4.82	2057373	2329481	138.253	180.049 #
11) M alpha-Chlordane	4.40	4.93	1957862	1858184	133.318	170.271 #
12) M Endosulfan I	4.50	4.97	2282817	2231803	149.553	177.639
13) M 4,4'-DDE	4.46	5.03	1550560	2226028	124.786	167.033m#
14) M Dieldrin	4.68	5.18	2057547	2404792	149.003	181.091
15) M Endrin	4.85	5.40	1343449	1396983	137.454	168.972
16) M 4,4'-DDD	4.90	5.45	1457532	1676122	168.745	199.600
17) M Endosulfan II	5.01	5.55	1629121	1949815	147.704	188.895 #
18) M 4,4'-DDT	5.10	5.67	1337526	1354929	152.985	163.760
19) M Endrin Aldehyde	5.30	5.78	1456644	1799540	143.679	188.573 #
20) M Methoxychlor	5.46	6.13	706725	674987	163.717	172.298m
21) M Mirex	5.56	6.30	1168224	926206	NoCal m	NoCal m
22) M Endosulfan sulfa	5.59	5.96	1809627	1671135	182.160	188.864
23) M Endrin Ketone	5.79	6.33	1629221	2222873	152.903	213.428m#

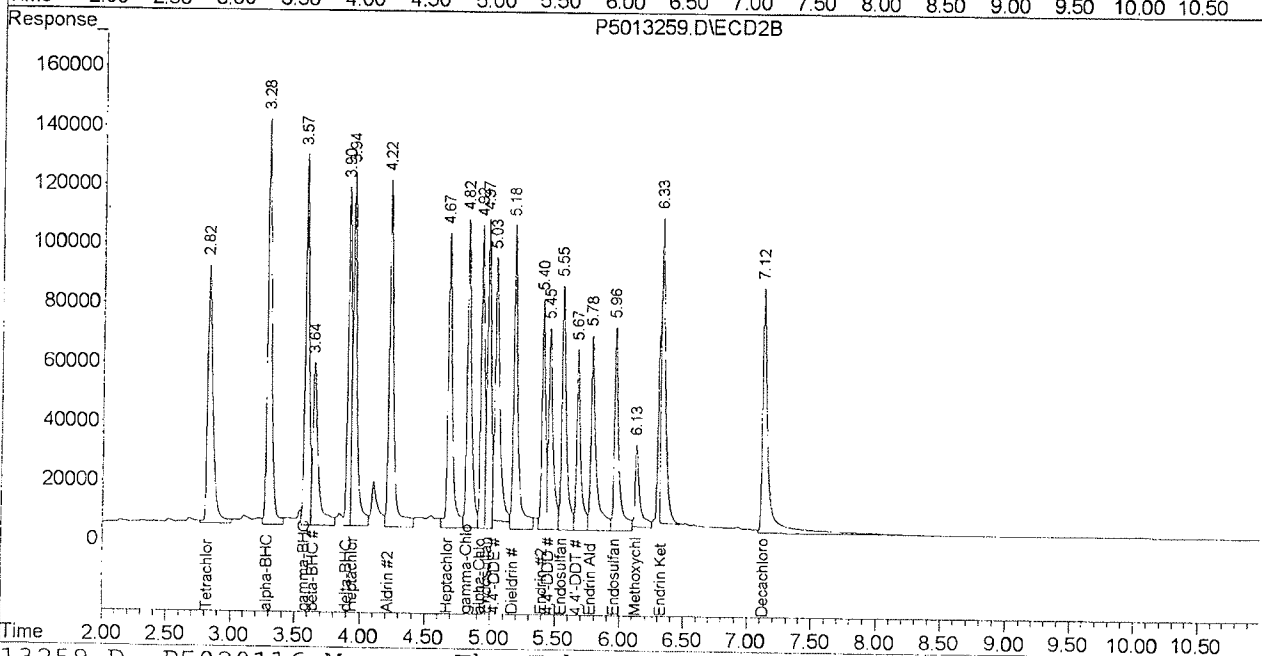
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P5013259.D P5020116.M Thu Feb 18 09:53:46 2016

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013259.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\020116\P5013259.D\ECD2B.CH
Acq On : 1 Feb 2016 5:21 pm Operator: AMC
Sample : PEST MIX @ 200.0ng/mL Inst : GC DUAL E
Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Feb 2 9:26 2016 Quant Results File: P5SEQTEP.RES

```

Volume Inj.      : 1 uL
Signal #1 Phase  : Stx-CLPesticides  Signal #2 Phase: Stx-CLPesticides2 Se
Signal #1 Info   : .32                Signal #2 Info : .32

```



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013260.D\ECD1A.CH Vial: 8
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013260.D\ECD2B.CH
 Acq On : 1 Feb 2016 5:37 pm Operator: AMC
 Sample : PEST MIX @ 50.0ng/mL REF STD Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:39 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2080714	1855887	169.166	178.946
Spiked Amount	200.000	Range	30 - 150	Recovery	=	84.58% 89.47%
24) SA Decachlorobiphen	6.45	7.12	1845532	1945958	170.553	198.289
Spiked Amount	200.000	Range	30 - 150	Recovery	=	85.28% 99.14%
Target Compounds						
2) M alpha-BHC	2.90	3.28	594274	731113	45.832	52.338
3) M gamma-BHC (Linda	3.12	3.58	543297	641498	48.211	52.459
4) M beta-BHC	3.19	3.65	290060	408480	45.163	52.679
5) M delta-BHC	3.32	3.91	498905	476536	46.960	54.103
6) M Heptachlor	3.49	3.95	487863	692930	44.830	55.667
7) M Aldrin	3.73	4.22	554272	651359	46.606	51.570m
8) M Alachlor	3.81	4.10	129823	98060	51.427	50.848m
9) M Heptachlor Epoxi	4.20	4.67	499730	517982	46.023	49.719m
10) M gamma-Chlordane	4.30	4.82	529043	508443	45.918	46.496m
11) M alpha-Chlordane	4.40	4.92	508581	448209	45.568	46.318m
12) M Endosulfan I	4.50	4.97	591053	495074	46.741	46.430m
13) M 4,4'-DDE	4.46	5.04	346262	523518	44.498	50.858m
14) M Dieldrin	4.68	5.18	563115	556629	49.840	50.624m
15) M Endrin	4.85	5.40	366878	354071	47.507	51.474m
16) M 4,4'-DDD	4.90	5.45	361392	338572	48.101	46.050m
17) M Endosulfan II	5.01	5.55	455891	445841	48.731	49.306m
18) M 4,4'-DDT	5.10	5.67	364849	280598	48.183	44.634m
19) M Endrin Aldehyde	5.30	5.78	444409	363565	53.635	45.254m
20) M Methoxychlor	5.46	6.13	162600	158503	51.714m	52.887m
21) M Mirex	5.57	6.30	344082	274599	42.967	52.890m
22) M Endosulfan sulfa	5.59	5.96	499169	348224	54.418	47.973m
23) M Endrin Ketone	5.79	6.33	432995	566330	51.043m	50.567m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P5013260.D P5020116.M Thu Feb 18 09:53:50 2016

Page 1

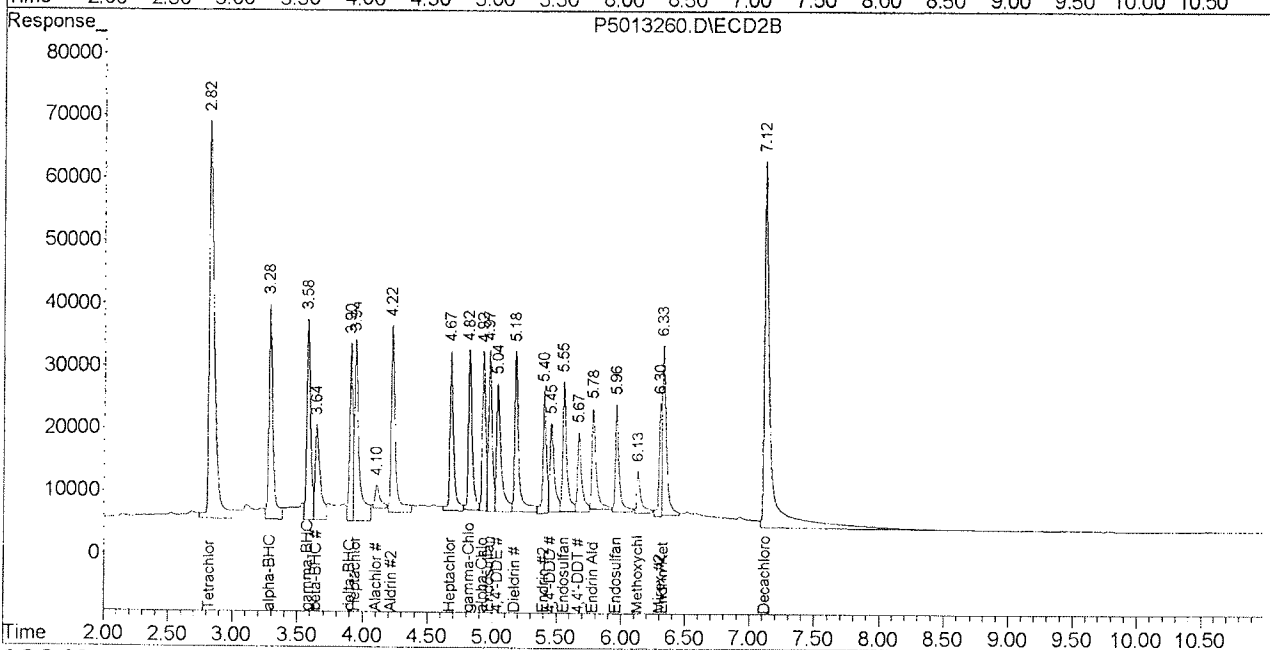
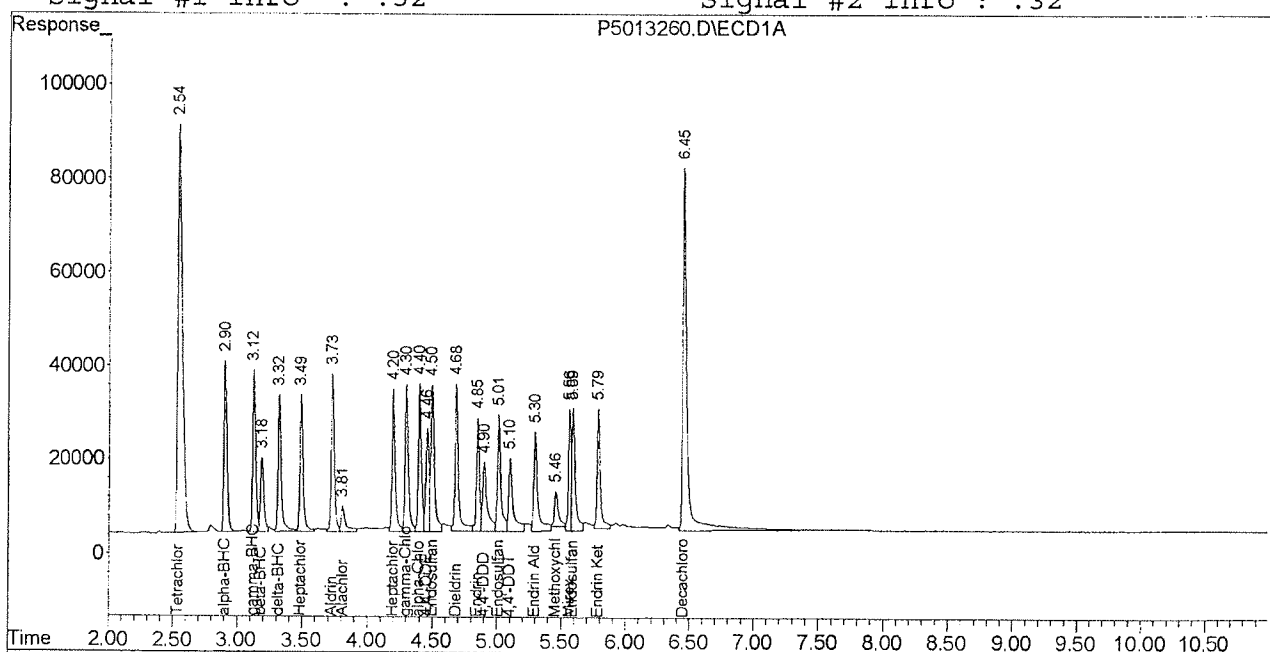
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\020116\P5013260.D\ECD1A.CH Vial: 8
 Signal #2 : C:\HPCHEM\1\DATA\020116\P5013260.D\ECD2B.CH
 Acq On : 1 Feb 2016 5:37 pm Operator: AMC
 Sample : PEST MIX @ 50.0ng/mL REF STD Inst : GC DUAL E
 Misc : QBPEST5-020116A Y14A026, 24, 25 PEST MIX Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Feb 2 9:39 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 11/24/15 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



% BREAKDOWN of ENDRIN and DDT

DATE: 3/15/2016

TIME: 8:44 AM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1006385	5586	31261	1043232	3.5

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1257009	9169	4017	1270195	1.0

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
999165	2614	33880	1035659	3.5

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1185303	9499	5926	1200728	1.3

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014288.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014288.D\ECD2B.CH
 Acq On : 15 Mar 2016 8:44 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 9:45 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.82	2809687	2255401	228.433	217.467
Spiked Amount	200.000	Range	30 - 150	Recovery	= 114.22%	108.73%
24) SA Decachlorobiphen	6.47	7.13	2856594	999007	263.989	101.797 #
Spiked Amount	200.000	Range	30 - 150	Recovery	= 131.99%	50.90%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D.	N.D.
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D.	N.D.
6) M Heptachlor	0.00	0.00	0	0	N.D.	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	4.49f	5.04	9169	9499	1.178m	0.923m
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	4.86	5.40	1006385	999165	130.316	145.257
16) M 4,4'-DDD	4.92f	5.46	4017	5926	0.535m	0.806m#
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.12f	5.67	1257009	1185303	166.003	188.545
19) M Endrin Aldehyde	5.31	5.78	5586	2614	0.674m	0.325m#
20) M Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	5.80	6.33	31261	33880	3.685m	3.025m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P5014288.D P5020116.M Mon Mar 21 10:50:36 2016

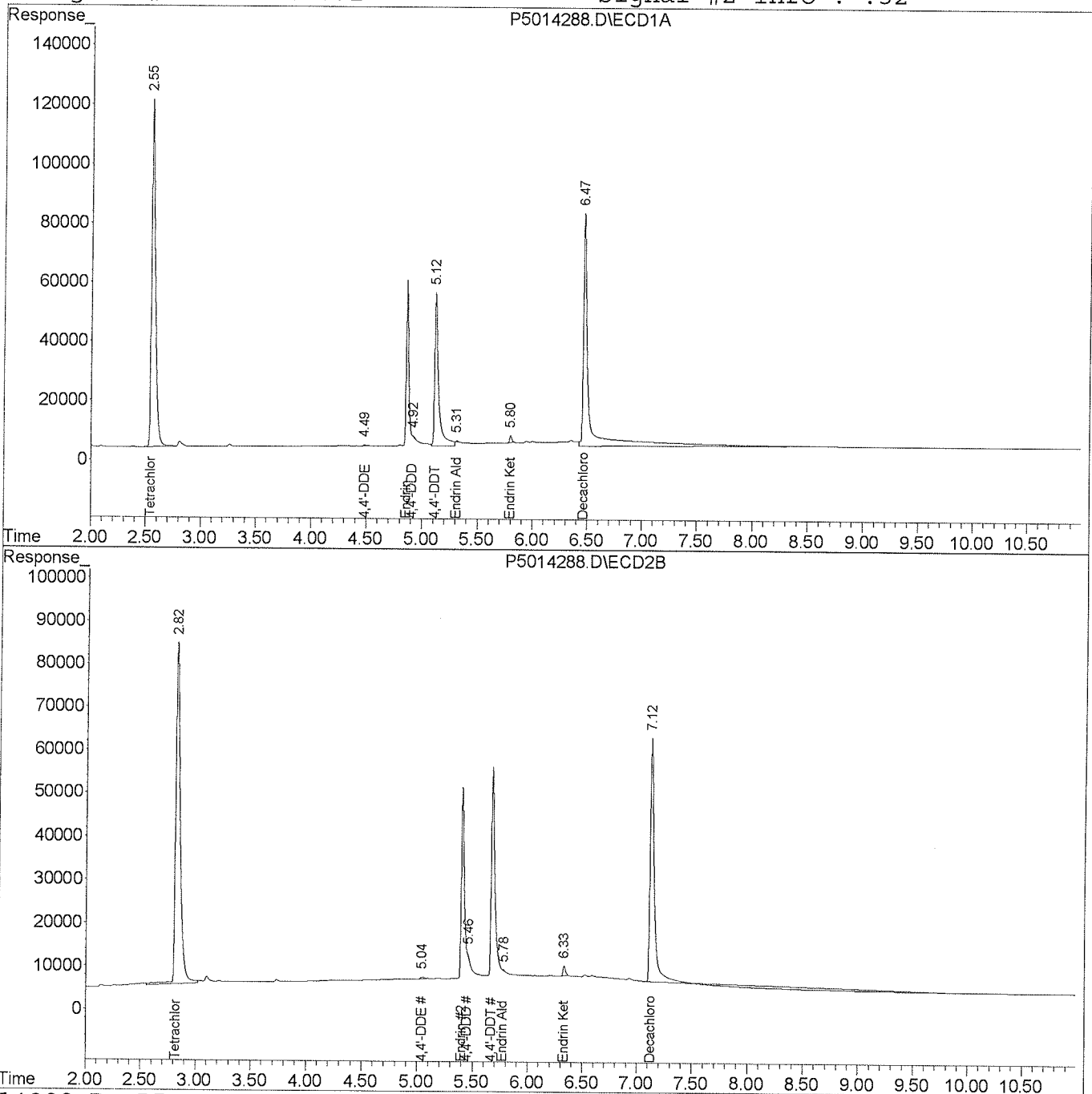
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014288.D\ECD1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\031516\P5014288.D\ECD2B.CH
Acq On : 15 Mar 2016 8:44 am Operator: AMC
Sample : SEQ-BKD1 Inst : GC DUAL E
Misc : QBPEST5-031516A Y14J138 DDT/ENDRIN Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 15 9:45 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
Last Update : Tue Feb 02 09:37:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
Signal #1 Info : .32 Signal #2 Info : .32



% BREAKDOWN of ENDRIN and DDT

DATE: 3/15/2016

TIME: 6:43 PM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
936944	6869	41791	985604	4.9

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1318569	9260	8806	1336635	1.4

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
875528	2400	41772	919700	4.8

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1175846	9103	13048	1197997	1.8

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014316.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014316.D\ECD2B.CH
 Acq On : 15 Mar 2016 6:43 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 10:12 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2757262	2129213	224.170	205.300
Spiked Amount	200.000	Range	30 - 150	Recovery	=	112.08% 102.65%
24) SA Decachlorobiphen	6.44	7.11	2209853	1611591	204.221m	164.218m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	102.11% 82.11%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D. d	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
6) M Heptachlor	0.00	0.00	0	0	N.D.	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.46	5.03	9260	9103	1.190m	0.884m#
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	4.84	5.39	936944	875528	121.324m	127.283m
16) M 4,4'-DDD	4.90	5.45	8806	13048	1.172m	1.775m#
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.10	5.67	1318569	1175846	174.133	187.041
19) M Endrin Aldehyde	5.29	5.77	6869	2400	0.829m	0.299m#
20) M Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	5.78	6.32	41791	41772	4.926m	3.730m

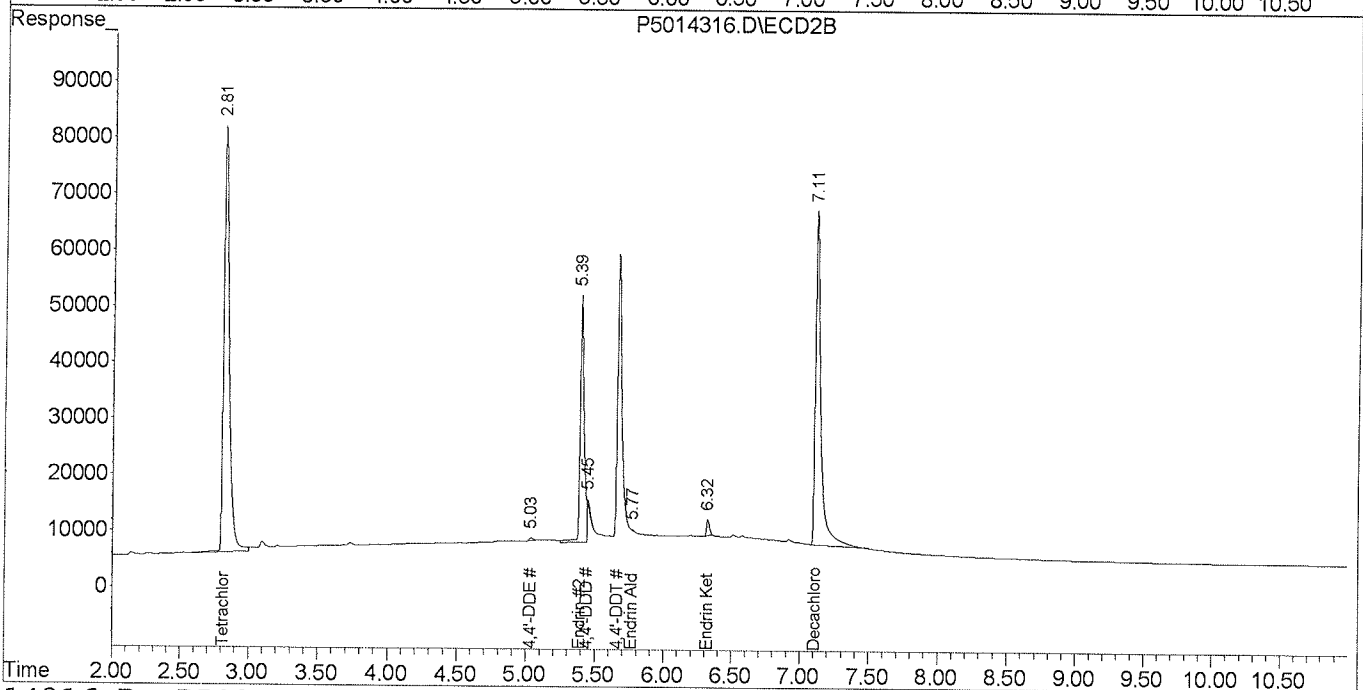
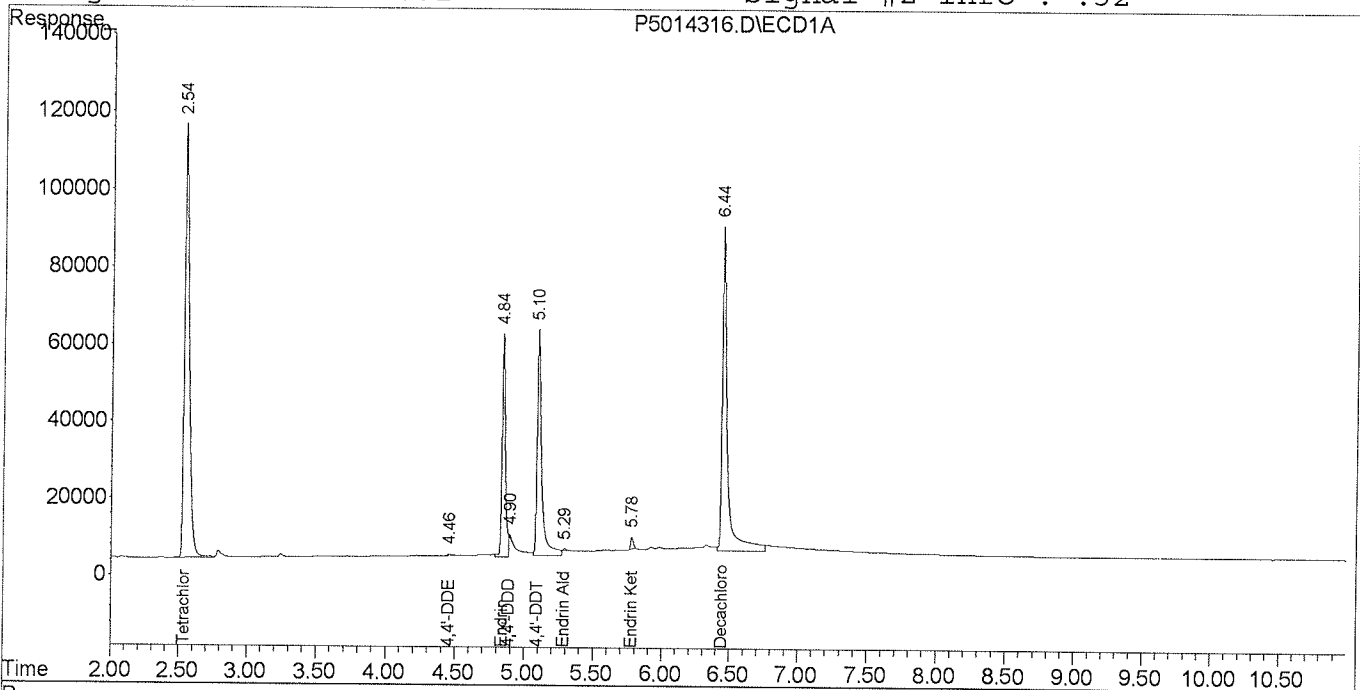
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014316.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014316.D\ECD2B.CH
 Acq On : 15 Mar 2016 6:43 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 10:12 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



% BREAKDOWN of ENDRIN and DDT

DATE: 3/16/2016

TIME: 9:33 AM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN ENDRIN</u>
1079149	4214	29357	1112720	3.0

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN DDT</u>
1345467	3289	3011	1351767	0.5

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN ENDRIN</u>
948463	1396	28268	978127	3.0

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN DDT</u>
1260571	8381	3667	1272619	0.9

Signal #1 : C:\HPCHEM\1\DATA\031616\P5014336.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014336.D\ECD2B.CH
 Acq On : 16 Mar 2016 9:33 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031616A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 10:39 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds

1) SA Tetrachloro-m-xy	2.55	2.82	2852880	2387527	231.944m	230.207
Spiked Amount	200.000	Range	30 - 150	Recovery	=	115.97% 115.10%
24) SA Decachlorobiphen	6.47f	7.13	2869613	2271771	265.192	231.488
Spiked Amount	200.000	Range	30 - 150	Recovery	=	132.60% 115.74%

Target Compounds

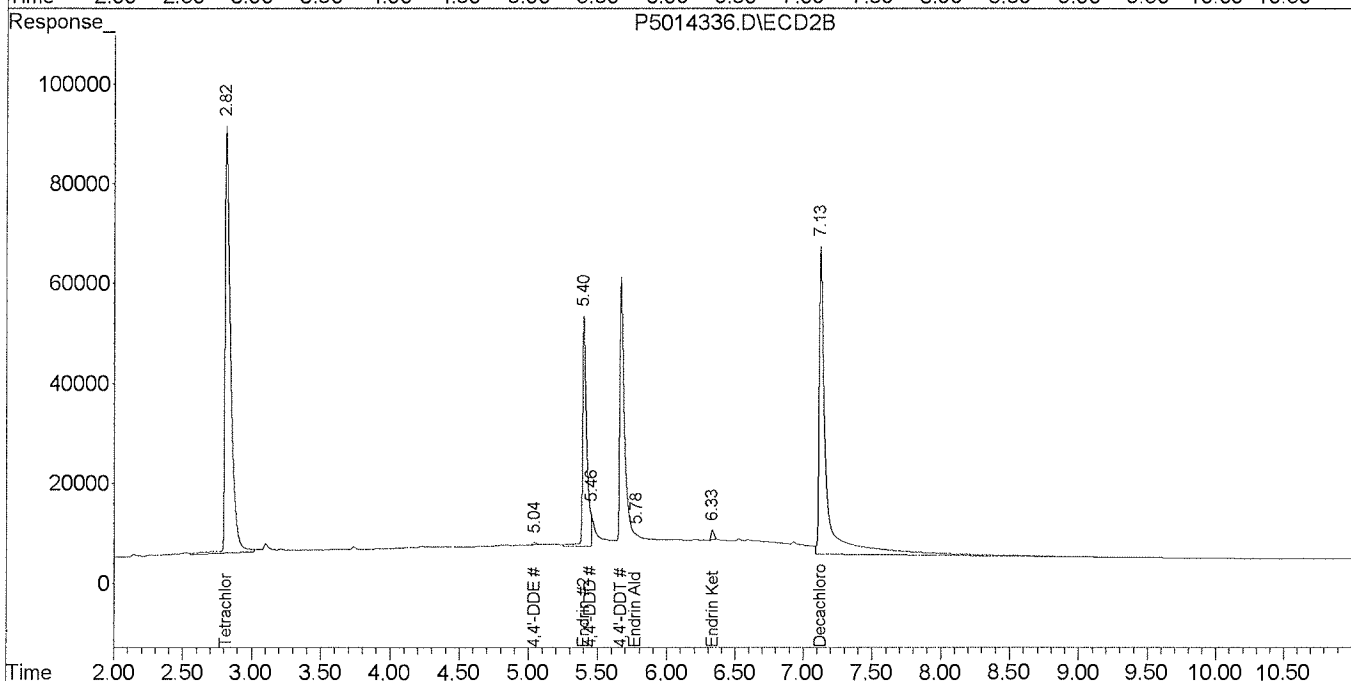
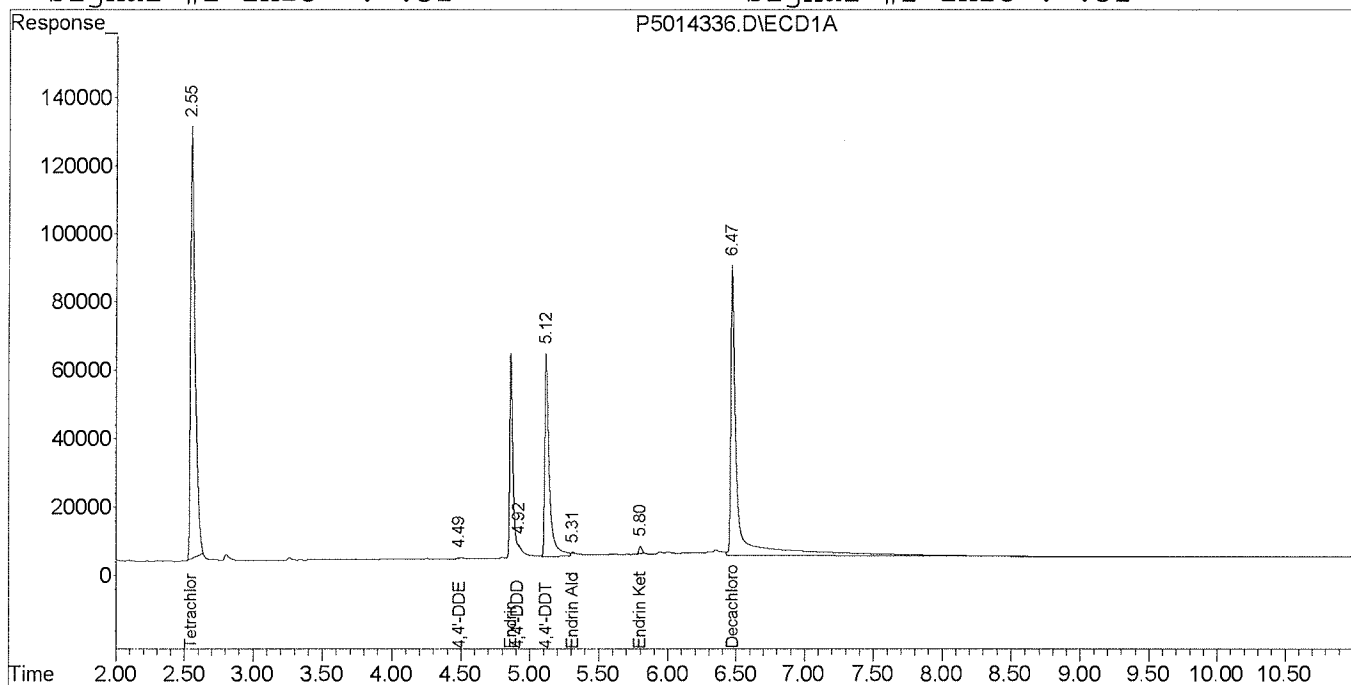
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D.	N.D.
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D.	N.D.
6) M Heptachlor	0.00	0.00	0	0	N.D.	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	4.49f	5.04	3289	8381	0.423m	0.814m#
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	4.86	5.40	1079149	948463	139.738	137.886m
16) M 4,4'-DDD	4.92f	5.46	3011	3667	0.401m	0.499m
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.12f	5.67	1345467	1260571	177.685	200.518m
19) M Endrin Aldehyde	5.31	5.78	4214	1396	0.509m	0.174m#
20) M Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	5.80	6.33	29357	28268	3.461m	2.524m#

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P5014336.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014336.D\ECD2B.CH
 Acq On : 16 Mar 2016 9:33 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031616A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 10:39 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



% BREAKDOWN of ENDRIN and DDT

DATE: 3/16/2016

TIME: 7:44 PM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1230368	10805	56613	1297786	5.2
<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1465935	8264	15650	1489849	1.6

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1175799	6032	56664	1238495	5.1
<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1333187	11786	17650	1362623	2.2

Signal #1 : C:\HPCHEM\1\DATA\031616\P5014372.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014372.D\ECD2B.CH
 Acq On : 16 Mar 2016 7:44 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031616A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:28 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds

1) SA Tetrachloro-m-xy	2.54	2.82	3086729	2404636	250.957	231.856
Spiked Amount	200.000	Range	30 - 150	Recovery	= 125.48%	115.93%
24) SA Decachlorobiphen	6.44	7.12	3409624	2079089	315.096m	211.855 #
Spiked Amount	200.000	Range	30 - 150	Recovery	= 157.55%#	105.93%

Target Compounds

2) M alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D. d	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
6) M Heptachlor	0.00	0.00	0	0	N.D.	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	4.45	5.03	8264	11786	1.062m	1.145m
14) M Dieldrin	0.00	0.00	0	0	N.D.	N.D.
15) M Endrin	4.84	5.39	1230368	1175799	159.319	170.936
16) M 4,4'-DDD	4.89	5.45	15650	17650	2.083m	2.401m
17) M Endosulfan II	0.00	0.00	0	0	N.D. d	N.D. d
18) M 4,4'-DDT	5.10	5.66	1465935	1333187	193.594	212.069
19) M Endrin Aldehyde	5.29	5.77	10805	6032	1.304m	0.751m#
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D. d
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	5.78	6.32	56613	56664	6.674m	5.059m

Quantitation Report

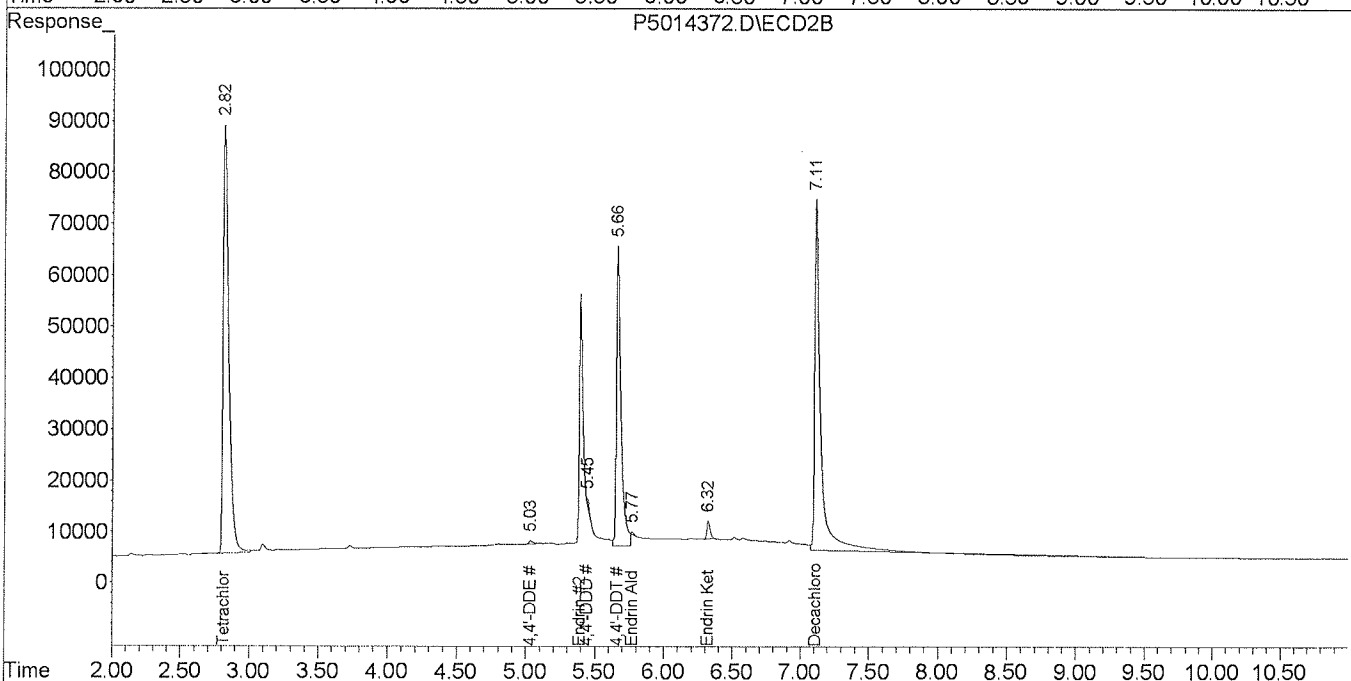
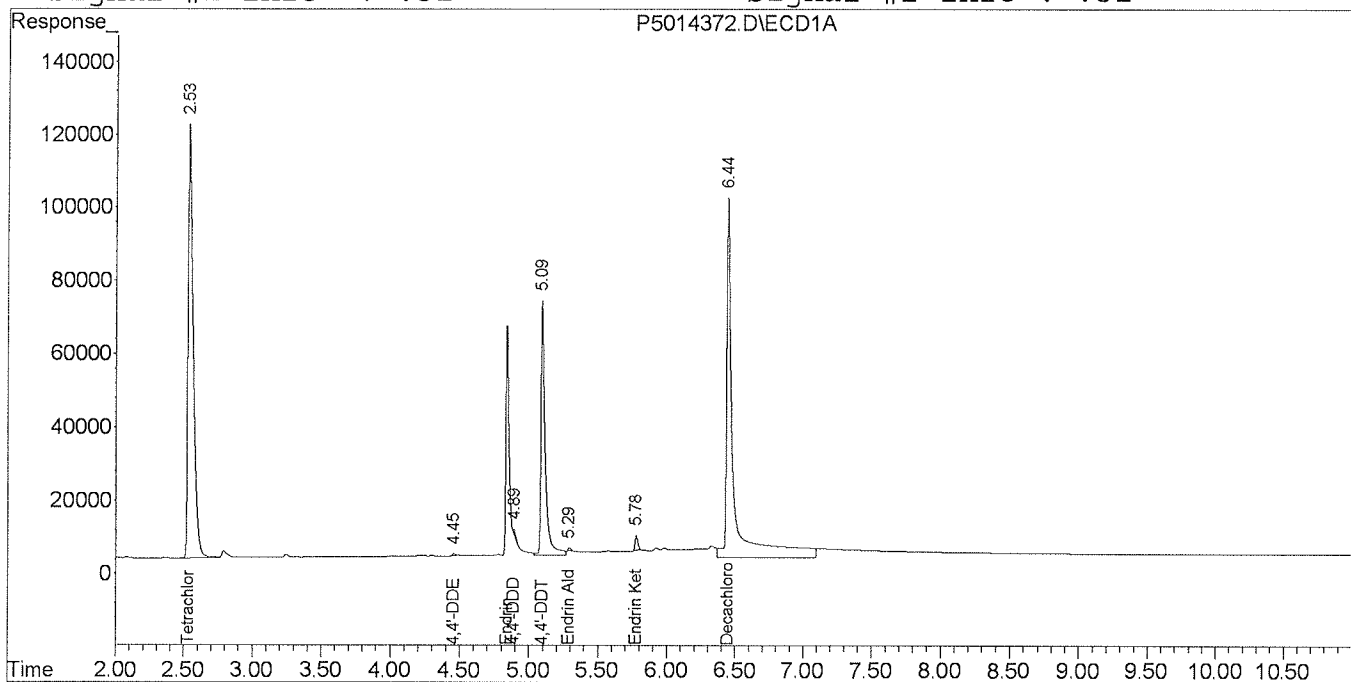
Signal #1 : C:\HPCHEM\1\DATA\031616\P5014372.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014372.D\ECD2B.CH
 Acq On : 16 Mar 2016 7:44 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031616A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:28 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se

Signal #1 Info : .32 Signal #2 Info : .32



% BREAKDOWN of ENDRIN and DDT

DATE: 3/17/2016

TIME: 9:16 AM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1143366	6972	37782	1188120	3.8

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1418946	4953	3016	1426915	0.6

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1126429	2880	40027	1169336	3.7

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1362860	9014	4259	1376133	1.0

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014374.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014374.D\ECD2B.CH
 Acq On : 17 Mar 2016 9:16 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:45 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

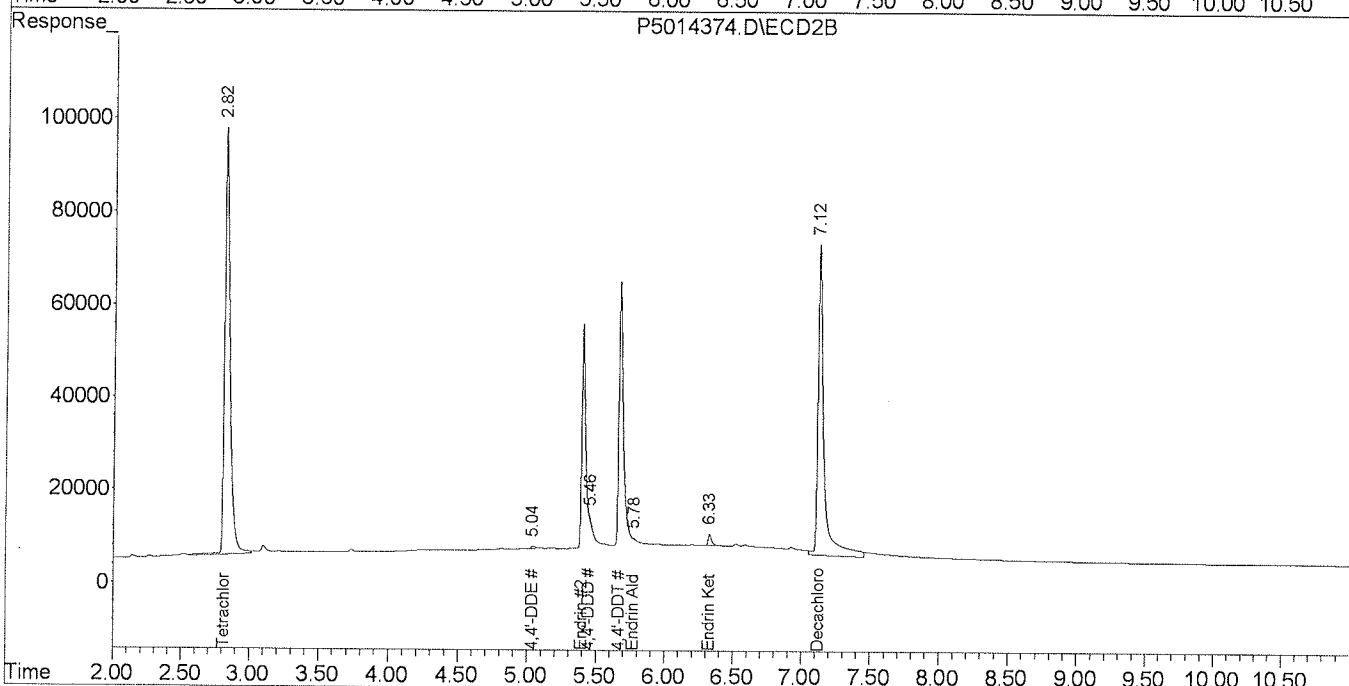
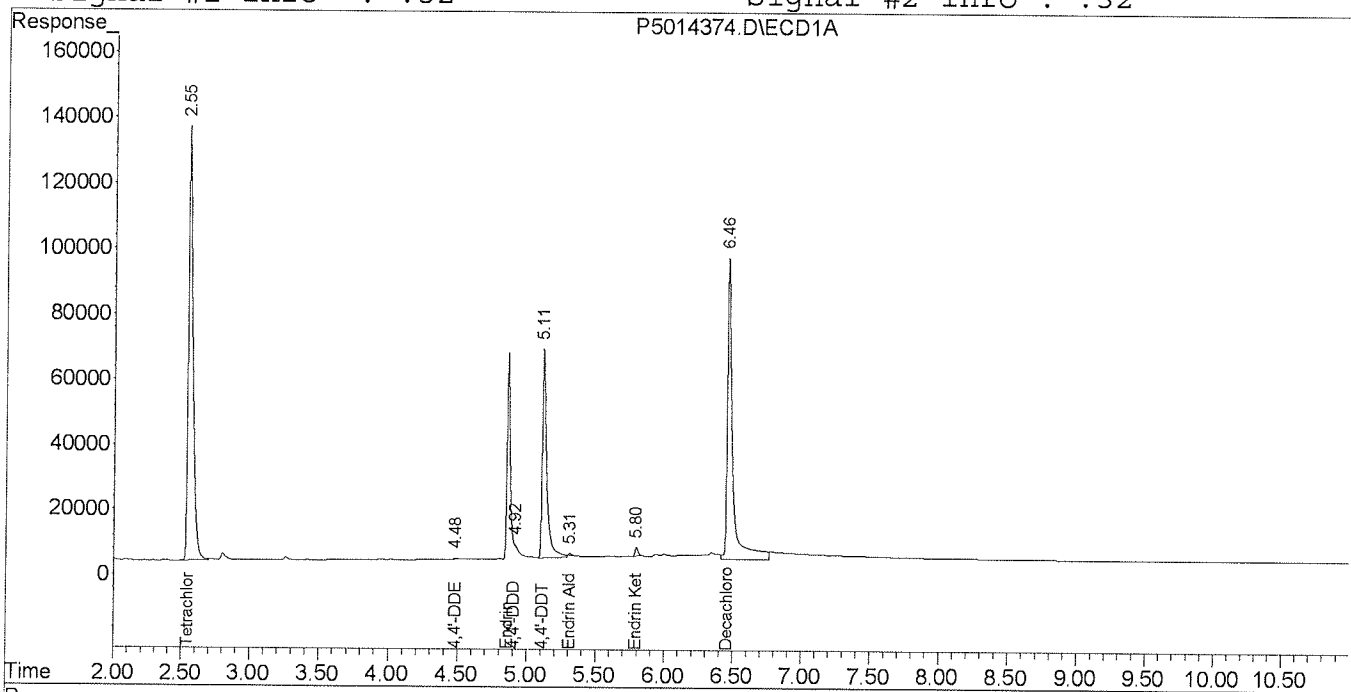
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.82	3104555	2508475	252.406	241.869
Spiked Amount	200.000	Range	30 - 150	Recovery	=	126.20% 120.93%
24) SA Decachlorobiphen	6.46f	7.12	2532917	1988943	234.076m	202.669m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	117.04% 101.33%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D.	N.D.
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D.	N.D.
6) M Heptachlor	0.00	0.00	0	0	N.D.	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D.	N.D.
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	4.48f	5.04	4953	9014	0.636m	0.876m#
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	4.86f	5.40	1143366	1126429	148.053	163.759
16) M 4,4'-DDD	4.92f	5.46	3016	4259	0.401m	0.579m#
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.12f	5.67	1418946	1362860	187.389	216.789
19) M Endrin Aldehyde	5.31f	5.78	6972	2880	0.841m	0.359m#
20) M Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	5.80f	6.33	37782	40027	4.454m	3.574m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014374.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014374.D\ECD2B.CH
 Acq On : 17 Mar 2016 9:16 am Operator: AMC
 Sample : SEQ-BKD1 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:45 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 10:08:13 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



% BREAKDOWN of ENDRIN and DDT

DATE: 3/17/2016

TIME: 6:38 PM

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
1105470	4801	42509	1152780	4.1

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1568314	4245	21589	1594148	1.6

% BREAKDOWN of ENDRIN and DDT

<u>ENDRIN</u>	<u>ALDEHYDE</u>	<u>KETONE</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>ENDRIN</u>
986032	625	39511	1026168	3.9

<u>DDT</u>	<u>DDE</u>	<u>DDD</u>	<u>TOTAL AREA</u>	<u>%BREAKDOWN</u> <u>DDT</u>
1425797	6608	22961	1455366	2.0

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014411.D\ECD1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\031716\P5014411.D\ECD2B.CH
Acq On : 17 Mar 2016 6:38 pm Operator: AMC
Sample : SEQ-BKD2 Inst : GC DUAL E
Misc : QBPEST5-031716A Y14J138 DDT/ENDRIN Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 18 9:48 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
Last Update : Thu Mar 17 11:03:56 2016
Response via : Initial Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL
Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

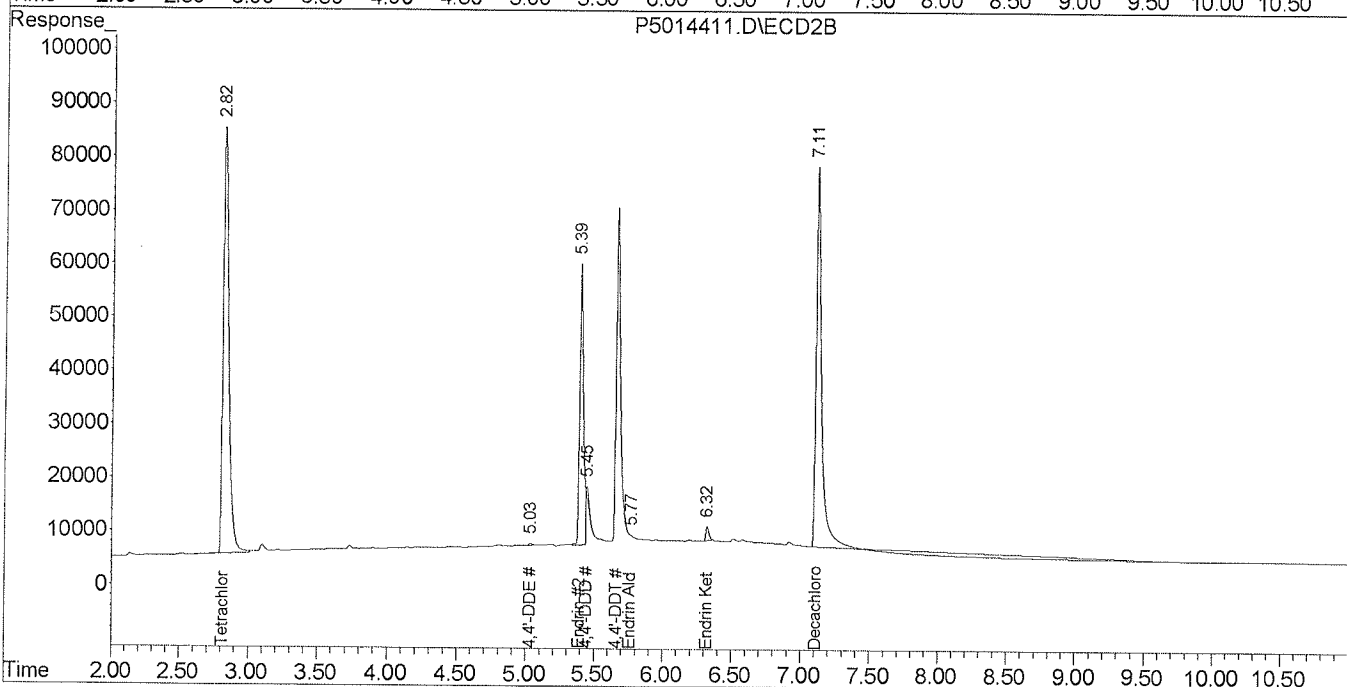
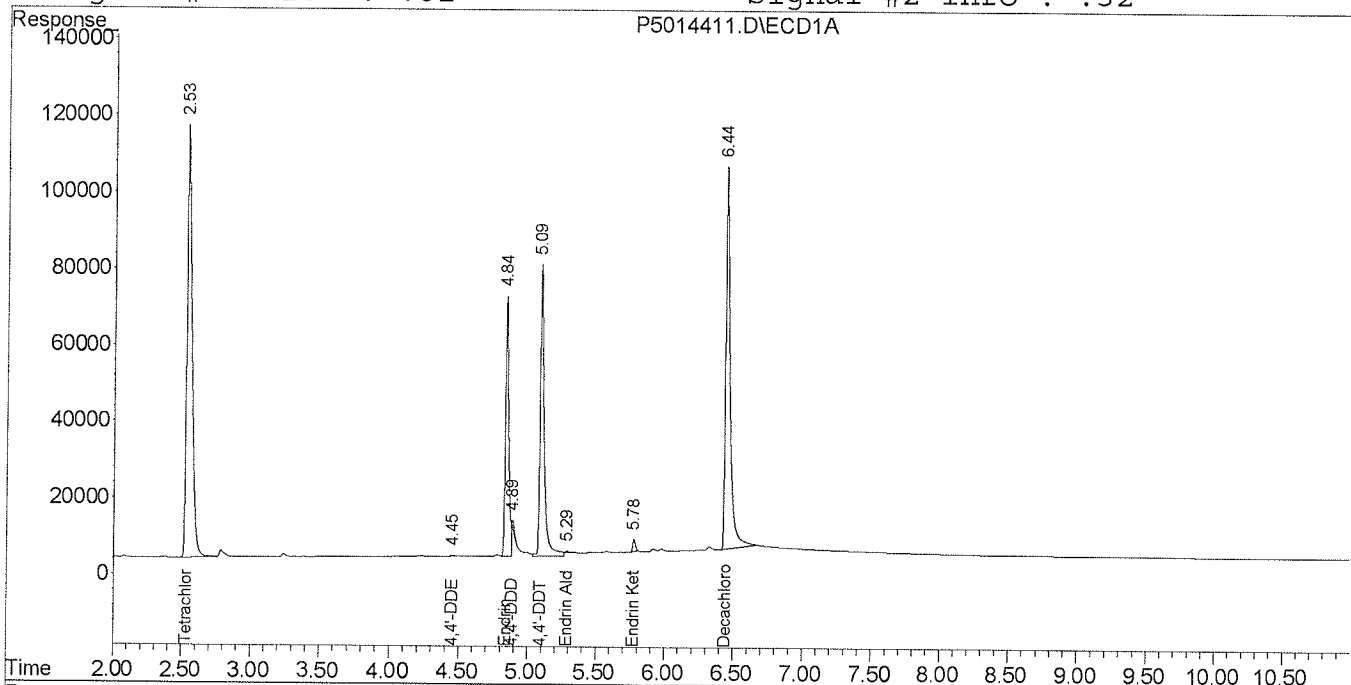
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2912844	2271552	236.820	219.024
Spiked Amount	200.000	Range	30 - 150	Recovery	= 118.41%	109.51%
24) SA Decachlorobiphen	6.44	7.12	2224584	1380138	205.582m	140.633 #
Spiked Amount	200.000	Range	30 - 150	Recovery	= 102.79%	70.32%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D. d	N.D. d
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
6) M Heptachlor	0.00	0.00	0	0	N.D.	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D. d	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	4.45	5.03	4245	6608	0.546m	0.642m
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	4.84	5.39	1105470	986032	143.146	143.348m
16) M 4,4'-DDD	4.89	5.45	21589	22961	2.873m	3.123m
17) M Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
18) M 4,4'-DDT	5.09	5.66	1568314	1425797	207.114	226.800
19) M Endrin Aldehyde	5.29	5.77	4801	625	0.579m	0.078m#
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D. d
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	5.78	6.32	42509	39511	5.011m	3.528m#

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014411.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014411.D\ECD2B.CH
 Acq On : 17 Mar 2016 6:38 pm Operator: AMC
 Sample : SEQ-BKD2 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y14J138 DDT/ENDRIN Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 18 9:48 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Thu Mar 17 11:03:56 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Se
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P5014289.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014289.D\ECD2B.CH
 Acq On : 15 Mar 2016 9:00 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 9:35 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

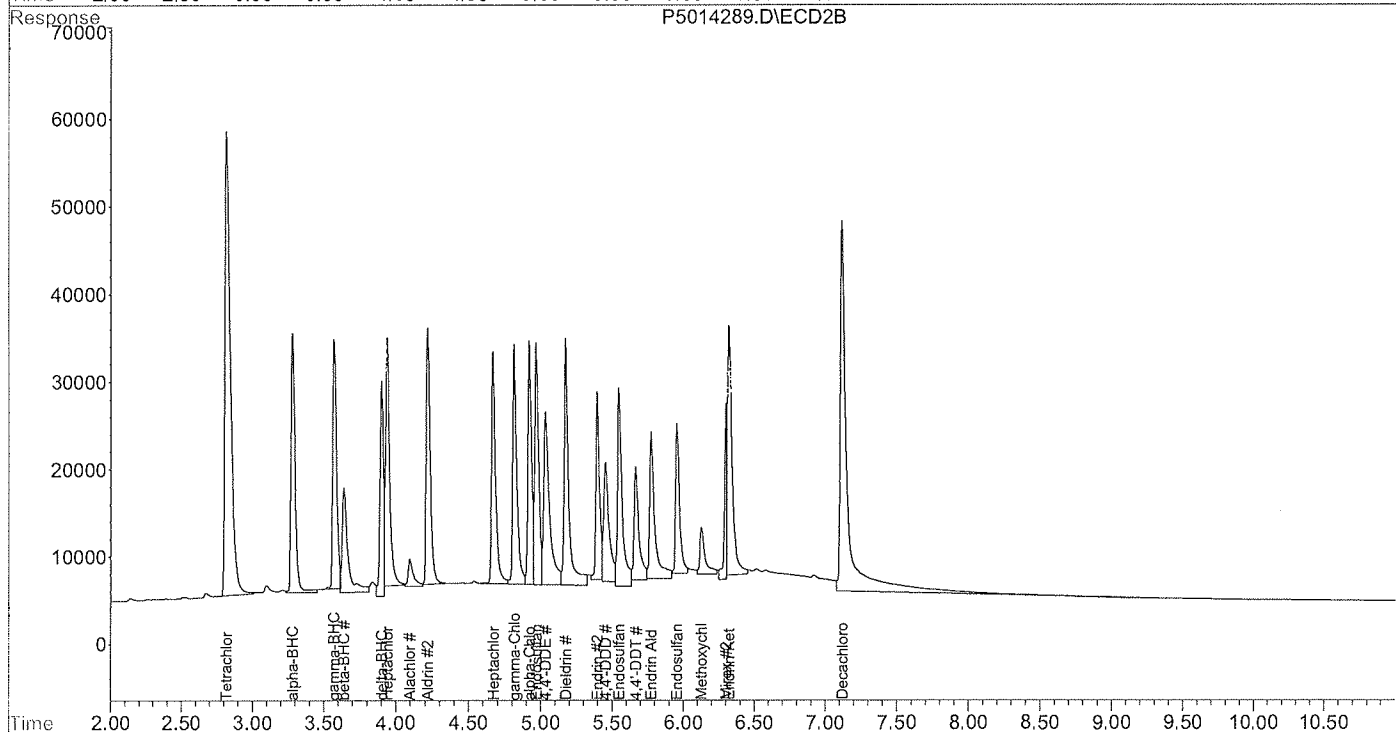
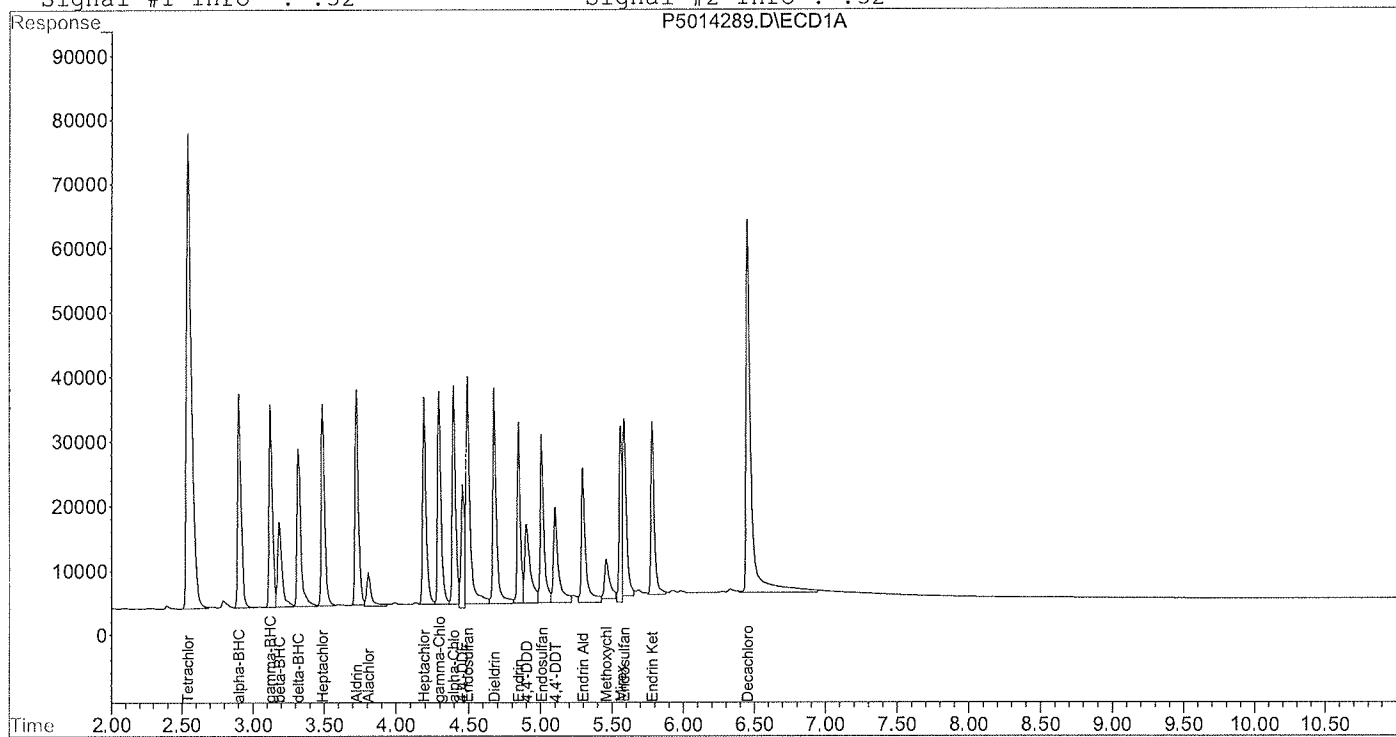
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1817643	1444214	147.778	139.252
Spiked Amount	200.000	Range	30 - 150	Recovery =	73.89%	69.63%
24) SA Decachlorobiphen	6.45	7.12	1424186	1483508	131.614m	151.166
Spiked Amount	200.000	Range	30 - 150	Recovery =	65.81%	75.58%
Target Compounds						
2) M alpha-BHC	2.90	3.28	569679	585927	43.935	41.945m
3) M gamma-BHC (Linda	3.12	3.57	522850	528847	46.396	43.247
4) M beta-BHC	3.18	3.64	285297	340277	44.421	43.884m
5) M delta-BHC	3.32	3.90	465463	405638	43.812	46.054m
6) M Heptachlor	3.49	3.94	533507	568780	49.024	45.693
7) M Aldrin	3.73	4.22	550491	545601	46.288	43.196
8) M Alachlor	3.81	4.10	116762	81317	46.253m	42.166m
9) M Heptachlor Epoxi	4.19	4.67	516542	508272	47.571	48.787
10) M gamma-Chlordane	4.29	4.81	546315	545514	47.417	49.887
11) M alpha-Chlordane	4.40	4.92	543372	484031	48.685	50.019
12) M Endosulfan I	4.49	4.97	728680	543095	57.625	50.934
13) M 4,4'-DDE	4.46	5.04	339582	563389	43.639m	54.731 #
14) M Dieldrin	4.68	5.17	572613	622769	50.681	56.639
15) M Endrin	4.84	5.39	422175	387300	54.667	56.305m
16) M 4,4'-DDD	4.90	5.45	341853	357768	45.500	48.661m
17) M Endosulfan II	5.01	5.55	469981	521326	50.237	57.654
18) M 4,4'-DDT	5.10	5.67	351408	305923	46.408	48.663m
19) M Endrin Aldehyde	5.29	5.77	428860	424760	51.759	52.871m
20) M Methoxychlor	5.46	6.13	156051	139308	49.631m	46.482m
21) M Mirex	5.56	6.30	355849	230732	44.437	44.441m
22) M Endosulfan sulfa	5.58	5.95	464925	329053	50.685m	45.332m
23) M Endrin Ketone	5.78	6.32	434735	612849	51.248m	54.721m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014289.D\ECD1A.CH Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\031516\P5014289.D\ECD2B.CH
Acq On : 15 Mar 2016 9:00 am Operator: AMC
Sample : SEQ-CCV1 Inst : GC DUAL E
Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 15 9:35 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
Last Update : Tue Feb 02 09:37:14 2016
Response via : Multiple Level Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL
Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P5014305.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014305.D\ECD2B.CH
 Acq On : 15 Mar 2016 2:33 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 14:50 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

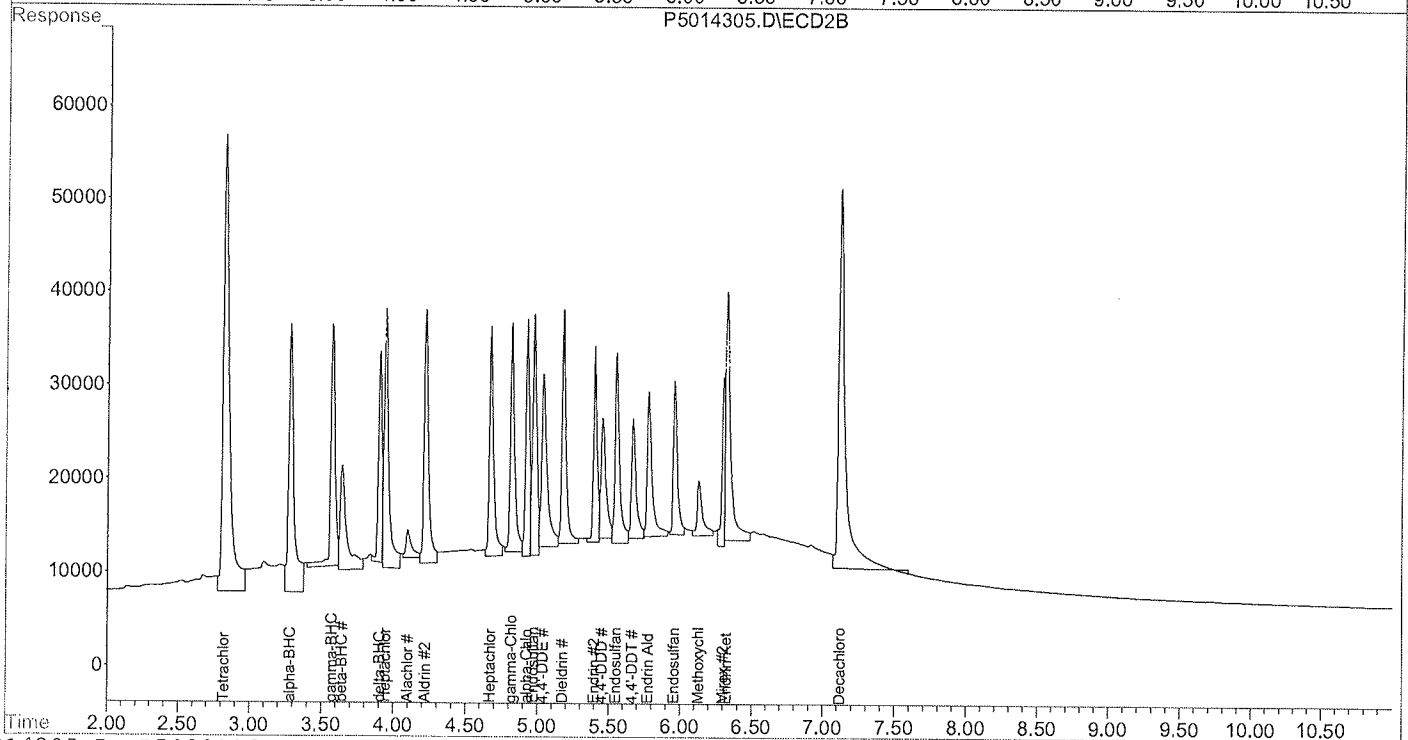
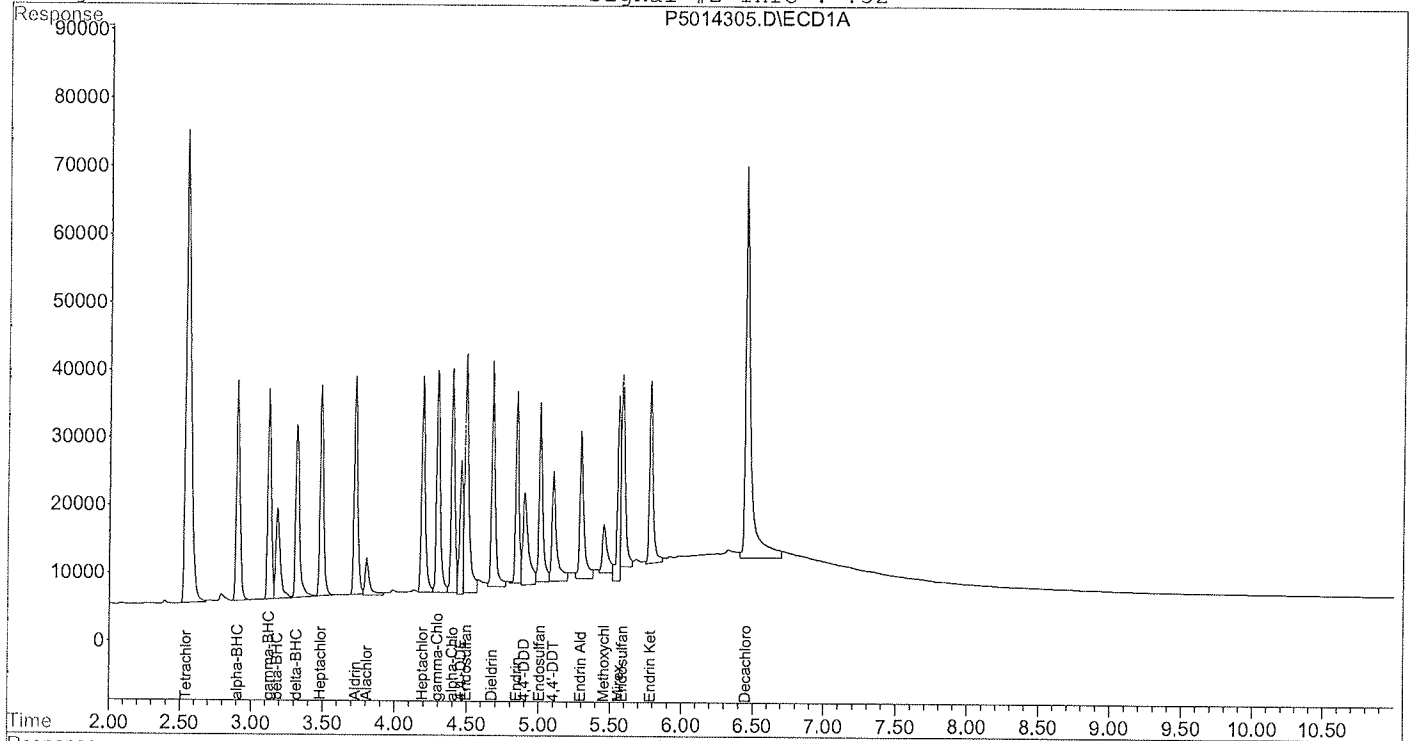
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1723540	1477435	140.127	142.455
Spiked Amount	200.000	Range	30 - 150	Recovery	= 70.06%	71.23%
24) SA Decachlorobiphen	6.45	7.12	1453352	1265531	134.310m	128.955m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 67.16%	64.48%
Target Compounds						
2) M alpha-BHC	2.90	3.28	571733	722864	44.094	51.748
3) M gamma-BHC (Linda	3.12	3.57	533027	539921	47.299	44.152m
4) M beta-BHC	3.18	3.64	285863	349316	44.509	45.049m
5) M delta-BHC	3.32	3.90	479956	382728	45.176	43.453m
6) M Heptachlor	3.49	3.94	525749	606515	48.311	48.725m
7) M Aldrin	3.72	4.22	542944	559717	45.653	44.314m
8) M Alachlor	3.80	4.10	121106	86351	47.974m	44.776m
9) M Heptachlor Epoxi	4.19	4.67	526849	499634	48.521	47.958m
10) M gamma-Chlordane	4.29	4.81	559048	499462	48.523	45.675m
11) M alpha-Chlordane	4.39	4.92	550534	449453	49.327	46.446m
12) M Endosulfan I	4.49	4.97	712467	525998	56.343	49.330m
13) M 4,4'-DDE	4.45	5.03	377832	501597	48.555m	48.728m
14) M Dieldrin	4.67	5.17	557179	485615	49.314m	44.165m
15) M Endrin	4.84	5.39	417691	376734	54.086m	54.769m
16) M 4,4'-DDD	4.90	5.45	360439	319034	47.974m	43.392m
17) M Endosulfan II	5.00	5.55	463479	445574	49.542m	49.276m
18) M 4,4'-DDT	5.10	5.66	354271	282555	46.786m	44.946m
19) M Endrin Aldehyde	5.29	5.77	424452	368247	51.227m	45.837m
20) M Methoxychlor	5.45	6.13	172477	156480	54.855m	52.212m
21) M Mirex	5.56	6.30	359102	260553	44.843m	50.185m
22) M Endosulfan sulfa	5.58	5.95	511483	317624	55.761m	43.757m
23) M Endrin Ketone	5.78	6.32	454310	604420	53.555m	53.968m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014305.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014305.D\ECD2B.CH
 Acq On : 15 Mar 2016 2:33 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 14:50 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P5014317.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014317.D\ECD2B.CH
 Acq On : 15 Mar 2016 6:59 pm Operator: AMC
 Sample : SEQ-CCV5 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 8:19 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

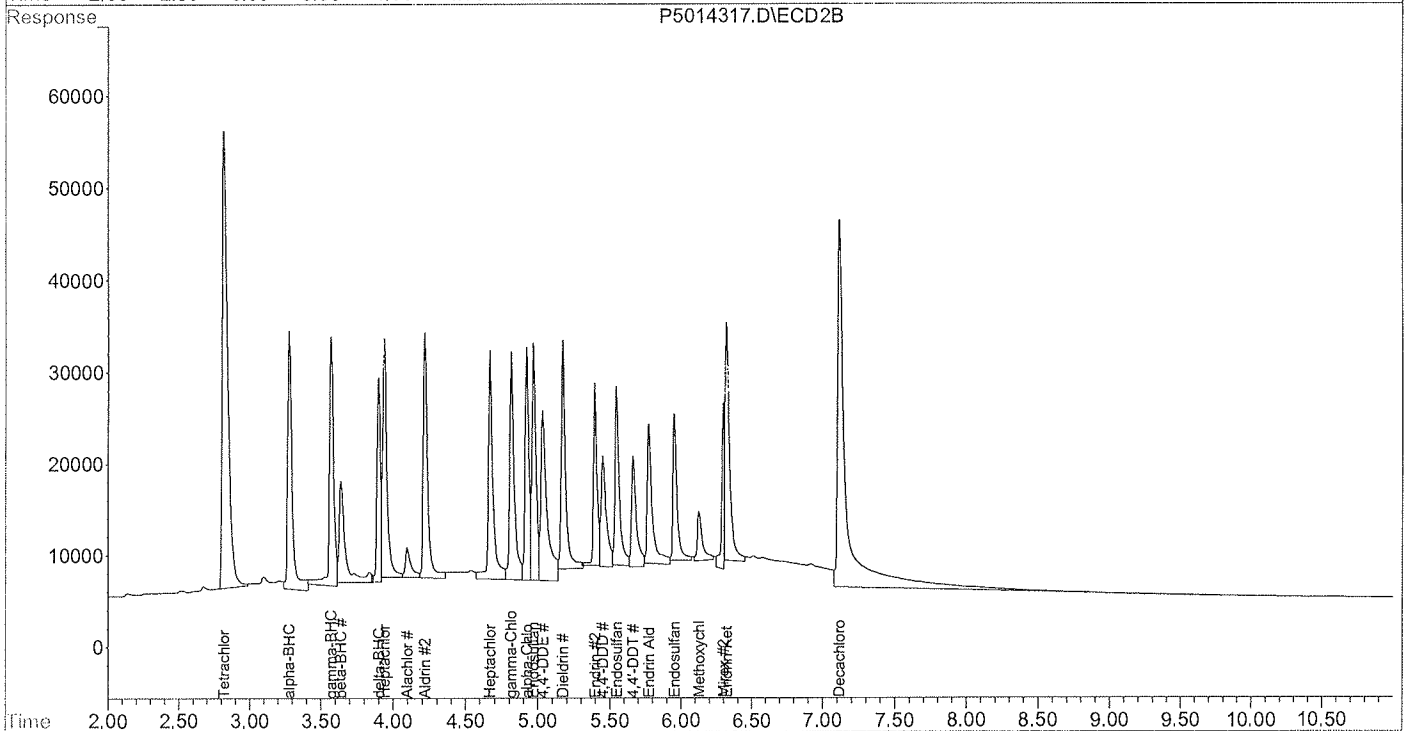
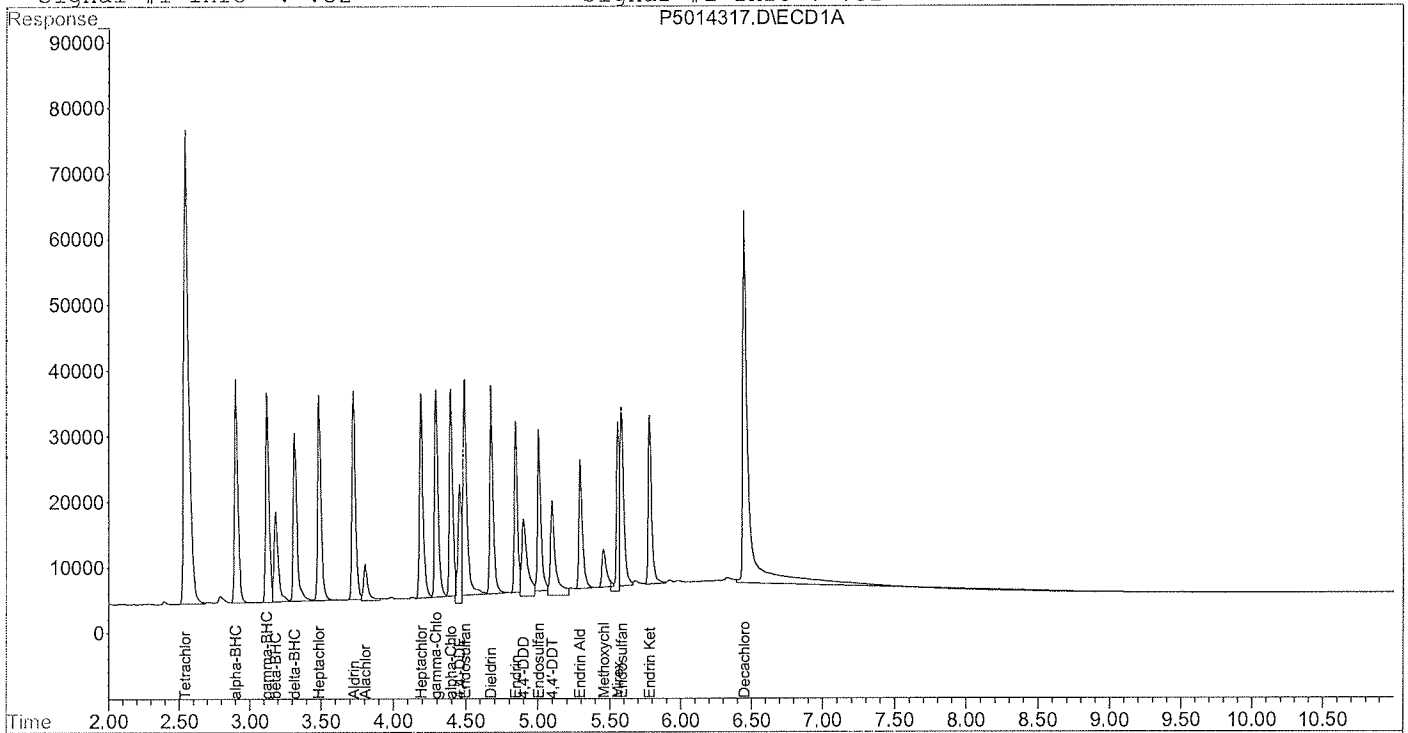
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1728044	1336121	140.493	128.829
Spiked Amount	200.000	Range	30 - 150	Recovery	= 70.25%	64.41%
24) SA Decachlorobiphen	6.45	7.12	1641594	1692615	151.706	172.474
Spiked Amount	200.000	Range	30 - 150	Recovery	= 75.85%	86.24%
Target Compounds						
2) M alpha-BHC	2.90	3.28	578037	608132	44.580	43.534m
3) M gamma-BHC (Linda)	3.12	3.57	534483	569123	47.428	46.540m
4) M beta-BHC	3.18	3.64	288947	341103	44.990	43.990m
5) M delta-BHC	3.32	3.90	468861	384101	44.132	43.609m
6) M Heptachlor	3.49	3.94	527382	543858	48.461	43.691
7) M Aldrin	3.72	4.22	535871	546072	45.059	43.234
8) M Alachlor	3.80	4.10	120508	92345	47.737m	47.884
9) M Heptachlor Epoxi	4.19	4.67	506316	554238	46.630	53.199
10) M gamma-Chlordane	4.29	4.81	520655	542732	45.190	49.632
11) M alpha-Chlordane	4.39	4.92	511907	461177	45.866	47.658
12) M Endosulfan I	4.49	4.97	661860	520443	52.341	48.809
13) M 4,4'-DDE	4.45	5.03	360625	570694	46.344m	55.441
14) M Dieldrin	4.68	5.17	503445	511263	44.559	46.498m
15) M Endrin	4.84	5.39	387608	354024	50.191	51.468m
16) M 4,4'-DDD	4.90	5.45	333315	319248	44.364m	43.421m
17) M Endosulfan II	5.01	5.55	420139	418424	44.909	46.274m
18) M 4,4'-DDT	5.10	5.66	345317	281070	45.603m	44.709m
19) M Endrin Aldehyde	5.29	5.77	344238	380656	41.546	47.381m
20) M Methoxychlor	5.46	6.13	132406	135552	42.111	45.229m
21) M Mirex	5.56	6.30	328937	235754	41.076m	45.408m
22) M Endosulfan sulfa	5.58	5.95	498163	320843	54.309	44.201m
23) M Endrin Ketone	5.78	6.32	426955	553788	50.331	49.447m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014317.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014317.D\ECD2B.CH
 Acq On : 15 Mar 2016 6:59 pm Operator: AMC
 Sample : SEQ-CCV5 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 8:19 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P5014335.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014335.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:36 pm Operator: AMC
 Sample : SEQ-CCV6 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 9:30 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

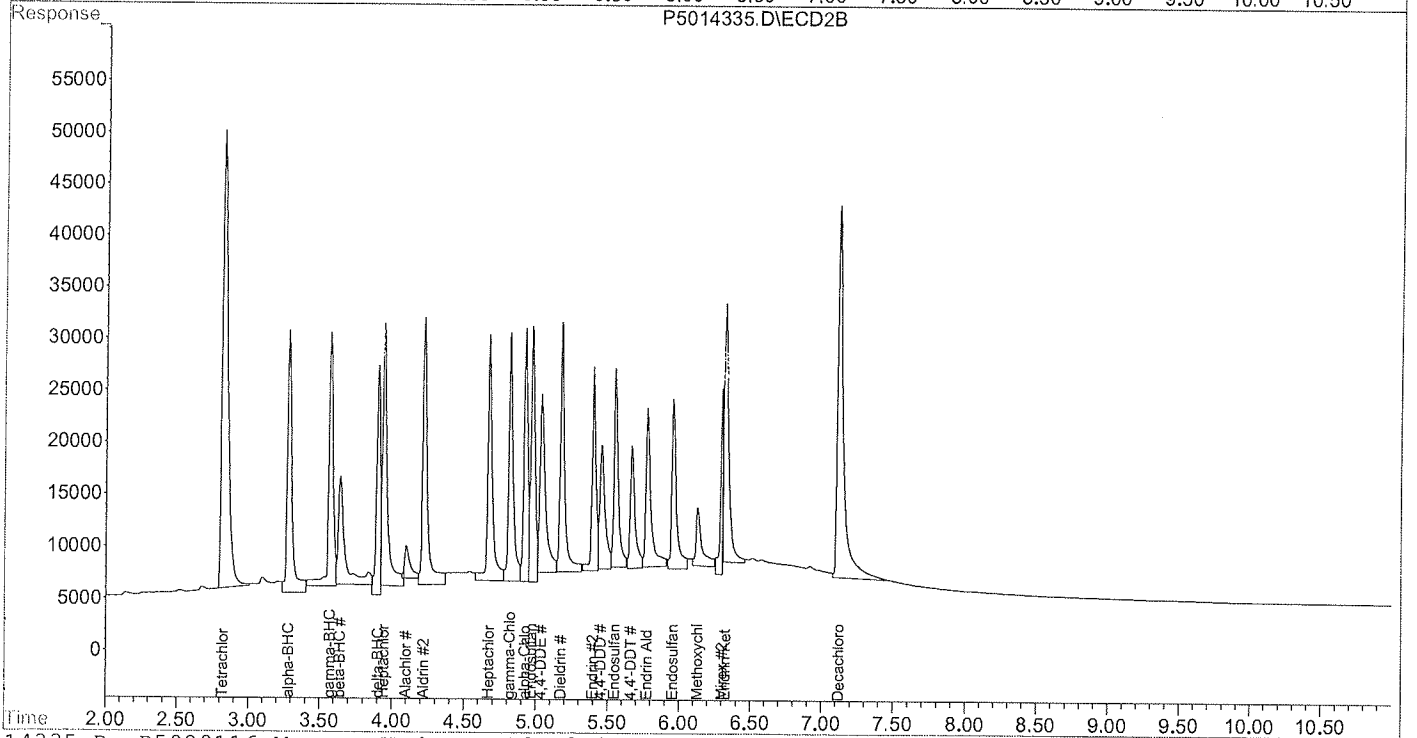
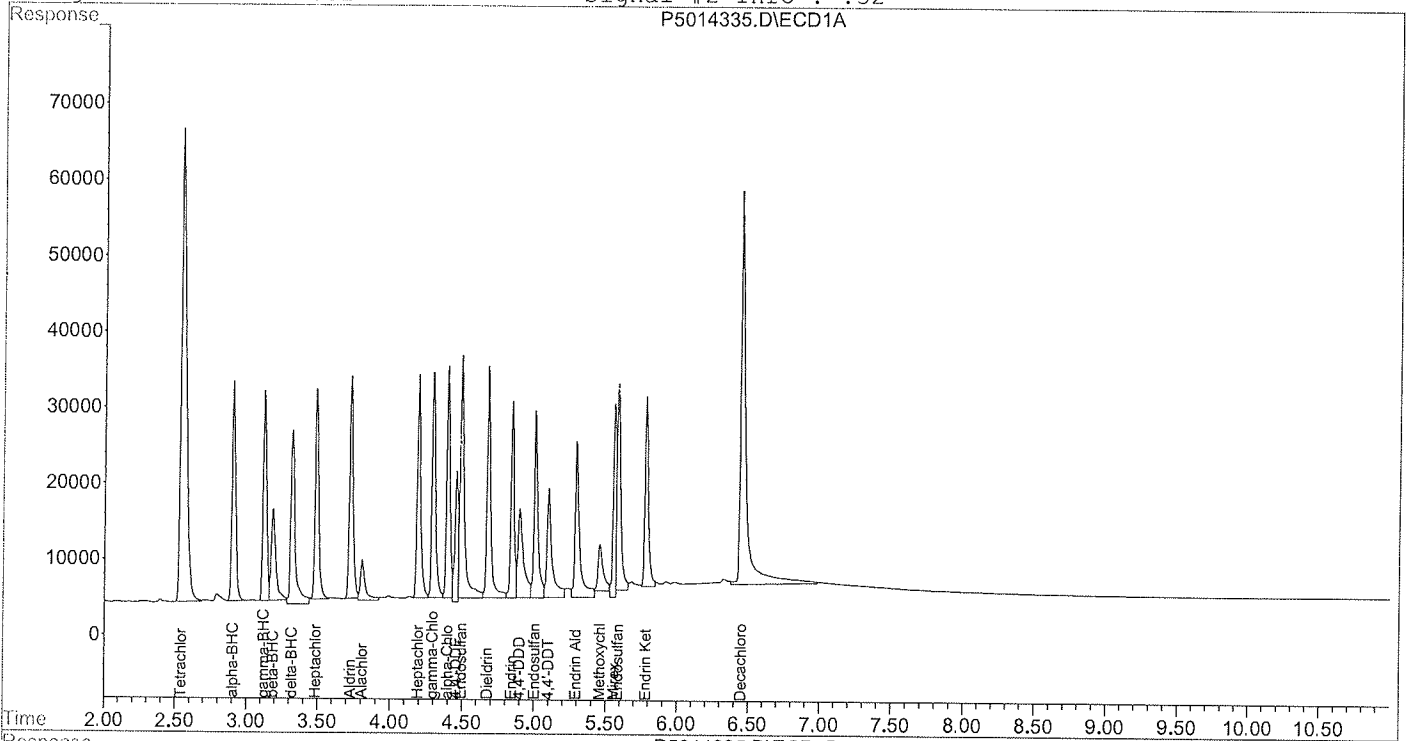
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1576527	1216279	128.175	117.274
Spiked Amount	200.000	Range	30 - 150	Recovery	=	64.09% 58.64%
24) SA Decachlorobiphen	6.45	7.12	1350594	1008809	124.813m	102.795m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	62.41% 51.40%
Target Compounds						
2) M alpha-BHC	2.90	3.28	520657	560615	40.155	40.133m
3) M gamma-BHC (Linda	3.12	3.57	486179	518969	43.142	42.439m
4) M beta-BHC	3.18	3.64	270403	345146	42.102	44.512m
5) M delta-BHC	3.32	3.90	488865	422148	46.015m	47.928m
6) M Heptachlor	3.49	3.94	492881	579067	45.291	46.520m
7) M Aldrin	3.72	4.22	499399	574894	41.992	45.516m
8) M Alachlor	3.80	4.10	123338	88041	48.858m	45.652
9) M Heptachlor Epoxi	4.19	4.67	490136	520161	45.140	49.929
10) M gamma-Chlordane	4.29	4.81	509137	512302	44.191	46.849
11) M alpha-Chlordane	4.39	4.92	500410	438906	44.836	45.356
12) M Endosulfan I	4.49	4.97	676471	494261	53.496	46.354
13) M 4,4'-DDE	4.46	5.03	326617	455397	41.973m	44.240m
14) M Dieldrin	4.68	5.17	538850	499349	47.692	45.414m
15) M Endrin	4.84	5.39	404112	361277	52.328	52.522m
16) M 4,4'-DDD	4.90	5.45	326648	304448	43.476	41.408m
17) M Endosulfan II	5.01	5.55	453840	393380	48.512	43.504m
18) M 4,4'-DDT	5.10	5.66	345449	268664	45.621	42.736m
19) M Endrin Aldehyde	5.29	5.77	448170	374618	54.089	46.630m
20) M Methoxychlor	5.46	6.13	154714	163921	49.206m	54.695m
21) M Mirex	5.56	6.30	332549	225664	41.527	43.465m
22) M Endosulfan sulfa	5.58	5.95	483872	358429	52.751m	49.379m
23) M Endrin Ketone	5.78	6.32	414651	535693	48.880m	47.832m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014335.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014335.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:36 pm Operator: AMC
 Sample : SEQ-CCV6 Inst : GC DUAL E
 Misc : QBPEST5-031516A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 9:30 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031716\P5014375.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014375.D\ECD2B.CH
 Acq On : 17 Mar 2016 9:31 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:00 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Wed Mar 16 10:41:20 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

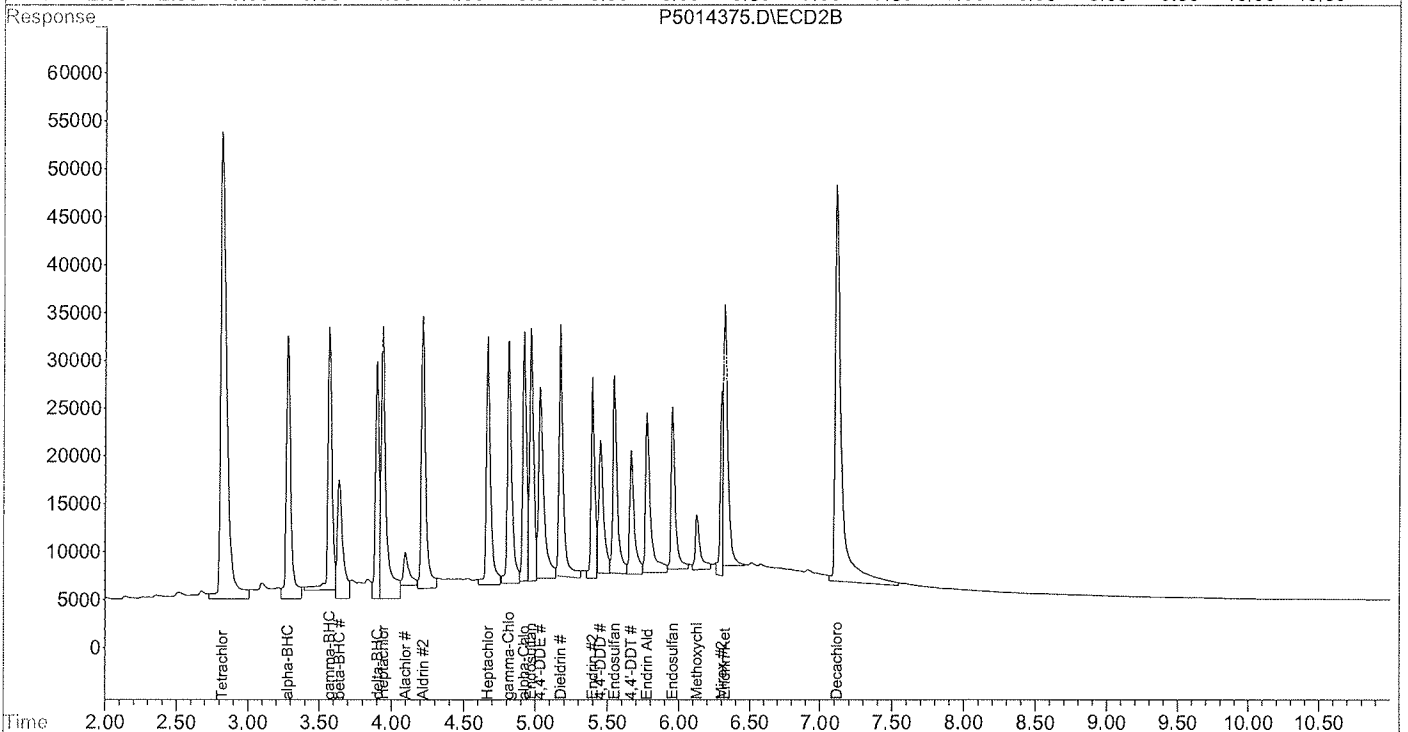
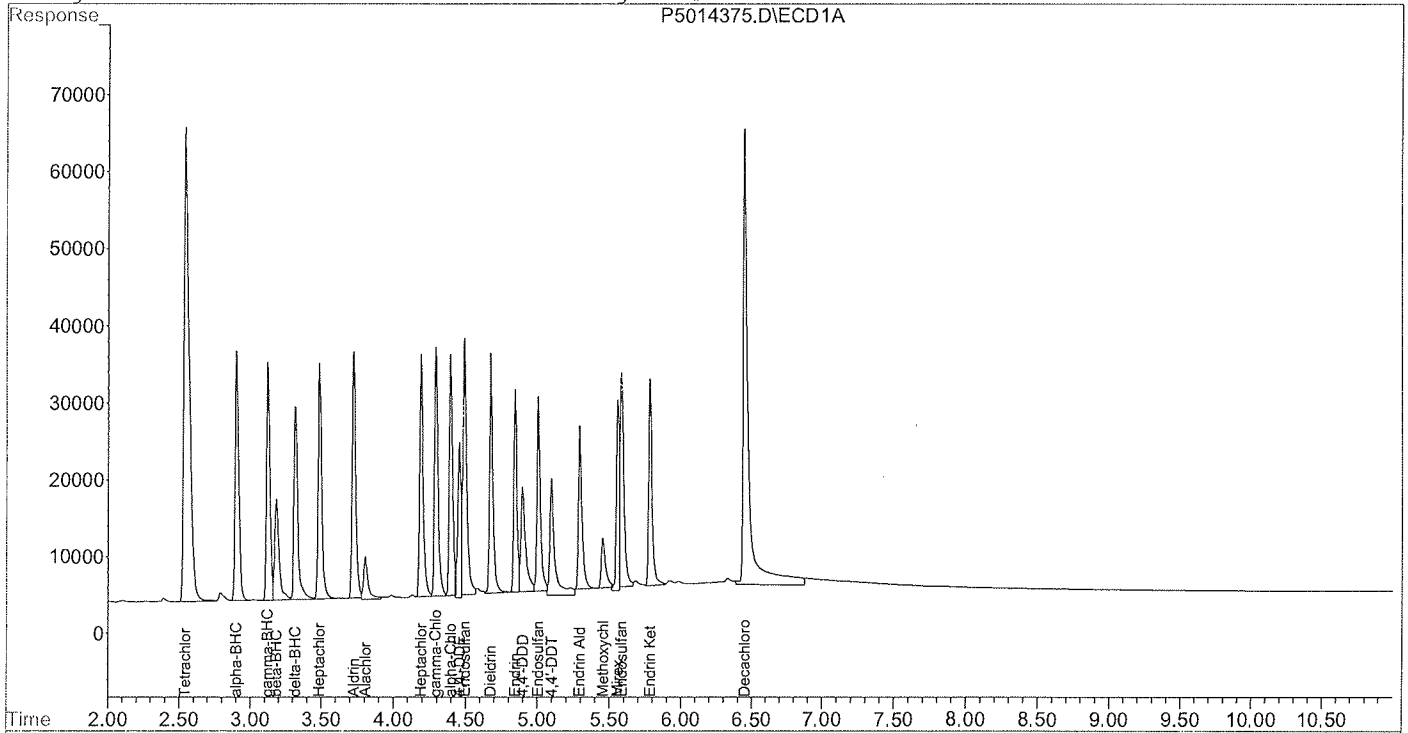
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1579261	1445280	128.397	139.355
Spiked Amount	200.000	Range	30 - 150	Recovery	= 64.20%	69.68%
24) SA Decachlorobiphen	6.45	7.11	1543305	1209846	142.623	123.281m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 71.31%	61.64%
Target Compounds						
2) M alpha-BHC	2.90	3.28	573901	596709	44.261	42.717
3) M gamma-BHC (Linda	3.12	3.57	532003	559403	47.208	45.745m
4) M beta-BHC	3.18	3.64	288465	334569	44.915	43.148
5) M delta-BHC	3.32	3.90	477399	414883	44.936	47.104
6) M Heptachlor	3.49	3.94	537824	688811	49.421	55.336
7) M Aldrin	3.72	4.22	542169	581524	45.588	46.041m
8) M Alachlor	3.80	4.10	122361	100498	48.471m	52.112m
9) M Heptachlor Epoxi	4.19	4.67	517917	529162	47.698	50.792m
10) M gamma-Chlordane	4.29	4.81	536278	531213	46.546	48.579m
11) M alpha-Chlordane	4.39	4.92	511473	470173	45.827	48.587m
12) M Endosulfan I	4.49	4.97	633760	508846	50.119	47.722m
13) M 4,4'-DDE	4.45	5.03	329894	517891	42.395m	50.311m
14) M Dieldrin	4.68	5.17	504726	524283	44.672	47.682m
15) M Endrin	4.84	5.39	389137	360688	50.389	52.436m
16) M 4,4'-DDD	4.90	5.45	317661	325142	42.280	44.223m
17) M Endosulfan II	5.00	5.55	424421	431635	45.367	47.735m
18) M 4,4'-DDT	5.10	5.66	360604	283181	47.622m	45.045m
19) M Endrin Aldehyde	5.29	5.77	366533	411423	44.236	51.211m
20) M Methoxychlor	5.45	6.12	136702	140569	43.477	46.903m
21) M Mirex	5.56	6.30	362997	269177	45.329m	51.846m
22) M Endosulfan sulfa	5.58	5.95	512258	344564	55.845	47.469m
23) M Endrin Ketone	5.78	6.32	440878	571005	51.972	50.985m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014375.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014375.D\ECD2B.CH
 Acq On : 17 Mar 2016 9:31 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:00 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Wed Mar 16 10:41:20 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031716\P5014397.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014397.D\ECD2B.CH
 Acq On : 17 Mar 2016 3:02 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 18 7:15 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 11:03:56 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

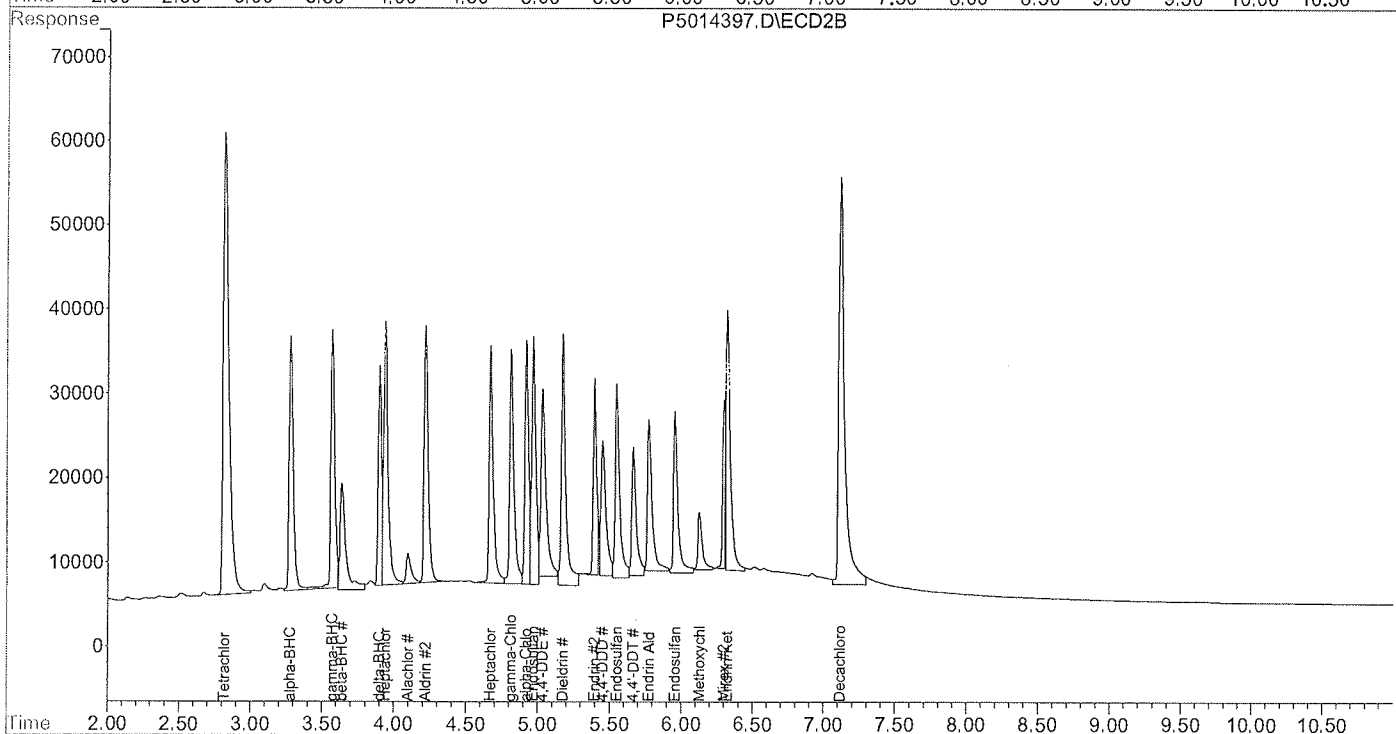
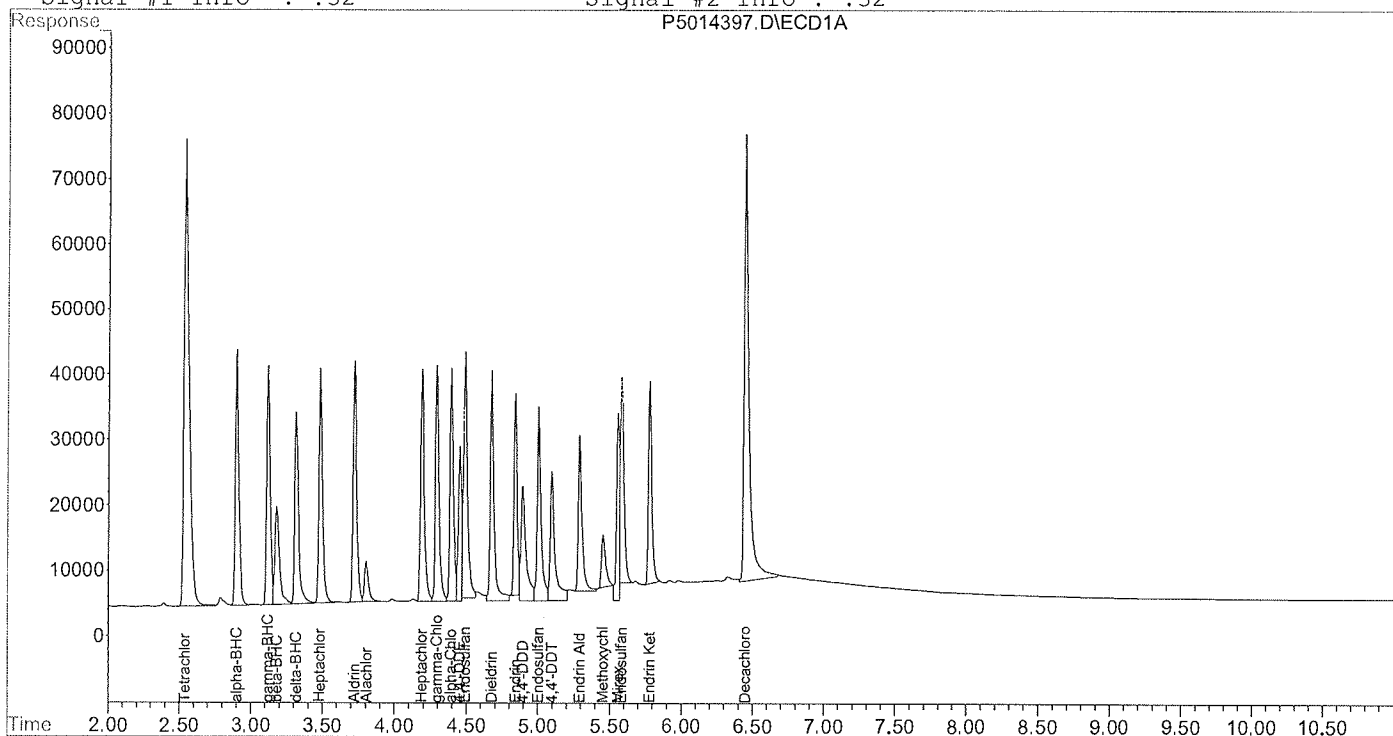
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1775125	1514555	144.321	146.034
Spiked Amount	200.000	Range	30 - 150	Recovery	=	72.16% 73.02%
24) SA Decachlorobiphen	6.44	7.11	1581339	1341140	146.137m	136.659m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	73.07% 68.33%
Target Compounds						
2) M alpha-BHC	2.90	3.28	679452	595506	52.401	42.631
3) M gamma-BHC (Linda)	3.12	3.57	627545	602796	55.686	49.294
4) M beta-BHC	3.18	3.64	329365	355597	51.283	45.859m
5) M delta-BHC	3.31	3.90	555759	414544	52.311	47.065
6) M Heptachlor	3.48	3.94	633986	653863	58.257	52.528
7) M Aldrin	3.72	4.22	620922	584710	52.210	46.293
8) M Alachlor	3.80	4.10	123072	87966	48.752	45.613
9) M Heptachlor Epoxi	4.19	4.67	600581	561544	55.311	53.901
10) M gamma-Chlordane	4.29	4.81	623993	577161	54.160	52.781
11) M alpha-Chlordane	4.39	4.92	587695	511115	52.656	52.818
12) M Endosulfan I	4.49	4.97	692072	587479	54.730m	55.096
13) M 4,4'-DDE	4.45	5.03	374464	546534	48.122	53.094m
14) M Dieldrin	4.67	5.17	641165	633153	56.748	57.583
15) M Endrin	4.84	5.39	453827	358407	58.765m	52.105m
16) M 4,4'-DDD	4.89	5.45	441008	376288	58.698	51.179m
17) M Endosulfan II	5.00	5.55	548453	500465	58.625	55.347m
18) M 4,4'-DDT	5.10	5.66	441371	333111	58.288	52.988m
19) M Endrin Aldehyde	5.29	5.77	434442	404854	52.432m	50.393m
20) M Methoxychlor	5.45	6.13	162127	147076	51.563m	49.074m
21) M Mirex	5.56	6.30	373194	282897	46.603	54.488m
22) M Endosulfan sulfa	5.58	5.95	546188	401949	59.544m	55.374m
23) M Endrin Ketone	5.78	6.32	496999	605622	58.587m	54.076m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014397.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014397.D\ECD2B.CH
 Acq On : 17 Mar 2016 3:02 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 18 7:15 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 11:03:56 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031716\P5014412.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014412.D\ECD2B.CH
 Acq On : 17 Mar 2016 6:53 pm Operator: AMC
 Sample : SEQ-CCV5 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 18 7:17 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 11:03:56 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1600324	1457106	130.109	140.495
Spiked Amount	200.000	Range	30 - 150	Recovery	= 65.05%	70.25%
24) SA Decachlorobiphen	6.44	7.11	2006751	2268723	185.451	231.178
Spiked Amount	200.000	Range	30 - 150	Recovery	= 92.73%	115.59%
Target Compounds						
2) M alpha-BHC	2.90	3.28	610119	610356	47.054	43.694
3) M gamma-BHC (Linda)	3.12	3.57	575870	708689	51.101	57.953
4) M beta-BHC	3.18	3.64	318908	351356	49.654	45.312
5) M delta-BHC	3.31	3.90	532389	450916	50.112	51.194
6) M Heptachlor	3.48	3.94	587276	728033	53.965	58.487
7) M Aldrin	3.72	4.22	575044	747987	48.353	59.220
8) M Alachlor	3.80	4.09	125246	97429	49.614	50.520m
9) M Heptachlor Epoxi	4.19	4.67	569183	526178	52.419	50.506m
10) M gamma-Chlordane	4.29	4.81	590878	553937	51.285	50.657m
11) M alpha-Chlordane	4.39	4.92	554271	540648	49.661	55.870
12) M Endosulfan I	4.49	4.97	690498	538774	54.605	50.528m
13) M 4,4'-DDE	4.45	5.03	364987	562700	46.904	54.664m
14) M Dieldrin	4.67	5.17	589408	552670	52.167	50.264m
15) M Endrin	4.84	5.39	435377	361714	56.376m	52.586m
16) M 4,4'-DDD	4.89	5.45	420147	374947	55.921	50.997m
17) M Endosulfan II	5.00	5.54	502588	450510	53.722	49.822m
18) M 4,4'-DDT	5.09	5.66	357872	276544	47.261	43.990m
19) M Endrin Aldehyde	5.29	5.77	418146	428412	50.465m	53.326m
20) M Methoxychlor	5.45	6.12	147070	145261	46.775m	48.469m
21) M Mirex	5.56	6.30	334166	255901	41.729	49.289m
22) M Endosulfan sulfa	5.58	5.95	543063	352187	59.204m	48.519m
23) M Endrin Ketone	5.78	6.32	452680	582767	53.363m	52.035m

Quantitation Report

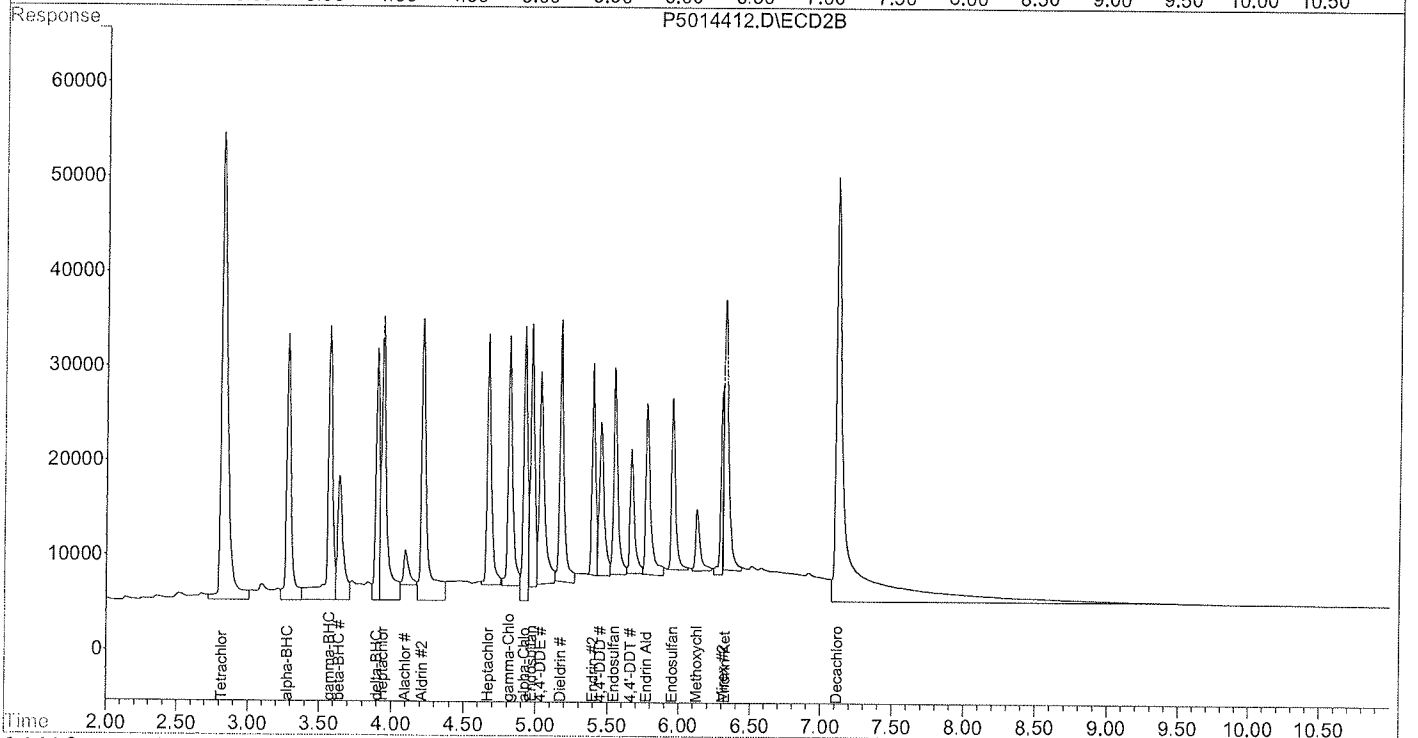
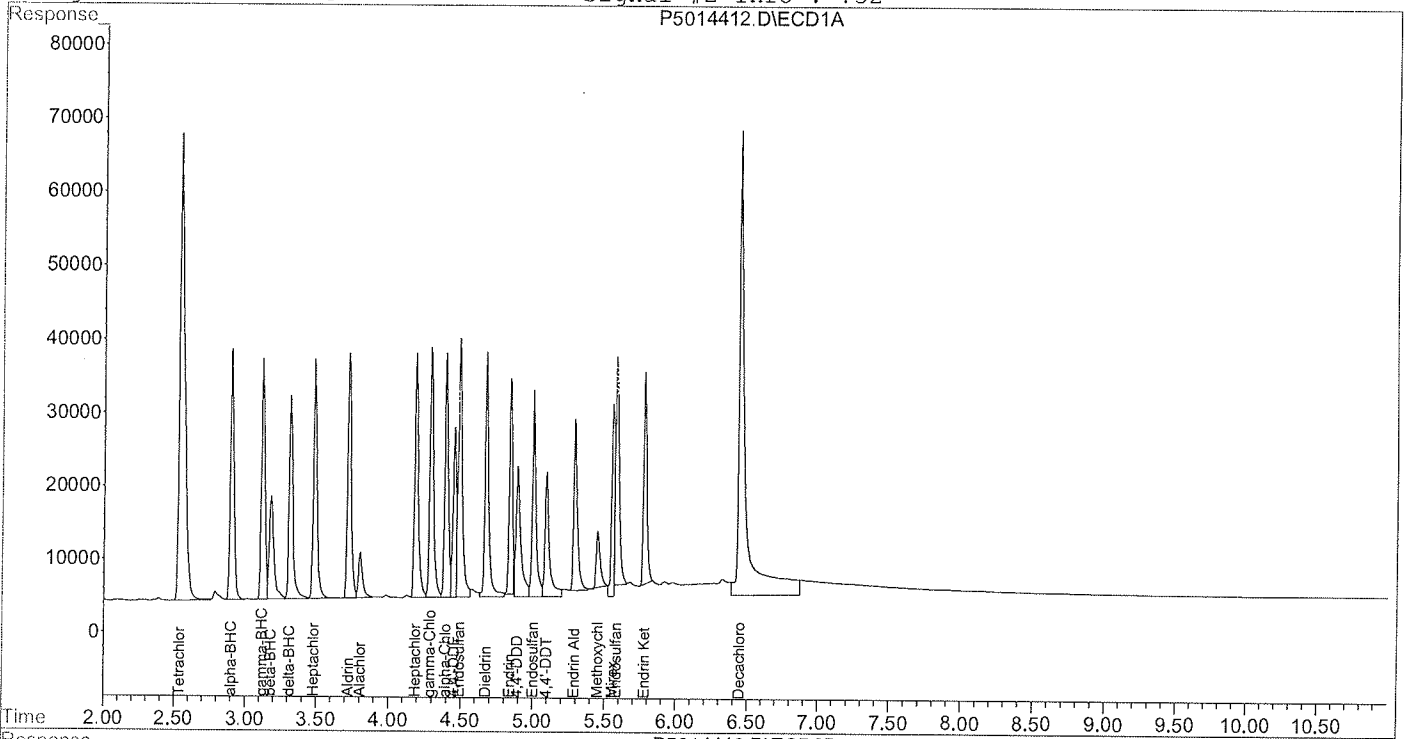
Signal #1 : C:\HPCHEM\1\DATA\031716\P5014412.D\ECD1A.CH Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\031716\P5014412.D\ECD2B.CH
Acq On : 17 Mar 2016 6:53 pm Operator: AMC
Sample : SEQ-CCV5 Inst : GC DUAL E
Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 18 7:17 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
Last Update : Thu Mar 17 11:03:56 2016
Response via : Multiple Level Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629

Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031716\P5014425.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014425.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:09 pm Operator: AMC
 Sample : SEQ-CCV6 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 18 7:19 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 11:03:56 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

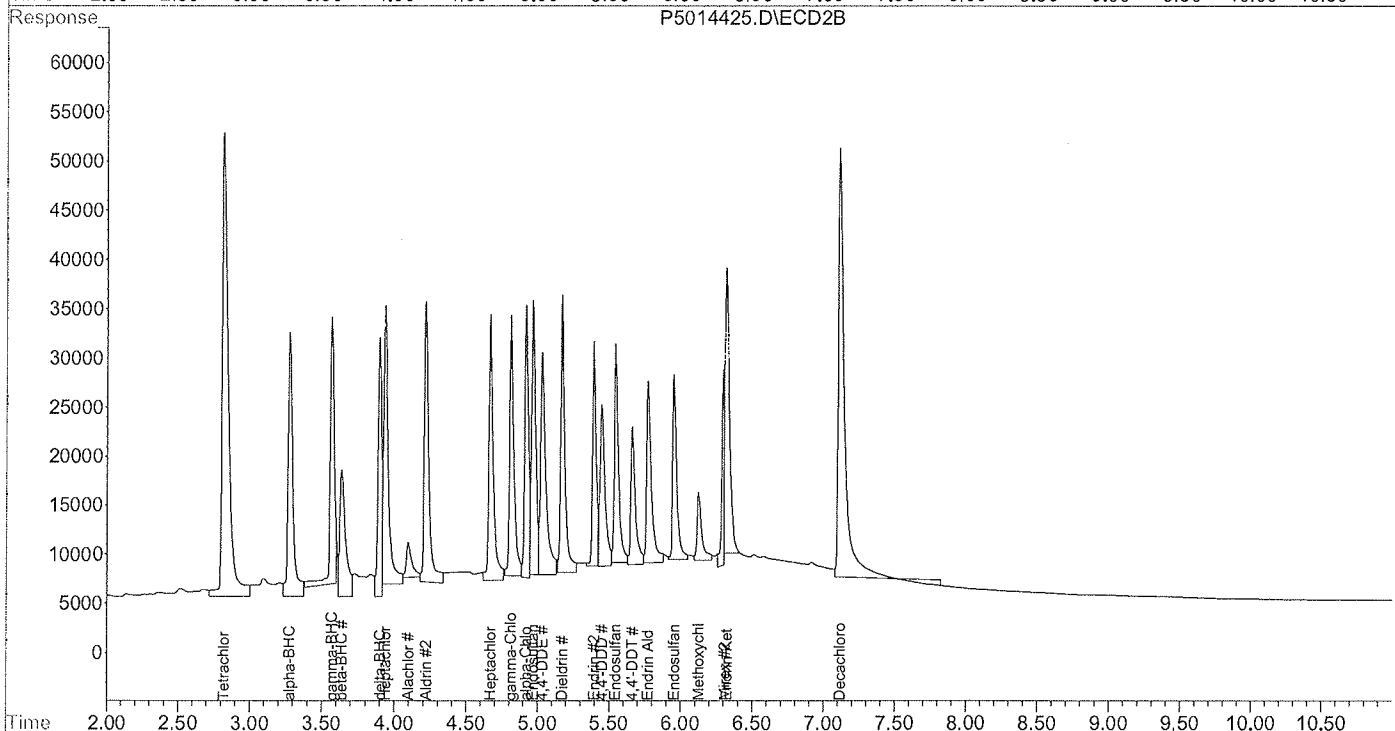
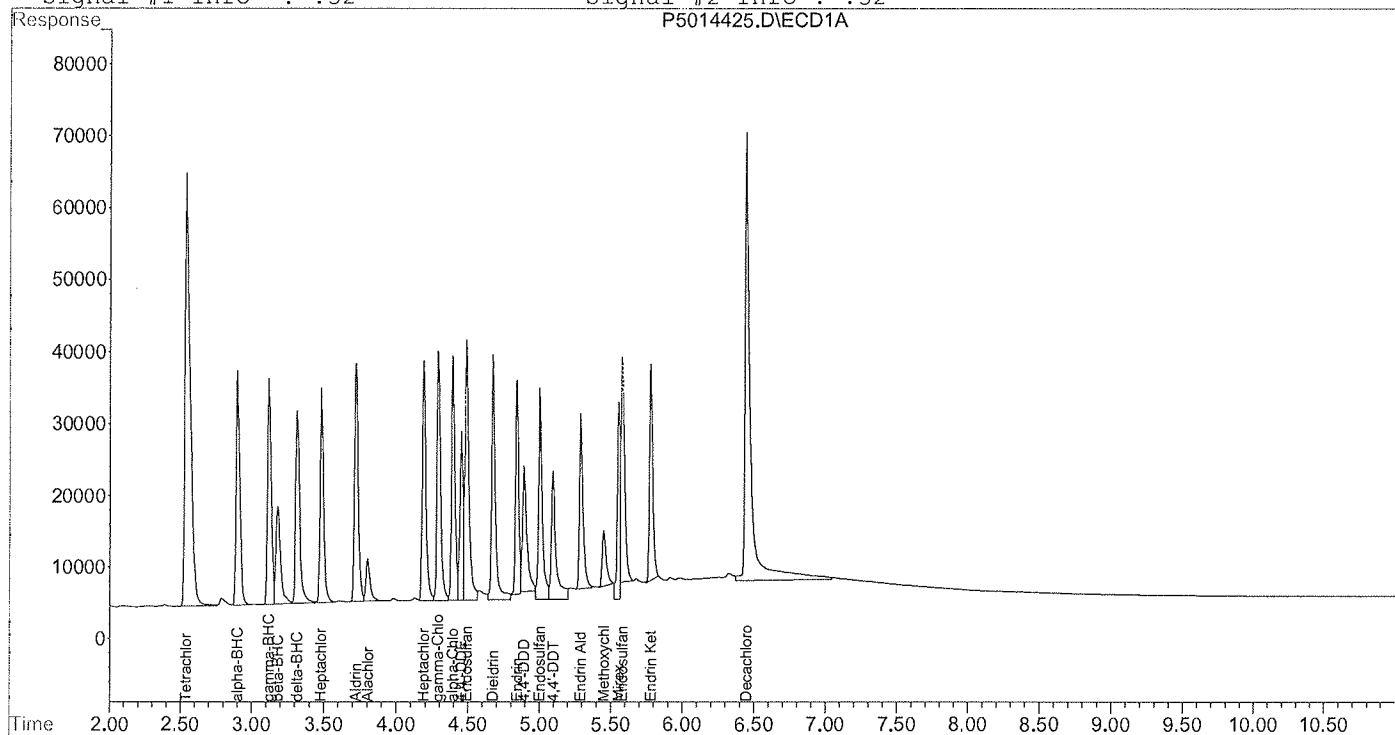
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	1564604	1434051	127.205	138.272
Spiked Amount	200.000	Range	30 - 150	Recovery	= 63.60%	69.14%
24) SA Decachlorobiphen	6.44	7.11	1682712	1272053	155.506m	129.619m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 77.75%	64.81%
Target Compounds						
2) M alpha-BHC	2.90	3.28	597315	609290	46.067	43.617
3) M gamma-BHC (Linda	3.12	3.57	569000	541520	50.491	44.283m
4) M beta-BHC	3.18	3.64	316759	366340	49.320	47.245
5) M delta-BHC	3.31	3.90	530496	455697	49.933	51.737
6) M Heptachlor	3.48	3.94	520574	608930	47.836	48.919m
7) M Aldrin	3.72	4.22	571331	612212	48.040	48.470m
8) M Alachlor	3.80	4.10	119457	95807	47.320	49.679m
9) M Heptachlor Epoxi	4.19	4.67	564682	572588	52.005	54.961m
10) M gamma-Chlordane	4.29	4.81	596774	551944	51.797	50.475m
11) M alpha-Chlordane	4.39	4.92	561171	476871	50.280	49.280m
12) M Endosulfan I	4.49	4.97	709485	553971	56.107	51.954m
13) M 4,4'-DDE	4.45	5.03	369232	584847	47.450	56.816m
14) M Dieldrin	4.67	5.17	614855	564921	54.419	51.378m
15) M Endrin	4.84	5.39	451830	375038	58.507m	54.523m
16) M 4,4'-DDD	4.89	5.45	377825	391961	50.288m	53.311m
17) M Endosulfan II	5.00	5.54	536785	453768	57.378	50.182m
18) M 4,4'-DDT	5.09	5.66	403945	307409	53.346	48.899m
19) M Endrin Aldehyde	5.29	5.77	426060	428874	51.421m	53.383m
20) M Methoxychlor	5.45	6.12	150459	161253	47.853m	53.805m
21) M Mirex	5.56	6.30	359718	255837	44.920	49.276m
22) M Endosulfan sulfa	5.58	5.95	543903	375443	59.295m	51.723m
23) M Endrin Ketone	5.78	6.32	472027	604208	55.644m	53.949m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031716\P5014425.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\031716\P5014425.D\ECD2B.CH
 Acq On : 17 Mar 2016 10:09 pm Operator: AMC
 Sample : SEQ-CCV6 Inst : GC DUAL E
 Misc : QBPEST5-031716A Y15G090 PEST MIX 50.0ng/ Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 18 7:19 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Thu Mar 17 11:03:56 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8081B**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1616Instrument: GC Dual ECalibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1616-CCV1	P5014289.D	03/15/16 09:00
Calibration Check	Y6C1616-CCV2	P5014290.D	03/15/16 09:15
Blank	BC60750-BLK1	P5014296.D	03/15/16 10:48
LCS	BC60750-BS1	P5014297.D	03/15/16 11:03
LCS Dup	BC60750-BSD1	P5014298.D	03/15/16 11:19
04/FB20160309	16C0466-04	P5014299.D	03/15/16 11:34
Calibration Check	Y6C1616-CCV4	P5014305.D	03/15/16 14:33
Calibration Check	Y6C1616-CCV5	P5014317.D	03/15/16 18:59
Calibration Check	Y6C1616-CCV6	P5014335.D	03/15/16 23:36

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8081B**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Sequence: Y6C1710 Instrument: GC Dual E
Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1710-CCV1	P5014337.D	03/16/16 09:48
Calibration Check	Y6C1710-CCV2	P5014338.D	03/16/16 10:04
Calibration Check	Y6C1710-CCV4	P5014356.D	03/16/16 14:36
Blank	BC60827-BLK1	P5014357.D	03/16/16 15:41
LCS	BC60827-BS1	P5014358.D	03/16/16 15:56
Calibration Check	Y6C1710-CCV5	P5014373.D	03/16/16 19:59

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8081B**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1810Instrument: GC Dual ECalibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1810-CCV1	P5014375.D	03/17/16 09:31
Calibration Check	Y6C1810-CCV2	P5014376.D	03/17/16 09:46
01/LSB-3	16C0466-01	P5014378.D	03/17/16 10:16
02/DUP	16C0466-02	P5014379.D	03/17/16 10:31
03/LSB-3	16C0466-03	P5014380.D	03/17/16 10:46
Calibration Check	Y6C1810-CCV4	P5014397.D	03/17/16 15:02
Calibration Check	Y6C1810-CCV5	P5014412.D	03/17/16 18:53
Calibration Check	Y6C1810-CCV6	P5014425.D	03/17/16 22:09

FORM I

METHOD BLANK DATA SHEET

EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: BC60750-BLK1 File ID: P5014296.D
 Prepared: 03/15/16 06:25 Preparation: EPA SW846-3510C Low Le Initial/Final: 1000 mL / 1 mL
 Analyzed: 03/15/16 10:48 Instrument: GC Dual E
 Batch: BC60750 Sequence: Y6C1616 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
72-54-8	4,4'-DDD	0.00400	U
72-55-9	4,4'-DDE	0.00400	U
50-29-3	4,4'-DDT	0.00400	U
309-00-2	Aldrin	0.00400	U
319-84-6	alpha-BHC	0.00400	U
5103-71-9	alpha-Chlordane	0.00400	U
319-85-7	beta-BHC	0.00400	U
57-74-9	Chlordane, total	0.0400	U
319-86-8	delta-BHC	0.00400	U
60-57-1	Dieldrin	0.00200	U
959-98-8	Endosulfan I	0.00400	U
33213-65-9	Endosulfan II	0.00400	U
1031-07-8	Endosulfan sulfate	0.00400	U
72-20-8	Endrin	0.00400	U
7421-93-4	Endrin aldehyde	0.0100	U
53494-70-5	Endrin ketone	0.0100	U
58-89-9	gamma-BHC (Lindane)	0.00400	U
5566-34-7	gamma-Chlordane	0.0100	U
76-44-8	Heptachlor	0.00400	U
1024-57-3	Heptachlor epoxide	0.00400	U
72-43-5	Methoxychlor	0.00400	U
8001-35-2	Toxaphene	0.100	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.201	0.0930	46.3	30 - 120	
Decachlorobiphenyl	0.207	0.116	56.1	30 - 120	

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014296.D\ECD1A.CH Vial: 9
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014296.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:48 am Operator: AMC
 Sample : BC60750-BLK1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 14:25 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

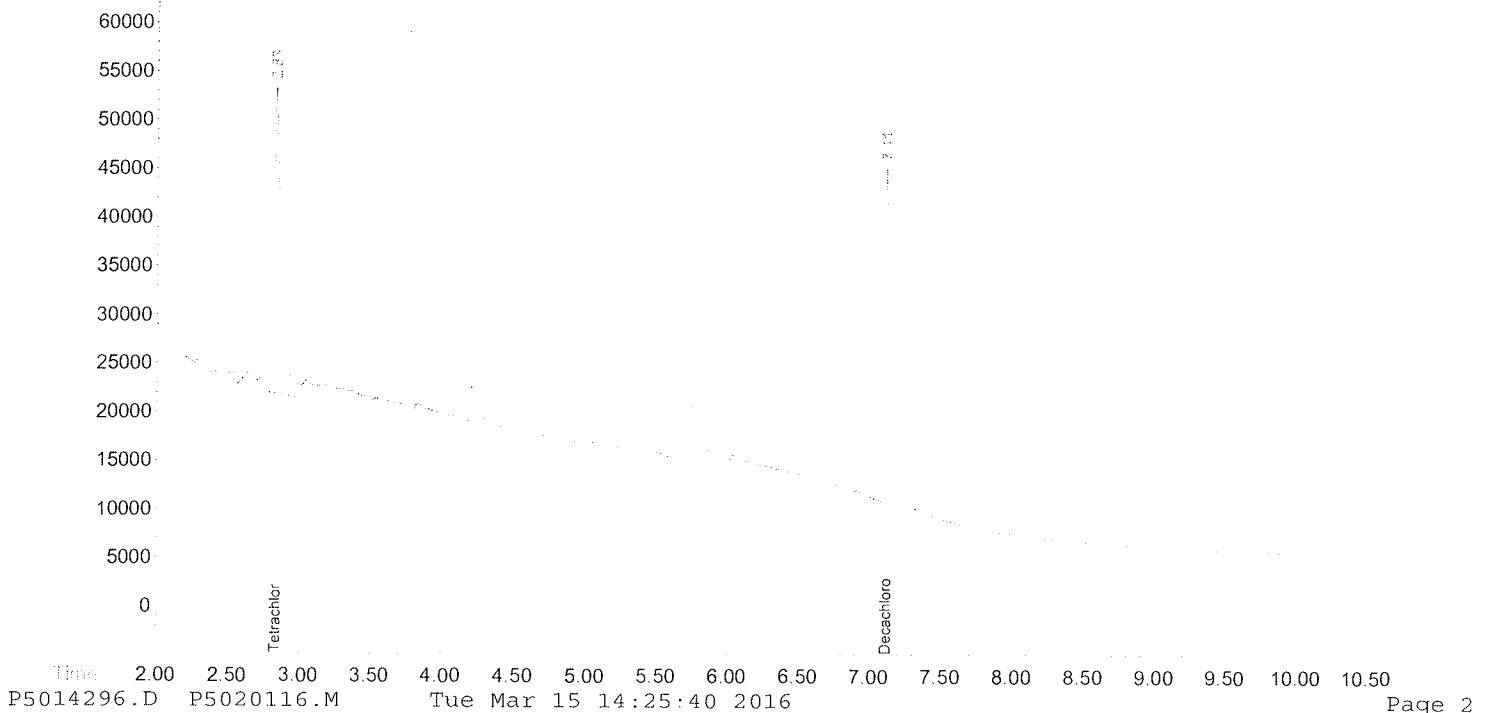
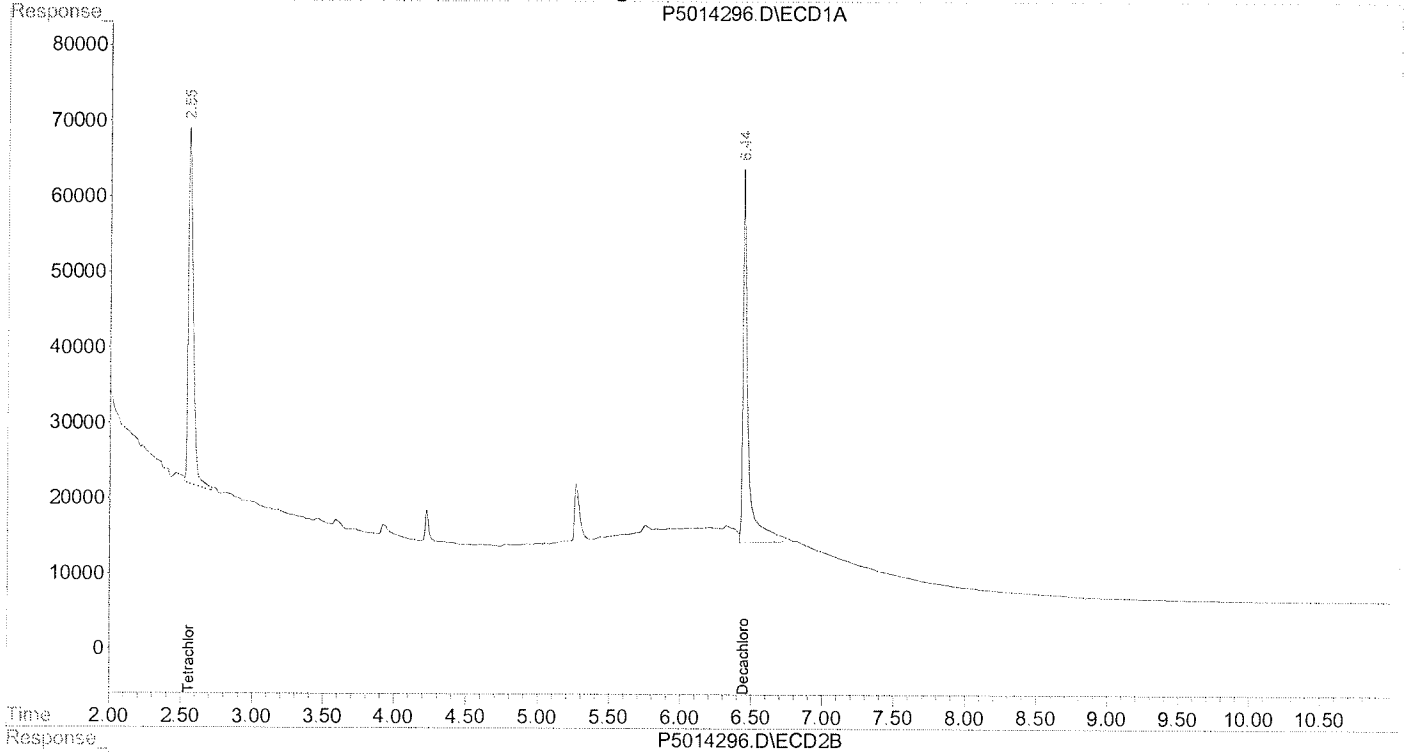
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.83	1143627	986482	92.979	95.117
Spiked Amount	200.000	Range	30 - 150	Recovery	= 46.49%	47.56%
24) SA Decachlorobiphen	6.45	7.11	1256481	988596	116.116	100.736m
Spiked Amount	200.000	Range	30 - 150	Recovery	= 58.06%	50.37%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D.	N.D.
4) M beta-BHC	0.00	0.00	0	0	N.D.	N.D.
5) M delta-BHC	0.00	0.00	0	0	N.D.	N.D.
6) M Heptachlor	0.00	0.00	0	0	N.D. d	N.D.
7) M Aldrin	0.00	0.00	0	0	N.D.	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D.	N.D.
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D.
10) M gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11) M alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
13) M 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
14) M Dieldrin	0.00	0.00	0	0	N.D.	N.D.
15) M Endrin	0.00	0.00	0	0	N.D.	N.D.
16) M 4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17) M Endosulfan II	0.00	0.00	0	0	N.D. d	N.D.
18) M 4,4'-DDT	0.00	0.00	0	0	N.D.	N.D. d
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D. d
20) M Methoxychlor	0.00	0.00	0	0	N.D. d	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D.
23) M Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014296.D\ECD1A.CH Vial: 9
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014296.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:48 am Operator: AMC
 Sample : BC60750-BLK1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 14:25 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

METHOD BLANK DATA SHEET EPA 8081B

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: BC60827-BLK1 File ID: P5014357.D
 Prepared: 03/16/16 07:30 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Analyzed: 03/16/16 15:41 Instrument: GC Dual E
 Batch: BC60827 Sequence: Y6C1710 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
72-54-8	4,4'-DDD	0.000495	U
72-55-9	4,4'-DDE	0.000495	U
50-29-3	4,4'-DDT	0.000495	U
309-00-2	Aldrin	0.000495	U
319-84-6	alpha-BHC	0.000495	U
5103-71-9	alpha-Chlordane	0.000495	U
319-85-7	beta-BHC	0.000495	U
57-74-9	Chlordane, total	0.0198	U
319-86-8	delta-BHC	0.000495	U
60-57-1	Dieldrin	0.000495	U
959-98-8	Endosulfan I	0.000495	U
33213-65-9	Endosulfan II	0.000495	U
1031-07-8	Endosulfan sulfate	0.000495	U
72-20-8	Endrin	0.000495	U
7421-93-4	Endrin aldehyde	0.000495	U
53494-70-5	Endrin ketone	0.000495	U
58-89-9	gamma-BHC (Lindane)	0.000495	U
5566-34-7	gamma-Chlordane	0.000495	U
76-44-8	Heptachlor	0.000495	U
1024-57-3	Heptachlor epoxide	0.000495	U
72-43-5	Methoxychlor	0.00248	U
8001-35-2	Toxaphene	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.100	0.110	110	30 - 140	
Decachlorobiphenyl	0.104	0.0837	80.9	30 - 140	

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031616\P5014357.D\ECD1A.CH Vial: 21
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014357.D\ECD2B.CH
 Acq On : 16 Mar 2016 3:41 pm Operator: AMC
 Sample : BC60827-BLK1 Inst : GC DUAL E
 Misc : QBPEST5-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:04 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Wed Mar 16 10:41:20 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

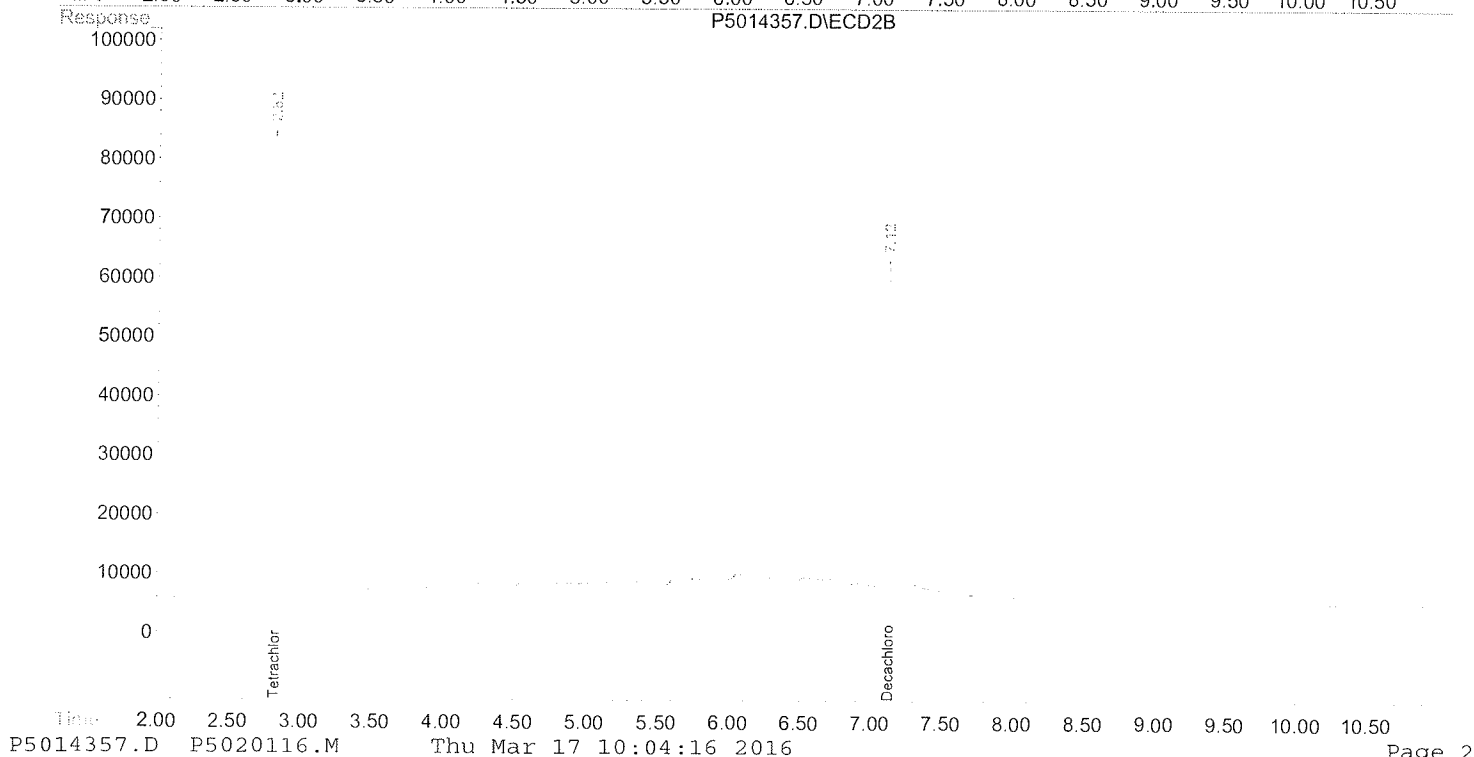
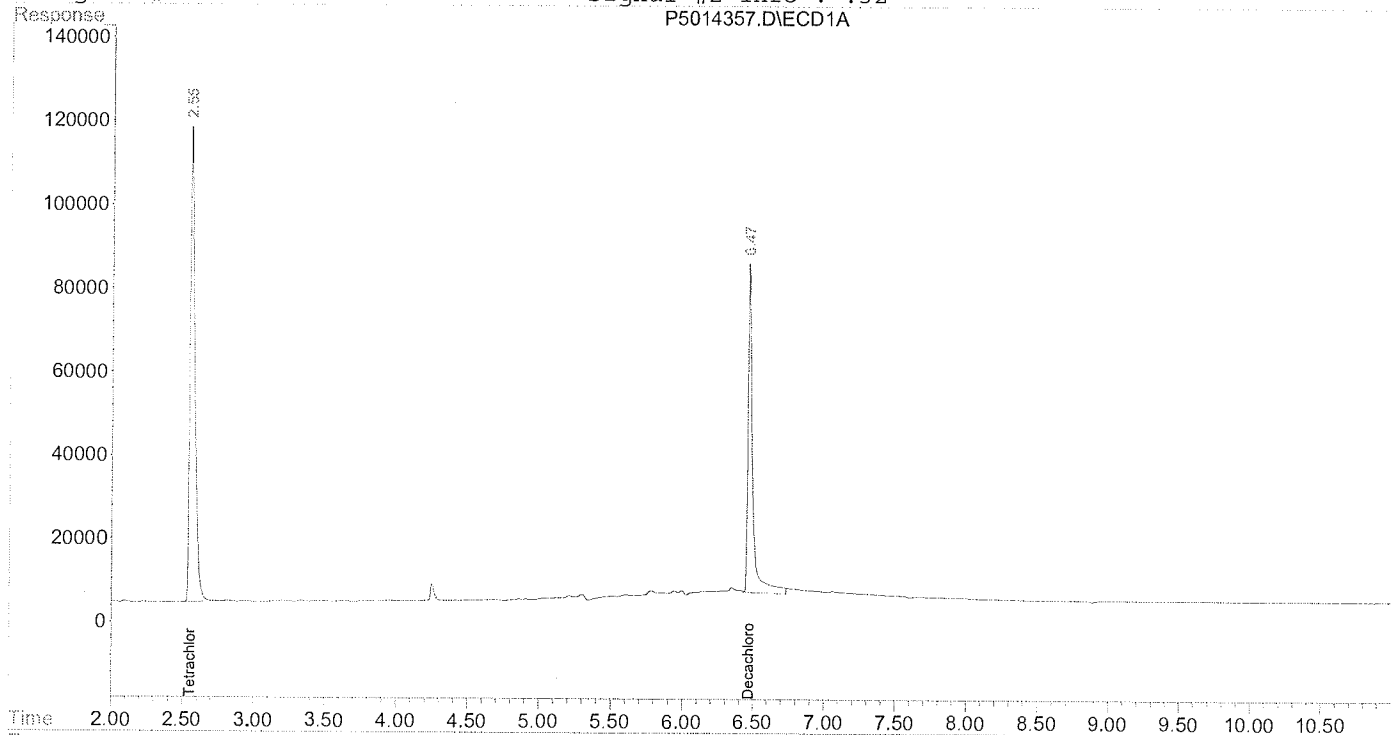
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.82	2711494	2242325	220.449	216.206
Spiked Amount	200.000	Range	30 - 150	Recovery =	110.22%	108.10%
24) SA Decachlorobiphen	6.47f	7.12	1811631	1646173	167.420m	167.741m
Spiked Amount	200.000	Range	30 - 150	Recovery =	83.71%	83.87%
Target Compounds						
2) M alpha-BHC	0.00	0.00	0	0	N.D. d	N.D. d
3) M gamma-BHC (Linda	0.00	0.00	0	0	N.D.	N.D.
4) M beta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
5) M delta-BHC	0.00	0.00	0	0	N.D. d	N.D. d
6) M Heptachlor	0.00	0.00	0	0	N.D. d	N.D. d
7) M Aldrin	0.00	0.00	0	0	N.D. d	N.D. d
8) M Alachlor	0.00	0.00	0	0	N.D. d	N.D. d
9) M Heptachlor Epoxi	0.00	0.00	0	0	N.D.	N.D. d
10) M gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D. d
11) M alpha-Chlordane	0.00	0.00	0	0	N.D. d	N.D.
12) M Endosulfan I	0.00	0.00	0	0	N.D. d	N.D. d
13) M 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D. d
14) M Dieldrin	0.00	0.00	0	0	N.D. d	N.D. d
15) M Endrin	0.00	0.00	0	0	N.D. d	N.D. d
16) M 4,4'-DDD	0.00	0.00	0	0	N.D. d	N.D. d
17) M Endosulfan II	0.00	0.00	0	0	N.D. d	N.D. d
18) M 4,4'-DDT	0.00	0.00	0	0	N.D.	N.D. d
19) M Endrin Aldehyde	0.00	0.00	0	0	N.D. d	N.D. d
20) M Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	0.00	0.00	0	0	N.D. d	N.D. d
23) M Endrin Ketone	0.00	0.00	0	0	N.D. d	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P5014357.D\ECD1A.CH Vial: 21
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014357.D\ECD2B.CH
 Acq On : 16 Mar 2016 3:41 pm Operator: AMC
 Sample : BC60827-BLK1 Inst : GC DUAL E
 Misc : QBPEST5-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:04 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Wed Mar 16 10:41:20 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterBatch: BC60750Laboratory ID: BC60750-BS1Preparation: EPA SW846-3510C Low LevelInitial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
4,4'-DDD	0.100	0.0958	95.8	40 - 120
4,4'-DDE	0.100	0.0892	89.2	40 - 120
4,4'-DDT	0.100	0.0786	78.6	40 - 120
Aldrin	0.100	0.0572	57.2	40 - 120
alpha-BHC	0.100	0.0671	67.1	40 - 120
alpha-Chlordane	0.100	0.0739	73.9	40 - 120
beta-BHC	0.100	0.0704	70.4	40 - 120
delta-BHC	0.100	0.0720	72.0	40 - 120
Dieldrin	0.100	0.0768	76.8	40 - 120
Endosulfan I	0.100	0.0751	75.1	40 - 120
Endosulfan II	0.100	0.0869	86.9	40 - 120
Endosulfan sulfate	0.100	0.0734	73.4	40 - 120
Endrin	0.100	0.0936	93.6	40 - 120
Endrin aldehyde	0.100	0.0800	80.0	40 - 120
Endrin ketone	0.100	0.0885	88.5	40 - 120
gamma-BHC (Lindane)	0.100	0.0706	70.6	40 - 120
gamma-Chlordane	0.100	0.0728	72.8	40 - 120
Heptachlor	0.100	0.0653	65.3	40 - 120
Heptachlor epoxide	0.100	0.0752	75.2	40 - 120
Methoxychlor	0.100	0.0989	98.9	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Batch: BC60750

Laboratory ID: BC60750-BSD1

Preparation: EPA SW846-3510C Low Level

Initial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
4,4'-DDD	0.100	0.0710	71.0	29.7	30	40 - 120
4,4'-DDE	0.100	0.0801	80.1	10.8	30	40 - 120
4,4'-DDT	0.100	0.0744	74.4	5.59	30	40 - 120
Aldrin	0.100	0.0574	57.4	0.195	30	40 - 120
alpha-BHC	0.100	0.0687	68.7	2.34	30	40 - 120
alpha-Chlordane	0.100	0.0701	70.1	5.29	30	40 - 120
beta-BHC	0.100	0.0685	68.5	2.77	30	40 - 120
delta-BHC	0.100	0.0696	69.6	3.44	30	40 - 120
Dieldrin	0.100	0.0724	72.4	5.95	30	40 - 120
Endosulfan I	0.100	0.0713	71.3	5.10	30	40 - 120
Endosulfan II	0.100	0.0741	74.1	15.9	30	40 - 120
Endosulfan sulfate	0.100	0.0717	71.7	2.37	30	40 - 120
Endrin	0.100	0.0799	79.9	15.7	30	40 - 120
Endrin aldehyde	0.100	0.0750	75.0	6.47	30	40 - 120
Endrin ketone	0.100	0.0855	85.5	3.47	30	40 - 120
gamma-BHC (Lindane)	0.100	0.0716	71.6	1.45	30	40 - 120
gamma-Chlordane	0.100	0.0684	68.4	6.30	30	40 - 120
Heptachlor	0.100	0.0660	66.0	0.976	30	40 - 120
Heptachlor epoxide	0.100	0.0712	71.2	5.53	30	40 - 120
Methoxychlor	0.100	0.0834	83.4	16.9	30	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III
LCS / LCS DUPLICATE RECOVERY
EPA 8081B

 Laboratory: York Analytical Laboratories, Inc.

 SDG: 16C0466

 Client: Langan Engineering & Environmental Services (NJ)

 Project: 100433202

 Matrix: Soil

 Batch: BC60827

 Laboratory ID: BC60827-BS1

 Preparation: EPA 3545A

 Initial/Final: 20 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
4,4'-DDD	0.0500	0.0611	122	40 - 140
4,4'-DDE	0.0500	0.0644	129	40 - 140
4,4'-DDT	0.0500	0.0610	122	40 - 140
Aldrin	0.0500	0.0605	121	40 - 140
alpha-BHC	0.0500	0.0614	123	40 - 140
alpha-Chlordane	0.0500	0.0591	118	40 - 140
beta-BHC	0.0500	0.0637	127	40 - 140
delta-BHC	0.0500	0.0627	125	40 - 140
Dieldrin	0.0500	0.0618	124	40 - 140
Endosulfan I	0.0500	0.0588	118	40 - 140
Endosulfan II	0.0500	0.0605	121	40 - 140
Endosulfan sulfate	0.0500	0.0594	119	40 - 140
Endrin	0.0500	0.0614	123	40 - 140
Endrin aldehyde	0.0500	0.0573	115	40 - 140
Endrin ketone	0.0500	0.0631	126	40 - 140
gamma-BHC (Lindane)	0.0500	0.0647	129	40 - 140
gamma-Chlordane	0.0500	0.0603	121	40 - 140
Heptachlor	0.0500	0.0606	121	40 - 140
Heptachlor epoxide	0.0500	0.0609	122	40 - 140
Methoxychlor	0.0500	0.0602	120	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014297.D\ECD1A.CH Vial: 10
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014297.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:03 am Operator: AMC
 Sample : BC60750-BS1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 14:27 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Mar 15 09:45:50 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

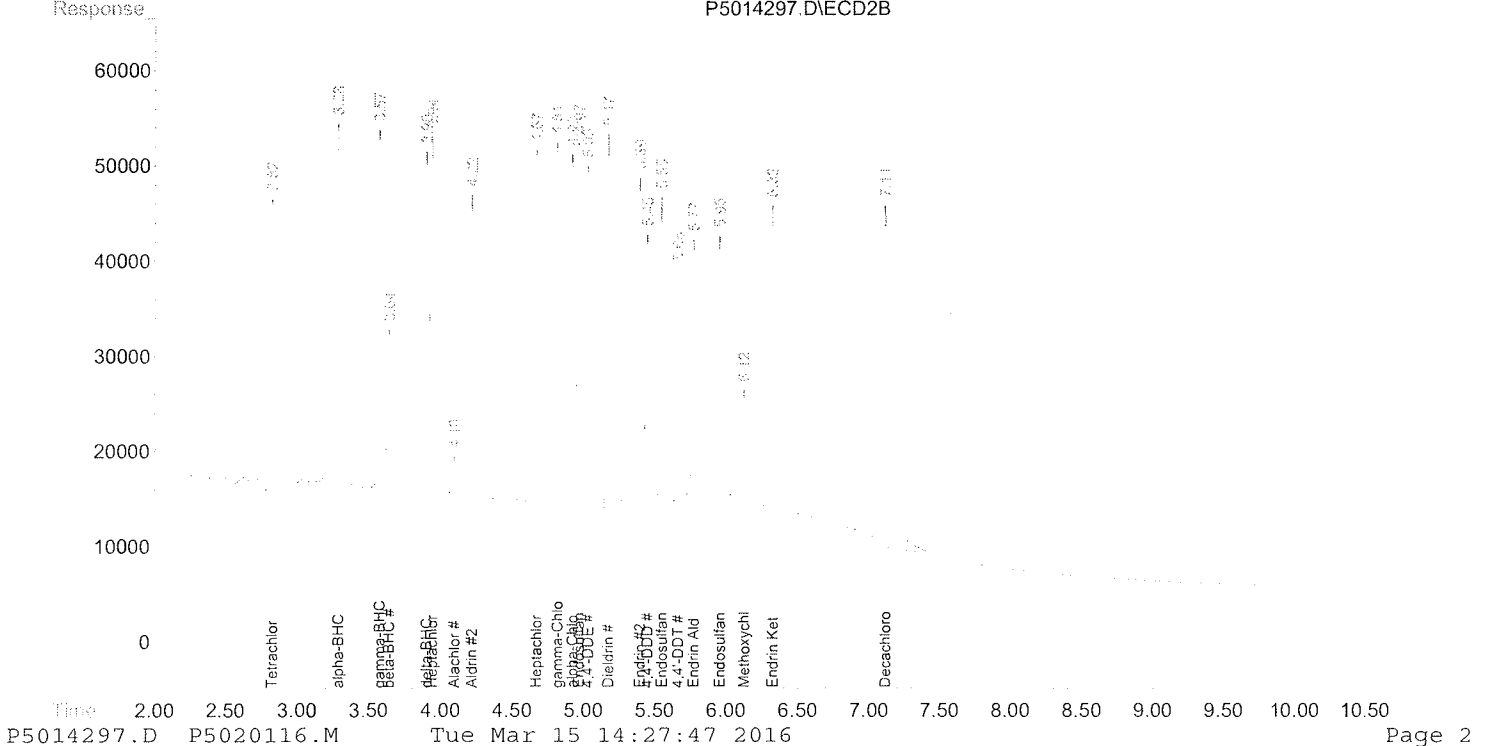
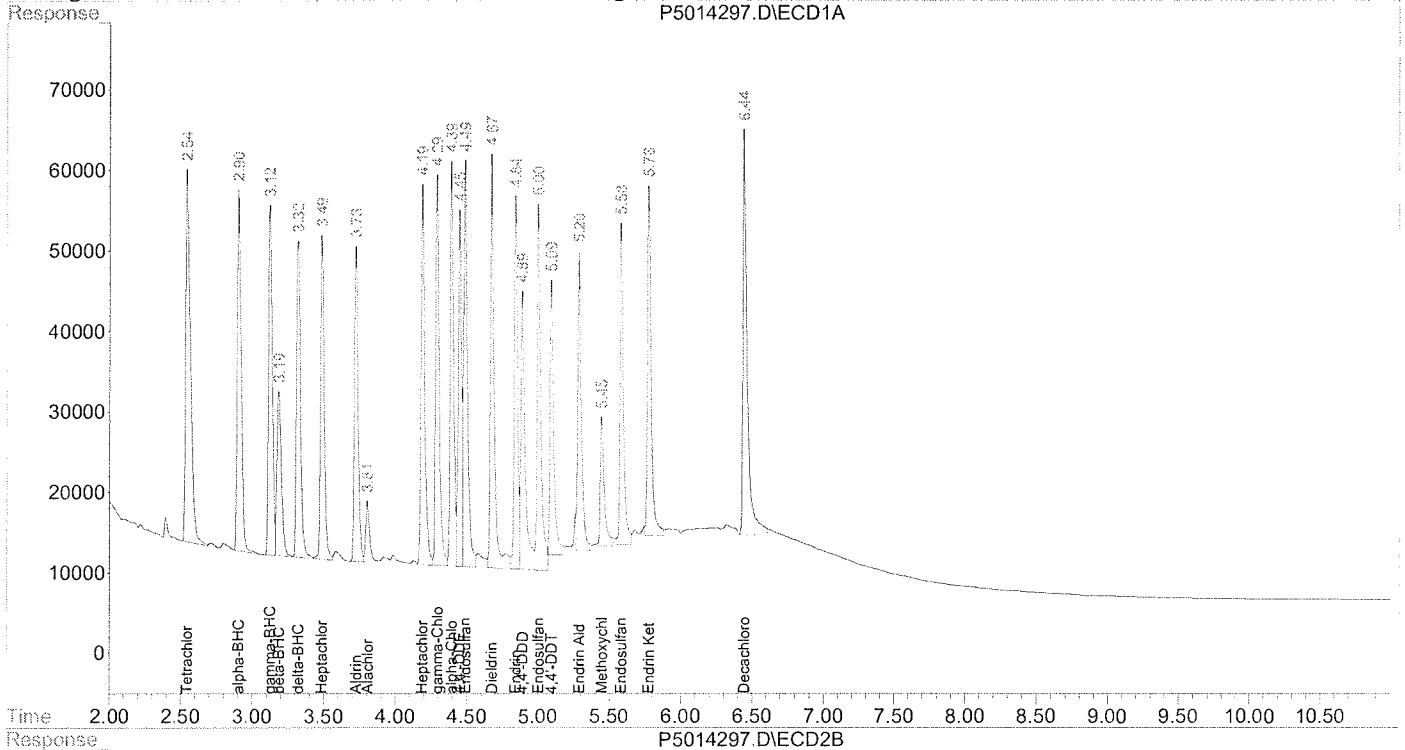
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.82	1105564	953865	89.884	91.972
Spiked Amount	200.000	Range	30 - 150	Recovery	=	44.94% 45.99%
24) SA Decachlorobiphen	6.44	7.11	1064608	986341	98.384m	100.506m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	49.19% 50.25%
Target Compounds						
2) M alpha-BHC	2.91	3.28	869888	928645	67.089	66.479
3) M gamma-BHC (Linda	3.12	3.58	795367	828939	70.578	67.787
4) M beta-BHC	3.19	3.64	451974	544930	70.373	70.277
5) M delta-BHC	3.32	3.90	765343	623938	72.039	70.838
6) M Heptachlor	3.49	3.94	710901	889749	65.325	71.478
7) M Aldrin	3.73	4.22	680787	777739	57.244	61.575
8) M Alachlor	3.81	4.10	143566	192048	56.870	99.584 #
9) M Heptachlor Epoxi	4.19	4.67	816611	831034	75.207	79.768
10) M gamma-Chlordane	4.29	4.81	838738	866047	72.798	79.199
11) M alpha-Chlordane	4.40	4.92	824512	693660	73.874	71.683
12) M Endosulfan I	4.49	4.97	949122	811346	75.058	76.091
13) M 4,4'-DDE	4.45	5.03	693720	940030	89.150	91.321
14) M Dieldrin	4.68	5.17	867877	786134	76.814	71.497m
15) M Endrin	4.84	5.39	722796	596368	93.594	86.699m
16) M 4,4'-DDD	4.89	5.45	719496	725672	95.764	98.700
17) M Endosulfan II	5.01	5.55	812805	804893	86.882	89.014
18) M 4,4'-DDT	5.09	5.66	595348	474952	78.623m	75.550m
19) M Endrin Aldehyde	5.29	5.77	663191	697101	80.040m	86.770m
20) M Methoxychlor	5.45	6.12	310879	278936	98.873m	93.071m
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	5.58	5.95	673124	539387	73.383m	74.308m
23) M Endrin Ketone	5.78	6.32	751035	982201	88.534m	87.700

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014297.D\ECD1A.CH Vial: 10
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014297.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:03 am Operator: AMC
 Sample : BC60750-BS1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 14:27 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Tue Mar 15 09:45:50 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P5014298.D\ECD1A.CH Vial: 11
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014298.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:19 am Operator: AMC
 Sample : BC60750-BSD1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 9:38 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

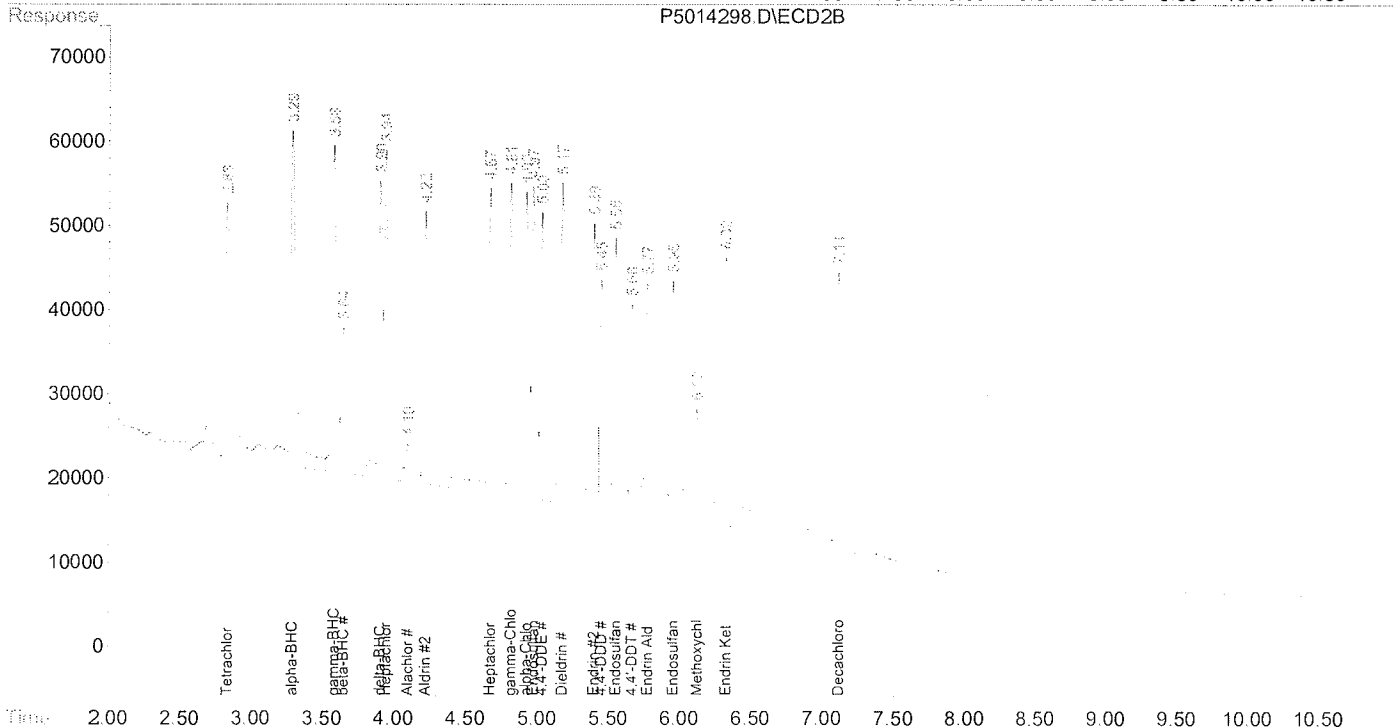
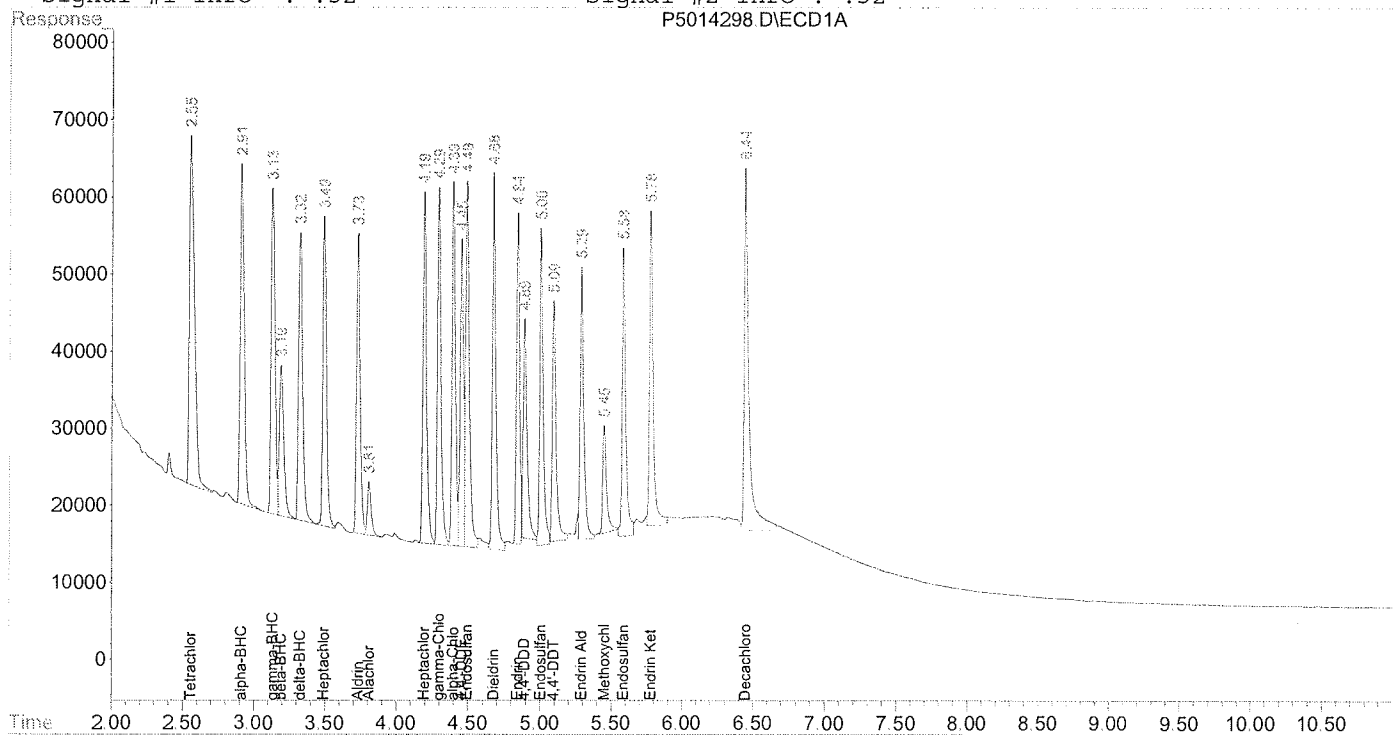
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.55	2.83	1142909	982235	92.921	94.708
Spiked Amount	200.000	Range	30 - 150	Recovery	=	46.46%
24) SA Decachlorobiphen	6.44	7.11	1098211	971582	101.490m	99.002m
Spiked Amount	200.000	Range	30 - 150	Recovery	=	50.74%
Target Compounds						
2) M alpha-BHC	2.91	3.29	890517	1009788	68.679	72.288
3) M gamma-BHC (Linda	3.13	3.58	807020	840818	71.612	68.758
4) M beta-BHC	3.19	3.65	439641	555324	68.453	71.617
5) M delta-BHC	3.33	3.91	739474	598892	69.604	67.995
6) M Heptachlor	3.49	3.95	717875	907047	65.966	72.868
7) M Aldrin	3.73	4.22	682120	811263	57.356	64.230
8) M Alachlor	3.81	4.10	130348	106284	51.635	55.112m
9) M Heptachlor Epoxi	4.20	4.67	772682	789624	71.161	75.793
10) M gamma-Chlordane	4.30	4.82	787538	802077	68.354	73.349
11) M alpha-Chlordane	4.40	4.92	782034	655438	70.068	67.733
12) M Endosulfan I	4.49	4.97	901960	769704	71.328	72.186
13) M 4,4'-DDE	4.46	5.03	622943	861983	80.054	83.739
14) M Dieldrin	4.68	5.17	817764	757241	72.378	68.869m
15) M Endrin	4.84	5.39	617376	534172	79.943m	77.657m
16) M 4,4'-DDD	4.89	5.45	533638	547923	71.026m	74.524m
17) M Endosulfan II	5.00	5.55	692796	663955	74.054m	73.427m
18) M 4,4'-DDT	5.09	5.66	563003	469107	74.351m	74.620m
19) M Endrin Aldehyde	5.29	5.77	621644	613085	75.025m	76.313m
20) M Methoxychlor	5.45	6.12	262326	246139	83.431m	82.128m
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	5.58	5.95	657359	533147	71.664m	73.449m
23) M Endrin Ketone	5.78	6.32	725380	885412	85.510m	79.058

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P5014298.D\ECD1A.CH Vial: 11
 Signal #2 : C:\HPCHEM\1\DATA\031516\P5014298.D\ECD2B.CH
 Acq On : 15 Mar 2016 11:19 am Operator: AMC
 Sample : BC60750-BSD1 Inst : GC DUAL E
 Misc : QBPEST5-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 9:38 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower,dual det
 Last Update : Tue Feb 02 09:37:14 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031616\P5014358.D\ECD1A.CH Vial: 22
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014358.D\ECD2B.CH
 Acq On : 16 Mar 2016 3:56 pm Operator: AMC
 Sample : BC60827-BS1 Inst : GC DUAL E
 Misc : QBPEST5-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:07 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Wed Mar 16 10:41:20 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL

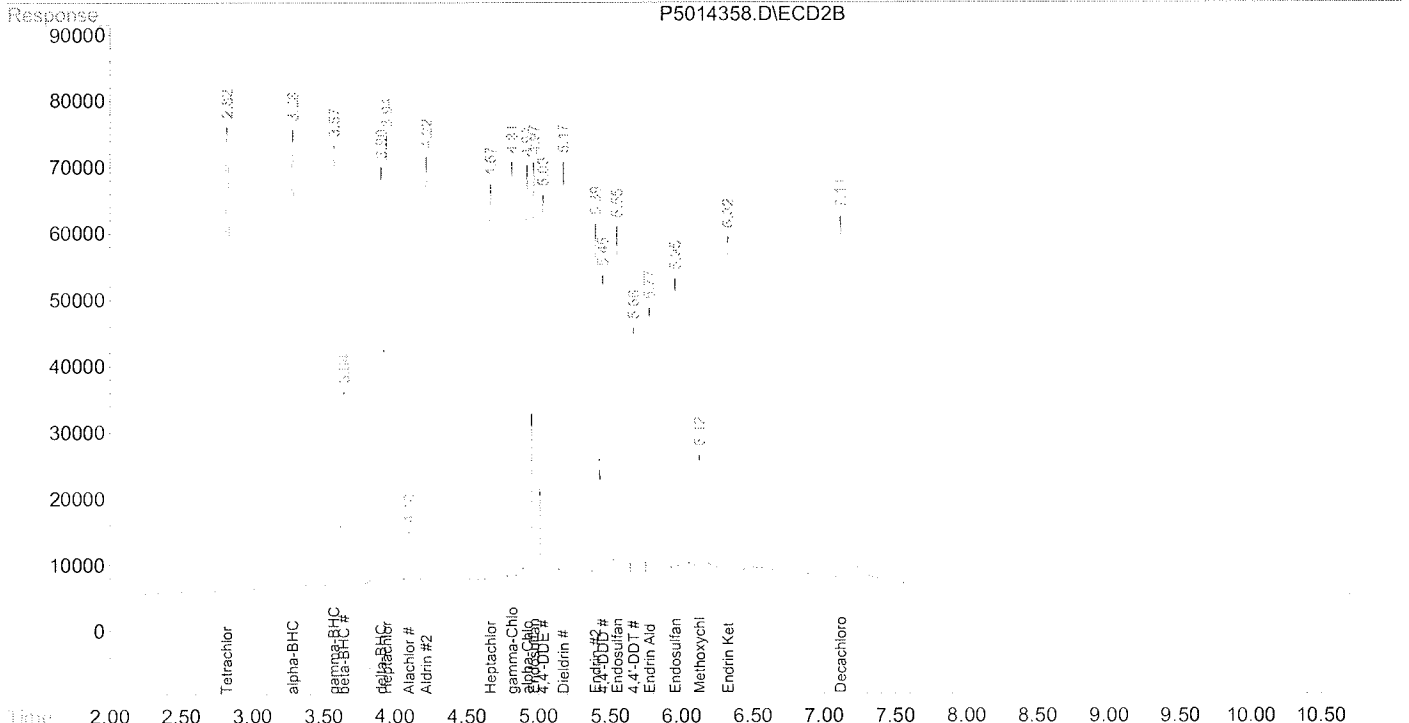
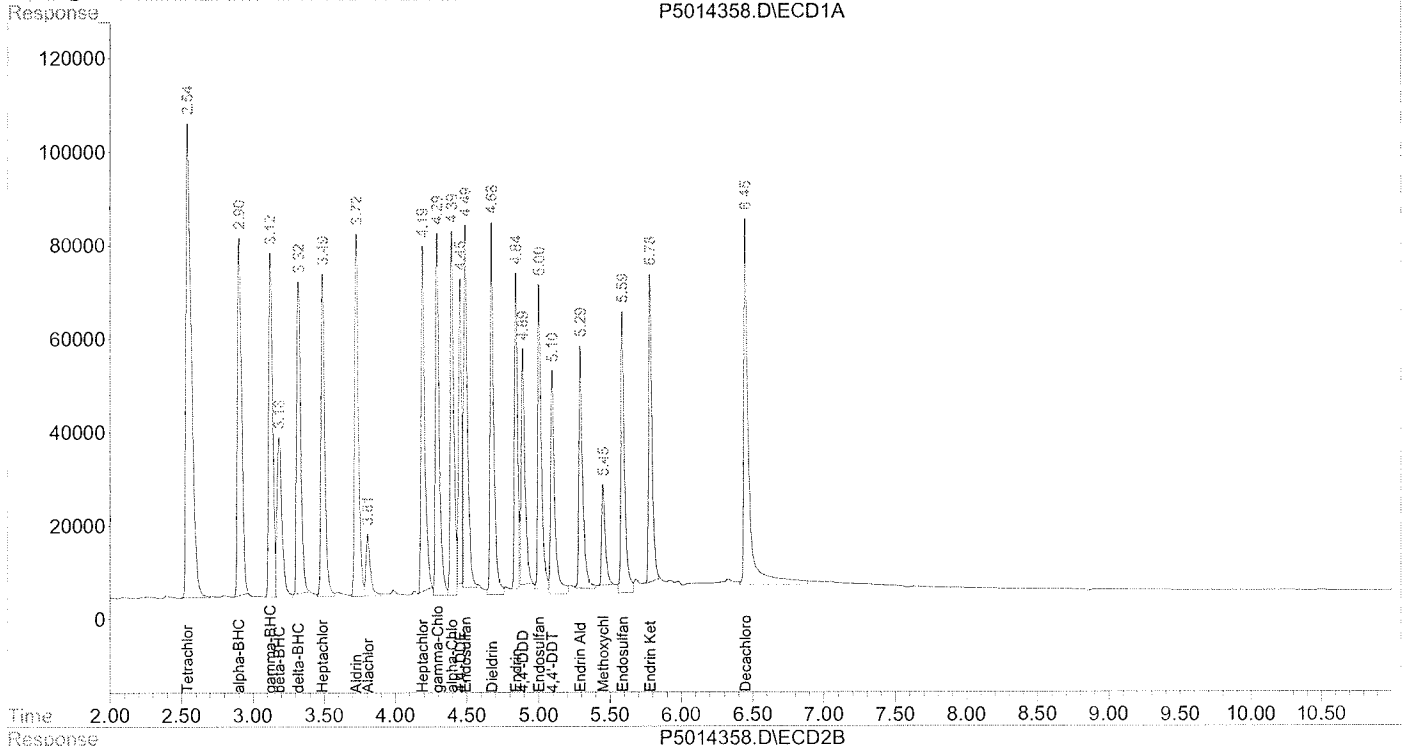
System Monitoring Compounds						
1) SA Tetrachloro-m-xy	2.54	2.82	2749811	2154532	223.565	207.741
Spiked Amount	200.000	Range	30 - 150	Recovery =	111.78%	103.87%
24) SA Decachlorobiphen	6.45	7.11	1901888	1623729	175.761m	165.454m
Spiked Amount	200.000	Range	30 - 150	Recovery =	87.88%	82.73%
Target Compounds						
2) M alpha-BHC	2.90	3.28	1591494	1627473	122.741m	116.506
3) M gamma-BHC (Linda	3.12	3.57	1458244	1533424	129.400	125.396
4) M beta-BHC	3.18	3.64	818407	898940	127.427	115.931
5) M delta-BHC	3.32	3.90	1332151	1072450	125.390m	121.760
6) M Heptachlor	3.49	3.94	1319364	1465705	121.237	117.748m
7) M Aldrin	3.73	4.22	1439829	1444914	121.068	114.397m
8) M Alachlor	3.81	4.10	283746	200681	112.400	104.060m
9) M Heptachlor Epoxi	4.19	4.67	1323344	1221437	121.875m	117.242m
10) M gamma-Chlordane	4.29	4.81	1388791	1285828	120.540	117.587m
11) M alpha-Chlordane	4.40	4.92	1320179	1104165	118.285	114.104m
12) M Endosulfan I	4.49	4.97	1486879	1220120	117.584m	114.428m
13) M 4,4'-DDE	4.45	5.03	1001685	1274012	128.726m	123.766m
14) M Dieldrin	4.68	5.17	1396010	1305022	123.557	118.688m
15) M Endrin	4.84	5.39	948099	862111	122.768m	125.333m
16) M 4,4'-DDD	4.89	5.45	918023	905875	122.188m	123.209m
17) M Endosulfan II	5.00	5.55	1132131	1111896	121.015m	122.965m
18) M 4,4'-DDT	5.10	5.66	923338	742472	121.938	118.104m
19) M Endrin Aldehyde	5.29	5.77	950223	919067	114.681m	114.399m
20) M Methoxychlor	5.45	6.12	378820	331127	120.481m	110.486m
21) M Mirex	0.00	0.00	0	0	N.D. d	N.D. d
22) M Endosulfan sulfa	5.59	5.95	1090261	854924	118.858	117.778m
23) M Endrin Ketone	5.78	6.33	1070793	1354980	126.228m	120.985

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P5014358.D\ECD1A.CH Vial: 22
 Signal #2 : C:\HPCHEM\1\DATA\031616\P5014358.D\ECD2B.CH
 Acq On : 16 Mar 2016 3:56 pm Operator: AMC
 Sample : BC60827-BS1 Inst : GC DUAL E
 Misc : QBPEST5-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS2.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 10:07 2016 Quant Results File: P5020116.RES

Quant Method : C:\HPCHEM\1\METHODS\P5020116.M (Chemstation Integrator)
 Title : 02/01/16 - Stx-CLP & CLP2 - single tower, dual det
 Last Update : Wed Mar 16 10:41:20 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : Stx-CLPesticides Signal #2 Phase: Stx-CLPesticides2 Serial # 1124629
 Signal #1 Info : .32 Signal #2 Info : .32



PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60750

York Analytical Laboratories, Inc.

Printed: 3/21/2016 11:03:50AM

Matrix: Water

Preparation: EPA SW846-3510C Low Level

Surrogate used: Y16C096

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Herbicides Information Optional C/U(Y/N) pH after HCl	Comments
16C0466-04 E	Polychlorinated Biphen	03/15/2016 06:25	925	1				100	ppcblo	
16C0466-04 E	Pesticides, 8081 target	03/15/2016 06:25	925	1				100	ppcblo	
16C0505-01 E	Pesticides, CT RCP Tar	03/15/2016 06:25	975	1				100	ppcblo	
16C0505-02 E	Pesticides, CT RCP Tar	03/15/2016 06:25	950	1				100	ppcblo	
16C0505-03 E	Pesticides, CT RCP Tar	03/15/2016 06:25	975	1				100	ppcblo	
16C0505-03 E	Polychlorinated Biphen	03/15/2016 06:25	975	1				100	ppcblo	
16C0505-04 E	Pesticides, CT RCP Tar	03/15/2016 06:25	975	1				100	ppcblo	
16C0506-01 F	PCB (Polychlorinated B	03/15/2016 06:25	850	1				100	pcblo	
16C0514-05 E	Polychlorinated Biphen	03/15/2016 06:25	850	1				100	ppcblo	
16C0514-05 E	Pesticides, 8081 target	03/15/2016 06:25	850	1				100	ppcblo	
16C0544-01 A	PCB (Polychlorinated B	03/15/2016 06:25	975	1				100	pcblo	
16C0544-02 A	PCB (Polychlorinated B	03/15/2016 06:25	975	1				100	pcblo	
BC60750-BLK1	QC	03/15/2016 06:25	1000	1				100	ppcblo	
BC60750-BLK2	QC	03/15/2016 06:25	1000	1				100	ppcblo	
BC60750-BS1	QC	03/15/2016 06:25	1000	1	Y16B036		100	100	ppcblo	
BC60750-BS2	QC	03/15/2016 06:25	1000	1	Y16B037		100	100	ppcblo	
BC60750-BSD1	QC	03/15/2016 06:25	1000	1	Y16B036		100	100	ppcblo	
BC60750-BSD2	QC	03/15/2016 06:25	1000	1	Y16B037		100	100	ppcblo	

PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60750

York Analytical Laboratories, Inc.

Printed: 3/21/2016 11:03:50AM

Matrix: Water Preparation: EPA SW846-3510C Low Level Surrogate used: Y16C096

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Herbicides Information		Comments
									Optional C/U(Y/N)	pH after HCl	

Reagents:

ID Number	Description	Lot Number	ID Number	Description	Lot Number
Y16A049	HEXANE	0000124859	Y16A073	Sodium Sulfate, Anhydrous	0000112050
Y16B010	Methylene Chloride HW	DP121	Y16B012	Methylene Chloride (Pest-lo Only) Special	DO063
Y16B065	Sodium Chloride, Crystal	0000121232			

PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60827

York Analytical Laboratories, Inc.

Printed: 3/21/2016 11:04:18AM

Matrix: Soil

Preparation: EPA 3545A

Surrogate used: Y16C073

Lab Number	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Herbicides Information Optional CU(Y/N) pH after HCl	Comments
16C0423-01 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		MS/MSD
16C0423-01 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		Added for BatchQC in: BC60827
16C0423-01 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		MS/MSD
16C0423-01 A	Pesticides, 8081 target	03/16/2016 07:30	20	10				100		Added for BatchQC in: BC60827
16C0423-05 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-05 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-10 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-10 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-13 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-13 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-18 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-18 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-21 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-21 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		Added for BatchQC in: BC60827
16C0423-21 A	Pesticides, 8081 target	03/16/2016 07:30	20	10				100		Added for BatchQC in: BC60827
16C0423-21 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-23 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-23 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-26 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-26 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0423-29 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10				100		
16C0423-29 A	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0466-01 E	Polychlorinated Biphen	03/16/2016 07:30	20	10				100		
16C0466-01 E	Pesticides, 8081 target	03/16/2016 07:30	20	10				100		

Preparation Performed by KNN

Date: 03/16/2016 07:30

PUF Lot no.: _____

PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60827

York Analytical Laboratories, Inc.

Printed: 3/21/2016 11:04:18AM

Preparation: EPA 3545A										Surrogate used: Y16C073	
Matrix: Soil		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Herbicides Information	
Lab Number										Optional C/U(Y/N)	pH after HCl
16C0466-02 E	Pesticides, 8081 target	03/16/2016 07:30	20	10					100		
16C0466-02 E	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0466-03 E	Pesticides, 8081 target	03/16/2016 07:30	20	10					100		
16C0466-03 E	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-01 A	Pesticides, 8081 target	03/16/2016 07:30	20	10					100		Added for BatchQC in: BC60827
16C0545-01 A	Pesticides, CT RCP Tar	03/16/2016 07:30	20	10					100		Added for BatchQC in: BC60827
16C0545-01 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		Added for BatchQC in: BC60827
16C0545-01 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-02 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-03 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-04 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-05 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-06 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-07 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
16C0545-08 A	Polychlorinated Biphen	03/16/2016 07:30	20	10					100		
BC60827-BLK1	QC	03/16/2016 07:30	20	10					100		
BC60827-BLK2	QC	03/16/2016 07:30	20	10					100		
BC60827-BS1	QC	03/16/2016 07:30	20	10	Y16B008			100	100		
BC60827-BS3	QC	03/16/2016 07:30	20	10	Y16C070			100	100		
BC60827-BSD3	QC	03/16/2016 07:30	20	10	Y16C070			100	100		
BC60827-MS1	QC	03/16/2016 07:30	20	10	Y16B008	16C0423-01		100	100		
BC60827-MS2	QC	03/16/2016 07:30	20	10	Y16B008	16C0423-21		100	100		
BC60827-MS3	QC	03/16/2016 07:30	20	10	Y16C070	16C0545-01		100	100		
BC60827-MSD1	QC	03/16/2016 07:30	20	10	Y16B008	16C0423-01		100	100		

Preparation Performed by KNN

Date: 03/16/2016 07:30

PUF Lot no.: _____

PREPARATION BENCH SHEET-SOILS/SOLIDS

BC60827

York Analytical Laboratories, Inc.

Printed: 3/21/2016 11:04:18AM

Matrix: Soil Preparation: EPA 3545A Surrogate used: Y16C073

Lab Number	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Herbicides Information Optional C/U(Y/N) pH after HCl	Comments
BC60827-MSD2	QC	03/16/2016 07:30	20	10	Y16B008	16C0423-21	100	100		

Reagents:

ID Number	Description	Lot Number	ID Number	Description	Lot Number
Y15F071	Ottawa Sand Mix	051215	Y15K028	ACETONE	0000119133
Y16A049	HEXANE	0000124859	Y16A073	Sodium Sulfate, Anhydrous	0000112050

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031516.S
Comment: PESTICIDES - SINGLE TOWER, DUAL DETECTORS
Operator: AMC
Data Path: C:\HPCHEM\1\DATA\031516\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	P5014288	PEST	SEQ-BKD1
2	Sample	2	P5014289	PEST	SEQ-CCV1
3	Sample	3	P5014290	PEST	SEQ-CCV2
4	Sample	4	P5014291	PEST	SEQ-CCV3
5	Sample	5	P5014292	PEST	BC60758-BLK1
6	Sample	6	P5014293	PEST	BC60758-BS1
7	Sample	7	P5014294	PEST	BC60758-BSD1
8	Sample	8	P5014295	PEST	16C0540-01
9	Sample	9	P5014296	PEST	BC60750-BLK1
10	Sample	10	P5014297	PEST	BC60750-BS1
11	Sample	11	P5014298	PEST	BC60750-BSD1
12	Sample	12	P5014299	PEST	16C0466-04
13	Sample	13	P5014300	PEST	16C0505-01
14	Sample	14	P5014301	PEST	16C0514-05
15	Sample	15	P5014302	PEST	16C0505-02
16	Sample	16	P5014303	PEST	16C0505-03
17	Sample	17	P5014304	PEST	16C0505-04
18	Sample	2	P5014305	PEST	SEQ-CCV4
19	Sample	18	P5014306	PEST	BC60728-BLK1
20	Sample	19	P5014307	PEST	BC60728-BS1
21	Sample	20	P5014308	PEST	BC60728-BSD1
22	Sample	21	P5014309	PEST	BC60730-BLK1
23	Sample	22	P5014310	PEST	BC60730-BS1
24	Sample	23	P5014311	PEST	BC60730-BSD1
25	Sample	24	P5014312	PEST	16C0017-02
26	Sample	25	P5014313	PEST	16C0346-01
27	Sample	26	P5014314	PEST	16C0346-03
28	Sample	27	P5014315	PEST	16C0399-01
29	Sample	1	P5014316	PEST	SEQ-BKD2
30	Sample	2	P5014317	PEST	SEQ-CCV5
31	Sample	28	P5014318	PEST	16C0399-02
32	Sample	29	P5014319	PEST	16C0399-03
33	Sample	30	P5014320	PEST	BC60728-MS1
34	Sample	31	P5014321	PEST	16C0456-03
35	Sample	32	P5014322	PEST	16C0403-02
36	Sample	33	P5014323	PEST	16C0403-05
37	Sample	34	P5014324	PEST	16C0403-07
38	Sample	35	P5014325	PEST	BC60730-MS1
39	Sample	36	P5014326	PEST	BC60730-MSD1
40	Sample	37	P5014327	PEST	16C0403-10
41	Sample	38	P5014328	PEST	16C0403-14
42	Sample	39	P5014329	PEST	16C0403-21
43	Sample	40	P5014330	PEST	16C0403-24

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031516.S

Line Type	Vial	DataFile	Method	Sample Name
44 Sample	41	P5014331	PEST	16C0403-25
45 Sample	42	P5014332	PEST	16C0407-19
46 Sample	43	P5014333	PEST	16C0407-20
47 Sample	44	P5014334	PEST	16C0407-21
48 Sample	2	P5014335	PEST	SEQ-CCV6

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031616.S
Comment: PESTICIDES - SINGLE TOWER, DUAL DETECTORS
Operator: AMC
Data Path: C:\HPCHEM\1\DATA\031616\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	P5014336	PEST	SEQ-BKD1
2	Sample	2	P5014337	PEST	SEQ-CCV1
3	Sample	3	P5014338	PEST	SEQ-CCV2
4	Sample	4	P5014339	PEST	SEQ-CCV3
5	Sample	5	P5014340	PEST	BC60819-BLK1
6	Sample	6	P5014341	PEST	BC60819-BS1
7	Sample	7	P5014342	PEST	BC60819-BSD1
8	Sample	8	P5014343	PEST	16C0547-04
9	Sample	9	P5014344	PEST	16C0017-04
10	Sample	10	P5014345	PEST	16C0407-11
11	Sample	11	P5014346	PEST	16C0407-12
12	Sample	12	P5014347	PEST	16C0407-13
13	Sample	13	P5014348	PEST	16C0407-14
14	Sample	14	P5014349	PEST	16C0407-15
15	Sample	15	P5014350	PEST	16C0407-16
16	Sample	16	P5014351	PEST	16C0407-17
17	Sample	17	P5014352	PEST	16C0407-18
18	Sample	18	P5014353	PEST	16C0407-22
19	Sample	19	P5014354	PEST	16C0456-01
20	Sample	20	P5014355	PEST	BC60758-MS1
21	Sample	2	P5014356	PEST	SEQ-CCV4
22	Sample	21	P5014357	PEST	BC60827-BLK1
23	Sample	22	P5014358	PEST	BC60827-BS1
24	Sample	23	P5014359	PEST	16C0423-01
25	Sample	24	P5014360	PEST	BC60827-MS1
26	Sample	25	P5014361	PEST	BC60827-MSD1
27	Sample	26	P5014362	PEST	16C0423-05
28	Sample	27	P5014363	PEST	16C0423-10
29	Sample	28	P5014364	PEST	16C0423-13
30	Sample	29	P5014365	PEST	16C0423-18
31	Sample	30	P5014366	PEST	16C0423-21
32	Sample	31	P5014367	PEST	BC60827-MS2
33	Sample	32	P5014368	PEST	BC60827-MSD2
34	Sample	33	P5014369	PEST	16C0423-23
35	Sample	34	P5014370	PEST	16C0423-26
36	Sample	35	P5014371	PEST	16C0423-29
37	Sample	1	P5014372	PEST	SEQ-BKD2
38	Sample	2	P5014373	PEST	SEQ-CCV5

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031716.S
Comment: PESTICIDES - SINGLE TOWER, DUAL DETECTORS
Operator: AMC
Data Path: C:\HPCHEM\1\DATA\031716\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 Sample	1	P5014374	PEST	SEQ-BKD1
2 Sample	2	P5014375	PEST	SEQ-CCV1
3 Sample	3	P5014376	PEST	SEQ-CCV2
4 Sample	4	P5014377	PEST	SEQ-CCV3
5 Sample	5	P5014378	PEST	16C0466-01
6 Sample	6	P5014379	PEST	16C0466-02
7 Sample	7	P5014380	PEST	16C0466-03
8 Sample	8	P5014381	PEST	BC60869-BLK1
9 Sample	9	P5014382	PEST	BC60869-BS1
10 Sample	10	P5014383	PEST	BC60869-BSD1
11 Sample	11	P5014384	PEST	16C0504-01
12 Sample	12	P5014385	PEST	16C0504-05
13 Sample	13	P5014386	PEST	16C0504-11
14 Sample	14	P5014387	PEST	BC60869-MS1
15 Sample	15	P5014388	PEST	16C0504-14
16 Sample	16	P5014389	PEST	16C0504-23
17 Sample	17	P5014390	PEST	16C0504-27
18 Sample	18	P5014391	PEST	BC60894-BLK1
19 Sample	19	P5014392	PEST	BC60894-BS1
20 Sample	20	P5014393	PEST	BC60894-BSD1
21 Sample	21	P5014394	PEST	BC60902-BLK1
22 Sample	22	P5014395	PEST	BC60902-BS1
23 Sample	23	P5014396	PEST	BC60902-BSD1
24 Sample	2	P5014397	PEST	SEQ-CCV4
25 Sample	24	P5014398	PEST	BC60897-BLK1
26 Sample	25	P5014399	PEST	BC60897-BS1
27 Sample	26	P5014400	PEST	BC60897-BSD1
28 Sample	27	P5014401	PEST	16C0484-01
29 Sample	28	P5014402	PEST	16C0532-01
30 Sample	29	P5014403	PEST	16C0532-02
31 Sample	30	P5014404	PEST	16C0532-03
32 Sample	31	P5014405	PEST	16C0532-05
33 Sample	32	P5014406	PEST	16C0532-06
34 Sample	33	P5014407	PEST	16C0532-08
35 Sample	34	P5014408	PEST	16C0136-02
36 Sample	35	P5014409	PEST	16C0136-06
37 Sample	36	P5014410	PEST	16C0136-15
38 Sample	1	P5014411	PEST	SEQ-BKD2
39 Sample	2	P5014412	PEST	SEQ-CCV5
40 Sample	37	P5014413	PEST	16C0507-01
41 Sample	38	P5014414	PEST	BC60897-MS1
42 Sample	39	P5014415	PEST	16C0507-02
43 Sample	40	P5014416	PEST	16C0514-01

Sequence Name: C:\HPCHEM\1\SEQUENCE\P5031716.S

Line Type	Vial	DataFile	Method	Sample Name

44 Sample	41	P5014417	PEST	16C0514-03
45 Sample	42	P5014418	PEST	16C0514-04
46 Sample	43	P5014419	PEST	16C0514-01
47 Sample	44	P5014420	PEST	16C0514-02
48 Sample	45	P5014421	PEST	16C0514-03
49 Sample	46	P5014422	PEST	16C0514-04
50 Sample	47	P5014423	PEST	16C0569-01
51 Sample	48	P5014424	PEST	BC60902-DUP1
52 Sample	2	P5014425	PEST	SEQ-CCV6

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: PEST

METHOD: EPA 8082A

DATA PACKAGE COVER PAGE

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Sequence: Y6C1627 Instrument: ECD#1
 Matrix: Soil Calibration: UNASSIGNED

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (Y6C1627-CCV1) Lab File ID: P1027771.D Analyzed: 03/15/16 09:04								
Tetrachloro-m-xylene	0.161	117	0 - 200	4.66				
Decachlorobiphenyl	0.166	96.4	0 - 200	9.49				
Blank (BC60750-BLK2) Lab File ID: P1027773.D Analyzed: 03/15/16 09:42								
Tetrachloro-m-xylene	0.201	43.3	30 - 120	4.66				
Decachlorobiphenyl	0.207	52.2	30 - 120	9.49				
LCS (BC60750-BS2) Lab File ID: P1027774.D Analyzed: 03/15/16 10:02								
Tetrachloro-m-xylene	0.201	36.8	30 - 120	4.66				
Decachlorobiphenyl	0.207	50.7	30 - 120	9.49				
LCS Dup (BC60750-BSD2) Lab File ID: P1027775.D Analyzed: 03/15/16 10:21								
Tetrachloro-m-xylene	0.201	38.8	30 - 120	4.66				
Decachlorobiphenyl	0.207	47.3	30 - 120	9.49				
Calibration Check (Y6C1627-CCV3) Lab File ID: P1027789.D Analyzed: 03/15/16 16:11								
Tetrachloro-m-xylene	0.161	118	0 - 200	4.66				
Decachlorobiphenyl	0.166	104	0 - 200	9.5				
04/FB20160309 (16C0466-04) Lab File ID: P1027799.D Analyzed: 03/15/16 19:23								
Tetrachloro-m-xylene	0.217	43.3	30 - 120	4.66				
Decachlorobiphenyl	0.224	50.2	30 - 120	9.49				
Calibration Check (Y6C1627-CCV4) Lab File ID: P1027810.D Analyzed: 03/15/16 22:55								
Tetrachloro-m-xylene	0.161	114	0 - 200	4.66				
Decachlorobiphenyl	0.166	99.4	0 - 200	9.49				
Calibration Check (Y6C1627-CCV5) Lab File ID: P1027819.D Analyzed: 03/16/16 01:49								
Tetrachloro-m-xylene	0.161	117	0 - 200	4.66				
Decachlorobiphenyl	0.166	105	0 - 200	9.49				

FORM II

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1724Instrument: GC 5890_1Matrix: SoilCalibration: UNASSIGNED

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (Y6C1724-CCV1)				Lab File ID: P2021396.D		Analyzed: 03/16/16 08:23		
Tetrachloro-m-xylene	0.161	97.5	0 - 200	6.44				
Decachlorobiphenyl	0.166	94.6	0 - 200	17.51				
Blank (BC60827-BLK2)				Lab File ID: P2021410.D		Analyzed: 03/16/16 15:39		
Tetrachloro-m-xylene	0.100	93.0	30 - 140	6.45				
Decachlorobiphenyl	0.104	80.2	30 - 140	17.52				
LCS (BC60827-BS3)				Lab File ID: P2021411.D		Analyzed: 03/16/16 16:08		
Tetrachloro-m-xylene	0.100	98.5	30 - 140	6.43				
Decachlorobiphenyl	0.104	90.8	30 - 140	17.51				
LCS Dup (BC60827-BSD3)				Lab File ID: P2021412.D		Analyzed: 03/16/16 16:37		
Tetrachloro-m-xylene	0.100	99.0	30 - 140	6.43				
Decachlorobiphenyl	0.104	87.9	30 - 140	17.51				
Calibration Check (Y6C1724-CCV3)				Lab File ID: P2021418.D		Analyzed: 03/16/16 19:33		
Tetrachloro-m-xylene	0.161	95.0	0 - 200	6.43				
Decachlorobiphenyl	0.166	92.2	0 - 200	17.51				
01/LSB-3 (16C0466-01)				Lab File ID: P2021423.D		Analyzed: 03/16/16 21:59		
Tetrachloro-m-xylene	0.114	55.7	30 - 140	6.43				
Decachlorobiphenyl	0.117	54.6	30 - 140	17.51				
02/DUP (16C0466-02)				Lab File ID: P2021424.D		Analyzed: 03/16/16 22:28		
Tetrachloro-m-xylene	0.120	65.2	30 - 140	6.43				
Decachlorobiphenyl	0.124	60.4	30 - 140	17.51				
03/LSB-3 (16C0466-03)				Lab File ID: P2021425.D		Analyzed: 03/16/16 22:57		
Tetrachloro-m-xylene	0.120	52.2	30 - 140	6.43				
Decachlorobiphenyl	0.124	50.7	30 - 140	17.51				
Calibration Check (Y6C1724-CCV4)				Lab File ID: P2021435.D		Analyzed: 03/17/16 03:49		
Tetrachloro-m-xylene	0.161	95.0	0 - 200	6.43				
Decachlorobiphenyl	0.166	92.8	0 - 200	17.51				

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water
Batch: BC60750 Laboratory ID: BC60750-BS2
Preparation: EPA SW846-3510C Low Level Initial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	1.00	0.590	59.0	40 - 120
Aroclor 1260	1.00	0.630	63.0	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water
Batch: BC60750 Laboratory ID: BC60750-BSD2
Preparation: EPA SW846-3510C Low Level Initial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Aroclor 1016	1.00	0.609	60.9	3.20	30	40 - 120
Aroclor 1260	1.00	0.604	60.4	4.21	30	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60827Laboratory ID: BC60827-BS3Preparation: EPA 3545AInitial/Final: 20 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	0.500	0.556	111	40 - 130
Aroclor 1260	0.500	0.535	107	40 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil
Batch: BC60827 Laboratory ID: BC60827-BSD3
Preparation: EPA 3545A Initial/Final: 20 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Aroclor 1016	0.500	0.557	111	0.234	25	40 - 130
Aroclor 1260	0.500	0.562	112	5.03	25	40 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM I

METHOD BLANK DATA SHEET
EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water Laboratory ID: BC60750-BLK2 File ID: P1027773.D
Prepared: 03/15/16 06:25 Preparation: EPA SW846-3510C Low Le Initial/Final: 1000 mL / 1 mL
Analyzed: 03/15/16 09:42 Instrument: ECD#1
Batch: BC60750 Sequence: Y6C1627 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
12674-11-2	Aroclor 1016	0.0500	U
11104-28-2	Aroclor 1221	0.0500	U
11141-16-5	Aroclor 1232	0.0500	U
53469-21-9	Aroclor 1242	0.0500	U
12672-29-6	Aroclor 1248	0.0500	U
11097-69-1	Aroclor 1254	0.0500	U
11096-82-5	Aroclor 1260	0.0500	U
1336-36-3	Total PCBs	0.0500	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.201	0.0870	43.3	30 - 120	
Decachlorobiphenyl	0.207	0.108	52.2	30 - 120	

FORM I

METHOD BLANK DATA SHEET
EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: BC60827-BLK2 File ID: P2021410.D
Prepared: 03/16/16 07:30 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
Analyzed: 03/16/16 15:39 Instrument: GC 5890 1
Batch: BC60827 Sequence: Y6C1724 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U
1336-36-3	Total PCBs	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.100	0.0935	93.0	30 - 140	
Decachlorobiphenyl	0.104	0.0830	80.2	30 - 140	

FORM IV

PREPARATION BATCH SUMMARY
EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Batch: BC60750

Batch Matrix: Water

Preparation: EPA SW846-3510C Low Level

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04	P1027799.D	03/15/16 06:25	
Blank	BC60750-BLK2	P1027773.D	03/15/16 06:25	
LCS	BC60750-BS2	P1027774.D	03/15/16 06:25	
LCS Dup	BC60750-BSD2	P1027775.D	03/15/16 06:25	

FORM IV**PREPARATION BATCH SUMMARY****EPA 8082A**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60827 Batch Matrix: Soil Preparation: EPA 3545A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01	P2021423.D	03/16/16 07:30	
02/DUP	16C0466-02	P2021424.D	03/16/16 07:30	
03/LSB-3	16C0466-03	P2021425.D	03/16/16 07:30	
Blank	BC60827-BLK2	P2021410.D	03/16/16 07:30	
LCS	BC60827-BS3	P2021411.D	03/16/16 07:30	
LCS Dup	BC60827-BSD3	P2021412.D	03/16/16 07:30	

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: ECD#1

Analyte	LOD	LOQ	Units
Aroclor 1016	0.0500	0.0500	ug/L
	0.0167	0.0167	mg/kg
Aroclor 1221	0.0500	0.0500	ug/L
Aroclor 1232	0.0500	0.0500	ug/L
Aroclor 1242	0.0500	0.0500	ug/L
Aroclor 1248	0.0500	0.0500	ug/L
Aroclor 1254	0.0500	0.0500	ug/L
Aroclor 1260	0.0167	0.0167	mg/kg
	0.0500	0.0500	ug/L
Total PCBs	0.0500	0.0500	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: GC 5890 I

Analyte	LOD	LOQ	Units
Aroclor 1016	0.0167	0.0167	mg/kg
Aroclor 1221	0.0167	0.0167	mg/kg
Aroclor 1232	0.0167	0.0167	mg/kg
Aroclor 1242	0.0167	0.0167	mg/kg
Aroclor 1248	0.0167	0.0167	mg/kg
Aroclor 1254	0.0167	0.0167	mg/kg
Aroclor 1260	0.0167	0.0167	mg/kg
Total PCBs	0.0167	0.0167	mg/kg

HOLDING TIME SUMMARY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/16/16 07:30	6.84	14.00	03/16/16 21:59	0.60	40.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/16/16 07:30	6.84	14.00	03/16/16 22:28	0.62	40.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/16/16 07:30	6.82	14.00	03/16/16 22:57	0.64	40.00	
04/FB20160309	03/09/16 12:55	03/10/16 19:54	03/15/16 06:25	5.73	7.00	03/15/16 19:23	0.54	40.00	

FORM I

ORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-01 File ID: P2021423.D
 Sampled: 03/09/16 11:15 Prepared: 03/16/16 07:30 Analyzed: 03/16/16 21:59
 Solids: 88.45 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Batch: BC60827 Sequence: Y6C1724 Calibration: UNASSIGNED Instrument: GC 5890_1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0283	U
11104-28-2	Aroclor 1221	1	0.0283	U
11141-16-5	Aroclor 1232	1	0.0283	U
53469-21-9	Aroclor 1242	1	0.0283	U
12672-29-6	Aroclor 1248	1	0.0283	U
11097-69-1	Aroclor 1254	1	0.0283	U
11096-82-5	Aroclor 1260	1	0.0370	
1336-36-3	Total PCBs	1	0.0370	

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.114	0.0633	55.7	30 - 140	
Decachlorobiphenyl	0.117	0.0639	54.6	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021423.D\ECD1A.CH Vial: 27
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021423.D\ECD2B.CH
 Acq On : 16 Mar 2016 9:59 pm Operator: AMC
 Sample : 16C0466-01 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:14 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

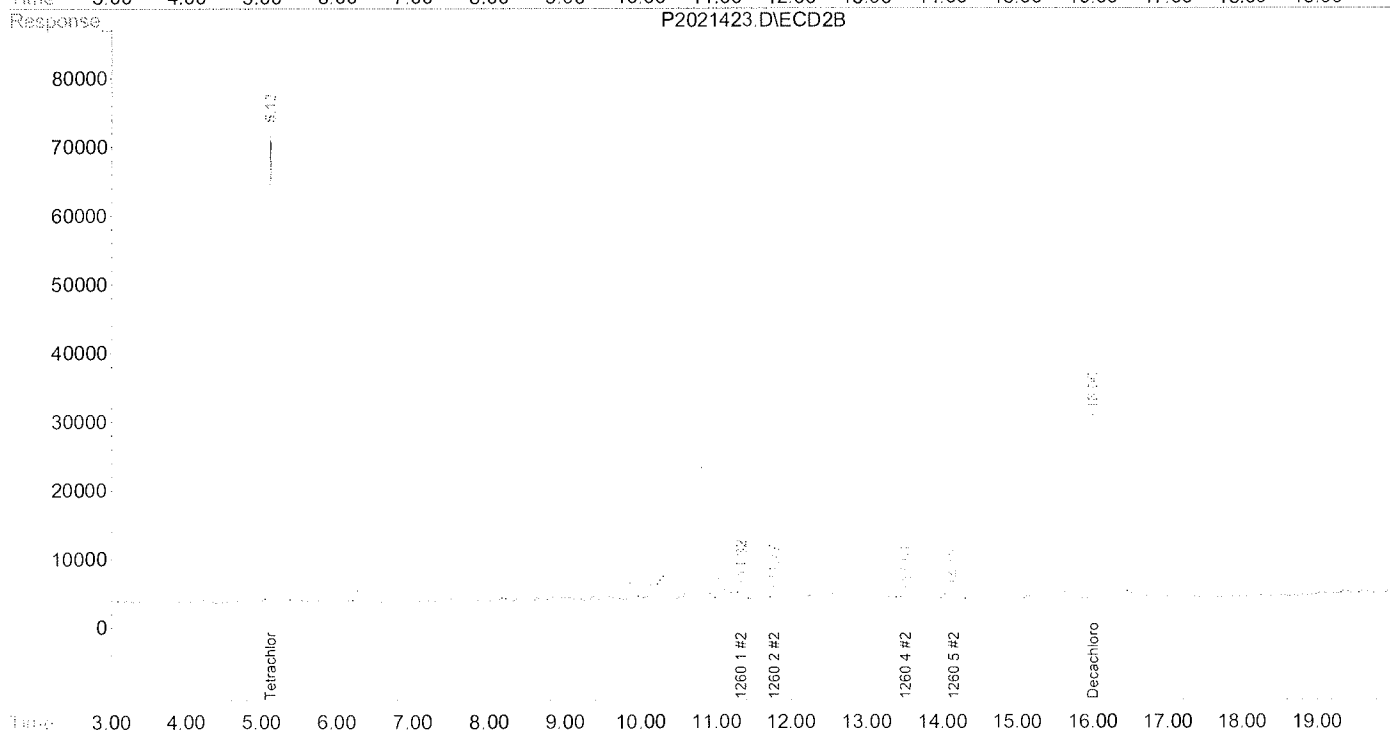
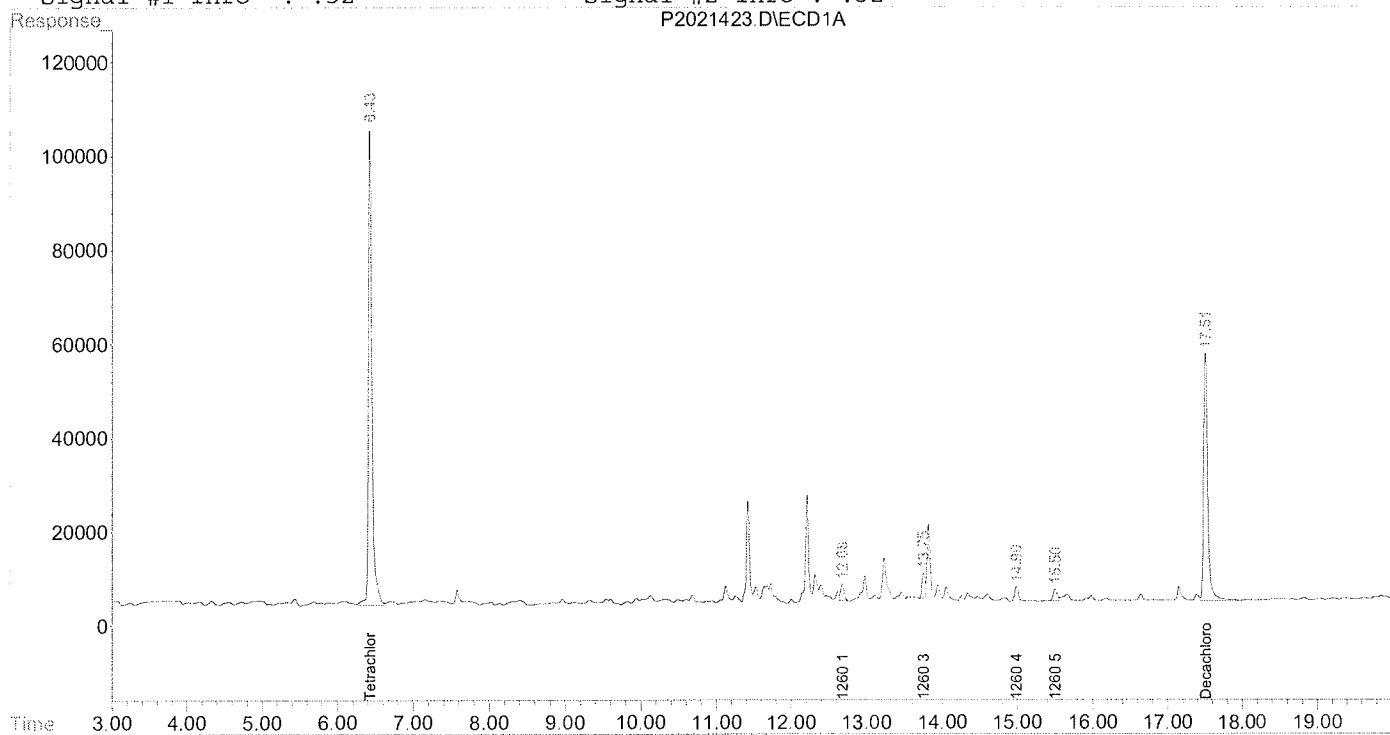
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	3364443	2580079	0.112	0.111
Spiked Amount	0.200	Range	30 - 150	Recovery	=	56.00% 55.50%
45) S Decachlorobiphen	17.51	16.00	1991739	1652919	0.113	0.101
Spiked Amount	0.200	Range	30 - 150	Recovery	=	56.50% 50.50%
Target Compounds						
30) T 1260 1	12.68	11.32	113589	103816	0.077m	0.089
31) T 1260 2	0.00	11.77	0	80494	N.D. d	0.065
32) T 1260 3	13.75	0.00	140677	0	0.065m	N.D. d#
33) T 1260 4	14.99	13.51	102685	104091	0.048	0.061 #
34) T 1260 5	15.50	14.15	86956	68579	0.072m	0.053 #

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021423.D\ECD1A.CH Vial: 27
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021423.D\ECD2B.CH
 Acq On : 16 Mar 2016 9:59 pm Operator: AMC
 Sample : 16C0466-01 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:14 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

ORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Soil Laboratory ID: 16C0466-02 File ID: P2021424.D
 Sampled: 03/09/16 11:15 Prepared: 03/16/16 07:30 Analyzed: 03/16/16 22:28
 Solids: 83.47 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
 Batch: BC60827 Sequence: Y6C1724 Calibration: UNASSIGNED Instrument: GC_5890_1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0299	U
11104-28-2	Aroclor 1221	1	0.0299	U
11141-16-5	Aroclor 1232	1	0.0299	U
53469-21-9	Aroclor 1242	1	0.0299	U
12672-29-6	Aroclor 1248	1	0.0299	U
11097-69-1	Aroclor 1254	1	0.0299	U
11096-82-5	Aroclor 1260	1	0.0460	
1336-36-3	Total PCBs	1	0.0460	

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.120	0.0785	65.2	30 - 140	
Decachlorobiphenyl	0.124	0.0749	60.4	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021424.D\ECD1A.CH Vial: 28
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021424.D\ECD2B.CH
 Acq On : 16 Mar 2016 10:28 pm Operator: AMC
 Sample : 16C0466-02 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:15 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

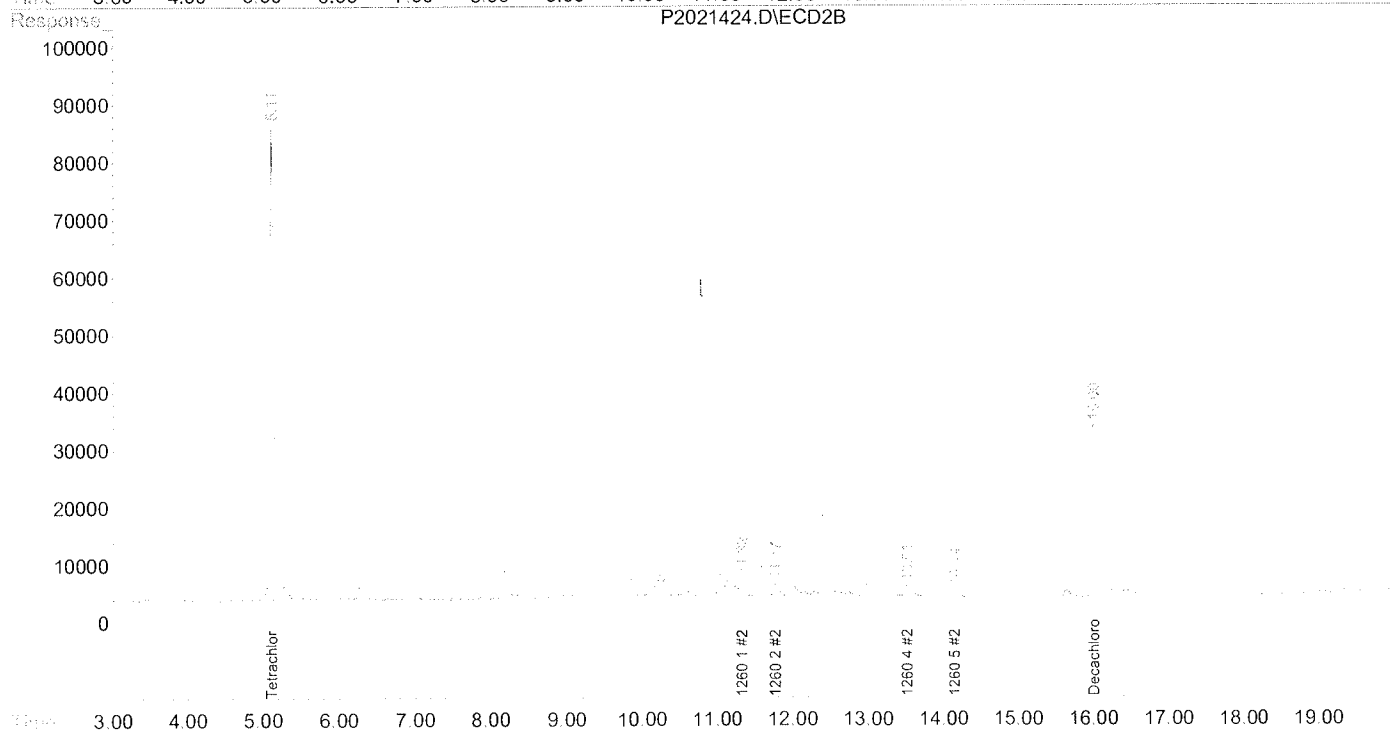
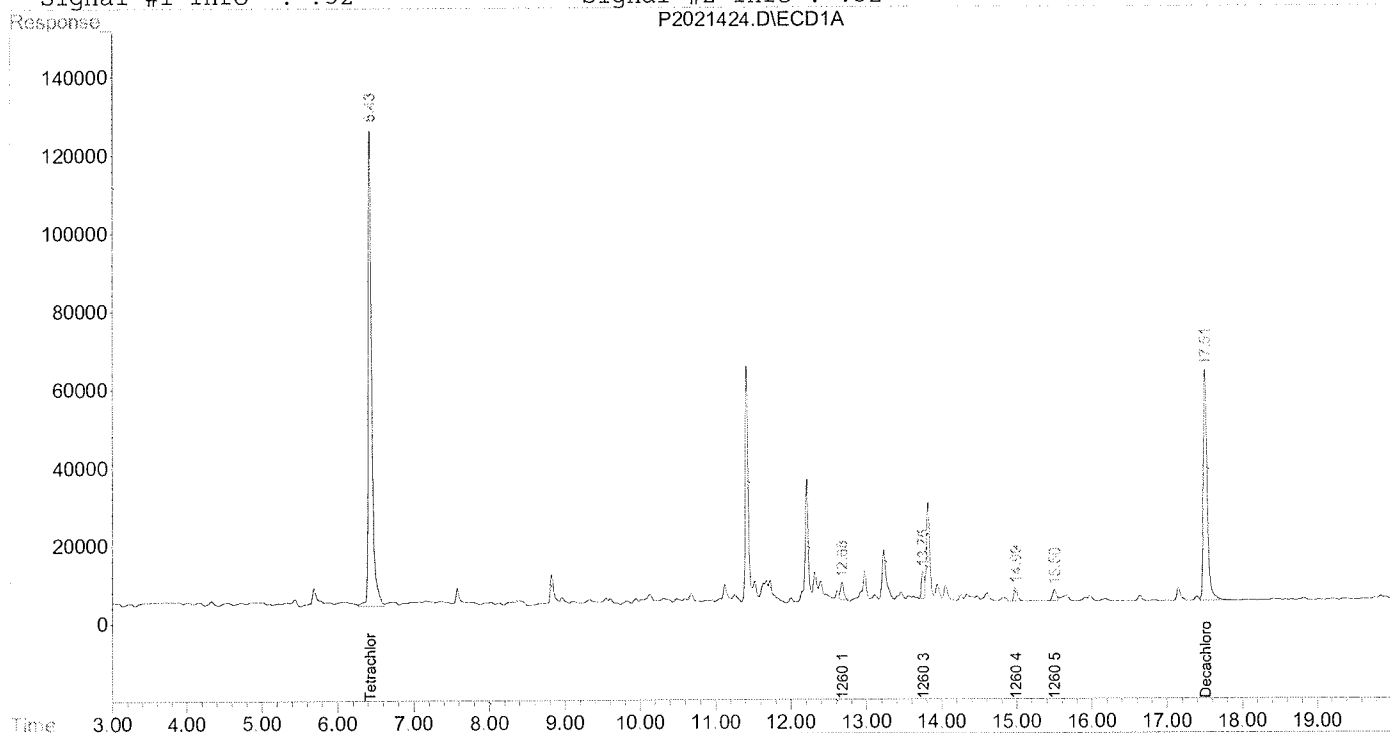
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	3963986	3050339	0.131	0.131
Spiked Amount	0.200	Range	30 - 150	Recovery =	65.50%	65.50%
45) S Decachlorobiphen	17.51	16.00	2188122	1846286	0.125	0.112
Spiked Amount	0.200	Range	30 - 150	Recovery =	62.50%	56.00%
Target Compounds						
30) T 1260 1	12.68	11.32	141120	127478	0.096m	0.109
31) T 1260 2	0.00	11.77	0	94434	N.D. d	0.076
32) T 1260 3	13.75	0.00	165553	0	0.077m	N.D. d#
33) T 1260 4	14.99	13.52	116906	116956	0.055	0.069 #
34) T 1260 5	15.50	14.15	94762	78831	0.079m	0.061

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021424.D\ECD1A.CH Vial: 28
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021424.D\ECD2B.CH
 Acq On : 16 Mar 2016 10:28 pm Operator: AMC
 Sample : 16C0466-02 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:15 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

ORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: 16C0466-03 File ID: P2021425.D
Sampled: 03/09/16 11:50 Prepared: 03/16/16 07:30 Analyzed: 03/16/16 22:57
Solids: 83.60 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
Batch: BC60827 Sequence: Y6C1724 Calibration: UNASSIGNED Instrument: GC_5890_1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.0299	U
11104-28-2	Aroclor 1221	1	0.0299	U
11141-16-5	Aroclor 1232	1	0.0299	U
53469-21-9	Aroclor 1242	1	0.0299	U
12672-29-6	Aroclor 1248	1	0.0299	U
11097-69-1	Aroclor 1254	1	0.0299	U
11096-82-5	Aroclor 1260	1	0.0299	U
1336-36-3	Total PCBs	1	0.0299	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg dry)	CONC (mg/kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.120	0.0628	52.2	30 - 140	
Decachlorobiphenyl	0.124	0.0628	50.7	30 - 140	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021425.D\ECD1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\031616\P2021425.D\ECD2B.CH
Acq On : 16 Mar 2016 10:57 pm Operator: AMC
Sample : 16C0466-03 Inst : GC 5890_I
Misc : QBPCB2-031616A Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 17 13:16 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
Last Update : Fri Jan 29 09:53:42 2016
Response via : Initial Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL
Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	3161871	2536086	0.105	0.109
Spiked Amount	0.200	Range	30 - 150	Recovery	= 52.50%	54.50%
45) S Decachlorobiphen	17.51	16.00	1846675	1591072	0.105	0.097
Spiked Amount	0.200	Range	30 - 150	Recovery	= 52.50%	48.50%

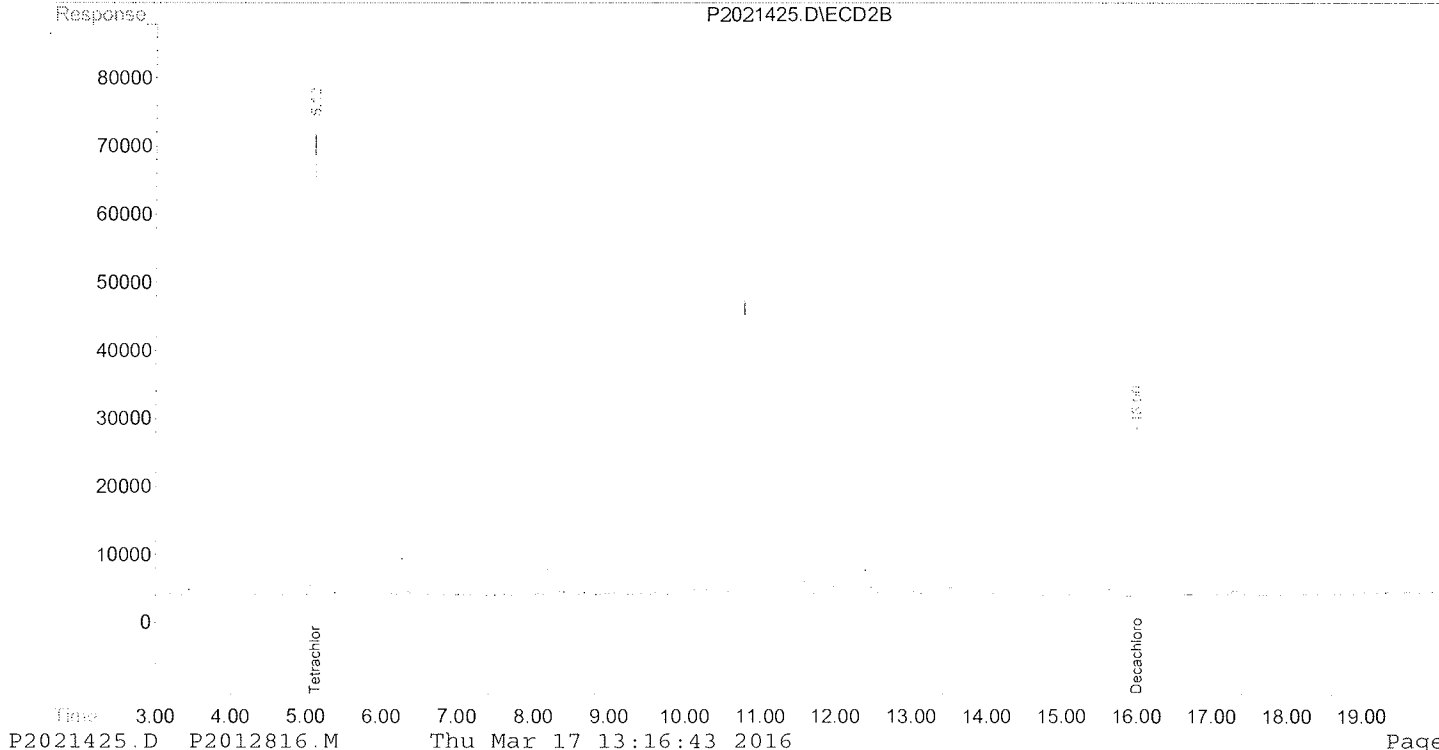
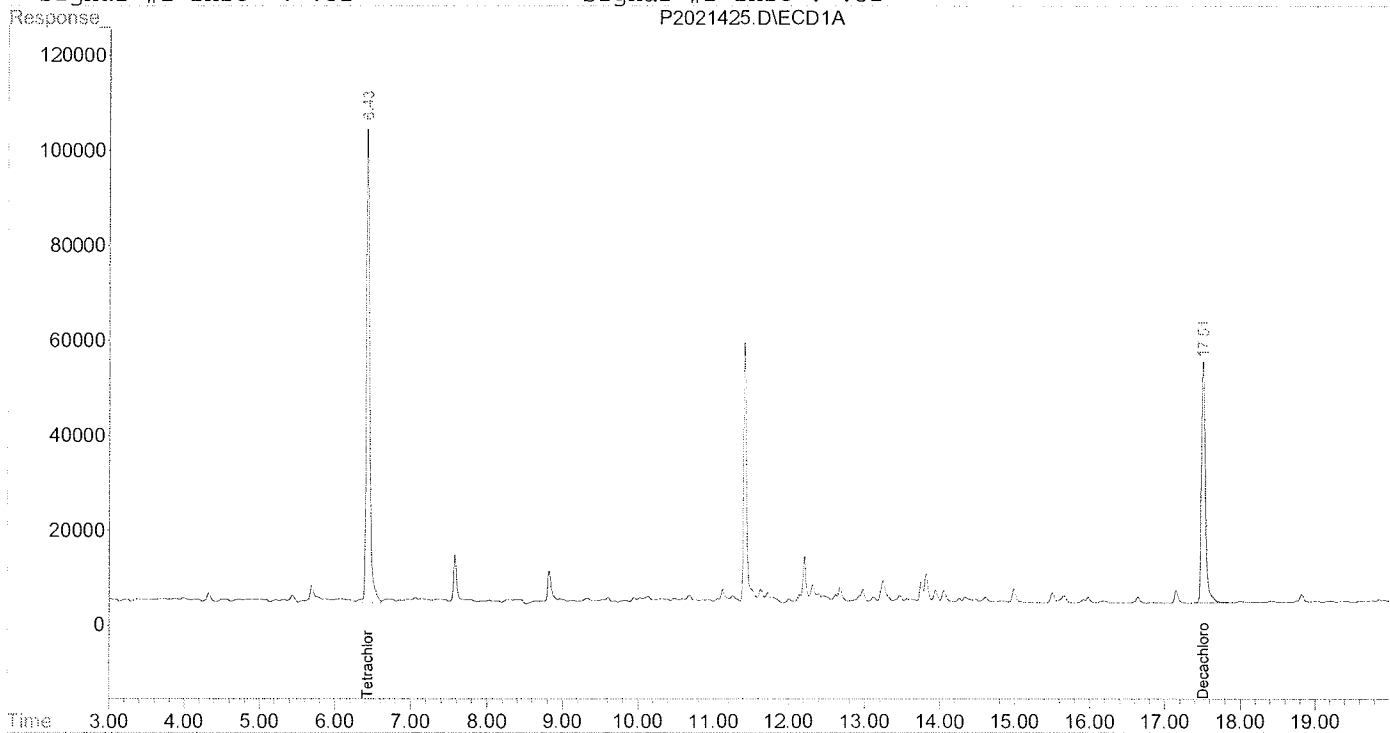
Target Compounds

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021425.D\ECD1A.CH Vial: 29
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021425.D\ECD2B.CH
 Acq On : 16 Mar 2016 10:57 pm Operator: AMC
 Sample : 16C0466-03 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:16 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

ORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water Laboratory ID: 16C0466-04 File ID: P1027799.D
 Sampled: 03/09/16 12:55 Prepared: 03/15/16 06:25 Analyzed: 03/15/16 19:23
 Solids: Preparation: EPA SW846-3510C Low Le Initial/Final: 925 mL / 1 mL
 Batch: BC60750 Sequence: Y6C1627 Calibration: UNASSIGNED Instrument: ECD#1

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
12674-11-2	Aroclor 1016	1	0.0541	U
11104-28-2	Aroclor 1221	1	0.0541	U
11141-16-5	Aroclor 1232	1	0.0541	U
53469-21-9	Aroclor 1242	1	0.0541	U
12672-29-6	Aroclor 1248	1	0.0541	U
11097-69-1	Aroclor 1254	1	0.0541	U
11096-82-5	Aroclor 1260	1	0.0541	U
1336-36-3	Total PCBs	1	0.0541	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.217	0.0941	43.3	30 - 120	
Decachlorobiphenyl	0.224	0.112	50.2	30 - 120	

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027799.D\ECD1A.CH Vial: 28
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027799.D\ECD2B.CH
 Acq On : 15 Mar 2016 7:23 pm Operator: AMC
 Sample : 16C0466-04 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 12:49 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

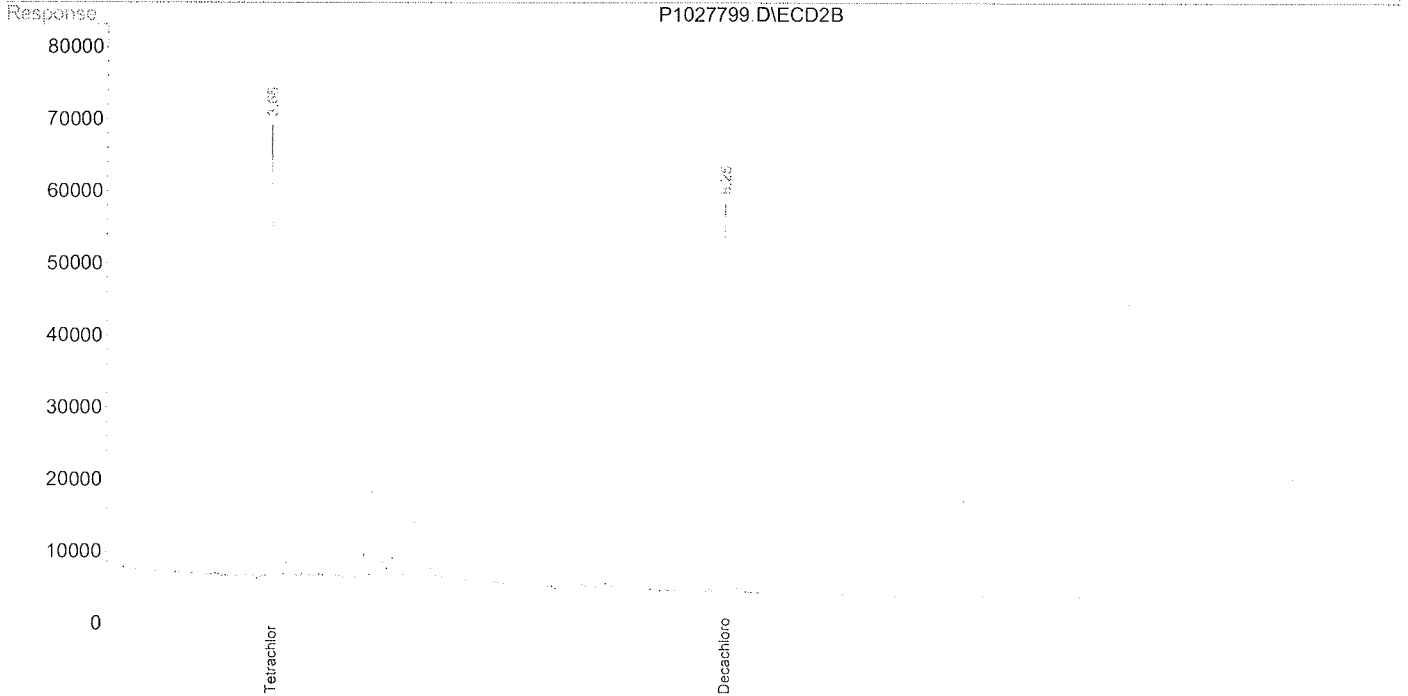
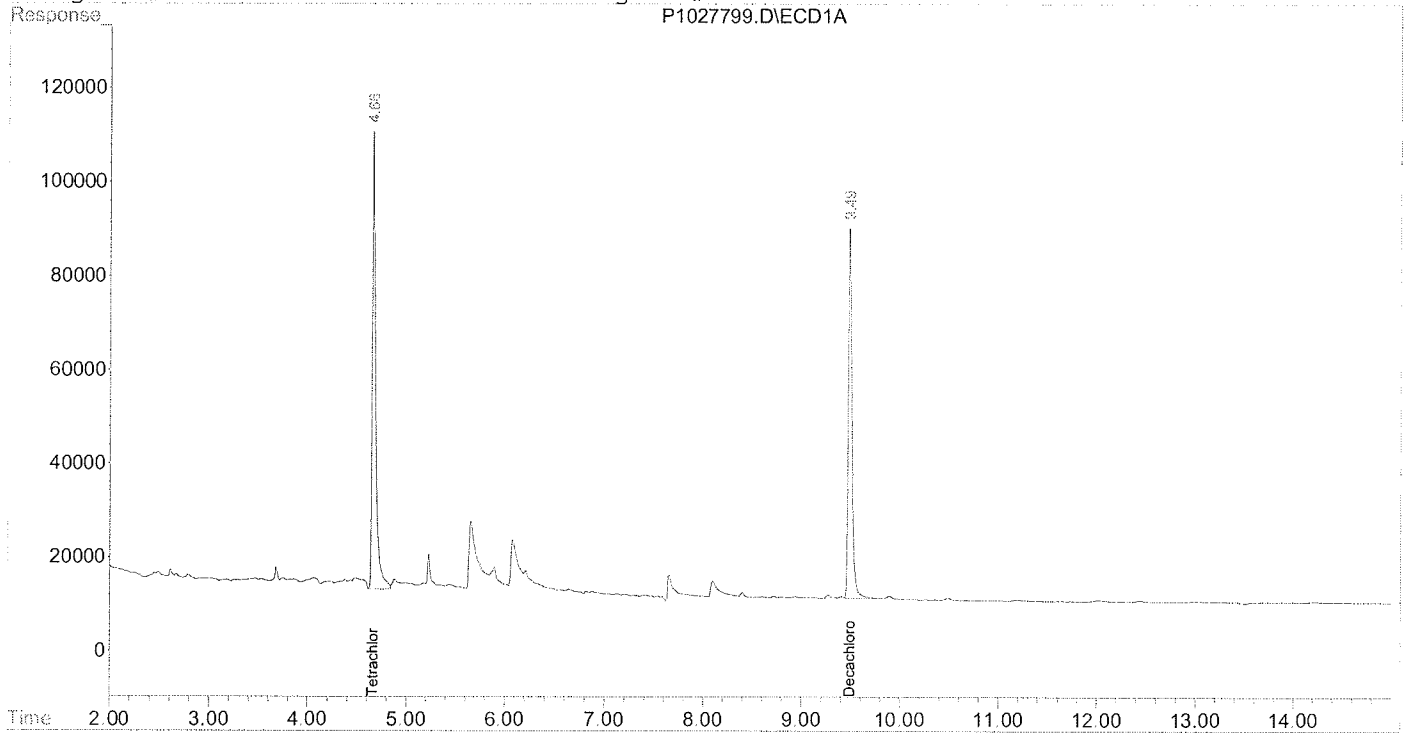
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	2445690	1422424	0.087	0.088
Spiked Amount	0.200	Range	30 - 150	Recovery	= 43.50%	44.00%
17) S Decachlorobiphen	9.49	8.25	2059338	1405580	0.104	0.107
Spiked Amount	0.200	Range	30 - 150	Recovery	= 52.00%	53.50%
Target Compounds						
2) T 1016 1	0.00	0.00	0	0	N.D.	N.D.
3) T 1016 2	0.00	0.00	0	0	N.D. d	N.D. d
4) T 1016 3	0.00	0.00	0	0	N.D. d	N.D. d
5) T 1016 4	0.00	0.00	0	0	N.D.	N.D.
6) T 1016 5	0.00	0.00	0	0	N.D. d	N.D. d
7) T 1254 1	0.00	0.00	0	0	N.D.	N.D.
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D.
9) T 1254 3	0.00	0.00	0	0	N.D.	N.D.
10) T 1254 4	0.00	0.00	0	0	N.D.	N.D.
11) T 1254 5	0.00	0.00	0	0	N.D.	N.D. d
12) T 1260 1	0.00	0.00	0	0	N.D.	N.D.
13) T 1260 2	0.00	0.00	0	0	N.D.	N.D.
14) T 1260 3	0.00	0.00	0	0	N.D.	N.D.
15) T 1260 4	0.00	0.00	0	0	N.D.	N.D.
16) T 1260 5	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027799.D\ECD1A.CH Vial: 28
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027799.D\ECD2B.CH
 Acq On : 15 Mar 2016 7:23 pm Operator: AMC
 Sample : 16C0466-04 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 12:49 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Response Factor Report ECD#1

Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016

Calibration Files

3 =P1026816.D 2 =P1026815.D 1 =P1026814.D
 0.5 =P1026813.D 0.2 =P1026812.D 0.05 =P1026811.D

	Compound	3	2	1	0.5	0.2	0.05	Avg		%RSD
1) S	Tetrachloro-m-xylene	2.504	2.549	2.715	2.755	2.914	3.500	2.823	E7	12.87
2) T	1016 1	0.627	0.751	0.833	0.744	0.850	1.083	0.815	E6	18.81
3) T	1016 2	4.864	5.655	5.849	6.445	6.067	7.782	6.111	E5	15.93
4) T	1016 3	0.975	1.081	1.173	1.295	1.345	1.515	1.231	E6	15.82
5) T	1016 4	5.351	5.574	6.648	7.366	6.285	7.376	6.433	E5	13.44
6) T	1016 5	4.410	4.874	5.300	5.782	5.769	5.170	5.217	E5	10.15
7) T	1254 1							6.708	E5	0.00
8) T	1254 2							8.075	E5	0.00
9) T	1254 3							9.665	E5	0.00
10) T	1254 4							6.286	E5	0.00
11) T	1254 5							6.741	E5	0.00
12) T	1260 1	0.851	0.898	0.985	1.076	1.263	1.240	1.053	E6	16.41
13) T	1260 2	1.090	1.198	1.215	1.255	1.433	1.667	1.309	E6	15.85
14) T	1260 3	1.269	1.279	1.406	1.517	1.721	1.545	1.456	E6	11.91
15) T	1260 4	1.472	1.517	1.574	1.667	1.864	1.905	1.666	E6	10.88
16) T	1260 5	0.805	0.840	0.868	0.931	1.041	0.798	0.880	E6	10.50
17) S	Decachlorobiphenyl	1.771	1.860	1.796	1.814	1.955	2.727	1.987	E7	18.52

Signal #2 Calibration Files

3 =P1026816.D 2 =P1026815.D 1 =P1026814.D
 0.5 =P1026813.D 0.2 =P1026812.D 0.05 =P1026811.D

	Compound	3	2	1	0.5	0.2	0.05	Avg		%RSD
1) S	Tetrachloro-m-xylene	1.468	1.437	1.614	1.608	1.657	1.940	1.621	E7	11.04
2) T	1016 1	4.225	4.587	5.348	5.827	5.884	5.968	5.307	E5	13.93
3) T	1016 2	3.364	3.566	4.265	4.085	3.712	4.003	3.833	E5	8.92
4) T	1016 3	6.167	6.532	7.161	7.440	6.961	7.819	7.014	E5	8.56
5) T	1016 4	4.343	4.578	5.079	5.231	4.433	4.516	4.697	E5	7.81
6) T	1016 5	2.753	2.836	3.120	3.119	2.549	2.791	2.861	E5	7.79
7) T	1254 1							5.224	E5	0.00
8) T	1254 2							3.554	E5	0.00
9) T	1254 3							3.147	E5	0.00
10) T	1254 4							8.009	E5	0.00
11) T	1254 5							7.546	E5	0.00
12) T	1260 1	5.911	6.143	6.887	7.320	8.226	7.408	6.982	E5	12.32
13) T	1260 2	6.273	6.525	7.194	7.667	8.544	7.221	7.237	E5	11.28
14) T	1260 3	6.504	6.589	7.194	7.668	8.376	7.672	7.334	E5	9.78
15) T	1260 4	1.053	1.064	1.132	1.161	1.234	1.028	1.112	E6	7.02
16) T	1260 5	8.466	8.707	9.074	9.147	9.455	8.554	8.901	E5	4.33
17) S	Decachlorobiphenyl	1.188	1.222	1.210	1.227	1.317	1.723	1.315	E7	15.59

(#) = Out of Range ### Number of calibration levels exceeded format ###
 P1011316.M Wed Feb 10 09:29:14 2016

Calibration Retention Time Report ECD#1

Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration

First Calibration Standard : C:\HPCHEM\1\DATA\011316\P1026811.D\ECD1A.CH
 Second Calibration Standard : P1026813.D
 Third Calibration Standard : P1026815.D

Compound	RT of Standard			Mean RT	RT Window	
	First	Second	Third		From	To
1 Tetrachloro-m-xylene	4.661	4.662	4.665	4.663	4.604	4.704
2 1016 1	5.450	5.450	5.448	5.450	5.388	5.488
3 1016 2	5.631	5.632	5.634	5.632	5.570	5.670
4 1016 3	5.913	5.913	5.910	5.912	5.849	5.949
5 1016 4	5.971	5.972	5.969	5.971	5.909	6.009
6 1016 5	6.059	6.060	6.057	6.059	5.995	6.095
7 1254 1	0.000	0.000	0.000	0.000	-0.067	0.033
8 1254 2	0.000	0.000	0.000	0.000	-0.069	0.031
9 1254 3	0.000	0.000	0.000	0.000	-0.068	0.032
10 1254 4	0.000	0.000	0.000	0.000	-0.071	0.029
11 1254 5	0.000	0.000	0.000	0.000	-0.069	0.031
12 1260 1	7.329	7.330	7.332	7.330	7.263	7.363
13 1260 2	7.560	7.560	7.558	7.559	7.492	7.592
14 1260 3	7.780	7.781	7.778	7.780	7.713	7.813
15 1260 4	8.292	8.292	8.289	8.291	8.222	8.322
16 1260 5	8.515	8.517	8.515	8.516	8.443	8.543
17 Decachlorobiphenyl	9.498	9.497	9.498	9.498	9.414	9.514

Signal #2

First Calibration Standard : C:\HPCHEM\1\DATA\011316\P1026811.D\ECD2B.CH
 Second Calibration Standard : C:\HPCHEM\1\DATA\011316\P1026813.D\ECD2B.CH
 Third Calibration Standard : C:\HPCHEM\1\DATA\011316\P1026815.D\ECD2B.CH

Compound	RT of Standard			Mean RT	RT Window	
	First	Second	Third		From	To
1 Tetrachloro-m-xylene	3.656	3.658	3.657	3.657	3.599	3.699
2 1016 1	4.497	4.498	4.496	4.497	4.437	4.537
3 1016 2	4.678	4.680	4.678	4.679	4.616	4.716
4 1016 3	4.934	4.933	4.931	4.933	4.874	4.974
5 1016 4	4.988	4.988	4.986	4.987	4.928	5.028
6 1016 5	5.099	5.101	5.099	5.100	5.040	5.140
7 1254 1	0.000	0.000	0.000	0.000	-0.062	0.038
8 1254 2	0.000	0.000	0.000	0.000	-0.061	0.039
9 1254 3	0.000	0.000	0.000	0.000	-0.061	0.039
10 1254 4	0.000	0.000	0.000	0.000	-0.061	0.039
11 1254 5	0.000	0.000	0.000	0.000	-0.062	0.038
12 1260 1	6.299	6.298	6.296	6.298	6.238	6.338
13 1260 2	6.478	6.477	6.475	6.477	6.417	6.517
14 1260 3	6.586	6.587	6.587	6.587	6.525	6.625
15 1260 4	7.198	7.197	7.195	7.197	7.138	7.238
16 1260 5	7.467	7.467	7.466	7.467	7.408	7.508
17 Decachlorobiphenyl	8.253	8.252	8.252	8.252	8.194	8.294

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026811.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026811.D\ECD2B.CH
 Acq On : 13 Jan 2016 2:51 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.05 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:02 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

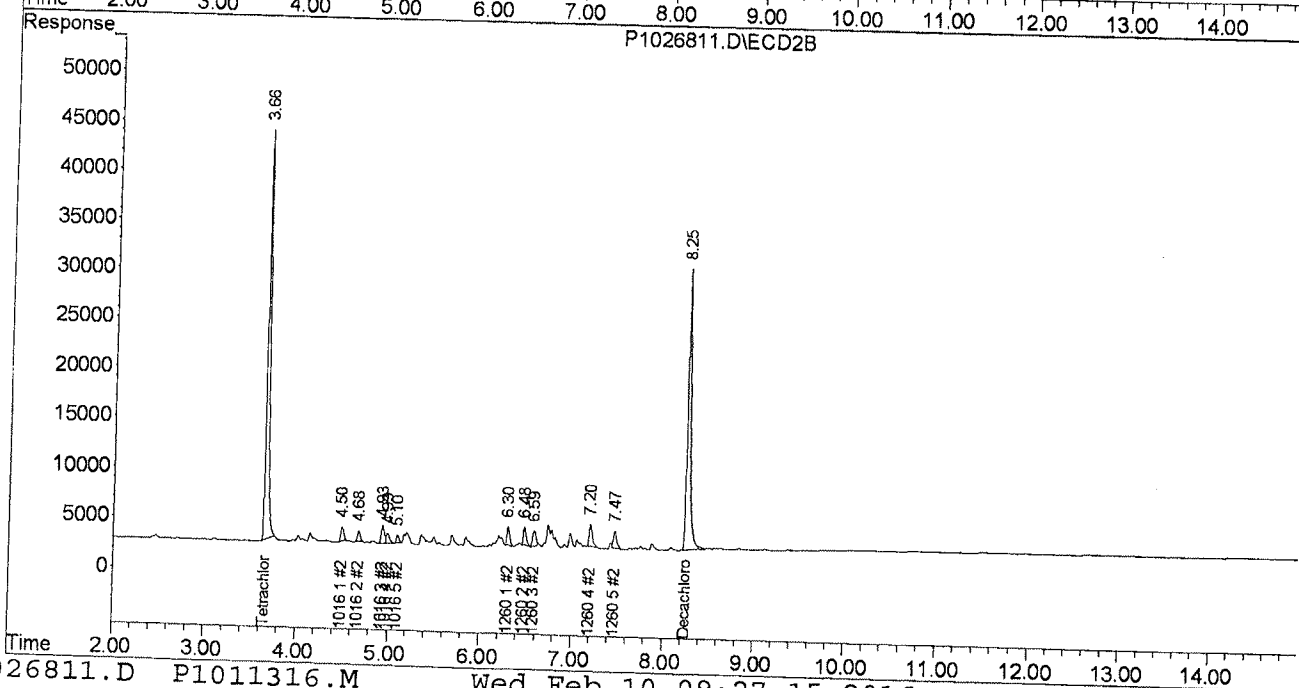
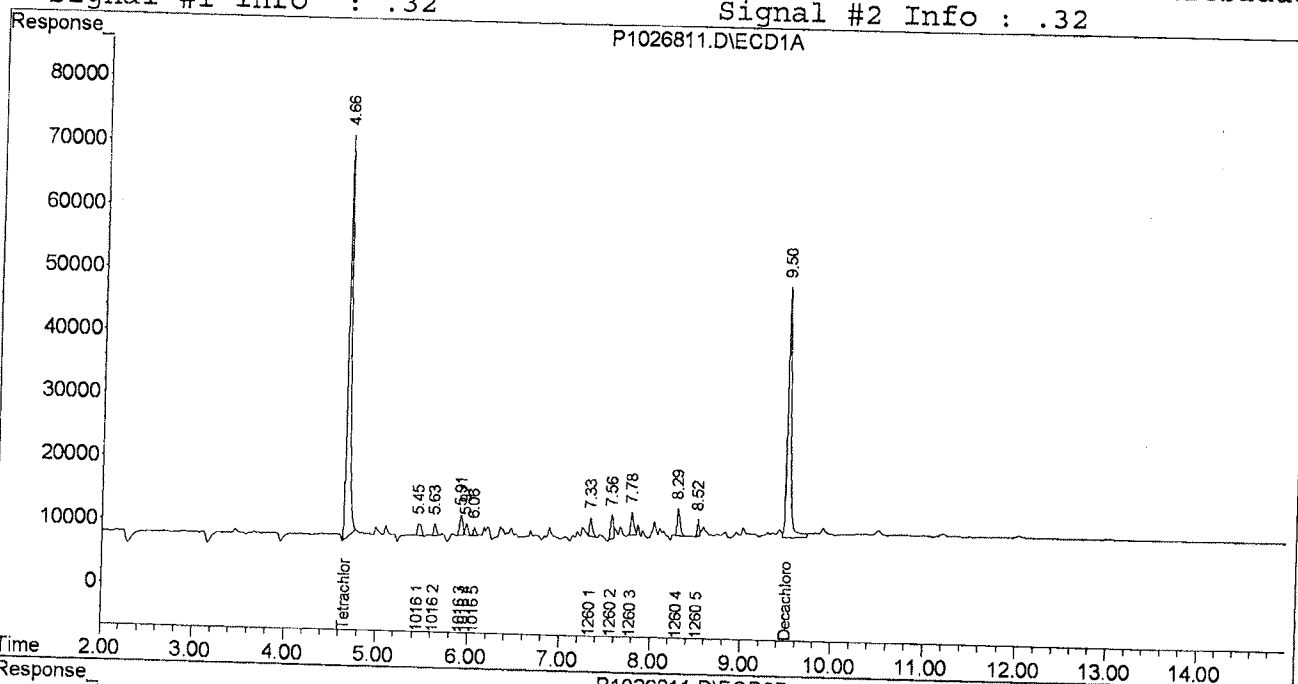
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	1399934	775816	0.052m	0.054m
Spiked Amount	0.200	Range	30 - 150	Recovery =	26.00%#	27.00%#
17) S Decachlorobiphen	9.50f	8.25	1090714	689296	0.063	0.093 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	31.50%	46.50%
Target Compounds						
2) T 1016 1	5.45	4.50	54127	29840	0.069m	0.076m
3) T 1016 2	5.63	4.68	38910	20016	0.072m	0.069m
4) T 1016 3	5.91	4.93	75769	39097	0.067m	0.079
5) T 1016 4	5.97	4.99	36880	22579	0.063m	0.068m
6) T 1016 5	6.06	5.10	25850	13955	0.054m	0.063m
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	62022	37038	0.065m	0.076m
13) T 1260 2	7.56	6.48	83326	36106	0.067m	0.073m
14) T 1260 3	7.78	6.59	77230	38359	0.057m	0.073m#
15) T 1260 4	8.29	7.20	95229	51399	0.066m	0.075m
16) T 1260 5	8.52	7.47	39876	42772	0.051m	0.077m#

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026811.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026811.D\ECD2B.CH
 Acq On : 13 Jan 2016 2:51 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.05 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:02 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



P1026811.D P1011316.M

Wed Feb 10 09:27:15 2016

Page 2

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026812.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026812.D\ECD2B.CH
 Acq On : 13 Jan 2016 3:10 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.20 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:00 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

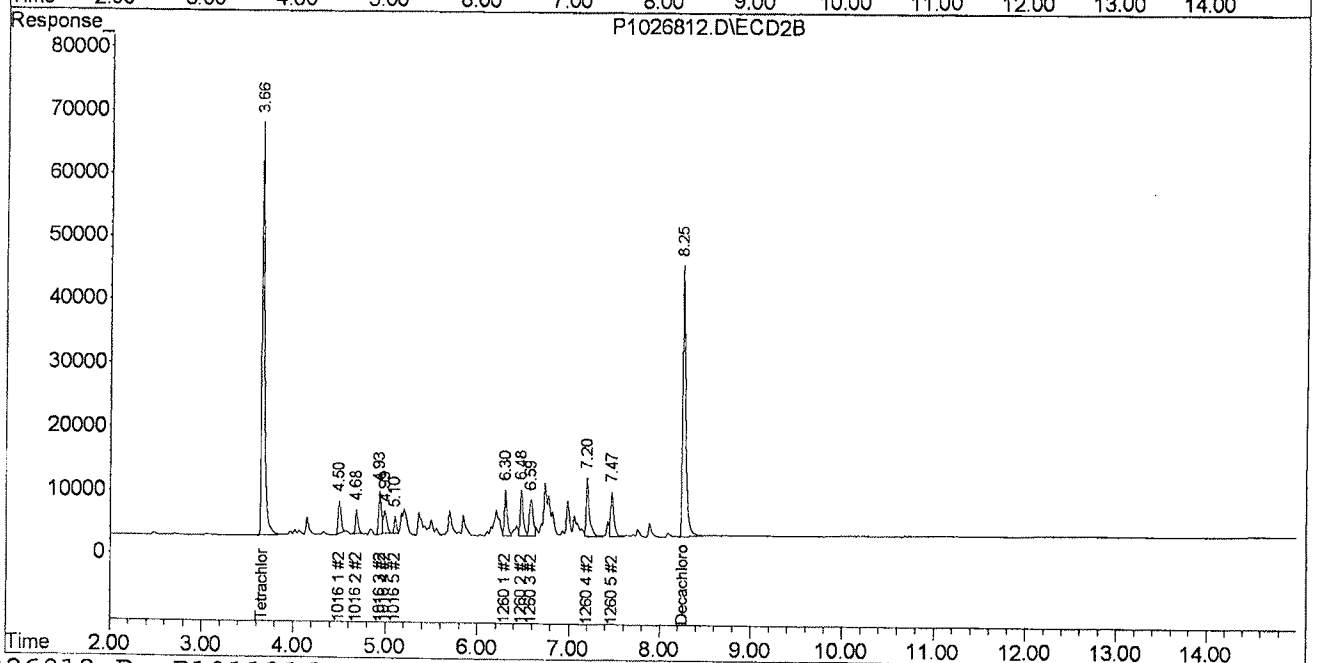
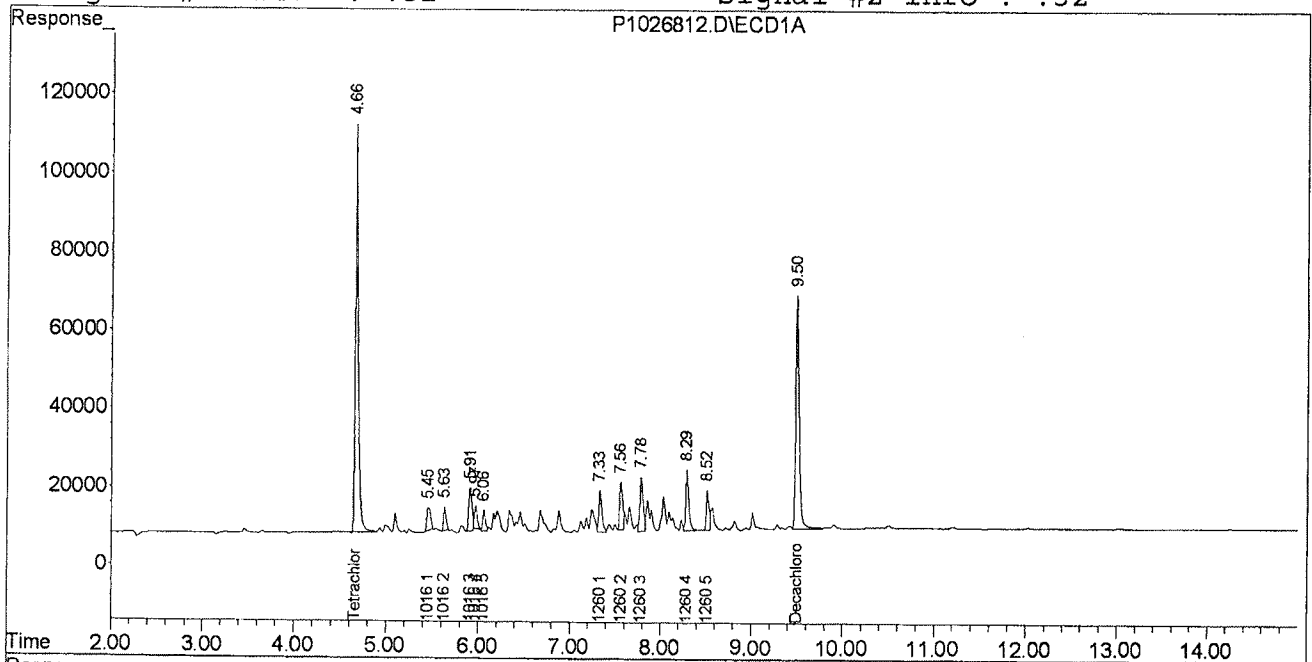
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	2331116	1325721	0.086	0.092
Spiked Amount	0.200	Range	30 - 150	Recovery =	43.00%	46.00%
17) S Decachlorobiphen	9.50f	8.25	1564155	1053488	0.091	0.142 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	45.50%	71.00%
Target Compounds						
2) T 1016 1	5.45	4.50	170039	117686	0.217m	0.298m#
3) T 1016 2	5.63	4.68	121343	74233	0.226m	0.257m
4) T 1016 3	5.91	4.93	269045	139215	0.237m	0.282m
5) T 1016 4	5.97	4.99	125698	88664	0.215m	0.266m
6) T 1016 5	6.06	5.10	115388	50980	0.242m	0.231m
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	252650	164516	0.266	0.336 #
13) T 1260 2	7.56	6.48	286631	170876	0.231m	0.346 #
14) T 1260 3	7.78	6.59	344171	167511	0.254	0.319 #
15) T 1260 4	8.29	7.20	372824	246713	0.260	0.359 #
16) T 1260 5	8.52	7.47	208267	189092	0.264	0.339 #

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026812.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026812.D\ECD2B.CH
 Acq On : 13 Jan 2016 3:10 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.20 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:00 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026813.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026813.D\ECD2B.CH
 Acq On : 13 Jan 2016 3:30 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.50 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:00 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	3305422	1929068	0.123	0.134
Spiked Amount	0.200	Range	30 - 150	Recovery =	61.50%	67.00%
17) S Decachlorobiphen	9.50f	8.25	2176799	1472958	0.126	0.199 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	63.00%	99.50%
Target Compounds						
2) T 1016 1	5.45	4.50	372011	291352	0.474m	0.737 #
3) T 1016 2	5.63	4.68	322272	204230	0.599	0.708
4) T 1016 3	5.91	4.93	647434	372017	0.570	0.755 #
5) T 1016 4	5.97	4.99	368309	261548	0.631	0.785
6) T 1016 5	6.06	5.10	289096	155945	0.608	0.708
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	538230	365988	0.566	0.749 #
13) T 1260 2	7.56	6.48	627407	383340	0.506m	0.777 #
14) T 1260 3	7.78	6.59	758459	383382	0.561	0.731 #
15) T 1260 4	8.29	7.20	833262	580626	0.581	0.844 #
16) T 1260 5	8.52	7.47	465377	457355	0.591	0.820 #

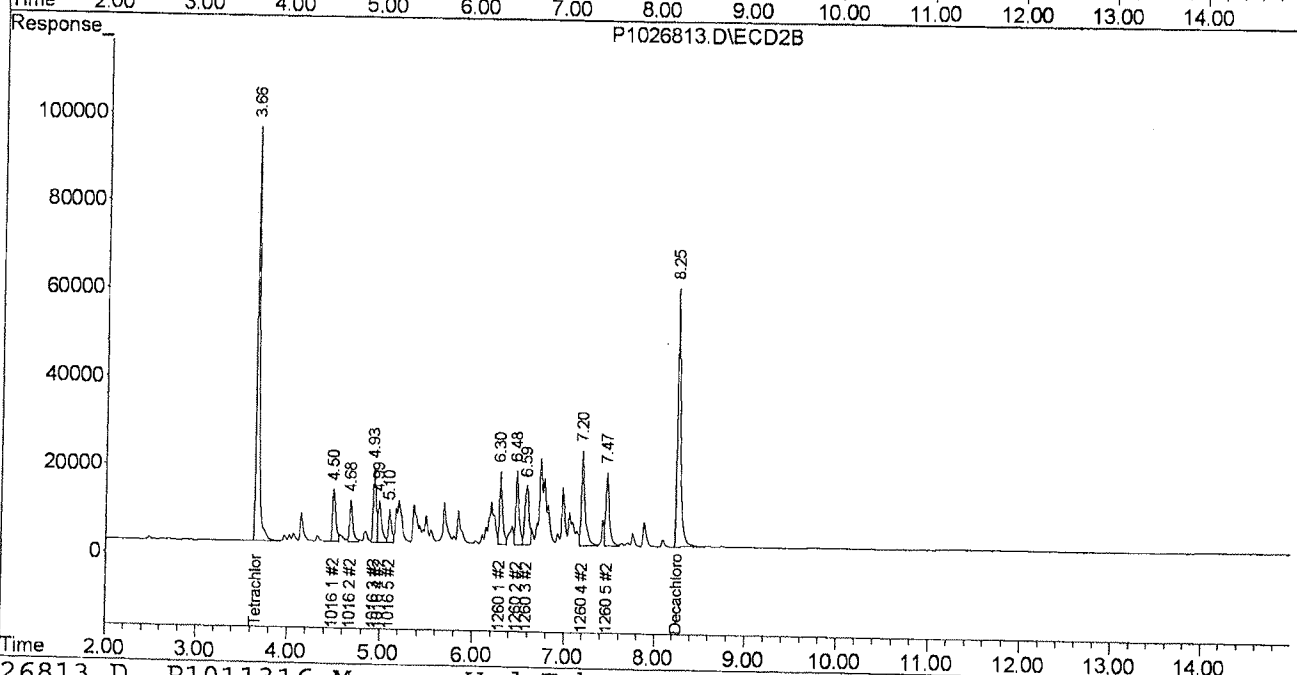
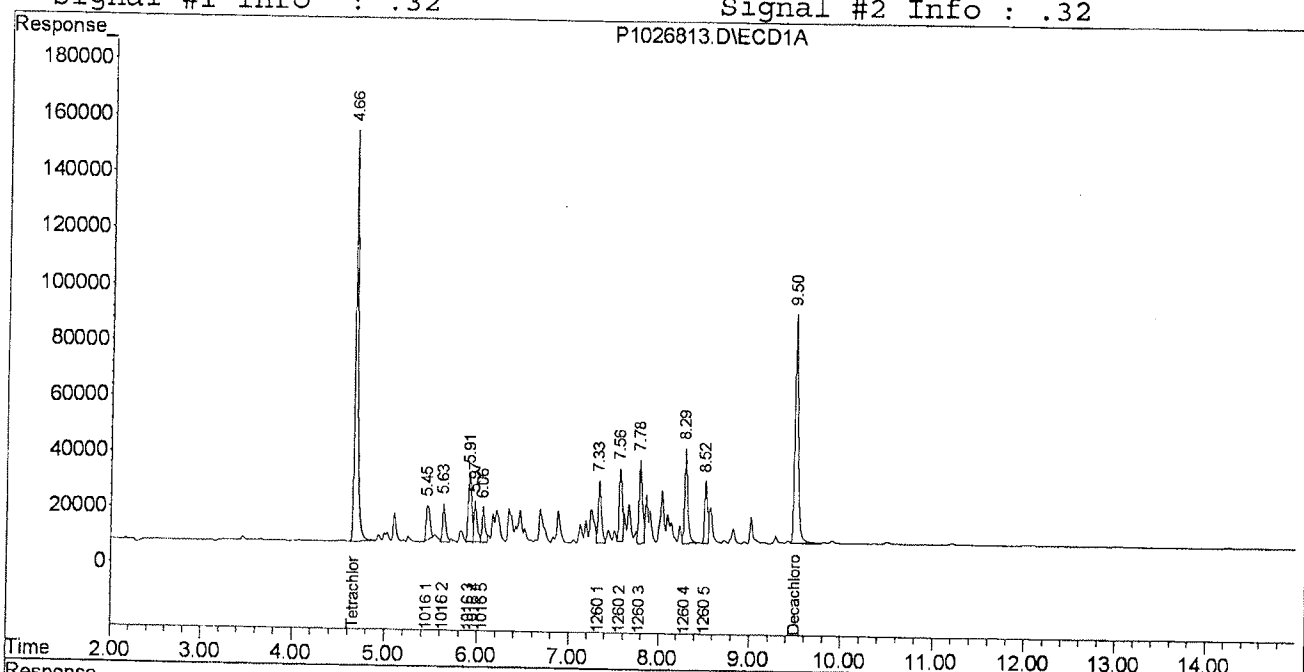
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026813.D P1011316.M Wed Feb 10 09:27:22 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026813.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026813.D\ECD2B.CH
 Acq On : 13 Jan 2016 3:30 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.50 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:00 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026814.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026814.D\ECD2B.CH
 Acq On : 13 Jan 2016 3:49 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 1.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:01 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	4343914	2583188	0.161	0.180
Spiked Amount	0.200	Range	30 - 150	Recovery =	80.50%	90.00%
17) S Decachlorobiphen	9.50f	8.25	2874131	1936496	0.167	0.261 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	83.50%	130.50%
Target Compounds						
2) T 1016 1	5.45	4.50	833042	534761	1.062m	1.353 #
3) T 1016 2	5.63	4.68	584908	426487	1.088	1.479m#
4) T 1016 3	5.91	4.93	1172927	716106	1.033	1.453 #
5) T 1016 4	5.97	4.99	664846	507926	1.139	1.524 #
6) T 1016 5	6.06	5.10	529962	311992	1.114	1.417 #
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	985492	688671	1.037	1.409 #
13) T 1260 2	7.56	6.48	1214704	719417	0.981m	1.459 #
14) T 1260 3	7.78	6.59	1406167	719356	1.040	1.371m#
15) T 1260 4	8.29	7.20	1573700	1131706	1.098	1.645 #
16) T 1260 5	8.52	7.47	868172	907423	1.102	1.628 #

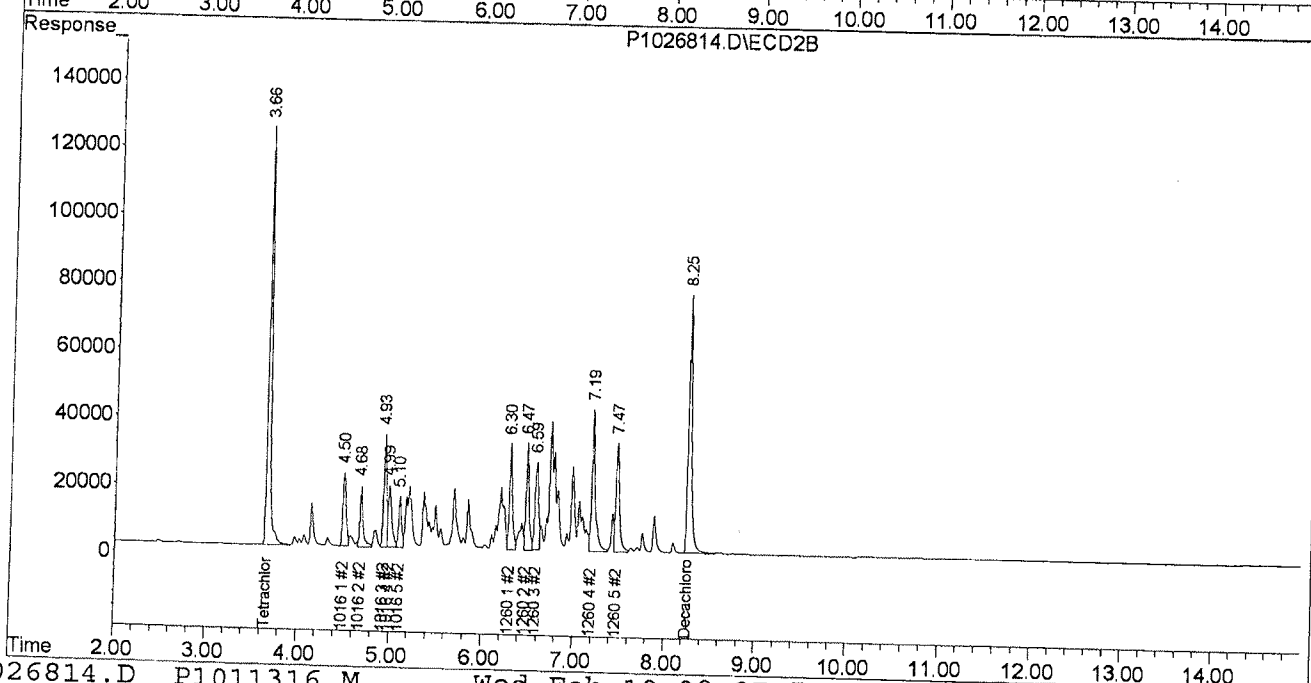
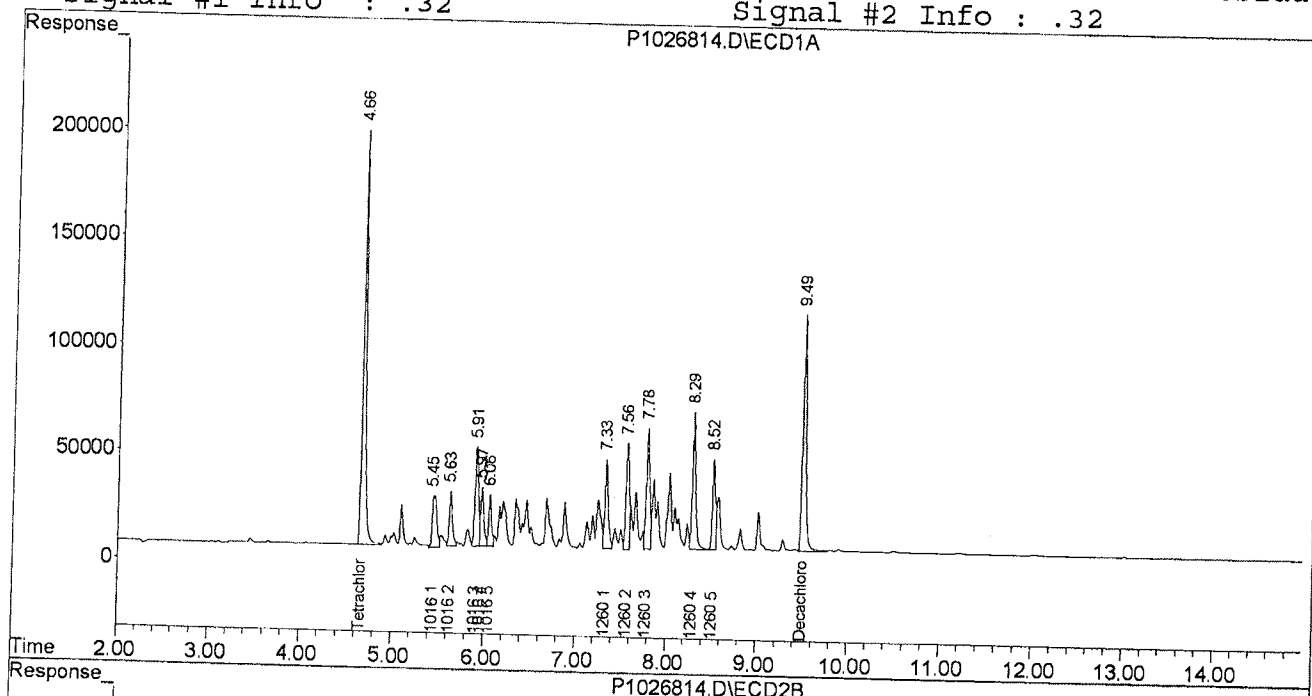
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026814.D P1011316.M Wed Feb 10 09:27:58 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026814.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026814.D\ECD2B.CH
 Acq On : 13 Jan 2016 3:49 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 1.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:01 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



P1026814.D P1011316.M

Wed Feb 10 09:27:59 2016

Page 2

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026815.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026815.D\ECD2B.CH
 Acq On : 13 Jan 2016 4:08 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 2.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:01 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

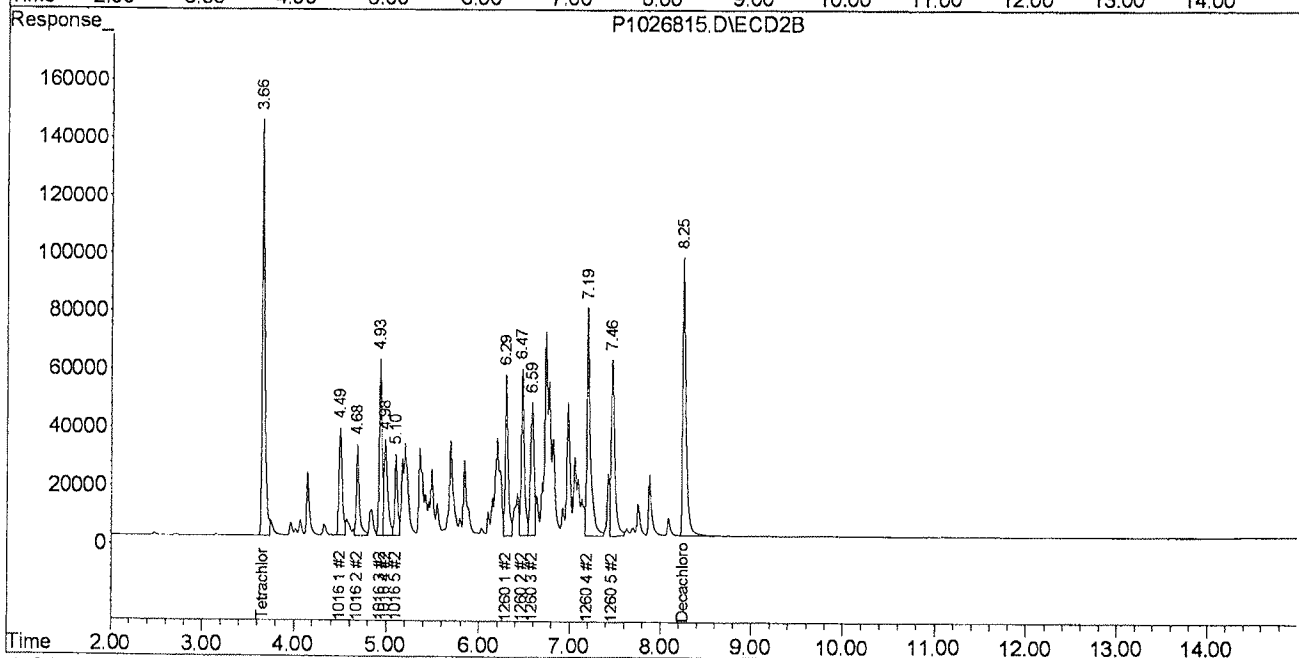
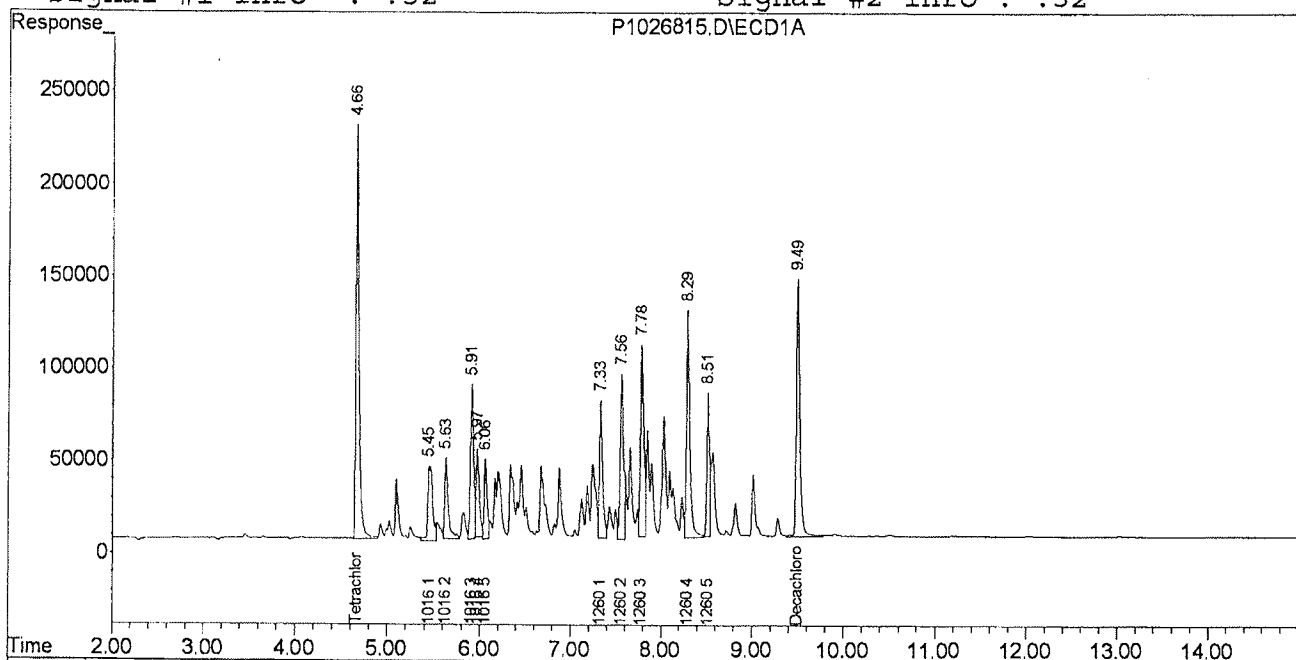
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.67	3.66	5098073	2874090	0.189	0.200
Spiked Amount	0.200	Range	30 - 150	Recovery =	94.50%	100.00%
17) S Decachlorobiphen	9.50f	8.25	3719557	2444452	0.215	0.330 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	107.50%	165.00%#
Target Compounds						
2) T 1016 1	5.45	4.50	1502985	917413	1.916m	2.322
3) T 1016 2	5.63	4.68	1131043	713251	2.104	2.474
4) T 1016 3	5.91	4.93	2162429	1306492	1.904m	2.650 #
5) T 1016 4	5.97	4.99	1114837	915558	1.911m	2.747 #
6) T 1016 5	6.06	5.10	974805	567191	2.049m	2.575 #
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	1796669	1228695	1.890	2.513 #
13) T 1260 2	7.56	6.48	2395591	1304964	1.934m	2.646 #
14) T 1260 3	7.78	6.59	2558871	1317710	1.892m	2.512 #
15) T 1260 4	8.29	7.20	3034172	2128344	2.117m	3.093 #
16) T 1260 5	8.51	7.47	1679472	1741462	2.132m	3.124 #

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026815.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026815.D\ECD2B.CH
 Acq On : 13 Jan 2016 4:08 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 2.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 10:01 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026816.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026816.D\ECD2B.CH
 Acq On : 13 Jan 2016 4:27 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 3.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 9:58 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	6010233	3524282	0.223	0.245
Spiked Amount	0.200	Range	30 - 150	Recovery =	111.50%	122.50%
17) S Decachlorobiphen	9.50f	8.25	4250230	2850011	0.246	0.384 #
Spiked Amount	0.200	Range	30 - 150	Recovery =	123.00%	192.00%#
Target Compounds						
2) T 1016 1	5.45	4.50	1882153	1267588	2.399m	3.208 #
3) T 1016 2	5.63	4.68	1459266	1009331	2.714	3.501 #
4) T 1016 3	5.91	4.93	2923536	1850126	2.574	3.753 #
5) T 1016 4	5.97	4.99	1605265	1302930	2.751	3.909 #
6) T 1016 5	6.06	5.10	1322958	825778	2.780	3.750 #
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	2553292	1773328	2.685	3.627 #
13) T 1260 2	7.56	6.47	3269297	1882020	2.639m	3.816 #
14) T 1260 3	7.78	6.59	3806581	1951239	2.815	3.720 #
15) T 1260 4	8.29	7.19	4416214	3157612	3.081	4.589 #
16) T 1260 5	8.52	7.46	2416120	2539760	3.066	4.556 #

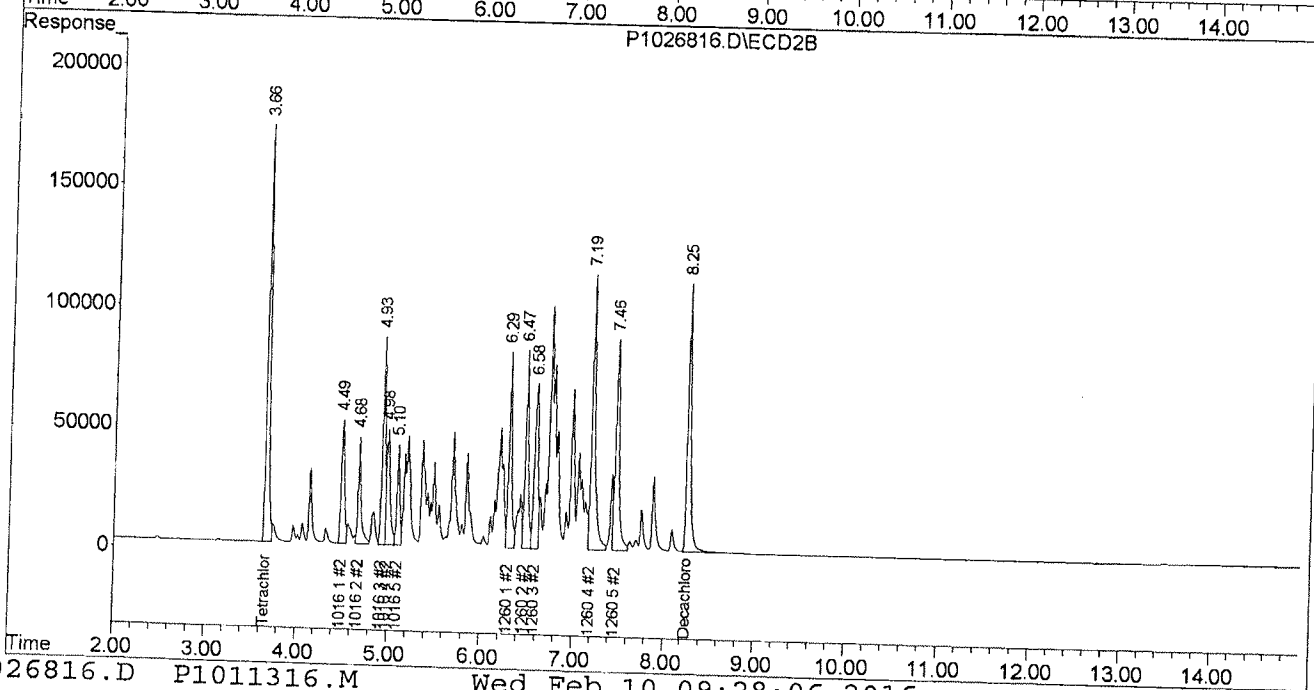
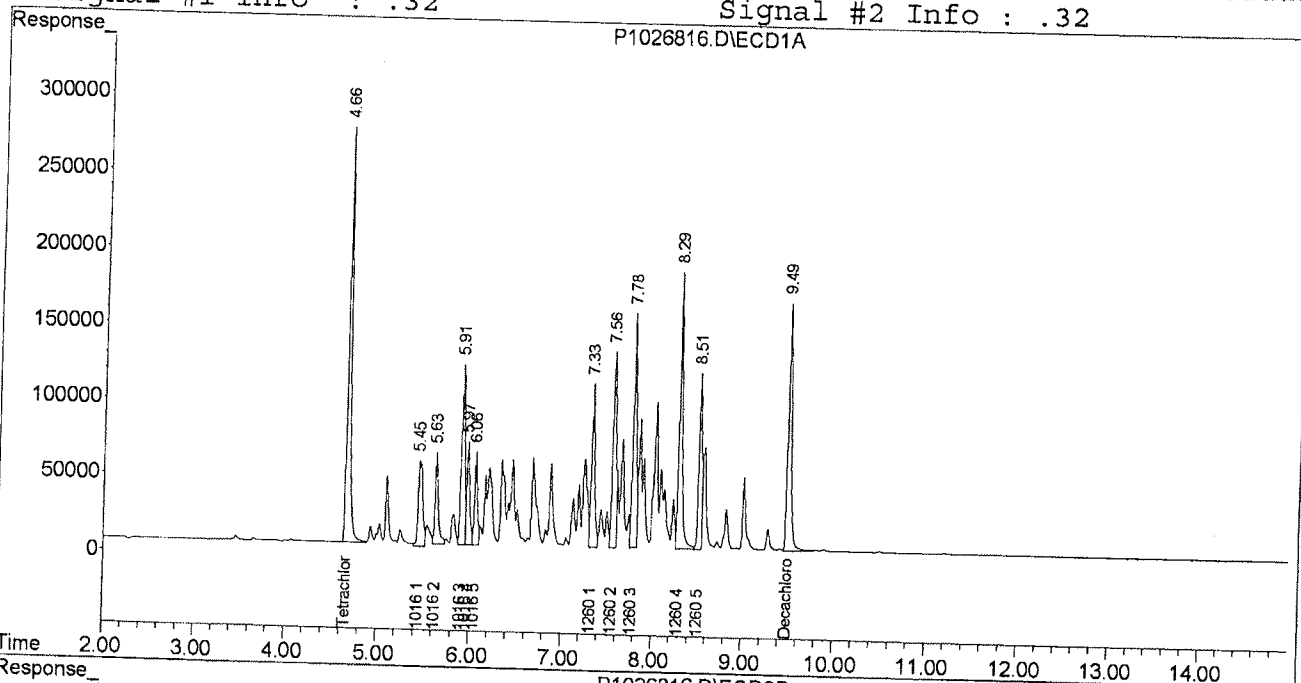
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026816.D P1011316.M Wed Feb 10 09:28:06 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\011316\P1026816.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\011316\P1026816.D\ECD2B.CH
 Acq On : 13 Jan 2016 4:27 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 3.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 14 9:58 2016 Quant Results File: P1112315.RES

Quant Method : C:\HPCHEM\1\METHODS\P1112315.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Mon Dec 14 12:10:19 2015
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



P1026816.D P1011316.M

Wed Feb 10 09:28:06 2016

Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011316\P1026817.D\ECD1A.CH Vial: 7
 Acq On : 13 Jan 2016 4:47 pm Operator: AMC
 Sample : REF STD 1016, 1260, 1.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A REF STD 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile : EVENTS.E

Data File : C:\HPCHEM\1\DATA\011316\P1026817.D\ECD2B.CH Vial: 7
 Acq On : 13 Jan 2016 4:47 pm Operator: AMC
 Sample : SEQ-SCV1 Inst : ECD#1
 Misc : QBPCB1-011316A REF STD 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile : EVENTS2.E
 Quant Time: Jan 14 10:03 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Thu Jan 14 10:02:22 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	4048078	2360257	0.143	0.146
Spiked Amount	0.200	Range	30 - 150	Recovery	=	71.50% 73.00%
17) S Decachlorobiphen	9.49	8.25	2822775	1857898	0.142m	0.141m
Spiked Amount	0.200	Range	30 - 150	Recovery	=	71.00% 70.50%
Target Compounds						
2) T 1016 1	5.45	4.50	809145	570662	0.993m	1.075
3) T 1016 2	5.63	4.68	626229	425079	1.025	1.109
4) T 1016 3	5.91	4.93	1244752	767428	1.011	1.094
5) T 1016 4	5.97	4.99	702911	537668	1.093	1.145
6) T 1016 5	6.06	5.10	558764	324863	1.071	1.135
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.30	959452	661673	0.912	0.948
13) T 1260 2	7.56	6.48	1138989	680315	0.870m	0.940
14) T 1260 3	7.78	6.59	1240480	701522	0.852m	0.957m
15) T 1260 4	8.29	7.20	1729242	1206098	1.038	1.085
16) T 1260 5	8.52	7.47	934605	972060	1.061	1.092

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P1026817.D P1011316.M Wed Feb 10 09:29:07 2016

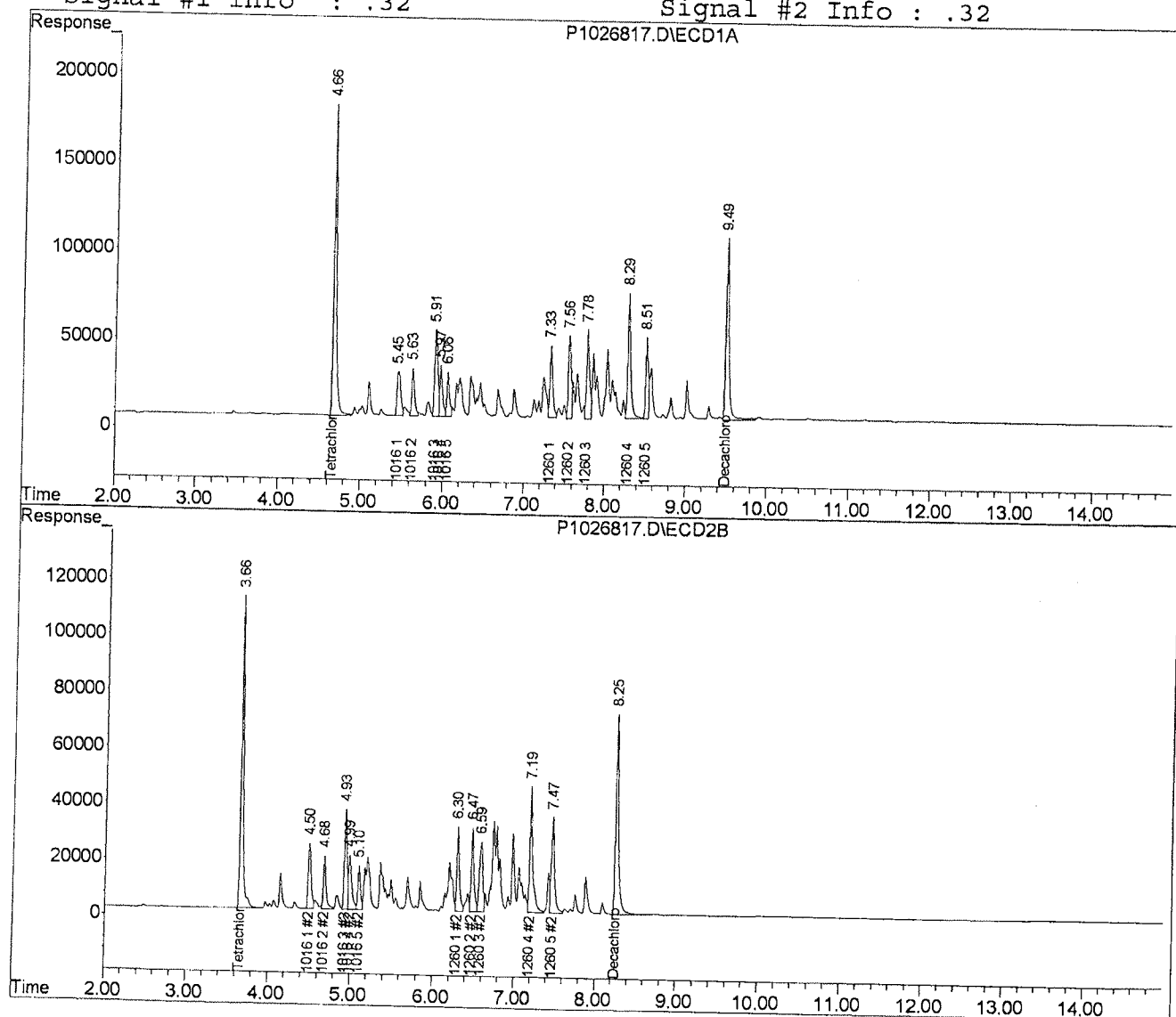
Quantitation Report

Data File : C:\HPCHEM\1\DATA\011316\P1026817.D\ECD1A.CH Vial: 7
 Acq On : 13 Jan 2016 4:47 pm Operator: AMC
 Sample : REF STD 1016, 1260, 1.0 ug/mL Inst : ECD#1
 Misc : QBPCB1-011316A REF STD 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile : EVENTS.E

Data File : C:\HPCHEM\1\DATA\011316\P1026817.D\ECD2B.CH Vial: 7
 Acq On : 13 Jan 2016 4:47 pm Operator: AMC
 Sample : SEQ-SCV1 Inst : ECD#1
 Misc : QBPCB1-011316A REF STD 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile : EVENTS2.E
 Quant Time: Jan 14 10:03 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 11/23/15 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Thu Jan 14 10:02:22 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027771.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027771.D\ECD2B.CH
 Acq On : 15 Mar 2016 9:04 am Operator: AMC
 Sample : SEQ-CCV1 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:16 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

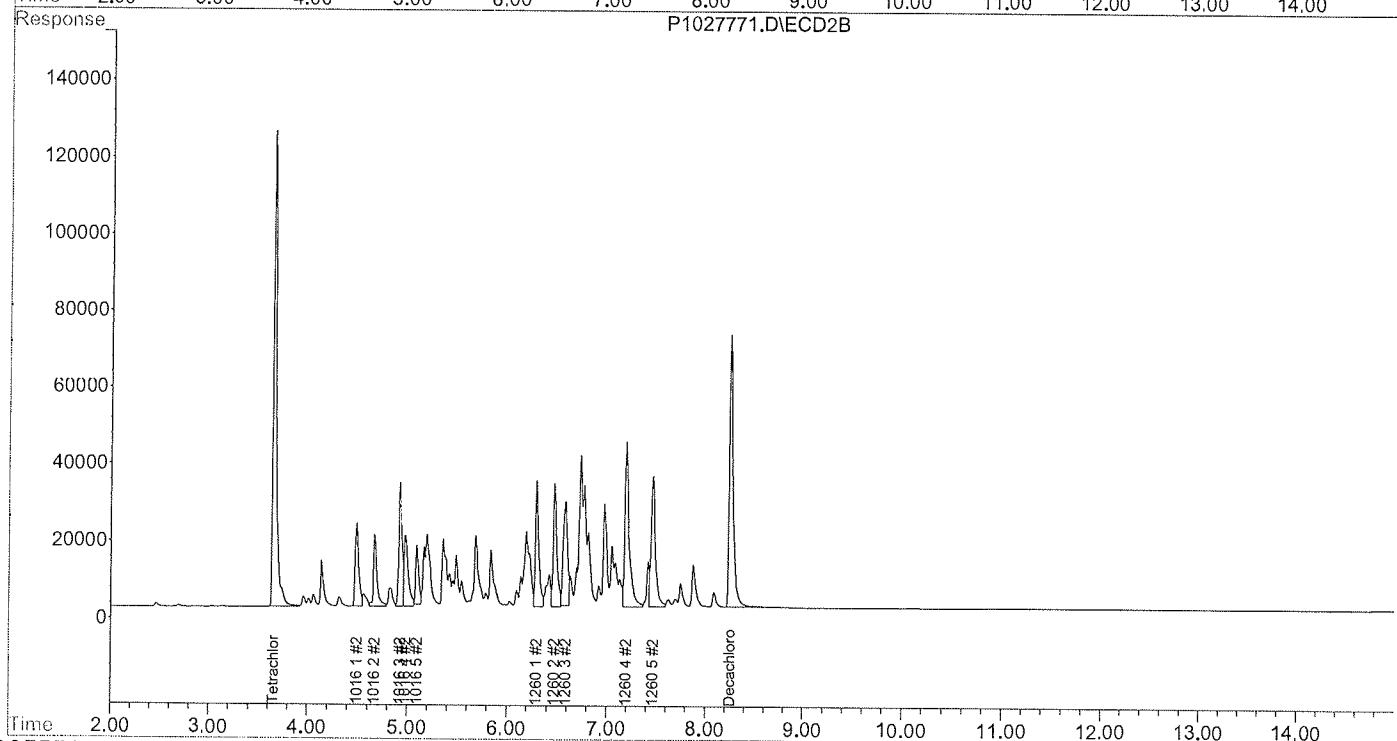
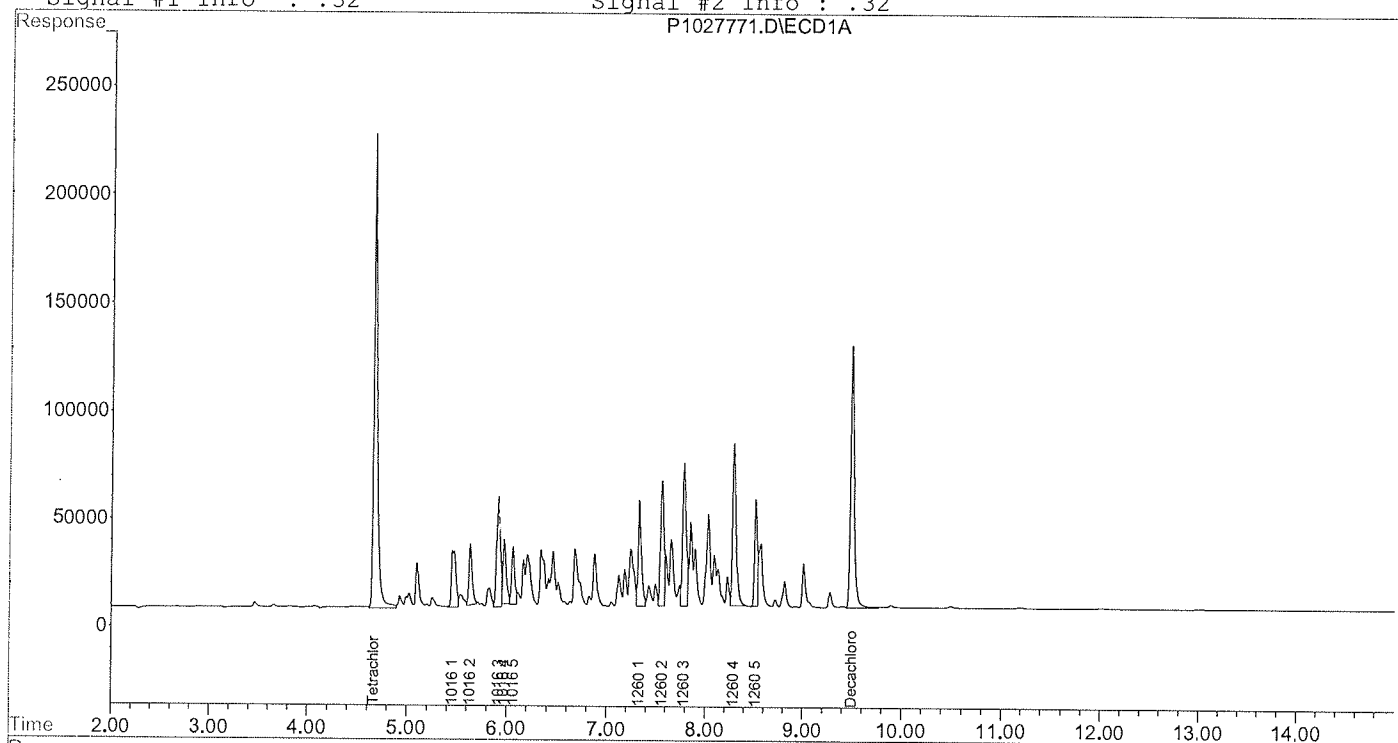
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.65	5338113	2797085	0.189	0.173
Spiked Amount	0.200	Range	30 - 150	Recovery =	94.50%	86.50%
17) S Decachlorobiphen	9.49	8.25	3174050	1903016	0.160	0.145
Spiked Amount	0.200	Range	30 - 150	Recovery =	80.00%	72.50%
Target Compounds						
2) T 1016 1	5.45	4.49	866145	537954	1.063m	1.014
3) T 1016 2	5.63	4.67	642933	434329	1.052m	1.133
4) T 1016 3	5.91	4.93	1364167	721955	1.108m	1.029
5) T 1016 4	5.97	4.98	695634	529528	1.081m	1.127
6) T 1016 5	6.06	5.09	574887	307771	1.102m	1.076m
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.32	6.29	1142272	758543	1.085m	1.086
13) T 1260 2	7.56	6.47	1425537	791686	1.089m	1.094
14) T 1260 3	7.78	6.58	1639061	797972	1.126m	1.088m
15) T 1260 4	8.29	7.19	1805728	1261470	1.084m	1.135
16) T 1260 5	8.51	7.46	972674	1009368	1.105m	1.134

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027771.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027771.D\ECD2B.CH
 Acq On : 15 Mar 2016 9:04 am Operator: AMC
 Sample : SEQ-CCV1 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:16 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P1027789.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027789.D\ECD2B.CH
 Acq On : 15 Mar 2016 4:11 pm Operator: AMC
 Sample : SEQ-CCV3 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 8:13 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

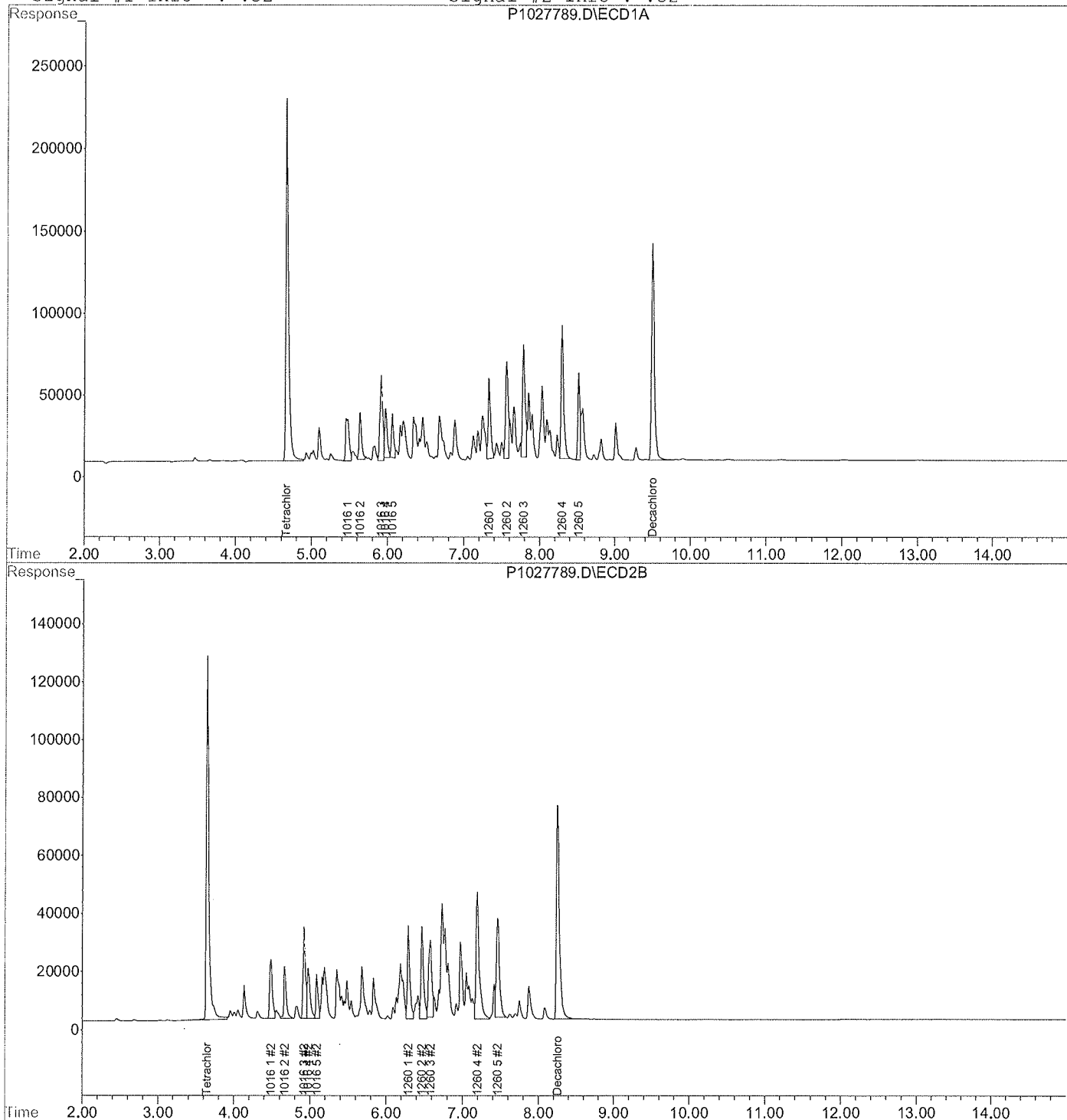
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.64	5371670	2907573	0.190	0.179
Spiked Amount	0.200	Range	30 - 150	Recovery =	95.00%	89.50%
17) S Decachlorobiphen	9.50	8.25	3423509	2013805	0.172	0.153
Spiked Amount	0.200	Range	30 - 150	Recovery =	86.00%	76.50%
Target Compounds						
2) T 1016 1	5.47	4.49	848673	501433	1.042	0.945
3) T 1016 2	5.63	4.67	666477	392291	1.091m	1.024
4) T 1016 3	5.91	4.92	1347972	692427	1.095	0.987
5) T 1016 4	5.97	4.98	680745	476131	1.058m	1.014
6) T 1016 5	6.06	5.09	567631	309554	1.088m	1.082
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.33	6.29	1145854	732536	1.089m	1.049
13) T 1260 2	7.56	6.47	1378635	769886	1.053m	1.064
14) T 1260 3	7.78	6.58	1653146	762317	1.135m	1.039m
15) T 1260 4	8.29	7.19	1914718	1278483	1.149m	1.150
16) T 1260 5	8.51	7.46	994692	969131	1.130m	1.089m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027789.D\ECD1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\031516\P1027789.D\ECD2B.CH
Acq On : 15 Mar 2016 4:11 pm Operator: AMC
Sample : SEQ-CCV3 Inst : ECD#1
Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 16 8:13 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
Last Update : Fri Jan 15 10:40:49 2016
Response via : Multiple Level Calibration
DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P1027810.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027810.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:55 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 8:15 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

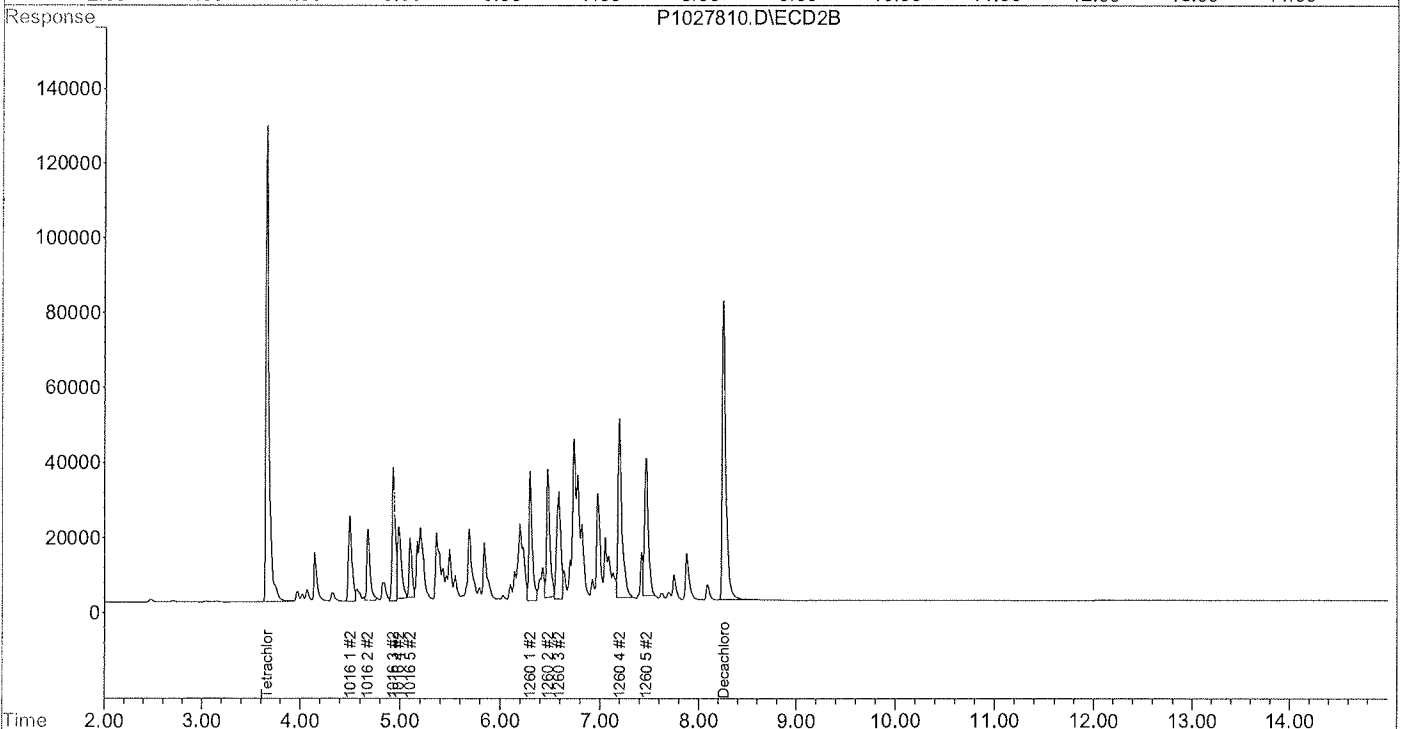
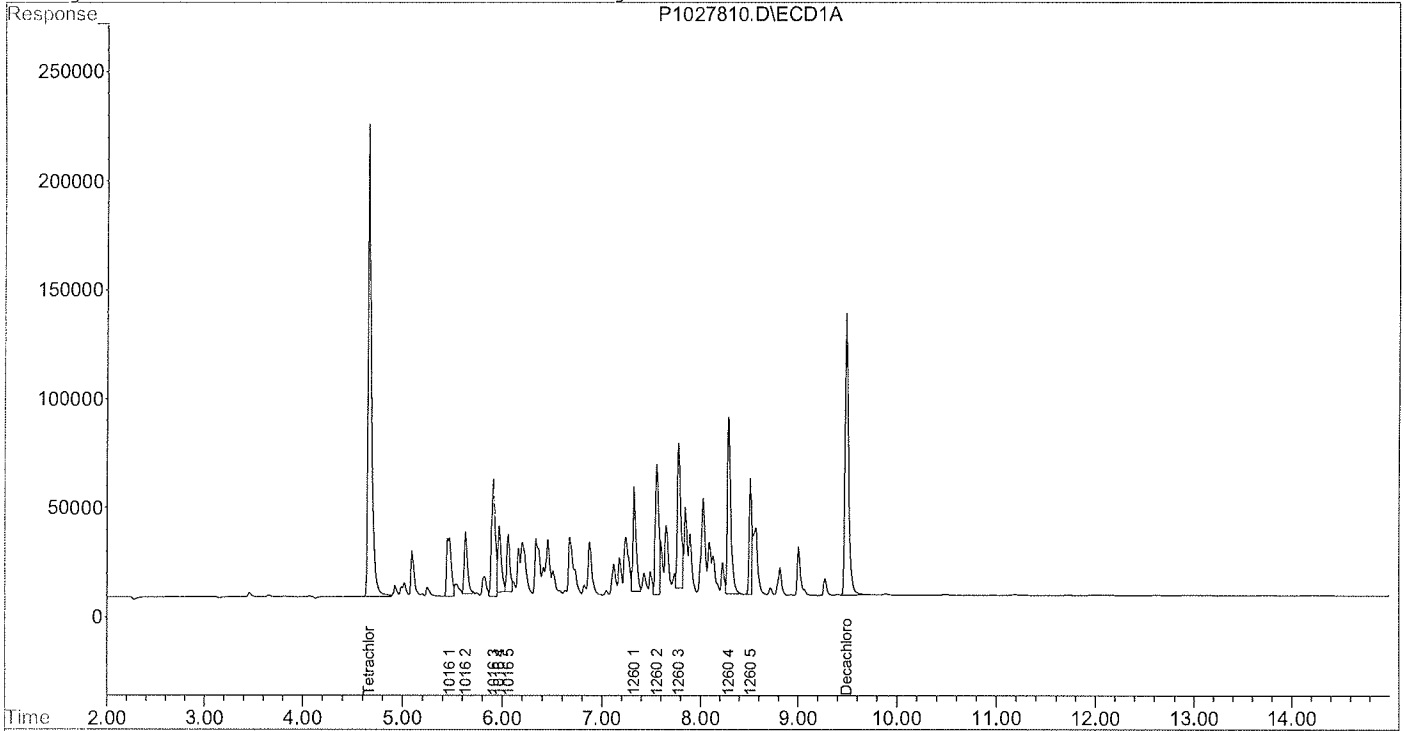
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	5158704	2767854	0.183	0.171
Spiked Amount	0.200 Range	30 - 150	Recovery	=	91.50%	85.50%
17) S Decachlorobiphen	9.49	8.25	3283371	2085711	0.165	0.159
Spiked Amount	0.200 Range	30 - 150	Recovery	=	82.50%	79.50%
Target Compounds						
2) T 1016 1	5.46	4.49	889978	565472	1.092	1.066
3) T 1016 2	5.63	4.67	630397	410900	1.032m	1.072m
4) T 1016 3	5.91	4.93	1392305	788808	1.131	1.125
5) T 1016 4	5.97	4.98	713135	503181	1.108m	1.071m
6) T 1016 5	6.05	5.10	554929	300881	1.064m	1.052m
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.32	6.30	1096935	773411	1.042m	1.108
13) T 1260 2	7.55	6.47	1485717	784424	1.135m	1.084m
14) T 1260 3	7.77	6.58	1578222	809231	1.084m	1.103m
15) T 1260 4	8.28	7.19	1907159	1246200	1.145m	1.121m
16) T 1260 5	8.51	7.46	942184	984447	1.070m	1.106m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027810.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027810.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:55 pm Operator: AMC
 Sample : SEQ-CCV4 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 8:15 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027819.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027819.D\ECD2B.CH
 Acq On : 16 Mar 2016 1:49 am Operator: AMC
 Sample : SEQ-CCV5 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 13:06 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

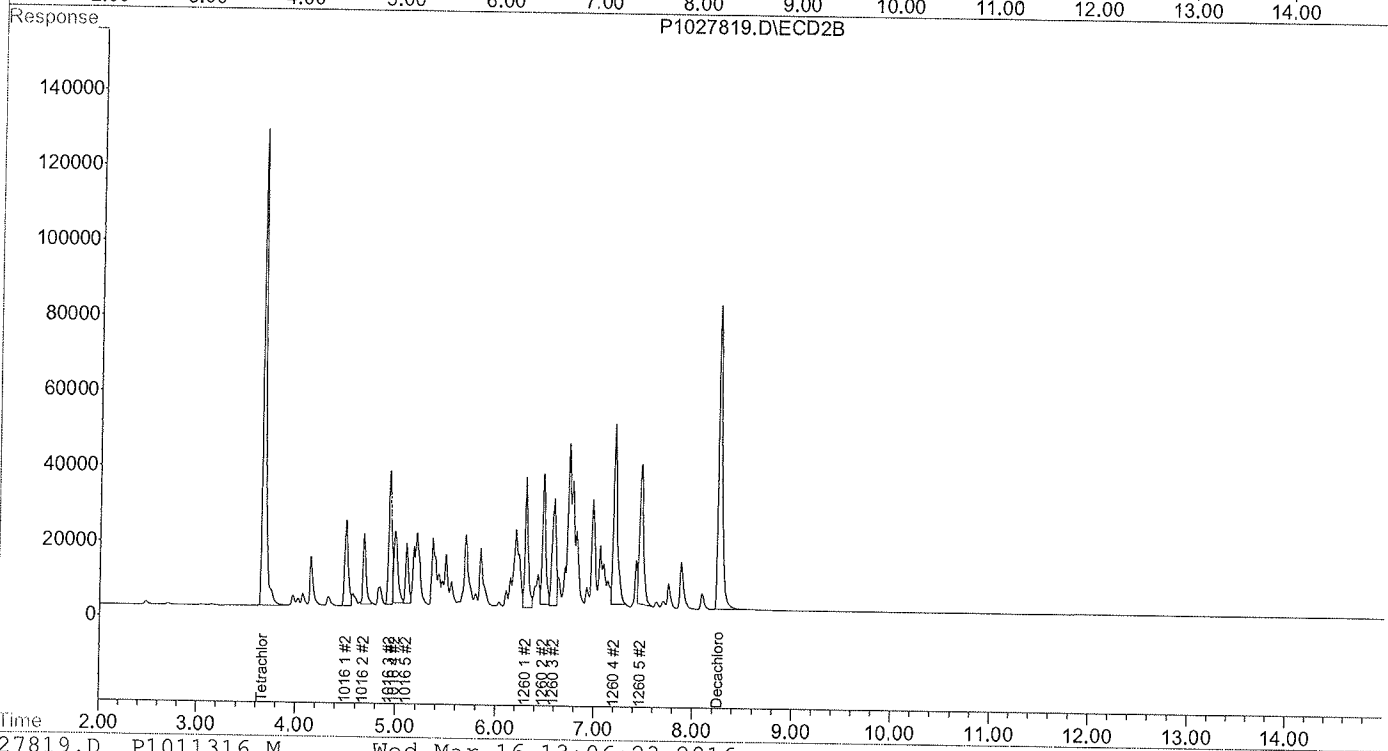
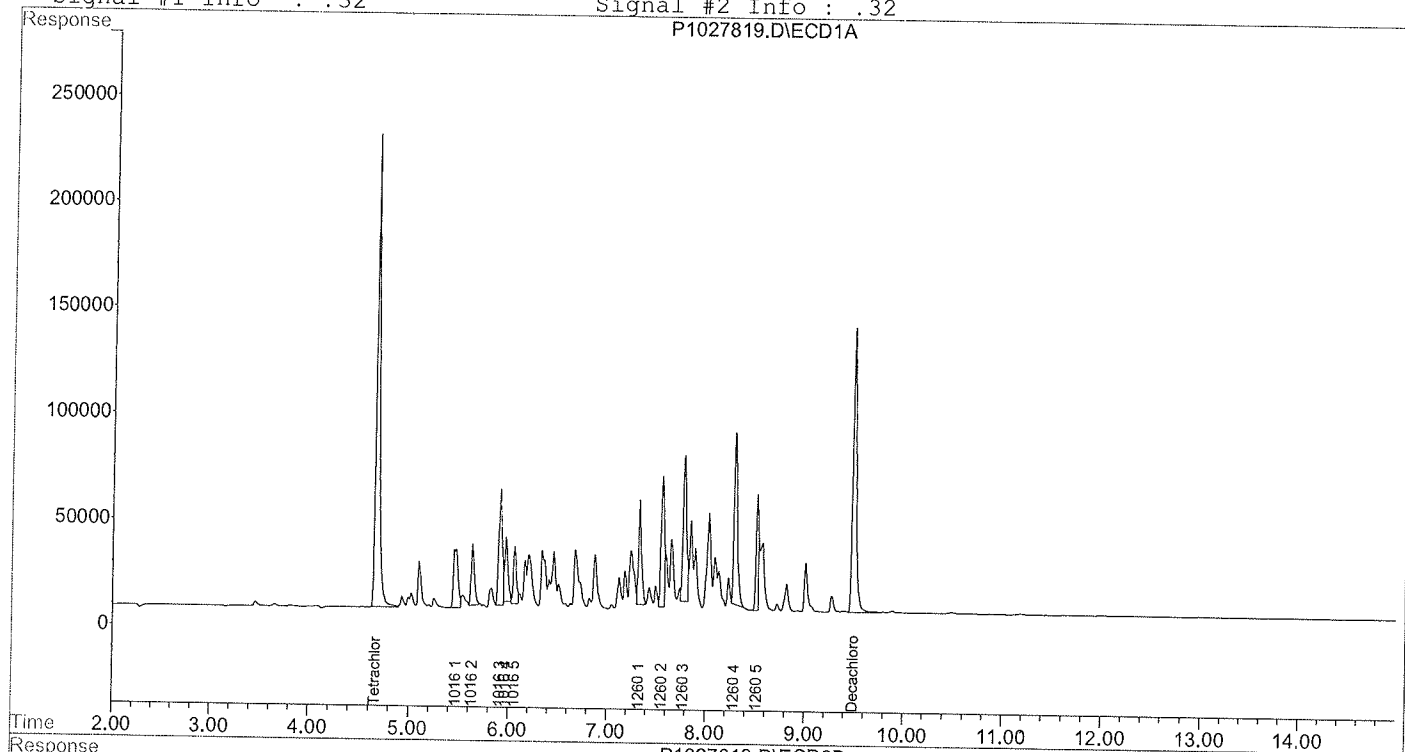
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	5300059	2771844	0.188	0.171
Spiked Amount	0.200	Range	30 - 150	Recovery	= 94.00%	85.50%
17) S Decachlorobiphen	9.49	8.25	3467664	2121995	0.175	0.161
Spiked Amount	0.200	Range	30 - 150	Recovery	= 87.50%	80.50%
Target Compounds						
2) T 1016 1	5.46	4.49	929875	572995	1.141	1.080
3) T 1016 2	5.63	4.67	649390	389111	1.063m	1.015m
4) T 1016 3	5.91	4.93	1345192	737094	1.093m	1.051m
5) T 1016 4	5.96	4.98	670849	497777	1.043m	1.060m
6) T 1016 5	6.05	5.10	567078	318124	1.087m	1.112m
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.32	6.29	1106155	784217	1.051m	1.123
13) T 1260 2	7.55	6.47	1432628	797851	1.094m	1.102m
14) T 1260 3	7.77	6.58	1667796	815036	1.145m	1.111m
15) T 1260 4	8.28	7.19	1865465	1252194	1.119m	1.126m
16) T 1260 5	8.51	7.46	942909	999125	1.071m	1.123m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027819.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027819.D\ECD2B.CH
 Acq On : 16 Mar 2016 1:49 am Operator: AMC
 Sample : SEQ-CCV5 Inst : ECD#1
 Misc : QBPCB1-031516A Y14F022 1016, 1260, 1.0 u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 13:06 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Response Factor Report GC_5890_I

Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016

Calibration Files

3 =P2020448.D 2 =P2020447.D 1 =P2020446.D
 0.5 =P2020445.D 0.2 =P2020444.D 0.05 =P2020443.D

Compound		3	2	1	0.5	0.2	0.05	Avg	%RSD	
1)	S Tetrachloro-m-xylene	2.698	2.722	2.843	2.872	3.156	3.798	3.015 E7	13.83	
2)	T 1221 1							3.688 E5	0.00	
3)	T 1221 2							2.639 E5	0.00	
4)	T 1221 3							8.638 E5	0.00	
5)	T 1016 1	5.802	5.376	6.348	7.212	8.829	7.716	6.880 E5	18.74	
6)	T 1016 2	1.459	1.533	1.655	1.726	1.916	1.745	1.672 E6	9.75	
7)	T 1016 3	0.788	0.796	0.908	0.994	1.149	0.693	0.888 E6	18.61	
8)	T 1016 4	5.875	6.248	6.855	7.268	8.118	5.142	6.584 E5	16.06	
9)	T 1016 5	5.203	5.568	6.190	6.541	7.305	6.978	6.298 E5	12.86	
10)	T 1232 1							4.522 E5	0.00	
11)	T 1232 2							2.390 E5	0.00	
12)	T 1232 3							3.011 E5	0.00	
13)	T 1232 4							6.033 E5	0.00	
14)	T 1232 5							3.396 E5	0.00	
15)	T 1242 1							3.336 E5	0.00	
16)	T 1242 2							4.009 E5	0.00	
17)	T 1242 3							8.536 E5	0.00	
18)	T 1242 4							5.241 E5	0.00	
19)	T 1242 5							3.070 E5	0.00	
20)	1248 1							5.602 E5	0.00	
21)	1248 2							6.341 E5	0.00	
22)	1248 3							4.911 E5	0.00	
23)	1248 4							5.231 E5	0.00	
24)	1248 5							9.484 E5	0.00	
25)	T 1254 1							8.002 E5	0.00	
26)	T 1254 2							8.934 E5	0.00	
27)	T 1254 3							7.667 E5	0.00	
28)	T 1254 4							1.264 E6	0.00	
29)	T 1254 5							8.477 E5	0.00	
30)	T 1260 1	1.184	1.246	1.417	1.534	1.824	1.658	1.477 E6	16.57	
31)	T 1260 2	1.607	1.530	1.844	2.000	2.278	2.360	1.936 E6	17.63	
32)	T 1260 3	1.747	1.819	2.003	2.170	2.546	2.634	2.153 E6	17.18	
33)	T 1260 4	1.755	1.822	1.973	2.159	2.527	2.614	2.142 E6	16.86	
34)	T 1260 5	1.013	0.996	1.119	1.198	1.437	1.451	1.202 E6	16.72	
35)	1262 1							1.058 E6	0.00	
36)	1262 2							1.491 E6	0.00	
37)	1262 3							1.489 E6	0.00	
38)	1262 4							2.473 E6	0.00	
39)	1262 5							1.644 E6	0.00	
40)	1268 1							2.235 E6	0.00	
41)	1268 2							2.163 E6	0.00	
42)	1268 3							1.808 E6	0.00	
43)	1268 4							7.956 E5	0.00	
44)	1268 5							4.228 E6	0.00	

(#) = Out of Range ### Number of calibration levels exceeded format ###
 P2012816.M Fri Jan 29 09:56:11 2016

Response Factor Report GC_5890_I

Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016

Calibration Files

3 =P2020448.D 2 =P2020447.D 1 =P2020446.D
 0.5 =P2020445.D 0.2 =P2020444.D 0.05 =P2020443.D

Compound	3	2	1	0.5	0.2	0.05	Avg	%RSD
45) S Decachlorobiphenyl	1.570	1.512	1.557	1.641	1.924	2.333	1.756 E7	18.16

Signal #2 Calibration Files

3 =P2020448.D 2 =P2020447.D 1 =P2020446.D
 0.5 =P2020445.D 0.2 =P2020444.D 0.05 =P2020443.D

Compound	3	2	1	0.5	0.2	0.05	Avg	%RSD
1) S Tetrachloro-m-xylen	2.170	2.160	2.217	2.210	2.365	2.819	2.324 E7	10.92
2) T 1221 1							2.766 E5	0.00
3) T 1221 2							2.104 E5	0.00
4) T 1221 3							7.171 E5	0.00
5) T 1016 1	0.746	0.793	0.884	0.953	1.104	1.085	0.928 E6	15.95
6) T 1016 2	5.039	5.045	5.374	5.455	6.339	5.692	5.491 E5	8.84
7) T 1016 3	1.134	1.149	1.133	1.096	1.144	1.022	1.113 E6	4.36
8) T 1016 4	4.376	4.451	4.335	4.425	4.846	3.166	4.267 E5	13.36
9) T 1016 5	4.386	4.481	4.398	4.499	5.073	4.474	4.552 E5	5.70
10) T 1232 1							3.721 E5	0.00
11) T 1232 2							3.386 E5	0.00
12) T 1232 3							2.325 E5	0.00
13) T 1232 4							4.076 E5	0.00
14) T 1232 5							2.828 E5	0.00
15) T 1242 1							4.701 E5	0.00
16) T 1242 2							3.049 E5	0.00
17) T 1242 3							6.012 E5	0.00
18) T 1242 4							4.415 E5	0.00
19) T 1242 5							2.368 E5	0.00
20) 1248 1							4.519 E5	0.00
21) 1248 2							5.104 E5	0.00
22) 1248 3							6.244 E5	0.00
23) 1248 4							6.779 E5	0.00
24) 1248 5							8.360 E5	0.00
25) T 1254 1							9.040 E5	0.00
26) T 1254 2							6.592 E5	0.00
27) T 1254 3							5.186 E5	0.00
28) T 1254 4							1.125 E6	0.00
29) T 1254 5							5.678 E5	0.00
30) T 1260 1	1.028	1.066	1.147	1.204	1.329	1.243	1.170 E6	9.62
31) T 1260 2	1.123	1.153	1.225	1.268	1.378	1.306	1.242 E6	7.69
32) T 1260 3	1.188	1.197	1.238	1.236	1.302	1.248	1.235 E6	3.29
33) T 1260 4	1.657	1.676	1.808	1.768	1.639	1.669	1.703 E6	4.02
34) T 1260 5	1.271	1.280	1.302	1.218	1.400	1.341	1.302 E6	4.82
35) 1262 1							9.302 E5	0.00
36) 1262 2							1.255 E6	0.00
37) 1262 3							1.246 E6	0.00

(#) = Out of Range ### Number of calibration levels exceeded format ###
 P2012816.M Fri Jan 29 09:56:11 2016

Response Factor Report GC_5890_I

Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016

Calibration Files

3 =P2020448.D 2 =P2020447.D 1 =P2020446.D
 0.5 =P2020445.D 0.2 =P2020444.D 0.05 =P2020443.D

Compound		3	2	1	0.5	0.2	0.05	Avg	%RSD
38)	1262 4							2.376 E6	0.00
39)	1262 5							1.828 E6	0.00
40)	1268 1							1.789 E6	0.00
41)	1268 2							2.111 E6	0.00
42)	1268 3							1.580 E6	0.00
43)	1268 4							7.598 E5	0.00
44)	1268 5							4.062 E6	0.00
45) S	Decachlorobiphenyl	1.465	1.515	1.490	1.533	1.759	2.104	1.644 E7	15.12

(#) = Out of Range ### Number of calibration levels exceeded format ###
 P2012816.M Fri Jan 29 09:56:12 2016

Calibration Retention Time Report GC_5890_I

Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration

First Calibration Standard : C:\HPCHEM\1\DATA\012816\P2020443.D\ECD1A.CH
 Second Calibration Standard : P2020445.D
 Third Calibration Standard : P2020447.D

Compound	RT of Standard			Mean RT	RT Window	
	First	Second	Third		From	To
1 Tetrachloro-m-xylene	6.441	6.442	6.441	6.441	6.387	6.487
2 1221 1	0.000	0.000	0.000	0.000	-0.498	0.502
3 1221 2	0.000	0.000	0.000	0.000	-0.500	0.500
4 1221 3	0.000	0.000	0.000	0.000	-0.500	0.500
5 1016 1	8.261	8.261	8.259	8.260	8.206	8.306
6 1016 2	9.344	9.341	9.337	9.341	9.288	9.388
7 1016 3	9.471	9.467	9.463	9.467	9.414	9.514
8 1016 4	9.660	9.660	9.657	9.659	9.606	9.706
9 1016 5	10.333	10.333	10.330	10.332	10.280	10.380
10 1232 1	0.000	0.000	0.000	0.000	-0.500	0.500
11 1232 2	0.000	0.000	0.000	0.000	-0.498	0.502
12 1232 3	0.000	0.000	0.000	0.000	-0.500	0.500
13 1232 4	0.000	0.000	0.000	0.000	-0.500	0.500
14 1232 5	0.000	0.000	0.000	0.000	-0.500	0.500
15 1242 1	0.000	0.000	0.000	0.000	-0.500	0.500
16 1242 2	0.000	0.000	0.000	0.000	-0.502	0.498
17 1242 3	0.000	0.000	0.000	0.000	-0.499	0.501
18 1242 4	0.000	0.000	0.000	0.000	-0.498	0.502
19 1242 5	0.000	0.000	0.000	0.000	-0.500	0.500
20 1248 1	0.000	0.000	0.000	0.000	-0.504	0.496
21 1248 2	0.000	0.000	0.000	0.000	-0.503	0.497
22 1248 3	0.000	0.000	0.000	0.000	-0.501	0.499
23 1248 4	0.000	0.000	0.000	0.000	-0.500	0.500
24 1248 5	0.000	0.000	0.000	0.000	-0.500	0.500
25 1254 1	0.000	0.000	0.000	0.000	-0.053	0.047
26 1254 2	0.000	0.000	0.000	0.000	-0.052	0.048
27 1254 3	0.000	0.000	0.000	0.000	-0.051	0.049
28 1254 4	0.000	0.000	0.000	0.000	-0.050	0.050
29 1254 5	0.000	0.000	0.000	0.000	-0.048	0.052
30 1260 1	12.694	12.694	12.690	12.692	12.642	12.742
31 1260 2	13.262	13.260	13.255	13.259	13.209	13.309
32 1260 3	13.772	13.770	13.765	13.769	13.719	13.819
33 1260 4	15.008	15.006	15.002	15.005	14.955	15.055
34 1260 5	15.513	15.511	15.508	15.511	15.459	15.559
35 1262 1	0.000	0.000	0.000	0.000	-0.502	0.498
36 1262 2	0.000	0.000	0.000	0.000	-0.502	0.498
37 1262 3	0.000	0.000	0.000	0.000	-0.503	0.497
38 1262 4	0.000	0.000	0.000	0.000	-0.501	0.499
39 1262 5	0.000	0.000	0.000	0.000	-0.501	0.499
40 1268 1	0.000	0.000	0.000	0.000	-0.501	0.499
41 1268 2	0.000	0.000	0.000	0.000	-0.500	0.500
42 1268 3	0.000	0.000	0.000	0.000	-0.502	0.498
43 1268 4	0.000	0.000	0.000	0.000	-0.500	0.500
44 1268 5	0.000	0.000	0.000	0.000	-0.500	0.500
45 Decachlorobiphenyl	17.520	17.522	17.521	17.521	17.470	17.570

Signal #2

First Calibration Standard : C:\HPCHEM\1\DATA\012816\P2020443.D\ECD2B.CH

Second Calibration Standard : C:\HPCHEM\1\DATA\012816\P2020445.D\ECD2B.CH
 Third Calibration Standard : C:\HPCHEM\1\DATA\012816\P2020447.D\ECD2B.CH

Compound	RT of Standard			Mean RT	RT Window	
	First	Second	Third		From	To
1 Tetrachloro-m-xylene	5.126	5.125	5.124	5.125	5.070	5.170
2 1221 1	0.000	0.000	0.000	0.000	-0.498	0.502
3 1221 2	0.000	0.000	0.000	0.000	-0.498	0.502
4 1221 3	0.000	0.000	0.000	0.000	-0.500	0.500
5 1016 1	7.034	7.033	7.031	7.033	6.980	7.080
6 1016 2	7.454	7.453	7.451	7.453	7.397	7.497
7 1016 3	8.069	8.067	8.062	8.066	8.012	8.112
8 1016 4	8.452	8.452	8.450	8.451	8.397	8.497
9 1016 5	9.078	9.079	9.077	9.078	9.025	9.125
10 1232 1	0.000	0.000	0.000	0.000	-0.500	0.500
11 1232 2	0.000	0.000	0.000	0.000	-0.499	0.501
12 1232 3	0.000	0.000	0.000	0.000	-0.498	0.502
13 1232 4	0.000	0.000	0.000	0.000	-0.498	0.502
14 1232 5	0.000	0.000	0.000	0.000	-0.498	0.502
15 1242 1	0.000	0.000	0.000	0.000	-0.500	0.500
16 1242 2	0.000	0.000	0.000	0.000	-0.500	0.500
17 1242 3	0.000	0.000	0.000	0.000	-0.500	0.500
18 1242 4	0.000	0.000	0.000	0.000	-0.498	0.502
19 1242 5	0.000	0.000	0.000	0.000	-0.500	0.500
20 1248 1	0.000	0.000	0.000	0.000	-0.504	0.496
21 1248 2	0.000	0.000	0.000	0.000	-0.506	0.494
22 1248 3	0.000	0.000	0.000	0.000	-0.499	0.501
23 1248 4	0.000	0.000	0.000	0.000	-0.496	0.504
24 1248 5	0.000	0.000	0.000	0.000	-0.500	0.500
25 1254 1	0.000	0.000	0.000	0.000	-0.054	0.046
26 1254 2	0.000	0.000	0.000	0.000	-0.052	0.048
27 1254 3	0.000	0.000	0.000	0.000	-0.052	0.048
28 1254 4	0.000	0.000	0.000	0.000	-0.053	0.047
29 1254 5	0.000	0.000	0.000	0.000	-0.050	0.050
30 1260 1	11.338	11.336	11.332	11.335	11.283	11.383
31 1260 2	11.790	11.787	11.781	11.786	11.735	11.835
32 1260 3	12.399	12.398	12.392	12.397	12.348	12.448
33 1260 4	13.518	13.517	13.509	13.515	13.464	13.564
34 1260 5	14.154	14.152	14.150	14.152	14.100	14.200
35 1262 1	0.000	0.000	0.000	0.000	-0.503	0.497
36 1262 2	0.000	0.000	0.000	0.000	-0.503	0.497
37 1262 3	0.000	0.000	0.000	0.000	-0.505	0.495
38 1262 4	0.000	0.000	0.000	0.000	-0.504	0.496
39 1262 5	0.000	0.000	0.000	0.000	-0.504	0.496
40 1268 1	0.000	0.000	0.000	0.000	-0.502	0.498
41 1268 2	0.000	0.000	0.000	0.000	-0.503	0.497
42 1268 3	0.000	0.000	0.000	0.000	-0.504	0.496
43 1268 4	0.000	0.000	0.000	0.000	-0.502	0.498
44 1268 5	0.000	0.000	0.000	0.000	-0.503	0.497
45 Decachlorobiphenyl	16.007	16.007	16.007	16.007	15.946	16.066

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020443.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020443.D\ECD2B.CH
 Acq On : 28 Jan 2016 11:26 am Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.05ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:44 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.44	5.13	1519156	1127744	0.059m	0.047
Spiked Amount	0.200	Range	30 - 150	Recovery =	29.50%#	23.50%#
45) S Decachlorobiphen	17.52	16.01	933343	841466	0.056m	0.053
Spiked Amount	0.200	Range	30 - 150	Recovery =	28.00%#	26.50%#
Target Compounds						
5) T 1016 1	8.26	7.03	38578	54265	0.058m	0.052
6) T 1016 2	9.34	7.45	87259	28461	0.052	0.045
7) T 1016 3	9.47	8.07	34641	51076	0.041m	0.044
8) T 1016 4	9.66	8.45	25708	15828	0.041	0.033
9) T 1016 5	10.33	9.08	34891	22372	0.056m	0.042m#
30) T 1260 1	12.69	11.34	82902	62145	0.062	0.049
31) T 1260 2	13.26	11.79	118008	65287	0.067m	0.049 #
32) T 1260 3	13.77	12.40	131684	62397	0.067	0.046m#
33) T 1260 4	15.01	13.52	130687	83436	0.064	0.045 #
34) T 1260 5	15.51	14.15	72530	67053	0.059m	0.048

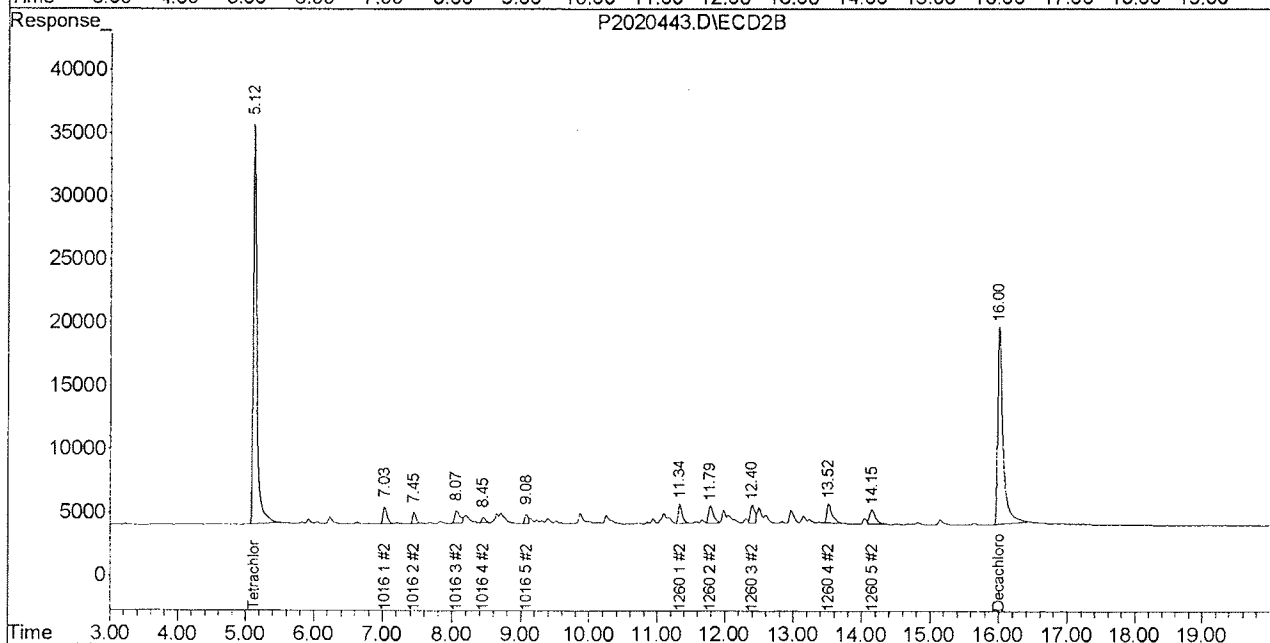
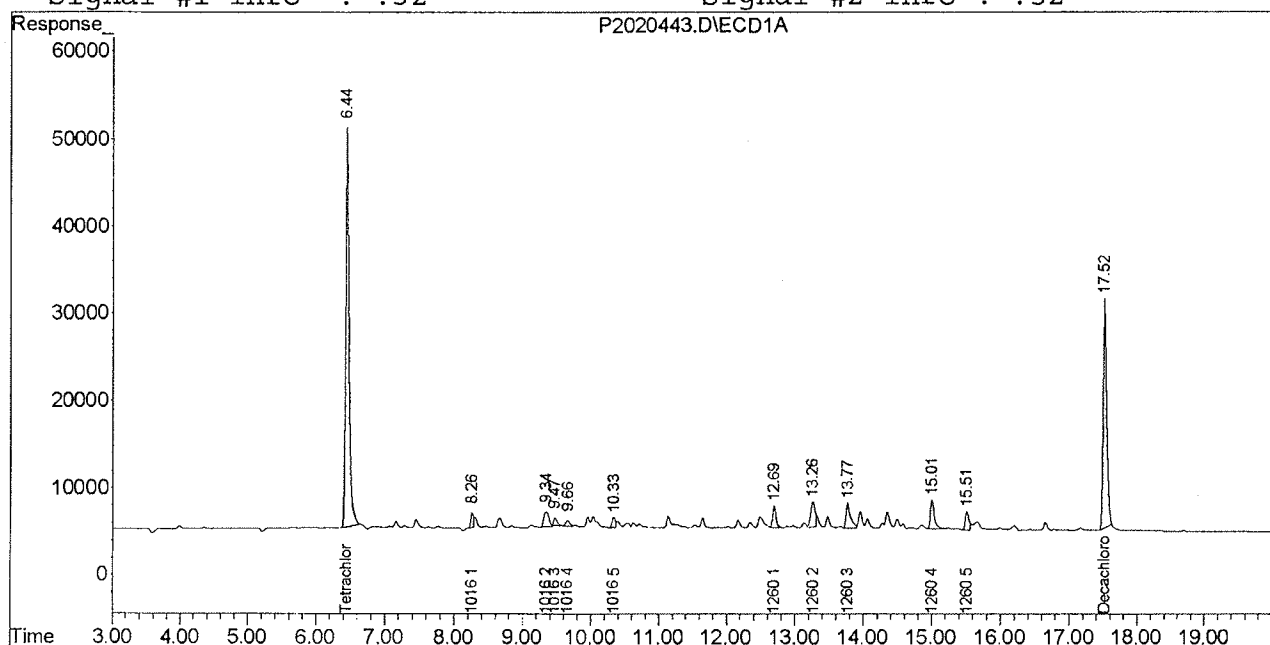
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P2020443.D P2012816.M Fri Jan 29 09:54:30 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020443.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020443.D\ECD2B.CH
 Acq On : 28 Jan 2016 11:26 am Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.05ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:44 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020444.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020444.D\ECD2B.CH
 Acq On : 28 Jan 2016 11:55 am Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.20ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 0.2u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:26 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.44	5.12	2524768	1892028	0.097	0.079
Spiked Amount	0.200	Range	30 - 150	Recovery =	48.50%	39.50%
45) S Decachlorobiphen	17.52	16.01	1538955	1406914	0.092	0.088
Spiked Amount	0.200	Range	30 - 150	Recovery =	46.00%	44.00%
Target Compounds						
5) T 1016 1	8.26	7.03	176571	220842	0.265	0.212
6) T 1016 2	9.34	7.45	383259	126790	0.227	0.202
7) T 1016 3	9.47	8.07	229884	228812	0.272	0.199 #
8) T 1016 4	9.66	8.45	162355	96919	0.256	0.203
9) T 1016 5	10.33	9.08	146098	101466	0.235	0.190m
30) T 1260 1	12.69	11.34	364866	265900	0.273	0.210
31) T 1260 2	13.26	11.79	455543	275645	0.258m	0.207
32) T 1260 3	13.77	12.40	509136	260359	0.257	0.194
33) T 1260 4	15.01	13.52	505387	327814	0.249	0.178 #
34) T 1260 5	15.51	14.15	287394	280057	0.233m	0.202

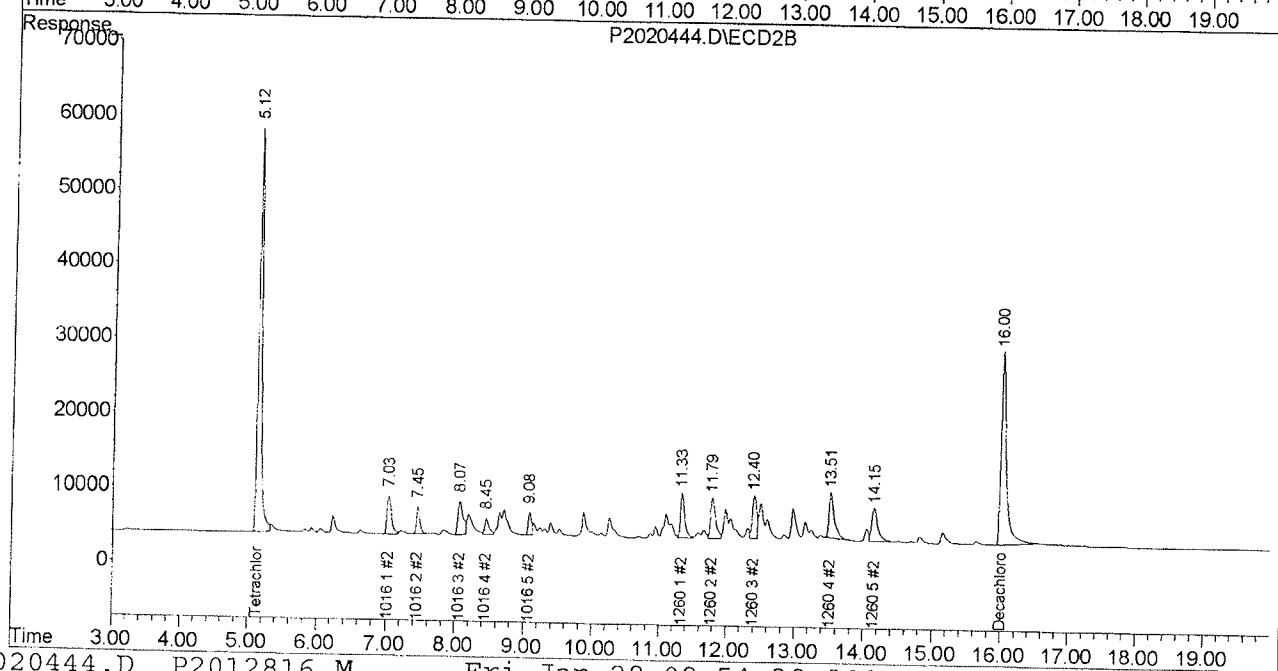
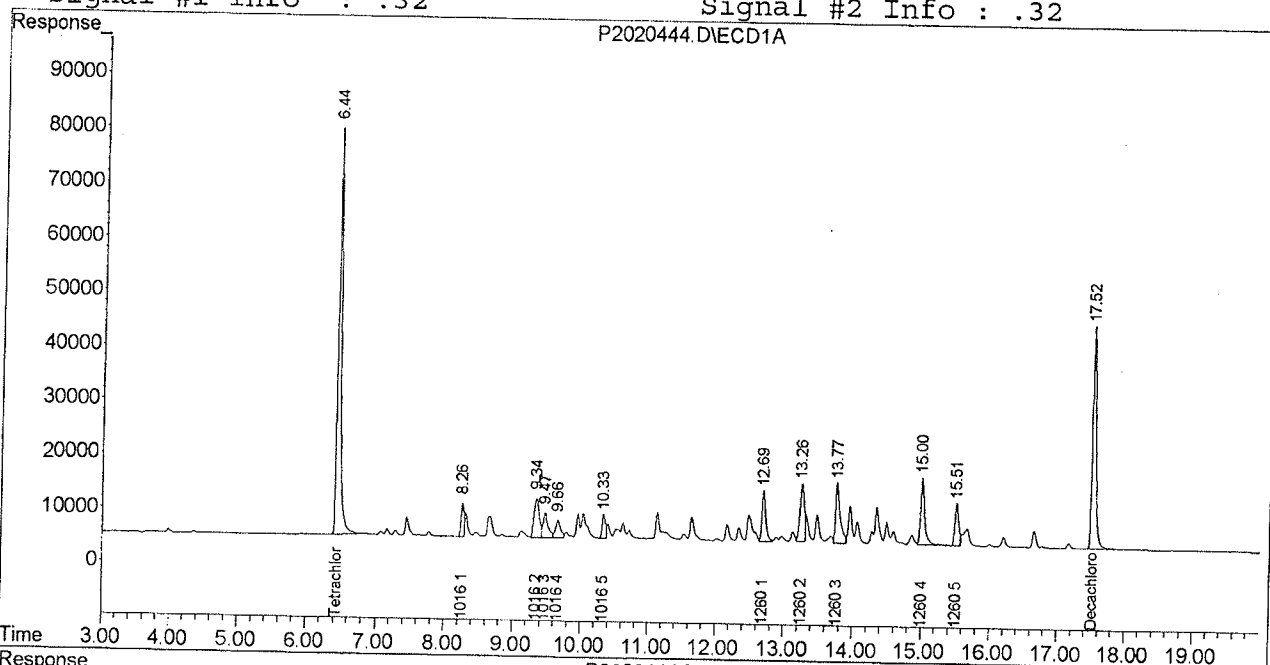
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P2020444.D P2012816.M Fri Jan 29 09:54:39 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020444.D\ECD1A.CH Vial: 2
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020444.D\ECD2B.CH
 Acq On : 28 Jan 2016 11:55 am Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.20ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 0.2u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:26 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



P2020444.D P2012816.M

Fri Jan 29 09:54:39 2016

Page 2

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020445.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020445.D\ECD2B.CH
 Acq On : 28 Jan 2016 12:24 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.50ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 0.5u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:27 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds

1) S	Tetrachloro-m-xy	6.44	5.12	3446881	2652523	0.133	0.111
	Spiked Amount	0.200	Range	30 - 150	Recovery	= 66.50%	55.50%
45) S	Decachlorobiphen	17.52	16.01	1969381	1840042	0.118	0.116
	Spiked Amount	0.200	Range	30 - 150	Recovery	= 59.00%	58.00%

Target Compounds

5) T	1016 1	8.26	7.03	360622	476327	0.541	0.457
6) T	1016 2	9.34	7.45	863105	272754	0.511	0.435
7) T	1016 3	9.47	8.07	496963	547935	0.588	0.476
8) T	1016 4	9.66	8.45	363417	221265	0.573	0.464
9) T	1016 5	10.33	9.08	327061	224970	0.527	0.422
30) T	1260 1	12.69	11.34	767152	601844	0.574	0.475
31) T	1260 2	13.26	11.79	1000209	634040	0.566m	0.477
32) T	1260 3	13.77	12.40	1085142	617762	0.549	0.459
33) T	1260 4	15.01	13.52	1079733	883839	0.533	0.479
34) T	1260 5	15.51	14.15	599004	609042	0.486m	0.440

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P2020445.D P2012816.M Fri Jan 29 09:55:34 2016

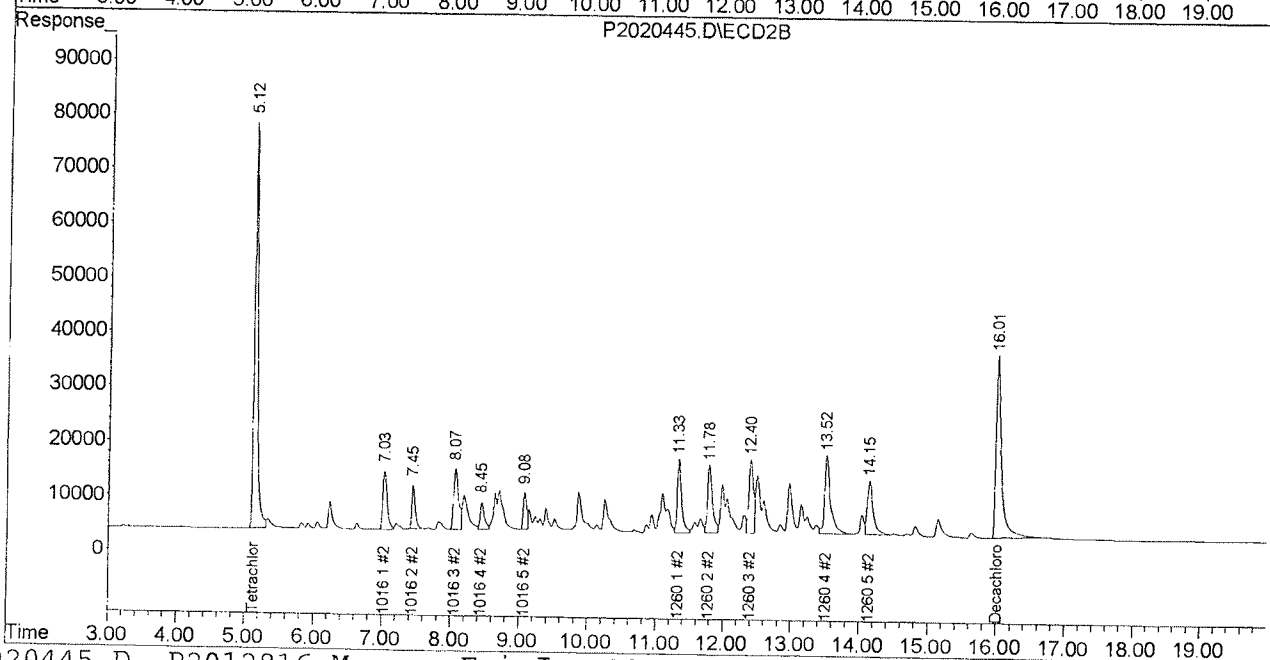
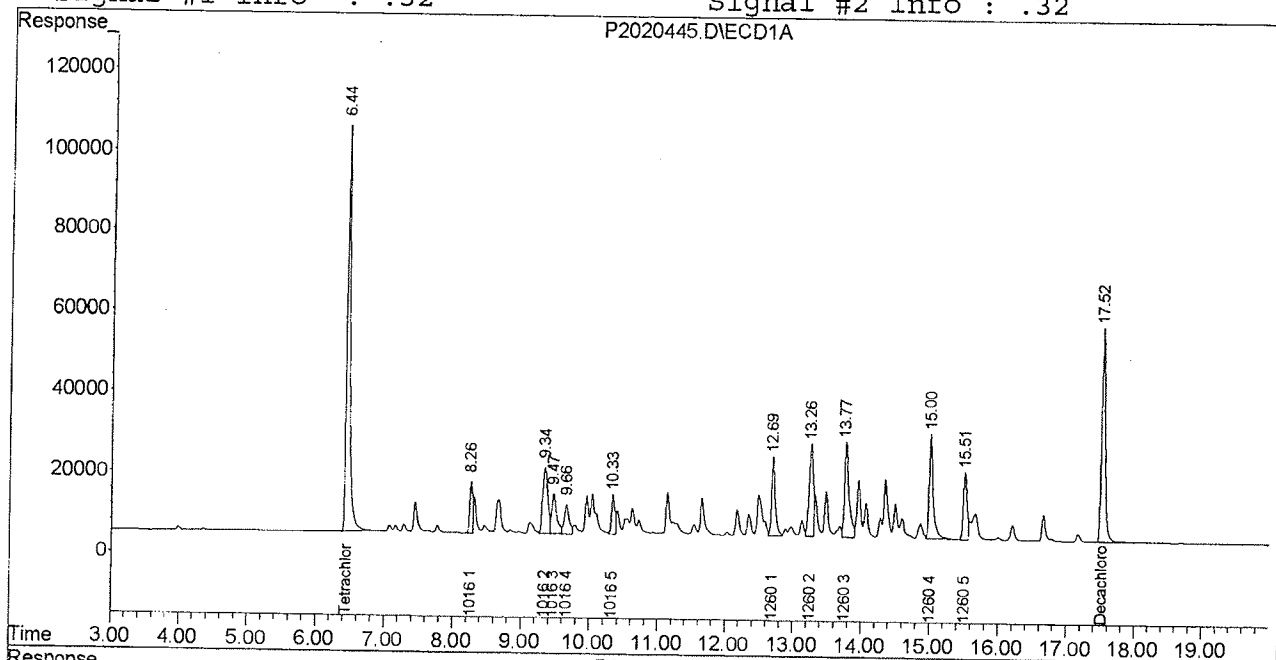
Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020445.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020445.D\ECD2B.CH
 Acq On : 28 Jan 2016 12:24 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 0.50ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 0.5u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:27 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



P2020445.D P2012816.M

Fri Jan 29 09:55:35 2016

Page 2

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020446.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020446.D\ECD2B.CH
 Acq On : 28 Jan 2016 12:54 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 1.0ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:28 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

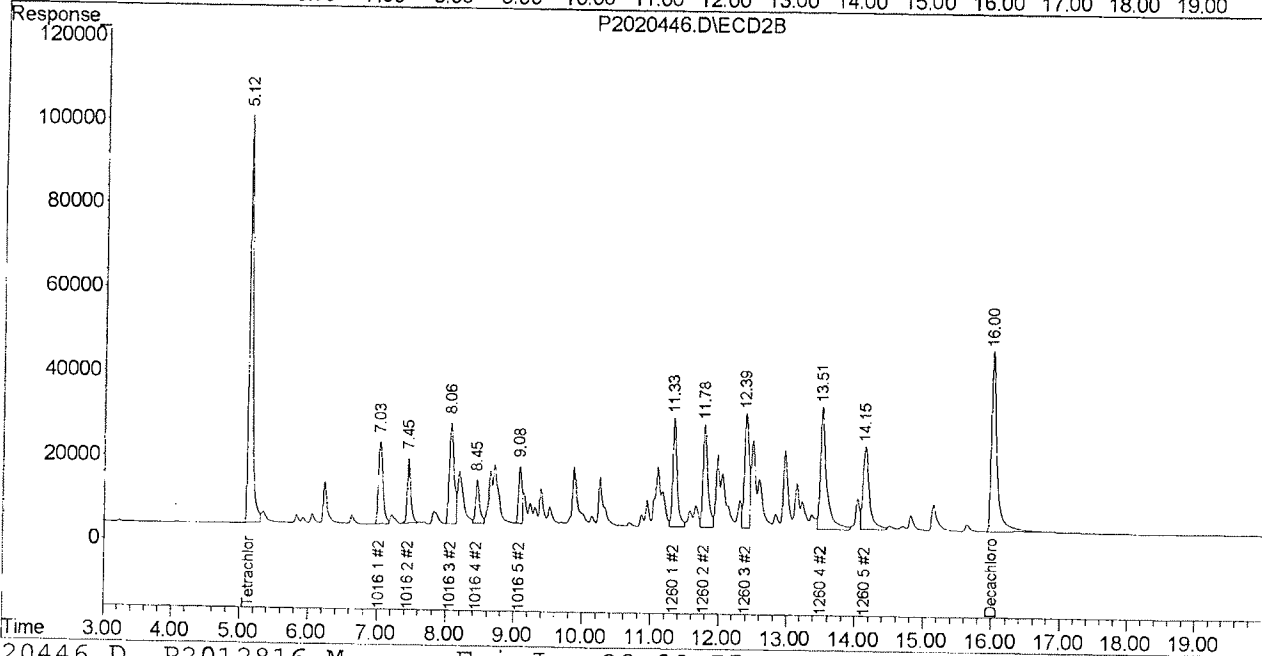
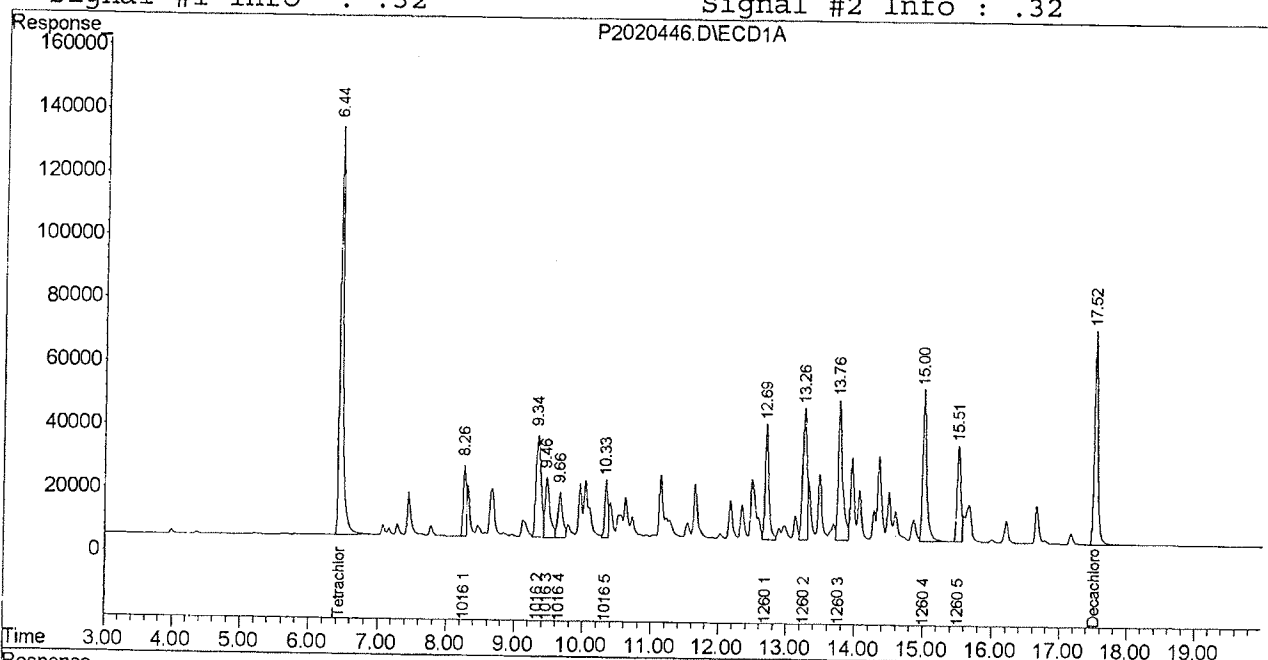
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.44	5.12	4548153	3546951	0.176	0.148
Spiked Amount	0.200	Range	30 - 150	Recovery	= 88.00%	74.00%
45) S Decachlorobiphen	17.52	16.01	2491139	2384683	0.150	0.150
Spiked Amount	0.200	Range	30 - 150	Recovery	= 75.00%	75.00%
Target Compounds						
5) T 1016 1	8.26	7.03	634838	884241	0.952	0.849
6) T 1016 2	9.34	7.45	1654516	537419	0.979	0.857
7) T 1016 3	9.46	8.06	907522	1133280	1.074	0.984
8) T 1016 4	9.66	8.45	685510	433521	1.081	0.909
9) T 1016 5	10.33	9.08	619017	439753	0.997	0.825
30) T 1260 1	12.69	11.33	1416643	1146654	1.059	0.905
31) T 1260 2	13.26	11.78	1843570	1224888	1.043m	0.921
32) T 1260 3	13.77	12.39	2003188	1238188	1.013	0.921
33) T 1260 4	15.00	13.51	1972749	1808185	0.973	0.980m
34) T 1260 5	15.51	14.15	1118815	1302103	0.908m	0.941

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020446.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020446.D\ECD2B.CH
 Acq On : 28 Jan 2016 12:54 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 1.0ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:28 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020447.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020447.D\ECD2B.CH
 Acq On : 28 Jan 2016 1:23 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 2.0ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 2.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:29 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.44	5.12	5444558	4320507	0.210	0.180
Spiked Amount	0.200	Range 30 - 150	Recovery =	105.00%	90.00%	
45) S Decachlorobiphen	17.52	16.01	3024184	3029154	0.182	0.190
Spiked Amount	0.200	Range 30 - 150	Recovery =	91.00%	95.00%	
Target Compounds						
5) T 1016 1	8.26	7.03	1075184	1586446	1.612	1.523
6) T 1016 2	9.34	7.45	3065428	1009048	1.814	1.610
7) T 1016 3	9.46	8.06	1592718	2298524	1.884	1.996
8) T 1016 4	9.66	8.45	1249576	890260	1.971	1.866
9) T 1016 5	10.33	9.08	1113623	896275	1.794	1.681
30) T 1260 1	12.69	11.33	2491885	2132859	1.863	1.683
31) T 1260 2	13.26	11.78	3059998	2305921	1.732m	1.733
32) T 1260 3	13.77	12.39	3637917	2394444	1.839	1.781
33) T 1260 4	15.00	13.51	3644024	3351745	1.798	1.816m
34) T 1260 5	15.51	14.15	1992775	2560034	1.617m	1.850

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020447.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\012816\P2020447.D\ECD2B.CH
Acq On : 28 Jan 2016 1:23 pm Operator: AMC
Sample : AROCLOR 1016, 1260, 2.0ug/mL Inst : GC_5890_I
Misc : QBPCB2-012816A Y14F022, 1016, 1260, 2.0u Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 29 9:29 2016 Quant Results File: PCB1110A.RES

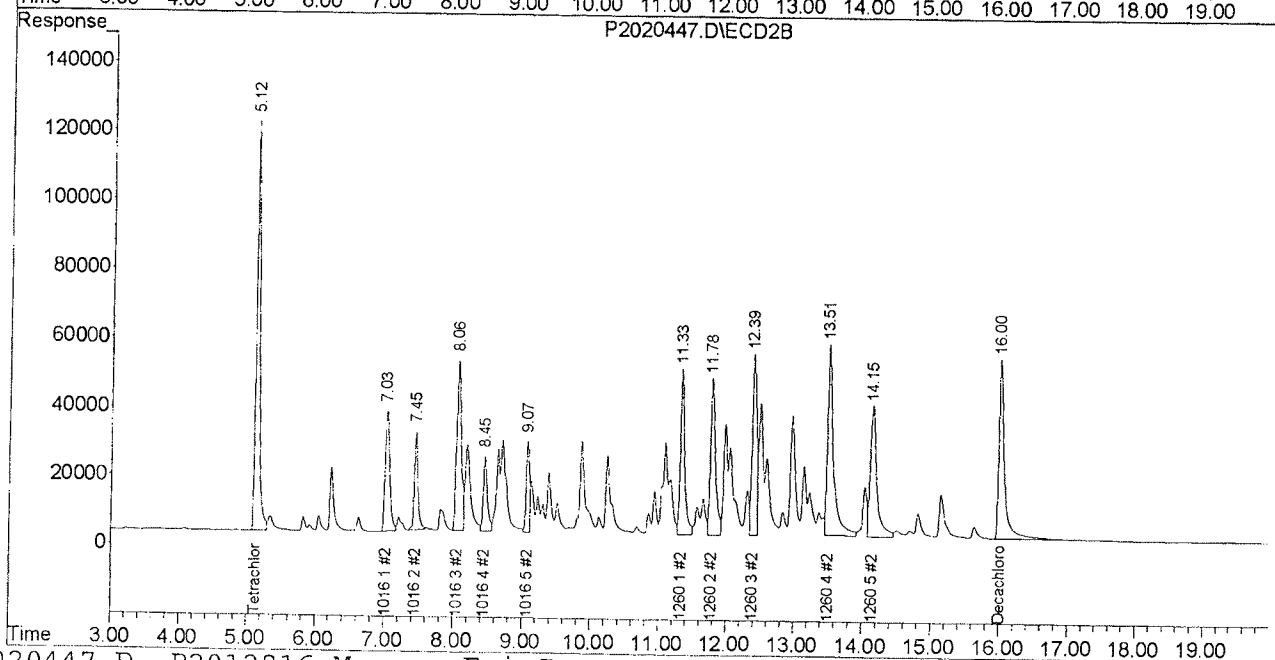
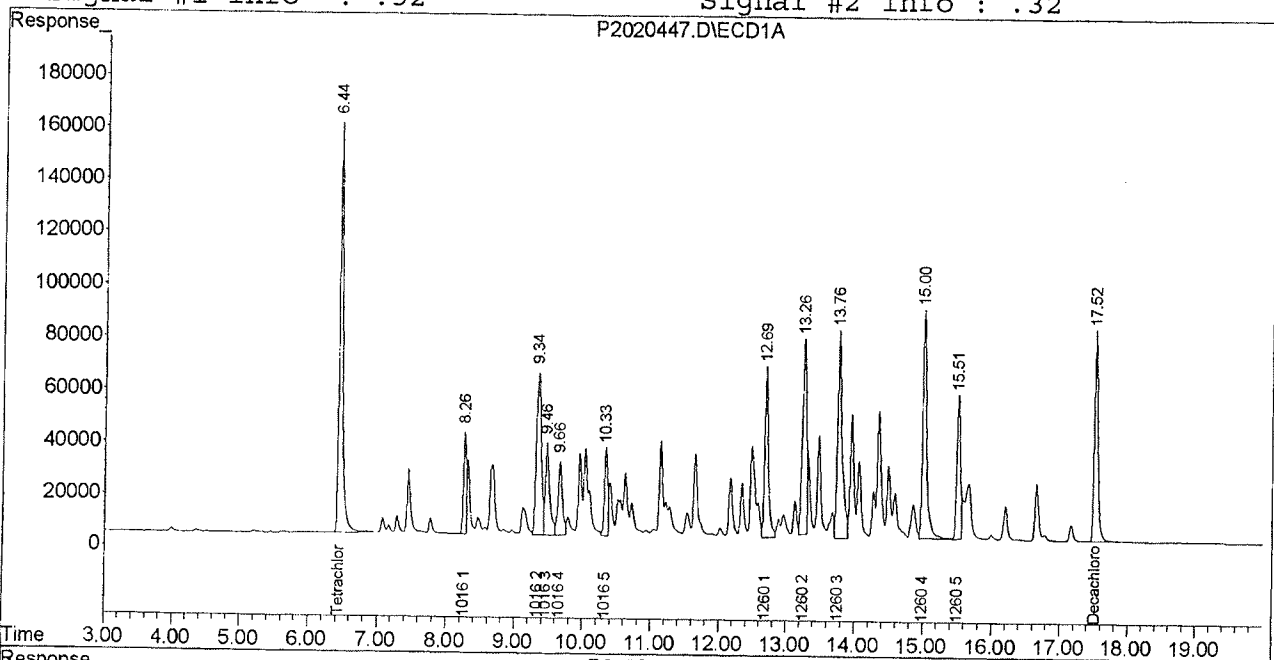
Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
Last Update : Fri Jan 29 09:24:02 2016
Response via : Multiple Level Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2

Signal #1 Info : .32

Signal #2 Info : .32



P2020447.D P2012816.M

Fri Jan 29 09:55:51 2016

Page 2

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020448.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020448.D\ECD2B.CH
 Acq On : 28 Jan 2016 1:52 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 3.0ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 3.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:43 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.44	5.12	6474749	5206805	0.250	0.217
Spiked Amount	0.200	Range 30 - 150	Recovery =	125.00%	108.50%	
45) S Decachlorobiphen	17.52	16.01	3767695	3516492	0.226m	0.221
Spiked Amount	0.200	Range 30 - 150	Recovery =	113.00%	110.50%	
Target Compounds						
5) T 1016 1	8.26	7.03	1740576	2239344	2.610m	2.150
6) T 1016 2	9.34	7.45	4378202	1511816	2.591	2.412
7) T 1016 3	9.46	8.06	2363258	3401788	2.796m	2.954
8) T 1016 4	9.66	8.45	1762386	1312710	2.780	2.751
9) T 1016 5	10.33	9.08	1560814	1315728	2.514	2.467
30) T 1260 1	12.69	11.33	3552604	3084459	2.657	2.434
31) T 1260 2	13.25	11.78	4821007	3369389	2.729m	2.533
32) T 1260 3	13.76	12.39	5241081	3565439	2.650	2.651
33) T 1260 4	15.00	13.51	5263979	4969654	2.597	2.693m
34) T 1260 5	15.51	14.15	3038268	3813307	2.466	2.756

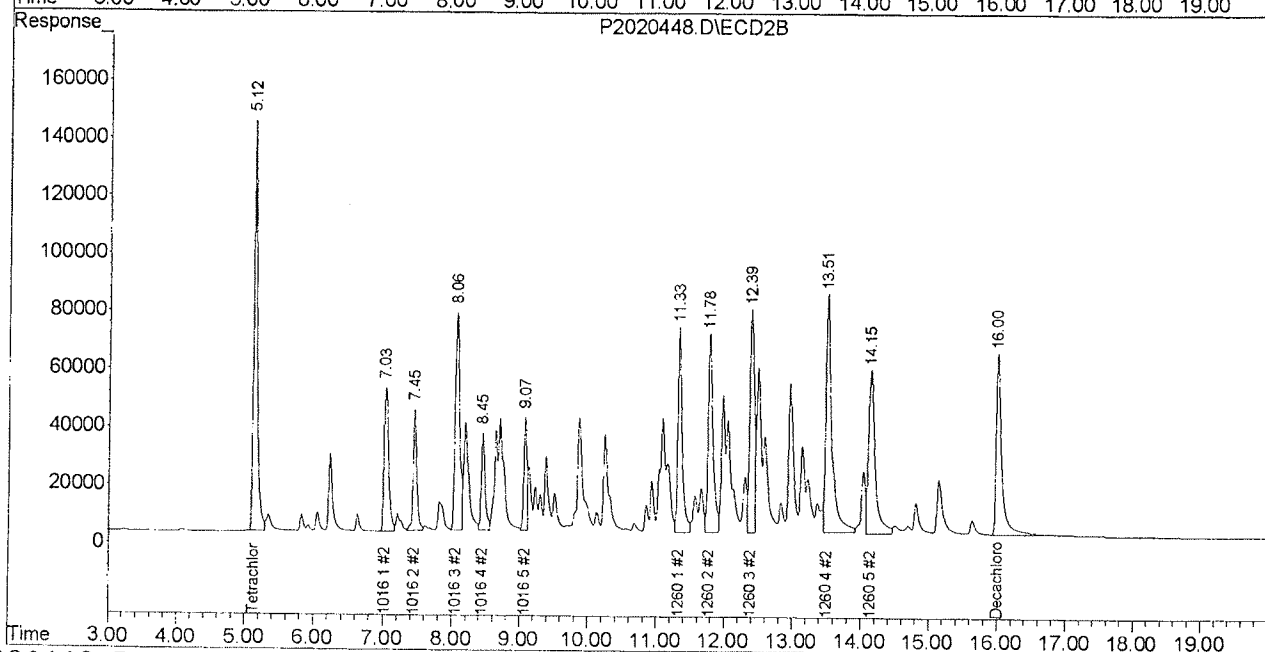
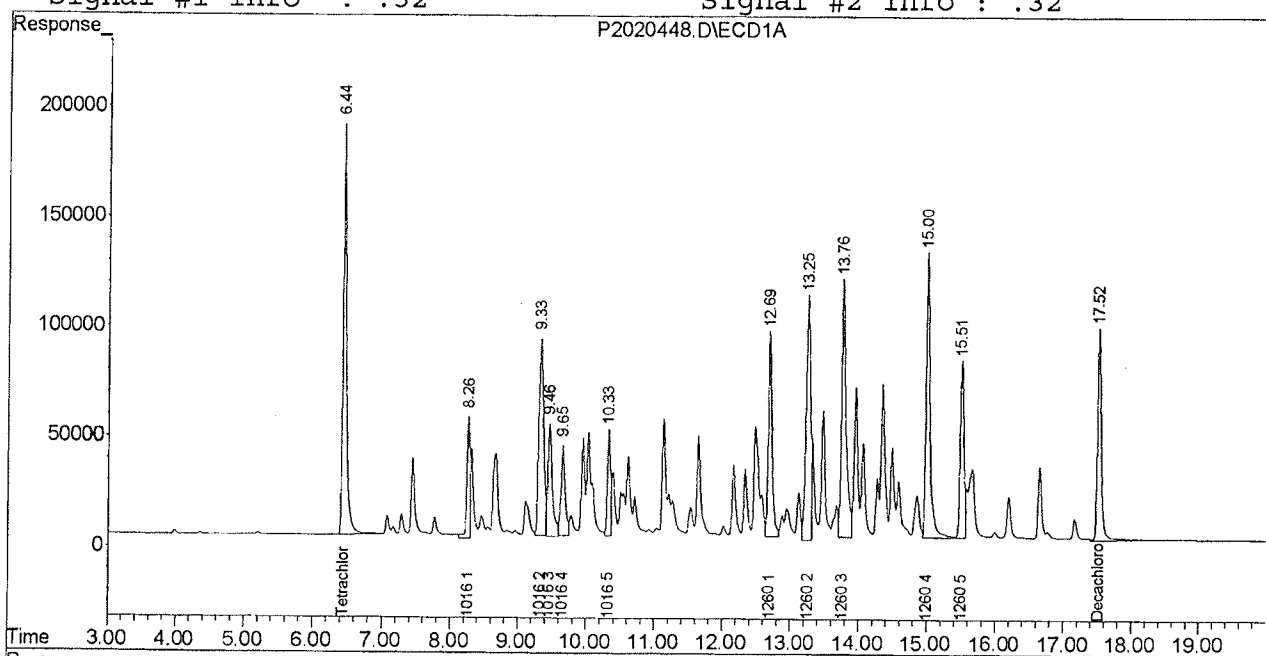
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 P2020448.D P2012816.M Fri Jan 29 09:55:57 2016

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020448.D\ECD1A.CH Vial: 6
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020448.D\ECD2B.CH
 Acq On : 28 Jan 2016 1:52 pm Operator: AMC
 Sample : AROCLOR 1016, 1260, 3.0ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A Y14F022, 1016, 1260, 3.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:43 2016 Quant Results File: PCB1110A.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB1110A.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:24:02 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020449.D\ECD1A.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\012816\P2020449.D\ECD2B.CH
 Acq On : 28 Jan 2016 2:21 pm Operator: AMC
 Sample : REF STD 1016, 1260, 1.0ug/mL Inst : GC_5890_I
 Misc : QBPCB2-012816A 1016, 1260, 1.0ug/mL Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Jan 29 9:45 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:44:11 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds

1) S	Tetrachloro-m-xy	6.44	5.12	4441151	3465388	0.147	0.149
	Spiked Amount	0.200	Range	30 - 150	Recovery	= 73.50%	74.50%
45) S	Decachlorobiphen	17.52	16.01	2453997	2336343	0.140	0.142
	Spiked Amount	0.200	Range	30 - 150	Recovery	= 70.00%	71.00%

Target Compounds

5) T	1016 1	8.26	7.03	706513	989729	1.027	1.067
6) T	1016 2	9.34	7.45	1847100	601225	1.104	1.095
7) T	1016 3	9.46	8.06	1005419	1183300	1.132	1.063m
8) T	1016 4	9.66	8.45	731218	475341	1.111m	1.114m
9) T	1016 5	10.33	9.08	668946	474207	1.062	1.042m
30) T	1260 1	12.69	11.33	1442755	1169402	0.977	1.000
31) T	1260 2	13.26	11.78	1740858	1224290	0.899m	0.986
32) T	1260 3	13.77	12.40	1834845	1088237	0.852	0.881
33) T	1260 4	15.00	13.51	2337530	1911094	1.091	1.122m
34) T	1260 5	15.51	14.15	1247737	1422070	1.038m	1.092m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

P2020449.D P2012816.M Fri Jan 29 09:56:04 2016

Page 1

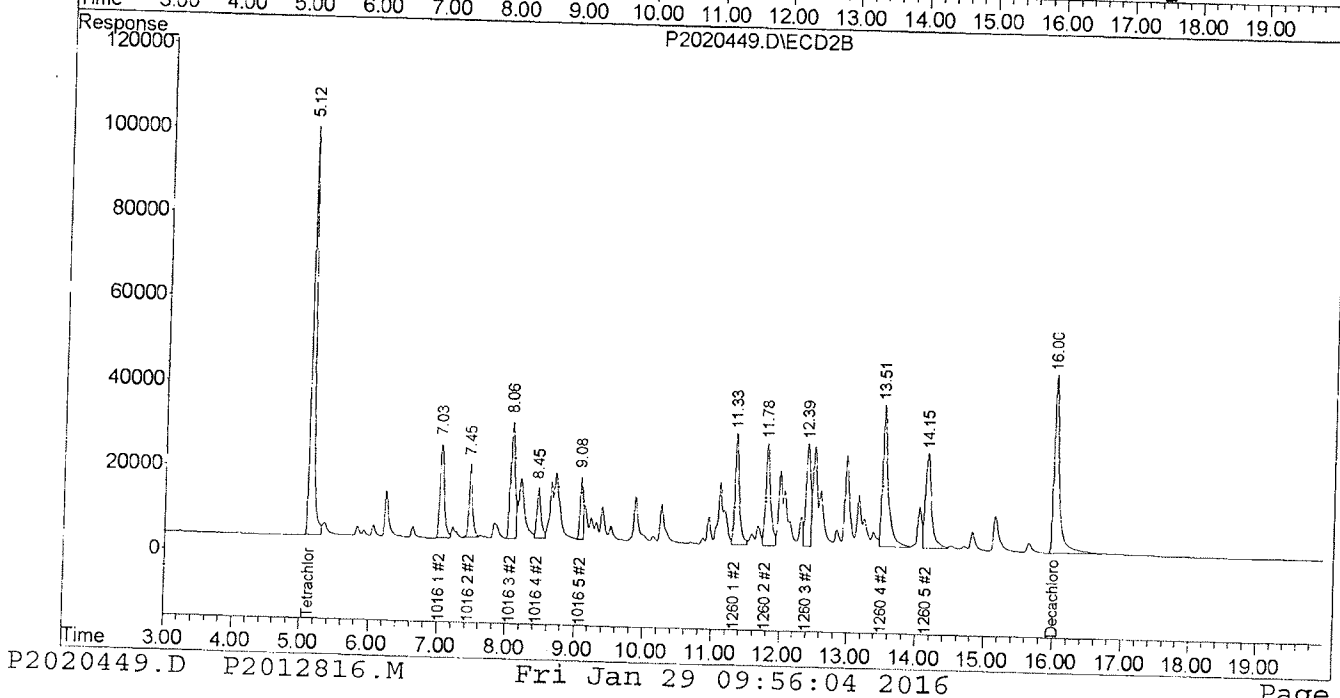
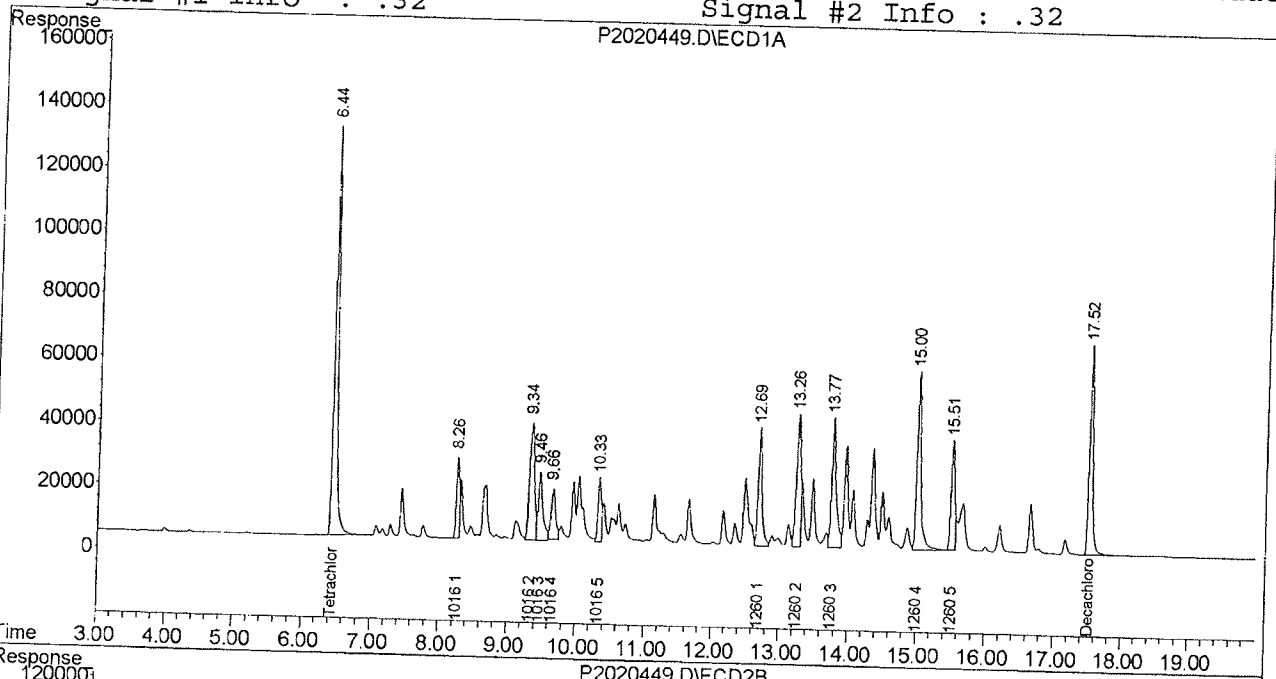
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\012816\P2020449.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\012816\P2020449.D\ECD2B.CH
Acq On : 28 Jan 2016 2:21 pm Operator: AMC
Sample : REF STD 1016, 1260, 1.0ug/mL Inst : GC_5890_I
Misc : QBPCB2-012816A 1016, 1260, 1.0ug/mL Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 29 9:45 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
Title : 11/10/15 - MR-1 & MR-2 MU-A = 60 MU-B = 60
Last Update : Fri Jan 29 09:44:11 2016
Response via : Multiple Level Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL

Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031616\P2021396.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021396.D\ECD2B.CH
 Acq On : 16 Mar 2016 8:23 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC 5890_I
 Misc : QBPCB2-031616A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 13:39 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

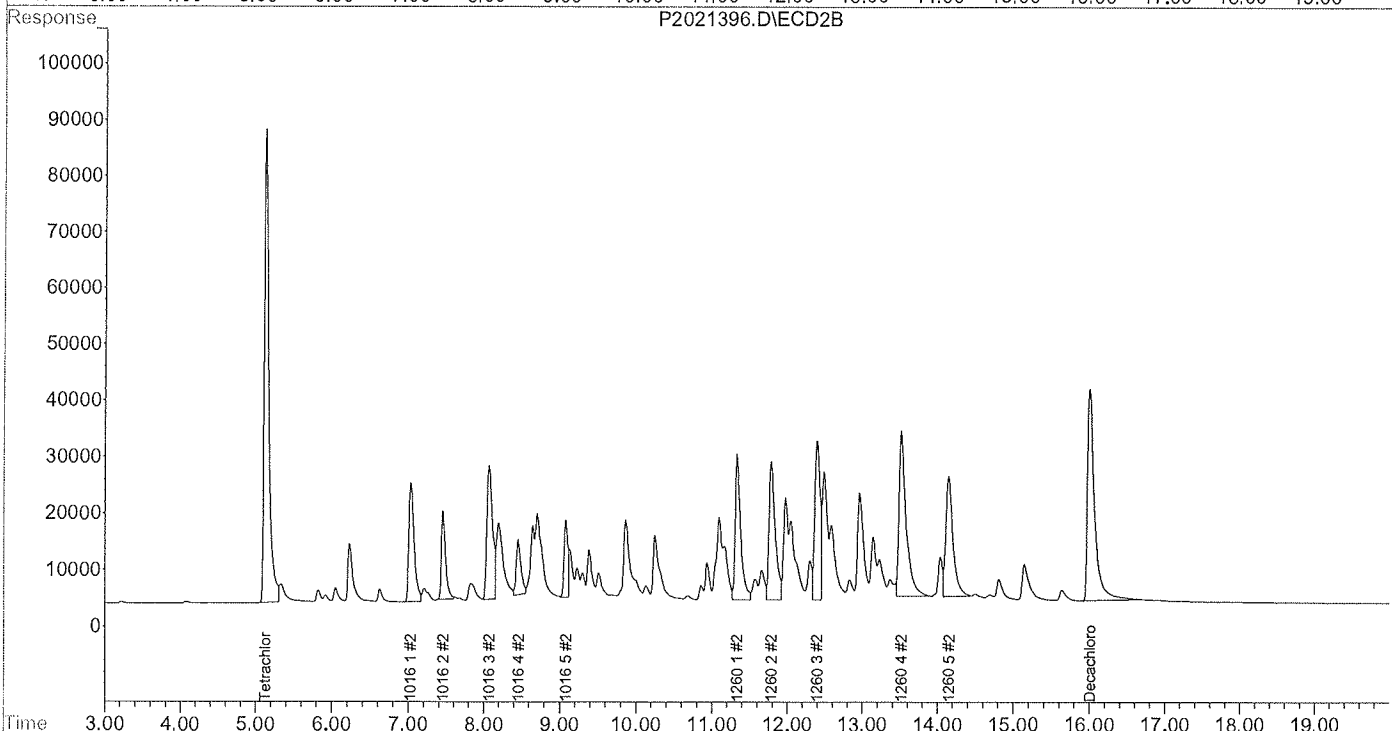
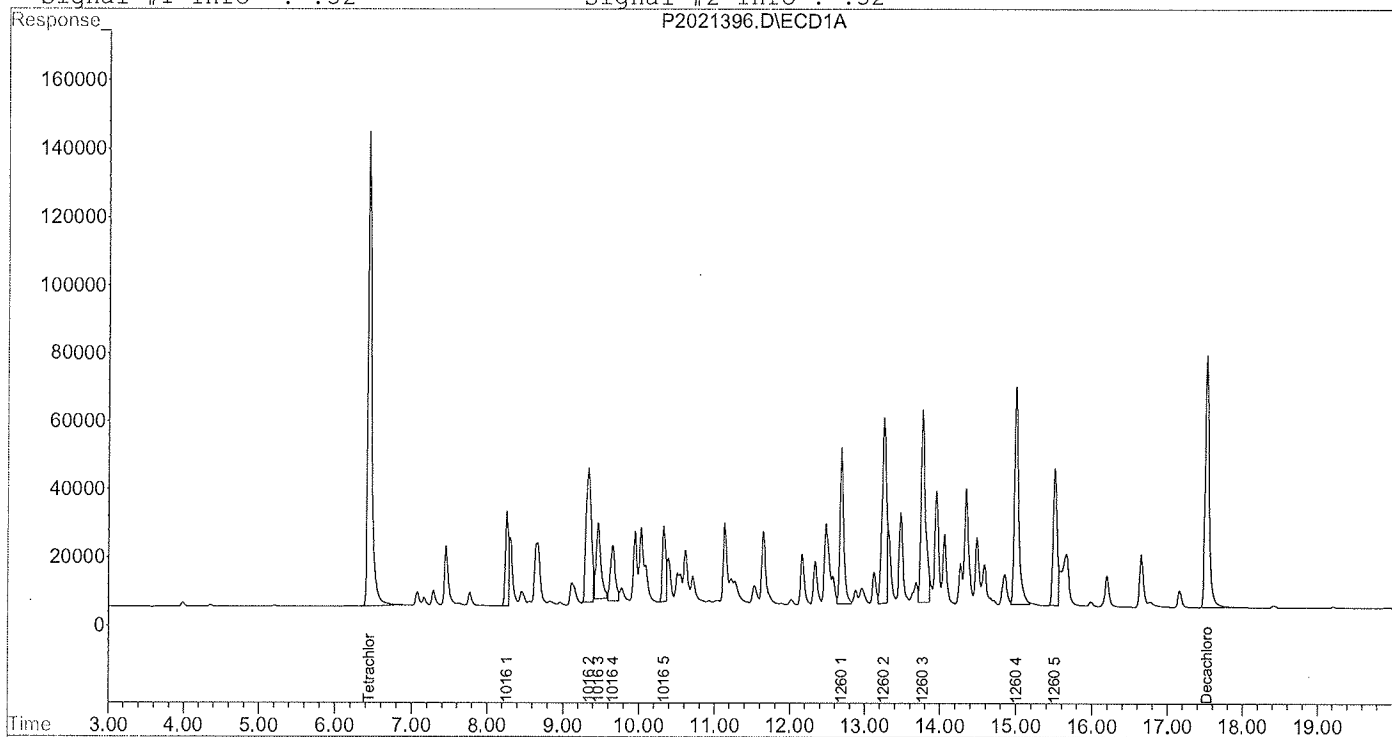
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.44	5.12	4733124	3555676	0.157	0.153
Spiked Amount	0.200	Range	30 - 150	Recovery	=	78.50% 76.50%
45) S Decachlorobiphen	17.51	16.01	2765897	2450505	0.157	0.149
Spiked Amount	0.200	Range	30 - 150	Recovery	=	78.50% 74.50%
Target Compounds						
5) T 1016 1	8.26	7.03	779737	1031811	1.133	1.112
6) T 1016 2	9.34	7.45	1912814	612392	1.144m	1.115m
7) T 1016 3	9.46	8.07	962003	1251930	1.083m	1.125
8) T 1016 4	9.66	8.45	721406	436278	1.096m	1.023m
9) T 1016 5	10.33	9.08	675775	471905	1.073m	1.037m
30) T 1260 1	12.68	11.33	1614558	1302447	1.093m	1.114
31) T 1260 2	13.25	11.78	2182413	1394139	1.127m	1.122
32) T 1260 3	13.76	12.40	2331098	1367036	1.083m	1.107
33) T 1260 4	15.00	13.51	2434333	1911454	1.137m	1.123m
34) T 1260 5	15.50	14.15	1375550	1418936	1.144m	1.090m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021396.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021396.D\ECD2B.CH
 Acq On : 16 Mar 2016 8:23 am Operator: AMC
 Sample : SEQ-CCV1 Inst : GC 5890_I
 Misc : QBPCB2-031616A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 16 13:39 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021418.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021418.D\ECD2B.CH
 Acq On : 16 Mar 2016 7:33 pm Operator: AMC
 Sample : SEQ-CCV3 Inst : GC 5890_I
 Misc : QBPCB2-031616A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 7:57 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

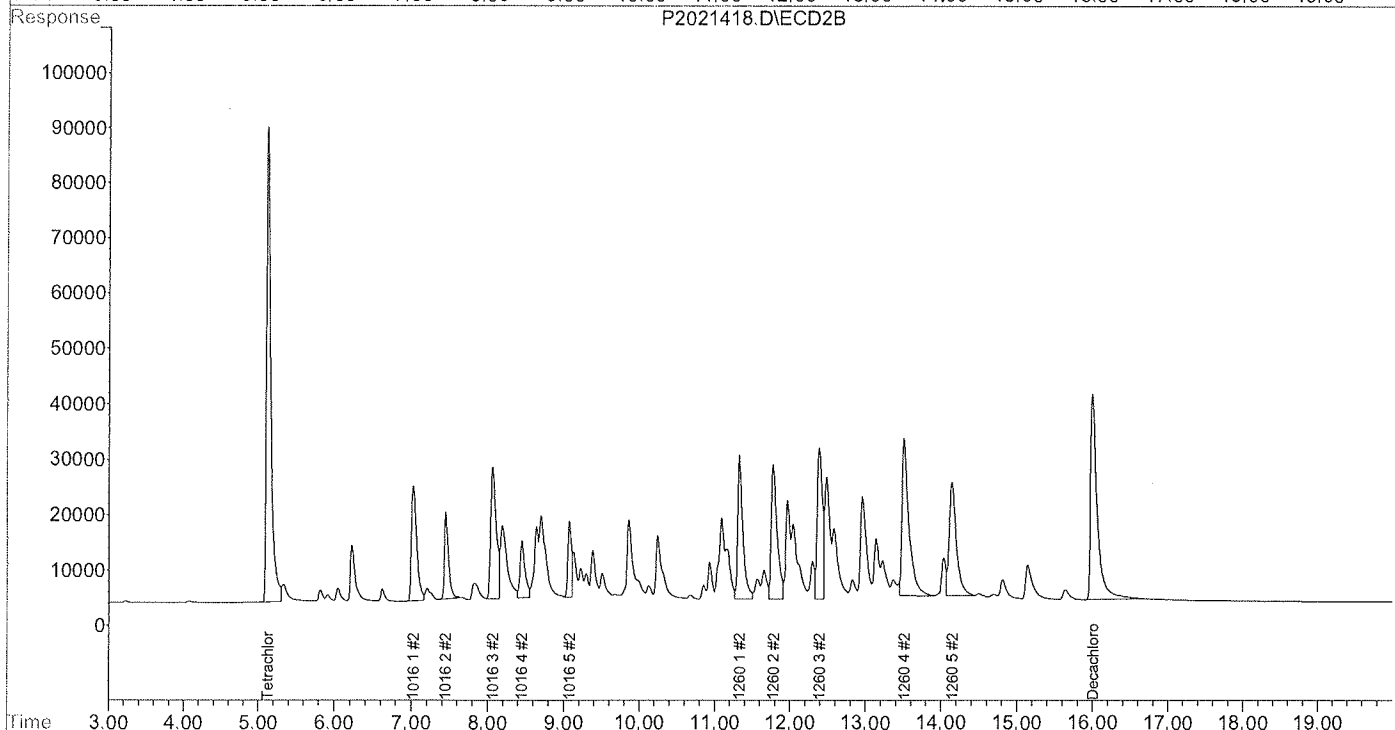
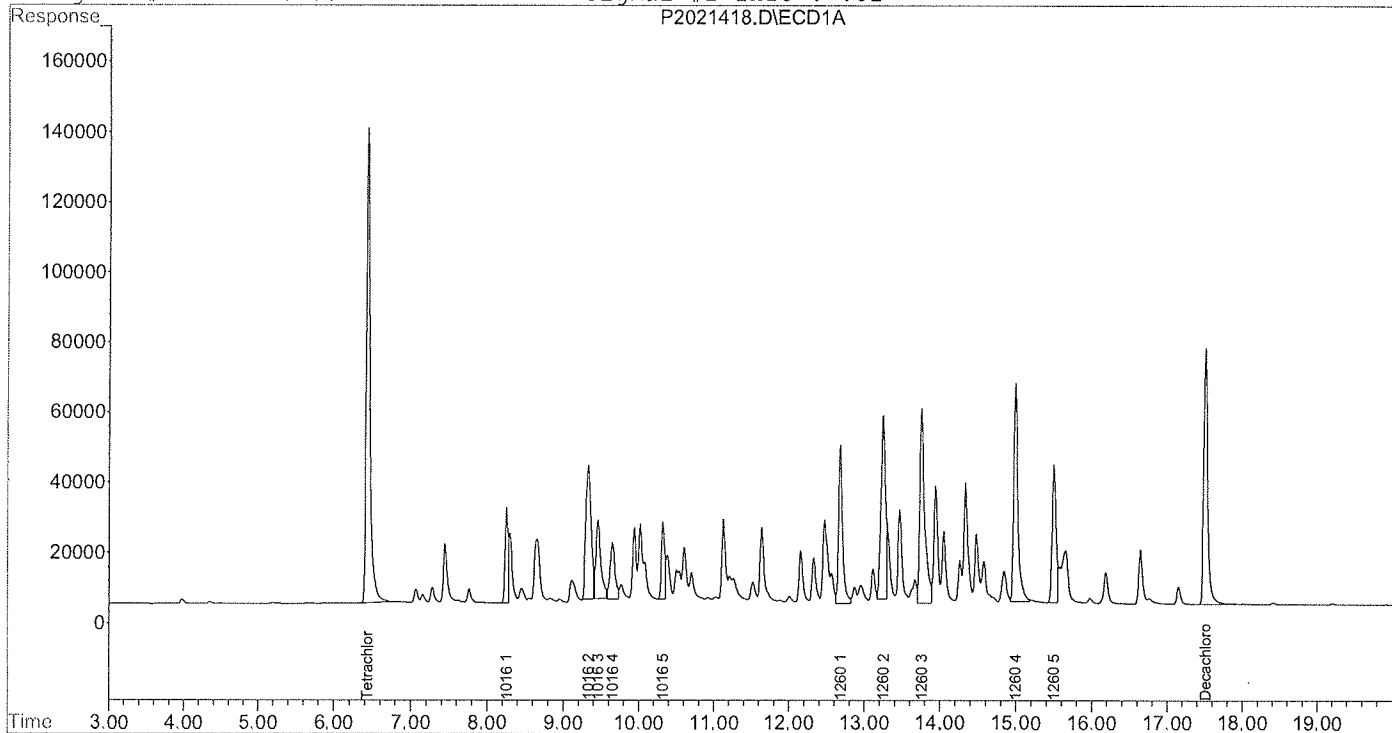
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	4597794	3456686	0.153	0.149
Spiked Amount	0.200	Range 30 - 150	Recovery =		76.50%	74.50%
45) S Decachlorobiphen	17.51	16.00	2682190	2351475	0.153	0.143
Spiked Amount	0.200	Range 30 - 150	Recovery =		76.50%	71.50%
Target Compounds						
5) T 1016 1	8.25	7.03	755276	995989	1.098	1.074
6) T 1016 2	9.33	7.45	1856287	603221	1.110m	1.099
7) T 1016 3	9.46	8.06	1019707	1223074	1.148m	1.099
8) T 1016 4	9.65	8.45	746818	485647	1.134m	1.138
9) T 1016 5	10.32	9.07	665915	475650	1.057m	1.045m
30) T 1260 1	12.68	11.33	1654199	1253257	1.120	1.072
31) T 1260 2	13.25	11.78	2101758	1343773	1.085m	1.082
32) T 1260 3	13.76	12.39	2469897	1318842	1.147	1.068
33) T 1260 4	14.99	13.51	2379212	1850632	1.111m	1.087m
34) T 1260 5	15.50	14.14	1374383	1367863	1.143m	1.050m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021418.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021418.D\ECD2B.CH
 Acq On : 16 Mar 2016 7:33 pm Operator: AMC
 Sample : SEQ-CCV3 Inst : GC 5890_I
 Misc : QBPCB2-031616A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 7:57 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021435.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021435.D\ECD2B.CH
 Acq On : 17 Mar 2016 3:49 am Operator: AMC
 Sample : SEQ-CCV4 Inst : GC 5890_I
 Misc : QBPCB2-031616A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 8:00 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

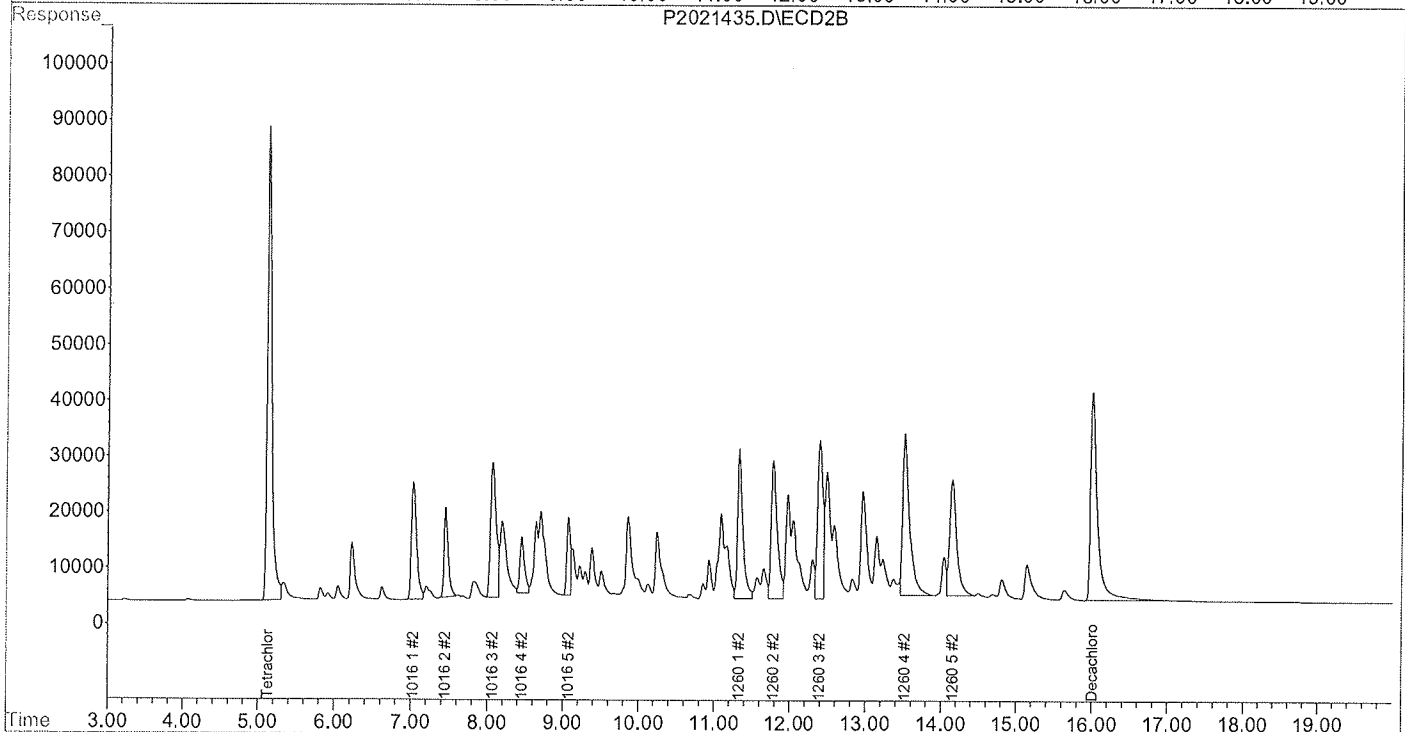
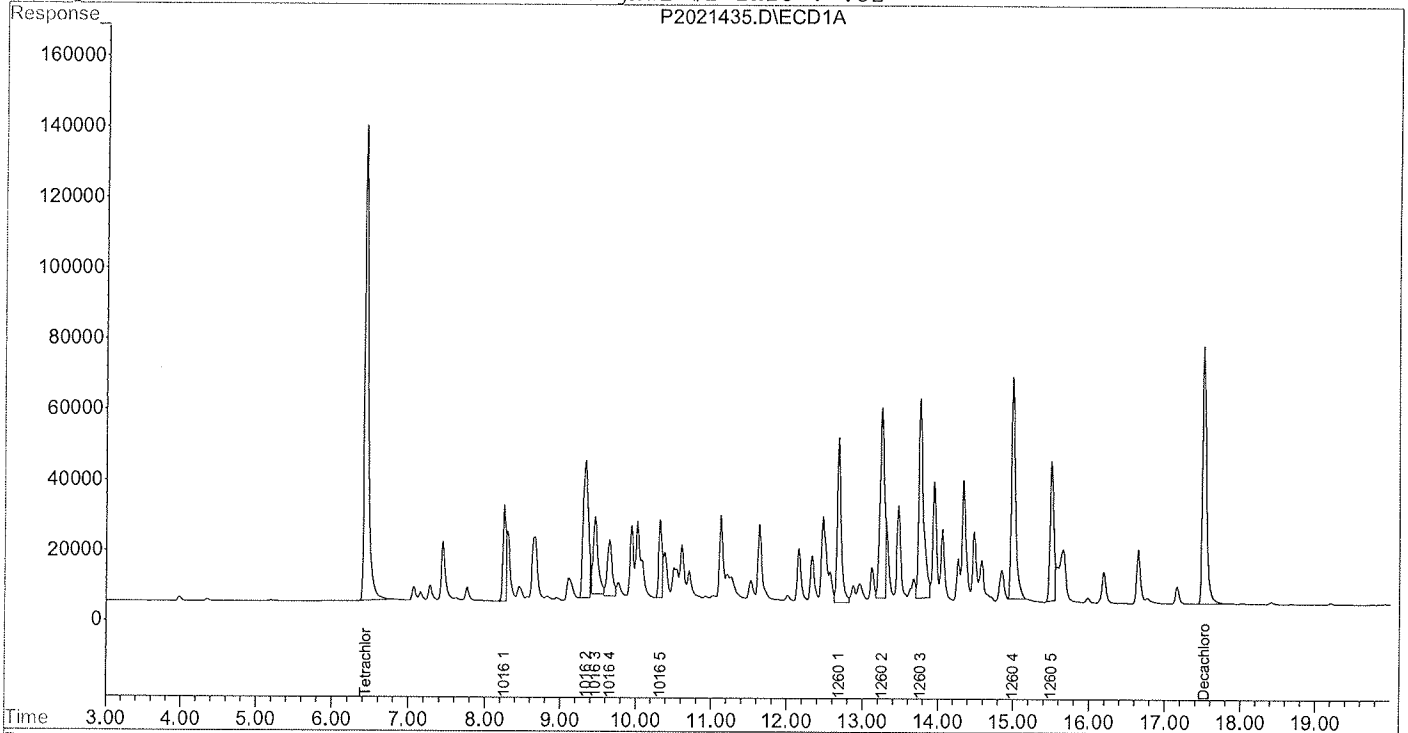
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	4622492	3485195	0.153	0.150
Spiked Amount	0.200	Range	30 - 150	Recovery	= 76.50%	75.00%
45) S Decachlorobiphen	17.51	16.00	2699999	2407052	0.154	0.146
Spiked Amount	0.200	Range	30 - 150	Recovery	= 77.00%	73.00%
Target Compounds						
5) T 1016 1	8.25	7.03	775527	1021770	1.127	1.101
6) T 1016 2	9.33	7.45	1865165	596480	1.115m	1.086m
7) T 1016 3	9.46	8.06	963255	1260952	1.085m	1.133
8) T 1016 4	9.65	8.45	743432	440198	1.129m	1.032m
9) T 1016 5	10.32	9.07	604171	469522	0.959m	1.031m
30) T 1260 1	12.68	11.33	1692905	1292925	1.146	1.105
31) T 1260 2	13.25	11.78	2173939	1389248	1.123m	1.118
32) T 1260 3	13.76	12.39	2401097	1371183	1.115m	1.110
33) T 1260 4	14.99	13.51	2351611	1847664	1.098m	1.085m
34) T 1260 5	15.50	14.15	1343174	1374299	1.117m	1.055m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021435.D\ECD1A.CH Vial: 1
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021435.D\ECD2B.CH
 Acq On : 17 Mar 2016 3:49 am Operator: AMC
 Sample : SEQ-CCV4 Inst : GC 5890_I
 Misc : QBPCB2-031616A Y14F022, 1016, 1260, 1.0u Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 8:00 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8082A**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1627Instrument: ECD#1Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1627-CCV1	P1027771.D	03/15/16 09:04
Blank	BC60750-BLK2	P1027773.D	03/15/16 09:42
LCS	BC60750-BS2	P1027774.D	03/15/16 10:02
LCS Dup	BC60750-BSD2	P1027775.D	03/15/16 10:21
Calibration Check	Y6C1627-CCV3	P1027789.D	03/15/16 16:11
04/FB20160309	16C0466-04	P1027799.D	03/15/16 19:23
Calibration Check	Y6C1627-CCV4	P1027810.D	03/15/16 22:55
Calibration Check	Y6C1627-CCV5	P1027819.D	03/16/16 01:49

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 8082A**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Sequence: Y6C1724Instrument: GC_5890_ICalibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	Y6C1724-CCV1	P2021396.D	03/16/16 08:23
Blank	BC60827-BLK2	P2021410.D	03/16/16 15:39
LCS	BC60827-BS3	P2021411.D	03/16/16 16:08
LCS Dup	BC60827-BSD3	P2021412.D	03/16/16 16:37
Calibration Check	Y6C1724-CCV3	P2021418.D	03/16/16 19:33
01/LSB-3	16C0466-01	P2021423.D	03/16/16 21:59
02/DUP	16C0466-02	P2021424.D	03/16/16 22:28
03/LSB-3	16C0466-03	P2021425.D	03/16/16 22:57
Calibration Check	Y6C1724-CCV4	P2021435.D	03/17/16 03:49

FORM I

METHOD BLANK DATA SHEET

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water Laboratory ID: BC60750-BLK2 File ID: P1027773.D
Prepared: 03/15/16 06:25 Preparation: EPA SW846-3510C Low Level Initial/Final: 1000 mL / 1 mL
Analyzed: 03/15/16 09:42 Instrument: ECD#1
Batch: BC60750 Sequence: Y6C1627 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (ug/L)	Q
12674-11-2	Aroclor 1016	0.0500	U
11104-28-2	Aroclor 1221	0.0500	U
11141-16-5	Aroclor 1232	0.0500	U
53469-21-9	Aroclor 1242	0.0500	U
12672-29-6	Aroclor 1248	0.0500	U
11097-69-1	Aroclor 1254	0.0500	U
11096-82-5	Aroclor 1260	0.0500	U
1336-36-3	Total PCBs	0.0500	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.201	0.0870	43.3	30 - 120	
Decachlorobiphenyl	0.207	0.108	52.2	30 - 120	

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027773.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027773.D\ECD2B.CH
 Acq On : 15 Mar 2016 9:42 am Operator: AMC
 Sample : BC60750-BLK2 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:17 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

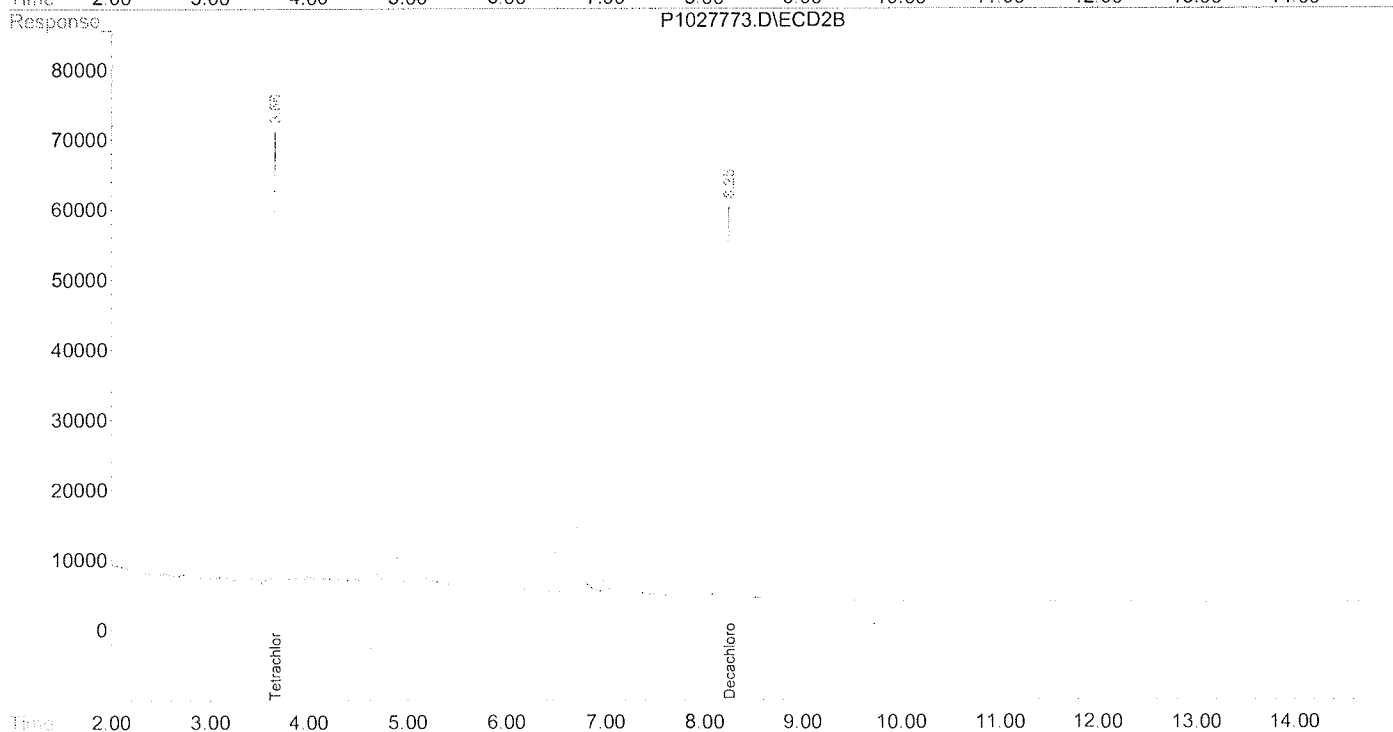
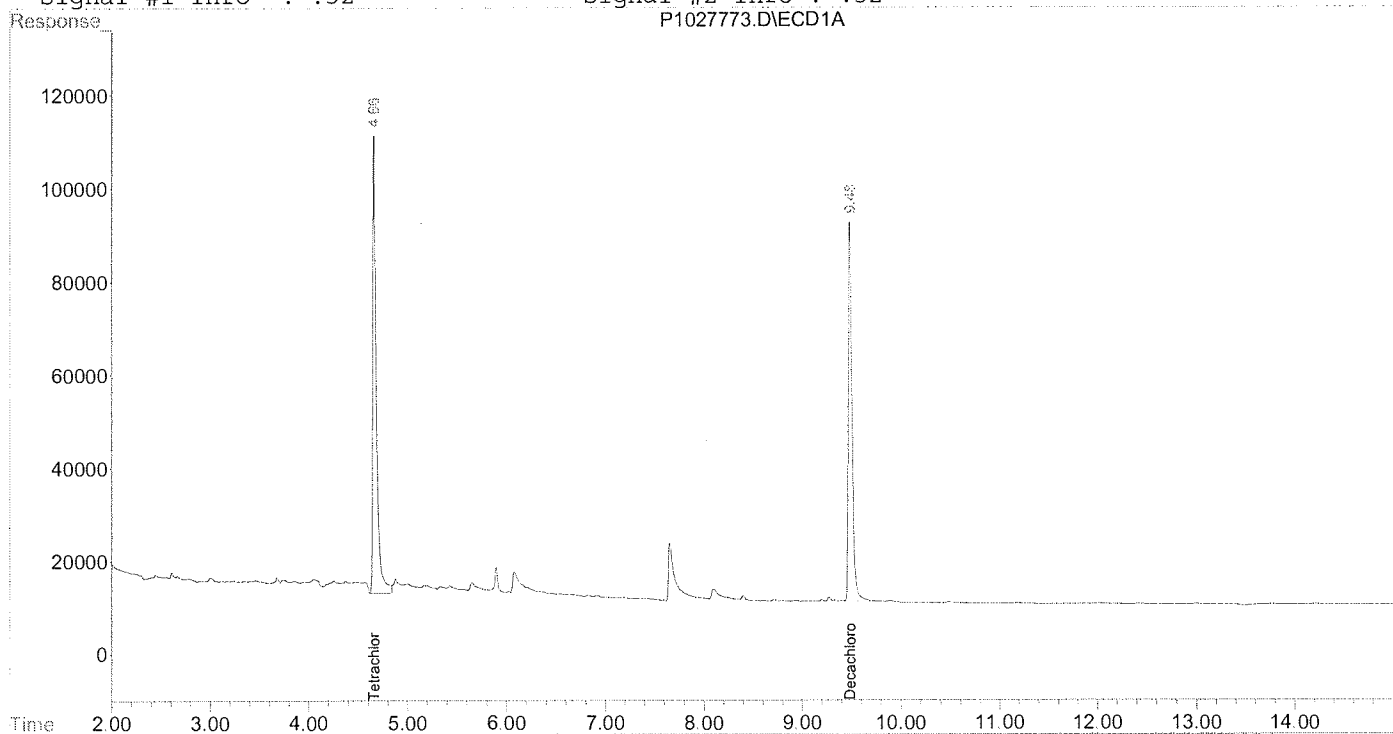
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	2468690	1467381	0.087	0.091
Spiked Amount	0.200	Range	30 - 150	Recovery	=	43.50% 45.50%
17) S Decachlorobiphen	9.49	8.25	2143880	1460704	0.108	0.111
Spiked Amount	0.200	Range	30 - 150	Recovery	=	54.00% 55.50%
Target Compounds						
2) T 1016 1	0.00	0.00	0	0	N.D. d	N.D. d
3) T 1016 2	0.00	0.00	0	0	N.D. d	N.D. d
4) T 1016 3	0.00	0.00	0	0	N.D. d	N.D. d
5) T 1016 4	0.00	0.00	0	0	N.D.	N.D.
6) T 1016 5	0.00	0.00	0	0	N.D. d	N.D. d
7) T 1254 1	0.00	0.00	0	0	N.D.	N.D.
8) T 1254 2	0.00	0.00	0	0	N.D.	N.D.
9) T 1254 3	0.00	0.00	0	0	N.D.	N.D.
10) T 1254 4	0.00	0.00	0	0	N.D.	N.D.
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	0.00	0.00	0	0	N.D.	N.D.
13) T 1260 2	0.00	0.00	0	0	N.D.	N.D.
14) T 1260 3	0.00	0.00	0	0	N.D.	N.D.
15) T 1260 4	0.00	0.00	0	0	N.D.	N.D.
16) T 1260 5	0.00	0.00	0	0	N.D.	N.D.

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027773.D\ECD1A.CH Vial: 3
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027773.D\ECD2B.CH
 Acq On : 15 Mar 2016 9:42 am Operator: AMC
 Sample : BC60750-BLK2 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:17 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



FORM I

METHOD BLANK DATA SHEET
EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: BC60827-BLK2 File ID: P2021410.D
Prepared: 03/16/16 07:30 Preparation: EPA 3545A Initial/Final: 20 g / 10 mL
Analyzed: 03/16/16 15:39 Instrument: GC 5890 1
Batch: BC60827 Sequence: Y6C1724 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
12674-11-2	Aroclor 1016	0.0250	U
11104-28-2	Aroclor 1221	0.0250	U
11141-16-5	Aroclor 1232	0.0250	U
53469-21-9	Aroclor 1242	0.0250	U
12672-29-6	Aroclor 1248	0.0250	U
11097-69-1	Aroclor 1254	0.0250	U
11096-82-5	Aroclor 1260	0.0250	U
1336-36-3	Total PCBs	0.0250	U

SYSTEM MONITORING COMPOUND	ADDED (mg/kg wet)	CONC (mg/kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	0.100	0.0935	93.0	30 - 140	
Decachlorobiphenyl	0.104	0.0830	80.2	30 - 140	

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021410.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\031616\P2021410.D\ECD2B.CH
Acq On : 16 Mar 2016 3:39 pm Operator: AMC
Sample : BC60827-BLK2 Inst : GC 5890_I
Misc : QBPCB2-031616A Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Mar 17 13:06 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
Last Update : Fri Jan 29 09:53:42 2016
Response via : Initial Calibration
DataAcq Meth : PEST.M

Volume Inj. : 1 uL
Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

System Monitoring Compounds

1) S	Tetrachloro-m-xy	6.45	5.12	5643746	4482982	0.187	0.193
	Spiked Amount	0.200	Range	30 - 150	Recovery	=	93.50%
45) S	Decachlorobiphen	17.52	16.01	2921283	2567690	0.166	0.156
	Spiked Amount	0.200	Range	30 - 150	Recovery	=	83.00%

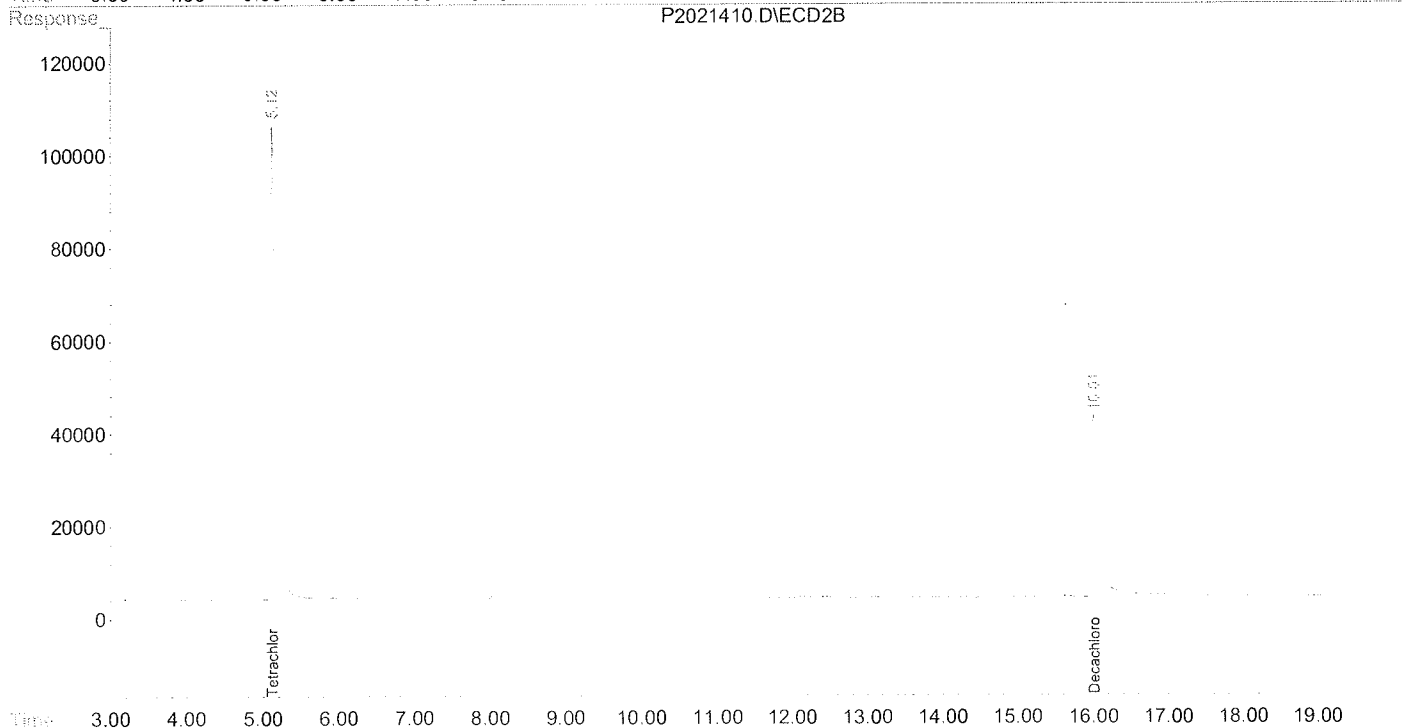
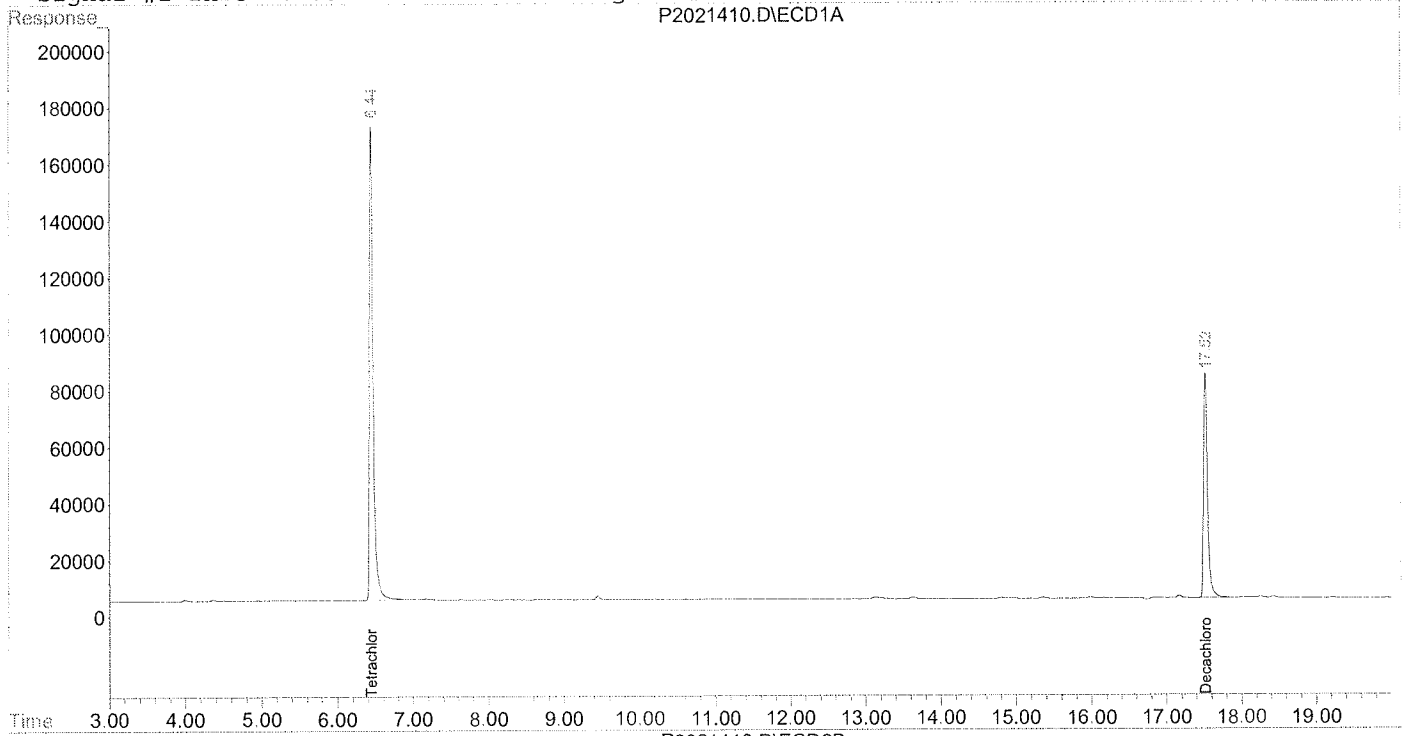
Target Compounds

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021410.D\ECD1A.CH Vial: 15
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021410.D\ECD2B.CH
 Acq On : 16 Mar 2016 3:39 pm Operator: AMC
 Sample : BC60827-BLK2 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:06 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water
Batch: BC60750 Laboratory ID: BC60750-BS2
Preparation: EPA SW846-3510C Low Level Initial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	1.00	0.590	59.0	40 - 120
Aroclor 1260	1.00	0.630	63.0	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water
Batch: BC60750 Laboratory ID: BC60750-BSD2
Preparation: EPA SW846-3510C Low Level Initial/Final: 1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Aroclor 1016	1.00	0.609	60.9	3.20	30	40 - 120
Aroclor 1260	1.00	0.604	60.4	4.21	30	40 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil
Batch: BC60827 Laboratory ID: BC60827-BS3
Preparation: EPA 3545A Initial/Final: 20 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	0.500	0.556	111	40 - 130
Aroclor 1260	0.500	0.535	107	40 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilBatch: BC60827Laboratory ID: BC60827-BSD3Preparation: EPA 3545AInitial/Final: 20 g / 10 mL

COMPOUND	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Aroclor 1016	0.500	0.557	111	0.234	25	40 - 130
Aroclor 1260	0.500	0.562	112	5.03	25	40 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027774.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027774.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:02 am Operator: AMC
 Sample : BC60750-BS2 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:18 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

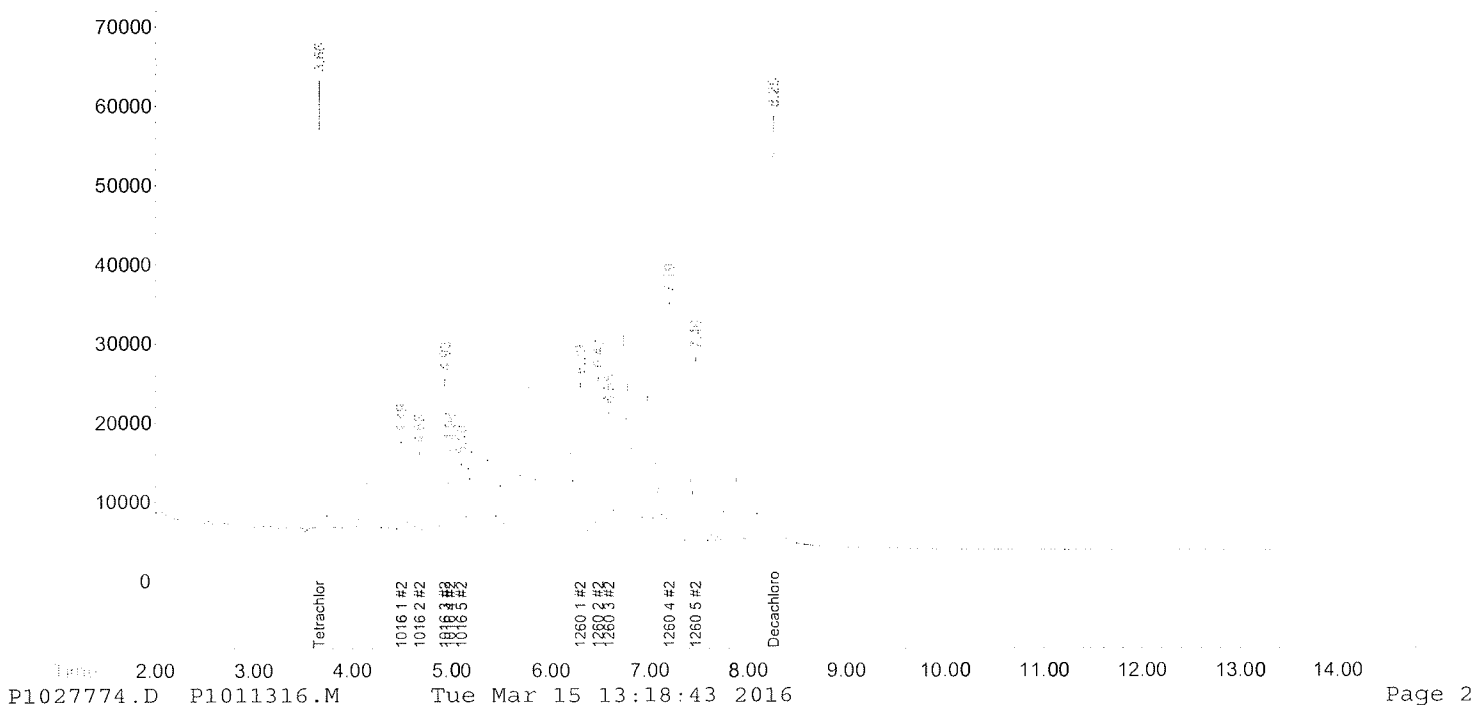
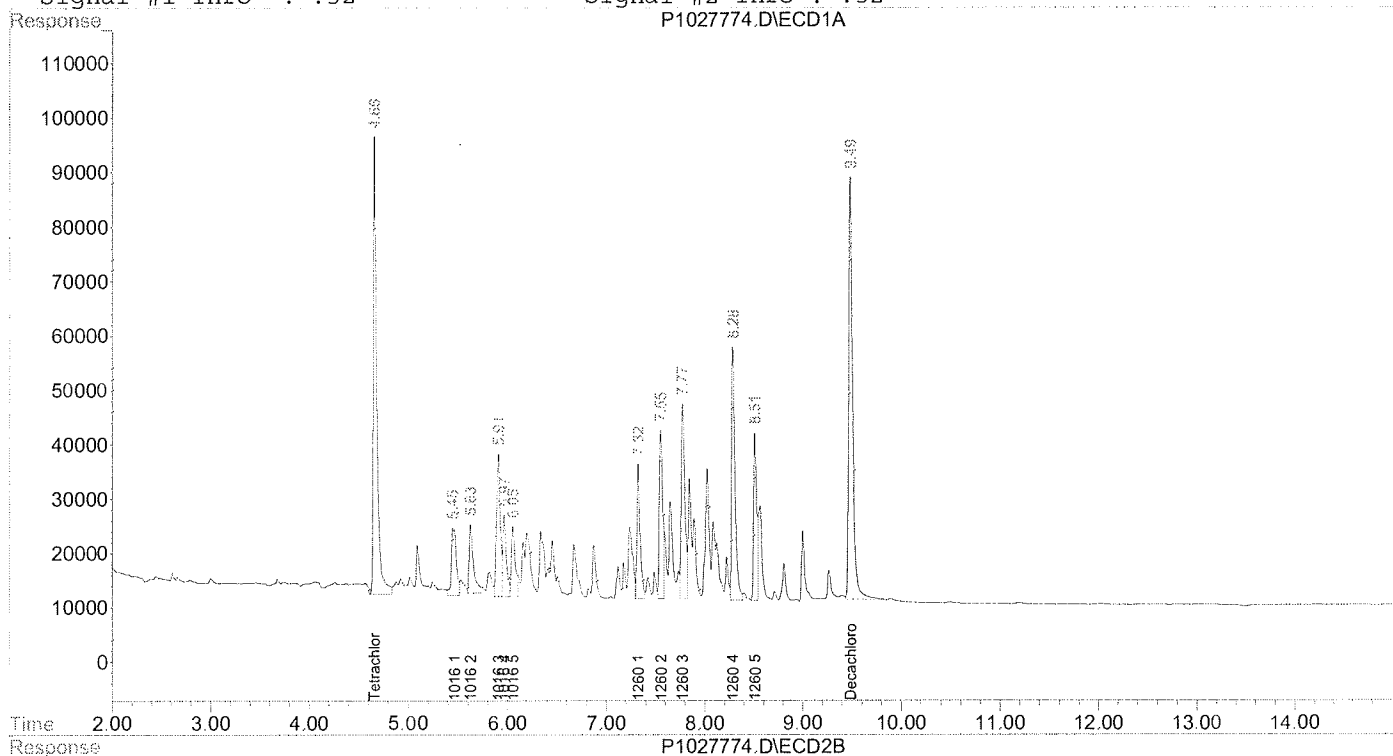
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	2085428	1201128	0.074	0.074
Spiked Amount	0.200	Range	30 - 150	Recovery	= 37.00%	37.00%
17) S Decachlorobiphen	9.49	8.25	2080028	1396441	0.105	0.106
Spiked Amount	0.200	Range	30 - 150	Recovery	= 52.50%	53.00%
Target Compounds						
2) T 1016 1	5.46	4.50	451490	272624	0.554	0.514
3) T 1016 2	5.63	4.68	377044	245885	0.617m	0.642
4) T 1016 3	5.91	4.93	699572	434719	0.568	0.620
5) T 1016 4	5.97	4.98	382915	269402	0.595	0.574
6) T 1016 5	6.05	5.10	321588	187513	0.616m	0.655
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.32	6.29	588846	415873	0.559	0.596
13) T 1260 2	7.55	6.47	735678	452687	0.562m	0.625
14) T 1260 3	7.77	6.58	899927	435039	0.618m	0.593m
15) T 1260 4	8.29	7.19	1110641	780548	0.667	0.702
16) T 1260 5	8.51	7.46	655951	637561	0.745	0.716

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027774.D\ECD1A.CH Vial: 4
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027774.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:02 am Operator: AMC
 Sample : BC60750-BS2 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:18 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031516\P1027775.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027775.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:21 am Operator: AMC
 Sample : BC60750-BSD2 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:19 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

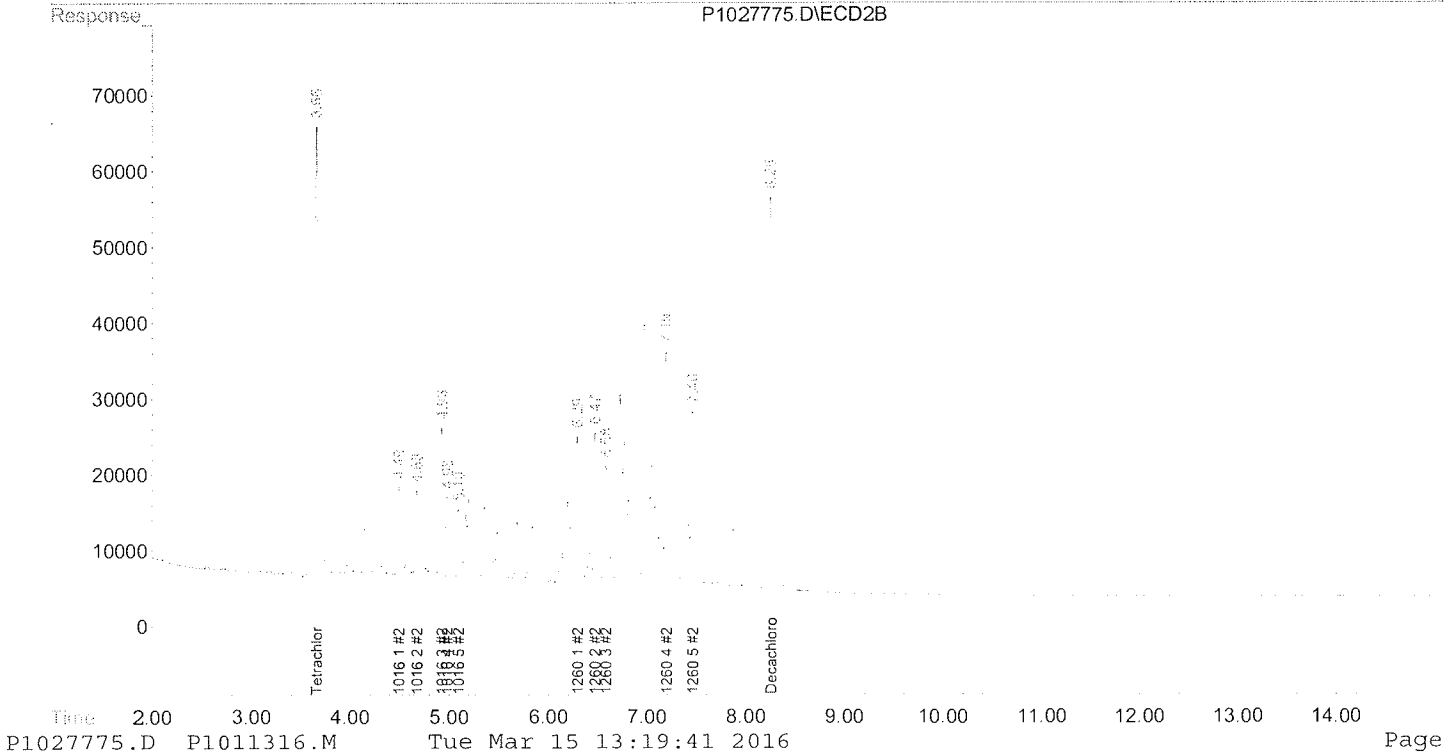
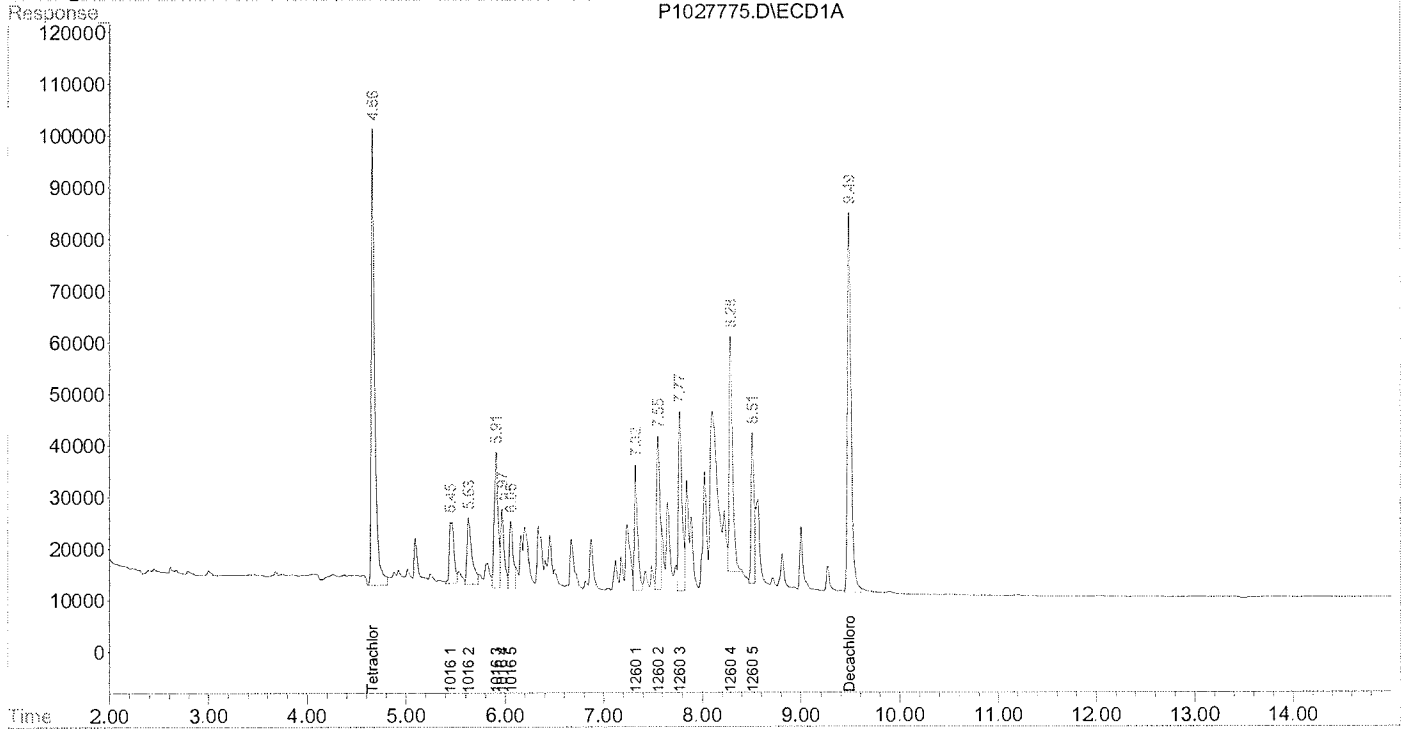
System Monitoring Compounds						
1) S Tetrachloro-m-xy	4.66	3.66	2199699	1360886	0.078	0.084
Spiked Amount	0.200	Range	30 - 150	Recovery =	39.00%	42.00%
17) S Decachlorobiphen	9.49	8.25	1949235	1355753	0.098	0.103
Spiked Amount	0.200	Range	30 - 150	Recovery =	49.00%	51.50%
Target Compounds						
2) T 1016 1	5.45	4.50	407236	284173	0.500m	0.536
3) T 1016 2	5.63	4.68	442280	290293	0.724m	0.757m
4) T 1016 3	5.91	4.93	705327	438781	0.573	0.626
5) T 1016 4	5.97	4.99	387801	278306	0.603	0.593
6) T 1016 5	6.05	5.10	336932	191671	0.646m	0.670
7) T 1254 1	0.00	0.00	0	0	N.D. d	N.D. d
8) T 1254 2	0.00	0.00	0	0	N.D. d	N.D. d
9) T 1254 3	0.00	0.00	0	0	N.D. d	N.D. d
10) T 1254 4	0.00	0.00	0	0	N.D. d	N.D. d
11) T 1254 5	0.00	0.00	0	0	N.D. d	N.D. d
12) T 1260 1	7.32	6.30	573976	407832	0.545	0.584
13) T 1260 2	7.55	6.47	700115	443362	0.535m	0.613
14) T 1260 3	7.78	6.59	861552	493428	0.592	0.673
15) T 1260 4	8.28	7.19	1089709	783914	0.654m	0.705m
16) T 1260 5	8.51	7.46	611556	604861	0.695m	0.680m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031516\P1027775.D\ECD1A.CH Vial: 5
 Signal #2 : C:\HPCHEM\1\DATA\031516\P1027775.D\ECD2B.CH
 Acq On : 15 Mar 2016 10:21 am Operator: AMC
 Sample : BC60750-BSD2 Inst : ECD#1
 Misc : QBPCB1-031516A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 15 13:19 2016 Quant Results File: P1011316.RES

Quant Method : C:\HPCHEM\1\METHODS\P1011316.M (Chemstation Integrator)
 Title : 01/13/16 - MR-1 & MR-2 MU-A = 62, MU-B = 62
 Last Update : Fri Jan 15 10:40:49 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST1.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Signal #1 : C:\HPCHEM\1\DATA\031616\P2021411.D\ECD1A.CH Vial: 16
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021411.D\ECD2B.CH
 Acq On : 16 Mar 2016 4:08 pm Operator: AMC
 Sample : BC60827-BS3 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:08 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

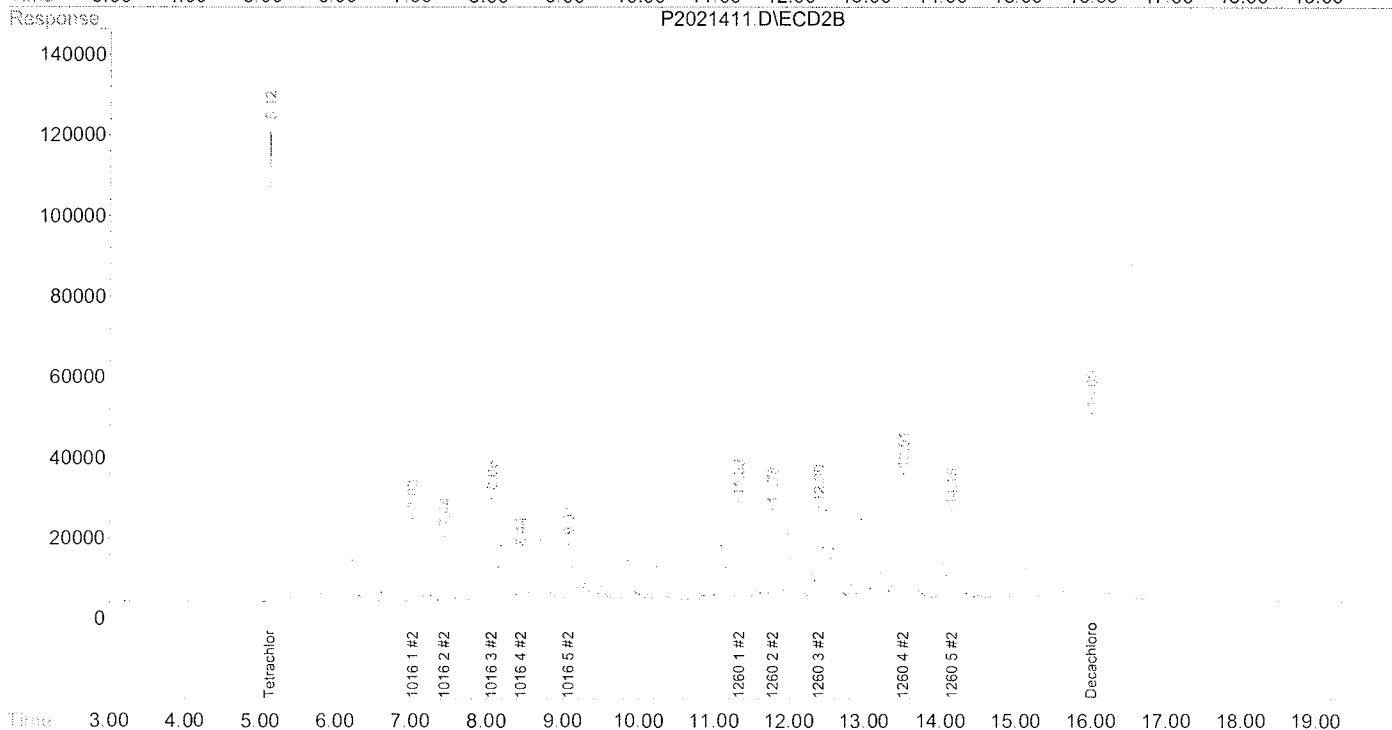
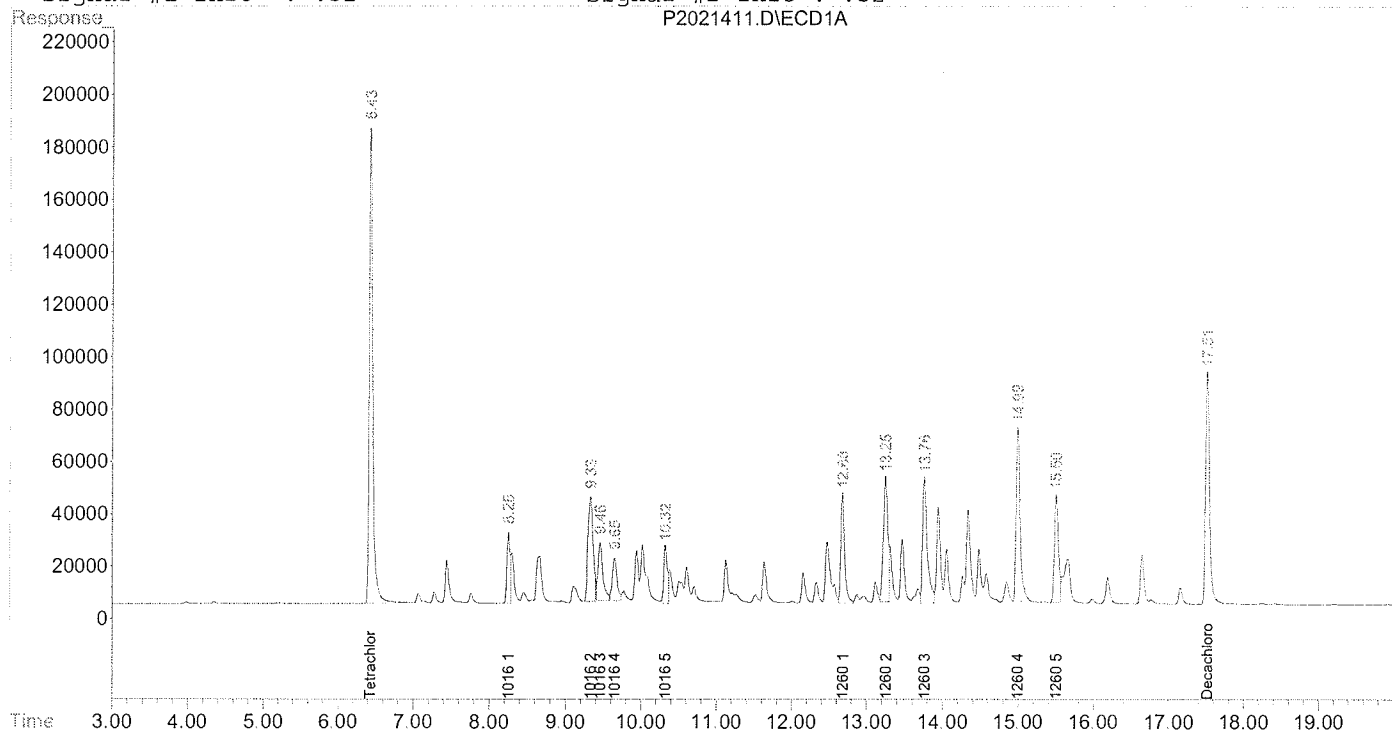
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	5966256	4635838	0.198	0.200
Spiked Amount	0.200	Range 30 - 150	Recovery =	99.00%	100.00%	
45) S Decachlorobiphen	17.51	16.00	3306043	2961110	0.188	0.180
Spiked Amount	0.200	Range 30 - 150	Recovery =	94.00%	90.00%	
Target Compounds						
5) T 1016 1	8.25	7.03	752100	978298	1.093	1.055
6) T 1016 2	9.33	7.45	1876606	619050	1.122m	1.127
7) T 1016 3	9.46	8.06	987500	1262962	1.112m	1.135
8) T 1016 4	9.65	8.45	718923	496858	1.092m	1.165
9) T 1016 5	10.32	9.07	717401	482534	1.139	1.060m
30) T 1260 1	12.68	11.33	1521162	1164659	1.030	0.996
31) T 1260 2	13.25	11.78	1942907	1235847	1.003m	0.995
32) T 1260 3	13.76	12.39	2075013	1098172	0.964	0.889
33) T 1260 4	14.99	13.51	2447211	1948505	1.143m	1.144m
34) T 1260 5	15.50	14.15	1450363	1481934	1.206m	1.138m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021411.D\ECD1A.CH Vial: 16
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021411.D\ECD2B.CH
 Acq On : 16 Mar 2016 4:08 pm Operator: AMC
 Sample : BC60827-B53 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:08 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021412.D\ECD1A.CH Vial: 17
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021412.D\ECD2B.CH
 Acq On : 16 Mar 2016 4:37 pm Operator: AMC
 Sample : BC60827-BSD3 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:10 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Initial Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/mL	ug/mL

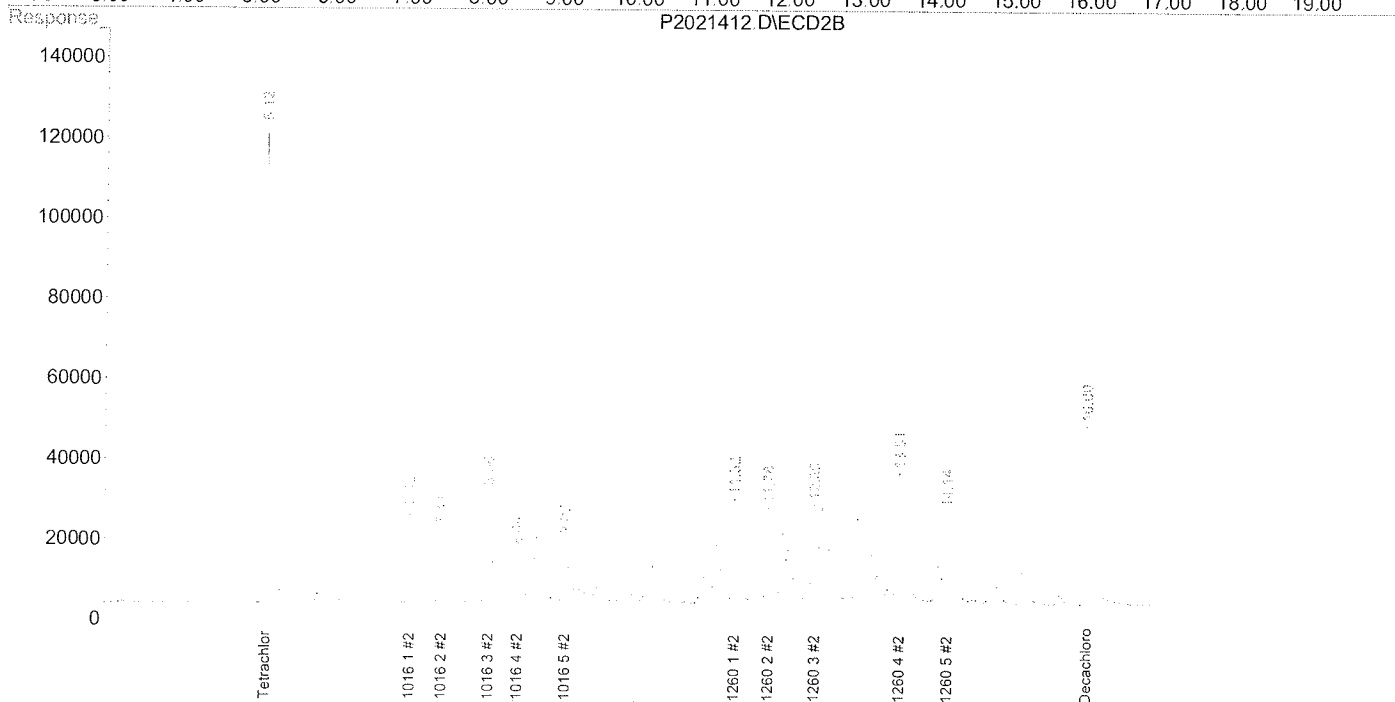
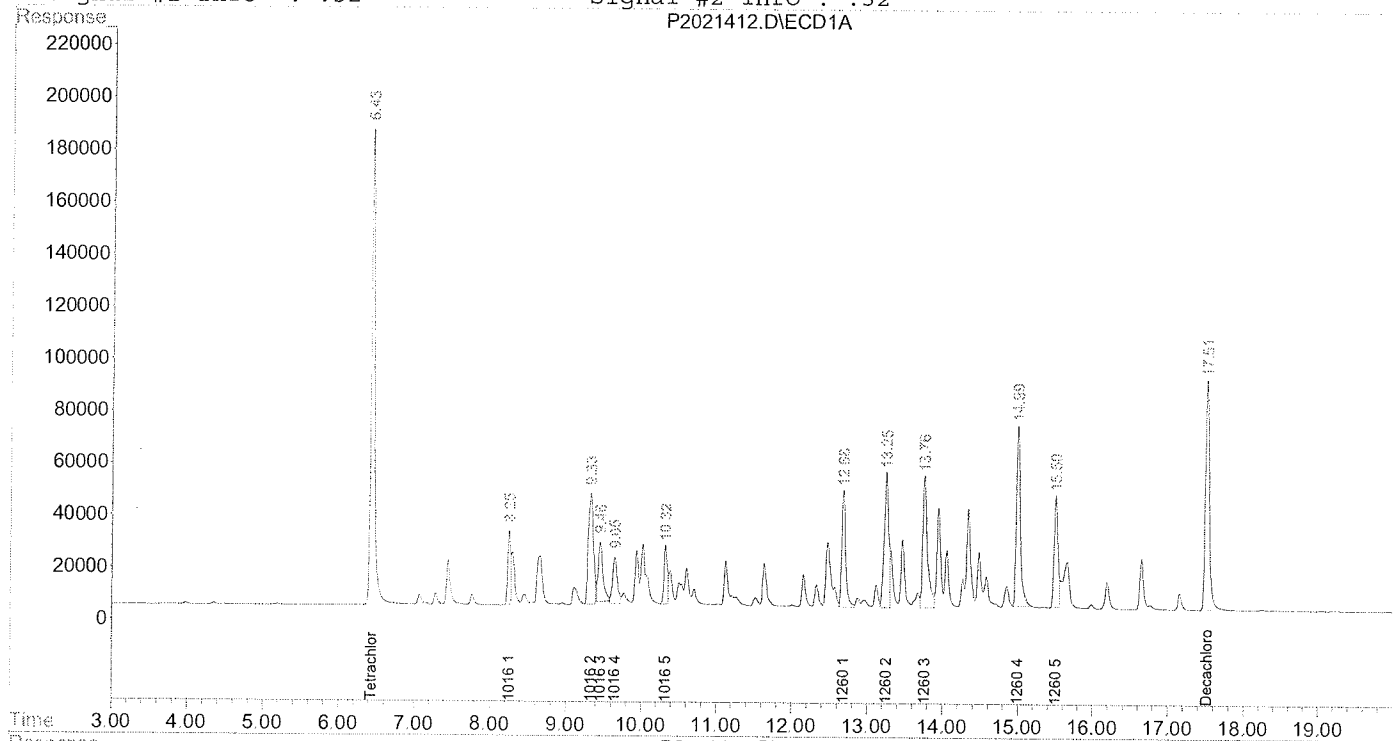
System Monitoring Compounds						
1) S Tetrachloro-m-xy	6.43	5.12	6005614	4670060	0.199	0.201
Spiked Amount	0.200	Range 30 - 150	Recovery =	99.50%	100.50%	
45) S Decachlorobiphen	17.51	16.00	3198793	2861329	0.182	0.174
Spiked Amount	0.200	Range 30 - 150	Recovery =	91.00%	87.00%	
Target Compounds						
5) T 1016 1	8.25	7.03	705224	1045276	1.025m	1.127
6) T 1016 2	9.33	7.44	2016903	644036	1.206m	1.173m
7) T 1016 3	9.46	8.06	976832	1215317	1.100m	1.092m
8) T 1016 4	9.65	8.44	779583	471036	1.184m	1.104m
9) T 1016 5	10.32	9.07	664999	494209	1.056m	1.086m
30) T 1260 1	12.68	11.33	1604631	1240614	1.086	1.061
31) T 1260 2	13.25	11.78	2118768	1311385	1.094m	1.056
32) T 1260 3	13.76	12.39	2194953	1160578	1.019	0.940
33) T 1260 4	14.99	13.51	2560531	2018149	1.196m	1.185m
34) T 1260 5	15.50	14.14	1475731	1488225	1.227m	1.143m

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\031616\P2021412.D\ECD1A.CH Vial: 17
 Signal #2 : C:\HPCHEM\1\DATA\031616\P2021412.D\ECD2B.CH
 Acq On : 16 Mar 2016 4:37 pm Operator: AMC
 Sample : BC60827-BSD3 Inst : GC 5890_I
 Misc : QBPCB2-031616A Multiplr: 1.00
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
 Quant Time: Mar 17 13:10 2016 Quant Results File: P2012816.RES

Quant Method : C:\HPCHEM\1\METHODS\P2012816.M (Chemstation Integrator)
 Title : 01/28/16 - MR-1 & MR-2 MU-A = 60 MU-B = 60
 Last Update : Fri Jan 29 09:53:42 2016
 Response via : Multiple Level Calibration
 DataAcq Meth : PEST.M

Volume Inj. : 1 uL
 Signal #1 Phase : ZB-Multiresidue-1 Signal #2 Phase: ZB-Multiresidue-2
 Signal #1 Info : .32 Signal #2 Info : .32



PREPARATION BENCH SHEET

BC60750

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:14:30PM

Surrogate used: Y16C096

Matrix: Water

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0466-04	Polychlorinated Biphenyls (l)	03/15/2016 06:2	TFD	925	1				100 2A	SW846-3510C Low Lev	
16C0466-04	Pesticides, 8081 target list	03/15/2016 06:2	TFD	925	1				100 2A	SW846-3510C Low Lev	
16C0505-01	Pesticides, CT RCP Target L	03/15/2016 06:2	TFD	975	1				100 2A	SW846-3510C Low Lev	
16C0505-02	Pesticides, CT RCP Target L	03/15/2016 06:2	TFD	950	1				100 2A	SW846-3510C Low Lev	
16C0505-03	Pesticides, CT RCP Target L	03/15/2016 06:2	TFD	975	1				100 2A	SW846-3510C Low Lev	
16C0505-03	Polychlorinated Biphenyls(F	03/15/2016 06:2	TFD	975	1				100 2A	SW846-3510C Low Lev	
16C0505-04	Pesticides, CT RCP Target L	03/15/2016 06:2	TFD	975	1				100 2A	SW846-3510C Low Lev	
16C0506-01	PCB (Polychlorinated Biphe	03/15/2016 06:2	TFD	850	1				100 2A	SW846-3510C Low Lev	
16C0514-05	Polychlorinated Biphenyls (l	03/15/2016 06:2	TFD	850	1				100 2A	SW846-3510C Low Lev	
16C0514-05	Pesticides, 8081 target list	03/15/2016 06:2	TFD	850	1				100 2A	SW846-3510C Low Lev	
16C0544-01	PCB (Polychlorinated Biphe	03/15/2016 06:2	TFD	975	1				100 2A	SW846-3510C Low Lev	
16C0544-02	PCB (Polychlorinated Biphe	03/15/2016 06:2	TFD	975	1				100 2A	SW846-3510C Low Lev	
BC60750-BLK1	QC	03/15/2016 06:2	TFD	1000	1				100 2A	SW846-3510C Low Lev	
BC60750-BLK2	QC	03/15/2016 06:2	TFD	1000	1				100 2A	SW846-3510C Low Lev	
BC60750-BS1	QC	03/15/2016 06:2	TFD	1000	1	Y16B036		100	100 2A	SW846-3510C Low Lev	
BC60750-BS2	QC	03/15/2016 06:2	TFD	1000	1	Y16B037		100	100 2A	SW846-3510C Low Lev	
BC60750-BSD1	QC	03/15/2016 06:2	TFD	1000	1	Y16B036		100	100 2A	SW846-3510C Low Lev	
BC60750-BSD2	QC	03/15/2016 06:2	TFD	1000	1	Y16B037		100	100 2A	SW846-3510C Low Lev	

Batch Comments:

PREPARATION BENCH SHEET

BC60827

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:14:45PM

Surrogate used: Y16C073

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0423-01	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	MS/MSD
16C0423-01	Polychlorinated Biphenyls (l)	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0423-01	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	MS/MSD
16C0423-01	Pesticides, 8081 target list	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0423-05	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-05	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-10	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-10	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-13	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-13	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-18	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-18	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-21	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-21	Polychlorinated Biphenyls (l)	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0423-21	Pesticides, 8081 target list	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0423-21	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-23	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-23	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-26	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-26	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-29	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0423-29	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0466-01	Polychlorinated Biphenyls (l)	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	

PREPARATION BENCH SHEET

BC60827

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:14:45PM

Matrix: Soil

Surrogate used: Y16C073

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0466-01	Pesticides, 8081 target list	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0466-02	Pesticides, 8081 target list	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0466-02	Polychlorinated Biphenyls (	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0466-03	Pesticides, 8081 target list	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0466-03	Polychlorinated Biphenyls (	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-01	Pesticides, 8081 target list	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0545-01	Pesticides, CT RCP Target L	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0545-01	Polychlorinated Biphenyls (	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	Added for BatchQC in: BC60827
16C0545-01	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-02	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-03	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-04	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-05	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-06	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-07	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
16C0545-08	Polychlorinated Biphenyls(F	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
BC60827-BLK1	QC	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
BC60827-BLK2	QC	03/16/2016 07:3	KNN	20	10				100	EPA 3545A	
BC60827-BS1	QC	03/16/2016 07:3	KNN	20	10	Y16B008			100	EPA 3545A	
BC60827-BS3	QC	03/16/2016 07:3	KNN	20	10	Y16C070			100	EPA 3545A	
BC60827-BSD3	QC	03/16/2016 07:3	KNN	20	10	Y16C070			100	EPA 3545A	
BC60827-MS1	QC	03/16/2016 07:3	KNN	20	10	Y16B008	16C0423-01		100	EPA 3545A	
BC60827-MS2	QC	03/16/2016 07:3	KNN	20	10	Y16B008	16C0423-21		100	EPA 3545A	

PREPARATION BENCH SHEET

BC60827

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:14:45PM

Matrix: Soil

Surrogate used: Y16C073

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60827-MS3	QC	03/16/2016 07:3	KNN	20	10	Y16C070	16C0545-01	100	100	EPA 3545A	
BC60827-MSD1	QC	03/16/2016 07:3	KNN	20	10	Y16B008	16C0423-01	100	100	EPA 3545A	
BC60827-MSD2	QC	03/16/2016 07:3	KNN	20	10	Y16B008	16C0423-21	100	100	EPA 3545A	

Batch Comments:

Sequence Name: C:\HPCHEM\1\SEQUENCE\P1031516.S
Comment: PCB, A 60, B 60
Operator: AMC
Data Path: C:\HPCHEM\1\DATA\031516\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 Sample	1	P1027771	PEST1	SEQ-CCV1
2 Sample	2	P1027772	PEST1	SEQ-CCV2
3 Sample	3	P1027773	PEST1	BC60750-BLK2
4 Sample	4	P1027774	PEST1	BC60750-BS2
5 Sample	5	P1027775	PEST1	BC60750-BSD2
6 Sample	6	P1027776	PEST1	16C0544-01
7 Sample	7	P1027777	PEST1	16C0544-02
8 Sample	8	P1027778	PEST1	BC60728-BLK2
9 Sample	9	P1027779	PEST1	BC60728-BS2
10 Sample	10	P1027780	PEST1	BC60728-BSD2
11 Sample	11	P1027781	PEST1	16C0288-03
12 Sample	12	P1027782	PEST1	16C0288-04
13 Sample	13	P1027783	PEST1	16C0288-05
14 Sample	14	P1027784	PEST1	16C0288-06
15 Sample	15	P1027785	PEST1	16C0318-01
16 Sample	16	P1027786	PEST1	16C0318-02
17 Sample	17	P1027787	PEST1	16C0318-03
18 Sample	18	P1027788	PEST1	16C0318-04
19 Sample	1	P1027789	PEST1	SEQ-CCV3
20 Sample	19	P1027790	PEST1	16C0403-02
21 Sample	20	P1027791	PEST1	16C0403-05
22 Sample	21	P1027792	PEST1	16C0403-07
23 Sample	22	P1027793	PEST1	16C0403-10
24 Sample	23	P1027794	PEST1	16C0403-14
25 Sample	24	P1027795	PEST1	16C0403-21
26 Sample	25	P1027796	PEST1	16C0403-24
27 Sample	26	P1027797	PEST1	16C0403-25
28 Sample	27	P1027798	PEST1	BC60730-MS2
29 Sample	28	P1027799	PEST1	16C0466-04
30 Sample	29	P1027800	PEST1	BC60761-BLK1
31 Sample	30	P1027801	PEST1	BC60761-BS1
32 Sample	31	P1027802	PEST1	BC60761-BSD1
33 Sample	32	P1027803	PEST1	16C0506-01
34 Sample	33	P1027804	PEST1	16C0514-05
35 Sample	34	P1027805	PEST1	16C0350-01
36 Sample	35	P1027806	PEST1	16C0350-02
37 Sample	36	P1027807	PEST1	16C0350-03
38 Sample	37	P1027808	PEST1	16C0350-04
39 Sample	38	P1027809	PEST1	16C0355-01
40 Sample	1	P1027810	PEST1	SEQ-CCV4
41 Sample	39	P1027811	PEST1	16C0355-02
42 Sample	40	P1027812	PEST1	16C0446-01
43 Sample	41	P1027813	PEST1	16C0446-02

Sequence Name: C:\HPCHEM\1\SEQUENCE\P1031516.S

Line Type	Vial	DataFile	Method	Sample Name
44 Sample	42	P1027814	PEST1	16C0491-01
45 Sample	43	P1027815	PEST1	16C0491-02
46 Sample	44	P1027816	PEST1	16C0491-03
47 Sample	45	P1027817	PEST1	16C0491-04
48 Sample	46	P1027818	PEST1	16C0491-05
49 Sample	1	P1027819	PEST1	SEQ-CCV5

Sequence Name: C:\HPCHEM\1\SEQUENCE\P2031616.S
 Comment: METHOD 8082, 8011
 Operator: AMC
 Data Path: C:\HPCHEM\1\DATA\031616\
 Pre-Seq Cmd:
 Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
 (X) Full Method (X) Inject Anyway
 () Reprocessing Only () Don't Inject

Line Type	Vial	DataFile	Method	Sample Name
1 Sample	1	P2021396	PEST	SEQ-CCV1
2 Sample	2	P2021397	PEST	SEQ-CCV2
3 Sample	3	P2021398	PEST	BC60826-BLK1
4 Sample	4	P2021399	PEST	BC60826-BS1
5 Sample	5	P2021400	PEST	BC60826-BSD1
6 Sample	6	P2021401	PEST	16C0373-07
7 Sample	7	P2021402	PEST	16C0373-08
8 Sample	8	P2021403	PEST	16C0373-09
9 Sample	9	P2021404	PEST	16C0373-10
10 Sample	10	P2021405	PEST	16C0373-11
11 Sample	11	P2021406	PEST	16C0373-12
12 Sample	12	P2021407	PEST	16C0373-02
13 Sample	13	P2021408	PEST	16C0373-03
14 Sample	14	P2021409	PEST	BC60826-MS1
15 Sample	15	P2021410	PEST	BC60827-BLK2
16 Sample	16	P2021411	PEST	BC60827-BS3
17 Sample	17	P2021412	PEST	BC60827-BSD3
18 Sample	18	P2021413	PEST	16C0423-01
19 Sample	19	P2021414	PEST	16C0423-05
20 Sample	20	P2021415	PEST	16C0423-10
21 Sample	21	P2021416	PEST	16C0423-13
22 Sample	22	P2021417	PEST	16C0423-18
23 Sample	1	P2021418	PEST	SEQ-CCV3
24 Sample	23	P2021419	PEST	16C0423-21
25 Sample	24	P2021420	PEST	16C0423-23
26 Sample	25	P2021421	PEST	16C0423-26
27 Sample	26	P2021422	PEST	16C0423-29
28 Sample	27	P2021423	PEST	16C0466-01
29 Sample	28	P2021424	PEST	16C0466-02
30 Sample	29	P2021425	PEST	16C0466-03
31 Sample	30	P2021426	PEST	16C0545-01
32 Sample	31	P2021427	PEST	BC60827-MS3
33 Sample	32	P2021428	PEST	16C0545-02
34 Sample	33	P2021429	PEST	16C0545-03
35 Sample	34	P2021430	PEST	16C0545-04
36 Sample	35	P2021431	PEST	16C0545-05
37 Sample	36	P2021432	PEST	16C0545-06
38 Sample	37	P2021433	PEST	16C0545-07
39 Sample	38	P2021434	PEST	16C0545-08
40 Sample	1	P2021435	PEST	SEQ-CCV4

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: METALS

METHOD: EPA 6010C

DATA PACKAGE COVER PAGE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the project narrative. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-01File ID: qbi031416bRE 1-050Sampled: 03/09/16 11:15Prepared: 03/14/16 08:05Analyzed: 03/14/16 18:46Solids: 88.45Preparation: EPA 3050BInitial/Final: 0.5 g / 50 mLBatch: BC60698Sequence: Y6C1502Calibration: 03/14/16 1Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	9550	1		EPA 6010C
7440-36-0	Antimony	1.48	1		EPA 6010C
7440-38-2	Arsenic	5.62	1		EPA 6010C
7440-39-3	Barium	1210	1		EPA 6010C
7440-41-7	Beryllium	0.113	1	U	EPA 6010C
7440-43-9	Cadmium	0.892	1		EPA 6010C
7440-70-2	Calcium	55100	1		EPA 6010C
7440-47-3	Chromium	22.6	1		EPA 6010C
7440-48-4	Cobalt	7.83	1		EPA 6010C
7440-50-8	Copper	47.6	1		EPA 6010C
7439-89-6	Iron	20600	1		EPA 6010C
7439-92-1	Lead	977	1		EPA 6010C
7439-95-4	Magnesium	8220	1		EPA 6010C
7439-96-5	Manganese	467	1		EPA 6010C
7440-02-0	Nickel	20.6	1		EPA 6010C
7440-09-7	Potassium	2290	1		EPA 6010C
7782-49-2	Selenium	1.85	1		EPA 6010C
7440-22-4	Silver	0.565	1	U	EPA 6010C
7440-23-5	Sodium	668	1		EPA 6010C
7440-28-0	Thallium	1.13	1	U	EPA 6010C
7440-62-2	Vanadium	35.3	1		EPA 6010C
7440-66-6	Zinc	757	1		EPA 6010C

FORM I

INORGANIC ANALYSIS DATA SHEET

EPA 6010C

02/DUP

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-02File ID: qbi031416bRE_1-051Sampled: 03/09/16 11:15Prepared: 03/14/16 08:05Analyzed: 03/14/16 18:54Solids: 83.47Preparation: EPA 3050BInitial/Final: 0.5 g / 50 mLBatch: BC60698

Sequence:

Y6C1502Calibration: 03/14/16 1Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	9550	1		EPA 6010C
7440-36-0	Antimony	0.599	1	U	EPA 6010C
7440-38-2	Arsenic	6.47	1		EPA 6010C
7440-39-3	Barium	1440	1		EPA 6010C
7440-41-7	Beryllium	0.120	1	U	EPA 6010C
7440-43-9	Cadmium	0.831	1		EPA 6010C
7440-70-2	Calcium	40400	1		EPA 6010C
7440-47-3	Chromium	28.3	1		EPA 6010C
7440-48-4	Cobalt	9.01	1		EPA 6010C
7440-50-8	Copper	45.9	1		EPA 6010C
7439-89-6	Iron	27000	1		EPA 6010C
7439-92-1	Lead	3430	1		EPA 6010C
7439-95-4	Magnesium	8680	1		EPA 6010C
7439-96-5	Manganese	509	1		EPA 6010C
7440-02-0	Nickel	20.0	1		EPA 6010C
7440-09-7	Potassium	1900	1		EPA 6010C
7782-49-2	Selenium	2.38	1		EPA 6010C
7440-22-4	Silver	0.599	1	U	EPA 6010C
7440-23-5	Sodium	622	1		EPA 6010C
7440-28-0	Thallium	1.20	1	U	EPA 6010C
7440-62-2	Vanadium	34.7	1		EPA 6010C
7440-66-6	Zinc	1070	1		EPA 6010C

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-03File ID: qbi031416bRE_1-052Sampled: 03/09/16 11:50Prepared: 03/14/16 08:05Analyzed: 03/14/16 19:02Solids: 83.60Preparation: EPA 3050BInitial/Final: 0.5 g / 50 mLBatch: BC60698Sequence: Y6C1502Calibration: 03/14/16 1Instrument: WinLabICP

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7429-90-5	Aluminum	8530	1		EPA 6010C
7440-36-0	Antimony	0.598	1	U	EPA 6010C
7440-38-2	Arsenic	3.44	1		EPA 6010C
7440-39-3	Barium	207	1		EPA 6010C
7440-41-7	Beryllium	0.120	1	U	EPA 6010C
7440-43-9	Cadmium	0.359	1	U	EPA 6010C
7440-70-2	Calcium	62100	1		EPA 6010C
7440-47-3	Chromium	24.1	1		EPA 6010C
7440-48-4	Cobalt	7.08	1		EPA 6010C
7440-50-8	Copper	35.6	1		EPA 6010C
7439-89-6	Iron	14800	1		EPA 6010C
7439-92-1	Lead	206	1		EPA 6010C
7439-95-4	Magnesium	6840	1		EPA 6010C
7439-96-5	Manganese	238	1		EPA 6010C
7440-02-0	Nickel	18.2	1		EPA 6010C
7440-09-7	Potassium	1470	1		EPA 6010C
7782-49-2	Selenium	1.20	1	U	EPA 6010C
7440-22-4	Silver	0.598	1	U	EPA 6010C
7440-23-5	Sodium	567	1		EPA 6010C
7440-28-0	Thallium	1.20	1	U	EPA 6010C
7440-62-2	Vanadium	30.8	1		EPA 6010C
7440-66-6	Zinc	163	1		EPA 6010C

FORM I

INORGANIC ANALYSIS DATA SHEET

EPA 6010C

04/FB20160309

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterLaboratory ID: 16C0466-04File ID: qbi031416bRE_1-031Sampled: 03/09/16 12:55Prepared: 03/14/16 08:11Analyzed: 03/14/16 16:57Solids: 0.00Preparation: EPA 3015AInitial/Final: 45 mL / 50 mLBatch: BC60702Sequence: Y6C1501Calibration: 03/14/16 1Instrument: WinLabICP

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	Method
7429-90-5	Aluminum	56	1	U	EPA 6010C
7440-36-0	Antimony	6	1	U	EPA 6010C
7440-38-2	Arsenic	4	1	U	EPA 6010C
7440-39-3	Barium	11	1	U	EPA 6010C
7440-41-7	Beryllium	1	1	U	EPA 6010C
7440-43-9	Cadmium	3	1	U	EPA 6010C
7440-70-2	Calcium	182	1		EPA 6010C
7440-47-3	Chromium	6	1	U	EPA 6010C
7440-48-4	Cobalt	6	1	U	EPA 6010C
7440-50-8	Copper	3	1	U	EPA 6010C
7439-89-6	Iron	145	1		EPA 6010C
7439-92-1	Lead	3	1	U	EPA 6010C
7439-95-4	Magnesium	56	1	U	EPA 6010C
7439-96-5	Manganese	6	1	U	EPA 6010C
7440-02-0	Nickel	6	1	U	EPA 6010C
7440-09-7	Potassium	56	1	U	EPA 6010C
7782-49-2	Selenium	11	1	U	EPA 6010C
7440-22-4	Silver	6	1	U	EPA 6010C
7440-23-5	Sodium	173	1		EPA 6010C
7440-28-0	Thallium	6	1	U	EPA 6010C
7440-62-2	Vanadium	11	1	U	EPA 6010C
7440-66-6	Zinc	14	1		EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1501-ICV1	Aluminum	10.0	10.4	104	ug/mL	EPA 6010C
	Antimony	0.250	0.257	103	ug/mL	EPA 6010C
	Arsenic	0.250	0.261	104	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C
	Beryllium	0.250	0.261	104	ug/mL	EPA 6010C
	Cadmium	0.125	0.127	102	ug/mL	EPA 6010C
	Calcium	25.0	25.9	104	ug/mL	EPA 6010C
	Chromium	1.00	1.07	107	ug/mL	EPA 6010C
	Cobalt	2.50	2.65	106	ug/mL	EPA 6010C
	Copper	1.25	1.30	104	ug/mL	EPA 6010C
	Iron	5.00	5.22	104	ug/mL	EPA 6010C
	Lead	0.250	0.260	104	ug/mL	EPA 6010C
	Magnesium	25.0	26.2	105	ug/mL	EPA 6010C
	Manganese	2.50	2.69	107	ug/mL	EPA 6010C
	Nickel	2.50	2.60	104	ug/mL	EPA 6010C
	Potassium	5.00	5.27	105	ug/mL	EPA 6010C
	Selenium	0.250	0.258	103	ug/mL	EPA 6010C
	Silver	1.25	1.31	105	ug/mL	EPA 6010C
	Sodium	25.0	26.2	105	ug/mL	EPA 6010C
	Thallium	0.250	0.265	106	ug/mL	EPA 6010C
	Vanadium	2.50	2.60	104	ug/mL	EPA 6010C
	Zinc	2.50	2.67	107	ug/mL	EPA 6010C
Y6C1501-CCV1	Aluminum	10.0	10.4	104	ug/mL	EPA 6010C
	Antimony	0.250	0.254	102	ug/mL	EPA 6010C
	Arsenic	0.250	0.260	104	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C
	Beryllium	0.250	0.258	103	ug/mL	EPA 6010C
	Cadmium	0.125	0.129	103	ug/mL	EPA 6010C
	Calcium	25.0	25.9	104	ug/mL	EPA 6010C
	Chromium	1.00	1.08	108	ug/mL	EPA 6010C
	Cobalt	2.50	2.69	108	ug/mL	EPA 6010C
	Copper	1.25	1.32	106	ug/mL	EPA 6010C
	Iron	5.00	5.21	104	ug/mL	EPA 6010C
	Lead	0.250	0.262	105	ug/mL	EPA 6010C
	Magnesium	25.0	26.2	105	ug/mL	EPA 6010C
	Manganese	2.50	2.68	107	ug/mL	EPA 6010C
	Nickel	2.50	2.63	105	ug/mL	EPA 6010C
	Potassium	5.00	5.25	105	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1501-CCV1	Selenium	0.250	0.257	103	ug/mL	EPA 6010C
	Silver	1.25	1.33	107	ug/mL	EPA 6010C
	Sodium	25.0	26.4	105	ug/mL	EPA 6010C
	Thallium	0.250	0.264	106	ug/mL	EPA 6010C
	Vanadium	2.50	2.58	103	ug/mL	EPA 6010C
	Zinc	2.50	2.70	108	ug/mL	EPA 6010C
Y6C1501-CCV2	Aluminum	10.0	10.4	104	ug/mL	EPA 6010C
	Antimony	0.250	0.249	99.5	ug/mL	EPA 6010C
	Arsenic	0.250	0.257	103	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C
	Beryllium	0.250	0.260	104	ug/mL	EPA 6010C
	Cadmium	0.125	0.127	102	ug/mL	EPA 6010C
	Calcium	25.0	25.6	102	ug/mL	EPA 6010C
	Chromium	1.00	1.08	108	ug/mL	EPA 6010C
	Cobalt	2.50	2.68	107	ug/mL	EPA 6010C
	Copper	1.25	1.32	106	ug/mL	EPA 6010C
	Iron	5.00	5.35	107	ug/mL	EPA 6010C
	Lead	0.250	0.261	104	ug/mL	EPA 6010C
	Magnesium	25.0	26.8	107	ug/mL	EPA 6010C
	Manganese	2.50	2.70	108	ug/mL	EPA 6010C
	Nickel	2.50	2.61	104	ug/mL	EPA 6010C
	Potassium	5.00	5.72	114 *	ug/mL	EPA 6010C
	Selenium	0.250	0.251	100	ug/mL	EPA 6010C
	Silver	1.25	1.32	106	ug/mL	EPA 6010C
	Sodium	25.0	27.0	108	ug/mL	EPA 6010C
	Thallium	0.250	0.262	105	ug/mL	EPA 6010C
	Vanadium	2.50	2.59	104	ug/mL	EPA 6010C
	Zinc	2.50	2.67	107	ug/mL	EPA 6010C
Y6C1501-CCV3	Aluminum	10.0	10.5	105	ug/mL	EPA 6010C
	Antimony	0.250	0.248	99.2	ug/mL	EPA 6010C
	Arsenic	0.250	0.258	103	ug/mL	EPA 6010C
	Barium	10.0	10.9	109	ug/mL	EPA 6010C
	Beryllium	0.250	0.262	105	ug/mL	EPA 6010C
	Cadmium	0.125	0.128	102	ug/mL	EPA 6010C
	Calcium	25.0	25.8	103	ug/mL	EPA 6010C
	Chromium	1.00	1.08	108	ug/mL	EPA 6010C
	Cobalt	2.50	2.69	108	ug/mL	EPA 6010C
	Copper	1.25	1.33	106	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1501-CCV3	Iron	5.00	5.25	105	ug/mL	EPA 6010C
	Lead	0.250	0.262	105	ug/mL	EPA 6010C
	Magnesium	25.0	26.3	105	ug/mL	EPA 6010C
	Manganese	2.50	2.71	108	ug/mL	EPA 6010C
	Nickel	2.50	2.63	105	ug/mL	EPA 6010C
	Potassium	5.00	5.44	109	ug/mL	EPA 6010C
	Selenium	0.250	0.252	101	ug/mL	EPA 6010C
	Silver	1.25	1.33	106	ug/mL	EPA 6010C
	Sodium	25.0	27.0	108	ug/mL	EPA 6010C
	Thallium	0.250	0.261	104	ug/mL	EPA 6010C
	Vanadium	2.50	2.61	104	ug/mL	EPA 6010C
	Zinc	2.50	2.68	107	ug/mL	EPA 6010C
Y6C1501-CCV4	Aluminum	10.0	10.8	108	ug/mL	EPA 6010C
	Antimony	0.250	0.249	99.6	ug/mL	EPA 6010C
	Arsenic	0.250	0.260	104	ug/mL	EPA 6010C
	Barium	10.0	10.9	109	ug/mL	EPA 6010C
	Beryllium	0.250	0.259	104	ug/mL	EPA 6010C
	Cadmium	0.125	0.127	102	ug/mL	EPA 6010C
	Calcium	25.0	25.8	103	ug/mL	EPA 6010C
	Chromium	1.00	1.07	107	ug/mL	EPA 6010C
	Cobalt	2.50	2.67	107	ug/mL	EPA 6010C
	Copper	1.25	1.32	105	ug/mL	EPA 6010C
	Iron	5.00	5.39	108	ug/mL	EPA 6010C
	Lead	0.250	0.264	106	ug/mL	EPA 6010C
	Magnesium	25.0	27.1	108	ug/mL	EPA 6010C
	Manganese	2.50	2.69	108	ug/mL	EPA 6010C
	Nickel	2.50	2.61	104	ug/mL	EPA 6010C
	Potassium	5.00	5.53	111 *	ug/mL	EPA 6010C
	Selenium	0.250	0.256	102	ug/mL	EPA 6010C
	Silver	1.25	1.32	106	ug/mL	EPA 6010C
	Sodium	25.0	26.9	108	ug/mL	EPA 6010C
	Thallium	0.250	0.264	106	ug/mL	EPA 6010C
	Vanadium	2.50	2.59	104	ug/mL	EPA 6010C
	Zinc	2.50	2.66	106	ug/mL	EPA 6010C

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1502-ICV1	Aluminum	10.0	10.4	104	ug/mL	EPA 6010C
	Antimony	0.250	0.257	103	ug/mL	EPA 6010C
	Arsenic	0.250	0.261	104	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C
	Beryllium	0.250	0.261	104	ug/mL	EPA 6010C
	Cadmium	0.125	0.127	102	ug/mL	EPA 6010C
	Calcium	25.0	25.9	104	ug/mL	EPA 6010C
	Chromium	1.00	1.07	107	ug/mL	EPA 6010C
	Cobalt	2.50	2.65	106	ug/mL	EPA 6010C
	Copper	1.25	1.30	104	ug/mL	EPA 6010C
	Iron	5.00	5.22	104	ug/mL	EPA 6010C
	Lead	0.250	0.260	104	ug/mL	EPA 6010C
	Magnesium	25.0	26.2	105	ug/mL	EPA 6010C
	Manganese	2.50	2.69	107	ug/mL	EPA 6010C
	Nickel	2.50	2.60	104	ug/mL	EPA 6010C
	Potassium	5.00	5.27	105	ug/mL	EPA 6010C
	Selenium	0.250	0.258	103	ug/mL	EPA 6010C
	Silver	1.25	1.31	105	ug/mL	EPA 6010C
	Sodium	25.0	26.2	105	ug/mL	EPA 6010C
	Thallium	0.250	0.265	106	ug/mL	EPA 6010C
	Vanadium	2.50	2.60	104	ug/mL	EPA 6010C
	Zinc	2.50	2.67	107	ug/mL	EPA 6010C
Y6C1502-CCV1	Aluminum	10.0	10.4	104	ug/mL	EPA 6010C
	Antimony	0.250	0.254	102	ug/mL	EPA 6010C
	Arsenic	0.250	0.260	104	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C
	Beryllium	0.250	0.258	103	ug/mL	EPA 6010C
	Cadmium	0.125	0.129	103	ug/mL	EPA 6010C
	Calcium	25.0	25.9	104	ug/mL	EPA 6010C
	Chromium	1.00	1.08	108	ug/mL	EPA 6010C
	Cobalt	2.50	2.69	108	ug/mL	EPA 6010C
	Copper	1.25	1.32	106	ug/mL	EPA 6010C
	Iron	5.00	5.21	104	ug/mL	EPA 6010C
	Lead	0.250	0.262	105	ug/mL	EPA 6010C
	Magnesium	25.0	26.2	105	ug/mL	EPA 6010C
	Manganese	2.50	2.68	107	ug/mL	EPA 6010C
	Nickel	2.50	2.63	105	ug/mL	EPA 6010C
	Potassium	5.00	5.25	105	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1502-CCV1	Selenium	0.250	0.257	103	ug/mL	EPA 6010C
	Silver	1.25	1.33	107	ug/mL	EPA 6010C
	Sodium	25.0	26.4	105	ug/mL	EPA 6010C
	Thallium	0.250	0.264	106	ug/mL	EPA 6010C
	Vanadium	2.50	2.58	103	ug/mL	EPA 6010C
	Zinc	2.50	2.70	108	ug/mL	EPA 6010C
Y6C1502-CCV3	Aluminum	10.0	10.5	105	ug/mL	EPA 6010C
	Antimony	0.250	0.248	99.2	ug/mL	EPA 6010C
	Arsenic	0.250	0.258	103	ug/mL	EPA 6010C
	Barium	10.0	10.9	109	ug/mL	EPA 6010C
	Beryllium	0.250	0.262	105	ug/mL	EPA 6010C
	Cadmium	0.125	0.128	102	ug/mL	EPA 6010C
	Calcium	25.0	25.8	103	ug/mL	EPA 6010C
	Chromium	1.00	1.08	108	ug/mL	EPA 6010C
	Cobalt	2.50	2.69	108	ug/mL	EPA 6010C
	Copper	1.25	1.33	106	ug/mL	EPA 6010C
	Iron	5.00	5.25	105	ug/mL	EPA 6010C
	Lead	0.250	0.262	105	ug/mL	EPA 6010C
	Magnesium	25.0	26.3	105	ug/mL	EPA 6010C
	Manganese	2.50	2.71	108	ug/mL	EPA 6010C
	Nickel	2.50	2.63	105	ug/mL	EPA 6010C
	Potassium	5.00	5.44	109	ug/mL	EPA 6010C
	Selenium	0.250	0.252	101	ug/mL	EPA 6010C
	Silver	1.25	1.33	106	ug/mL	EPA 6010C
	Sodium	25.0	27.0	108	ug/mL	EPA 6010C
	Thallium	0.250	0.261	104	ug/mL	EPA 6010C
	Vanadium	2.50	2.61	104	ug/mL	EPA 6010C
	Zinc	2.50	2.68	107	ug/mL	EPA 6010C
Y6C1502-CCV4	Aluminum	10.0	10.8	108	ug/mL	EPA 6010C
	Antimony	0.250	0.249	99.6	ug/mL	EPA 6010C
	Arsenic	0.250	0.260	104	ug/mL	EPA 6010C
	Barium	10.0	10.9	109	ug/mL	EPA 6010C
	Beryllium	0.250	0.259	104	ug/mL	EPA 6010C
	Cadmium	0.125	0.127	102	ug/mL	EPA 6010C
	Calcium	25.0	25.8	103	ug/mL	EPA 6010C
	Chromium	1.00	1.07	107	ug/mL	EPA 6010C
	Cobalt	2.50	2.67	107	ug/mL	EPA 6010C
	Copper	1.25	1.32	105	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1502-CCV4	Iron	5.00	5.39	108	ug/mL	EPA 6010C
	Lead	0.250	0.264	106	ug/mL	EPA 6010C
	Magnesium	25.0	27.1	108	ug/mL	EPA 6010C
	Manganese	2.50	2.69	108	ug/mL	EPA 6010C
	Nickel	2.50	2.61	104	ug/mL	EPA 6010C
	Potassium	5.00	5.53	111 *	ug/mL	EPA 6010C
	Selenium	0.250	0.256	102	ug/mL	EPA 6010C
	Silver	1.25	1.32	106	ug/mL	EPA 6010C
	Sodium	25.0	26.9	108	ug/mL	EPA 6010C
	Thallium	0.250	0.264	106	ug/mL	EPA 6010C
	Vanadium	2.50	2.59	104	ug/mL	EPA 6010C
	Zinc	2.50	2.66	106	ug/mL	EPA 6010C
Y6C1502-CCV5	Aluminum	10.0	10.3	103	ug/mL	EPA 6010C
	Antimony	0.250	0.249	99.6	ug/mL	EPA 6010C
	Arsenic	0.250	0.261	104	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C
	Beryllium	0.250	0.258	103	ug/mL	EPA 6010C
	Cadmium	0.125	0.128	102	ug/mL	EPA 6010C
	Calcium	25.0	25.8	103	ug/mL	EPA 6010C
	Chromium	1.00	1.08	108	ug/mL	EPA 6010C
	Cobalt	2.50	2.69	108	ug/mL	EPA 6010C
	Copper	1.25	1.32	106	ug/mL	EPA 6010C
	Iron	5.00	5.28	106	ug/mL	EPA 6010C
	Lead	0.250	0.262	105	ug/mL	EPA 6010C
	Magnesium	25.0	26.7	107	ug/mL	EPA 6010C
	Manganese	2.50	2.68	107	ug/mL	EPA 6010C
	Nickel	2.50	2.63	105	ug/mL	EPA 6010C
	Potassium	5.00	5.51	110	ug/mL	EPA 6010C
	Selenium	0.250	0.254	102	ug/mL	EPA 6010C
	Silver	1.25	1.33	106	ug/mL	EPA 6010C
	Sodium	25.0	26.9	108	ug/mL	EPA 6010C
	Thallium	0.250	0.262	105	ug/mL	EPA 6010C
	Vanadium	2.50	2.57	103	ug/mL	EPA 6010C
	Zinc	2.50	2.67	107	ug/mL	EPA 6010C
Y6C1502-CCV6	Aluminum	10.0	10.6	106	ug/mL	EPA 6010C
	Antimony	0.250	0.246	98.4	ug/mL	EPA 6010C
	Arsenic	0.250	0.258	103	ug/mL	EPA 6010C
	Barium	10.0	10.8	108	ug/mL	EPA 6010C

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Control Limit: +/- 10.00%

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units	Method
Y6C1502-CCV6	Beryllium	0.250	0.257	103	ug/mL	EPA 6010C
	Cadmium	0.125	0.127	102	ug/mL	EPA 6010C
	Calcium	25.0	25.9	103	ug/mL	EPA 6010C
	Chromium	1.00	1.07	107	ug/mL	EPA 6010C
	Cobalt	2.50	2.67	107	ug/mL	EPA 6010C
	Copper	1.25	1.31	105	ug/mL	EPA 6010C
	Iron	5.00	5.29	106	ug/mL	EPA 6010C
	Lead	0.250	0.261	105	ug/mL	EPA 6010C
	Magnesium	25.0	26.5	106	ug/mL	EPA 6010C
	Manganese	2.50	2.68	107	ug/mL	EPA 6010C
	Nickel	2.50	2.60	104	ug/mL	EPA 6010C
	Potassium	5.00	5.44	109	ug/mL	EPA 6010C
	Selenium	0.250	0.255	102	ug/mL	EPA 6010C
	Silver	1.25	1.32	106	ug/mL	EPA 6010C
	Sodium	25.0	27.0	108	ug/mL	EPA 6010C
	Thallium	0.250	0.261	105	ug/mL	EPA 6010C
	Vanadium	2.50	2.57	103	ug/mL	EPA 6010C
	Zinc	2.50	2.65	106	ug/mL	EPA 6010C

* Values outside of QC limits

CRDL STANDARD

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
Y6C1501-CRL1	Aluminum		292		ug/mL	70 - 130
	Antimony	0.0100	0.009	88.2	ug/mL	70 - 130
	Arsenic	0.0100	0.010	99.3	ug/mL	70 - 130
	Barium	0.0100	0.012	115	ug/mL	70 - 130
	Beryllium	0.000500	0.0005	109	ug/mL	70 - 130
	Cadmium	0.00300	0.003	113	ug/mL	70 - 130
	Calcium		19		ug/mL	70 - 130
	Chromium	0.00500	0.006	116	ug/mL	70 - 130
	Cobalt	0.00500	0.006	113	ug/mL	70 - 130
	Copper	0.00500	0.004	88.8	ug/mL	70 - 130
	Iron		7		ug/mL	70 - 130
	Lead	0.00300	0.003	91.3	ug/mL	70 - 130
	Magnesium		1		ug/mL	70 - 130
	Manganese	0.00500	0.006	112	ug/mL	70 - 130
	Nickel	0.00500	0.005	107	ug/mL	70 - 130
	Potassium		0.6		ug/mL	70 - 130
	Selenium	0.0100	0.009	88.4	ug/mL	70 - 130
	Silver	0.00500	0.005	102	ug/mL	70 - 130
	Sodium		14		ug/mL	70 - 130
	Thallium	0.0100	0.011	113	ug/mL	70 - 130
	Vanadium	0.00500	0.006	112	ug/mL	70 - 130
	Zinc	0.00500	0.025	495 *	ug/mL	70 - 130
Y6C1501-CRL2	Aluminum	0.0500	0.097	194 *	ug/mL	70 - 130
	Antimony		-3		ug/mL	70 - 130
	Arsenic		-2		ug/mL	70 - 130
	Barium		-0.6		ug/mL	70 - 130
	Beryllium		0.08		ug/mL	70 - 130
	Cadmium		0.04		ug/mL	70 - 130

CRDL STANDARD

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
Y6C1501-CRL2	Calcium	0.100	0.159	159 *	ug/mL	70 - 130
	Chromium		0.2		ug/mL	70 - 130
	Cobalt		-0.2		ug/mL	70 - 130
	Copper		-3		ug/mL	70 - 130
	Iron	0.200	0.220	110	ug/mL	70 - 130
	Lead		0.2		ug/mL	70 - 130
	Magnesium	0.0500	0.061	121	ug/mL	70 - 130
	Manganese		-0.2		ug/mL	70 - 130
	Nickel		0.9		ug/mL	70 - 130
	Potassium	0.200	0.196	98.0	ug/mL	70 - 130
	Selenium		-3		ug/mL	70 - 130
	Silver		-0.7		ug/mL	70 - 130
	Sodium	0.200	0.251	125	ug/mL	70 - 130
	Thallium		2		ug/mL	70 - 130
	Vanadium		-0.03		ug/mL	70 - 130
	Zinc		4		ug/mL	70 - 130

* Values outside of QC limits

CRDL STANDARD

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
Y6C1502-CRL1	Aluminum		0.292		ug/mL	70 - 130
	Antimony	0.0100	0.009	88.2	ug/mL	70 - 130
	Arsenic	0.0100	0.010	99.3	ug/mL	70 - 130
	Barium	0.0100	0.012	115	ug/mL	70 - 130
	Beryllium	0.000500	0.0005	109	ug/mL	70 - 130
	Cadmium	0.00300	0.003	113	ug/mL	70 - 130
	Calcium		0.019		ug/mL	70 - 130
	Chromium	0.00500	0.006	116	ug/mL	70 - 130
	Cobalt	0.00500	0.006	113	ug/mL	70 - 130
	Copper	0.00500	0.004	88.8	ug/mL	70 - 130
	Iron		0.007		ug/mL	70 - 130
	Lead	0.00300	0.003	91.3	ug/mL	70 - 130
	Magnesium		0.001		ug/mL	70 - 130
	Manganese	0.00500	0.006	112	ug/mL	70 - 130
	Nickel	0.00500	0.005	107	ug/mL	70 - 130
	Potassium		0.0006		ug/mL	70 - 130
	Selenium	0.0100	0.009	88.4	ug/mL	70 - 130
	Silver	0.00500	0.005	102	ug/mL	70 - 130
	Sodium		0.014		ug/mL	70 - 130
	Thallium	0.0100	0.011	113	ug/mL	70 - 130
	Vanadium	0.00500	0.006	112	ug/mL	70 - 130
	Zinc	0.00500	0.025	495 *	ug/mL	70 - 130
Y6C1502-CRL2	Aluminum	0.0500	0.097	194 *	ug/mL	70 - 130
	Antimony		-0.003		ug/mL	70 - 130
	Arsenic		-0.002		ug/mL	70 - 130
	Barium		-0.0006		ug/mL	70 - 130
	Beryllium		0.00008		ug/mL	70 - 130
	Cadmium		0.00004		ug/mL	70 - 130

CRDL STANDARD

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limits
Y6C1502-CRL2	Calcium	0.100	0.159	159 *	ug/mL	70 - 130
	Chromium		0.0002		ug/mL	70 - 130
	Cobalt		-0.0002		ug/mL	70 - 130
	Copper		-0.003		ug/mL	70 - 130
	Iron	0.200	0.220	110	ug/mL	70 - 130
	Lead		0.0002		ug/mL	70 - 130
	Magnesium	0.0500	0.061	121	ug/mL	70 - 130
	Manganese		-0.0002		ug/mL	70 - 130
	Nickel		0.0009		ug/mL	70 - 130
	Potassium	0.200	0.196	98.0	ug/mL	70 - 130
	Selenium		-0.003		ug/mL	70 - 130
	Silver		-0.0007		ug/mL	70 - 130
	Sodium	0.200	0.251	125	ug/mL	70 - 130
	Thallium		0.002		ug/mL	70 - 130
	Vanadium		-0.00003		ug/mL	70 - 130
	Zinc		0.004		ug/mL	70 - 130

* Values outside of QC limits

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1501Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1501-ICB1	Aluminum	0.006	0.05	ug/mL		EPA 6010C
	Antimony	0.0002	0.005	ug/mL		EPA 6010C
	Arsenic	-0.0006	0.004	ug/mL		EPA 6010C
	Barium	0.00003	0.01	ug/mL		EPA 6010C
	Beryllium	0.00006	0.001	ug/mL		EPA 6010C
	Cadmium	0.00006	0.003	ug/mL		EPA 6010C
	Calcium	0.009	0.05	ug/mL		EPA 6010C
	Chromium	0.00007	0.005	ug/mL		EPA 6010C
	Cobalt	-0.00007	0.005	ug/mL		EPA 6010C
	Copper	-0.0003	0.003	ug/mL		EPA 6010C
	Iron	0.0002	0.02	ug/mL		EPA 6010C
	Lead	0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	-0.001	0.05	ug/mL		EPA 6010C
	Manganese	-0.00002	0.005	ug/mL		EPA 6010C
	Nickel	0.0004	0.005	ug/mL		EPA 6010C
	Potassium	-0.02	0.05	ug/mL		EPA 6010C
	Selenium	-0.003	0.01	ug/mL		EPA 6010C
	Silver	-0.0002	0.005	ug/mL		EPA 6010C
	Sodium	-0.01	0.1	ug/mL		EPA 6010C
	Thallium	-0.0002	0.005	ug/mL		EPA 6010C
	Vanadium	0.0002	0.01	ug/mL		EPA 6010C
	Zinc	-0.0009	0.01	ug/mL		EPA 6010C
Y6C1501-CCB1	Aluminum	0.01	0.05	ug/mL		EPA 6010C
	Antimony	-0.003	0.005	ug/mL		EPA 6010C
	Arsenic	-0.0009	0.004	ug/mL		EPA 6010C
	Barium	-0.0002	0.01	ug/mL		EPA 6010C
	Beryllium	0.00002	0.001	ug/mL		EPA 6010C
	Cadmium	0.00003	0.003	ug/mL		EPA 6010C
	Calcium	0.004	0.05	ug/mL		EPA 6010C
	Chromium	0.00007	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0001	0.005	ug/mL		EPA 6010C
	Copper	-0.001	0.003	ug/mL		EPA 6010C
	Iron	0.005	0.02	ug/mL		EPA 6010C

FORM I**BLANKS
EPA 6010C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1501Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1501-CCB1	Lead	-0.0005	0.003	ug/mL		EPA 6010C
	Magnesium	0.02	0.05	ug/mL		EPA 6010C
	Manganese	-0.0001	0.005	ug/mL		EPA 6010C
	Nickel	0.0001	0.005	ug/mL		EPA 6010C
	Potassium	-0.02	0.05	ug/mL		EPA 6010C
	Selenium	-0.003	0.01	ug/mL		EPA 6010C
	Silver	-0.0003	0.005	ug/mL		EPA 6010C
	Sodium	-0.05	0.1	ug/mL		EPA 6010C
	Thallium	0.0009	0.005	ug/mL		EPA 6010C
	Vanadium	0.00007	0.01	ug/mL		EPA 6010C
	Zinc	-0.001	0.01	ug/mL		EPA 6010C
BC60702-BLK1	Aluminum	18	50	ug/L		EPA 6010C
	Antimony	-1	5	ug/L		EPA 6010C
	Arsenic	-0.9	4	ug/L		EPA 6010C
	Barium	-0.7	10	ug/L		EPA 6010C
	Beryllium	-0.06	1	ug/L		EPA 6010C
	Cadmium	0.02	3	ug/L		EPA 6010C
	Calcium	10	50	ug/L		EPA 6010C
	Chromium	0.1	5	ug/L		EPA 6010C
	Cobalt	-0.2	5	ug/L		EPA 6010C
	Copper	-2	3	ug/L		EPA 6010C
	Iron	2	20	ug/L		EPA 6010C
	Lead	0.4	3	ug/L		EPA 6010C
	Magnesium	5	50	ug/L		EPA 6010C
	Manganese	-0.2	5	ug/L		EPA 6010C
	Nickel	-0.6	5	ug/L		EPA 6010C
	Potassium	-25	50	ug/L		EPA 6010C
	Selenium	1	10	ug/L		EPA 6010C
	Silver	-0.3	5	ug/L		EPA 6010C
	Sodium	-55	100	ug/L		EPA 6010C
	Thallium	-1	5	ug/L		EPA 6010C
	Vanadium	0.03	10	ug/L		EPA 6010C
	Zinc	1	10	ug/L		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1501Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1501-CCB2	Aluminum	0.01	0.05	ug/mL		EPA 6010C
	Antimony	-0.001	0.005	ug/mL		EPA 6010C
	Arsenic	-0.001	0.004	ug/mL		EPA 6010C
	Barium	-0.0004	0.01	ug/mL		EPA 6010C
	Beryllium	-0.00006	0.001	ug/mL		EPA 6010C
	Cadmium	-0.0001	0.003	ug/mL		EPA 6010C
	Calcium	-0.001	0.05	ug/mL		EPA 6010C
	Chromium	0.0002	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0002	0.005	ug/mL		EPA 6010C
	Copper	-0.002	0.003	ug/mL		EPA 6010C
	Iron	0.001	0.02	ug/mL		EPA 6010C
	Lead	0.001	0.003	ug/mL		EPA 6010C
	Magnesium	0.01	0.05	ug/mL		EPA 6010C
	Manganese	-0.00004	0.005	ug/mL		EPA 6010C
	Nickel	-0.003	0.005	ug/mL		EPA 6010C
	Potassium	0.008	0.05	ug/mL		EPA 6010C
	Selenium	-0.005	0.01	ug/mL		EPA 6010C
	Silver	0.001	0.005	ug/mL		EPA 6010C
	Sodium	-0.4	0.1	ug/mL		EPA 6010C
	Thallium	-0.001	0.005	ug/mL		EPA 6010C
	Vanadium	0.0002	0.01	ug/mL		EPA 6010C
	Zinc	0.006	0.01	ug/mL		EPA 6010C
Y6C1501-CCB3	Aluminum	0.01	0.05	ug/mL		EPA 6010C
	Antimony	-0.003	0.005	ug/mL		EPA 6010C
	Arsenic	-0.002	0.004	ug/mL		EPA 6010C
	Barium	-0.0003	0.01	ug/mL		EPA 6010C
	Beryllium	-0.00009	0.001	ug/mL		EPA 6010C
	Cadmium	-0.00008	0.003	ug/mL		EPA 6010C
	Calcium	0.004	0.05	ug/mL		EPA 6010C
	Chromium	0.0002	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0003	0.005	ug/mL		EPA 6010C
	Copper	0.0001	0.003	ug/mL		EPA 6010C
	Iron	0.002	0.02	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1501Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1501-CCB3	Lead	-0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	0.006	0.05	ug/mL		EPA 6010C
	Manganese	-0.00007	0.005	ug/mL		EPA 6010C
	Nickel	-0.002	0.005	ug/mL		EPA 6010C
	Potassium	0.003	0.05	ug/mL		EPA 6010C
	Selenium	-0.005	0.01	ug/mL		EPA 6010C
	Silver	0.0003	0.005	ug/mL		EPA 6010C
	Sodium	-0.2	0.1	ug/mL		EPA 6010C
	Thallium	-0.0007	0.005	ug/mL		EPA 6010C
	Vanadium	0.00003	0.01	ug/mL		EPA 6010C
	Zinc	0.006	0.01	ug/mL		EPA 6010C
Y6C1501-CCB4	Aluminum	0.01	0.05	ug/mL		EPA 6010C
	Antimony	-0.002	0.005	ug/mL		EPA 6010C
	Arsenic	-0.001	0.004	ug/mL		EPA 6010C
	Barium	-0.0004	0.01	ug/mL		EPA 6010C
	Beryllium	-0.00007	0.001	ug/mL		EPA 6010C
	Cadmium	-0.00002	0.003	ug/mL		EPA 6010C
	Calcium	-0.0008	0.05	ug/mL		EPA 6010C
	Chromium	0.0004	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0003	0.005	ug/mL		EPA 6010C
	Copper	-0.002	0.003	ug/mL		EPA 6010C
	Iron	0.001	0.02	ug/mL		EPA 6010C
	Lead	0.0005	0.003	ug/mL		EPA 6010C
	Magnesium	0.001	0.05	ug/mL		EPA 6010C
	Manganese	-0.00001	0.005	ug/mL		EPA 6010C
	Nickel	-0.001	0.005	ug/mL		EPA 6010C
	Potassium	-0.02	0.05	ug/mL		EPA 6010C
	Selenium	-0.001	0.01	ug/mL		EPA 6010C
	Silver	0.0007	0.005	ug/mL		EPA 6010C
	Sodium	-0.09	0.1	ug/mL		EPA 6010C
	Thallium	0.001	0.005	ug/mL		EPA 6010C
	Vanadium	-0.00002	0.01	ug/mL		EPA 6010C
	Zinc	0.005	0.01	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1502Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1502-ICB1	Aluminum	0.006	0.050	ug/mL		EPA 6010C
	Antimony	0.0002	0.005	ug/mL		EPA 6010C
	Arsenic	-0.0006	0.010	ug/mL		EPA 6010C
	Barium	0.00003	0.010	ug/mL		EPA 6010C
	Beryllium	0.00006	0.001	ug/mL		EPA 6010C
	Cadmium	0.00006	0.003	ug/mL		EPA 6010C
	Calcium	0.009	0.050	ug/mL		EPA 6010C
	Chromium	0.00007	0.005	ug/mL		EPA 6010C
	Cobalt	-0.00007	0.005	ug/mL		EPA 6010C
	Copper	-0.0003	0.005	ug/mL		EPA 6010C
	Iron	0.0002	0.020	ug/mL		EPA 6010C
	Lead	0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	-0.001	0.050	ug/mL		EPA 6010C
	Manganese	-0.00002	0.005	ug/mL		EPA 6010C
	Nickel	0.0004	0.005	ug/mL		EPA 6010C
	Potassium	-0.023	0.050	ug/mL		EPA 6010C
	Selenium	-0.003	0.010	ug/mL		EPA 6010C
	Silver	-0.0002	0.005	ug/mL		EPA 6010C
	Sodium	-0.014	0.100	ug/mL		EPA 6010C
	Thallium	-0.0002	0.010	ug/mL		EPA 6010C
	Vanadium	0.0002	0.010	ug/mL		EPA 6010C
	Zinc	-0.0009	0.010	ug/mL		EPA 6010C
Y6C1502-CCB1	Aluminum	0.015	0.050	ug/mL		EPA 6010C
	Antimony	-0.003	0.005	ug/mL		EPA 6010C
	Arsenic	-0.0009	0.010	ug/mL		EPA 6010C
	Barium	-0.0002	0.010	ug/mL		EPA 6010C
	Beryllium	0.00002	0.001	ug/mL		EPA 6010C
	Cadmium	0.00003	0.003	ug/mL		EPA 6010C
	Calcium	0.004	0.050	ug/mL		EPA 6010C
	Chromium	0.00007	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0001	0.005	ug/mL		EPA 6010C
	Copper	-0.001	0.005	ug/mL		EPA 6010C
	Iron	0.005	0.020	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1502Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1502-CCB1	Lead	-0.0005	0.003	ug/mL		EPA 6010C
	Magnesium	0.015	0.050	ug/mL		EPA 6010C
	Manganese	-0.0001	0.005	ug/mL		EPA 6010C
	Nickel	0.0001	0.005	ug/mL		EPA 6010C
	Potassium	-0.017	0.050	ug/mL		EPA 6010C
	Selenium	-0.003	0.010	ug/mL		EPA 6010C
	Silver	-0.0003	0.005	ug/mL		EPA 6010C
	Sodium	-0.045	0.100	ug/mL		EPA 6010C
	Thallium	0.0009	0.010	ug/mL		EPA 6010C
	Vanadium	0.00007	0.010	ug/mL		EPA 6010C
	Zinc	-0.001	0.010	ug/mL		EPA 6010C
Y6C1502-CCB3	Aluminum	0.012	0.050	ug/mL		EPA 6010C
	Antimony	-0.003	0.005	ug/mL		EPA 6010C
	Arsenic	-0.002	0.010	ug/mL		EPA 6010C
	Barium	-0.0003	0.010	ug/mL		EPA 6010C
	Beryllium	-0.00009	0.001	ug/mL		EPA 6010C
	Cadmium	-0.00008	0.003	ug/mL		EPA 6010C
	Calcium	0.004	0.050	ug/mL		EPA 6010C
	Chromium	0.0002	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0003	0.005	ug/mL		EPA 6010C
	Copper	0.0001	0.005	ug/mL		EPA 6010C
	Iron	0.002	0.020	ug/mL		EPA 6010C
	Lead	-0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	0.006	0.050	ug/mL		EPA 6010C
	Manganese	-0.00007	0.005	ug/mL		EPA 6010C
	Nickel	-0.002	0.005	ug/mL		EPA 6010C
	Potassium	0.003	0.050	ug/mL		EPA 6010C
	Selenium	-0.005	0.010	ug/mL		EPA 6010C
	Silver	0.0003	0.005	ug/mL		EPA 6010C
	Sodium	-0.213	0.100	ug/mL		EPA 6010C
	Thallium	-0.0007	0.010	ug/mL		EPA 6010C
	Vanadium	0.00003	0.010	ug/mL		EPA 6010C
	Zinc	0.006	0.010	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1502Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
BC60698-BLK1	Aluminum	-0.220	5.00	mg/kg wet		EPA 6010C
	Antimony	-0.424	0.500	mg/kg wet		EPA 6010C
	Arsenic	-0.193	1.00	mg/kg wet		EPA 6010C
	Barium	-0.097	1.00	mg/kg wet		EPA 6010C
	Beryllium	-0.004	0.100	mg/kg wet		EPA 6010C
	Cadmium	-0.002	0.300	mg/kg wet		EPA 6010C
	Calcium	0.831	5.00	mg/kg wet		EPA 6010C
	Chromium	0.015	0.500	mg/kg wet		EPA 6010C
	Cobalt	-0.044	0.500	mg/kg wet		EPA 6010C
	Copper	-0.390	0.500	mg/kg wet		EPA 6010C
	Iron	0.430	2.00	mg/kg wet		EPA 6010C
	Lead	0.074	0.300	mg/kg wet		EPA 6010C
	Magnesium	0.821	5.00	mg/kg wet		EPA 6010C
	Manganese	-0.019	0.500	mg/kg wet		EPA 6010C
	Nickel	-0.118	0.500	mg/kg wet		EPA 6010C
	Potassium	-2.53	5.00	mg/kg wet		EPA 6010C
	Selenium	-0.224	1.00	mg/kg wet		EPA 6010C
	Silver	-0.019	0.500	mg/kg wet		EPA 6010C
	Sodium	-12.6	10.0	mg/kg wet		EPA 6010C
	Thallium	-0.004	1.00	mg/kg wet		EPA 6010C
	Vanadium	-0.019	1.00	mg/kg wet		EPA 6010C
	Zinc	-0.015	1.00	mg/kg wet		EPA 6010C
Y6C1502-CCB4	Aluminum	0.012	0.050	ug/mL		EPA 6010C
	Antimony	-0.002	0.005	ug/mL		EPA 6010C
	Arsenic	-0.001	0.010	ug/mL		EPA 6010C
	Barium	-0.0004	0.010	ug/mL		EPA 6010C
	Beryllium	-0.00007	0.001	ug/mL		EPA 6010C
	Cadmium	-0.00002	0.003	ug/mL		EPA 6010C
	Calcium	-0.0008	0.050	ug/mL		EPA 6010C
	Chromium	0.0004	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0003	0.005	ug/mL		EPA 6010C
	Copper	-0.002	0.005	ug/mL		EPA 6010C
	Iron	0.001	0.020	ug/mL		EPA 6010C

FORM I

BLANKS
EPA 6010CLaboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1502Calibration: 03/14/16 1

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1502-CCB4	Lead	0.0005	0.003	ug/mL		EPA 6010C
	Magnesium	0.001	0.050	ug/mL		EPA 6010C
	Manganese	-0.00001	0.005	ug/mL		EPA 6010C
	Nickel	-0.001	0.005	ug/mL		EPA 6010C
	Potassium	-0.016	0.050	ug/mL		EPA 6010C
	Selenium	-0.001	0.010	ug/mL		EPA 6010C
	Silver	0.0007	0.005	ug/mL		EPA 6010C
	Sodium	-0.092	0.100	ug/mL		EPA 6010C
	Thallium	0.001	0.010	ug/mL		EPA 6010C
	Vanadium	-0.00002	0.010	ug/mL		EPA 6010C
	Zinc	0.005	0.010	ug/mL		EPA 6010C
Y6C1502-CCB5	Aluminum	0.017	0.050	ug/mL		EPA 6010C
	Antimony	-0.003	0.005	ug/mL		EPA 6010C
	Arsenic	-0.001	0.010	ug/mL		EPA 6010C
	Barium	-0.0004	0.010	ug/mL		EPA 6010C
	Beryllium	-0.00006	0.001	ug/mL		EPA 6010C
	Cadmium	0.00003	0.003	ug/mL		EPA 6010C
	Calcium	0.002	0.050	ug/mL		EPA 6010C
	Chromium	0.0002	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0004	0.005	ug/mL		EPA 6010C
	Copper	-0.002	0.005	ug/mL		EPA 6010C
	Iron	0.005	0.020	ug/mL		EPA 6010C
	Lead	0.0002	0.003	ug/mL		EPA 6010C
	Magnesium	0.009	0.050	ug/mL		EPA 6010C
	Manganese	-0.00006	0.005	ug/mL		EPA 6010C
	Nickel	-0.0003	0.005	ug/mL		EPA 6010C
	Potassium	-0.021	0.050	ug/mL		EPA 6010C
	Selenium	-0.004	0.010	ug/mL		EPA 6010C
	Silver	0.001	0.005	ug/mL		EPA 6010C
	Sodium	-0.114	0.100	ug/mL		EPA 6010C
	Thallium	0.001	0.010	ug/mL		EPA 6010C
	Vanadium	0.0001	0.010	ug/mL		EPA 6010C
	Zinc	0.006	0.010	ug/mL		EPA 6010C

FORM I**BLANKS
EPA 6010C**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Instrument ID: WinLabICPProject: 100433202Sequence: Y6C1502Calibration: 03/14/16 2

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
Y6C1502-CCB6	Aluminum	0.013	0.050	ug/mL		EPA 6010C
	Antimony	-0.004	0.005	ug/mL		EPA 6010C
	Arsenic	-0.0003	0.010	ug/mL		EPA 6010C
	Barium	-0.0005	0.010	ug/mL		EPA 6010C
	Beryllium	0.00003	0.001	ug/mL		EPA 6010C
	Cadmium	0.000004	0.003	ug/mL		EPA 6010C
	Calcium	-0.005	0.050	ug/mL		EPA 6010C
	Chromium	0.0002	0.005	ug/mL		EPA 6010C
	Cobalt	-0.0003	0.005	ug/mL		EPA 6010C
	Copper	-0.002	0.005	ug/mL		EPA 6010C
	Iron	0.002	0.020	ug/mL		EPA 6010C
	Lead	0.0006	0.003	ug/mL		EPA 6010C
	Magnesium	0.003	0.050	ug/mL		EPA 6010C
	Manganese	-0.00006	0.005	ug/mL		EPA 6010C
	Nickel	-0.0003	0.005	ug/mL		EPA 6010C
	Potassium	0.002	0.050	ug/mL		EPA 6010C
	Selenium	-0.003	0.010	ug/mL		EPA 6010C
	Silver	0.0004	0.005	ug/mL		EPA 6010C
	Sodium	-0.090	0.100	ug/mL		EPA 6010C
	Thallium	0.002	0.010	ug/mL		EPA 6010C
	Vanadium	-0.0001	0.010	ug/mL		EPA 6010C
	Zinc	0.005	0.010	ug/mL		EPA 6010C

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units
Y6C1501-IFA1	Aluminum	500	522.26	104	ug/mL
	Antimony		0.00		ug/mL
	Arsenic		0.00		ug/mL
	Barium		0.00		ug/mL
	Beryllium		0.00		ug/mL
	Cadmium		0.00		ug/mL
	Calcium	500	490.77	98.2	ug/mL
	Chromium		0.00		ug/mL
	Cobalt		0.00		ug/mL
	Copper		0.00		ug/mL
	Iron	200	197.53	98.8	ug/mL
	Lead		0.00		ug/mL
	Magnesium	500	509.28	102	ug/mL
	Manganese		0.00		ug/mL
	Nickel		0.00		ug/mL
	Potassium		-0.06		ug/mL
	Selenium		0.00		ug/mL
	Silver		0.00		ug/mL
	Sodium		0.23		ug/mL
	Thallium		0.01		ug/mL
	Vanadium		0.00		ug/mL
	Zinc		0.00		ug/mL
Y6C1501-IFB1	Aluminum	500	522.97	105	ug/mL
	Antimony	0.500	0.52	105	ug/mL
	Arsenic	0.500	0.54	108	ug/mL
	Barium	0.500	0.54	108	ug/mL
	Beryllium	0.500	0.52	105	ug/mL
	Cadmium	1.00	0.96	96.3	ug/mL
	Calcium	500	488.02	97.6	ug/mL

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1501

Lab Sample ID	Analyte	True	Found	%R	Units
Y6C1501-IFB1	Chromium	0.500	0.51	102	ug/mL
	Cobalt	0.500	0.50	99.8	ug/mL
	Copper	0.500	0.57	114	ug/mL
	Iron	200	196.27	98.1	ug/mL
	Lead	1.00	0.96	95.7	ug/mL
	Magnesium	500	505.04	101	ug/mL
	Manganese	0.500	0.52	105	ug/mL
	Nickel	1.00	1.06	106	ug/mL
	Potassium		-0.08		ug/mL
	Selenium	0.500	0.54	108	ug/mL
	Silver	1.00	1.16	116	ug/mL
	Sodium		0.23		ug/mL
	Thallium	0.500	0.50	101	ug/mL
	Vanadium	0.500	0.51	101	ug/mL
	Zinc	1.00	0.97	97.0	ug/mL

* Values outside of QC limits

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units
Y6C1502-IFA1	Aluminum	500	522.26	104	ug/mL
	Antimony		0.00		ug/mL
	Arsenic		0.00		ug/mL
	Barium		0.00		ug/mL
	Beryllium		0.00		ug/mL
	Cadmium		0.00		ug/mL
	Calcium	500	490.77	98.2	ug/mL
	Chromium		0.00		ug/mL
	Cobalt		0.00		ug/mL
	Copper		0.00		ug/mL
	Iron	200	197.53	98.8	ug/mL
	Lead		0.00		ug/mL
	Magnesium	500	509.28	102	ug/mL
	Manganese		0.00		ug/mL
	Nickel		0.00		ug/mL
	Potassium		-0.06		ug/mL
	Selenium		0.00		ug/mL
	Silver		0.00		ug/mL
	Sodium		0.23		ug/mL
	Thallium		0.01		ug/mL
	Vanadium		0.00		ug/mL
	Zinc		0.00		ug/mL
Y6C1502-IFB1	Aluminum	500	522.97	105	ug/mL
	Antimony	0.500	0.52	105	ug/mL
	Arsenic	0.500	0.54	108	ug/mL
	Barium	0.500	0.54	108	ug/mL
	Beryllium	0.500	0.52	105	ug/mL
	Cadmium	1.00	0.96	96.3	ug/mL
	Calcium	500	488.02	97.6	ug/mL

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (

Project: 100433202

Instrument ID: WinLabICP

Calibration: 03/14/16

Sequence: Y6C1502

Lab Sample ID	Analyte	True	Found	%R	Units
Y6C1502-IFB1	Chromium	0.500	0.51	102	ug/mL
	Cobalt	0.500	0.50	99.8	ug/mL
	Copper	0.500	0.57	114	ug/mL
	Iron	200	196.27	98.1	ug/mL
	Lead	1.00	0.96	95.7	ug/mL
	Magnesium	500	505.04	101	ug/mL
	Manganese	0.500	0.52	105	ug/mL
	Nickel	1.00	1.06	106	ug/mL
	Potassium		-0.08		ug/mL
	Selenium	0.500	0.54	108	ug/mL
	Silver	1.00	1.16	116	ug/mL
	Sodium		0.23		ug/mL
	Thallium	0.500	0.50	101	ug/mL
	Vanadium	0.500	0.51	101	ug/mL
	Zinc	1.00	0.97	97.0	ug/mL

* Values outside of QC limits

METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument: WinLabICP

Analyte	LOD	LOQ	Units
Aluminum	5.00	5.00	mg/kg
	50	50	ug/L
Antimony	5	5	ug/L
	0.500	0.500	mg/kg
Arsenic	4	4	ug/L
	1.00	1.00	mg/kg
Barium	1.00	1.00	mg/kg
	10	10	ug/L
Beryllium	0.100	0.100	mg/kg
	1	1	ug/L
Cadmium	0.300	0.300	mg/kg
	3	3	ug/L
Calcium	0.500	5.00	mg/kg
	50	50	ug/L
Chromium	0.500	0.500	mg/kg
	5	5	ug/L
Cobalt	5	5	ug/L
	0.500	0.500	mg/kg
Copper	0.500	0.500	mg/kg
	3	3	ug/L
Iron	2.00	2.00	mg/kg
	20	20	ug/L
Lead	3	3	ug/L
	0.300	0.300	mg/kg
Magnesium	5.00	5.00	mg/kg
	50	50	ug/L
Manganese	0.500	0.500	mg/kg
	5	5	ug/L
Nickel	0.500	0.500	mg/kg
	5	5	ug/L
Potassium	5.00	5.00	mg/kg
	50	50	ug/L
Selenium	1.00	1.00	mg/kg
	10	10	ug/L
Silver	0.500	0.500	mg/kg
	5	5	ug/L
Sodium	10.0	10.0	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument: WinLabICP

Analyte	LOD	LOQ	Units
Sodium	100	100	ug/L
Thallium	5	5	ug/L
	1.00	1.00	mg/kg
Vanadium	1.00	1.00	mg/kg
	10	10	ug/L
Zinc	10	10	ug/L
	1.00	1.00	mg/kg

ICP Interelement Correction Factors

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument: WinLabICP

Date: 01/31/2013

March 4, 2015

Analyte	Wavelength (nm)	Fe	Al	Ca	Mg
Ag	338.289	0	0	0.011281	0
Al	308.215	-0.0817898	n/a	0.0245069	0.0376104
Al RADIAL		-0.105128	n/a	0.0296996	0
As	188.979	-0.045524	0	0	0
Ba	233.527	0	0	0	0
Be	313.107	0	0	0	0
Ca	227.546	-8.62387	-0.675005	n/a	-0.0625929
Ca RADIAL		0	0	n/a	0
Cd	226.502	0.084631	0	0	0
Co	228.616	-0.0209450	0	0	0
Cr	267.716	-0.0304787	0	0	0
Cu	324.752	-0.073852	0	0	0
Fe	273.955	n/a	0	0	0
Fe RADIAL		n/a	0	0	0
K RADIAL		0	0	0	0
Mg	279.077	0.161547	0	0	n/a
Mg RADIAL		0.0994223	0	0	n/a
Mn	257.610	-0.186929	0	0	0
Na	330.237	-4.63141	-0.0462274	-0.983571	0
Na RADIAL		0	0	0	0
Ni	232.003	0.22501	0	0	0
Pb	220.353	0.039335	-0.129664	-0.0141428	0
Sb	206.836	0.025931	0.000505	0	0
Se	196.026	-0.487772	0	0	0
Tl	190.801	-0.105455	0	0	0
V	292.402	0.096273	0	0	0
Y	371.029	0	0	0	0
Y RADIAL		0	0	0	0
Zn	206.200	0.000528	0	0	0

ICP Linear Dynamic Range

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument: WinLabICP

Date: 01/31/2013

CAS NO.	Analyte	Concentration mg/kg dry
7429-90-5	Aluminum	83300
7429-90-5	Aluminum	833000
7440-36-0	Antimony	200000
7440-36-0	Antimony	20000
7440-38-2	Arsenic	10000
7440-38-2	Arsenic	100000
7440-39-3	Barium	25000
7440-39-3	Barium	2500
7440-41-7	Beryllium	5000
7440-41-7	Beryllium	500
7440-43-9	Cadmium	10000
7440-43-9	Cadmium	1000
7440-70-2	Calcium	1000000
7440-70-2	Calcium	100000
7440-47-3	Chromium	20000
7440-47-3	Chromium	2000
7440-48-4	Cobalt	1670
7440-48-4	Cobalt	16700
7440-50-8	Copper	25000
7440-50-8	Copper	2500
7439-89-6	Iron	333000
7439-89-6	Iron	33300
7439-92-1	Lead	30000
7439-92-1	Lead	3000
7439-95-4	Magnesium	1000000
7439-95-4	Magnesium	100000
7439-96-5	Manganese	10000

ICP Linear Dynamic Range

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Instrument: WinLabICP

Date: 01/31/2013

CAS NO.	Analyte	Concentration mg/kg dry
7439-96-5	Manganese	1000
7440-02-0	Nickel	5000
7440-02-0	Nickel	50000
7440-09-7	Potassium	100000
7440-09-7	Potassium	10000
7782-49-2	Selenium	10000
7782-49-2	Selenium	100000
7440-22-4	Silver	25000
7440-22-4	Silver	2500
7440-23-5	Sodium	500000
7440-23-5	Sodium	50000
7440-28-0	Thallium	16700
7440-28-0	Thallium	1670
7440-62-2	Vanadium	50000
7440-62-2	Vanadium	5000
7440-66-6	Zinc	15000
7440-66-6	Zinc	1500

PREPARATION BATCH SUMMARY

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Batch: BC60698

Batch Matrix: SoilPreparation: EPA 3050B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01	qbi031416bRE_1-050	03/14/16 08:05	
02/DUP	16C0466-02	qbi031416bRE_1-051	03/14/16 08:05	
03/LSB-3	16C0466-03	qbi031416bRE_1-052	03/14/16 08:05	
Blank	BC60698-BLK1	qbi031416bRE_1-043	03/14/16 08:05	
Reference	BC60698-SRM1	qbi031416bRE_1-044	03/14/16 08:05	

PREPARATION BATCH SUMMARY

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202Batch: BC60702Batch Matrix: WaterPreparation: EPA 3015A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04	qbi031416bRE_1-031	03/14/16 08:11	
Blank	BC60702-BLK1	qbi031416bRE_1-014	03/14/16 08:11	
Reference	BC60702-SRM1	qbi031416bRE_1-015	03/14/16 08:11	

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 6010C**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Sequence: Y6C1501 Instrument: WinLabICP
Matrix: Water Calibration: 03/14/16

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	Y6C1501-ICV1	qbi031416bRE_1-006	03/14/16 14:31
Initial Cal Blank	Y6C1501-ICB1	qbi031416bRE_1-007	03/14/16 14:39
Instrument RL Check	Y6C1501-CRL1	qbi031416bRE_1-008	03/14/16 14:44
Instrument RL Check	Y6C1501-CRL2	qbi031416bRE_1-009	03/14/16 14:49
Interference Check A	Y6C1501-IFA1	qbi031416bRE_1-010	03/14/16 14:54
Interference Check B	Y6C1501-IFB1	qbi031416bRE_1-011	03/14/16 15:02
Calibration Check	Y6C1501-CCV1	qbi031416bRE_1-012	03/14/16 15:09
Calibration Blank	Y6C1501-CCB1	qbi031416bRE_1-013	03/14/16 15:17
Blank	BC60702-BLK1	qbi031416bRE_1-014	03/14/16 15:22
Reference	BC60702-SRM1	qbi031416bRE_1-015	03/14/16 15:27
Calibration Check	Y6C1501-CCV2	qbi031416bRE_1-024	03/14/16 16:18
Calibration Blank	Y6C1501-CCB2	qbi031416bRE_1-025	03/14/16 16:26
04/FB20160309	16C0466-04	qbi031416bRE_1-031	03/14/16 16:57
Calibration Check	Y6C1501-CCV3	qbi031416bRE_1-036	03/14/16 17:25
Calibration Blank	Y6C1501-CCB3	qbi031416bRE_1-037	03/14/16 17:33
Calibration Check	Y6C1501-CCV4	qbi031416bRE_1-048	03/14/16 18:33
Calibration Blank	Y6C1501-CCB4	qbi031416bRE_1-049	03/14/16 18:41

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 6010C**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Sequence: Y6C1502 Instrument: WinLabICP
Matrix: Soil Calibration: 03/14/16

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	Y6C1502-ICV1	qbi031416bRE_1-006	03/14/16 14:31
Initial Cal Blank	Y6C1502-ICB1	qbi031416bRE_1-007	03/14/16 14:39
Instrument RL Check	Y6C1502-CRL1	qbi031416bRE_1-008	03/14/16 14:44
Instrument RL Check	Y6C1502-CRL2	qbi031416bRE_1-009	03/14/16 14:49
Interference Check A	Y6C1502-IFA1	qbi031416bRE_1-010	03/14/16 14:54
Interference Check B	Y6C1502-IFB1	qbi031416bRE_1-011	03/14/16 15:02
Calibration Check	Y6C1502-CCV1	qbi031416bRE_1-012	03/14/16 15:09
Calibration Blank	Y6C1502-CCB1	qbi031416bRE_1-013	03/14/16 15:17
Calibration Check	Y6C1502-CCV3	qbi031416bRE_1-036	03/14/16 17:25
Calibration Blank	Y6C1502-CCB3	qbi031416bRE_1-037	03/14/16 17:33
Blank	BC60698-BLK1	qbi031416bRE_1-043	03/14/16 18:04
Reference	BC60698-SRM1	qbi031416bRE_1-044	03/14/16 18:09
Calibration Check	Y6C1502-CCV4	qbi031416bRE_1-048	03/14/16 18:33
Calibration Blank	Y6C1502-CCB4	qbi031416bRE_1-049	03/14/16 18:41
01/LSB-3	16C0466-01	qbi031416bRE_1-050	03/14/16 18:46
02/DUP	16C0466-02	qbi031416bRE_1-051	03/14/16 18:54
03/LSB-3	16C0466-03	qbi031416bRE_1-052	03/14/16 19:02
Calibration Check	Y6C1502-CCV5	qbi031416bRE_1-060	03/14/16 19:40
Calibration Blank	Y6C1502-CCB5	qbi031416bRE_1-061	03/14/16 19:48
Calibration Check	Y6C1502-CCV6	qbi031416bRE_1-072	03/14/16 20:41
Calibration Blank	Y6C1502-CCB6	qbi031416bRE_1-073	03/14/16 20:49

HOLDING TIME SUMMARY

EPA 6010C

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/14/16 08:05	4.87	180.00	03/14/16 18:46	0.45	30.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/14/16 08:05	4.87	180.00	03/14/16 18:54	0.45	30.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/14/16 08:05	4.84	180.00	03/14/16 19:02	0.46	30.00	
04/FB20160309	03/09/16 12:55	03/10/16 19:54	03/14/16 08:11	4.80	180.00	03/14/16 16:57	0.37	30.00	

Sample Information Detail Report
Document Name: 031416b

File Description

Sample Information File

Parameters Common to All Samples

Batch ID	qbi031416b
Analyst Name	KV
Volume Units	mL
Weight Units	g

Parameters That Vary By Sample

3	3	SEQ-ICV1
4	4	SEQ-ICB1
5	156	SEQ-CRL1
6	157	SEQ-CRL2
7	6	SEQ-IFA1
8	7	SEQ-IFB1
9	3	SEQ-CCV1
10	4	SEQ-CCB1
11	9	BC60702-BLK1
12	10	BC60702-SRM1
13	11	16C0418-01
14	12	16C0449-01
15	13	BC60702-DUP1
16	14	BC60702-MS1
17	15	16C0449-02
18	16	16C0449-03
19	17	16C0449-04
20	18	16C0449-05
21	3	SEQ-CCV2
22	4	SEQ-CCB2
23	19	16C0449-06
24	20	16C0449-07
25	21	16C0449-08
26	22	16C0449-09
27	23	16C0449-10
28	24	16C0466-04
29	25	16C0467-01
30	26	16C0467-02
31	27	16C0467-03
32	28	16C0477-10
33	3	SEQ-CCV3
34	4	SEQ-CCB3
35	29	16C0505-01
36	30	16C0505-02
37	31	16C0505-03
38	32	16C0505-04
39	33	SEQ-SRD1
40	34	BC60698-BLK1
41	35	BC60698-SRM1
42	36	16C0407-22
43	37	BC60698-DUP1
44	38	BC60698-MS1
45	3	SEQ-CCV4
46	4	SEQ-CCB4
47	39	16C0466-01
48	40	16C0466-02
49	41	16C0466-03
50	42	16C0468-01
51	43	16C0474-25
52	44	16C0474-26
53	45	16C0474-27
54	46	16C0474-28
55	47	16C0475-01
56	48	16C0475-02
57	3	SEQ-CCV5
58	4	SEQ-CCB5

16C0449-01

Sample Information Detail Report
Document Name: 031416b

59	49	16C0475-03	
60	50	16C0476-01	
61	51	16C0476-02	
62	52	16C0485-01	
63	53	16C0485-02	
64	54	16C0485-03	
65	55	16C0485-04	
66	56	16C0486-01	
67	57	16C0487-01	
68	58	SEQ-SRD2	16C0407-22
69	3	SEQ-CCV6	
70	4	SEQ-CCB6	
71	59	BC60699-BLK1	
72	60	BC60699-SRM1	
73	61	16C0477-01	
74	62	BC60699-DUP1	
75	63	BC60699-MS1	
76	64	16C0477-02	
77	65	16C0477-03	
78	66	16C0477-04	
79	67	16C0477-05	
80	68	16C0477-06	
81	3	SEQ-CCV7	
82	4	SEQ-CCB7	
83	69	16C0477-07	
84	70	16C0477-08	
85	71	16C0477-09	
86	72	16C0481-01	
87	73	16C0481-02	
88	74	16C0481-03	
89	75	16C0504-01	
90	76	16C0504-05	
91	77	16C0504-11	
92	78	16C0504-14	
93	3	SEQ-CCV8	
94	4	SEQ-CCB8	
95	79	16C0504-23	
96	80	16C0504-27	
97	81	16C0507-01	
98	82	16C0507-02	
99	83	SEQ-SRD3	16C0477-01
100	84	BC60700-BLK1	
101	85	BC60700-SRM1	
102	86	16C0423-01	
103	87	BC60700-DUP1	
104	88	BC60700-MS1	
105	8	SEQ-CCV9	
106	1	SEQ-CCB9	
107	89	16C0423-05	
108	90	16C0423-10	
109	91	16C0423-13	
110	92	16C0423-18	
111	93	16C0423-21	
112	94	BC60700-DUP2	
113	95	BC60700-MS2	
114	96	16C0423-23	
115	97	16C0423-26	
116	98	16C0423-29	
117	8	SEQ-CCVA	
118	1	SEQ-CCBA	
119	99	16C0425-01	
120	100	16C0425-02	
121	101	16C0425-03	
122	102	16C0425-04	
123	103	16C0425-05	
124	104	16C0425-06	
125	105	16C0425-07	
126	106	16C0425-08	

Sample Information Detail Report
Document Name: 031416b

127	107	16C0456-01	
128	108	16C0456-03	
129	8	SEQ-CCVB	
130	1	SEQ-CCBB	
131	109	16C0484-01	
132	110	SEQ-SRD4	16C0423-01
133	111	SEQ-SRD5	16C0423-21
134	8	SEQ-CCVC	
135	1	SEQ-CCBC	

PREPARATION BENCH SHEET

BC60702

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:13:04AM

Matrix: Water

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0418-01	Metals, TCLP RCRA	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-01	Arsenic by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	Added for BatchQC in: BC60702
16C0449-01	Lead by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	Added for BatchQC in: BC60702
16C0449-01	Metals, CTDEP RCP, ICP	03/14/2016 08:1	ALD	45	50					EPA 3015A	Added for BatchQC in: BC60702
16C0449-01	Metals, RCRA	03/14/2016 08:1	ALD	45	50					EPA 3015A	Added for BatchQC in: BC60702
16C0449-01	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	MS/MSD
16C0449-01	Metals, TCLP RCRA	03/14/2016 08:1	ALD	45	50					EPA 3015A	Added for BatchQC in: BC60702
16C0449-02	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-03	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-04	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-05	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-06	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-07	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-08	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-09	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0449-10	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0466-04	Metals, Target Analyte	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0467-01	Metals, CTDEP RCP, ICP	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0467-02	Metals, CTDEP RCP, ICP	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0467-03	Metals, CTDEP RCP, ICP	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0477-10	Metals, RCRA	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-01	Arsenic by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-01	Lead by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	

PREPARATION BENCH SHEET

BC60702

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:13:04AM

Matrix: Water

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0505-02	Arsenic by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-02	Lead by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-03	Lead by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-03	Arsenic by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-04	Arsenic by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
16C0505-04	Lead by EPA 6010	03/14/2016 08:1	ALD	45	50					EPA 3015A	
BC60702-BLK1	QC	03/14/2016 08:1	ALD	50	50					EPA 3015A	
BC60702-DUP1	QC	03/14/2016 08:1	ALD	45	50		16C0449-01			EPA 3015A	
BC60702-MS1	QC	03/14/2016 08:1	ALD	45	50	Y15C050	16C0449-01	500		EPA 3015A	
BC60702-SRM1	QC	03/14/2016 08:1	ALD	50	50	Y15K022		1		EPA 3015A	

Batch Comments:

PREPARATION BENCH SHEET

BC60698

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:06:56AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0407-22	Cadmium by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0407-22	Chromium by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0407-22	Lead by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0407-22	Lead in Paint by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0407-22	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0407-22	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0407-22	Arsenic by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0466-01	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60698
16C0466-02	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0466-03	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0468-01	Arsenic by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0468-01	Cadmium by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0468-01	Chromium by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0468-01	Lead by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0474-25	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0474-26	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0474-27	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0474-28	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0475-01	Lead in Paint by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0475-02	Lead in Paint by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0475-03	Lead in Paint by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0476-01	Lead in Paint by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0476-02	Lead in Paint by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	

PREPARATION BENCH SHEET

BC60698

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:06:56AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0485-01	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0485-02	Lead by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0485-03	Lead by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0485-04	Lead by EPA 6010	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0486-01	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0487-01	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
BC60698-BLK1	QC	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
BC60698-DUP1	QC	03/14/2016 08:0	ALD	0.5	50		16C0407-22			EPA 3050B	
BC60698-MS1	QC	03/14/2016 08:0	ALD	0.5	50	Y15C050	16C0407-22	500		EPA 3050B	
BC60698-SRM1	QC	03/14/2016 08:0	ALD	0.5	50	Y15L063		500		EPA 3050B	

Batch Comments:

PREPARATION BENCH SHEET

BC60699

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:08:21AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0477-01	Metals, NYSDC Part 375	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60699
16C0477-01	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-01	Metals, Suffolk Co. App. B	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60699
16C0477-01	Metals, Target Analyte	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60699
16C0477-01	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60699
16C0477-02	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60699
16C0477-03	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-04	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-05	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-06	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-07	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-08	Metals, RCRA	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0477-09	Metals, NYSDC Part 375	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0481-01	Metals, Suffolk Co. App. B	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0481-02	Metals, Suffolk Co. App. B	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0481-03	Metals, Suffolk Co. App. B	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0504-01	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0504-05	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0504-11	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0504-14	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0504-23	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0504-27	Metals, CTDEP RCP	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	
16C0507-01	Metals, Target Analyte	03/14/2016 08:01	ALD	0.5	50					EPA 3050B	

PREPARATION BENCH SHEET

BC60699

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:08:21AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0507-02	Metals, Target Analyte	03/14/2016 08:00	ALD	0.5	50					EPA 3050B	
BC60699-BLK1	QC	03/14/2016 08:00	ALD	0.5	50					EPA 3050B	
BC60699-DUP1	QC	03/14/2016 08:00	ALD	0.5	50		16C0477-01			EPA 3050B	
BC60699-MS1	QC	03/14/2016 08:00	ALD	0.5	50	Y15C050	16C0477-01	500		EPA 3050B	
BC60699-SRM1	QC	03/14/2016 08:00	ALD	0.5	50	Y15L063		500		EPA 3050B	

Batch Comments:

PREPARATION BENCH SHEET

BC60700

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:09:44AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0423-01	Metals, NYSDC Part 375	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60700
16C0423-01	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60700
16C0423-01	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60700
16C0423-01	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	MS/MSD
16C0423-05	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-10	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-13	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-18	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-21	Metals, Target Analyte	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-21	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60700
16C0423-21	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60700
16C0423-21	Metals, NYSDC Part 375	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	Added for BatchQC in: BC60700
16C0423-23	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-26	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0423-29	Metals, CTDEP RCP	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-01	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-02	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-03	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-04	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-05	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-06	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-07	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	
16C0425-08	Metals, Suffolk Co. App. B	03/14/2016 08:0	ALD	0.5	50					EPA 3050B	

PREPARATION BENCH SHEET

BC60700

York Analytical Laboratories, Inc.

Printed: 3/14/2016 8:09:44AM

Matrix: Soil

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0456-01	Metals, NYSDEC Part 375	03/14/2016 08:00	ALD	0.5	50					EPA 3050B	
16C0456-03	Metals, NYSDEC Part 375	03/14/2016 08:00	ALD	0.5	50					EPA 3050B	
16C0484-01	Metals, Target Analyte	03/14/2016 08:00	ALD	0.5	50					EPA 3050B	
BC60700-BLK1	QC	03/14/2016 08:00	ALD	0.5	50					EPA 3050B	
BC60700-DUP1	QC	03/14/2016 08:00	ALD	0.5	50		16C0423-01			EPA 3050B	
BC60700-DUP2	QC	03/14/2016 08:00	ALD	0.5	50		16C0423-21			EPA 3050B	
BC60700-MS1	QC	03/14/2016 08:00	ALD	0.5	50	Y15C050	16C0423-01	500		EPA 3050B	
BC60700-MS2	QC	03/14/2016 08:00	ALD	0.5	50	Y15C050	16C0423-21	500		EPA 3050B	
BC60700-SRM1	QC	03/14/2016 08:00	ALD	0.5	50	Y15L063		500		EPA 3050B	

Batch Comments:

Sequence No.: 1

Sample ID: Calib Blank 1

Analyst:

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/14/2016 2:19:16 PM

Data Type: Reprocessed on 3/15/2016 5:41:02 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	27924091.4	42129.98	0.15%	5.000 mg/L
Y RADIAL	820563.9	2263.05	0.28%	5.000 mg/L
As 188.979†	-64.3	11.07	17.23%	[0.00] mg/L
Tl 190.801†	-204.6	5.86	2.86%	[0.00] mg/L
Se 196.026†	53.3	3.68	6.91%	[0.00] mg/L
Zn 206.200†	307.8	15.49	5.03%	[0.00] mg/L
Sb 206.836†	168.6	7.66	4.54%	[0.00] mg/L
Pb 220.353†	280.9	14.80	5.27%	[0.00] mg/L
Cd 226.502†	-450.8	7.63	1.69%	[0.00] mg/L
Co 228.616†	-129.1	8.37	6.48%	[0.00] mg/L
Ni 232.003†	-1502.9	21.99	1.46%	[0.00] mg/L
Ba 233.527†	251.2	13.74	5.47%	[0.00] mg/L
Mn 257.610†	2151.3	45.30	2.11%	[0.00] mg/L
Cr 267.716†	289.2	16.54	5.72%	[0.00] mg/L
Fe 273.955†	258.2	15.18	5.88%	[0.00] mg/L
Mg 279.077†	169.6	43.74	25.79%	[0.00] mg/L
V 292.402†	-57.1	80.49	140.97%	[0.00] mg/L
Al 308.215†	13884.5	36.67	0.26%	[0.00] mg/L
Be 313.107†	-15248.7	301.83	1.98%	[0.00] mg/L
Cu 324.752†	8003.9	81.14	1.01%	[0.00] mg/L
Ag 338.289†	141.8	61.28	43.21%	[0.00] mg/L
Na 330.237†	647.0	36.66	5.67%	[0.00] mg/L
Ca 227.546†	-635.0	22.41	3.53%	[0.00] mg/L
Al RADIAL†	-80.2	43.14	53.81%	[0.00] mg/L
Fe RADIAL†	29.1	3.68	12.64%	[0.00] mg/L
Ca RADIAL†	3981.5	101.92	2.56%	[0.00] mg/L
K RADIAL†	331.4	81.83	24.69%	[0.00] mg/L
Mg RADIAL†	43.1	7.17	16.63%	[0.00] mg/L
Na RADIAL†	-45102.5	541.56	1.20%	[0.00] mg/L
Mo 202.031	254.0	25.05	9.86%	[0.00] mg/L

Sequence No.: 2

Sample ID: CAL STD 1

Analyst:

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 3/14/2016 2:24:22 PM

Data Type: Reprocessed on 3/15/2016 5:41:02 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CAL STD 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	26836439.8	367659.83	1.37%	4.805 mg/L
Y RADIAL	797867.7	6963.69	0.87%	4.862 mg/L
As 188.979†	5615.9	76.12	1.36%	[1.0000] mg/L
Tl 190.801†	8036.6	88.20	1.10%	[1.0000] mg/L
Se 196.026†	2954.4	24.06	0.81%	[1.0000] mg/L
Zn 206.200†	671253.1	13747.23	2.05%	[5.0000] mg/L
Sb 206.836†	4534.9	97.65	2.15%	[0.5000] mg/L
Pb 220.353†	32691.2	494.60	1.51%	[1.0000] mg/L
Cd 226.502†	204610.1	4574.27	2.24%	[0.5000] mg/L
Co 228.616†	591423.4	13115.69	2.22%	[5.0000] mg/L
Ni 232.003†	288801.1	6571.00	2.28%	[5.0000] mg/L
Ba 233.527†	4469832.0	97523.22	2.18%	[20.0000] mg/L
Mn 257.610†	11008928.5	10344.40	0.09%	[5.0000] mg/L
Cr 267.716†	660216.7	14391.72	2.18%	[2.0000] mg/L
Fe 273.955†	686053.4	15301.13	2.23%	[10.0000] mg/L
Mg 279.077†	3042108.4	69665.74	2.29%	[50.0000] mg/L

V 292.402†	2827661.7	59335.47	2.10%	[5.0000]	mg/L
Al 308.215†	986629.4	23623.11	2.39%	[20.0000]	mg/L
Be 313.107†	4590918.0	87946.47	1.92%	[0.5000]	mg/L
Cu 324.752†	1233132.4	26729.85	2.17%	[2.5000]	mg/L
Ag 338.289†	650593.1	13830.88	2.13%	[2.5000]	mg/L
Na 330.237†	83654.1	1893.59	2.26%	[50.0000]	mg/L
Ca 227.546†	40218.0	453.10	1.13%	[50.0000]	mg/L
Al RADIAL†	114362.5	1957.36	1.71%	[20.0000]	mg/L
Fe RADIAL†	14709.9	238.88	1.62%	[10.0000]	mg/L
Ca RADIAL†	888817.0	709.92	0.08%	[50.0000]	mg/L
K RADIAL†	29132.8	481.86	1.65%	[10.0000]	mg/L
Mg RADIAL†	75730.3	1369.12	1.81%	[50.0000]	mg/L
Na RADIAL†	1280354.3	11047.46	0.86%	[50.0000]	mg/L
Mo 202.031	160288.4	1201.84	0.75%	[2.00000]	mg/L

Sequence No.: 3

Sample ID: SEQ-ICV1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/14/2016 2:31:44 PM

Data Type: Reprocessed on 3/15/2016 5:41:03 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-ICV1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26152924.4	4.683 mg/L	0.0102			0.22%
Y RADIAL	769040.7	4.686 mg/L	0.0330			0.71%
As 188.979†	1460.9	0.2607 mg/L	0.00015	0.2607 mg/L	0.00015	0.06%
Tl 190.801†	2122.8	0.2646 mg/L	0.00155	0.2646 mg/L	0.00155	0.59%
Se 196.026†	756.5	0.2582 mg/L	0.00629	0.2582 mg/L	0.00629	2.44%
Zn 206.200†	358332.2	2.669 mg/L	0.0054	2.669 mg/L	0.0054	0.20%
Sb 206.836†	2330.4	0.2571 mg/L	0.00092	0.2571 mg/L	0.00092	0.36%
Pb 220.353†	8464.5	0.2603 mg/L	0.00152	0.2603 mg/L	0.00152	0.58%
Cd 226.502†	52241.1	0.1273 mg/L	0.00042	0.1273 mg/L	0.00042	0.33%
Co 228.616†	314019.6	2.655 mg/L	0.0093	2.655 mg/L	0.0093	0.35%
Ni 232.003†	150158.3	2.600 mg/L	0.0072	2.600 mg/L	0.0072	0.28%
Ba 233.527†	2417918.7	10.82 mg/L	0.019	10.82 mg/L	0.019	0.18%
Mn 257.610†	5914346.0	2.687 mg/L	0.0072	2.687 mg/L	0.0072	0.27%
Cr 267.716†	352387.4	1.068 mg/L	0.0043	1.068 mg/L	0.0043	0.40%
Fe 273.955†	363568.0	5.299 mg/L	0.0333	5.299 mg/L	0.0333	0.63%
Mg 279.077†	1571925.1	25.84 mg/L	0.027	25.84 mg/L	0.027	0.10%
V 292.402†	1469194.6	2.598 mg/L	0.0171	2.598 mg/L	0.0171	0.66%
Al 308.215†	505343.0	10.24 mg/L	0.064	10.24 mg/L	0.064	0.63%
Be 313.107†	2395354.1	0.2609 mg/L	0.00263	0.2609 mg/L	0.00263	1.01%
Cu 324.752†	643038.0	1.304 mg/L	0.0078	1.304 mg/L	0.0078	0.60%
Ag 338.289†	341666.4	1.313 mg/L	0.0066	1.313 mg/L	0.0066	0.50%
Na 330.237†	40519.2	24.27 mg/L	0.121	24.27 mg/L	0.121	0.50%
Ca 227.546†	20249.2	25.23 mg/L	0.108	25.23 mg/L	0.108	0.43%
Al RADIAL†	59533.8	10.41 mg/L	0.064	10.41 mg/L	0.064	0.61%
Fe RADIAL†	7681.5	5.222 mg/L	0.0468	5.222 mg/L	0.0468	0.90%
Ca RADIAL†	460493.6	25.90 mg/L	0.020	25.90 mg/L	0.020	0.08%
K RADIAL†	15357.1	5.271 mg/L	0.0516	5.271 mg/L	0.0516	0.98%
Mg RADIAL†	39694.0	26.21 mg/L	0.170	26.21 mg/L	0.170	0.65%
Na RADIAL†	670520.0	26.18 mg/L	0.080	26.18 mg/L	0.080	0.30%
Mo 202.031	82781.0	1.033 mg/L	0.0043	1.033 mg/L	0.0043	0.42%

Sequence No.: 4

Sample ID: SEQ-ICB1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/14/2016 2:39:32 PM

Data Type: Reprocessed on 3/15/2016 5:41:04 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-ICB1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27898563.6	4.995 mg/L	0.0151			0.30%
Y RADIAL	811498.3	4.945 mg/L	0.0374			0.76%

As 188.979†	-3.6	-0.0006 mg/L	0.00110	-0.0006 mg/L	0.00110	173.88%
Tl 190.801†	-1.7	-0.0002 mg/L	0.00149	-0.0002 mg/L	0.00149	707.71%
Se 196.026†	-8.0	-0.0027 mg/L	0.00266	-0.0027 mg/L	0.00266	97.93%
Zn 206.200†	-124.3	-0.0009 mg/L	0.00011	-0.0009 mg/L	0.00011	11.85%
Sb 206.836†	1.7	0.0002 mg/L	0.00031	0.0002 mg/L	0.00031	167.30%
Pb 220.353†	5.9	0.0002 mg/L	0.00076	0.0002 mg/L	0.00076	422.12%
Cd 226.502†	23.5	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	85.33%
Co 228.616†	-8.9	-0.0001 mg/L	0.00009	-0.0001 mg/L	0.00009	121.70%
Ni 232.003†	20.6	0.0004 mg/L	0.00037	0.0004 mg/L	0.00037	104.47%
Ba 233.527†	5.9	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	314.14%
Mn 257.610†	-43.4	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	113.41%
Cr 267.716†	22.2	0.0001 mg/L	0.00013	0.0001 mg/L	0.00013	189.40%
Fe 273.955†	78.8	0.0011 mg/L	0.00074	0.0011 mg/L	0.00074	64.23%
Mg 279.077†	-11.0	-0.0002 mg/L	0.00068	-0.0002 mg/L	0.00068	374.01%
V 292.402†	90.2	0.0002 mg/L	0.00004	0.0002 mg/L	0.00004	23.25%
Al 308.215†	-546.1	-0.0111 mg/L	0.00124	-0.0111 mg/L	0.00124	11.19%
Be 313.107†	593.4	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	32.14%
Cu 324.752†	-130.0	-0.0003 mg/L	0.00025	-0.0003 mg/L	0.00025	93.71%
Ag 338.289†	-44.3	-0.0002 mg/L	0.00031	-0.0002 mg/L	0.00031	182.97%
Na 330.237†	96.0	0.0574 mg/L	0.05052	0.0574 mg/L	0.05052	88.07%
Ca 227.546†	-8.5	-0.0106 mg/L	0.01810	-0.0106 mg/L	0.01810	171.54%
Al RADIAL†	37.0	0.0065 mg/L	0.00642	0.0065 mg/L	0.00642	99.13%
Fe RADIAL†	0.3	0.0002 mg/L	0.00239	0.0002 mg/L	0.00239	>999.9%
Ca RADIAL†	153.8	0.0087 mg/L	0.00458	0.0087 mg/L	0.00458	52.93%
K RADIAL†	-66.8	-0.0229 mg/L	0.01780	-0.0229 mg/L	0.01780	77.65%
Mg RADIAL†	-2.0	-0.0013 mg/L	0.00183	-0.0013 mg/L	0.00183	138.12%
Na RADIAL†	-346.9	-0.0135 mg/L	0.00809	-0.0135 mg/L	0.00809	59.69%
Mo 202.031	-11.3	0.000 mg/L	0.0001	0.000 mg/L	0.0001	96.42%

Sequence No.: 5

Sample ID: SEQ-CRL1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 156

Date Collected: 3/14/2016 2:44:35 PM

Data Type: Reprocessed on 3/15/2016 5:41:05 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CRL1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27943848.4	5.004 mg/L		0.0561			1.12%
Y RADIAL	821236.9	5.004 mg/L		0.0425			0.85%
As 188.979†	55.8	0.0099 mg/L		0.00060	0.0099 mg/L	0.00060	6.02%
Tl 190.801†	90.8	0.0113 mg/L		0.00115	0.0113 mg/L	0.00115	10.19%
Se 196.026†	26.1	0.0088 mg/L		0.00239	0.0088 mg/L	0.00239	27.00%
Zn 206.200†	3322.3	0.0247 mg/L		0.00040	0.0247 mg/L	0.00040	1.61%
Sb 206.836†	80.0	0.0088 mg/L		0.00094	0.0088 mg/L	0.00094	10.66%
Pb 220.353†	88.3	0.0027 mg/L		0.00034	0.0027 mg/L	0.00034	12.27%
Cd 226.502†	1387.3	0.0034 mg/L		0.00007	0.0034 mg/L	0.00007	1.98%
Co 228.616†	665.5	0.0056 mg/L		0.00007	0.0056 mg/L	0.00007	1.29%
Ni 232.003†	309.3	0.0054 mg/L		0.00039	0.0054 mg/L	0.00039	7.34%
Ba 233.527†	2575.6	0.0115 mg/L		0.00015	0.0115 mg/L	0.00015	1.32%
Mn 257.610†	12353.5	0.0056 mg/L		0.00006	0.0056 mg/L	0.00006	1.01%
Cr 267.716†	1915.1	0.0058 mg/L		0.00003	0.0058 mg/L	0.00003	0.52%
Fe 273.955†	508.9	0.0074 mg/L		0.00024	0.0074 mg/L	0.00024	3.29%
Mg 279.077†	162.0	0.0027 mg/L		0.00065	0.0027 mg/L	0.00065	24.56%
V 292.402†	3172.7	0.0056 mg/L		0.00016	0.0056 mg/L	0.00016	2.91%
Al 308.215†	13450.7	0.2727 mg/L		0.00708	0.2727 mg/L	0.00708	2.60%
Be 313.107†	4999.3	0.0005 mg/L		0.00003	0.0005 mg/L	0.00003	6.38%
Cu 324.752†	2190.0	0.0044 mg/L		0.00036	0.0044 mg/L	0.00036	8.01%
Ag 338.289†	1322.2	0.0051 mg/L		0.00022	0.0051 mg/L	0.00022	4.38%
Na 330.237†	96.0	0.0574 mg/L		0.02748	0.0574 mg/L	0.02748	47.85%
Ca 227.546†	13.6	0.0171 mg/L		0.01996	0.0171 mg/L	0.01996	116.64%
Al RADIAL†	1671.0	0.2922 mg/L		0.01034	0.2922 mg/L	0.01034	3.54%
Fe RADIAL†	9.6	0.0065 mg/L		0.00360	0.0065 mg/L	0.00360	55.01%
Ca RADIAL†	338.7	0.0191 mg/L		0.00283	0.0191 mg/L	0.00283	14.85%
K RADIAL†	1.6	0.0006 mg/L		0.02550	0.0006 mg/L	0.02550	>999.9%
Mg RADIAL†	1.5	0.0010 mg/L		0.00476	0.0010 mg/L	0.00476	474.08%
Na RADIAL†	370.1	0.0145 mg/L		0.01395	0.0145 mg/L	0.01395	96.51%
Mo 202.031	412.2	0.005 mg/L		0.0001	0.005 mg/L	0.0001	1.87%

Sequence No.: 6

Sample ID: SEQ-CRL2

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 157

Date Collected: 3/14/2016 2:49:48 PM

Data Type: Reprocessed on 3/15/2016 5:41:05 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CRL2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28762954.8	5.150 mg/L	0.1127			2.19%
Y RADIAL	835707.3	5.092 mg/L	0.0653			1.28%
As 188.979†	-8.8	-0.0016 mg/L	0.00282	-0.0016 mg/L	0.00282	181.93%
Tl 190.801†	14.5	0.0018 mg/L	0.00068	0.0018 mg/L	0.00068	37.26%
Se 196.026†	-10.3	-0.0034 mg/L	0.00249	-0.0034 mg/L	0.00249	73.30%
Zn 206.200†	501.8	0.0037 mg/L	0.00018	0.0037 mg/L	0.00018	4.77%
Sb 206.836†	-27.8	-0.0031 mg/L	0.00043	-0.0031 mg/L	0.00043	13.95%
Pb 220.353†	5.1	0.0002 mg/L	0.00059	0.0002 mg/L	0.00059	373.72%
Cd 226.502†	21.0	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	77.55%
Co 228.616†	-24.9	-0.0002 mg/L	0.00002	-0.0002 mg/L	0.00002	11.11%
Ni 232.003†	51.4	0.0009 mg/L	0.00047	0.0009 mg/L	0.00047	53.12%
Ba 233.527†	-133.2	-0.0006 mg/L	0.00007	-0.0006 mg/L	0.00007	12.32%
Mn 257.610†	-446.6	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	6.95%
Cr 267.716†	55.1	0.0002 mg/L	0.00008	0.0002 mg/L	0.00008	43.51%
Fe 273.955†	14932.9	0.2177 mg/L	0.00322	0.2177 mg/L	0.00322	1.48%
Mg 279.077†	3218.1	0.0529 mg/L	0.00084	0.0529 mg/L	0.00084	1.60%
V 292.402†	-13.5	0.0000 mg/L	0.00009	0.0000 mg/L	0.00009	255.03%
Al 308.215†	2726.1	0.0553 mg/L	0.00557	0.0553 mg/L	0.00557	10.08%
Be 313.107†	768.7	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	56.97%
Cu 324.752†	-1422.1	-0.0029 mg/L	0.00036	-0.0029 mg/L	0.00036	12.51%
Ag 338.289†	-185.4	-0.0007 mg/L	0.00020	-0.0007 mg/L	0.00020	27.47%
Na 330.237†	298.0	0.1793 mg/L	0.03650	0.1793 mg/L	0.03650	20.36%
Ca 227.546†	115.0	0.1450 mg/L	0.04935	0.1450 mg/L	0.04935	34.03%
Al RADIAL†	554.5	0.0970 mg/L	0.00430	0.0970 mg/L	0.00430	4.44%
Fe RADIAL†	323.5	0.2199 mg/L	0.00477	0.2199 mg/L	0.00477	2.17%
Ca RADIAL†	2828.5	0.1591 mg/L	0.00605	0.1591 mg/L	0.00605	3.80%
K RADIAL†	570.8	0.1959 mg/L	0.01128	0.1959 mg/L	0.01128	5.76%
Mg RADIAL†	91.9	0.0607 mg/L	0.00425	0.0607 mg/L	0.00425	7.00%
Na RADIAL†	6424.7	0.2509 mg/L	0.03000	0.2509 mg/L	0.03000	11.96%
Mo 202.031†	-49.5	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	22.58%

Sequence No.: 7

Sample ID: SEQ-IFAL

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/14/2016 2:54:53 PM

Data Type: Reprocessed on 3/15/2016 5:41:06 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-IFAL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	23897125.4	4.279 mg/L	0.0181			0.42%
Y RADIAL	774971.4	4.722 mg/L	0.0473			1.00%
As 188.979†	-89.3	0.0038 mg/L	0.00586	0.0038 mg/L	0.00586	152.46%
Tl 190.801†	-92.8	0.0062 mg/L	0.00574	0.0062 mg/L	0.00574	92.14%
Se 196.026†	-238.2	-0.0016 mg/L	0.00962	-0.0016 mg/L	0.00962	600.29%
Zn 206.200†	858.9	0.0044 mg/L	0.00034	0.0044 mg/L	0.00034	7.58%
Sb 206.836†	-88.8	-0.0022 mg/L	0.00553	-0.0022 mg/L	0.00553	256.17%
Pb 220.353†	-2009.3	-0.0006 mg/L	0.00246	-0.0006 mg/L	0.00246	390.65%
Cd 226.502†	5504.0	-0.0004 mg/L	0.00051	-0.0004 mg/L	0.00051	135.13%
Co 228.616†	-599.6	-0.0009 mg/L	0.00029	-0.0009 mg/L	0.00029	31.05%
Ni 232.003†	379.3	0.0026 mg/L	0.00296	0.0026 mg/L	0.00296	113.27%
Ba 233.527†	47.0	0.0002 mg/L	0.00039	0.0002 mg/L	0.00039	184.99%
Mn 257.610†	-61220.1	-0.0021 mg/L	0.00046	-0.0021 mg/L	0.00046	21.85%
Cr 267.716†	-1732.8	0.0008 mg/L	0.00027	0.0008 mg/L	0.00027	35.43%
Fe 273.955†	13294222.5	193.8 mg/L	0.19	193.8 mg/L	0.19	0.10%
Mg 279.077†	31983502.1	525.6 mg/L	1.01	525.6 mg/L	1.01	0.19%
V 292.402†	6989.4	0.0025 mg/L	0.00034	0.0025 mg/L	0.00034	13.62%

Al 308.215+	27772236.6	563.0 mg/L	0.32	563.0 mg/L	0.32	0.06%
Be 313.107+	-2360.5	-0.0003 mg/L	0.00001	-0.0003 mg/L	0.00001	4.27%
Cu 324.752+	-13966.9	-0.0026 mg/L	0.00024	-0.0026 mg/L	0.00024	9.09%
Ag 338.289+	-115.8	-0.0020 mg/L	0.00059	-0.0020 mg/L	0.00059	28.83%
Na 330.237+	-516.9	1.089 mg/L	0.0384	1.089 mg/L	0.0384	3.53%
Ca 227.546+	457294.8	570.6 mg/L	9.21	570.6 mg/L	9.21	1.61%
Al RADIAL+	2986322.3	522.3 mg/L	6.90	522.3 mg/L	6.90	1.32%
Fe RADIAL+	290564.4	197.5 mg/L	0.67	197.5 mg/L	0.67	0.34%
Ca RADIAL+	8724170.6	490.8 mg/L	7.43	490.8 mg/L	7.43	1.51%
K RADIAL+	-170.5	-0.0585 mg/L	0.01712	-0.0585 mg/L	0.01712	29.26%
Mg RADIAL+	771381.0	509.3 mg/L	2.13	509.3 mg/L	2.13	0.42%
Na RADIAL+	6014.7	0.2349 mg/L	0.02804	0.2349 mg/L	0.02804	11.94%
Mo 202.031	-584.9	-0.007 mg/L	0.0007	-0.007 mg/L	0.0007	10.24%

Sequence No.: 8

Sample ID: SEQ-IFB1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/14/2016 3:02:11 PM

Data Type: Reprocessed on 3/15/2016 5:41:07 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-IFB1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	23393515.7	4.189 mg/L	0.0149			0.36%
Y RADIAL	766888.5	4.673 mg/L	0.0735			1.57%
As 188.979+	2917.2	0.5391 mg/L	0.00258	0.5391 mg/L	0.00258	0.48%
Tl 190.801+	3900.1	0.5030 mg/L	0.00554	0.5030 mg/L	0.00554	1.10%
Se 196.026+	1366.5	0.5411 mg/L	0.01574	0.5411 mg/L	0.01574	2.91%
Zn 206.200+	130487.8	0.9700 mg/L	0.00684	0.9700 mg/L	0.00684	0.71%
Sb 206.836+	4677.3	0.5233 mg/L	0.00483	0.5233 mg/L	0.00483	0.92%
Pb 220.353+	29293.8	0.9570 mg/L	0.00955	0.9570 mg/L	0.00955	1.00%
Cd 226.502+	399718.7	0.9630 mg/L	0.00980	0.9630 mg/L	0.00980	1.02%
Ge 228.616+	58564.3	0.4992 mg/L	0.00372	0.4992 mg/L	0.00372	0.75%
Ni 232.003+	61741.2	1.065 mg/L	0.0089	1.065 mg/L	0.0089	0.84%
Ba 233.527+	121033.0	0.5416 mg/L	0.00511	0.5416 mg/L	0.00511	0.94%
Mn 257.610+	1098481.2	0.5244 mg/L	0.00540	0.5244 mg/L	0.00540	1.03%
Cr 267.716+	166573.3	0.5106 mg/L	0.00485	0.5106 mg/L	0.00485	0.95%
Fe 273.955+	13257442.8	193.2 mg/L	0.57	193.2 mg/L	0.57	0.30%
Mg 279.077+	31826906.1	523.1 mg/L	1.89	523.1 mg/L	1.89	0.36%
V 292.402+	291994.3	0.5065 mg/L	0.00554	0.5065 mg/L	0.00554	1.09%
Al 308.215+	27511700.2	557.7 mg/L	1.63	557.7 mg/L	1.63	0.29%
Be 313.107+	4798904.0	0.5227 mg/L	0.00648	0.5227 mg/L	0.00648	1.24%
Cu 324.752+	268531.5	0.5699 mg/L	0.00583	0.5699 mg/L	0.00583	1.02%
Ag 338.289+	301733.7	1.158 mg/L	0.0133	1.158 mg/L	0.0133	1.15%
Na 330.237+	2096.4	2.642 mg/L	0.0350	2.642 mg/L	0.0350	1.33%
Ca 227.546+	441159.9	550.5 mg/L	4.74	550.5 mg/L	4.74	0.86%
Al RADIAL+	2990392.5	523.0 mg/L	16.49	523.0 mg/L	16.49	3.15%
Fe RADIAL+	288713.0	196.3 mg/L	0.92	196.3 mg/L	0.92	0.47%
Ca RADIAL+	8675252.6	488.0 mg/L	16.68	488.0 mg/L	16.68	3.42%
K RADIAL+	-238.7	-0.0819 mg/L	0.01396	-0.0819 mg/L	0.01396	17.04%
Mg RADIAL+	764960.5	505.0 mg/L	2.50	505.0 mg/L	2.50	0.50%
Na RADIAL+	5965.7	0.2330 mg/L	0.01875	0.2330 mg/L	0.01875	8.05%
Mo 202.031	35590.3	0.444 mg/L	0.0020	0.444 mg/L	0.0020	0.44%

Sequence No.: 9

Sample ID: SEQ-CCV1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/14/2016 3:09:33 PM

Data Type: Reprocessed on 3/15/2016 5:41:07 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26057880.5	4.666 mg/L	0.0447			0.96%
Y RADIAL	768456.4	4.682 mg/L	0.0502			1.07%
As 188.979+	1455.6	0.2597 mg/L	0.00064	0.2597 mg/L	0.00064	0.25%

Tl 190.801†	2116.8	0.2639 mg/L	0.00098	0.2639 mg/L	0.00098	0.37%
Se 196.026†	752.4	0.2567 mg/L	0.00298	0.2567 mg/L	0.00298	1.16%
Zn 206.200†	362666.1	2.701 mg/L	0.0304	2.701 mg/L	0.0304	1.12%
Sb 206.836†	2305.2	0.2544 mg/L	0.00361	0.2544 mg/L	0.00361	1.42%
Pb 220.353†	8506.5	0.2616 mg/L	0.00121	0.2616 mg/L	0.00121	0.46%
Cd 226.502†	52912.0	0.1289 mg/L	0.00142	0.1289 mg/L	0.00142	1.10%
Co 228.616†	317909.5	2.688 mg/L	0.0295	2.688 mg/L	0.0295	1.10%
Ni 232.003†	152069.0	2.633 mg/L	0.0295	2.633 mg/L	0.0295	1.12%
Ba 233.527†	2409221.7	10.78 mg/L	0.096	10.78 mg/L	0.096	0.89%
Mn 257.610†	5894300.5	2.678 mg/L	0.0221	2.678 mg/L	0.0221	0.82%
Cr 267.716†	356635.9	1.081 mg/L	0.0132	1.081 mg/L	0.0132	1.23%
Fe 273.955†	369183.3	5.381 mg/L	0.0665	5.381 mg/L	0.0665	1.24%
Mg 279.077†	1569149.0	25.79 mg/L	0.189	25.79 mg/L	0.189	0.73%
V 292.402†	1457455.5	2.577 mg/L	0.0149	2.577 mg/L	0.0149	0.58%
Al 308.215†	512686.0	10.39 mg/L	0.126	10.39 mg/L	0.126	1.21%
Be 313.107†	2371741.7	0.2583 mg/L	0.00160	0.2583 mg/L	0.00160	0.62%
Cu 324.752†	650168.4	1.319 mg/L	0.0146	1.319 mg/L	0.0146	1.10%
Ag 338.289†	346523.6	1.331 mg/L	0.0142	1.331 mg/L	0.0142	1.07%
Na 330.237†	40889.6	24.49 mg/L	0.397	24.49 mg/L	0.397	1.62%
Ca 227.546†	20271.3	25.26 mg/L	0.087	25.26 mg/L	0.087	0.35%
Al RADIAL†	59430.8	10.39 mg/L	0.157	10.39 mg/L	0.157	1.51%
Fe RADIAL†	7666.3	5.212 mg/L	0.0704	5.212 mg/L	0.0704	1.35%
Ca RADIAL†	460620.9	25.91 mg/L	0.020	25.91 mg/L	0.020	0.08%
K RADIAL†	15289.9	5.248 mg/L	0.0971	5.248 mg/L	0.0971	1.85%
Mg RADIAL†	39663.3	26.19 mg/L	0.423	26.19 mg/L	0.423	1.61%
Na RADIAL†	674932.5	26.36 mg/L	0.265	26.36 mg/L	0.265	1.00%
Mo 202.031†	83342.8	1.040 mg/L	0.0041	1.040 mg/L	0.0041	0.40%

Sequence No.: 10

Sample ID: SEQ-CCB1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/14/2016 3:17:21 PM

Data Type: Reprocessed on 3/15/2016 5:41:08 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB1

Analyte	Mean Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28125243.2	5.036 mg/L		0.0737			1.46%
Y RADIAL	808613.1	4.927 mg/L		0.0230			0.47%
As 188.979†	-5.0	-0.0009 mg/L		0.00220	-0.0009 mg/L	0.00220	246.82%
Tl 190.801†	7.5	0.0009 mg/L		0.00225	0.0009 mg/L	0.00225	241.89%
Se 196.026†	-8.0	-0.0027 mg/L		0.00338	-0.0027 mg/L	0.00338	125.27%
Zn 206.200†	-150.5	-0.0011 mg/L		0.00007	-0.0011 mg/L	0.00007	6.03%
Sb 206.836†	-26.2	-0.0029 mg/L		0.00117	-0.0029 mg/L	0.00117	40.38%
Pb 220.353†	-15.4	-0.0005 mg/L		0.00073	-0.0005 mg/L	0.00073	155.38%
Cd 226.502†	12.7	0.0000 mg/L		0.00006	0.0000 mg/L	0.00006	187.42%
Co 228.616†	-14.6	-0.0001 mg/L		0.00005	-0.0001 mg/L	0.00005	39.89%
Ni 232.003†	6.9	0.0001 mg/L		0.00040	0.0001 mg/L	0.00040	332.72%
Ba 233.527†	-48.2	-0.0002 mg/L		0.00008	-0.0002 mg/L	0.00008	35.71%
Mn 257.610†	-306.7	-0.0001 mg/L		0.00000	-0.0001 mg/L	0.00000	3.34%
Cr 267.716†	23.4	0.0001 mg/L		0.00027	0.0001 mg/L	0.00027	379.09%
Fe 273.955†	374.6	0.0055 mg/L		0.00010	0.0055 mg/L	0.00010	1.80%
Mg 279.077†	906.1	0.0149 mg/L		0.00157	0.0149 mg/L	0.00157	10.56%
V 292.402†	37.8	0.0001 mg/L		0.00011	0.0001 mg/L	0.00011	168.70%
Al 308.215†	411.1	0.0083 mg/L		0.00621	0.0083 mg/L	0.00621	74.57%
Be 313.107†	206.9	0.0000 mg/L		0.00002	0.0000 mg/L	0.00002	70.79%
Cu 324.752†	-624.5	-0.0013 mg/L		0.00031	-0.0013 mg/L	0.00031	24.73%
Ag 338.289†	-80.1	-0.0003 mg/L		0.00037	-0.0003 mg/L	0.00037	121.60%
Na 330.237†	76.5	0.0457 mg/L		0.02992	0.0457 mg/L	0.02992	65.41%
Ca 227.546†	9.3	0.0116 mg/L		0.02092	0.0116 mg/L	0.02092	180.89%
Al RADIAL†	83.4	0.0146 mg/L		0.00758	0.0146 mg/L	0.00758	52.02%
Fe RADIAL†	6.9	0.0047 mg/L		0.00159	0.0047 mg/L	0.00159	33.94%
Ca RADIAL†	72.9	0.0041 mg/L		0.00098	0.0041 mg/L	0.00098	23.77%
K RADIAL†	-50.4	-0.0173 mg/L		0.00983	-0.0173 mg/L	0.00983	56.78%
Mg RADIAL†	23.4	0.0154 mg/L		0.00324	0.0154 mg/L	0.00324	21.04%
Na RADIAL†	-1152.7	-0.0450 mg/L		0.01137	-0.0450 mg/L	0.01137	25.25%
Mo 202.031	-32.0	0.000 mg/L		0.0002	0.000 mg/L	0.0002	44.22%

Sequence No.: 11
 Sample ID: BC60702-BLK1
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 9
 Date Collected: 3/14/2016 3:22:30 PM
 Data Type: Reprocessed on 3/15/2016 5:41:09 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: BC60702-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27512483.4	4.926 mg/L	0.0896			1.82%
Y RADIAL	805347.0	4.907 mg/L	0.1010			2.06%
As 188.979†	-5.1	-0.0009 mg/L	0.00097	-0.0009 mg/L	0.00097	106.65%
Tl 190.801†	-8.6	-0.0011 mg/L	0.00182	-0.0011 mg/L	0.00182	169.87%
Se 196.026†	4.2	0.0014 mg/L	0.00442	0.0014 mg/L	0.00442	309.51%
Zn 206.200†	156.4	0.0012 mg/L	0.00010	0.0012 mg/L	0.00010	8.27%
Sb 206.836†	-12.9	-0.0014 mg/L	0.00085	-0.0014 mg/L	0.00085	59.27%
Pb 220.353†	14.6	0.0004 mg/L	0.00022	0.0004 mg/L	0.00022	49.57%
Cd 226.502†	7.7	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	234.97%
Co 228.616†	-27.0	-0.0002 mg/L	0.00009	-0.0002 mg/L	0.00009	39.42%
Ni 232.003†	-36.5	-0.0006 mg/L	0.00062	-0.0006 mg/L	0.00062	98.55%
Ba 233.527†	-156.3	-0.0007 mg/L	0.00012	-0.0007 mg/L	0.00012	17.81%
Mn 257.610†	-453.0	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	3.99%
Cr 267.716†	38.9	0.0001 mg/L	0.00020	0.0001 mg/L	0.00020	171.78%
Fe 273.955†	268.4	0.0039 mg/L	0.00021	0.0039 mg/L	0.00021	5.37%
Mg 279.077†	513.1	0.0084 mg/L	0.00055	0.0084 mg/L	0.00055	6.55%
V 292.402†	16.5	0.0000 mg/L	0.00023	0.0000 mg/L	0.00023	778.89%
Al 308.215†	823.2	0.0167 mg/L	0.00718	0.0167 mg/L	0.00718	43.00%
Be 313.107†	-567.3	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	84.24%
Cu 324.752†	-906.0	-0.0018 mg/L	0.00050	-0.0018 mg/L	0.00050	27.08%
Ag 338.289†	-76.4	-0.0003 mg/L	0.00043	-0.0003 mg/L	0.00043	145.41%
Na 330.237†	39.1	0.0234 mg/L	0.04494	0.0234 mg/L	0.04494	192.09%
Ca 227.546†	3.5	0.0043 mg/L	0.03105	0.0043 mg/L	0.03105	717.97%
Al RADIAL†	100.6	0.0176 mg/L	0.00198	0.0176 mg/L	0.00198	11.27%
Fe RADIAL†	2.8	0.0019 mg/L	0.00186	0.0019 mg/L	0.00186	97.61%
Ca RADIAL†	178.9	0.0101 mg/L	0.00264	0.0101 mg/L	0.00264	26.23%
K RADIAL†	-72.5	-0.0249 mg/L	0.01468	-0.0249 mg/L	0.01468	59.02%
Mg RADIAL†	8.2	0.0054 mg/L	0.00567	0.0054 mg/L	0.00567	104.84%
Na RADIAL†	-1403.4	-0.0548 mg/L	0.04934	-0.0548 mg/L	0.04934	90.03%
Mo 202.031	-49.3	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	19.55%

Sequence No.: 12
 Sample ID: BC60702-SRM1
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 10
 Date Collected: 3/14/2016 3:27:39 PM
 Data Type: Reprocessed on 3/15/2016 5:41:10 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: BC60702-SRM1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26082958.1	4.670 mg/L	0.0266			0.57%
Y RADIAL	774023.1	4.716 mg/L	0.0907			1.92%
As 188.979†	3197.4	0.5694 mg/L	0.00130	0.5694 mg/L	0.00130	0.23%
Tl 190.801†	2858.5	0.3557 mg/L	0.00445	0.3557 mg/L	0.00445	1.25%
Se 196.026†	2378.2	0.8052 mg/L	0.00360	0.8052 mg/L	0.00360	0.45%
Zn 206.200†	93262.1	0.6947 mg/L	0.00698	0.6947 mg/L	0.00698	1.00%
Sb 206.836†	2136.6	0.2356 mg/L	0.00078	0.2356 mg/L	0.00078	0.33%
Pb 220.353†	15214.9	0.4670 mg/L	0.00274	0.4670 mg/L	0.00274	0.59%
Cd 226.502†	186903.5	0.4567 mg/L	0.00455	0.4567 mg/L	0.00455	1.00%
Co 228.616†	13491.9	0.1141 mg/L	0.00050	0.1141 mg/L	0.00050	0.44%
Ni 232.003†	70612.2	1.222 mg/L	0.0137	1.222 mg/L	0.0137	1.12%
Ba 233.527†	113451.9	0.5076 mg/L	0.00441	0.5076 mg/L	0.00441	0.87%
Mn 257.610†	740237.6	0.3363 mg/L	0.00262	0.3363 mg/L	0.00262	0.78%
Cr 267.716†	226405.1	0.6859 mg/L	0.00686	0.6859 mg/L	0.00686	1.00%
Fe 273.955†	41254.4	0.6013 mg/L	0.00412	0.6013 mg/L	0.00412	0.68%
Mg 279.077†	1116443.9	18.35 mg/L	0.099	18.35 mg/L	0.099	0.54%
V 292.402†	175251.4	0.3099 mg/L	0.00284	0.3099 mg/L	0.00284	0.92%
Al 308.215†	31355.9	0.6322 mg/L	0.00928	0.6322 mg/L	0.00928	1.47%

Be 313.107†	2783936.4	0.3032 mg/L	0.00231	0.3032 mg/L	0.00231	0.76%
Cu 324.752†	359236.6	0.7284 mg/L	0.00830	0.7284 mg/L	0.00830	1.14%
Ag 338.289†	161055.2	0.6177 mg/L	0.00551	0.6177 mg/L	0.00551	0.89%
Na 330.237†	165255.0	98.88 mg/L	1.007	98.88 mg/L	1.007	1.02%
Ca 227.546†	85209.9	105.9 mg/L	1.19	105.9 mg/L	1.19	1.12%
Al RADIAL†	3755.2	0.6535 mg/L	0.01329	0.6535 mg/L	0.01329	2.03%
Fe RADIAL†	892.6	0.6068 mg/L	0.02088	0.6068 mg/L	0.02088	3.44%
Ca RADIAL†	1954177.3	109.9 mg/L	0.22	109.9 mg/L	0.22	0.20%
K RADIAL†	88230.6	30.29 mg/L	0.099	30.29 mg/L	0.099	0.33%
Mg RADIAL†	29238.2	19.30 mg/L	0.452	19.30 mg/L	0.452	2.34%
Na RADIAL†	2691011.2	105.1 mg/L	2.26	105.1 mg/L	2.26	2.15%
Mo 202.031	45409.5	0.567 mg/L	0.0043	0.567 mg/L	0.0043	0.76%

Sequence No.: 13

Sample ID: 16C0418-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/14/2016 3:35:57 PM

Data Type: Reprocessed on 3/15/2016 5:41:10 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0418-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28979032.3	5.189 mg/L	0.0656			1.26%
Y RADIAL	824741.1	5.025 mg/L	0.0280			0.56%
As 188.979†	-118.1	-0.0204 mg/L	0.00078	-0.0204 mg/L	0.00078	3.84%
Tl 190.801†	-154.1	-0.0186 mg/L	0.00256	-0.0186 mg/L	0.00256	13.80%
Se 196.026†	45.8	0.0182 mg/L	0.00024	0.0182 mg/L	0.00024	1.32%
Zn 206.200†	6728.7	0.0501 mg/L	0.00065	0.0501 mg/L	0.00065	1.30%
Sb 206.836†	-46.9	-0.0049 mg/L	0.00129	-0.0049 mg/L	0.00129	26.29%
Pb 220.353†	102.3	0.0027 mg/L	0.00043	0.0027 mg/L	0.00043	15.87%
Cd 226.502†	143.3	-0.0001 mg/L	0.00006	-0.0001 mg/L	0.00006	47.53%
Co 228.616†	21.5	0.0003 mg/L	0.00005	0.0003 mg/L	0.00005	15.21%
Ni 232.003†	126.3	0.0021 mg/L	0.00048	0.0021 mg/L	0.00048	23.54%
Ba 233.527†	513.5	0.0023 mg/L	0.00002	0.0023 mg/L	0.00002	0.92%
Mn 257.610†	21609.5	0.0107 mg/L	0.00017	0.0107 mg/L	0.00017	1.61%
Cr 267.716†	1278.1	0.0041 mg/L	0.00014	0.0041 mg/L	0.00014	3.31%
Fe 273.955†	470181.0	6.853 mg/L	0.0599	6.853 mg/L	0.0599	0.87%
Mg 279.077†	6301.1	0.1025 mg/L	0.00216	0.1025 mg/L	0.00216	2.11%
V 292.402†	798.5	0.0011 mg/L	0.00004	0.0011 mg/L	0.00004	4.01%
Al 308.215†	497.0	0.0106 mg/L	0.00383	0.0106 mg/L	0.00383	36.15%
Be 313.107†	802.2	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	30.55%
Cu 324.752†	17074.2	0.0355 mg/L	0.00029	0.0355 mg/L	0.00029	0.81%
Ag 338.289†	-83.2	-0.0002 mg/L	0.00039	-0.0002 mg/L	0.00039	195.17%
Na 330.237†	9168.4	5.513 mg/L	0.0317	5.513 mg/L	0.0317	0.57%
Ca 227.546†	905.7	1.185 mg/L	0.0168	1.185 mg/L	0.0168	1.42%
Al RADIAL†	243.7	0.0433 mg/L	0.00123	0.0433 mg/L	0.00123	2.85%
Fe RADIAL†	9978.3	6.783 mg/L	0.0782	6.783 mg/L	0.0782	1.15%
Ca RADIAL†	25771.1	1.450 mg/L	0.0156	1.450 mg/L	0.0156	1.08%
K RADIAL†	1018.3	0.3495 mg/L	0.02743	0.3495 mg/L	0.02743	7.85%
Mg RADIAL†	165.2	0.1084 mg/L	0.00376	0.1084 mg/L	0.00376	3.47%
Na RADIAL†	211066.2	8.242 mg/L	0.0432	8.242 mg/L	0.0432	0.52%
Mo 202.031	373.4	0.005 mg/L	0.0002	0.005 mg/L	0.0002	3.46%

Sequence No.: 14

Sample ID: 16C0449-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 12

Date Collected: 3/14/2016 3:41:00 PM

Data Type: Reprocessed on 3/15/2016 5:41:11 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25521529.4	4.570 mg/L	0.0266			0.58%
Y RADIAL	778287.1	4.742 mg/L	0.0806			1.70%
As 188.979†	-7.0	-0.0008 mg/L	0.00064	-0.0008 mg/L	0.00064	76.22%
Tl 190.801†	-17.4	-0.0018 mg/L	0.00029	-0.0018 mg/L	0.00029	16.06%

Se 196.026†	7.1	0.0040 mg/L	0.00134	0.0040 mg/L	0.00134	33.03%
Zn 206.200†	2615.8	0.0194 mg/L	0.00022	0.0194 mg/L	0.00022	1.13%
Sb 206.836†	-14.2	-0.0014 mg/L	0.00175	-0.0014 mg/L	0.00175	124.79%
Pb 220.353†	54.1	0.0034 mg/L	0.00050	0.0034 mg/L	0.00050	14.74%
Cd 226.502†	160.6	0.0001 mg/L	0.00009	0.0001 mg/L	0.00009	81.83%
Co 228.616†	85.5	0.0008 mg/L	0.00003	0.0008 mg/L	0.00003	3.82%
Ni 232.003†	17.1	0.0002 mg/L	0.00012	0.0002 mg/L	0.00012	55.43%
Ba 233.527†	37282.3	0.1668 mg/L	0.00116	0.1668 mg/L	0.00116	0.69%
Mn 257.610†	1527458.2	0.6943 mg/L	0.00527	0.6943 mg/L	0.00527	0.76%
Cr 267.716†	616.2	0.0020 mg/L	0.00014	0.0020 mg/L	0.00014	6.79%
Fe 273.955†	284517.1	4.147 mg/L	0.0322	4.147 mg/L	0.0322	0.78%
Mg 279.077†	1121491.5	18.43 mg/L	0.134	18.43 mg/L	0.134	0.73%
V 292.402†	1408.7	0.0023 mg/L	0.00008	0.0023 mg/L	0.00008	3.59%
Al 308.215†	6634.3	0.1306 mg/L	0.00478	0.1306 mg/L	0.00478	3.66%
Be 313.107†	-1061.1	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	28.98%
Cu 324.752†	2484.1	0.0056 mg/L	0.00014	0.0056 mg/L	0.00014	2.52%
Ag 338.289†	226.6	-0.0007 mg/L	0.00008	-0.0007 mg/L	0.00008	11.85%
Na 330.237†	475875.3	284.6 mg/L	2.17	284.6 mg/L	2.17	0.76%
Ca 227.546†	114654.5	142.6 mg/L	1.33	142.6 mg/L	1.33	0.93%
Al RADIAL†	663.8	0.1122 mg/L	0.01079	0.1122 mg/L	0.01079	9.62%
Fe RADIAL†	5985.1	4.069 mg/L	0.1120	4.069 mg/L	0.1120	2.75%
Ca RADIAL†	2557562.9	143.9 mg/L	0.17	143.9 mg/L	0.17	0.12%
K RADIAL†	151020.8	51.84 mg/L	0.194	51.84 mg/L	0.194	0.37%
Mg RADIAL†	27940.0	18.45 mg/L	0.417	18.45 mg/L	0.417	2.26%
Na RADIAL†	6638243.1	259.2 mg/L	2.95	259.2 mg/L	2.95	1.14%
Mo 202.031†	61.5	0.001 mg/L	0.0003	0.001 mg/L	0.0003	35.60%

Sequence No.: 15

Sample ID: BC60702-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/14/2016 3:45:49 PM

Data Type: Reprocessed on 3/15/2016 5:41:12 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60702-DUP1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Y 371.029	23274412.6	4.167 mg/L		0.0167			0.40%
Y RADIAL	704275.8	4.291 mg/L		0.0735			1.71%
As 188.979†	-19.7	-0.0030 mg/L		0.00237	-0.0030 mg/L	0.00237	77.85%
TE 190.801†	-22.2	-0.0023 mg/L		0.00095	-0.0023 mg/L	0.00095	40.57%
Se 196.026†	-14.5	-0.0031 mg/L		0.00209	-0.0031 mg/L	0.00209	68.29%
Zn 206.200†	2887.1	0.0215 mg/L		0.00033	0.0215 mg/L	0.00033	1.52%
Sb 206.836†	-4.3	-0.0003 mg/L		0.00155	-0.0003 mg/L	0.00155	539.13%
Pb 220.353†	98.8	0.0050 mg/L		0.00078	0.0050 mg/L	0.00078	15.44%
Cd 226.502†	144.6	0.0000 mg/L		0.00001	0.0000 mg/L	0.00001	33.51%
Co 228.616†	44.1	0.0005 mg/L		0.00010	0.0005 mg/L	0.00010	21.48%
Ni 232.003†	-126.2	-0.0023 mg/L		0.00017	-0.0023 mg/L	0.00017	7.68%
Ba 233.527†	41620.7	0.1862 mg/L		0.00083	0.1862 mg/L	0.00083	0.44%
Mn 257.610†	1718727.6	0.7812 mg/L		0.00277	0.7812 mg/L	0.00277	0.35%
Cr 267.716†	631.6	0.0021 mg/L		0.00008	0.0021 mg/L	0.00008	4.05%
Fe 273.955†	319238.4	4.653 mg/L		0.0216	4.653 mg/L	0.0216	0.46%
Mg 279.077†	1255060.3	20.63 mg/L		0.073	20.63 mg/L	0.073	0.35%
V 292.402†	1394.4	0.0022 mg/L		0.00006	0.0022 mg/L	0.00006	2.69%
Al 308.215†	8201.1	0.1618 mg/L		0.00376	0.1618 mg/L	0.00376	2.33%
Be 313.107†	-2793.3	-0.0003 mg/L		0.00004	-0.0003 mg/L	0.00004	11.67%
Cu 324.752†	2447.5	0.0056 mg/L		0.00017	0.0056 mg/L	0.00017	3.12%
Ag 338.289†	214.7	-0.0009 mg/L		0.00078	-0.0009 mg/L	0.00078	84.63%
Na 330.237†	546268.3	326.7 mg/L		2.16	326.7 mg/L	2.16	0.66%
Ca 227.546†	129956.2	161.6 mg/L		0.78	161.6 mg/L	0.78	0.48%
Al RADIAL†	756.5	0.1279 mg/L		0.00476	0.1279 mg/L	0.00476	3.72%
Fe RADIAL†	6774.7	4.606 mg/L		0.0371	4.606 mg/L	0.0371	0.81%
Ca RADIAL†	2895674.7	162.9 mg/L		0.29	162.9 mg/L	0.29	0.18%
K RADIAL†	171308.9	58.80 mg/L		0.293	58.80 mg/L	0.293	0.50%
Mg RADIAL†	31496.5	20.79 mg/L		0.203	20.79 mg/L	0.203	0.98%
Na RADIAL†	7550071.6	294.8 mg/L		3.28	294.8 mg/L	3.28	1.11%
Mo 202.031†	38.5	0.000 mg/L		0.0002	0.000 mg/L	0.0002	32.18%

Sequence No.: 16

Autosampler Location: 14

Sample ID: BC60702-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Date Collected: 3/14/2016 3:50:40 PM

Data Type: Reprocessed on 3/15/2016 5:41:12 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60702-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25120168.6	4.498 mg/L	0.0396			0.88%
Y RADIAL	773298.4	4.712 mg/L	0.0356			0.76%
As 188.979†	11561.7	2.059 mg/L	0.0115	2.059 mg/L	0.0115	0.56%
Tl 190.801†	15239.4	1.897 mg/L	0.0179	1.897 mg/L	0.0179	0.94%
Se 196.026†	6017.2	2.039 mg/L	0.0075	2.039 mg/L	0.0075	0.37%
Zn 206.200†	75162.0	0.5598 mg/L	0.00058	0.5598 mg/L	0.00058	0.10%
Sb 206.836†	2415.2	0.2665 mg/L	0.00025	0.2665 mg/L	0.00025	0.09%
Pb 220.353†	15991.9	0.4912 mg/L	0.00386	0.4912 mg/L	0.00386	0.79%
Cd 226.502†	20903.4	0.0507 mg/L	0.00026	0.0507 mg/L	0.00026	0.52%
Co 228.616†	64504.7	0.5454 mg/L	0.00237	0.5454 mg/L	0.00237	0.43%
Ni 232.003†	31814.7	0.5507 mg/L	0.00306	0.5507 mg/L	0.00306	0.56%
Ba 233.527†	522771.2	2.339 mg/L	0.0132	2.339 mg/L	0.0132	0.57%
Mn 257.610†	2743524.8	1.247 mg/L	0.0091	1.247 mg/L	0.0091	0.73%
Cr 267.716†	70400.1	0.2134 mg/L	0.00156	0.2134 mg/L	0.00156	0.73%
Fe 273.955†	359687.2	5.243 mg/L	0.0363	5.243 mg/L	0.0363	0.69%
Mg 279.077†	1123803.6	18.47 mg/L	0.113	18.47 mg/L	0.113	0.61%
V 292.402†	299483.4	0.5293 mg/L	0.00363	0.5293 mg/L	0.00363	0.69%
Al 308.215†	114784.8	2.323 mg/L	0.0155	2.323 mg/L	0.0155	0.67%
Be 313.107†	480207.8	0.0523 mg/L	0.00050	0.0523 mg/L	0.00050	0.96%
Cu 324.752†	142413.1	0.2894 mg/L	0.00264	0.2894 mg/L	0.00264	0.91%
Ag 338.289†	14834.2	0.0554 mg/L	0.00113	0.0554 mg/L	0.00113	2.03%
Na 330.237†	482442.1	288.5 mg/L	2.14	288.5 mg/L	2.14	0.74%
Ca 227.546†	116222.2	144.5 mg/L	0.75	144.5 mg/L	0.75	0.52%
Al RADIAL†	12739.9	2.224 mg/L	0.0068	2.224 mg/L	0.0068	0.31%
Fe RADIAL†	7756.4	5.273 mg/L	0.0275	5.273 mg/L	0.0275	0.52%
Cd RADIAL†	2624129.9	147.6 mg/L	0.13	147.6 mg/L	0.13	0.09%
K RADIAL†	155184.1	53.27 mg/L	0.222	53.27 mg/L	0.222	0.42%
Mg RADIAL†	28659.8	18.92 mg/L	0.104	18.92 mg/L	0.104	0.55%
Na RADIAL†	6817909.1	266.3 mg/L	1.55	266.3 mg/L	1.55	0.58%
Mo 202.031†	33.0	0.000 mg/L	0.0005	0.000 mg/L	0.0005	111.85%

Sequence No.: 17

Sample ID: 16C0449-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 3/14/2016 3:58:04 PM

Data Type: Reprocessed on 3/15/2016 5:41:13 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22184989.6	3.972 mg/L	0.0352			0.89%
Y RADIAL	643666.4	3.922 mg/L	0.0729			1.86%
As 188.979†	-12.4	-0.0021 mg/L	0.00079	-0.0021 mg/L	0.00079	38.36%
Tl 190.801†	-53.4	-0.0065 mg/L	0.00094	-0.0065 mg/L	0.00094	14.48%
Se 196.026†	10.8	0.0042 mg/L	0.00393	0.0042 mg/L	0.00393	93.17%
Zn 206.200†	2976.4	0.0222 mg/L	0.00015	0.0222 mg/L	0.00015	0.68%
Sb 206.836†	-1.2	-0.0001 mg/L	0.00241	-0.0001 mg/L	0.00241	>999.9%
Pb 220.353†	-7.9	0.0020 mg/L	0.00101	0.0020 mg/L	0.00101	51.25%
Cd 226.502†	4.4	-0.0001 mg/L	0.00007	-0.0001 mg/L	0.00007	83.03%
Co 228.616†	95.1	0.0008 mg/L	0.00003	0.0008 mg/L	0.00003	3.80%
Ni 232.003†	-14.8	-0.0003 mg/L	0.00087	-0.0003 mg/L	0.00087	304.92%
Ba 233.527†	28909.2	0.1294 mg/L	0.00052	0.1294 mg/L	0.00052	0.40%
Mn 257.610†	1011557.2	0.4596 mg/L	0.00204	0.4596 mg/L	0.00204	0.44%
Cr 267.716†	618.8	0.0019 mg/L	0.00014	0.0019 mg/L	0.00014	7.07%
Fe 273.955†	95838.0	1.397 mg/L	0.0050	1.397 mg/L	0.0050	0.36%
Mg 279.077†	1285066.9	21.12 mg/L	0.070	21.12 mg/L	0.070	0.33%
V 292.402†	2012.1	0.0035 mg/L	0.00025	0.0035 mg/L	0.00025	7.07%
Al 308.215†	4316.7	0.0828 mg/L	0.00075	0.0828 mg/L	0.00075	0.90%
Be 313.107†	-1751.8	-0.0002 mg/L	0.00002	-0.0002 mg/L	0.00002	9.08%

Cu 324.752†	2073.2	0.0044 mg/L	0.00017	0.0044 mg/L	0.00017	3.98%
Ag 338.289†	169.9	-0.0012 mg/L	0.00018	-0.0012 mg/L	0.00018	15.11%
Na 330.237†	266950.6	159.7 mg/L	1.22	159.7 mg/L	1.22	0.77%
Ca 227.546†	127618.3	158.7 mg/L	0.85	158.7 mg/L	0.85	0.54%
Al RADIAL†	280.8	0.0444 mg/L	0.00261	0.0444 mg/L	0.00261	5.88%
Fe RADIAL†	2039.8	1.387 mg/L	0.0130	1.387 mg/L	0.0130	0.94%
Ca RADIAL†	2902832.0	163.3 mg/L	0.14	163.3 mg/L	0.14	0.09%
K RADIAL†	90663.0	31.12 mg/L	0.139	31.12 mg/L	0.139	0.45%
Mg RADIAL†	32454.4	21.43 mg/L	0.219	21.43 mg/L	0.219	1.02%
Na RADIAL†	4280438.4	167.2 mg/L	3.42	167.2 mg/L	3.42	2.05%
Mo 202.031	70.5	0.001 mg/L	0.0001	0.001 mg/L	0.0001	14.55%

Sequence No.: 18

Sample ID: 16C0449-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/14/2016 4:03:13 PM

Data Type: Reprocessed on 3/15/2016 5:41:14 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22239113.0	3.982 mg/L		0.0287			0.72%
Y RADIAL	659273.9	4.017 mg/L		0.0464			1.16%
As 188.979†	23.1	0.0042 mg/L		0.00109	0.0042 mg/L	0.00109	25.96%
Tl 190.801†	-36.8	-0.0045 mg/L		0.00149	-0.0045 mg/L	0.00149	33.01%
Se 196.026†	7.9	0.0029 mg/L		0.00258	0.0029 mg/L	0.00258	87.69%
Zn 206.200†	1584.8	0.0118 mg/L		0.00022	0.0118 mg/L	0.00022	1.87%
Sb 206.836†	4.6	0.0005 mg/L		0.00201	0.0005 mg/L	0.00201	374.44%
Pb 220.353†	37.2	0.0033 mg/L		0.00046	0.0033 mg/L	0.00046	13.88%
Cd 226.502†	-7.1	-0.0001 mg/L		0.00008	-0.0001 mg/L	0.00008	127.49%
Co 228.616†	240.5	0.0020 mg/L		0.00028	0.0020 mg/L	0.00028	13.51%
Ni 232.003†	65.4	0.0011 mg/L		0.00040	0.0011 mg/L	0.00040	36.11%
Ba 233.527†	35712.4	0.1598 mg/L		0.00223	0.1598 mg/L	0.00223	1.40%
Mn 257.610†	428188.7	0.1946 mg/L		0.00341	0.1946 mg/L	0.00341	1.75%
Cr 267.716†	605.1	0.0019 mg/L		0.00013	0.0019 mg/L	0.00013	7.09%
Fe 273.955†	44945.4	0.6551 mg/L		0.01187	0.6551 mg/L	0.01187	1.81%
Mg 279.077†	1029313.4	16.92 mg/L		0.264	16.92 mg/L	0.264	1.56%
V 292.402†	4619.7	0.0081 mg/L		0.00021	0.0081 mg/L	0.00021	2.61%
Al 308.215†	5900.4	0.1152 mg/L		0.00647	0.1152 mg/L	0.00647	5.62%
Be 313.107†	-2407.7	-0.0003 mg/L		0.00002	-0.0003 mg/L	0.00002	7.09%
Cu 324.752†	1433.2	0.0030 mg/L		0.00016	0.0030 mg/L	0.00016	5.19%
Ag 338.289†	349.9	-0.0004 mg/L		0.00050	-0.0004 mg/L	0.00050	119.84%
Na 330.237†	575437.2	344.1 mg/L		7.37	344.1 mg/L	7.37	2.14%
Ca 227.546†	126990.7	157.9 mg/L		2.92	157.9 mg/L	2.92	1.85%
Al RADIAL†	392.5	0.0640 mg/L		0.00417	0.0640 mg/L	0.00417	6.51%
Fe RADIAL†	967.2	0.6575 mg/L		0.01013	0.6575 mg/L	0.01013	1.54%
Ca RADIAL†	2795441.3	157.3 mg/L		0.19	157.3 mg/L	0.19	0.12%
K RADIAL†	138792.2	47.64 mg/L		1.250	47.64 mg/L	1.250	2.62%
Mg RADIAL†	24927.8	16.46 mg/L		0.432	16.46 mg/L	0.432	2.62%
Na RADIAL†	7938330.7	310.0 mg/L		0.99	310.0 mg/L	0.99	0.32%
Mo 202.031	2689.1	0.034 mg/L		0.0004	0.034 mg/L	0.0004	1.12%

Sequence No.: 19

Sample ID: 16C0449-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 17

Date Collected: 3/14/2016 4:08:31 PM

Data Type: Reprocessed on 3/15/2016 5:41:15 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22788406.0	4.080 mg/L		0.0497			1.22%
Y RADIAL	672129.9	4.096 mg/L		0.0191			0.47%
As 188.979†	5.7	0.0012 mg/L		0.00058	0.0012 mg/L	0.00058	48.73%
Tl 190.801†	-40.6	-0.0049 mg/L		0.00097	-0.0049 mg/L	0.00097	19.76%
Se 196.026†	6.4	0.0029 mg/L		0.00310	0.0029 mg/L	0.00310	107.71%

Zn 206.200†	5273.5	0.0393 mg/L	0.00016	0.0393 mg/L	0.00016	0.40%
Sb 206.836†	11.3	0.0013 mg/L	0.00268	0.0013 mg/L	0.00268	203.67%
Pb 220.353†	83.4	0.0033 mg/L	0.00029	0.0033 mg/L	0.00029	8.97%
Cd 226.502†	75.4	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	28.43%
Co 228.616†	80.6	0.0007 mg/L	0.00013	0.0007 mg/L	0.00013	18.21%
Ni 232.003†	915.0	0.0158 mg/L	0.00052	0.0158 mg/L	0.00052	3.31%
Ba 233.527†	6106.1	0.0273 mg/L	0.00012	0.0273 mg/L	0.00012	0.42%
Mn 257.610†	89588.0	0.0409 mg/L	0.00031	0.0409 mg/L	0.00031	0.77%
Cr 267.716†	7685.4	0.0233 mg/L	0.00019	0.0233 mg/L	0.00019	0.80%
Fe 273.955†	125140.9	1.824 mg/L	0.0164	1.824 mg/L	0.0164	0.90%
Mg 279.077†	411854.0	6.769 mg/L	0.0609	6.769 mg/L	0.0609	0.90%
V 292.402†	22716.0	0.0401 mg/L	0.00036	0.0401 mg/L	0.00036	0.91%
Al 308.215†	4226.4	0.0841 mg/L	0.00201	0.0841 mg/L	0.00201	2.39%
Be 313.107†	-1804.1	-0.0002 mg/L	0.00003	-0.0002 mg/L	0.00003	13.29%
Cu 324.752†	753.8	0.0018 mg/L	0.00003	0.0018 mg/L	0.00003	1.56%
Ag 338.289†	62.2	-0.0004 mg/L	0.00052	-0.0004 mg/L	0.00052	128.68%
Na 330.237†	386784.8	231.2 mg/L	1.50	231.2 mg/L	1.50	0.65%
Ca 227.546†	47195.1	58.69 mg/L	0.445	58.69 mg/L	0.445	0.76%
Al RADIAL†	315.4	0.0536 mg/L	0.00700	0.0536 mg/L	0.00700	13.07%
Fe RADIAL†	2606.6	1.772 mg/L	0.0138	1.772 mg/L	0.0138	0.78%
Ca RADIAL†	1064074.5	59.86 mg/L	0.045	59.86 mg/L	0.045	0.08%
K RADIAL†	499467.0	171.4 mg/L	0.73	171.4 mg/L	0.73	0.42%
Mg RADIAL†	10191.8	6.729 mg/L	0.0312	6.729 mg/L	0.0312	0.46%
Na RADIAL†	5499260.1	214.8 mg/L	2.31	214.8 mg/L	2.31	1.08%
Mo 202.031	7994.2	0.100 mg/L	0.0012	0.100 mg/L	0.0012	1.16%

Sequence No.: 20

Sample ID: 16C0449-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 18

Date Collected: 3/14/2016 4:13:40 PM

Data Type: Reprocessed on 3/15/2016 5:41:15 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-05

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	20767039.4	3.718 mg/L		0.0889			2.39%
Y RADIAL	619104.9	3.772 mg/L		0.0445			1.18%
As 188.979†	89.6	0.0161 mg/L		0.00300	0.0161 mg/L	0.00300	18.62%
Tl 190.801†	-71.1	-0.0087 mg/L		0.00243	-0.0087 mg/L	0.00243	27.95%
Se 196.026†	25.4	0.0093 mg/L		0.00553	0.0093 mg/L	0.00553	59.50%
Zn 206.200†	3041.7	0.0226 mg/L		0.00058	0.0226 mg/L	0.00058	2.54%
Sb 206.836†	15.4	0.0018 mg/L		0.00223	0.0018 mg/L	0.00223	126.00%
Pb 220.353†	40.7	0.0026 mg/L		0.00079	0.0026 mg/L	0.00079	30.61%
Cd 226.502†	-15.6	-0.0002 mg/L		0.00003	-0.0002 mg/L	0.00003	19.66%
Co 228.616†	202.4	0.0017 mg/L		0.00022	0.0017 mg/L	0.00022	12.73%
Ni 232.003†	2944.8	0.0509 mg/L		0.00067	0.0509 mg/L	0.00067	1.31%
Ba 233.527†	20706.7	0.0927 mg/L		0.00142	0.0927 mg/L	0.00142	1.53%
Mn 257.610†	3989.3	0.0020 mg/L		0.00005	0.0020 mg/L	0.00005	2.25%
Cr 267.716†	881.1	0.0027 mg/L		0.00030	0.0027 mg/L	0.00030	11.17%
Fe 273.955†	124355.7	1.813 mg/L		0.0314	1.813 mg/L	0.0314	1.73%
Mg 279.077†	2389.6	0.0390 mg/L		0.00053	0.0390 mg/L	0.00053	1.36%
V 292.402†	9792.0	0.0172 mg/L		0.00045	0.0172 mg/L	0.00045	2.60%
Al 308.215†	95520.8	1.934 mg/L		0.0348	1.934 mg/L	0.0348	1.80%
Be 313.107†	-3114.2	-0.0003 mg/L		0.00007	-0.0003 mg/L	0.00007	19.37%
Cu 324.752†	2929.6	0.0062 mg/L		0.00030	0.0062 mg/L	0.00030	4.82%
Ag 338.289†	-24.9	-0.0010 mg/L		0.00029	-0.0010 mg/L	0.00029	28.09%
Na 330.237†	1568187.7	937.4 mg/L		15.27	937.4 mg/L	15.27	1.63%
Ca 227.546†	71823.0	89.31 mg/L		1.692	89.31 mg/L	1.692	1.89%
Al RADIAL†	10207.1	1.783 mg/L		0.0379	1.783 mg/L	0.0379	2.13%
Fe RADIAL†	2592.8	1.763 mg/L		0.0451	1.763 mg/L	0.0451	2.56%
Ca RADIAL†	1555781.9	87.52 mg/L		0.047	87.52 mg/L	0.047	0.05%
K RADIAL†	387140.3	132.9 mg/L		0.17	132.9 mg/L	0.17	0.13%
Mg RADIAL†	76.3	0.0502 mg/L		0.00849	0.0502 mg/L	0.00849	16.91%
Na RADIAL†	17784673.2	694.5 mg/L		14.75	694.5 mg/L	14.75	2.12%
Mo 202.031	13044.8	0.163 mg/L		0.0026	0.163 mg/L	0.0026	1.62%

Sequence No.: 21

Sample ID: SEQ-CCV2

Autosampler Location: 3

Date Collected: 3/14/2016 4:18:50 PM

Analyst: KV

Data Type: Reprocessed on 3/15/2016 5:41:16 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: SEQ-CCV2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22635337.0	4.053 mg/L	0.0395			0.97%
Y RADIAL	632877.8	3.856 mg/L	0.0542			1.41%
As 188.979†	1438.8	0.2567 mg/L	0.00287	0.2567 mg/L	0.00287	1.12%
Tl 190.801†	2098.4	0.2616 mg/L	0.00188	0.2616 mg/L	0.00188	0.72%
Se 196.026†	735.0	0.2509 mg/L	0.00172	0.2509 mg/L	0.00172	0.69%
Zn 206.200†	358348.4	2.669 mg/L	0.0401	2.669 mg/L	0.0401	1.50%
Sb 206.836†	2254.2	0.2487 mg/L	0.00218	0.2487 mg/L	0.00218	0.88%
Pb 220.353†	8482.7	0.2608 mg/L	0.00279	0.2608 mg/L	0.00279	1.07%
Cd 226.502†	52121.2	0.1270 mg/L	0.00216	0.1270 mg/L	0.00216	1.70%
Co 228.616†	317052.4	2.681 mg/L	0.0385	2.681 mg/L	0.0385	1.44%
Ni 232.003†	150779.8	2.610 mg/L	0.0364	2.610 mg/L	0.0364	1.39%
Ba 233.527†	2423431.3	10.84 mg/L	0.088	10.84 mg/L	0.088	0.81%
Mn 257.610†	5935936.1	2.697 mg/L	0.0204	2.697 mg/L	0.0204	0.76%
Cr 267.716†	356586.3	1.080 mg/L	0.0175	1.080 mg/L	0.0175	1.62%
Fe 273.955†	368089.7	5.365 mg/L	0.0787	5.365 mg/L	0.0787	1.47%
Mg 279.077†	1559211.7	25.63 mg/L	0.202	25.63 mg/L	0.202	0.79%
V 292.402†	1464548.3	2.589 mg/L	0.0300	2.589 mg/L	0.0300	1.16%
Al 308.215†	509038.4	10.32 mg/L	0.165	10.32 mg/L	0.165	1.60%
Be 313.107†	2386720.7	0.2599 mg/L	0.00355	0.2599 mg/L	0.00355	1.37%
Cu 324.752†	650674.4	1.320 mg/L	0.0220	1.320 mg/L	0.0220	1.67%
Ag 338.289†	344623.5	1.324 mg/L	0.0207	1.324 mg/L	0.0207	1.56%
Na 330.237†	41532.5	24.87 mg/L	0.372	24.87 mg/L	0.372	1.50%
Ca 227.546†	20104.7	25.05 mg/L	0.193	25.05 mg/L	0.193	0.77%
Al RADIAL†	59209.8	10.35 mg/L	0.014	10.35 mg/L	0.014	0.13%
Fe RADIAL†	7876.4	5.354 mg/L	0.0874	5.354 mg/L	0.0874	1.63%
Ca RADIAL†	455137.9	25.60 mg/L	0.018	25.60 mg/L	0.018	0.07%
K RADIAL†	16673.3	5.723 mg/L	0.0930	5.723 mg/L	0.0930	1.62%
Mg RADIAL†	40567.6	26.78 mg/L	0.448	26.78 mg/L	0.448	1.67%
Na RADIAL†	691850.3	27.02 mg/L	0.046	27.02 mg/L	0.046	0.17%
Mo 202.031	72193.5	0.901 mg/L	0.0155	0.901 mg/L	0.0155	1.72%

Sequence No.: 22

Autosampler Location: 4

Sample ID: SEQ-CCB2

Date Collected: 3/14/2016 4:26:38 PM

Analyst: KV

Data Type: Reprocessed on 3/15/2016 5:41:17 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: SEQ-CCB2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24551541.0	4.396 mg/L	0.0029			0.06%
Y RADIAL	672344.6	4.097 mg/L	0.0997			2.43%
As 188.979†	-8.0	-0.0014 mg/L	0.00157	-0.0014 mg/L	0.00157	109.47%
Tl 190.801†	-11.2	-0.0014 mg/L	0.00159	-0.0014 mg/L	0.00159	114.06%
Se 196.026†	-14.6	-0.0049 mg/L	0.00427	-0.0049 mg/L	0.00427	86.50%
Zn 206.200†	795.5	0.0059 mg/L	0.00018	0.0059 mg/L	0.00018	3.12%
Sb 206.836†	-8.7	-0.0010 mg/L	0.00039	-0.0010 mg/L	0.00039	40.77%
Pb 220.353†	44.7	0.0014 mg/L	0.00039	0.0014 mg/L	0.00039	28.71%
Cd 226.502†	-44.8	-0.0001 mg/L	0.00007	-0.0001 mg/L	0.00007	61.09%
Co 228.616†	-28.5	-0.0002 mg/L	0.00004	-0.0002 mg/L	0.00004	14.90%
Ni 232.003†	-185.5	-0.0032 mg/L	0.00034	-0.0032 mg/L	0.00034	10.64%
Ba 233.527†	-97.7	-0.0004 mg/L	0.00010	-0.0004 mg/L	0.00010	23.43%
Mn 257.610†	-93.5	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	32.66%
Cr 267.716†	61.4	0.0002 mg/L	0.00018	0.0002 mg/L	0.00018	94.97%
Fe 273.955†	186.3	0.0027 mg/L	0.00026	0.0027 mg/L	0.00026	9.67%
Mg 279.077†	226.6	0.0037 mg/L	0.00166	0.0037 mg/L	0.00166	44.48%
V 292.402†	95.2	0.0002 mg/L	0.00023	0.0002 mg/L	0.00023	137.28%
Al 308.215†	542.9	0.0110 mg/L	0.00241	0.0110 mg/L	0.00241	21.89%
Be 313.107†	-560.7	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	42.59%
Cu 324.752†	-840.9	-0.0017 mg/L	0.00024	-0.0017 mg/L	0.00024	13.99%

Ag 338.289†	350.6	0.0013 mg/L	0.00045	0.0013 mg/L	0.00045	33.60%
Na 330.237†	141.8	0.0848 mg/L	0.01398	0.0848 mg/L	0.01398	16.49%
Ca 227.546†	-88.4	-0.1098 mg/L	0.03372	-0.1098 mg/L	0.03372	30.70%
Al RADIAL†	69.0	0.0121 mg/L	0.00800	0.0121 mg/L	0.00800	66.26%
Fe RADIAL†	2.0	0.0014 mg/L	0.00686	0.0014 mg/L	0.00686	492.96%
Ca RADIAL†	-17.0	-0.0010 mg/L	0.00664	-0.0010 mg/L	0.00664	695.41%
K RADIAL†	24.3	0.0083 mg/L	0.01700	0.0083 mg/L	0.01700	203.65%
Mg RADIAL†	15.2	0.0100 mg/L	0.00161	0.0100 mg/L	0.00161	16.10%
Na RADIAL†	-9532.3	-0.3723 mg/L	0.03903	-0.3723 mg/L	0.03903	10.49%
Mo 202.031	-44.4	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	9.82%

Sequence No.: 23

Sample ID: 16C0449-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 19

Date Collected: 3/14/2016 4:31:48 PM

Data Type: Reprocessed on 3/15/2016 5:41:18 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22204202.4	3.976 mg/L	0.0585			1.47%
Y RADIAL	642824.6	3.917 mg/L	0.0217			0.55%
As 188.979†	-1.8	-0.0002 mg/L	0.00249	-0.0002 mg/L	0.00249	>999.9%
Tl 190.801†	-47.7	-0.0059 mg/L	0.00143	-0.0059 mg/L	0.00143	24.46%
Se 196.026†	-7.8	-0.0023 mg/L	0.00511	-0.0023 mg/L	0.00511	222.50%
Zn 206.200†	4050.6	0.0302 mg/L	0.00075	0.0302 mg/L	0.00075	2.47%
Sb 206.836†	10.0	0.0011 mg/L	0.00130	0.0011 mg/L	0.00130	115.03%
Pb 220.353†	67.2	0.0038 mg/L	0.00080	0.0038 mg/L	0.00080	21.28%
Cd 226.502†	-46.1	-0.0002 mg/L	0.00012	-0.0002 mg/L	0.00012	67.91%
Cd 228.616†	62.9	0.0005 mg/L	0.00024	0.0005 mg/L	0.00024	43.83%
Ni 232.003†	1099.5	0.0190 mg/L	0.00083	0.0190 mg/L	0.00083	4.38%
Ba 233.527†	23339.7	0.1044 mg/L	0.00308	0.1044 mg/L	0.00308	2.95%
Mn 257.610†	7881.2	0.0037 mg/L	0.00015	0.0037 mg/L	0.00015	4.07%
Cr 267.716†	700.8	0.0021 mg/L	0.00018	0.0021 mg/L	0.00018	8.51%
Fe 273.955†	56949.1	0.8301 mg/L	0.02585	0.8301 mg/L	0.02585	3.11%
Mg 279.077†	8660.2	0.1422 mg/L	0.00278	0.1422 mg/L	0.00278	1.95%
V 292.402†	3765.4	0.0066 mg/L	0.00025	0.0066 mg/L	0.00025	3.75%
Al 308.215†	181774.0	3.682 mg/L	0.1248	3.682 mg/L	0.1248	3.39%
Be 313.107†	-2890.9	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	6.21%
Cu 324.752†	2902.2	0.0060 mg/L	0.00098	0.0060 mg/L	0.00098	16.31%
Ag 338.289†	392.5	0.0005 mg/L	0.00028	0.0005 mg/L	0.00028	60.73%
Na 330.237†	521264.6	311.7 mg/L	10.22	311.7 mg/L	10.22	3.28%
Ca 227.546†	76291.6	94.86 mg/L	2.887	94.86 mg/L	2.887	3.04%
Al RADIAL†	19131.4	3.343 mg/L	0.0248	3.343 mg/L	0.0248	0.74%
Fe RADIAL†	1220.1	0.8294 mg/L	0.00353	0.8294 mg/L	0.00353	0.43%
Ca RADIAL†	1676934.8	94.34 mg/L	0.106	94.34 mg/L	0.106	0.11%
K RADIAL†	336144.3	115.4 mg/L	0.28	115.4 mg/L	0.28	0.25%
Mg RADIAL†	227.2	0.1499 mg/L	0.00481	0.1499 mg/L	0.00481	3.21%
Na RADIAL†	7261190.4	283.6 mg/L	5.82	283.6 mg/L	5.82	2.05%
Mo 202.031	3119.0	0.039 mg/L	0.0005	0.039 mg/L	0.0005	1.26%

Sequence No.: 24

Sample ID: 16C0449-07

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 20

Date Collected: 3/14/2016 4:37:00 PM

Data Type: Reprocessed on 3/15/2016 5:41:18 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	23445764.2	4.198 mg/L	0.0149			0.36%
Y RADIAL	699316.7	4.261 mg/L	0.0462			1.08%
As 188.979†	-6.7	-0.0011 mg/L	0.00178	-0.0011 mg/L	0.00178	158.06%
Tl 190.801†	-43.7	-0.0054 mg/L	0.00142	-0.0054 mg/L	0.00142	26.51%
Se 196.026†	-6.4	-0.0019 mg/L	0.00177	-0.0019 mg/L	0.00177	94.42%
Zn 206.200†	2525.9	0.0188 mg/L	0.00026	0.0188 mg/L	0.00026	1.37%

Sb 206.836†	-13.1	-0.0014 mg/L	0.00114	-0.0014 mg/L	0.00114	80.34%
Pb 220.353†	73.1	0.0031 mg/L	0.00099	0.0031 mg/L	0.00099	31.67%
Cd 226.502†	23.2	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	404.43%
Co 228.616†	127.1	0.0011 mg/L	0.00013	0.0011 mg/L	0.00013	11.52%
Ni 232.003†	-156.0	-0.0027 mg/L	0.00066	-0.0027 mg/L	0.00066	24.15%
Ba 233.527†	59183.1	0.2648 mg/L	0.00232	0.2648 mg/L	0.00232	0.87%
Mn 257.610†	201350.3	0.0915 mg/L	0.00068	0.0915 mg/L	0.00068	0.74%
Cr 267.716†	814.7	0.0025 mg/L	0.00009	0.0025 mg/L	0.00009	3.67%
Fe 273.955†	52588.3	0.7665 mg/L	0.00450	0.7665 mg/L	0.00450	0.59%
Mg 279.077†	1414875.9	23.25 mg/L	0.187	23.25 mg/L	0.187	0.81%
V 292.402†	542.5	0.0009 mg/L	0.00001	0.0009 mg/L	0.00001	1.46%
Al 308.215†	5392.5	0.1069 mg/L	0.00413	0.1069 mg/L	0.00413	3.86%
Be 313.107†	-1950.6	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	5.11%
Cu 324.752†	971.5	0.0021 mg/L	0.00030	0.0021 mg/L	0.00030	14.31%
Ag 338.289†	121.1	-0.0003 mg/L	0.00021	-0.0003 mg/L	0.00021	83.15%
Na 330.237†	246128.0	147.2 mg/L	1.63	147.2 mg/L	1.63	1.11%
Ca 227.546†	52798.9	65.65 mg/L	0.719	65.65 mg/L	0.719	1.09%
Al RADIAL†	411.1	0.0700 mg/L	0.00457	0.0700 mg/L	0.00457	6.53%
Fe RADIAL†	1094.7	0.7442 mg/L	0.01748	0.7442 mg/L	0.01748	2.35%
Ca RADIAL†	1156656.9	65.07 mg/L	0.322	65.07 mg/L	0.322	0.49%
K RADIAL†	65334.4	22.43 mg/L	0.004	22.43 mg/L	0.004	0.02%
Mg RADIAL†	34728.6	22.93 mg/L	0.574	22.93 mg/L	0.574	2.50%
Na RADIAL†	3916553.4	152.9 mg/L	6.63	152.9 mg/L	6.63	4.34%
Mo 202.031†	137.0	0.002 mg/L	0.0001	0.002 mg/L	0.0001	6.60%

Sequence No.: 25

Sample ID: 16C0449-08

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 21

Date Collected: 3/14/2016 4:42:11 PM

Data Type: Reprocessed on 3/15/2016 5:41:19 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	22319173.2	3.996 mg/L	0.0268			0.67%
Y RADIAL	686671.6	4.184 mg/L	0.0866			2.07%
As 188.979†	12.2	0.0023 mg/L	0.00379	0.0023 mg/L	0.00379	161.35%
Tl 190.801†	-48.4	-0.0059 mg/L	0.00165	-0.0059 mg/L	0.00165	28.19%
Se 196.026†	-3.6	-0.0005 mg/L	0.00228	-0.0005 mg/L	0.00228	443.59%
Zn 206.200†	3494.7	0.0260 mg/L	0.00022	0.0260 mg/L	0.00022	0.85%
Sb 206.836†	-4.7	-0.0004 mg/L	0.00200	-0.0004 mg/L	0.00200	445.58%
Pb 220.353†	15.1	0.0055 mg/L	0.00114	0.0055 mg/L	0.00114	20.74%
Cd 226.502†	39.9	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	82.17%
Co 228.616†	325.5	0.0028 mg/L	0.00013	0.0028 mg/L	0.00013	4.58%
Ni 232.003†	2719.1	0.0470 mg/L	0.00004	0.0470 mg/L	0.00004	0.09%
Ba 233.527†	113082.3	0.5060 mg/L	0.00128	0.5060 mg/L	0.00128	0.25%
Mn 257.610†	37242.3	0.0171 mg/L	0.00004	0.0171 mg/L	0.00004	0.26%
Cr 267.716†	996.3	0.0031 mg/L	0.00029	0.0031 mg/L	0.00029	9.32%
Fe 273.955†	125268.3	1.826 mg/L	0.0061	1.826 mg/L	0.0061	0.33%
Mg 279.077†	7477.7	0.1226 mg/L	0.00139	0.1226 mg/L	0.00139	1.13%
V 292.402†	1892.0	0.0033 mg/L	0.00017	0.0033 mg/L	0.00017	5.27%
Al 308.215†	103226.1	2.084 mg/L	0.0034	2.084 mg/L	0.0034	0.16%
Be 313.107†	-3237.3	-0.0004 mg/L	0.00006	-0.0004 mg/L	0.00006	15.73%
Cu 324.752†	3830.3	0.0080 mg/L	0.00019	0.0080 mg/L	0.00019	2.34%
Ag 338.289†	768.2	-0.0009 mg/L	0.00032	-0.0009 mg/L	0.00032	33.42%
Na 330.237†	395934.4	237.0 mg/L	0.64	237.0 mg/L	0.64	0.27%
Ca 227.546†	300643.3	373.8 mg/L	1.03	373.8 mg/L	1.03	0.27%
Al RADIAL†	10965.4	1.907 mg/L	0.0411	1.907 mg/L	0.0411	2.15%
Fe RADIAL†	2578.0	1.753 mg/L	0.0323	1.753 mg/L	0.0323	1.85%
Ca RADIAL†	6195089.3	348.5 mg/L	6.95	348.5 mg/L	6.95	2.00%
K RADIAL†	302142.4	103.7 mg/L	0.43	103.7 mg/L	0.43	0.42%
Mg RADIAL†	197.0	0.1299 mg/L	0.01065	0.1299 mg/L	0.01065	8.20%
Na RADIAL†	5437876.5	212.4 mg/L	5.68	212.4 mg/L	5.68	2.67%
Mo 202.031†	1780.7	0.022 mg/L	0.0003	0.022 mg/L	0.0003	1.45%

Sequence No.: 26

Sample ID: 16C0449-09

Analyst: KV

Autosampler Location: 22

Date Collected: 3/14/2016 4:47:21 PM

Data Type: Reprocessed on 3/15/2016 5:41:20 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-09

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units			
Y 371.029	23035648.9	4.125 mg/L	0.0111					0.27%
Y RADIAL	707985.8	4.314 mg/L	0.0600					1.39%
As 188.979†	20.9	0.0038 mg/L	0.00127		0.0038 mg/L	0.00127		33.18%
Tl 190.801†	-32.8	-0.0040 mg/L	0.00088		-0.0040 mg/L	0.00088		22.09%
Se 196.026†	-2.4	-0.0004 mg/L	0.00696		-0.0004 mg/L	0.00696		>999.9%
Zn 206.200†	3760.2	0.0280 mg/L	0.00032		0.0280 mg/L	0.00032		1.16%
Sb 206.836†	-9.4	-0.0010 mg/L	0.00067		-0.0010 mg/L	0.00067		67.51%
Pb 220.353†	119.3	0.0087 mg/L	0.00086		0.0087 mg/L	0.00086		9.90%
Cd 226.502†	236.7	0.0005 mg/L	0.00010		0.0005 mg/L	0.00010		18.90%
Co 228.616†	342.6	0.0029 mg/L	0.00016		0.0029 mg/L	0.00016		5.37%
Ni 232.003†	2775.6	0.0480 mg/L	0.00108		0.0480 mg/L	0.00108		2.25%
Ba 233.527†	113449.1	0.5076 mg/L	0.00468		0.5076 mg/L	0.00468		0.92%
Mn 257.610†	71274.3	0.0325 mg/L	0.00023		0.0325 mg/L	0.00023		0.72%
Cr 267.716†	1198.5	0.0037 mg/L	0.00002		0.0037 mg/L	0.00002		0.66%
Fe 273.955†	76669.0	1.118 mg/L	0.0129		1.118 mg/L	0.0129		1.16%
Mg 279.077†	9586.9	0.1574 mg/L	0.00131		0.1574 mg/L	0.00131		0.83%
V 292.402†	2070.3	0.0036 mg/L	0.00007		0.0036 mg/L	0.00007		1.91%
Al 308.215†	107125.6	2.163 mg/L	0.0224		2.163 mg/L	0.0224		1.03%
Be 313.107†	-1980.1	-0.0002 mg/L	0.00003		-0.0002 mg/L	0.00003		13.80%
Cu 324.752†	4162.4	0.0086 mg/L	0.00022		0.0086 mg/L	0.00022		2.60%
Ag 338.289†	839.4	-0.0006 mg/L	0.00041		-0.0006 mg/L	0.00041		63.94%
Na 330.237†	397729.9	238.1 mg/L	2.71		238.1 mg/L	2.71		1.14%
Ca 227.546†	300542.0	373.7 mg/L	4.49		373.7 mg/L	4.49		1.20%
Al RADIAL†	11356.7	1.976 mg/L	0.0431		1.976 mg/L	0.0431		2.18%
Fe RADIAL†	1554.2	1.057 mg/L	0.0247		1.057 mg/L	0.0247		2.34%
Ca RADIAL†	6120209.0	344.3 mg/L	6.05		344.3 mg/L	6.05		1.76%
K RADIAL†	301848.1	103.6 mg/L	0.60		103.6 mg/L	0.60		0.58%
Mg RADIAL†	235.2	0.1552 mg/L	0.00582		0.1552 mg/L	0.00582		3.75%
Na RADIAL†	5372074.5	209.8 mg/L	5.35		209.8 mg/L	5.35		2.55%
Mo 202.031†	1776.3	0.022 mg/L	0.0002		0.022 mg/L	0.0002		1.12%

Sequence No.: 27

Sample ID: 16C0449-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 23

Date Collected: 3/14/2016 4:52:31 PM

Data Type: Reprocessed on 3/15/2016 5:41:20 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0449-10

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units			
Y 371.029	26440651.5	4.734 mg/L	0.0339					0.72%
Y RADIAL	750110.1	4.571 mg/L	0.0499					1.09%
As 188.979†	-11.0	-0.0019 mg/L	0.00169	-0.0019 mg/L	0.00169	86.77%		
Tl 190.801†	-0.7	-0.0001 mg/L	0.00297	-0.0001 mg/L	0.00297	>999.9%		
Se 196.026†	-3.1	-0.0010 mg/L	0.00418	-0.0010 mg/L	0.00418	413.52%		
Zn 206.200†	1956.2	0.0146 mg/L	0.00010	0.0146 mg/L	0.00010	0.68%		
Sb 206.836†	-27.0	-0.0030 mg/L	0.00095	-0.0030 mg/L	0.00095	31.82%		
Pb 220.353†	8.8	0.0003 mg/L	0.00040	0.0003 mg/L	0.00040	145.90%		
Cd 226.502†	-34.8	-0.0001 mg/L	0.00004	-0.0001 mg/L	0.00004	39.55%		
Co 228.616†	-32.4	-0.0003 mg/L	0.00004	-0.0003 mg/L	0.00004	16.00%		
Ni 232.003†	-115.1	-0.0020 mg/L	0.00042	-0.0020 mg/L	0.00042	21.26%		
Ba 233.527†	63.6	0.0003 mg/L	0.00003	0.0003 mg/L	0.00003	9.12%		
Mn 257.610†	5281.3	0.0024 mg/L	0.00007	0.0024 mg/L	0.00007	2.83%		
Cr 267.716†	489.4	0.0015 mg/L	0.00012	0.0015 mg/L	0.00012	8.05%		
Fe 273.955†	5732.8	0.0836 mg/L	0.00064	0.0836 mg/L	0.00064	0.77%		
Mg 279.077†	1523.5	0.0250 mg/L	0.00195	0.0250 mg/L	0.00195	7.78%		
V 292.402†	-28.2	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	48.18%		
Al 308.215†	1137.5	0.0231 mg/L	0.00538	0.0231 mg/L	0.00538	23.34%		
Be 313.107†	-50.2	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	678.74%		
Cu 324.752†	-1295.0	-0.0026 mg/L	0.00022	-0.0026 mg/L	0.00022	8.60%		
Ag 338.289†	-148.2	-0.0006 mg/L	0.00042	-0.0006 mg/L	0.00042	74.13%		

Na 330.237†	364.5	0.2186 mg/L	0.06132	0.2186 mg/L	0.06132	28.04%
Ca 227.546†	244.9	0.3051 mg/L	0.00785	0.3051 mg/L	0.00785	2.57%
Al RADIAL†	145.8	0.0255 mg/L	0.00196	0.0255 mg/L	0.00196	7.67%
Fe RADIAL†	117.4	0.0798 mg/L	0.00337	0.0798 mg/L	0.00337	4.23%
Ca RADIAL†	7938.0	0.4465 mg/L	0.01210	0.4465 mg/L	0.01210	2.71%
K RADIAL†	316.5	0.1086 mg/L	0.00705	0.1086 mg/L	0.00705	6.49%
Mg RADIAL†	50.7	0.0335 mg/L	0.00655	0.0335 mg/L	0.00655	19.57%
Na RADIAL†	2613.7	0.1021 mg/L	0.01406	0.1021 mg/L	0.01406	13.77%
Mo 202.031	-66.4	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	20.59%

Sequence No.: 28

Sample ID: 16C0466-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 24

Date Collected: 3/14/2016 4:57:34 PM

Data Type: Reprocessed on 3/15/2016 5:41:21 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0466-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26532780.7	4.751 mg/L		0.0381			0.80%
Y RADIAL	748030.9	4.558 mg/L		0.0711			1.56%
As 188.979†	-14.3	-0.0025 mg/L		0.00009	-0.0025 mg/L	0.00009	3.62%
Tl 190.801†	-10.1	-0.0012 mg/L		0.00035	-0.0012 mg/L	0.00035	27.95%
Se 196.026†	-4.9	-0.0016 mg/L		0.00013	-0.0016 mg/L	0.00013	8.23%
Zn 206.200†	1666.6	0.0124 mg/L		0.00008	0.0124 mg/L	0.00008	0.64%
Sb 206.836†	-37.9	-0.0042 mg/L		0.00094	-0.0042 mg/L	0.00094	22.60%
Pb 220.353†	15.5	0.0005 mg/L		0.00021	0.0005 mg/L	0.00021	44.55%
Cd 226.502†	-6.7	0.0000 mg/L		0.00002	0.0000 mg/L	0.00002	64.49%
Co 228.616†	-33.1	-0.0003 mg/L		0.00003	-0.0003 mg/L	0.00003	9.66%
Ni 232.003†	-101.3	-0.0018 mg/L		0.00013	-0.0018 mg/L	0.00013	7.36%
Ba 233.527†	-82.1	-0.0004 mg/L		0.00008	-0.0004 mg/L	0.00008	21.18%
Mn 257.610†	2106.4	0.0010 mg/L		0.00003	0.0010 mg/L	0.00003	2.58%
Cr 267.716†	345.7	0.0011 mg/L		0.00010	0.0011 mg/L	0.00010	9.24%
Fe 273.955†	8544.2	0.1245 mg/L		0.00237	0.1245 mg/L	0.00237	1.91%
Mg 279.077†	786.6	0.0129 mg/L		0.00150	0.0129 mg/L	0.00150	11.62%
V 292.402†	-10.0	0.0000 mg/L		0.00015	0.0000 mg/L	0.00015	616.59%
Al 308.215†	340.2	0.0069 mg/L		0.00427	0.0069 mg/L	0.00427	61.84%
Be 313.107†	60.9	0.0000 mg/L		0.00003	0.0000 mg/L	0.00003	422.11%
Cu 324.752†	-543.4	-0.0011 mg/L		0.00033	-0.0011 mg/L	0.00033	30.50%
Ag 338.289†	-178.0	-0.0007 mg/L		0.00034	-0.0007 mg/L	0.00034	49.15%
Na 330.237†	518.7	0.3108 mg/L		0.10939	0.3108 mg/L	0.10939	35.20%
Ca 227.546†	66.3	0.0835 mg/L		0.02157	0.0835 mg/L	0.02157	25.82%
Al RADIAL†	52.7	0.0092 mg/L		0.00294	0.0092 mg/L	0.00294	31.88%
Fe RADIAL†	191.7	0.1303 mg/L		0.00266	0.1303 mg/L	0.00266	2.04%
Ca RADIAL†	2918.9	0.1642 mg/L		0.00687	0.1642 mg/L	0.00687	4.18%
K RADIAL†	81.6	0.0280 mg/L		0.01012	0.0280 mg/L	0.01012	36.14%
Mg RADIAL†	26.4	0.0174 mg/L		0.00273	0.0174 mg/L	0.00273	15.70%
Na RADIAL†	3990.7	0.1558 mg/L		0.01653	0.1558 mg/L	0.01653	10.60%
Mo 202.031	-76.2	-0.001 mg/L		0.0001	-0.001 mg/L	0.0001	6.56%

Sequence No.: 29

Sample ID: 16C0467-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 25

Date Collected: 3/14/2016 5:02:37 PM

Data Type: Reprocessed on 3/15/2016 5:41:22 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0467-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25643483.4	4.592 mg/L		0.0551			1.20%
Y RADIAL	756991.3	4.613 mg/L		0.0616			1.34%
As 188.979†	-2.8	-0.0005 mg/L		0.00110	-0.0005 mg/L	0.00110	230.89%
Tl 190.801†	-15.4	-0.0019 mg/L		0.00221	-0.0019 mg/L	0.00221	116.37%
Se 196.026†	-19.9	-0.0067 mg/L		0.00367	-0.0067 mg/L	0.00367	55.11%
Zn 206.200†	1655.3	0.0123 mg/L		0.00039	0.0123 mg/L	0.00039	3.18%
Sb 206.836†	-17.8	-0.0020 mg/L		0.00113	-0.0020 mg/L	0.00113	57.71%

Pb 220.353†	-25.1	0.0000 mg/L	0.00034	0.0000 mg/L	0.00034	691.44%
Cd 226.502†	5.9	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	>999.9%
Co 228.616†	-51.3	-0.0004 mg/L	0.00005	-0.0004 mg/L	0.00005	11.85%
Ni 232.003†	-139.8	-0.0024 mg/L	0.00037	-0.0024 mg/L	0.00037	15.34%
Ba 233.527†	10164.7	0.0455 mg/L	0.00079	0.0455 mg/L	0.00079	1.74%
Mn 257.610†	4259.3	0.0020 mg/L	0.00005	0.0020 mg/L	0.00005	2.37%
Cr 267.716†	393.7	0.0012 mg/L	0.00008	0.0012 mg/L	0.00008	7.06%
Fe 273.955†	14495.0	0.2113 mg/L	0.00279	0.2113 mg/L	0.00279	1.32%
Mg 279.077†	1350164.4	22.19 mg/L	0.384	22.19 mg/L	0.384	1.73%
V 292.402†	199.4	0.0003 mg/L	0.00023	0.0003 mg/L	0.00023	67.25%
Al 308.215†	1148.7	0.0211 mg/L	0.00299	0.0211 mg/L	0.00299	14.22%
Be 313.107†	-546.4	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	37.59%
Cu 324.752†	-319.8	-0.0006 mg/L	0.00007	-0.0006 mg/L	0.00007	10.96%
Ag 338.289†	45.9	-0.0005 mg/L	0.00065	-0.0005 mg/L	0.00065	135.14%
Na 330.237†	58347.0	34.93 mg/L	0.582	34.93 mg/L	0.582	1.67%
Ca 227.546†	44219.5	54.98 mg/L	0.992	54.98 mg/L	0.992	1.81%
Al RADIAL†	196.8	0.0327 mg/L	0.00895	0.0327 mg/L	0.00895	27.36%
Fe RADIAL†	309.6	0.2105 mg/L	0.00542	0.2105 mg/L	0.00542	2.58%
Ca RADIAL†	1038460.8	58.42 mg/L	0.043	58.42 mg/L	0.043	0.07%
K RADIAL†	7716.5	2.649 mg/L	0.0409	2.649 mg/L	0.0409	1.55%
Mg RADIAL†	32640.7	21.55 mg/L	0.073	21.55 mg/L	0.073	0.34%
Na RADIAL†	1119545.5	43.72 mg/L	0.247	43.72 mg/L	0.247	0.57%
Mo 202.031	-68.2	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	16.93%

Sequence No.: 30

Sample ID: 16C0467-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 26

Date Collected: 3/14/2016 5:07:49 PM

Data Type: Reprocessed on 3/15/2016 5:41:23 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0467-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25530321.9	4.571 mg/L		0.0365			0.80%
Y RADIAL	738432.0	4.500 mg/L		0.0773			1.72%
As 188.979†	-12.8	-0.0022 mg/L		0.00078	-0.0022 mg/L	0.00078	35.80%
Tl 190.801†	-7.7	-0.0009 mg/L		0.00165	-0.0009 mg/L	0.00165	190.32%
Se 196.026†	-6.5	-0.0018 mg/L		0.00914	-0.0018 mg/L	0.00914	502.40%
Zn 206.200†	1254.4	0.0093 mg/L		0.00008	0.0093 mg/L	0.00008	0.88%
Sb 206.836†	-17.6	-0.0019 mg/L		0.00206	-0.0019 mg/L	0.00206	107.91%
Pb 220.353†	-38.5	-0.0001 mg/L		0.00079	-0.0001 mg/L	0.00079	>999.9%
Cd 226.502†	58.8	0.0001 mg/L		0.00008	0.0001 mg/L	0.00008	98.53%
Co 228.616†	56.1	0.0005 mg/L		0.00009	0.0005 mg/L	0.00009	18.59%
Ni 232.003†	-115.2	-0.0020 mg/L		0.00034	-0.0020 mg/L	0.00034	16.98%
Ba 233.527†	15993.8	0.0716 mg/L		0.00077	0.0716 mg/L	0.00077	1.07%
Mn 257.610†	1190733.7	0.5409 mg/L		0.00976	0.5409 mg/L	0.00976	1.80%
Cr 267.716†	448.0	0.0014 mg/L		0.00034	0.0014 mg/L	0.00034	24.52%
Fe 273.955†	65041.9	0.9481 mg/L		0.00155	0.9481 mg/L	0.00155	0.16%
Mg 279.077†	1765178.0	29.01 mg/L		0.568	29.01 mg/L	0.568	1.96%
V 292.402†	67.6	0.0001 mg/L		0.00007	0.0001 mg/L	0.00007	99.37%
Al 308.215†	4316.9	0.0844 mg/L		0.00151	0.0844 mg/L	0.00151	1.79%
Be 313.107†	-1169.6	-0.0001 mg/L		0.00004	-0.0001 mg/L	0.00004	30.92%
Cu 324.752†	121.6	0.0004 mg/L		0.00011	0.0004 mg/L	0.00011	28.89%
Ag 338.289†	124.5	-0.0004 mg/L		0.00008	-0.0004 mg/L	0.00008	18.96%
Na 330.237†	40992.7	24.59 mg/L		0.144	24.59 mg/L	0.144	0.58%
Ca 227.546†	61419.3	76.37 mg/L		0.408	76.37 mg/L	0.408	0.53%
Al RADIAL†	456.5	0.0775 mg/L		0.00425	0.0775 mg/L	0.00425	5.48%
Fe RADIAL†	1391.2	0.9458 mg/L		0.01189	0.9458 mg/L	0.01189	1.26%
Ca RADIAL†	1457955.5	82.02 mg/L		0.074	82.02 mg/L	0.074	0.09%
K RADIAL†	11239.9	3.858 mg/L		0.0236	3.858 mg/L	0.0236	0.61%
Mg RADIAL†	45354.0	29.94 mg/L		0.421	29.94 mg/L	0.421	1.41%
Na RADIAL†	800187.7	31.25 mg/L		0.184	31.25 mg/L	0.184	0.59%
Mo 202.031	12.4	0.000 mg/L		0.0000	0.000 mg/L	0.0000	26.52%

Sequence No.: 31

Sample ID: 16C0467-03

Analyst: KV

Logged In Analyst (Original) : administrator

Autosampler Location: 27

Date Collected: 3/14/2016 5:12:57 PM

Data Type: Reprocessed on 3/15/2016 5:41:23 AM

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0467-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25924577.4	4.642 mg/L		0.0143			0.31%
Y RADIAL	756554.1	4.610 mg/L		0.0883			1.91%
As 188.979†	-16.3	-0.0028 mg/L		0.00174	-0.0028 mg/L	0.00174	61.22%
Tl 190.801†	-14.8	-0.0018 mg/L		0.00196	-0.0018 mg/L	0.00196	109.88%
Se 196.026†	4.8	0.0019 mg/L		0.00342	0.0019 mg/L	0.00342	182.82%
Zn 206.200†	1480.8	0.0110 mg/L		0.00006	0.0110 mg/L	0.00006	0.51%
Sb 206.836†	-33.4	-0.0037 mg/L		0.00131	-0.0037 mg/L	0.00131	35.88%
Pb 220.353†	-12.2	0.0004 mg/L		0.00017	0.0004 mg/L	0.00017	47.89%
Cd 226.502†	43.0	0.0001 mg/L		0.00003	0.0001 mg/L	0.00003	49.49%
Co 228.616†	97.5	0.0008 mg/L		0.00013	0.0008 mg/L	0.00013	15.01%
Ni 232.003†	-72.5	-0.0013 mg/L		0.00028	-0.0013 mg/L	0.00028	22.39%
Ba 233.527†	12517.9	0.0560 mg/L		0.00041	0.0560 mg/L	0.00041	0.73%
Mn 257.610†	398191.8	0.1809 mg/L		0.00097	0.1809 mg/L	0.00097	0.53%
Cr 267.716†	517.8	0.0016 mg/L		0.00023	0.0016 mg/L	0.00023	14.69%
Fe 273.955†	43103.9	0.6283 mg/L		0.00342	0.6283 mg/L	0.00342	0.54%
Mg 279.077†	1114864.8	18.32 mg/L		0.084	18.32 mg/L	0.084	0.46%
V 292.402†	419.3	0.0007 mg/L		0.00007	0.0007 mg/L	0.00007	10.05%
Al 308.215†	12995.2	0.2615 mg/L		0.00042	0.2615 mg/L	0.00042	0.16%
Be 313.107†	-755.7	-0.0001 mg/L		0.00003	-0.0001 mg/L	0.00003	37.13%
Cu 324.752†	-86.8	-0.0001 mg/L		0.00028	-0.0001 mg/L	0.00028	292.60%
Ag 338.289†	53.2	-0.0004 mg/L		0.00008	-0.0004 mg/L	0.00008	20.43%
Na 330.237†	53038.3	31.76 mg/L		0.114	31.76 mg/L	0.114	0.36%
Ca 227.546†	38942.0	48.42 mg/L		0.285	48.42 mg/L	0.285	0.59%
Al RADIAL†	1565.0	0.2722 mg/L		0.00487	0.2722 mg/L	0.00487	1.79%
Fe RADIAL†	926.9	0.6302 mg/L		0.01192	0.6302 mg/L	0.01192	1.89%
Ca RADIAL†	930659.7	52.35 mg/L		0.056	52.35 mg/L	0.056	0.11%
K RADIAL†	9148.3	3.140 mg/L		0.0163	3.140 mg/L	0.0163	0.52%
Mg RADIAL†	28349.6	18.72 mg/L		0.269	18.72 mg/L	0.269	1.44%
Na RADIAL†	1052556.7	41.10 mg/L		0.257	41.10 mg/L	0.257	0.63%
Mo 202.031	-69.1	-0.001 mg/L		0.0002	-0.001 mg/L	0.0002	22.97%

Sequence No.: 32

Sample ID: 16C0477-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 28

Date Collected: 3/14/2016 5:17:59 PM

Data Type: Reprocessed on 3/15/2016 5:41:24 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0477-10

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	23873130.5	4.275 mg/L		0.0099			0.23%
Y RADIAL	757810.3	4.618 mg/L		0.0274			0.59%
As 188.979†	43.5	0.0144 mg/L		0.00166	0.0144 mg/L	0.00166	11.53%
Tl 190.801†	-32.7	0.0019 mg/L		0.00303	0.0019 mg/L	0.00303	158.71%
Se 196.026†	-72.3	0.0021 mg/L		0.00224	0.0021 mg/L	0.00224	106.40%
Zn 206.200†	2389968.1	17.80 mg/L		0.122	17.80 mg/L	0.122	0.69%
Sb 206.836†	-23.0	0.0001 mg/L		0.00181	0.0001 mg/L	0.00181	>999.9%
Pb 220.353†	153415.0	4.699 mg/L		0.0373	4.699 mg/L	0.0373	0.79%
Cd 226.502†	9782.6	0.0193 mg/L		0.00019	0.0193 mg/L	0.00019	1.00%
Co 228.616†	4168.9	0.0366 mg/L		0.00046	0.0366 mg/L	0.00046	1.26%
Ni 232.003†	30521.2	0.5271 mg/L		0.00559	0.5271 mg/L	0.00559	1.06%
Ba 233.527†	342475.5	1.532 mg/L		0.0134	1.532 mg/L	0.0134	0.87%
Mn 257.610†	5152637.2	2.349 mg/L		0.0138	2.349 mg/L	0.0138	0.59%
Cr 267.716†	12290.8	0.0393 mg/L		0.00040	0.0393 mg/L	0.00040	1.02%
Fe 273.955†	4680820.1	68.23 mg/L		0.354	68.23 mg/L	0.354	0.52%
Mg 279.077†	2002102.7	32.90 mg/L		0.202	32.90 mg/L	0.202	0.61%
V 292.402†	60101.3	0.1030 mg/L		0.00129	0.1030 mg/L	0.00129	1.26%
Al 308.215†	1456453.6	29.52 mg/L		0.174	29.52 mg/L	0.174	0.59%
Be 313.107†	28677.2	0.0031 mg/L		0.00004	0.0031 mg/L	0.00004	1.23%
Cu 324.752†	6476479.2	13.14 mg/L		0.061	13.14 mg/L	0.061	0.46%
Ag 338.289†	237.4	-0.0032 mg/L		0.00072	-0.0032 mg/L	0.00072	22.39%
Na 330.237†	551415.8	330.4 mg/L		3.47	330.4 mg/L	3.47	1.05%

Ca 227.546†	424288.4	528.1 mg/L	5.76	528.1 mg/L	5.76	1.09%
Al RADIAL†	155428.2	27.17 mg/L	0.123	27.17 mg/L	0.123	0.45%
Fe RADIAL†	97667.7	66.40 mg/L	0.292	66.40 mg/L	0.292	0.44%
Ca RADIAL†	8618296.8	484.8 mg/L	10.30	484.8 mg/L	10.30	2.13%
K RADIAL†	36489.4	12.53 mg/L	0.074	12.53 mg/L	0.074	0.59%
Mg RADIAL†	48740.4	32.17 mg/L	0.102	32.17 mg/L	0.102	0.32%
Na RADIAL†	6628252.0	258.8 mg/L	6.01	258.8 mg/L	6.01	2.32%
Mo 202.031	-45.4	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	66.40%

Sequence No.: 33

Sample ID: SEQ-CCV3

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/14/2016 5:25:56 PM

Data Type: Reprocessed on 3/15/2016 5:41:25 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV3

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24418597.3	4.372 mg/L		0.0767			1.75%
Y RADIAL	708971.4	4.320 mg/L		0.0199			0.46%
As 188.979†	1445.3	0.2579 mg/L		0.00486	0.2579 mg/L	0.00486	1.88%
Tl 190.801†	2094.7	0.2611 mg/L		0.00275	0.2611 mg/L	0.00275	1.05%
Se 196.026†	737.7	0.2518 mg/L		0.00225	0.2518 mg/L	0.00225	0.89%
Zn 206.200†	360101.5	2.682 mg/L		0.0253	2.682 mg/L	0.0253	0.95%
Sb 206.836†	2246.6	0.2479 mg/L		0.00285	0.2479 mg/L	0.00285	1.15%
Pb 220.353†	8516.3	0.2619 mg/L		0.00438	0.2619 mg/L	0.00438	1.67%
Cd 226.502†	52518.4	0.1280 mg/L		0.00150	0.1280 mg/L	0.00150	1.17%
Cd 228.616†	317938.5	2.688 mg/L		0.0336	2.688 mg/L	0.0336	1.25%
Ni 232.003†	151717.1	2.627 mg/L		0.0301	2.627 mg/L	0.0301	1.14%
Ba 233.527†	2441015.4	10.92 mg/L		0.162	10.92 mg/L	0.162	1.49%
Mn 257.610†	5966345.8	2.710 mg/L		0.0401	2.710 mg/L	0.0401	1.48%
Cr 267.716†	356760.7	1.081 mg/L		0.0122	1.081 mg/L	0.0122	1.12%
Fe 273.955†	368405.1	5.370 mg/L		0.0627	5.370 mg/L	0.0627	1.17%
Mg 279.077†	1581118.1	25.99 mg/L		0.376	25.99 mg/L	0.376	1.45%
V 292.402†	1476451.3	2.610 mg/L		0.0396	2.610 mg/L	0.0396	1.52%
Al 308.215†	509691.4	10.33 mg/L		0.135	10.33 mg/L	0.135	1.31%
Be 313.107†	2403984.6	0.2618 mg/L		0.00429	0.2618 mg/L	0.00429	1.64%
Cu 324.752†	654759.7	1.328 mg/L		0.0165	1.328 mg/L	0.0165	1.24%
Ag 338.289†	346203.8	1.330 mg/L		0.0233	1.330 mg/L	0.0233	1.75%
Na 330.237†	40934.6	24.52 mg/L		0.292	24.52 mg/L	0.292	1.19%
Ca 227.546†	20261.2	25.24 mg/L		0.300	25.24 mg/L	0.300	1.19%
Al RADIAL†	60273.8	10.54 mg/L		0.131	10.54 mg/L	0.131	1.24%
Fe RADIAL†	7728.7	5.254 mg/L		0.0736	5.254 mg/L	0.0736	1.40%
Ca RADIAL†	458905.1	25.82 mg/L		0.009	25.82 mg/L	0.009	0.04%
K RADIAL†	15836.3	5.436 mg/L		0.0250	5.436 mg/L	0.0250	0.46%
Mg RADIAL†	39870.1	26.32 mg/L		0.336	26.32 mg/L	0.336	1.28%
Na RADIAL†	690638.8	26.97 mg/L		0.109	26.97 mg/L	0.109	0.40%
Mo 202.031	78074.1	0.974 mg/L		0.0160	0.974 mg/L	0.0160	1.65%

Sequence No.: 34

Sample ID: SEQ-CCB3

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/14/2016 5:33:44 PM

Data Type: Reprocessed on 3/15/2016 5:41:25 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB3

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26301873.4	4.710 mg/L		0.0400			0.85%
Y RADIAL	739201.6	4.504 mg/L		0.1055			2.34%
As 188.979†	-8.4	-0.0015 mg/L		0.00023	-0.0015 mg/L	0.00023	15.32%
Tl 190.801†	-5.6	-0.0007 mg/L		0.00198	-0.0007 mg/L	0.00198	285.51%
Se 196.026†	-15.7	-0.0053 mg/L		0.00221	-0.0053 mg/L	0.00221	41.57%
Zn 206.200†	775.8	0.0058 mg/L		0.00012	0.0058 mg/L	0.00012	2.13%
Sb 206.836†	-26.0	-0.0029 mg/L		0.00121	-0.0029 mg/L	0.00121	42.15%
Pb 220.353†	-7.8	-0.0002 mg/L		0.00069	-0.0002 mg/L	0.00069	290.48%

Cd 226.502†	-34.3	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	58.23%
Co 228.616†	-32.2	-0.0003 mg/L	0.00007	-0.0003 mg/L	0.00007	25.78%
Ni 232.003†	-93.4	-0.0016 mg/L	0.00069	-0.0016 mg/L	0.00069	42.84%
Ba 233.527†	-64.2	-0.0003 mg/L	0.00012	-0.0003 mg/L	0.00012	40.52%
Mn 257.610†	-147.6	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	67.82%
Cr 267.716†	66.4	0.0002 mg/L	0.00023	0.0002 mg/L	0.00023	115.54%
Fe 273.955†	161.0	0.0023 mg/L	0.00056	0.0023 mg/L	0.00056	23.78%
Mg 279.077†	104.2	0.0017 mg/L	0.00077	0.0017 mg/L	0.00077	45.00%
V 292.402†	14.4	0.0000 mg/L	0.00024	0.0000 mg/L	0.00024	950.99%
Al 308.215†	785.2	0.0159 mg/L	0.00385	0.0159 mg/L	0.00385	24.21%
Be 313.107†	-797.0	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	38.14%
Cu 324.752†	56.7	0.0001 mg/L	0.00041	0.0001 mg/L	0.00041	352.37%
Ag 338.289†	66.7	0.0003 mg/L	0.00017	0.0003 mg/L	0.00017	65.82%
Na 330.237†	147.0	0.0879 mg/L	0.02034	0.0879 mg/L	0.02034	23.14%
Ca 227.546†	-6.5	-0.0080 mg/L	0.01805	-0.0080 mg/L	0.01805	225.39%
Al RADIAL†	71.3	0.0125 mg/L	0.00546	0.0125 mg/L	0.00546	43.81%
Fe RADIAL†	3.3	0.0022 mg/L	0.00148	0.0022 mg/L	0.00148	66.37%
Ca RADIAL†	69.9	0.0039 mg/L	0.00972	0.0039 mg/L	0.00972	247.27%
K RADIAL†	9.5	0.0033 mg/L	0.01874	0.0033 mg/L	0.01874	572.54%
Mg RADIAL†	8.4	0.0055 mg/L	0.01050	0.0055 mg/L	0.01050	189.41%
Na RADIAL†	-5445.7	-0.2127 mg/L	0.05148	-0.2127 mg/L	0.05148	24.21%
Mo 202.031	-46.6	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	25.75%

Sequence No.: 35

Sample ID: 16C0505-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 29

Date Collected: 3/14/2016 5:38:53 PM

Data Type: Reprocessed on 3/15/2016 5:41:26 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0505-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25322967.0	4.534 mg/L	0.0372			0.82%
Y RADIAL	736426.1	4.487 mg/L	0.0429			0.96%
As 188.979†	-1.3	-0.0001 mg/L	0.00167	-0.0001 mg/L	0.00167	>999.9%
Ti 190.801†	-27.7	-0.0034 mg/L	0.00138	-0.0034 mg/L	0.00138	41.18%
Se 196.026†	6.9	0.0027 mg/L	0.00352	0.0027 mg/L	0.00352	129.32%
Zn 206.200†	146105.3	1.088 mg/L	0.0151	1.088 mg/L	0.0151	1.39%
Sb 206.836†	3.5	0.0004 mg/L	0.00130	0.0004 mg/L	0.00130	305.28%
Pb 220.353†	6.8	0.0009 mg/L	0.00006	0.0009 mg/L	0.00006	6.93%
Cd 226.502†	819.4	0.0019 mg/L	0.00005	0.0019 mg/L	0.00005	2.80%
Co 228.616†	-18.2	-0.0001 mg/L	0.00019	-0.0001 mg/L	0.00019	140.55%
Ni 232.003†	969.8	0.0168 mg/L	0.00029	0.0168 mg/L	0.00029	1.72%
Ba 233.527†	49832.2	0.2230 mg/L	0.00300	0.2230 mg/L	0.00300	1.35%
Mn 257.610†	53356.9	0.0244 mg/L	0.00036	0.0244 mg/L	0.00036	1.49%
Cr 267.716†	232.2	0.0007 mg/L	0.00016	0.0007 mg/L	0.00016	21.19%
Fe 273.955†	68689.5	1.001 mg/L	0.0137	1.001 mg/L	0.0137	1.37%
Mg 279.077†	185024.2	3.041 mg/L	0.0450	3.041 mg/L	0.0450	1.48%
V 292.402†	9793.5	0.0173 mg/L	0.00030	0.0173 mg/L	0.00030	1.74%
Al 308.215†	2249.1	0.0443 mg/L	0.00478	0.0443 mg/L	0.00478	10.80%
Be 313.107†	-1239.2	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	21.59%
Cu 324.752†	6213.5	0.0127 mg/L	0.00112	0.0127 mg/L	0.00112	8.80%
Ag 338.289†	163.7	0.0000 mg/L	0.00059	0.0000 mg/L	0.00059	>999.9%
Na 330.237†	9619.3	5.806 mg/L	0.0433	5.806 mg/L	0.0433	0.75%
Ca 227.546†	39129.9	48.66 mg/L	0.660	48.66 mg/L	0.660	1.36%
Al RADIAL†	206.2	0.0346 mg/L	0.00276	0.0346 mg/L	0.00276	7.99%
Fe RADIAL†	1446.0	0.9830 mg/L	0.00525	0.9830 mg/L	0.00525	0.53%
Ca RADIAL†	944469.5	53.13 mg/L	0.077	53.13 mg/L	0.077	0.15%
K RADIAL†	14820.7	5.087 mg/L	0.0218	5.087 mg/L	0.0218	0.43%
Mg RADIAL†	4620.5	3.051 mg/L	0.0063	3.051 mg/L	0.0063	0.21%
Na RADIAL†	145945.7	5.699 mg/L	0.0144	5.699 mg/L	0.0144	0.25%
Mo 202.031	64.4	0.001 mg/L	0.0002	0.001 mg/L	0.0002	22.16%

Sequence No.: 36

Sample ID: 16C0505-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Autosampler Location: 30

Date Collected: 3/14/2016 5:43:56 PM

Data Type: Reprocessed on 3/15/2016 5:41:27 AM

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0505-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25278329.0	4.526 mg/L		0.0518			1.14%
Y RADIAL	744512.6	4.537 mg/L		0.0430			0.95%
As 188.979†	-18.2	-0.0028 mg/L		0.00097	-0.0028 mg/L	0.00097	35.07%
Tl 190.801†	31.2	0.0043 mg/L		0.00211	0.0043 mg/L	0.00211	48.92%
Se 196.026†	2.5	0.0027 mg/L		0.00365	0.0027 mg/L	0.00365	132.99%
Zn 206.200†	95424.7	0.7107 mg/L		0.01175	0.7107 mg/L	0.01175	1.65%
Sb 206.836†	-12.7	-0.0012 mg/L		0.00208	-0.0012 mg/L	0.00208	172.06%
Pb 220.353†	32.0	0.0014 mg/L		0.00089	0.0014 mg/L	0.00089	61.99%
Cd 226.502†	7459.9	0.0179 mg/L		0.00019	0.0179 mg/L	0.00019	1.08%
Co 228.616†	174.0	0.0016 mg/L		0.00020	0.0016 mg/L	0.00020	12.53%
Ni 232.003†	2720.8	0.0470 mg/L		0.00043	0.0470 mg/L	0.00043	0.91%
Ba 233.527†	74006.4	0.3311 mg/L		0.00699	0.3311 mg/L	0.00699	2.11%
Mn 257.610†	7810114.6	3.548 mg/L		0.0551	3.548 mg/L	0.0551	1.55%
Cr 267.716†	702.8	0.0023 mg/L		0.00012	0.0023 mg/L	0.00012	5.20%
Fe 273.955†	339149.2	4.943 mg/L		0.1000	4.943 mg/L	0.1000	2.02%
Mg 279.077†	376801.3	6.192 mg/L		0.1226	6.192 mg/L	0.1226	1.98%
V 292.402†	521.5	0.0007 mg/L		0.00011	0.0007 mg/L	0.00011	16.43%
Al 308.215†	4333.1	0.0866 mg/L		0.00454	0.0866 mg/L	0.00454	5.23%
Be 313.107†	-893.1	-0.0001 mg/L		0.00005	-0.0001 mg/L	0.00005	46.82%
Cu 324.752†	12684.0	0.0263 mg/L		0.00066	0.0263 mg/L	0.00066	2.49%
Ag 338.289†	-66.9	-0.0008 mg/L		0.00027	-0.0008 mg/L	0.00027	34.72%
Na 330.237†	15448.0	9.309 mg/L		0.2208	9.309 mg/L	0.2208	2.37%
Ca 227.546†	40577.9	50.49 mg/L		1.033	50.49 mg/L	1.033	2.05%
Al RADIAL†	508.8	0.0878 mg/L		0.01174	0.0878 mg/L	0.01174	13.37%
Fe RADIAL†	6936.5	4.716 mg/L		0.0903	4.716 mg/L	0.0903	1.92%
Ca RADIAL†	977673.7	55.00 mg/L		0.075	55.00 mg/L	0.075	0.14%
K RADIAL†	18843.9	6.468 mg/L		0.1627	6.468 mg/L	0.1627	2.52%
Mg RADIAL†	9168.6	6.053 mg/L		0.1280	6.053 mg/L	0.1280	2.11%
Na RADIAL†	282582.5	11.04 mg/L		0.134	11.04 mg/L	0.134	1.21%
Mo 202.031	-54.4	-0.001 mg/L		0.0001	-0.001 mg/L	0.0001	13.97%

Sequence No.: 37

Sample ID: 16C0505-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 31

Date Collected: 3/14/2016 5:48:41 PM

Data Type: Reprocessed on 3/15/2016 5:41:28 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0505-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24681523.2	4.419 mg/L		0.0096			0.22%
Y RADIAL	720939.5	4.393 mg/L		0.0287			0.65%
As 188.979†	-5.5	-0.0010 mg/L		0.00083	-0.0010 mg/L	0.00083	85.59%
Tl 190.801†	-23.3	-0.0029 mg/L		0.00153	-0.0029 mg/L	0.00153	53.08%
Se 196.026†	44.2	0.0150 mg/L		0.00122	0.0150 mg/L	0.00122	8.13%
Zn 206.200†	2916.0	0.0217 mg/L		0.00003	0.0217 mg/L	0.00003	0.12%
Sb 206.836†	-8.7	-0.0010 mg/L		0.00040	-0.0010 mg/L	0.00040	42.01%
Pb 220.353†	-31.0	0.0015 mg/L		0.00027	0.0015 mg/L	0.00027	18.53%
Cd 226.502†	100.3	0.0002 mg/L		0.00004	0.0002 mg/L	0.00004	17.29%
Co 228.616†	-11.9	-0.0001 mg/L		0.00010	-0.0001 mg/L	0.00010	105.76%
Ni 232.003†	-135.3	-0.0023 mg/L		0.00050	-0.0023 mg/L	0.00050	21.24%
Ba 233.527†	17497.7	0.0783 mg/L		0.00113	0.0783 mg/L	0.00113	1.45%
Mn 257.610†	177261.7	0.0805 mg/L		0.00110	0.0805 mg/L	0.00110	1.36%
Cr 267.716†	283.1	0.0009 mg/L		0.00014	0.0009 mg/L	0.00014	15.97%
Fe 273.955†	15628.6	0.2278 mg/L		0.00299	0.2278 mg/L	0.00299	1.31%
Mg 279.077†	829090.1	13.63 mg/L		0.160	13.63 mg/L	0.160	1.18%
V 292.402†	733.3	0.0013 mg/L		0.00002	0.0013 mg/L	0.00002	1.70%
Al 308.215†	3328.7	0.0628 mg/L		0.00222	0.0628 mg/L	0.00222	3.54%
Be 313.107†	-1425.4	-0.0002 mg/L		0.00003	-0.0002 mg/L	0.00003	17.91%
Cu 324.752†	2239.7	0.0046 mg/L		0.00055	0.0046 mg/L	0.00055	11.95%
Ag 338.289†	418.2	-0.0003 mg/L		0.00017	-0.0003 mg/L	0.00017	51.25%
Na 330.237†	124747.8	74.73 mg/L		1.135	74.73 mg/L	1.135	1.52%
Ca 227.546†	132399.6	164.6 mg/L		2.32	164.6 mg/L	2.32	1.41%

Al RADIAL†	291.9	0.0460 mg/L	0.00688	0.0460 mg/L	0.00688	14.97%
Fe RADIAL†	342.7	0.2330 mg/L	0.00427	0.2330 mg/L	0.00427	1.83%
Ca RADIAL†	3049858.2	171.6 mg/L	0.24	171.6 mg/L	0.24	0.14%
K RADIAL†	25170.5	8.640 mg/L	0.0406	8.640 mg/L	0.0406	0.47%
Mg RADIAL†	20357.1	13.44 mg/L	0.023	13.44 mg/L	0.023	0.17%
Na RADIAL†	2214825.8	86.49 mg/L	0.464	86.49 mg/L	0.464	0.54%
Mo 202.031	44.5	0.001 mg/L	0.0001	0.001 mg/L	0.0001	26.28%

Sequence No.: 38

Sample ID: 16C0505-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 32

Date Collected: 3/14/2016 5:53:49 PM

Data Type: Reprocessed on 3/15/2016 5:41:28 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0505-04

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24132624.3	4.321 mg/L		0.0600			1.39%
Y RADIAL	725003.2	4.418 mg/L		0.0275			0.62%
As 188.979†	-7.1	-0.0012 mg/L		0.00179	-0.0012 mg/L	0.00179	144.46%
Tl 190.801†	0.8	0.0001 mg/L		0.00066	0.0001 mg/L	0.00066	523.00%
Se 196.026†	-14.5	-0.0048 mg/L		0.00297	-0.0048 mg/L	0.00297	61.67%
Zn 206.200†	4172.4	0.0311 mg/L		0.00034	0.0311 mg/L	0.00034	1.09%
Sb 206.836†	-22.5	-0.0025 mg/L		0.00138	-0.0025 mg/L	0.00138	56.02%
Pb 220.353†	-48.5	0.0014 mg/L		0.00105	0.0014 mg/L	0.00105	74.23%
Cd 226.502†	244.8	0.0006 mg/L		0.00004	0.0006 mg/L	0.00004	6.50%
Co 228.616†	148.3	0.0013 mg/L		0.00008	0.0013 mg/L	0.00008	6.45%
Ni 232.003†	-108.7	-0.0019 mg/L		0.00055	-0.0019 mg/L	0.00055	29.36%
Ba 233.527†	56250.4	0.2517 mg/L		0.00384	0.2517 mg/L	0.00384	1.52%
Mn 257.610†	1470241.3	0.6678 mg/L		0.01175	0.6678 mg/L	0.01175	1.76%
Cr 267.716†	379.5	0.0012 mg/L		0.00014	0.0012 mg/L	0.00014	12.32%
Fe 273.955†	18262.5	0.2662 mg/L		0.00274	0.2662 mg/L	0.00274	1.03%
Mg 279.077†	1427995.2	23.47 mg/L		0.408	23.47 mg/L	0.408	1.74%
V 292.402†	17.8	0.0000 mg/L		0.00005	0.0000 mg/L	0.00005	261.81%
Al 308.215†	1226.4	0.0190 mg/L		0.00402	0.0190 mg/L	0.00402	21.20%
Be 313.107†	-1660.3	-0.0002 mg/L		0.00004	-0.0002 mg/L	0.00004	20.99%
Cu 324.752†	1112.2	0.0023 mg/L		0.00024	0.0023 mg/L	0.00024	10.70%
Ag 338.289†	530.1	-0.0003 mg/L		0.00033	-0.0003 mg/L	0.00033	115.14%
Na 330.237†	528348.8	316.0 mg/L		5.61	316.0 mg/L	5.61	1.78%
Ca 227.546†	168988.5	210.1 mg/L		3.58	210.1 mg/L	3.58	1.70%
Al RADIAL†	76.5	0.0073 mg/L		0.00625	0.0073 mg/L	0.00625	85.82%
Fe RADIAL†	385.2	0.2619 mg/L		0.00877	0.2619 mg/L	0.00877	3.35%
Ca RADIAL†	3666713.0	206.3 mg/L		0.07	206.3 mg/L	0.07	0.04%
K RADIAL†	37990.9	13.04 mg/L		0.344	13.04 mg/L	0.344	2.64%
Mg RADIAL†	35076.5	23.16 mg/L		0.522	23.16 mg/L	0.522	2.25%
Na RADIAL†	7208687.9	281.5 mg/L		3.21	281.5 mg/L	3.21	1.14%
Mo 202.031	-85.6	-0.001 mg/L		0.0001	-0.001 mg/L	0.0001	13.99%

Sequence No.: 39

Sample ID: SEQ-SRD1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 33

Date Collected: 3/14/2016 5:59:08 PM

Data Type: Reprocessed on 3/15/2016 5:41:29 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25925139.4	4.642 mg/L		0.0287			0.62%
Y RADIAL	773115.1	4.711 mg/L		0.0768			1.63%
As 188.979†	-3.3	-0.0005 mg/L		0.00244	-0.0005 mg/L	0.00244	475.43%
Tl 190.801†	-6.9	-0.0008 mg/L		0.00212	-0.0008 mg/L	0.00212	268.90%
Se 196.026†	0.6	0.0005 mg/L		0.00231	0.0005 mg/L	0.00231	466.37%
Zn 206.200†	994.3	0.0074 mg/L		0.00016	0.0074 mg/L	0.00016	2.20%
Sb 206.836†	-32.2	-0.0035 mg/L		0.00147	-0.0035 mg/L	0.00147	41.68%
Pb 220.353†	12.2	0.0007 mg/L		0.00034	0.0007 mg/L	0.00034	48.89%
Cd 226.502†	46.4	0.0001 mg/L		0.00004	0.0001 mg/L	0.00004	65.46%

Co 228.616†	-34.8	-0.0003 mg/L	0.00009	-0.0003 mg/L	0.00009	31.76%
Ni 232.003†	-58.6	-0.0010 mg/L	0.00054	-0.0010 mg/L	0.00054	52.35%
Ba 233.527†	7288.8	0.0326 mg/L	0.00008	0.0326 mg/L	0.00008	0.25%
Mn 257.610†	290642.1	0.1321 mg/L	0.00034	0.1321 mg/L	0.00034	0.26%
Cr 267.716†	131.1	0.0004 mg/L	0.00025	0.0004 mg/L	0.00025	59.56%
Fe 273.955†	54494.6	0.7943 mg/L	0.00233	0.7943 mg/L	0.00233	0.29%
Mg 279.077†	217065.8	3.568 mg/L	0.0083	3.568 mg/L	0.0083	0.23%
V 292.402†	222.3	0.0004 mg/L	0.00014	0.0004 mg/L	0.00014	39.43%
Al 308.215†	2257.1	0.0450 mg/L	0.00429	0.0450 mg/L	0.00429	9.53%
Be 313.107†	-1334.1	-0.0001 mg/L	0.00000	-0.0001 mg/L	0.00000	1.41%
Cu 324.752†	-760.3	-0.0014 mg/L	0.00019	-0.0014 mg/L	0.00019	13.17%
Ag 338.289†	-68.4	-0.0006 mg/L	0.00024	-0.0006 mg/L	0.00024	43.14%
Na 330.237†	71664.0	42.86 mg/L	0.199	42.86 mg/L	0.199	0.46%
Ca 227.546†	20431.4	25.41 mg/L	0.136	25.41 mg/L	0.136	0.53%
Al RADIAL†	135.3	0.0230 mg/L	0.00112	0.0230 mg/L	0.00112	4.86%
Fe RADIAL†	1140.6	0.7754 mg/L	0.01703	0.7754 mg/L	0.01703	2.20%
Ca RADIAL†	479411.7	26.97 mg/L	0.053	26.97 mg/L	0.053	0.20%
K RADIAL†	28242.1	9.694 mg/L	0.0370	9.694 mg/L	0.0370	0.38%
Mg RADIAL†	5313.1	3.508 mg/L	0.0693	3.508 mg/L	0.0693	1.98%
Na RADIAL†	1356297.3	52.97 mg/L	0.280	52.97 mg/L	0.280	0.53%
Mo 202.031	-50.8	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	26.18%

Sequence No.: 40

Sample ID: BC60698-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 34

Date Collected: 3/14/2016 6:04:11 PM

Data Type: Reprocessed on 3/15/2016 5:41:30 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60698-BLK1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	26625672.6	4.768 mg/L		0.0345			0.72%
Y RADIAL	762861.2	4.648 mg/L		0.0270			0.58%
As 188.979†	-10.8	-0.0019 mg/L		0.00199	-0.0019 mg/L	0.00199	102.98%
Tl 190.801†	-0.3	0.0000 mg/L		0.00024	0.0000 mg/L	0.00024	657.03%
Se 196.026†	-6.6	-0.0022 mg/L		0.00379	-0.0022 mg/L	0.00379	169.24%
Zn 206.200†	-20.1	-0.0001 mg/L		0.00006	-0.0001 mg/L	0.00006	39.91%
Sb 206.836†	-38.5	-0.0042 mg/L		0.00085	-0.0042 mg/L	0.00085	20.13%
Pb 220.353†	24.1	0.0007 mg/L		0.00029	0.0007 mg/L	0.00029	39.91%
Co 226.502†	-7.1	0.0000 mg/L		0.00003	0.0000 mg/L	0.00003	174.33%
Co 228.616†	-51.7	-0.0004 mg/L		0.00013	-0.0004 mg/L	0.00013	30.43%
Ni 232.003†	-68.3	-0.0012 mg/L		0.00028	-0.0012 mg/L	0.00028	23.82%
Ba 233.527†	-216.1	-0.0010 mg/L		0.00004	-0.0010 mg/L	0.00004	3.80%
Mn 257.610†	-427.1	-0.0002 mg/L		0.00000	-0.0002 mg/L	0.00000	0.91%
Cr 267.716†	50.1	0.0002 mg/L		0.00015	0.0002 mg/L	0.00015	99.37%
Fe 273.955†	117.3	0.0017 mg/L		0.00063	0.0017 mg/L	0.00063	36.70%
Mg 279.077†	79.1	0.0013 mg/L		0.00080	0.0013 mg/L	0.00080	61.34%
V 292.402†	-105.3	-0.0002 mg/L		0.00009	-0.0002 mg/L	0.00009	46.75%
Al 308.215†	-256.0	-0.0052 mg/L		0.00342	-0.0052 mg/L	0.00342	65.82%
Be 313.107†	-359.9	0.0000 mg/L		0.00004	0.0000 mg/L	0.00004	93.03%
Cu 324.752†	-1924.5	-0.0039 mg/L		0.00025	-0.0039 mg/L	0.00025	6.33%
Ag 338.289†	-49.7	-0.0002 mg/L		0.00088	-0.0002 mg/L	0.00088	459.25%
Na 330.237†	140.0	0.0837 mg/L		0.10338	0.0837 mg/L	0.10338	123.47%
Ca 227.546†	-1.4	-0.0017 mg/L		0.03271	-0.0017 mg/L	0.03271	>999.9%
Al RADIAL†	-12.6	-0.0022 mg/L		0.00479	-0.0022 mg/L	0.00479	217.95%
Fe RADIAL†	6.3	0.0043 mg/L		0.00275	0.0043 mg/L	0.00275	63.92%
Ca RADIAL†	147.7	0.0083 mg/L		0.00165	0.0083 mg/L	0.00165	19.91%
K RADIAL†	-73.8	-0.0253 mg/L		0.01199	-0.0253 mg/L	0.01199	47.29%
Mg RADIAL†	12.4	0.0082 mg/L		0.00452	0.0082 mg/L	0.00452	55.03%
Na RADIAL†	-3231.2	-0.1262 mg/L		0.01479	-0.1262 mg/L	0.01479	11.72%
Mo 202.031	-96.6	-0.001 mg/L		0.0002	-0.001 mg/L	0.0002	15.65%

Sequence No.: 41

Sample ID: BC60698-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 35

Date Collected: 3/14/2016 6:09:20 PM

Data Type: Reprocessed on 3/15/2016 5:41:30 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60698-SRM1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26524533.3	4.749 mg/L	0.0256			0.54%
Y RADIAL	805946.1	4.911 mg/L	0.0388			0.79%
As 188.979†	5931.3	1.074 mg/L	0.0037	1.074 mg/L	0.0037	0.34%
Tl 190.801†	7594.8	0.9609 mg/L	0.03203	0.9609 mg/L	0.03203	3.33%
Se 196.026†	4208.2	1.495 mg/L	0.0073	1.495 mg/L	0.0073	0.49%
Zn 206.200†	222718.5	1.657 mg/L	0.0082	1.657 mg/L	0.0082	0.49%
Sb 206.836†	5307.6	0.5922 mg/L	0.00352	0.5922 mg/L	0.00352	0.59%
Pb 220.353†	28614.1	0.8758 mg/L	0.00219	0.8758 mg/L	0.00219	0.25%
Cd 226.502†	271049.3	0.6500 mg/L	0.00366	0.6500 mg/L	0.00366	0.56%
Co 228.616†	122694.1	1.041 mg/L	0.0047	1.041 mg/L	0.0047	0.45%
Ni 232.003†	58816.4	1.015 mg/L	0.0080	1.015 mg/L	0.0080	0.79%
Ba 233.527†	373381.5	1.671 mg/L	0.0086	1.671 mg/L	0.0086	0.51%
Mn 257.610†	8608033.3	3.933 mg/L	0.0209	3.933 mg/L	0.0209	0.53%
Cr 267.716†	559969.5	1.702 mg/L	0.0101	1.702 mg/L	0.0101	0.59%
Fe 273.955†	11828175.5	172.4 mg/L	0.16	172.4 mg/L	0.16	0.09%
Mg 279.077†	1856046.4	30.48 mg/L	0.168	30.48 mg/L	0.168	0.55%
V 292.402†	454205.9	0.7943 mg/L	0.00439	0.7943 mg/L	0.00439	0.55%
Al 308.215†	4725643.9	95.81 mg/L	0.622	95.81 mg/L	0.622	0.65%
Be 313.107†	9956774.6	1.084 mg/L	0.0018	1.084 mg/L	0.0018	0.16%
Cu 324.752†	668550.8	1.378 mg/L	0.0072	1.378 mg/L	0.0072	0.52%
Ag 338.289†	127394.9	0.4924 mg/L	0.00319	0.4924 mg/L	0.00319	0.65%
Na 330.237†	9551.8	6.586 mg/L	0.0824	6.586 mg/L	0.0824	1.25%
Ca 227.546†	47653.5	60.83 mg/L	0.413	60.83 mg/L	0.413	0.68%
Al RADIAL†	531444.0	92.96 mg/L	1.085	92.96 mg/L	1.085	1.17%
Fe RADIAL†	259557.6	176.5 mg/L	0.64	176.5 mg/L	0.64	0.36%
Ca RADIAL†	1084297.8	61.00 mg/L	0.816	61.00 mg/L	0.816	1.34%
K RADIAL†	89609.0	30.76 mg/L	0.053	30.76 mg/L	0.053	0.17%
Mg RADIAL†	45864.2	30.26 mg/L	0.135	30.26 mg/L	0.135	0.45%
Na RADIAL†	199253.2	7.781 mg/L	0.0697	7.781 mg/L	0.0697	0.90%
Mo 202.031	56245.5	0.702 mg/L	0.0012	0.702 mg/L	0.0012	0.17%

Sequence No.: 42

Sample ID: 16C0407-22

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 36

Date Collected: 3/14/2016 6:16:44 PM

Data Type: Reprocessed on 3/15/2016 5:41:31 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0407-22

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25661102.6	4.595 mg/L	0.0616			1.34%
Y RADIAL	773163.8	4.711 mg/L	0.0539			1.14%
As 188.979†	18.3	0.0125 mg/L	0.00314	0.0125 mg/L	0.00314	25.18%
Tl 190.801†	-272.0	-0.0256 mg/L	0.00109	-0.0256 mg/L	0.00109	4.27%
Se 196.026†	-93.1	0.0053 mg/L	0.00558	0.0053 mg/L	0.00558	106.10%
Zn 206.200†	61399.3	0.4564 mg/L	0.00343	0.4564 mg/L	0.00343	0.75%
Sb 206.836†	-125.8	-0.0102 mg/L	0.00214	-0.0102 mg/L	0.00214	20.98%
Pb 220.353†	13134.8	0.4026 mg/L	0.00402	0.4026 mg/L	0.00402	1.00%
Cd 226.502†	2756.7	0.0003 mg/L	0.00009	0.0003 mg/L	0.00009	29.25%
Co 228.616†	6204.5	0.0544 mg/L	0.00070	0.0544 mg/L	0.00070	1.29%
Ni 232.003†	9590.2	0.1642 mg/L	0.00177	0.1642 mg/L	0.00177	1.08%
Ba 233.527†	152127.7	0.6807 mg/L	0.00511	0.6807 mg/L	0.00511	0.75%
Mn 257.610†	6809435.3	3.105 mg/L	0.0210	3.105 mg/L	0.0210	0.68%
Cr 267.716†	40923.5	0.1268 mg/L	0.00138	0.1268 mg/L	0.00138	1.09%
Fe 273.955†	6427459.7	93.69 mg/L	0.653	93.69 mg/L	0.653	0.70%
Mg 279.077†	1750345.5	28.75 mg/L	0.225	28.75 mg/L	0.225	0.78%
V 292.402†	81798.4	0.1400 mg/L	0.00120	0.1400 mg/L	0.00120	0.86%
Al 308.215†	2382921.6	48.31 mg/L	0.256	48.31 mg/L	0.256	0.53%
Be 313.107†	5477.6	0.0006 mg/L	0.00013	0.0006 mg/L	0.00013	22.00%
Cu 324.752†	74243.4	0.1625 mg/L	0.00267	0.1625 mg/L	0.00267	1.64%
Ag 338.289†	-5023.9	-0.0183 mg/L	0.00083	-0.0183 mg/L	0.00083	4.52%
Na 330.237†	1154.3	1.188 mg/L	0.0639	1.188 mg/L	0.0639	5.38%
Ca 227.546†	56493.7	71.06 mg/L	0.711	71.06 mg/L	0.711	1.00%
Al RADIAL†	272420.6	47.65 mg/L	0.197	47.65 mg/L	0.197	0.41%

Fe RADIAL†	135223.3	91.93 mg/L	0.383	91.93 mg/L	0.383	0.42%
Ca RADIAL†	1309640.6	73.67 mg/L	2.715	73.67 mg/L	2.715	3.68%
K RADIAL†	31482.8	10.81 mg/L	0.043	10.81 mg/L	0.043	0.39%
Mg RADIAL†	42438.8	28.01 mg/L	0.166	28.01 mg/L	0.166	0.59%
Na RADIAL†	49446.5	1.931 mg/L	0.0528	1.931 mg/L	0.0528	2.73%
Mo 202.031	146.2	0.002 mg/L	0.0002	0.002 mg/L	0.0002	12.03%

Sequence No.: 43

Sample ID: BC60698-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 37

Date Collected: 3/14/2016 6:21:32 PM

Data Type: Reprocessed on 3/15/2016 5:41:32 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60698-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26205177.1	4.692 mg/L	0.0494			1.05%
Y RADIAL	793023.8	4.832 mg/L	0.0647			1.34%
As 188.979†	20.6	0.0129 mg/L	0.00103	0.0129 mg/L	0.00103	7.98%
Tl 190.801†	-266.6	-0.0249 mg/L	0.00029	-0.0249 mg/L	0.00029	1.17%
Se 196.026†	-94.9	0.0047 mg/L	0.00202	0.0047 mg/L	0.00202	42.89%
Zn 206.200†	61950.0	0.4605 mg/L	0.00384	0.4605 mg/L	0.00384	0.83%
Sb 206.836†	-121.9	-0.0098 mg/L	0.00209	-0.0098 mg/L	0.00209	21.37%
Pb 220.353†	13109.1	0.4018 mg/L	0.00338	0.4018 mg/L	0.00338	0.84%
Cd 226.502†	2747.0	0.0003 mg/L	0.00003	0.0003 mg/L	0.00003	11.91%
Co 228.616†	6192.3	0.0543 mg/L	0.00027	0.0543 mg/L	0.00027	0.49%
Ni 232.003†	9771.7	0.1673 mg/L	0.00229	0.1673 mg/L	0.00229	1.37%
Ba 233.527†	153401.3	0.6864 mg/L	0.00561	0.6864 mg/L	0.00561	0.82%
Mn 257.610†	6673100.0	3.043 mg/L	0.0218	3.043 mg/L	0.0218	0.72%
Cr 267.716†	41210.6	0.1276 mg/L	0.00151	0.1276 mg/L	0.00151	1.18%
Fe 273.955†	6297097.8	91.79 mg/L	0.649	91.79 mg/L	0.649	0.71%
Mg 279.077†	1715913.1	28.19 mg/L	0.203	28.19 mg/L	0.203	0.72%
V 292.402†	82293.9	0.1409 mg/L	0.00168	0.1409 mg/L	0.00168	1.19%
Al 308.215†	2336248.9	47.36 mg/L	0.350	47.36 mg/L	0.350	0.74%
Be 313.107†	5333.4	0.0006 mg/L	0.00010	0.0006 mg/L	0.00010	17.18%
Cu 324.752†	74085.0	0.1622 mg/L	0.00225	0.1622 mg/L	0.00225	1.38%
Ag 338.289†	-5086.6	-0.0186 mg/L	0.00071	-0.0186 mg/L	0.00071	3.84%
Nd 330.237†	1208.7	1.223 mg/L	0.0533	1.223 mg/L	0.0533	4.35%
Ca 227.546†	57263.7	72.02 mg/L	0.587	72.02 mg/L	0.587	0.82%
Al RADIAL†	273119.0	47.77 mg/L	0.086	47.77 mg/L	0.086	0.18%
Fe RADIAL†	135512.4	92.12 mg/L	0.209	92.12 mg/L	0.209	0.23%
Ca RADIAL†	1344628.6	75.64 mg/L	0.744	75.64 mg/L	0.744	0.98%
K RADIAL†	31252.7	10.73 mg/L	0.041	10.73 mg/L	0.041	0.38%
Mg RADIAL†	42598.4	28.12 mg/L	0.026	28.12 mg/L	0.026	0.09%
Na RADIAL†	51361.1	2.006 mg/L	0.0158	2.006 mg/L	0.0158	0.79%
Mo 202.031	119.3	0.001 mg/L	0.0001	0.001 mg/L	0.0001	6.25%

Sequence No.: 44

Sample ID: BC60698-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 38

Date Collected: 3/14/2016 6:26:21 PM

Data Type: Reprocessed on 3/15/2016 5:41:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60698-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26057795.8	4.666 mg/L	0.0223			0.48%
Y RADIAL	809327.1	4.932 mg/L	0.0920			1.87%
As 188.979†	11064.7	1.979 mg/L	0.0304	1.979 mg/L	0.0304	1.54%
Tl 190.801†	15694.9	1.961 mg/L	0.0309	1.961 mg/L	0.0309	1.58%
Se 196.026†	5827.4	2.009 mg/L	0.0375	2.009 mg/L	0.0375	1.87%
Zn 206.200†	127718.3	0.9504 mg/L	0.00191	0.9504 mg/L	0.00191	0.20%
Sb 206.836†	2160.8	0.2419 mg/L	0.00855	0.2419 mg/L	0.00855	3.53%
Pb 220.353†	29632.1	0.9074 mg/L	0.01056	0.9074 mg/L	0.01056	1.16%
Cd 226.502†	23685.6	0.0514 mg/L	0.00086	0.0514 mg/L	0.00086	1.68%
Co 228.616†	70546.8	0.5984 mg/L	0.00903	0.5984 mg/L	0.00903	1.51%

Ni 232.003†	41387.7	0.7147 mg/L	0.00873	0.7147 mg/L	0.00873	1.22%
Ba 233.527†	633517.4	2.835 mg/L	0.0068	2.835 mg/L	0.0068	0.24%
Mn 257.610†	7949298.1	3.622 mg/L	0.0119	3.622 mg/L	0.0119	0.33%
Cr 267.716†	109124.2	0.3334 mg/L	0.00111	0.3334 mg/L	0.00111	0.33%
Fe 273.955†	6461562.0	94.18 mg/L	0.256	94.18 mg/L	0.256	0.27%
Mg 279.077†	1741012.6	28.60 mg/L	0.054	28.60 mg/L	0.054	0.19%
V 292.402†	368889.6	0.6477 mg/L	0.00391	0.6477 mg/L	0.00391	0.60%
Al 308.215†	2477633.4	50.23 mg/L	0.160	50.23 mg/L	0.160	0.32%
Be 313.107†	470441.1	0.0512 mg/L	0.00043	0.0512 mg/L	0.00043	0.85%
Cu 324.752†	208570.1	0.4349 mg/L	0.00142	0.4349 mg/L	0.00142	0.33%
Ag 338.289†	9387.4	0.0371 mg/L	0.00024	0.0371 mg/L	0.00024	0.66%
Na 330.237†	2422.7	1.947 mg/L	0.0307	1.947 mg/L	0.0307	1.58%
Ca 227.546†	59338.8	74.60 mg/L	1.183	74.60 mg/L	1.183	1.59%
Al RADIAL†	281792.1	49.29 mg/L	0.203	49.29 mg/L	0.203	0.41%
Fe RADIAL†	136022.1	92.47 mg/L	0.254	92.47 mg/L	0.254	0.27%
Ca RADIAL†	1285452.8	72.31 mg/L	0.964	72.31 mg/L	0.964	1.33%
K RADIAL†	30998.8	10.64 mg/L	0.052	10.64 mg/L	0.052	0.49%
Mg RADIAL†	42224.8	27.87 mg/L	0.090	27.87 mg/L	0.090	0.32%
Na RADIAL†	49006.3	1.914 mg/L	0.0263	1.914 mg/L	0.0263	1.37%
Mo 202.031	89.6	0.001 mg/L	0.0001	0.001 mg/L	0.0001	8.91%

Sequence No.: 45

Sample ID: SEQ-CCV4

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/14/2016 6:33:40 PM

Data Type: Reprocessed on 3/15/2016 5:41:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV4

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25166603.1	4.506 mg/L	0.0413			0.92%
Y RADIAL	726191.1	4.425 mg/L	0.0345			0.78%
As 188.979†	1455.9	0.2598 mg/L	0.00333	0.2598 mg/L	0.00333	1.28%
Tl 190.801†	2118.2	0.2641 mg/L	0.00270	0.2641 mg/L	0.00270	1.02%
Se 196.026†	750.3	0.2561 mg/L	0.00070	0.2561 mg/L	0.00070	0.27%
Zn 206.200†	356833.9	2.658 mg/L	0.0732	2.658 mg/L	0.0732	2.75%
Sb 206.836†	2256.7	0.2490 mg/L	0.00204	0.2490 mg/L	0.00204	0.82%
Pb 220.353†	8579.0	0.2638 mg/L	0.00130	0.2638 mg/L	0.00130	0.49%
Cd 226.502†	52213.0	0.1272 mg/L	0.00391	0.1272 mg/L	0.00391	3.07%
Co 228.616†	316281.0	2.674 mg/L	0.0746	2.674 mg/L	0.0746	2.79%
Ni 232.003†	150746.8	2.610 mg/L	0.0749	2.610 mg/L	0.0749	2.87%
Ba 233.527†	2430011.8	10.87 mg/L	0.047	10.87 mg/L	0.047	0.43%
Mn 257.610†	5932181.5	2.695 mg/L	0.0088	2.695 mg/L	0.0088	0.33%
Cr 267.716†	354060.9	1.073 mg/L	0.0317	1.073 mg/L	0.0317	2.95%
Fe 273.955†	366865.7	5.347 mg/L	0.1535	5.347 mg/L	0.1535	2.87%
Mg 279.077†	1571938.8	25.84 mg/L	0.126	25.84 mg/L	0.126	0.49%
V 292.402†	1466386.8	2.593 mg/L	0.0073	2.593 mg/L	0.0073	0.28%
Al 308.215†	510306.2	10.34 mg/L	0.330	10.34 mg/L	0.330	3.19%
Be 313.107†	2379642.2	0.2592 mg/L	0.00070	0.2592 mg/L	0.00070	0.27%
Cu 324.752†	649619.0	1.318 mg/L	0.0394	1.318 mg/L	0.0394	2.99%
Ag 338.289†	344841.0	1.325 mg/L	0.0404	1.325 mg/L	0.0404	3.05%
Na 330.237†	40840.0	24.46 mg/L	0.810	24.46 mg/L	0.810	3.31%
Ca 227.546†	20594.4	25.66 mg/L	0.204	25.66 mg/L	0.204	0.79%
Al RADIAL†	61937.8	10.83 mg/L	0.078	10.83 mg/L	0.078	0.72%
Fe RADIAL†	7925.8	5.388 mg/L	0.0587	5.388 mg/L	0.0587	1.09%
Ca RADIAL†	458036.7	25.77 mg/L	0.018	25.77 mg/L	0.018	0.07%
K RADIAL†	16120.3	5.533 mg/L	0.0642	5.533 mg/L	0.0642	1.16%
Mg RADIAL†	41004.8	27.07 mg/L	0.289	27.07 mg/L	0.289	1.07%
Na RADIAL†	688939.2	26.90 mg/L	0.158	26.90 mg/L	0.158	0.59%
Mo 202.031	79798.4	0.996 mg/L	0.0199	0.996 mg/L	0.0199	2.00%

Sequence No.: 46

Sample ID: SEQ-CCB4

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/14/2016 6:41:28 PM

Data Type: Reprocessed on 3/15/2016 5:41:34 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB4

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26937686.3	4.823 mg/L	0.0775			1.61%
Y RADIAL	783909.2	4.777 mg/L	0.0581			1.22%
As 188.979†	-7.5	-0.0013 mg/L	0.00109	-0.0013 mg/L	0.00109	81.72%
Tl 190.801†	9.0	0.0011 mg/L	0.00055	0.0011 mg/L	0.00055	49.22%
Se 196.026†	-3.4	-0.0011 mg/L	0.00318	-0.0011 mg/L	0.00318	278.38%
Zn 206.200†	701.4	0.0052 mg/L	0.00025	0.0052 mg/L	0.00025	4.78%
Sb 206.836†	-17.0	-0.0019 mg/L	0.00039	-0.0019 mg/L	0.00039	20.93%
Pb 220.353†	17.7	0.0005 mg/L	0.00086	0.0005 mg/L	0.00086	157.62%
Cd 226.502†	-8.7	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	170.04%
Co 228.616†	-38.8	-0.0003 mg/L	0.00020	-0.0003 mg/L	0.00020	61.32%
Ni 232.003†	-85.3	-0.0015 mg/L	0.00055	-0.0015 mg/L	0.00055	37.16%
Ba 233.527†	-86.3	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	4.32%
Mn 257.610†	-25.8	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	111.44%
Cr 267.716†	121.0	0.0004 mg/L	0.00024	0.0004 mg/L	0.00024	65.91%
Fe 273.955†	295.9	0.0043 mg/L	0.00017	0.0043 mg/L	0.00017	4.02%
Mg 279.077†	145.5	0.0024 mg/L	0.00085	0.0024 mg/L	0.00085	35.74%
V 292.402†	-9.1	0.0000 mg/L	0.00015	0.0000 mg/L	0.00015	924.44%
Al 308.215†	616.2	0.0125 mg/L	0.00265	0.0125 mg/L	0.00265	21.24%
Be 313.107†	-631.6	-0.0001 mg/L	0.00004	-0.0001 mg/L	0.00004	64.70%
Cu 324.752†	-843.4	-0.0017 mg/L	0.00025	-0.0017 mg/L	0.00025	14.62%
Ag 338.289†	177.6	0.0007 mg/L	0.00085	0.0007 mg/L	0.00085	124.62%
Na 330.237†	75.6	0.0452 mg/L	0.05764	0.0452 mg/L	0.05764	127.63%
Ca 227.546†	-10.9	-0.0135 mg/L	0.00297	-0.0135 mg/L	0.00297	21.96%
Al RADIAL†	68.2	0.0119 mg/L	0.01231	0.0119 mg/L	0.01231	103.24%
Fe RADIAL†	1.5	0.0010 mg/L	0.00862	0.0010 mg/L	0.00862	873.17%
Ca RADIAL†	-14.7	-0.0008 mg/L	0.00324	-0.0008 mg/L	0.00324	392.21%
K RADIAL†	-47.5	-0.0163 mg/L	0.01243	-0.0163 mg/L	0.01243	76.26%
Mg RADIAL†	1.7	0.0011 mg/L	0.00609	0.0011 mg/L	0.00609	554.14%
Na RADIAL†	-2361.6	-0.0922 mg/L	0.02668	-0.0922 mg/L	0.02668	28.92%
Mo 202.031	-41.0	-0.001 mg/L	0.0003	-0.001 mg/L	0.0003	64.31%

Sequence No.: 47

Sample ID: 16C0466-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 3/14/2016 6:46:37 PM

Data Type: Reprocessed on 3/15/2016 5:41:35 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0466-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24535285.1	4.393 mg/L	0.0465			1.06%
Y RADIAL	773645.4	4.714 mg/L	0.0243			0.52%
As 188.979†	177.1	0.0497 mg/L	0.00270	0.0497 mg/L	0.00270	5.43%
Tl 190.801†	-560.9	-0.0534 mg/L	0.00165	-0.0534 mg/L	0.00165	3.08%
Se 196.026†	-166.5	0.0164 mg/L	0.00357	0.0164 mg/L	0.00357	21.76%
Zn 206.200†	899437.5	6.698 mg/L	0.0751	6.698 mg/L	0.0751	1.12%
Sb 206.836†	53.1	0.0131 mg/L	0.00049	0.0131 mg/L	0.00049	3.71%
Pb 220.353†	282312.2	8.641 mg/L	0.0912	8.641 mg/L	0.0912	1.06%
Cd 226.502†	8438.2	0.0079 mg/L	0.00039	0.0079 mg/L	0.00039	4.97%
Co 228.616†	7740.2	0.0692 mg/L	0.00074	0.0692 mg/L	0.00074	1.07%
Ni 232.003†	10730.8	0.1821 mg/L	0.00094	0.1821 mg/L	0.00094	0.52%
Ba 233.527†	2384019.1	10.67 mg/L	0.135	10.67 mg/L	0.135	1.26%
Mn 257.610†	9040348.9	4.130 mg/L	0.0532	4.130 mg/L	0.0532	1.29%
Cr 267.716†	64180.6	0.2000 mg/L	0.00218	0.2000 mg/L	0.00218	1.09%
Fe 273.955†	12289112.8	179.1 mg/L	0.17	179.1 mg/L	0.17	0.10%
Mg 279.077†	4685289.7	76.98 mg/L	0.958	76.98 mg/L	0.958	1.24%
V 292.402†	181650.6	0.3121 mg/L	0.00393	0.3121 mg/L	0.00393	1.26%
Al 308.215†	4530837.6	91.84 mg/L	1.316	91.84 mg/L	1.316	1.43%
Be 313.107†	-2699.6	-0.0003 mg/L	0.00013	-0.0003 mg/L	0.00013	44.02%
Cu 324.752†	196092.7	0.4212 mg/L	0.00441	0.4212 mg/L	0.00441	1.05%
Ag 338.289†	-8425.0	-0.0342 mg/L	0.00038	-0.0342 mg/L	0.00038	1.10%
Na 330.237†	20627.6	13.65 mg/L	0.132	13.65 mg/L	0.132	0.97%
Ca 227.546†	425305.4	530.4 mg/L	4.79	530.4 mg/L	4.79	0.90%
Al RADIAL†	483226.7	84.51 mg/L	0.260	84.51 mg/L	0.260	0.31%
Fe RADIAL†	267512.8	181.9 mg/L	0.48	181.9 mg/L	0.48	0.27%

Ca RADIAL†	8656650.0	487.0 mg/L	7.15	487.0 mg/L	7.15	1.47%
K RADIAL†	58924.7	20.23 mg/L	0.042	20.23 mg/L	0.042	0.21%
Mg RADIAL†	110199.4	72.74 mg/L	0.235	72.74 mg/L	0.235	0.32%
Na RADIAL†	151244.3	5.906 mg/L	0.0499	5.906 mg/L	0.0499	0.84%
Mo 202.031	137.0	0.002 mg/L	0.0003	0.002 mg/L	0.0003	16.07%

Sequence No.: 48

Sample ID: 16C0466-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 3/14/2016 6:54:26 PM

Data Type: Reprocessed on 3/15/2016 5:41:36 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0466-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24489252.5	4.385 mg/L	0.0438			1.00%
Y RADIAL	770677.9	4.696 mg/L	0.1096			2.33%
As 188.979†	177.0	0.0540 mg/L	0.00178	0.0540 mg/L	0.00178	3.29%
Tl 190.801†	-493.7	-0.0412 mg/L	0.00086	-0.0412 mg/L	0.00086	2.08%
Se 196.026†	-207.2	0.0199 mg/L	0.00593	0.0199 mg/L	0.00593	29.87%
Zn 206.200†	1199302.8	8.931 mg/L	0.0430	8.931 mg/L	0.0430	0.48%
Sb 206.836†	-205.9	-0.0137 mg/L	0.00358	-0.0137 mg/L	0.00358	26.03%
Pb 220.353†	935688.6	28.62 mg/L	0.142	28.62 mg/L	0.142	0.49%
Cd 226.502†	9285.5	0.0069 mg/L	0.00012	0.0069 mg/L	0.00012	1.66%
Cd 228.616†	8336.9	0.0752 mg/L	0.00035	0.0752 mg/L	0.00035	0.47%
Ni 232.003†	9883.5	0.1666 mg/L	0.00326	0.1666 mg/L	0.00326	1.96%
Ba 233.527†	2678947.3	11.99 mg/L	0.089	11.99 mg/L	0.089	0.74%
Mn 257.610†	9296047.7	4.251 mg/L	0.0336	4.251 mg/L	0.0336	0.79%
Cr 267.716†	75745.2	0.2363 mg/L	0.00148	0.2363 mg/L	0.00148	0.63%
Fe 273.955†	15052621.2	219.4 mg/L	0.35	219.4 mg/L	0.35	0.16%
Mg 279.077†	4608604.4	75.71 mg/L	0.615	75.71 mg/L	0.615	0.81%
V 292.402†	170031.8	0.2894 mg/L	0.00260	0.2894 mg/L	0.00260	0.90%
Al 308.215†	4197498.5	85.10 mg/L	0.797	85.10 mg/L	0.797	0.94%
Be 313.107†	-3265.6	-0.0004 mg/L	0.00005	-0.0004 mg/L	0.00005	13.42%
Cu 324.752†	174660.7	0.3834 mg/L	0.00228	0.3834 mg/L	0.00228	0.59%
Ag 338.289†	-7848.6	-0.0295 mg/L	0.00070	-0.0295 mg/L	0.00070	2.37%
Na 330.237†	25403.5	16.56 mg/L	0.185	16.56 mg/L	0.185	1.12%
Ca 227.546†	291009.2	363.8 mg/L	3.10	363.8 mg/L	3.10	0.85%
Al RADIAL†	455931.2	79.75 mg/L	0.230	79.75 mg/L	0.230	0.29%
Fe RADIAL†	330978.1	225.0 mg/L	0.58	225.0 mg/L	0.58	0.26%
Cd RADIAL†	5999896.9	337.5 mg/L	10.96	337.5 mg/L	10.96	3.25%
K RADIAL†	46251.3	15.88 mg/L	0.092	15.88 mg/L	0.092	0.58%
Mg RADIAL†	109733.6	72.43 mg/L	0.279	72.43 mg/L	0.279	0.39%
Na RADIAL†	132879.5	5.189 mg/L	0.0351	5.189 mg/L	0.0351	0.68%
Mo 202.031	755.6	0.009 mg/L	0.0001	0.009 mg/L	0.0001	0.59%

Sequence No.: 49

Sample ID: 16C0466-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 41

Date Collected: 3/14/2016 7:02:15 PM

Data Type: Reprocessed on 3/15/2016 5:41:36 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0466-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24474714.4	4.382 mg/L	0.0358			0.82%
Y RADIAL	768322.6	4.682 mg/L	0.0918			1.96%
As 188.979†	92.2	0.0288 mg/L	0.00089	0.0288 mg/L	0.00089	3.10%
Tl 190.801†	-499.4	-0.0510 mg/L	0.00226	-0.0510 mg/L	0.00226	4.43%
Se 196.026†	-126.0	0.0068 mg/L	0.00167	0.0068 mg/L	0.00167	24.57%
Zn 206.200†	183355.9	1.365 mg/L	0.0030	1.365 mg/L	0.0030	0.22%
Sb 206.836†	-161.5	-0.0129 mg/L	0.00155	-0.0129 mg/L	0.00155	12.03%
Pb 220.353†	56102.1	1.724 mg/L	0.0039	1.724 mg/L	0.0039	0.23%
Cd 226.502†	4570.2	0.0025 mg/L	0.00035	0.0025 mg/L	0.00035	13.98%
Cd 228.616†	6690.5	0.0592 mg/L	0.00057	0.0592 mg/L	0.00057	0.96%
Ni 232.003†	8936.0	0.1522 mg/L	0.00114	0.1522 mg/L	0.00114	0.75%

Ba 233.527†	387540.5	1.734 mg/L	0.0031	1.734 mg/L	0.0031	0.18%
Mn 257.610†	4351583.0	1.992 mg/L	0.0043	1.992 mg/L	0.0043	0.22%
Cr 267.716†	65158.3	0.2012 mg/L	0.00076	0.2012 mg/L	0.00076	0.38%
Fe 273.955†	8422439.0	122.8 mg/L	0.07	122.8 mg/L	0.07	0.06%
Mg 279.077†	3668812.9	60.28 mg/L	0.162	60.28 mg/L	0.162	0.27%
V 292.402†	149111.5	0.2575 mg/L	0.00045	0.2575 mg/L	0.00045	0.17%
Al 308.215†	3864344.2	78.33 mg/L	0.334	78.33 mg/L	0.334	0.43%
Be 313.107†	-10883.3	-0.0012 mg/L	0.00003	-0.0012 mg/L	0.00003	2.68%
Cu 324.752†	138921.4	0.2977 mg/L	0.00097	0.2977 mg/L	0.00097	0.32%
Ag 338.289†	-6280.5	-0.0275 mg/L	0.00060	-0.0275 mg/L	0.00060	2.17%
Na 330.237†	6320.9	4.861 mg/L	0.0823	4.861 mg/L	0.0823	1.69%
Ca 227.546†	440520.9	548.8 mg/L	1.64	548.8 mg/L	1.64	0.30%
Al RADIAL†	407976.4	71.35 mg/L	0.146	71.35 mg/L	0.146	0.20%
Fe RADIAL†	181746.1	123.6 mg/L	0.38	123.6 mg/L	0.38	0.30%
Ca RADIAL†	9224697.4	518.9 mg/L	7.56	518.9 mg/L	7.56	1.46%
K RADIAL†	35854.3	12.31 mg/L	0.046	12.31 mg/L	0.046	0.37%
Mg RADIAL†	86684.1	57.22 mg/L	0.122	57.22 mg/L	0.122	0.21%
Na RADIAL†	121465.2	4.743 mg/L	0.0228	4.743 mg/L	0.0228	0.48%
Mo 202.031†	1173.0	0.015 mg/L	0.0004	0.015 mg/L	0.0004	2.60%

Sequence No.: 50

Sample ID: 16C0468-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 42

Date Collected: 3/14/2016 7:06:58 PM

Data Type: Reprocessed on 3/15/2016 5:41:37 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0468-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	27319706.0	4.892 mg/L		0.0386			0.79%
Y RADIAL	800358.6	4.877 mg/L		0.0211			0.43%
As 188.979†	-1.2	-0.0002 mg/L		0.00106	-0.0002 mg/L	0.00106	628.16%
Ti 190.801†	-4.6	-0.0005 mg/L		0.00162	-0.0005 mg/L	0.00162	300.75%
Se 196.026†	-4.2	-0.0013 mg/L		0.00131	-0.0013 mg/L	0.00131	103.85%
Zn 206.200†	92406.0	0.6883 mg/L		0.00735	0.6883 mg/L	0.00735	1.07%
SH 206.836†	-34.6	-0.0038 mg/L		0.00161	-0.0038 mg/L	0.00161	42.49%
Pb 220.353†	195.6	0.0060 mg/L		0.00052	0.0060 mg/L	0.00052	8.74%
Cd 226.502†	35.2	0.0001 mg/L		0.00007	0.0001 mg/L	0.00007	128.38%
Cd 228.616†	-95.0	-0.0008 mg/L		0.00013	-0.0008 mg/L	0.00013	16.00%
Ni 232.003†	170.9	0.0030 mg/L		0.00036	0.0030 mg/L	0.00036	12.09%
Ba 233.527†	1090.7	0.0049 mg/L		0.00008	0.0049 mg/L	0.00008	1.60%
Mn 257.610†	9396.9	0.0043 mg/L		0.00006	0.0043 mg/L	0.00006	1.32%
Cr 267.716†	304.9	0.0009 mg/L		0.00012	0.0009 mg/L	0.00012	12.37%
Fe 273.955†	28465.4	0.4149 mg/L		0.00378	0.4149 mg/L	0.00378	0.91%
Mg 279.077†	6565.9	0.1078 mg/L		0.00033	0.1078 mg/L	0.00033	0.30%
V 292.402†	-1381.0	-0.0025 mg/L		0.00010	-0.0025 mg/L	0.00010	4.00%
Al 308.215†	1593.8	0.0323 mg/L		0.00344	0.0323 mg/L	0.00344	10.67%
Be 313.107†	-82.3	0.0000 mg/L		0.00001	0.0000 mg/L	0.00001	55.92%
Cu 324.752†	17605.3	0.0357 mg/L		0.00047	0.0357 mg/L	0.00047	1.31%
Ag 338.289†	-246.8	-0.0010 mg/L		0.00020	-0.0010 mg/L	0.00020	21.15%
Na 330.237†	6681.9	3.998 mg/L		0.0449	3.998 mg/L	0.0449	1.12%
Ca 227.546†	1582.5	1.971 mg/L		0.0233	1.971 mg/L	0.0233	1.18%
Al RADIAL†	291.4	0.0509 mg/L		0.00435	0.0509 mg/L	0.00435	8.53%
Fe RADIAL†	626.9	0.4262 mg/L		0.00167	0.4262 mg/L	0.00167	0.39%
Ca RADIAL†	38168.8	2.147 mg/L		0.0136	2.147 mg/L	0.0136	0.63%
K RADIAL†	398.9	0.1369 mg/L		0.02842	0.1369 mg/L	0.02842	20.76%
Mg RADIAL†	179.8	0.1187 mg/L		0.00409	0.1187 mg/L	0.00409	3.45%
Na RADIAL†	116457.7	4.548 mg/L		0.0120	4.548 mg/L	0.0120	0.26%
Mo 202.031†	22377.7	0.279 mg/L		0.0042	0.279 mg/L	0.0042	1.52%

Sequence No.: 51

Sample ID: 16C0474-25

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 43

Date Collected: 3/14/2016 7:12:01 PM

Data Type: Reprocessed on 3/15/2016 5:41:38 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0474-25

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	26711209.5	4.783	mg/L	0.0448				0.94%
Y RADIAL	806514.6	4.914	mg/L	0.0623				1.27%
As 188.979†	354.6	0.0729	mg/L	0.00041	0.0729	mg/L	0.00041	0.56%
Tl 190.801†	-313.3	-0.0302	mg/L	0.00217	-0.0302	mg/L	0.00217	7.19%
Se 196.026†	-87.7	0.0092	mg/L	0.00266	0.0092	mg/L	0.00266	28.97%
Zn 206.200†	254215.4	1.893	mg/L	0.0252	1.893	mg/L	0.0252	1.33%
Sb 206.836†	-129.5	-0.0104	mg/L	0.00093	-0.0104	mg/L	0.00093	8.92%
Pb 220.353†	22070.7	0.6751	mg/L	0.00997	0.6751	mg/L	0.00997	1.48%
Cd 226.502†	3216.0	0.0011	mg/L	0.00025	0.0011	mg/L	0.00025	23.88%
Co 228.616†	6024.8	0.0530	mg/L	0.00079	0.0530	mg/L	0.00079	1.50%
Ni 232.003†	7048.9	0.1201	mg/L	0.00259	0.1201	mg/L	0.00259	2.15%
Ba 233.527†	122438.7	0.5478	mg/L	0.00605	0.5478	mg/L	0.00605	1.11%
Mn 257.610†	5152567.8	2.353	mg/L	0.0378	2.353	mg/L	0.0378	1.61%
Cr 267.716†	36413.8	0.1133	mg/L	0.00097	0.1133	mg/L	0.00097	0.86%
Fe 273.955†	6657168.9	97.04	mg/L	1.484	97.04	mg/L	1.484	1.53%
Mg 279.077†	936786.6	15.38	mg/L	0.231	15.38	mg/L	0.231	1.50%
V 292.402†	94826.6	0.1628	mg/L	0.00104	0.1628	mg/L	0.00104	0.64%
Al 308.215†	2422189.2	49.11	mg/L	0.750	49.11	mg/L	0.750	1.53%
Be 313.107†	7824.0	0.0009	mg/L	0.00006	0.0009	mg/L	0.00006	6.75%
Cu 324.752†	198485.9	0.4150	mg/L	0.00423	0.4150	mg/L	0.00423	1.02%
Ag 338.289†	-5628.3	-0.0201	mg/L	0.00034	-0.0201	mg/L	0.00034	1.69%
Na 330.237†	3394.8	2.513	mg/L	0.0593	2.513	mg/L	0.0593	2.36%
Ca 227.546†	26321.2	33.60	mg/L	0.466	33.60	mg/L	0.466	1.39%
Al RADIAL†	277501.5	48.54	mg/L	0.125	48.54	mg/L	0.125	0.26%
Fe RADIAL†	143001.7	97.21	mg/L	3.616	97.21	mg/L	3.616	3.72%
Ca RADIAL†	601271.6	33.82	mg/L	0.046	33.82	mg/L	0.046	0.14%
K RADIAL†	21173.7	7.268	mg/L	0.3021	7.268	mg/L	0.3021	4.16%
Mg RADIAL†	23296.0	15.37	mg/L	0.551	15.37	mg/L	0.551	3.58%
Na RADIAL†	32367.4	1.264	mg/L	0.0197	1.264	mg/L	0.0197	1.56%
Mn 202.031†	290.6	0.004	mg/L	0.0001	0.004	mg/L	0.0001	3.29%

Sequence No.: 52

Sample ID: 16C0474-26

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 3/14/2016 7:16:48 PM

Data Type: Reprocessed on 3/15/2016 5:41:38 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0474-26

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	26480594.5	4.742	mg/L	0.0522				1.10%
Y RADIAL	817040.0	4.979	mg/L	0.1001				2.01%
As 188.979†	60.5	0.0262	mg/L	0.00189	0.0262	mg/L	0.00189	7.23%
Tl 190.801†	-823.5	-0.0886	mg/L	0.00954	-0.0886	mg/L	0.00954	10.77%
Se 196.026†	-142.1	0.0136	mg/L	0.00744	0.0136	mg/L	0.00744	54.55%
Zn 206.200†	78246.2	0.5813	mg/L	0.00507	0.5813	mg/L	0.00507	0.87%
Sb 206.836†	-277.0	-0.0244	mg/L	0.00118	-0.0244	mg/L	0.00118	4.82%
Pb 220.353†	9921.5	0.3032	mg/L	0.00364	0.3032	mg/L	0.00364	1.20%
Cd 226.502†	4523.3	0.0002	mg/L	0.00009	0.0002	mg/L	0.00009	35.54%
Co 228.616†	9720.7	0.0854	mg/L	0.00121	0.0854	mg/L	0.00121	1.42%
Ni 232.003†	8951.5	0.1519	mg/L	0.00271	0.1519	mg/L	0.00271	1.78%
Ba 233.527†	236157.7	1.057	mg/L	0.0095	1.057	mg/L	0.0095	0.90%
Mn 257.610†	7484241.0	3.419	mg/L	0.0293	3.419	mg/L	0.0293	0.86%
Cr 267.716†	47178.7	0.1476	mg/L	0.00191	0.1476	mg/L	0.00191	1.30%
Fe 273.955†	10424783.9	152.0	mg/L	0.25	152.0	mg/L	0.25	0.16%
Mg 279.077†	2128233.3	34.95	mg/L	0.328	34.95	mg/L	0.328	0.94%
V 292.402†	125310.3	0.2139	mg/L	0.00202	0.2139	mg/L	0.00202	0.95%
Al 308.215†	4044480.5	82.00	mg/L	0.746	82.00	mg/L	0.746	0.91%
Be 313.107†	-16803.7	-0.0018	mg/L	0.00005	-0.0018	mg/L	0.00005	2.62%
Cu 324.752†	109301.4	0.2417	mg/L	0.00205	0.2417	mg/L	0.00205	0.85%
Ag 338.289†	-14550.9	-0.0532	mg/L	0.00109	-0.0532	mg/L	0.00109	2.05%
Na 330.237†	-3558.9	-1.378	mg/L	0.0811	-1.378	mg/L	0.0811	5.89%
Ca 227.546†	27730.2	35.86	mg/L	0.519	35.86	mg/L	0.519	1.45%
Al RADIAL†	444207.7	77.70	mg/L	1.791	77.70	mg/L	1.791	2.30%
Fe RADIAL†	227112.9	154.4	mg/L	0.69	154.4	mg/L	0.69	0.45%
Ca RADIAL†	619333.6	34.84	mg/L	0.015	34.84	mg/L	0.015	0.04%

K RADIAL†	77741.3	26.69 mg/L	0.181	26.69 mg/L	0.181	0.68%
Mg RADIAL†	52268.7	34.49 mg/L	0.184	34.49 mg/L	0.184	0.53%
Na RADIAL†	29884.4	1.167 mg/L	0.0076	1.167 mg/L	0.0076	0.65%
Mo 202.031	-298.4	-0.004 mg/L	0.0001	-0.004 mg/L	0.0001	3.63%

Sequence No.: 53

Sample ID: 16C0474-27

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 45

Date Collected: 3/14/2016 7:21:36 PM

Data Type: Reprocessed on 3/15/2016 5:41:39 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0474-27

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	25938273.4	4.644 mg/L		0.0325			0.70%
Y RADIAL	801253.7	4.882 mg/L		0.0114			0.23%
As 188.979†	-15.7	0.0180 mg/L		0.00321	0.0180 mg/L	0.00321	17.80%
Tl 190.801†	-1615.0	-0.1822 mg/L		0.00500	-0.1822 mg/L	0.00500	2.74%
Se 196.026†	-209.4	0.0123 mg/L		0.00471	0.0123 mg/L	0.00471	38.22%
Zn 206.200†	97621.4	0.7251 mg/L		0.01146	0.7251 mg/L	0.01146	1.58%
Sb 206.836†	-480.8	-0.0447 mg/L		0.00189	-0.0447 mg/L	0.00189	4.23%
Pb 220.353†	10531.6	0.3211 mg/L		0.00347	0.3211 mg/L	0.00347	1.08%
Cd 226.502†	6259.1	0.0007 mg/L		0.00034	0.0007 mg/L	0.00034	47.10%
Co 228.616†	14529.9	0.1272 mg/L		0.00115	0.1272 mg/L	0.00115	0.91%
Ni 232.003†	12063.6	0.2047 mg/L		0.00782	0.2047 mg/L	0.00782	3.82%
Ba 233.527†	270067.9	1.208 mg/L		0.0214	1.208 mg/L	0.0214	1.77%
Mn 257.610†	10028249.0	4.582 mg/L		0.0147	4.582 mg/L	0.0147	0.32%
Cr 267.716†	49926.3	0.1576 mg/L		0.00262	0.1576 mg/L	0.00262	1.66%
Fe 273.955†	13914611.9	202.8 mg/L		0.67	202.8 mg/L	0.67	0.33%
Mg 279.077†	3185843.1	52.33 mg/L		0.295	52.33 mg/L	0.295	0.56%
V 292.402†	150019.5	0.2549 mg/L		0.00418	0.2549 mg/L	0.00418	1.64%
Al 308.215†	5136197.7	104.1 mg/L		0.81	104.1 mg/L	0.81	0.78%
Be 313.107†	-67489.0	-0.0074 mg/L		0.00032	-0.0074 mg/L	0.00032	4.37%
Cu 324.752†	97795.3	0.2253 mg/L		0.00358	0.2253 mg/L	0.00358	1.59%
Ag 338.289†	-28747.4	-0.1066 mg/L		0.00240	-0.1066 mg/L	0.00240	2.25%
Na 330.237†	-9441.4	-4.651 mg/L		0.1984	-4.651 mg/L	0.1984	4.27%
Ca 227.546†	23143.7	30.64 mg/L		0.304	30.64 mg/L	0.304	0.99%
Al RADIAL†	575547.6	100.7 mg/L		0.06	100.7 mg/L	0.06	0.06%
Fe RADIAL†	306049.7	208.1 mg/L		0.23	208.1 mg/L	0.23	0.11%
Cd RADIAL†	513314.7	28.88 mg/L		0.011	28.88 mg/L	0.011	0.04%
K RADIAL†	159946.5	54.90 mg/L		0.031	54.90 mg/L	0.031	0.06%
Mg RADIAL†	77437.1	51.11 mg/L		0.088	51.11 mg/L	0.088	0.17%
Na RADIAL†	28549.7	1.115 mg/L		0.0059	1.115 mg/L	0.0059	0.53%
Mo 202.031	-569.8	-0.007 mg/L		0.0001	-0.007 mg/L	0.0001	2.02%

Sequence No.: 54

Sample ID: 16C0474-28

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 46

Date Collected: 3/14/2016 7:26:19 PM

Data Type: Reprocessed on 3/15/2016 5:41:40 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0474-28

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	25740465.0	4.609 mg/L		0.0193			0.42%
Y RADIAL	784967.1	4.783 mg/L		0.0653			1.32%
As 188.979†	9651.5	1.740 mg/L		0.0124	1.740 mg/L	0.0124	0.71%
Tl 190.801†	-649.1	-0.0613 mg/L		0.00471	-0.0613 mg/L	0.00471	7.68%
Se 196.026†	-174.7	0.0274 mg/L		0.00675	0.0274 mg/L	0.00675	24.62%
Zn 206.200†	108889.5	0.8089 mg/L		0.00512	0.8089 mg/L	0.00512	0.63%
Sb 206.836†	157.8	0.0260 mg/L		0.00768	0.0260 mg/L	0.00768	29.52%
Pb 220.353†	46113.3	1.406 mg/L		0.0080	1.406 mg/L	0.0080	0.57%
Cd 226.502†	6596.6	0.0010 mg/L		0.00018	0.0010 mg/L	0.00018	18.39%
Co 228.616†	10127.7	0.0902 mg/L		0.00018	0.0902 mg/L	0.00018	0.20%
Ni 232.003†	9822.8	0.1657 mg/L		0.00158	0.1657 mg/L	0.00158	0.95%
Ba 233.527†	189322.7	0.8471 mg/L		0.00263	0.8471 mg/L	0.00263	0.31%

Mn 257.610†	8632236.8	3.949 mg/L	0.0133	3.949 mg/L	0.0133	0.34%
Cr 267.716†	54845.1	0.1727 mg/L	0.00087	0.1727 mg/L	0.00087	0.50%
Fe 273.955†	14344514.1	209.1 mg/L	0.46	209.1 mg/L	0.46	0.22%
Mg 279.077†	2286245.3	37.54 mg/L	0.122	37.54 mg/L	0.122	0.33%
V 292.402†	147467.5	0.2499 mg/L	0.00169	0.2499 mg/L	0.00169	0.68%
Al 308.215†	3624305.5	73.48 mg/L	0.334	73.48 mg/L	0.334	0.45%
Be 313.107†	-3348.2	-0.0004 mg/L	0.00015	-0.0004 mg/L	0.00015	41.77%
Cu 324.752†	297709.1	0.6317 mg/L	0.00361	0.6317 mg/L	0.00361	0.57%
Ag 338.289†	-12869.1	-0.0460 mg/L	0.00152	-0.0460 mg/L	0.00152	3.30%
Na 330.237†	-1500.4	0.1828 mg/L	0.05062	0.1828 mg/L	0.05062	27.68%
Ca 227.546†	63202.7	80.49 mg/L	0.509	80.49 mg/L	0.509	0.63%
Al RADIAL†	407751.5	71.33 mg/L	0.122	71.33 mg/L	0.122	0.17%
Fe RADIAL†	318282.0	216.4 mg/L	0.20	216.4 mg/L	0.20	0.09%
Ca RADIAL†	1400853.0	78.80 mg/L	0.247	78.80 mg/L	0.247	0.31%
K RADIAL†	55292.1	18.98 mg/L	0.054	18.98 mg/L	0.054	0.28%
Mg RADIAL†	55448.7	36.59 mg/L	0.101	36.59 mg/L	0.101	0.28%
Na RADIAL†	42559.2	1.662 mg/L	0.0153	1.662 mg/L	0.0153	0.92%
Mo 202.031	192.4	0.002 mg/L	0.0003	0.002 mg/L	0.0003	13.73%

Sequence No.: 55

Sample ID: 16C0475-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 47

Date Collected: 3/14/2016 7:30:38 PM

Data Type: Reprocessed on 3/15/2016 5:41:41 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0475-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26595138.5	4.762 mg/L		0.0045			0.09%
Y RADIAL	792684.7	4.830 mg/L		0.0481			1.00%
As 188.979†	22.9	0.0042 mg/L		0.00165	0.0042 mg/L	0.00165	39.17%
Ti 190.801†	-286.3	-0.0355 mg/L		0.00300	-0.0355 mg/L	0.00300	8.45%
Se 196.026†	-11.5	-0.0033 mg/L		0.00279	-0.0033 mg/L	0.00279	83.27%
Zn 206.200†	971277.7	7.235 mg/L		0.0636	7.235 mg/L	0.0636	0.88%
Sb 206.836†	-86.8	-0.0095 mg/L		0.00119	-0.0095 mg/L	0.00119	12.48%
Pb 220.353†	70.0	0.0044 mg/L		0.00100	0.0044 mg/L	0.00100	22.91%
Cd 226.502†	231.3	0.0005 mg/L		0.00009	0.0005 mg/L	0.00009	18.26%
Co 228.616†	1031.0	0.0087 mg/L		0.00004	0.0087 mg/L	0.00004	0.43%
Ni 232.003†	218.4	0.0038 mg/L		0.00069	0.0038 mg/L	0.00069	18.27%
Ba 233.527†	18216.9	0.0815 mg/L		0.00065	0.0815 mg/L	0.00065	0.80%
Mn 257.610†	68100.7	0.0311 mg/L		0.00026	0.0311 mg/L	0.00026	0.85%
Cr 267.716†	1783.9	0.0054 mg/L		0.00001	0.0054 mg/L	0.00001	0.18%
Fe 273.955†	96323.6	1.404 mg/L		0.0148	1.404 mg/L	0.0148	1.06%
Mg 279.077†	210228.2	3.455 mg/L		0.0291	3.455 mg/L	0.0291	0.84%
V 292.402†	3387.8	0.0059 mg/L		0.00013	0.0059 mg/L	0.00013	2.21%
Al 308.215†	545780.1	11.06 mg/L		0.137	11.06 mg/L	0.137	1.24%
Be 313.107†	-18058.5	-0.0020 mg/L		0.00006	-0.0020 mg/L	0.00006	3.25%
Cu 324.752†	2902.8	0.0061 mg/L		0.00037	0.0061 mg/L	0.00037	6.09%
Ag 338.289†	-4470.0	-0.0179 mg/L		0.00041	-0.0179 mg/L	0.00041	2.30%
Na 330.237†	17768.3	10.69 mg/L		0.188	10.69 mg/L	0.188	1.76%
Ca 227.546†	47237.8	58.75 mg/L		0.667	58.75 mg/L	0.667	1.14%
Al RADIAL†	63035.2	11.02 mg/L		0.066	11.02 mg/L	0.066	0.60%
Fe RADIAL†	2067.9	1.406 mg/L		0.0098	1.406 mg/L	0.0098	0.70%
Ca RADIAL†	1140419.2	64.15 mg/L		0.058	64.15 mg/L	0.058	0.09%
K RADIAL†	3897.0	1.338 mg/L		0.0263	1.338 mg/L	0.0263	1.97%
Mg RADIAL†	5318.2	3.511 mg/L		0.0283	3.511 mg/L	0.0283	0.80%
Na RADIAL†	69747.9	2.724 mg/L		0.0128	2.724 mg/L	0.0128	0.47%
Mo 202.031	8.3	0.000 mg/L		0.0001	0.000 mg/L	0.0001	136.77%

Sequence No.: 56

Sample ID: 16C0475-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 48

Date Collected: 3/14/2016 7:35:42 PM

Data Type: Reprocessed on 3/15/2016 5:41:41 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0475-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27223118.4	4.874 mg/L	0.0425			0.87%
Y RADIAL	810848.1	4.941 mg/L	0.0160			0.32%
As 188.979+	4.1	0.0008 mg/L	0.00195	0.0008 mg/L	0.00195	243.07%
Th 190.801+	-50.8	-0.0063 mg/L	0.00009	-0.0063 mg/L	0.00009	1.38%
Se 196.026+	-6.5	-0.0019 mg/L	0.00258	-0.0019 mg/L	0.00258	137.00%
Zn 206.200+	621934.6	4.633 mg/L	0.0080	4.633 mg/L	0.0080	0.17%
Sb 206.836+	-49.5	-0.0054 mg/L	0.00023	-0.0054 mg/L	0.00023	4.32%
Pb 220.353+	160.2	0.0052 mg/L	0.00042	0.0052 mg/L	0.00042	8.15%
Cd 226.502+	90.8	0.0002 mg/L	0.00007	0.0002 mg/L	0.00007	41.58%
Co 228.616+	174.9	0.0015 mg/L	0.00016	0.0015 mg/L	0.00016	10.52%
Ni 232.003+	36.4	0.0006 mg/L	0.00018	0.0006 mg/L	0.00018	29.97%
Ba 233.527+	119221.9	0.5335 mg/L	0.00050	0.5335 mg/L	0.00050	0.09%
Mn 257.610+	25234.1	0.0116 mg/L	0.00001	0.0116 mg/L	0.00001	0.09%
Cr 267.716+	766.1	0.0023 mg/L	0.00003	0.0023 mg/L	0.00003	1.25%
Fe 273.955+	54309.8	0.7916 mg/L	0.00180	0.7916 mg/L	0.00180	0.23%
Mg 279.077+	30856.1	0.5070 mg/L	0.00208	0.5070 mg/L	0.00208	0.41%
V 292.402+	7035.9	0.0124 mg/L	0.00018	0.0124 mg/L	0.00018	1.48%
Al 308.215+	107916.0	2.188 mg/L	0.0060	2.188 mg/L	0.0060	0.27%
Be 313.107+	-2262.2	-0.0002 mg/L	0.00002	-0.0002 mg/L	0.00002	9.50%
Cu 324.752+	-873.5	-0.0017 mg/L	0.00009	-0.0017 mg/L	0.00009	5.67%
Ag 338.289+	-828.6	-0.0032 mg/L	0.00050	-0.0032 mg/L	0.00050	15.44%
Na 330.237+	11473.6	6.865 mg/L	0.1340	6.865 mg/L	0.1340	1.95%
Ca 227.546+	2916.9	3.635 mg/L	0.0710	3.635 mg/L	0.0710	1.95%
Al RADIAL+	13478.6	2.357 mg/L	0.0354	2.357 mg/L	0.0354	1.50%
Fe RADIAL+	1132.3	0.7698 mg/L	0.01265	0.7698 mg/L	0.01265	1.64%
Ca RADIAL+	69519.6	3.911 mg/L	0.0063	3.911 mg/L	0.0063	0.16%
K RADIAL+	1767.3	0.6067 mg/L	0.02813	0.6067 mg/L	0.02813	4.64%
Mg RADIAL+	763.1	0.5037 mg/L	0.01250	0.5037 mg/L	0.01250	2.48%
Na RADIAL+	26308.6	1.027 mg/L	0.0048	1.027 mg/L	0.0048	0.47%
Mo 202.031	-14.0	0.000 mg/L	0.0001	0.000 mg/L	0.0001	78.72%

Sequence No.: 57

Sample ID: SEQ-CCV5

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/14/2016 7:40:47 PM

Data Type: Reprocessed on 3/15/2016 5:41:42 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25416413.8	4.551 mg/L	0.0214			0.47%
Y RADIAL	750911.2	4.576 mg/L	0.0630			1.38%
As 188.979+	1460.4	0.2606 mg/L	0.00497	0.2606 mg/L	0.00497	1.91%
Th 190.801+	2105.0	0.2624 mg/L	0.00336	0.2624 mg/L	0.00336	1.28%
Se 196.026+	744.9	0.2542 mg/L	0.00249	0.2542 mg/L	0.00249	0.98%
Zn 206.200+	357974.9	2.666 mg/L	0.0105	2.666 mg/L	0.0105	0.39%
Sb 206.836+	2255.5	0.2489 mg/L	0.00496	0.2489 mg/L	0.00496	1.99%
Pb 220.353+	8520.8	0.2620 mg/L	0.00300	0.2620 mg/L	0.00300	1.15%
Cd 226.502+	52350.1	0.1276 mg/L	0.00053	0.1276 mg/L	0.00053	0.42%
Co 228.616+	318370.4	2.692 mg/L	0.0111	2.692 mg/L	0.0111	0.41%
Ni 232.003+	151916.8	2.630 mg/L	0.0100	2.630 mg/L	0.0100	0.38%
Ba 233.527+	2411211.6	10.79 mg/L	0.013	10.79 mg/L	0.013	0.12%
Mn 257.610+	5893119.0	2.677 mg/L	0.0055	2.677 mg/L	0.0055	0.21%
Cr 267.716+	356763.6	1.081 mg/L	0.0055	1.081 mg/L	0.0055	0.51%
Fe 273.955+	369481.9	5.386 mg/L	0.0279	5.386 mg/L	0.0279	0.52%
Mg 279.077+	1561139.1	25.66 mg/L	0.031	25.66 mg/L	0.031	0.12%
V 292.402+	1454975.4	2.572 mg/L	0.0009	2.572 mg/L	0.0009	0.03%
Al 308.215+	513849.6	10.42 mg/L	0.059	10.42 mg/L	0.059	0.57%
Be 313.107+	2365140.3	0.2576 mg/L	0.00016	0.2576 mg/L	0.00016	0.06%
Cu 324.752+	653042.4	1.325 mg/L	0.0060	1.325 mg/L	0.0060	0.46%
Ag 338.289+	345746.9	1.328 mg/L	0.0045	1.328 mg/L	0.0045	0.34%
Na 330.237+	41126.5	24.63 mg/L	0.196	24.63 mg/L	0.196	0.80%
Ca 227.546+	20462.8	25.49 mg/L	0.258	25.49 mg/L	0.258	1.01%
Al RADIAL+	58622.6	10.25 mg/L	0.027	10.25 mg/L	0.027	0.26%
Fe RADIAL+	7770.8	5.283 mg/L	0.0204	5.283 mg/L	0.0204	0.39%
Ca RADIAL+	459250.3	25.83 mg/L	0.033	25.83 mg/L	0.033	0.13%
K RADIAL+	16042.0	5.507 mg/L	0.0322	5.507 mg/L	0.0322	0.58%

Mg RADIAL†	40441.3	26.70 mg/L	0.095	26.70 mg/L	0.095	0.36%
Na RADIAL†	688710.3	26.90 mg/L	0.130	26.90 mg/L	0.130	0.48%
Mo 202.031	81296.3	1.014 mg/L	0.0063	1.014 mg/L	0.0063	0.62%

Sequence No.: 58

Sample ID: SEQ-CCB5

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/14/2016 7:48:35 PM

Data Type: Reprocessed on 3/15/2016 5:41:43 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27375865.9	4.902 mg/L	0.0151			0.31%
Y RADIAL	784877.6	4.783 mg/L	0.0489			1.02%
As 188.979†	-8.4	-0.0015 mg/L	0.00063	-0.0015 mg/L	0.00063	42.23%
Tl 190.801†	11.6	0.0014 mg/L	0.00180	0.0014 mg/L	0.00180	124.04%
Se 196.026†	-12.5	-0.0042 mg/L	0.00002	-0.0042 mg/L	0.00002	0.38%
Zn 206.200†	757.1	0.0056 mg/L	0.00029	0.0056 mg/L	0.00029	5.08%
Sb 206.836†	-29.7	-0.0033 mg/L	0.00153	-0.0033 mg/L	0.00153	46.59%
Pb 220.353†	6.3	0.0002 mg/L	0.00097	0.0002 mg/L	0.00097	494.10%
Cd 226.502†	11.3	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	130.52%
Co 228.616†	-45.4	-0.0004 mg/L	0.00020	-0.0004 mg/L	0.00020	51.06%
Ni 232.003†	-18.5	-0.0003 mg/L	0.00029	-0.0003 mg/L	0.00029	89.40%
Ba 233.527†	-91.2	-0.0004 mg/L	0.00004	-0.0004 mg/L	0.00004	9.22%
Mn 257.610†	-140.3	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	28.24%
Cr 267.716†	66.9	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	61.86%
Fe 273.955†	302.0	0.0044 mg/L	0.00042	0.0044 mg/L	0.00042	9.64%
Mg 279.077†	9.5	0.0002 mg/L	0.00101	0.0002 mg/L	0.00101	644.41%
V 292.402†	60.2	0.0001 mg/L	0.00011	0.0001 mg/L	0.00011	108.23%
Al 308.215†	-165.2	-0.0033 mg/L	0.00079	-0.0033 mg/L	0.00079	23.63%
Be 313.107†	-533.7	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	39.33%
Cu 324.752†	-1148.5	-0.0023 mg/L	0.00034	-0.0023 mg/L	0.00034	14.78%
Ag 338.289†	341.3	0.0013 mg/L	0.00022	0.0013 mg/L	0.00022	16.75%
Na 330.237†	-22.8	-0.0136 mg/L	0.03171	-0.0136 mg/L	0.03171	233.38%
Ca 227.546†	2.9	0.0037 mg/L	0.01739	0.0037 mg/L	0.01739	468.53%
Al RADIAL†	94.4	0.0165 mg/L	0.00504	0.0165 mg/L	0.00504	30.55%
Fe RADIAL†	7.0	0.0048 mg/L	0.00153	0.0048 mg/L	0.00153	32.20%
Ca RADIAL†	28.3	0.0016 mg/L	0.00533	0.0016 mg/L	0.00533	334.64%
K RADIAL†	-59.9	-0.0205 mg/L	0.02996	-0.0205 mg/L	0.02996	145.79%
Mg RADIAL†	13.8	0.0091 mg/L	0.00500	0.0091 mg/L	0.00500	54.99%
Na RADIAL†	-2908.0	-0.1136 mg/L	0.02757	-0.1136 mg/L	0.02757	24.28%
Mo 202.031	-53.9	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	23.81%

Sequence No.: 59

Sample ID: 16C0475-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 49

Date Collected: 3/14/2016 7:53:44 PM

Data Type: Reprocessed on 3/15/2016 5:41:44 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0475-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28561077.8	5.114 mg/L	0.0366			0.72%
Y RADIAL	833147.8	5.077 mg/L	0.0381			0.75%
As 188.979†	0.4	0.0004 mg/L	0.00039	0.0004 mg/L	0.00039	108.43%
Tl 190.801†	-117.3	-0.0143 mg/L	0.00075	-0.0143 mg/L	0.00075	5.24%
Se 196.026†	-14.2	-0.0037 mg/L	0.00203	-0.0037 mg/L	0.00203	55.66%
Zn 206.200†	3998935.7	29.79 mg/L	0.113	29.79 mg/L	0.113	0.38%
Sb 206.836†	-26.1	-0.0028 mg/L	0.00115	-0.0028 mg/L	0.00115	41.79%
Pb 220.353†	132.4	0.0044 mg/L	0.00030	0.0044 mg/L	0.00030	6.91%
Cd 226.502†	1331513.8	3.254 mg/L	0.0145	3.254 mg/L	0.0145	0.45%
Co 228.616†	281.4	0.0024 mg/L	0.00014	0.0024 mg/L	0.00014	5.84%
Ni 232.003†	320.3	0.0055 mg/L	0.00072	0.0055 mg/L	0.00072	13.14%
Ba 233.527†	8153.7	0.0365 mg/L	0.00041	0.0365 mg/L	0.00041	1.13%
Mn 257.610†	149751.7	0.0684 mg/L	0.00102	0.0684 mg/L	0.00102	1.50%

Cr 267.716†	6262.9	0.0191 mg/L	0.00054	0.0191 mg/L	0.00054	2.82%
Fe 273.955†	199919.1	2.914 mg/L	0.0435	2.914 mg/L	0.0435	1.49%
Mg 279.077†	679026.0	11.16 mg/L	0.052	11.16 mg/L	0.052	0.46%
V 292.402†	3360.3	0.0058 mg/L	0.00016	0.0058 mg/L	0.00016	2.68%
Al 308.215†	182650.6	3.702 mg/L	0.0604	3.702 mg/L	0.0604	1.63%
Be 313.107†	-6482.7	-0.0007 mg/L	0.00002	-0.0007 mg/L	0.00002	3.29%
Cu 324.752†	6633.7	0.0138 mg/L	0.00026	0.0138 mg/L	0.00026	1.91%
Ag 338.289†	-2055.3	-0.0079 mg/L	0.00061	-0.0079 mg/L	0.00061	7.77%
Na 330.237†	70776.0	42.32 mg/L	0.550	42.32 mg/L	0.550	1.30%
Ca 227.546†	785.9	1.006 mg/L	0.0235	1.006 mg/L	0.0235	2.34%
Al RADIAL†	23256.7	4.067 mg/L	0.0578	4.067 mg/L	0.0578	1.42%
Fe RADIAL†	4282.2	2.911 mg/L	0.0536	2.911 mg/L	0.0536	1.84%
Ca RADIAL†	20171.8	1.135 mg/L	0.0229	1.135 mg/L	0.0229	2.02%
K RADIAL†	1224.0	0.4202 mg/L	0.00708	0.4202 mg/L	0.00708	1.68%
Mg RADIAL†	17575.3	11.60 mg/L	0.162	11.60 mg/L	0.162	1.40%
Na RADIAL†	11741.5	0.4585 mg/L	0.01111	0.4585 mg/L	0.01111	2.42%
Mo 202.031	261.1	0.003 mg/L	0.0002	0.003 mg/L	0.0002	6.88%

Sequence No.: 60

Sample ID: 16C0476-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 50

Date Collected: 3/14/2016 7:58:31 PM

Data Type: Reprocessed on 3/15/2016 5:41:44 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0476-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25859798.9	4.630 mg/L	0.0251			0.54%
Y RADIAL	770138.7	4.693 mg/L	0.0683			1.45%
As 188.979†	16.1	0.0030 mg/L	0.00152	0.0030 mg/L	0.00152	50.36%
Tl 190.801†	-482.9	-0.0600 mg/L	0.00088	-0.0600 mg/L	0.00088	1.46%
Se 196.026†	-9.7	-0.0027 mg/L	0.00409	-0.0027 mg/L	0.00409	152.19%
Zn 206.200†	17360.2	0.1293 mg/L	0.00163	0.1293 mg/L	0.00163	1.26%
Sb 206.836†	-125.4	-0.0138 mg/L	0.00155	-0.0138 mg/L	0.00155	11.25%
Pb 220.353†	-31.6	0.0026 mg/L	0.00073	0.0026 mg/L	0.00073	28.26%
Co 226.502†	556.8	0.0013 mg/L	0.00004	0.0013 mg/L	0.00004	2.99%
Ce 228.616†	3364.0	0.0285 mg/L	0.00014	0.0285 mg/L	0.00014	0.48%
Ni 232.003†	170.8	0.0029 mg/L	0.00043	0.0029 mg/L	0.00043	14.57%
Ba 233.527†	4105.1	0.0184 mg/L	0.00015	0.0184 mg/L	0.00015	0.83%
Mn 257.610†	134956.1	0.0615 mg/L	0.00056	0.0615 mg/L	0.00056	0.91%
Cr 267.716†	7114.3	0.0216 mg/L	0.00023	0.0216 mg/L	0.00023	1.09%
Fe 273.955†	101551.4	1.480 mg/L	0.0122	1.480 mg/L	0.0122	0.83%
Mg 279.077†	291564.1	4.792 mg/L	0.0522	4.792 mg/L	0.0522	1.09%
V 292.402†	10407.6	0.0183 mg/L	0.00006	0.0183 mg/L	0.00006	0.30%
Al 308.215†	427549.7	8.662 mg/L	0.0606	8.662 mg/L	0.0606	0.70%
Be 313.107†	-31567.9	-0.0034 mg/L	0.00006	-0.0034 mg/L	0.00006	1.64%
Cu 324.752†	1544.5	0.0033 mg/L	0.00038	0.0033 mg/L	0.00038	11.52%
Ag 338.289†	-7414.0	-0.0305 mg/L	0.00063	-0.0305 mg/L	0.00063	2.06%
Na 330.237†	1516.2	1.091 mg/L	0.1330	1.091 mg/L	0.1330	12.20%
Ca 227.546†	137224.0	170.6 mg/L	1.69	170.6 mg/L	1.69	0.99%
Al RADIAL†	49021.4	8.568 mg/L	0.0405	8.568 mg/L	0.0405	0.47%
Fe RADIAL†	2190.5	1.489 mg/L	0.0214	1.489 mg/L	0.0214	1.43%
Ca RADIAL†	3208142.1	180.5 mg/L	0.08	180.5 mg/L	0.08	0.04%
K RADIAL†	9748.9	3.346 mg/L	0.0273	3.346 mg/L	0.0273	0.82%
Mg RADIAL†	7358.5	4.858 mg/L	0.0569	4.858 mg/L	0.0569	1.17%
Na RADIAL†	96086.6	3.752 mg/L	0.0181	3.752 mg/L	0.0181	0.48%
Mo 202.031	-42.6	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	28.93%

Sequence No.: 61

Sample ID: 16C0476-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 51

Date Collected: 3/14/2016 8:03:35 PM

Data Type: Reprocessed on 3/15/2016 5:41:45 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0476-02

Mean Corrected

Calib.

Sample

Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	26511606.0	4.747 mg/L	0.0624			1.31%
Y RADIAL	788560.6	4.805 mg/L	0.0513			1.07%
As 188.979†	20.5	0.0040 mg/L	0.00255	0.0040 mg/L	0.00255	64.10%
Tl 190.801†	-303.0	-0.0374 mg/L	0.00395	-0.0374 mg/L	0.00395	10.55%
Se 196.026†	-21.5	-0.0059 mg/L	0.00170	-0.0059 mg/L	0.00170	28.56%
Zn 206.200†	10215.5	0.0761 mg/L	0.00083	0.0761 mg/L	0.00083	1.10%
Sb 206.836†	-94.4	-0.0103 mg/L	0.00021	-0.0103 mg/L	0.00021	2.03%
Pb 220.353†	-4.9	0.0021 mg/L	0.00059	0.0021 mg/L	0.00059	27.86%
Cd 226.502†	417.0	0.0008 mg/L	0.00008	0.0008 mg/L	0.00008	10.08%
Co 228.616†	688.9	0.0059 mg/L	0.00008	0.0059 mg/L	0.00008	1.36%
Ni 232.003†	185.2	0.0031 mg/L	0.00029	0.0031 mg/L	0.00029	9.11%
Ba 233.527†	7003.1	0.0313 mg/L	0.00030	0.0313 mg/L	0.00030	0.95%
Mn 257.610†	357493.3	0.1628 mg/L	0.00304	0.1628 mg/L	0.00304	1.87%
Cr 267.716†	4478.4	0.0137 mg/L	0.00044	0.0137 mg/L	0.00044	3.20%
Fe 273.955†	229404.5	3.344 mg/L	0.0679	3.344 mg/L	0.0679	2.03%
Mg 279.077†	450691.3	7.407 mg/L	0.1424	7.407 mg/L	0.1424	1.92%
V 292.402†	5382.9	0.0094 mg/L	0.00017	0.0094 mg/L	0.00017	1.77%
Al 308.215†	299373.0	6.066 mg/L	0.1306	6.066 mg/L	0.1306	2.15%
Be 313.107†	-18857.2	-0.0021 mg/L	0.00012	-0.0021 mg/L	0.00012	6.03%
Cu 324.752†	3153.3	0.0068 mg/L	0.00017	0.0068 mg/L	0.00017	2.42%
Ag 338.289†	-4935.4	-0.0203 mg/L	0.00105	-0.0203 mg/L	0.00105	5.20%
Na 330.237†	-995.8	-0.4617 mg/L	0.05152	-0.4617 mg/L	0.05152	11.16%
Ca 227.546†	89798.5	111.7 mg/L	1.91	111.7 mg/L	1.91	1.71%
Al RADIAL†	35972.5	6.288 mg/L	0.0761	6.288 mg/L	0.0761	1.21%
Fe RADIAL†	4887.0	3.322 mg/L	0.0241	3.322 mg/L	0.0241	0.72%
Ca RADIAL†	2134045.2	120.0 mg/L	0.14	120.0 mg/L	0.14	0.12%
K RADIAL†	4704.3	1.615 mg/L	0.0258	1.615 mg/L	0.0258	1.60%
Mg RADIAL†	11218.6	7.407 mg/L	0.0765	7.407 mg/L	0.0765	1.03%
Na RADIAL†	27883.4	1.089 mg/L	0.0340	1.089 mg/L	0.0340	3.13%
Mo 202.031	-31.3	0.000 mg/L	0.0002	0.000 mg/L	0.0002	49.26%

Sequence No.: 62

Sample ID: 16C0485-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 52

Date Collected: 3/14/2016 8:08:14 PM

Data Type: Reprocessed on 3/15/2016 5:41:46 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0485-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27461500.7	4.917 mg/L	0.0444			0.90%
Y RADIAL	799756.3	4.873 mg/L	0.1234			2.53%
As 188.979†	33.6	0.0074 mg/L	0.00174	0.0074 mg/L	0.00174	23.57%
Tl 190.801†	-101.9	-0.0114 mg/L	0.00256	-0.0114 mg/L	0.00256	22.43%
Se 196.026†	-0.2	0.0056 mg/L	0.00368	0.0056 mg/L	0.00368	65.62%
Zn 206.200†	172521.4	1.285 mg/L	0.0008	1.285 mg/L	0.0008	0.06%
Sb 206.836†	59.3	0.0071 mg/L	0.00149	0.0071 mg/L	0.00149	20.95%
Pb 220.353†	5908.7	0.1809 mg/L	0.00098	0.1809 mg/L	0.00098	0.54%
Cd 226.502†	7869.2	0.0182 mg/L	0.00013	0.0182 mg/L	0.00013	0.69%
Co 228.616†	732.9	0.0065 mg/L	0.00006	0.0065 mg/L	0.00006	0.95%
Ni 232.003†	1520.2	0.0260 mg/L	0.00047	0.0260 mg/L	0.00047	1.80%
Ba 233.527†	30653.6	0.1372 mg/L	0.00030	0.1372 mg/L	0.00030	0.22%
Mn 257.610†	203953.0	0.0945 mg/L	0.00026	0.0945 mg/L	0.00026	0.28%
Cr 267.716†	13124.1	0.0402 mg/L	0.00019	0.0402 mg/L	0.00019	0.46%
Fe 273.955†	984152.8	14.35 mg/L	0.033	14.35 mg/L	0.033	0.23%
Mg 279.077†	134254.4	2.204 mg/L	0.0043	2.204 mg/L	0.0043	0.19%
V 292.402†	15000.0	0.0258 mg/L	0.00010	0.0258 mg/L	0.00010	0.39%
Al 308.215†	410797.7	8.328 mg/L	0.0441	8.328 mg/L	0.0441	0.53%
Be 313.107†	-3690.6	-0.0004 mg/L	0.00001	-0.0004 mg/L	0.00001	3.36%
Cu 324.752†	526204.4	1.069 mg/L	0.0051	1.069 mg/L	0.0051	0.47%
Ag 338.289†	-1246.7	-0.0045 mg/L	0.00022	-0.0045 mg/L	0.00022	4.94%
Na 330.237†	3888.5	2.394 mg/L	0.0363	2.394 mg/L	0.0363	1.51%
Ca 227.546†	2653.7	3.428 mg/L	0.0310	3.428 mg/L	0.0310	0.91%
Al RADIAL†	49498.1	8.658 mg/L	0.0386	8.658 mg/L	0.0386	0.45%
Fe RADIAL†	20889.2	14.20 mg/L	0.462	14.20 mg/L	0.462	3.25%
Ca RADIAL†	64345.1	3.620 mg/L	0.1340	3.620 mg/L	0.1340	3.70%
K RADIAL†	3917.3	1.345 mg/L	0.0429	1.345 mg/L	0.0429	3.19%
Mo 202.031	3382.1	2.232 mg/L	0.0596	2.232 mg/L	0.0596	2.67%

Na RADIAL†	40116.8	1.567 mg/L	0.0529	1.567 mg/L	0.0529	3.38%
Mo 202.031	2980.5	0.037 mg/L	0.0003	0.037 mg/L	0.0003	0.87%

Sequence No.: 63

Sample ID: 16C0485-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 53

Date Collected: 3/14/2016 8:12:53 PM

Data Type: Reprocessed on 3/15/2016 5:41:46 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0485-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27035367.2	4.841 mg/L	0.0075			0.16%
Y RADIAL	808468.7	4.926 mg/L	0.0290			0.59%
As 188.979†	27.8	0.0116 mg/L	0.00171	0.0116 mg/L	0.00171	14.77%
Tl 190.801†	-451.7	-0.0502 mg/L	0.00246	-0.0502 mg/L	0.00246	4.90%
Se 196.026†	-69.6	0.0030 mg/L	0.00188	0.0030 mg/L	0.00188	62.63%
Zn 206.200†	36157.3	0.2687 mg/L	0.00047	0.2687 mg/L	0.00047	0.18%
Sb 206.836†	-157.3	-0.0147 mg/L	0.00125	-0.0147 mg/L	0.00125	8.51%
Pb 220.353†	2823.5	0.0899 mg/L	0.00109	0.0899 mg/L	0.00109	1.21%
Cd 226.502†	2080.4	0.0004 mg/L	0.00005	0.0004 mg/L	0.00005	10.54%
Co 228.616†	4305.1	0.0378 mg/L	0.00003	0.0378 mg/L	0.00003	0.09%
Ni 232.003†	4579.7	0.0780 mg/L	0.00054	0.0780 mg/L	0.00054	0.69%
Ba 233.527†	54557.0	0.2441 mg/L	0.00328	0.2441 mg/L	0.00328	1.34%
Mn 257.610†	2404741.5	1.101 mg/L	0.0074	1.101 mg/L	0.0074	0.67%
Cr 267.716†	32804.8	0.1014 mg/L	0.00132	0.1014 mg/L	0.00132	1.30%
Fe 273.955†	4557040.1	66.42 mg/L	0.391	66.42 mg/L	0.391	0.59%
Mg 279.077†	989240.4	16.25 mg/L	0.096	16.25 mg/L	0.096	0.59%
V 292.402†	85036.6	0.1470 mg/L	0.00224	0.1470 mg/L	0.00224	1.52%
Al 308.215†	3019485.4	61.21 mg/L	0.413	61.21 mg/L	0.413	0.67%
Be 313.107†	6885.2	0.0007 mg/L	0.00011	0.0007 mg/L	0.00011	15.02%
Cu 324.752†	35960.2	0.0815 mg/L	0.00117	0.0815 mg/L	0.00117	1.43%
Ag 338.289†	-7582.5	-0.0279 mg/L	0.00026	-0.0279 mg/L	0.00026	0.93%
Na 330.237†	-925.8	-0.2366 mg/L	0.01022	-0.2366 mg/L	0.01022	4.32%
Ca 227.546†	6970.9	9.282 mg/L	0.0365	9.282 mg/L	0.0365	0.39%
Al RADIAL†	354469.9	62.00 mg/L	0.312	62.00 mg/L	0.312	0.50%
Fe RADIAL†	97723.1	66.43 mg/L	0.554	66.43 mg/L	0.554	0.83%
Ca RADIAL†	163382.9	9.191 mg/L	0.0772	9.191 mg/L	0.0772	0.84%
K RADIAL†	25361.1	8.705 mg/L	0.0949	8.705 mg/L	0.0949	1.09%
Mg RADIAL†	24753.4	16.34 mg/L	0.136	16.34 mg/L	0.136	0.83%
Na RADIAL†	36255.7	1.416 mg/L	0.0237	1.416 mg/L	0.0237	1.67%
Mo 202.031	-142.6	-0.002 mg/L	0.0003	-0.002 mg/L	0.0003	18.59%

Sequence No.: 64

Sample ID: 16C0485-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 54

Date Collected: 3/14/2016 8:17:40 PM

Data Type: Reprocessed on 3/15/2016 5:41:47 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0485-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26849409.2	4.808 mg/L	0.0093			0.19%
Y RADIAL	821502.7	5.006 mg/L	0.0278			0.55%
As 188.979†	96.6	0.0234 mg/L	0.00032	0.0234 mg/L	0.00032	1.36%
Tl 190.801†	-379.3	-0.0417 mg/L	0.00144	-0.0417 mg/L	0.00144	3.46%
Se 196.026†	-65.1	0.0025 mg/L	0.00317	0.0025 mg/L	0.00317	124.87%
Zn 206.200†	39204.7	0.2914 mg/L	0.00062	0.2914 mg/L	0.00062	0.21%
Sb 206.836†	-113.4	-0.0101 mg/L	0.00055	-0.0101 mg/L	0.00055	5.47%
Pb 220.353†	10072.0	0.3105 mg/L	0.00042	0.3105 mg/L	0.00042	0.13%
Cd 226.502†	2125.3	0.0009 mg/L	0.00010	0.0009 mg/L	0.00010	11.70%
Co 228.616†	5389.9	0.0469 mg/L	0.00023	0.0469 mg/L	0.00023	0.50%
Ni 232.003†	5015.2	0.0856 mg/L	0.00106	0.0856 mg/L	0.00106	1.24%
Ba 233.527†	66842.7	0.2991 mg/L	0.00071	0.2991 mg/L	0.00071	0.24%
Mn 257.610†	1934401.4	0.8866 mg/L	0.00279	0.8866 mg/L	0.00279	0.31%
Cr 267.716†	27707.9	0.0858 mg/L	0.00042	0.0858 mg/L	0.00042	0.49%

Fe 273.955†	4313824.7	62.88 mg/L	0.190	62.88 mg/L	0.190	0.30%
Mg 279.077†	813110.0	13.35 mg/L	0.039	13.35 mg/L	0.039	0.29%
V 292.402†	73022.8	0.1260 mg/L	0.00017	0.1260 mg/L	0.00017	0.14%
Al 308.215†	2513666.6	50.96 mg/L	0.414	50.96 mg/L	0.414	0.81%
Be 313.107†	4657.1	0.0005 mg/L	0.00005	0.0005 mg/L	0.00005	10.00%
Cu 324.752†	42401.1	0.0940 mg/L	0.00028	0.0940 mg/L	0.00028	0.29%
Ag 338.289†	-6580.6	-0.0242 mg/L	0.00062	-0.0242 mg/L	0.00062	2.58%
Na 330.237†	-550.8	-0.0360 mg/L	0.08118	-0.0360 mg/L	0.08118	225.80%
Ca 227.546†	6780.0	8.994 mg/L	0.0605	8.994 mg/L	0.0605	0.67%
Al RADIAL†	291506.1	50.99 mg/L	0.086	50.99 mg/L	0.086	0.17%
Fe RADIAL†	90407.6	61.46 mg/L	0.136	61.46 mg/L	0.136	0.22%
Ca RADIAL†	155776.7	8.763 mg/L	0.0131	8.763 mg/L	0.0131	0.15%
K RADIAL†	21163.1	7.264 mg/L	0.0261	7.264 mg/L	0.0261	0.36%
Mg RADIAL†	20008.5	13.20 mg/L	0.048	13.20 mg/L	0.048	0.37%
Na RADIAL†	30747.7	1.201 mg/L	0.0050	1.201 mg/L	0.0050	0.41%
Mo 202.031	-67.7	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	8.89%

Sequence No.: 65

Sample ID: 16C0485-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 55

Date Collected: 3/14/2016 8:22:27 PM

Data Type: Reprocessed on 3/15/2016 5:41:48 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0485-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26723622.4	4.785 mg/L	0.0165			0.34%
Y RADIAL	808817.9	4.928 mg/L	0.0729			1.48%
As 188.979†	70.3	0.0208 mg/L	0.00214	0.0208 mg/L	0.00214	10.29%
Tl 190.801†	-536.0	-0.0592 mg/L	0.00096	-0.0592 mg/L	0.00096	1.63%
Se 196.026†	-87.9	0.0034 mg/L	0.00395	0.0034 mg/L	0.00395	115.86%
Zn 206.200†	534808.8	3.983 mg/L	0.0097	3.983 mg/L	0.0097	0.24%
Sb 206.836†	-175.0	-0.0160 mg/L	0.00239	-0.0160 mg/L	0.00239	14.91%
Pb 220.353†	2304.3	0.0739 mg/L	0.00069	0.0739 mg/L	0.00069	0.94%
Cd 226.502†	2697.8	0.0008 mg/L	0.00004	0.0008 mg/L	0.00004	4.49%
Co 228.616†	6955.1	0.0605 mg/L	0.00033	0.0605 mg/L	0.00033	0.55%
Ni 232.003†	6900.5	0.1178 mg/L	0.00111	0.1178 mg/L	0.00111	0.95%
Ba 233.527†	77486.4	0.3467 mg/L	0.00143	0.3467 mg/L	0.00143	0.41%
Mn 257.610†	2716291.7	1.244 mg/L	0.0144	1.244 mg/L	0.0144	1.16%
Cr 267.716†	40283.5	0.1246 mg/L	0.00050	0.1246 mg/L	0.00050	0.40%
Fe 273.955†	5716959.0	83.33 mg/L	0.945	83.33 mg/L	0.945	1.13%
Mg 279.077†	1262554.1	20.74 mg/L	0.226	20.74 mg/L	0.226	1.09%
V 292.402†	102867.2	0.1777 mg/L	0.00042	0.1777 mg/L	0.00042	0.23%
Al 308.215†	3518702.0	71.33 mg/L	0.918	71.33 mg/L	0.918	1.29%
Be 313.107†	8795.2	0.0010 mg/L	0.00009	0.0010 mg/L	0.00009	9.06%
Cu 324.752†	36827.3	0.0854 mg/L	0.00042	0.0854 mg/L	0.00042	0.49%
Ag 338.289†	-9225.6	-0.0339 mg/L	0.00012	-0.0339 mg/L	0.00012	0.36%
Na 330.237†	6306.9	4.162 mg/L	0.0985	4.162 mg/L	0.0985	2.37%
Ca 227.546†	6799.7	9.217 mg/L	0.0484	9.217 mg/L	0.0484	0.53%
Al RADIAL†	401951.2	70.30 mg/L	0.195	70.30 mg/L	0.195	0.28%
Fe RADIAL†	121949.4	82.90 mg/L	0.979	82.90 mg/L	0.979	1.18%
Ca RADIAL†	157272.5	8.847 mg/L	0.1307	8.847 mg/L	0.1307	1.48%
K RADIAL†	32120.4	11.03 mg/L	0.132	11.03 mg/L	0.132	1.20%
Mg RADIAL†	31321.1	20.67 mg/L	0.302	20.67 mg/L	0.302	1.46%
Na RADIAL†	21711.0	0.8479 mg/L	0.03250	0.8479 mg/L	0.03250	3.83%
Mo 202.031	-103.4	-0.001 mg/L	0.0004	-0.001 mg/L	0.0004	32.57%

Sequence No.: 66

Sample ID: 16C0486-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 56

Date Collected: 3/14/2016 8:27:14 PM

Data Type: Reprocessed on 3/15/2016 5:41:49 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0486-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD

Y 371.029	25162040.1	4.505 mg/L	0.0062			0.14%
Y RADIAL	761723.7	4.641 mg/L	0.0394			0.85%
As 188.979†	-54.4	0.0130 mg/L	0.00099	0.0130 mg/L	0.00099	7.62%
Tl 190.801†	-1346.3	-0.1471 mg/L	0.00635	-0.1471 mg/L	0.00635	4.32%
Se 196.026†	-221.6	0.0159 mg/L	0.00906	0.0159 mg/L	0.00906	57.06%
Zn 206.200†	81260.7	0.6030 mg/L	0.00397	0.6030 mg/L	0.00397	0.66%
Sb 206.836†	-439.4	-0.0395 mg/L	0.00236	-0.0395 mg/L	0.00236	5.97%
Pb 220.353†	2324.0	0.0800 mg/L	0.00017	0.0800 mg/L	0.00017	0.22%
Cd 226.502†	6941.2	0.0011 mg/L	0.00012	0.0011 mg/L	0.00012	10.92%
Co 228.616†	20995.5	0.1823 mg/L	0.00137	0.1823 mg/L	0.00137	0.75%
Ni 232.003†	17574.3	0.2997 mg/L	0.00300	0.2997 mg/L	0.00300	1.00%
Ba 233.527†	217200.3	0.9718 mg/L	0.00585	0.9718 mg/L	0.00585	0.60%
Mn 257.610†	13245957.6	6.046 mg/L	0.0042	6.046 mg/L	0.0042	0.07%
Cr 267.716†	80508.5	0.2508 mg/L	0.00137	0.2508 mg/L	0.00137	0.55%
Fe 273.955†	15035674.9	219.2 mg/L	0.27	219.2 mg/L	0.27	0.12%
Mg 279.077†	6850070.4	112.6 mg/L	1.14	112.6 mg/L	1.14	1.01%
V 292.402†	207977.4	0.3564 mg/L	0.00156	0.3564 mg/L	0.00156	0.44%
Al 308.215†	9371446.4	190.0 mg/L	0.45	190.0 mg/L	0.45	0.24%
Be 313.107†	-45870.8	-0.0050 mg/L	0.00044	-0.0050 mg/L	0.00044	8.89%
Cu 324.752†	182302.8	0.3991 mg/L	0.00287	0.3991 mg/L	0.00287	0.72%
Ag 338.289†	-24260.2	-0.0892 mg/L	0.00054	-0.0892 mg/L	0.00054	0.61%
Na 330.237†	-3456.0	-0.9706 mg/L	0.03754	-0.9706 mg/L	0.03754	3.87%
Ca 227.546†	34150.0	44.55 mg/L	0.429	44.55 mg/L	0.429	0.96%
Al RADIAL†	1065485.7	186.4 mg/L	0.38	186.4 mg/L	0.38	0.21%
Fe RADIAL†	334221.0	227.2 mg/L	0.44	227.2 mg/L	0.44	0.20%
Ca RADIAL†	773276.8	43.50 mg/L	0.036	43.50 mg/L	0.036	0.08%
K RADIAL†	137770.2	47.29 mg/L	0.174	47.29 mg/L	0.174	0.37%
Mg RADIAL†	164685.8	108.7 mg/L	0.34	108.7 mg/L	0.34	0.31%
Na RADIAL†	112165.2	4.380 mg/L	0.0102	4.380 mg/L	0.0102	0.23%
Mo 202.031	-79.8	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	7.55%

Sequence No.: 67

Sample ID: 16C0487-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 57

Date Collected: 3/14/2016 8:32:00 PM

Data Type: Reprocessed on 3/15/2016 5:41:49 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0487-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24986009.5	4.474 mg/L	0.0131			0.29%
Y RADIAL	780451.6	4.756 mg/L	0.0411			0.86%
As 188.979†	43.2	0.0288 mg/L	0.00193	0.0288 mg/L	0.00193	6.70%
Tl 190.801†	-1089.2	-0.1165 mg/L	0.00400	-0.1165 mg/L	0.00400	3.43%
Se 196.026†	-205.0	0.0150 mg/L	0.00397	0.0150 mg/L	0.00397	26.44%
Zn 206.200†	77160.8	0.5726 mg/L	0.00574	0.5726 mg/L	0.00574	1.00%
Sb 206.836†	-364.8	-0.0319 mg/L	0.00171	-0.0319 mg/L	0.00171	5.36%
Pb 220.353†	4494.2	0.1452 mg/L	0.00147	0.1452 mg/L	0.00147	1.01%
Cd 226.502†	6862.8	0.0020 mg/L	0.00016	0.0020 mg/L	0.00016	7.77%
Co 228.616†	13719.8	0.1204 mg/L	0.00089	0.1204 mg/L	0.00089	0.74%
Ni 232.003†	14527.5	0.2473 mg/L	0.00171	0.2473 mg/L	0.00171	0.69%
Ba 233.527†	166589.1	0.7454 mg/L	0.00663	0.7454 mg/L	0.00663	0.89%
Mn 257.610†	12684021.9	5.788 mg/L	0.0066	5.788 mg/L	0.0066	0.11%
Cr 267.716†	67370.6	0.2105 mg/L	0.00187	0.2105 mg/L	0.00187	0.89%
Fe 273.955†	14069506.8	205.1 mg/L	0.25	205.1 mg/L	0.25	0.12%
Mg 279.077†	9942737.6	163.4 mg/L	0.23	163.4 mg/L	0.23	0.14%
V 292.402†	181860.8	0.3110 mg/L	0.00288	0.3110 mg/L	0.00288	0.93%
Al 308.215†	8073973.6	163.7 mg/L	1.34	163.7 mg/L	1.34	0.82%
Be 313.107†	-29724.9	-0.0032 mg/L	0.00014	-0.0032 mg/L	0.00014	4.47%
Cu 324.752†	128255.9	0.2875 mg/L	0.00176	0.2875 mg/L	0.00176	0.61%
Ag 338.289†	-19288.2	-0.0722 mg/L	0.00153	-0.0722 mg/L	0.00153	2.12%
Na 330.237†	-5192.6	-1.928 mg/L	0.0027	-1.928 mg/L	0.0027	0.14%
Ca 227.546†	170199.2	213.5 mg/L	1.78	213.5 mg/L	1.78	0.83%
Al RADIAL†	865904.1	151.4 mg/L	2.20	151.4 mg/L	2.20	1.46%
Fe RADIAL†	310489.5	211.1 mg/L	0.63	211.1 mg/L	0.63	0.30%
Ca RADIAL†	3572545.1	201.0 mg/L	2.66	201.0 mg/L	2.66	1.33%
K RADIAL†	68936.3	23.66 mg/L	0.068	23.66 mg/L	0.068	0.29%
Mg RADIAL†	240065.0	158.5 mg/L	0.30	158.5 mg/L	0.30	0.19%
Na RADIAL†	43120.9	1.684 mg/L	0.0121	1.684 mg/L	0.0121	0.72%

Mo 202.031 -209.4 -0.003 mg/L 0.0001 -0.003 mg/L 0.0001 5.70%

Sequence No.: 68

Sample ID: SEQ-SRD2

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 58

Date Collected: 3/14/2016 8:36:51 PM

Data Type: Reprocessed on 3/15/2016 5:41:50 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27213390.9	4.873 mg/L	0.0278			0.57%
Y RADIAL	797403.9	4.859 mg/L	0.0401			0.83%
As 188.979†	-3.3	0.0012 mg/L	0.00200	0.0012 mg/L	0.00200	168.11%
Tl 190.801†	-43.0	-0.0037 mg/L	0.00158	-0.0037 mg/L	0.00158	42.11%
Se 196.026†	-29.7	-0.0029 mg/L	0.00275	-0.0029 mg/L	0.00275	93.61%
Zn 206.200†	12100.9	0.0900 mg/L	0.00088	0.0900 mg/L	0.00088	0.98%
Sb 206.836†	-60.0	-0.0059 mg/L	0.00113	-0.0059 mg/L	0.00113	19.06%
Pb 220.353†	2510.3	0.0769 mg/L	0.00090	0.0769 mg/L	0.00090	1.18%
Cd 226.502†	543.0	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	31.40%
Co 228.616†	1139.0	0.0100 mg/L	0.00016	0.0100 mg/L	0.00016	1.55%
Ni 232.003†	1888.0	0.0323 mg/L	0.00076	0.0323 mg/L	0.00076	2.35%
Ba 233.527†	28517.9	0.1276 mg/L	0.00055	0.1276 mg/L	0.00055	0.43%
Mn 257.610†	1298839.0	0.5922 mg/L	0.00416	0.5922 mg/L	0.00416	0.70%
Cr 267.716†	7759.8	0.0240 mg/L	0.00007	0.0240 mg/L	0.00007	0.28%
Fe 273.955†	1244313.7	18.14 mg/L	0.116	18.14 mg/L	0.116	0.64%
Mg 279.077†	331884.3	5.452 mg/L	0.0249	5.452 mg/L	0.0249	0.46%
V 292.402†	15251.0	0.0261 mg/L	0.00021	0.0261 mg/L	0.00021	0.79%
Al 308.215†	419298.9	8.501 mg/L	0.0561	8.501 mg/L	0.0561	0.66%
Be 313.107†	654.8	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	32.60%
Cu 324.752†	11977.6	0.0266 mg/L	0.00024	0.0266 mg/L	0.00024	0.89%
Ag 338.289†	-1050.6	-0.0038 mg/L	0.00071	-0.0038 mg/L	0.00071	18.59%
Na 330.237†	126.0	0.1714 mg/L	0.02096	0.1714 mg/L	0.02096	12.23%
Ca 227.546†	10148.6	12.78 mg/L	0.066	12.78 mg/L	0.066	0.52%
Al RADIAL†	51528.0	9.013 mg/L	0.0588	9.013 mg/L	0.0588	0.65%
Fe RADIAL†	26198.6	17.81 mg/L	0.144	17.81 mg/L	0.144	0.81%
Cd RADIAL†	244597.4	13.76 mg/L	0.033	13.76 mg/L	0.033	0.24%
K RADIAL†	6037.6	2.072 mg/L	0.0093	2.072 mg/L	0.0093	0.45%
Mg RADIAL†	8252.2	5.447 mg/L	0.0227	5.447 mg/L	0.0227	0.42%
Na RADIAL†	7673.1	0.2996 mg/L	0.01667	0.2996 mg/L	0.01667	5.56%
Mo 202.031	-53.8	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	15.09%

Sequence No.: 69

Sample ID: SEQ-CCV6

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/14/2016 8:41:31 PM

Data Type: Reprocessed on 3/15/2016 5:41:51 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV6

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25589265.3	4.582 mg/L	0.0359			0.78%
Y RADIAL	762764.0	4.648 mg/L	0.0338			0.73%
As 188.979†	1443.5	0.2576 mg/L	0.00361	0.2576 mg/L	0.00361	1.40%
Tl 190.801†	2096.5	0.2613 mg/L	0.00329	0.2613 mg/L	0.00329	1.26%
Se 196.026†	747.6	0.2552 mg/L	0.00369	0.2552 mg/L	0.00369	1.44%
Zn 206.200†	355283.8	2.646 mg/L	0.0339	2.646 mg/L	0.0339	1.28%
Sb 206.836†	2228.8	0.2459 mg/L	0.00157	0.2459 mg/L	0.00157	0.64%
Pb 220.353†	8499.0	0.2613 mg/L	0.00197	0.2613 mg/L	0.00197	0.75%
Cd 226.502†	52085.5	0.1269 mg/L	0.00169	0.1269 mg/L	0.00169	1.33%
Co 228.616†	315229.9	2.665 mg/L	0.0405	2.665 mg/L	0.0405	1.52%
Ni 232.003†	150188.1	2.600 mg/L	0.0368	2.600 mg/L	0.0368	1.42%
Ba 233.527†	2418727.2	10.82 mg/L	0.047	10.82 mg/L	0.047	0.44%
Mn 257.610†	5899651.6	2.680 mg/L	0.0078	2.680 mg/L	0.0078	0.29%
Cr 267.716†	353878.0	1.072 mg/L	0.0142	1.072 mg/L	0.0142	1.33%
Fe 273.955†	366394.8	5.341 mg/L	0.0749	5.341 mg/L	0.0749	1.40%

Mg 279.077†	1569791.3	25.80 mg/L	0.037	25.80 mg/L	0.037	0.14%
V 292.402†	1456354.1	2.575 mg/L	0.0088	2.575 mg/L	0.0088	0.34%
Al 308.215†	508021.0	10.30 mg/L	0.149	10.30 mg/L	0.149	1.45%
Be 313.107†	2359565.3	0.2570 mg/L	0.00158	0.2570 mg/L	0.00158	0.61%
Cu 324.752†	644132.3	1.307 mg/L	0.0176	1.307 mg/L	0.0176	1.35%
Ag 338.289†	343332.0	1.319 mg/L	0.0172	1.319 mg/L	0.0172	1.31%
Na 330.237†	40555.8	24.29 mg/L	0.258	24.29 mg/L	0.258	1.06%
Ca 227.546†	20305.6	25.30 mg/L	0.146	25.30 mg/L	0.146	0.58%
Al RADIAL†	60405.8	10.56 mg/L	0.156	10.56 mg/L	0.156	1.48%
Fe RADIAL†	7779.0	5.288 mg/L	0.0692	5.288 mg/L	0.0692	1.31%
Ca RADIAL†	459779.3	25.86 mg/L	0.014	25.86 mg/L	0.014	0.06%
K RADIAL†	15852.6	5.441 mg/L	0.0631	5.441 mg/L	0.0631	1.16%
Mg RADIAL†	40122.9	26.49 mg/L	0.332	26.49 mg/L	0.332	1.25%
Na RADIAL†	691046.8	26.99 mg/L	0.189	26.99 mg/L	0.189	0.70%
Mg 202.031	80877.5	1.009 mg/L	0.0082	1.009 mg/L	0.0082	0.81%

Sequence No.: 70

Sample ID: SEQ-CCB6

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/14/2016 8:49:18 PM

Data Type: Reprocessed on 3/15/2016 5:41:51 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB6

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27652453.5	4.951 mg/L	0.0257			0.52%
Y RADIAL	794529.5	4.841 mg/L	0.0361			0.75%
As 188.979†	-1.9	-0.0003 mg/L	0.00092	-0.0003 mg/L	0.00092	268.87%
Tl 190.801†	13.2	0.0016 mg/L	0.00046	0.0016 mg/L	0.00046	28.04%
Se 196.026†	-8.4	-0.0028 mg/L	0.00360	-0.0028 mg/L	0.00360	126.53%
Zn 206.200†	716.0	0.0053 mg/L	0.00006	0.0053 mg/L	0.00006	1.20%
Sb 206.836†	-36.6	-0.0040 mg/L	0.00119	-0.0040 mg/L	0.00119	29.48%
Pb 220.353†	18.6	0.0006 mg/L	0.00063	0.0006 mg/L	0.00063	110.71%
Cd 226.502†	1.7	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	>999.9%
Co 228.616†	-36.5	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	7.65%
Ni 232.003†	-16.4	-0.0003 mg/L	0.00030	-0.0003 mg/L	0.00030	106.10%
Ba 233.527†	-102.6	-0.0005 mg/L	0.00005	-0.0005 mg/L	0.00005	11.54%
Mn 257.610†	-126.6	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	32.84%
Cr 267.716†	70.9	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	62.81%
Fe 273.955†	378.7	0.0055 mg/L	0.00008	0.0055 mg/L	0.00008	1.46%
Mg 279.077†	39.3	0.0006 mg/L	0.00165	0.0006 mg/L	0.00165	256.39%
V 292.402†	-63.5	-0.0001 mg/L	0.00007	-0.0001 mg/L	0.00007	58.77%
Al 308.215†	-214.4	-0.0043 mg/L	0.00109	-0.0043 mg/L	0.00109	25.08%
Be 313.107†	267.4	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	125.69%
Cu 324.752†	-1160.3	-0.0024 mg/L	0.00014	-0.0024 mg/L	0.00014	6.05%
Ag 338.289†	107.5	0.0004 mg/L	0.00027	0.0004 mg/L	0.00027	64.91%
Na 330.237†	77.0	0.0460 mg/L	0.02449	0.0460 mg/L	0.02449	53.21%
Ca 227.546†	30.3	0.0377 mg/L	0.01973	0.0377 mg/L	0.01973	52.27%
Al RADIAL†	76.8	0.0134 mg/L	0.00210	0.0134 mg/L	0.00210	15.67%
Fe RADIAL†	3.6	0.0025 mg/L	0.00188	0.0025 mg/L	0.00188	76.04%
Ca RADIAL†	-83.1	-0.0047 mg/L	0.00266	-0.0047 mg/L	0.00266	56.90%
K RADIAL†	4.8	0.0017 mg/L	0.02637	0.0017 mg/L	0.02637	>999.9%
Mg RADIAL†	4.9	0.0032 mg/L	0.00257	0.0032 mg/L	0.00257	79.65%
Na RADIAL†	-2295.7	-0.0897 mg/L	0.01578	-0.0897 mg/L	0.01578	17.60%
Mg 202.031	-54.1	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	22.55%

Sequence No.: 71

Sample ID: BC60699-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 59

Date Collected: 3/14/2016 8:54:28 PM

Data Type: Reprocessed on 3/15/2016 5:41:52 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60699-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26929299.4	4.822 mg/L	0.0425			0.88%

Y RADIAL	782308.6	4.767 mg/L	0.0115		0.24%
As 188.979†	-13.2	-0.0024 mg/L	0.00141	-0.0024 mg/L	0.00141 59.90%
Tl 190.801†	-0.4	0.0000 mg/L	0.00178	0.0000 mg/L	0.00178 >999.9%
Se 196.026†	-7.3	-0.0025 mg/L	0.00314	-0.0025 mg/L	0.00314 127.87%
Zn 206.200†	94.1	0.0007 mg/L	0.00005	0.0007 mg/L	0.00005 6.73%
Sb 206.836†	-34.5	-0.0038 mg/L	0.00121	-0.0038 mg/L	0.00121 31.73%
Pb 220.353†	19.8	0.0006 mg/L	0.00077	0.0006 mg/L	0.00077 126.36%
Cd 226.502†	-30.0	-0.0001 mg/L	0.00006	-0.0001 mg/L	0.00006 87.68%
Co 228.616†	-37.7	-0.0003 mg/L	0.00012	-0.0003 mg/L	0.00012 37.60%
Ni 232.003†	-69.0	-0.0012 mg/L	0.00041	-0.0012 mg/L	0.00041 34.55%
Ba 233.527†	-189.4	-0.0008 mg/L	0.00005	-0.0008 mg/L	0.00005 5.54%
Mn 257.610†	-282.1	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002 12.68%
Cr 267.716†	-5.6	0.0000 mg/L	0.00011	0.0000 mg/L	0.00011 643.61%
Fe 273.955†	446.0	0.0065 mg/L	0.00028	0.0065 mg/L	0.00028 4.25%
Mg 279.077†	51.5	0.0008 mg/L	0.00258	0.0008 mg/L	0.00258 305.37%
V 292.402†	-111.2	-0.0002 mg/L	0.00008	-0.0002 mg/L	0.00008 41.35%
Al 308.215†	1155.4	0.0234 mg/L	0.00348	0.0234 mg/L	0.00348 14.85%
Be 313.107†	-492.4	-0.0001 mg/L	0.00006	-0.0001 mg/L	0.00006 103.62%
Cu 324.752†	-1355.8	-0.0027 mg/L	0.00012	-0.0027 mg/L	0.00012 4.41%
Ag 338.289†	-115.4	-0.0004 mg/L	0.00023	-0.0004 mg/L	0.00023 51.54%
Na 330.237†	78.1	0.0467 mg/L	0.03474	0.0467 mg/L	0.03474 74.40%
Ca 227.546†	-20.6	-0.0256 mg/L	0.01008	-0.0256 mg/L	0.01008 39.41%
Al RADIAL†	114.7	0.0201 mg/L	0.00761	0.0201 mg/L	0.00761 37.95%
Fe RADIAL†	11.3	0.0077 mg/L	0.00256	0.0077 mg/L	0.00256 33.42%
Ca RADIAL†	87.2	0.0049 mg/L	0.01034	0.0049 mg/L	0.01034 210.62%
K RADIAL†	10.7	0.0037 mg/L	0.01368	0.0037 mg/L	0.01368 372.32%
Mg RADIAL†	8.4	0.0056 mg/L	0.00733	0.0056 mg/L	0.00733 131.64%
Na RADIAL†	-3301.6	-0.1289 mg/L	0.00746	-0.1289 mg/L	0.00746 5.78%
Mo 202.031	-74.3	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001 12.00%

Sequence No.: 72

Sample ID: BC60699-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 60

Date Collected: 3/14/2016 8:59:37 PM

Data Type: Reprocessed on 3/15/2016 5:41:53 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60699-SRM1

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26043351.7	4.663 mg/L	0.0228			0.49%
Y RADIAL	813901.0	4.959 mg/L	0.0667			1.35%
As 188.979†	6261.7	1.131 mg/L	0.0101	1.131 mg/L	0.0101	0.89%
Tl 190.801†	7918.5	0.9999 mg/L	0.02836	0.9999 mg/L	0.02836	2.84%
Se 196.026†	4384.9	1.549 mg/L	0.0086	1.549 mg/L	0.0086	0.55%
Zn 206.200†	228075.0	1.697 mg/L	0.0119	1.697 mg/L	0.0119	0.70%
Sb 206.836†	9993.7	1.108 mg/L	0.0100	1.108 mg/L	0.0100	0.91%
Pb 220.353†	29170.4	0.8923 mg/L	0.00580	0.8923 mg/L	0.00580	0.65%
Cd 226.502†	278092.9	0.6682 mg/L	0.00465	0.6682 mg/L	0.00465	0.70%
Co 228.616†	127158.9	1.078 mg/L	0.0070	1.078 mg/L	0.0070	0.65%
Ni 232.003†	60829.2	1.050 mg/L	0.0063	1.050 mg/L	0.0063	0.60%
Ba 233.527†	380806.5	1.704 mg/L	0.0102	1.704 mg/L	0.0102	0.60%
Mn 257.610†	8664944.6	3.956 mg/L	0.0239	3.956 mg/L	0.0239	0.61%
Cr 267.716†	572830.6	1.740 mg/L	0.0119	1.740 mg/L	0.0119	0.69%
Fe 273.955†	10915928.6	159.1 mg/L	0.16	159.1 mg/L	0.16	0.10%
Mg 279.077†	1819615.1	29.88 mg/L	0.169	29.88 mg/L	0.169	0.57%
V 292.402†	443798.7	0.7767 mg/L	0.00642	0.7767 mg/L	0.00642	0.83%
Al 308.215†	4220776.9	85.57 mg/L	0.562	85.57 mg/L	0.562	0.66%
Be 313.107†	10265952.8	1.118 mg/L	0.0012	1.118 mg/L	0.0012	0.11%
Cu 324.752†	693013.5	1.426 mg/L	0.0108	1.426 mg/L	0.0108	0.76%
Ag 338.289†	142610.7	0.5506 mg/L	0.00454	0.5506 mg/L	0.00454	0.82%
Na 330.237†	10749.3	7.234 mg/L	0.1143	7.234 mg/L	0.1143	1.58%
Ca 227.546†	49956.4	63.56 mg/L	0.574	63.56 mg/L	0.574	0.90%
Al RADIAL†	460773.2	80.60 mg/L	1.486	80.60 mg/L	1.486	1.84%
Fe RADIAL†	237898.2	161.7 mg/L	0.16	161.7 mg/L	0.16	0.10%
Ca RADIAL†	1079865.3	60.75 mg/L	0.934	60.75 mg/L	0.934	1.54%
K RADIAL†	85724.8	29.43 mg/L	0.074	29.43 mg/L	0.074	0.25%
Mg RADIAL†	44130.4	29.12 mg/L	0.066	29.12 mg/L	0.066	0.23%
Na RADIAL†	188953.9	7.379 mg/L	0.1893	7.379 mg/L	0.1893	2.56%
Mo 202.031	60654.5	0.757 mg/L	0.0057	0.757 mg/L	0.0057	0.75%

Sequence No.: 73
 Sample ID: 16C0477-01
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 61
 Date Collected: 3/14/2016 9:07:01 PM
 Data Type: Reprocessed on 3/15/2016 5:41:54 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0477-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25756948.9	4.612 mg/L	0.0494			1.07%
Y RADIAL	814046.9	4.960 mg/L	0.0384			0.77%
As 188.979+	143.1	0.0362 mg/L	0.00141	0.0362 mg/L	0.00141	3.90%
Tl 190.801+	-390.6	-0.0389 mg/L	0.00375	-0.0389 mg/L	0.00375	9.65%
Se 196.026+	-128.1	-0.0003 mg/L	0.00730	-0.0003 mg/L	0.00730	>999.9%
Zn 206.200+	57125.4	0.4244 mg/L	0.00548	0.4244 mg/L	0.00548	1.29%
Sb 206.836+	-159.8	-0.0133 mg/L	0.00367	-0.0133 mg/L	0.00367	27.50%
Pb 220.353+	13299.4	0.4097 mg/L	0.00400	0.4097 mg/L	0.00400	0.98%
Cd 226.502+	3855.1	0.0019 mg/L	0.00004	0.0019 mg/L	0.00004	2.08%
Co 228.616+	5232.6	0.0465 mg/L	0.00046	0.0465 mg/L	0.00046	0.99%
Ni 232.003+	6373.7	0.1082 mg/L	0.00153	0.1082 mg/L	0.00153	1.41%
Ba 233.527+	85756.0	0.3837 mg/L	0.00421	0.3837 mg/L	0.00421	1.10%
Mn 257.610+	2933877.0	1.346 mg/L	0.0116	1.346 mg/L	0.0116	0.86%
Cr 267.716+	39178.0	0.1220 mg/L	0.00136	0.1220 mg/L	0.00136	1.11%
Fe 273.955+	7479757.6	109.0 mg/L	0.94	109.0 mg/L	0.94	0.86%
Mg 279.077+	6203681.9	101.9 mg/L	0.86	101.9 mg/L	0.86	0.84%
V 292.402+	182842.0	0.3179 mg/L	0.00390	0.3179 mg/L	0.00390	1.23%
Al 308.215+	2499031.4	50.66 mg/L	0.443	50.66 mg/L	0.443	0.87%
Be 313.107+	-3039.9	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	6.28%
Cu 324.752+	124511.9	0.2664 mg/L	0.00380	0.2664 mg/L	0.00380	1.43%
Ag 338.289+	-6159.2	-0.0249 mg/L	0.00060	-0.0249 mg/L	0.00060	2.43%
Na 330.237+	3279.8	2.750 mg/L	0.0697	2.750 mg/L	0.0697	2.54%
Ca 227.546+	256067.3	319.3 mg/L	4.24	319.3 mg/L	4.24	1.33%
Al RADIAL+	273897.0	47.90 mg/L	0.076	47.90 mg/L	0.076	0.16%
Fe RADIAL+	158164.7	107.5 mg/L	0.25	107.5 mg/L	0.25	0.24%
Ca RADIAL+	5273744.1	296.7 mg/L	1.86	296.7 mg/L	1.86	0.63%
K RADIAL+	23211.2	7.967 mg/L	0.0332	7.967 mg/L	0.0332	0.42%
Mg RADIAL+	146773.8	96.89 mg/L	0.145	96.89 mg/L	0.145	0.15%
Na RADIAL+	96289.2	3.760 mg/L	0.0340	3.760 mg/L	0.0340	0.91%
Mo 202.031	17.9	0.000 mg/L	0.0001	0.000 mg/L	0.0001	58.38%

Sequence No.: 74
 Sample ID: BC60699-DUP1
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 62
 Date Collected: 3/14/2016 9:11:50 PM
 Data Type: Reprocessed on 3/15/2016 5:41:54 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: BC60699-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25318804.8	4.534 mg/L	0.0774			1.71%
Y RADIAL	784943.6	4.783 mg/L	0.0442			0.92%
As 188.979+	149.6	0.0379 mg/L	0.00261	0.0379 mg/L	0.00261	6.88%
Tl 190.801+	-418.2	-0.0419 mg/L	0.00228	-0.0419 mg/L	0.00228	5.45%
Se 196.026+	-115.8	0.0058 mg/L	0.00247	0.0058 mg/L	0.00247	42.45%
Zn 206.200+	59753.6	0.4440 mg/L	0.00678	0.4440 mg/L	0.00678	1.53%
Sb 206.836+	-153.4	-0.0124 mg/L	0.00221	-0.0124 mg/L	0.00221	17.76%
Pb 220.353+	13879.2	0.4276 mg/L	0.00930	0.4276 mg/L	0.00930	2.18%
Cd 226.502+	4004.5	0.0019 mg/L	0.00025	0.0019 mg/L	0.00025	13.22%
Co 228.616+	5430.2	0.0483 mg/L	0.00089	0.0483 mg/L	0.00089	1.84%
Ni 232.003+	6599.3	0.1120 mg/L	0.00150	0.1120 mg/L	0.00150	1.34%
Ba 233.527+	90209.7	0.4036 mg/L	0.00535	0.4036 mg/L	0.00535	1.33%
Mn 257.610+	3043496.5	1.397 mg/L	0.0409	1.397 mg/L	0.0409	2.93%
Cr 267.716+	40919.9	0.1274 mg/L	0.00166	0.1274 mg/L	0.00166	1.30%
Fe 273.955+	7754632.2	113.0 mg/L	3.28	113.0 mg/L	3.28	2.90%
Mg 279.077+	6434572.5	105.7 mg/L	3.17	105.7 mg/L	3.17	2.99%

V 292.402†	192383.2	0.3346 mg/L	0.00441	0.3346 mg/L	0.00441	1.32%
Al 308.215†	2600341.7	52.71 mg/L	1.742	52.71 mg/L	1.742	3.30%
Be 313.107†	-3212.3	-0.0003 mg/L	0.00008	-0.0003 mg/L	0.00008	23.18%
Cu 324.752†	129449.3	0.2771 mg/L	0.00377	0.2771 mg/L	0.00377	1.36%
Ag 338.289†	-6761.5	-0.0272 mg/L	0.00130	-0.0272 mg/L	0.00130	4.77%
Na 330.237†	3412.4	2.867 mg/L	0.1003	2.867 mg/L	0.1003	3.50%
Ca 227.546†	268266.1	334.5 mg/L	3.94	334.5 mg/L	3.94	1.18%
Al RADIAL†	288291.2	50.42 mg/L	0.074	50.42 mg/L	0.074	0.15%
Fe RADIAL†	165524.7	112.5 mg/L	0.15	112.5 mg/L	0.15	0.14%
Ca RADIAL†	5536953.3	311.5 mg/L	6.03	311.5 mg/L	6.03	1.94%
K RADIAL†	24631.1	8.455 mg/L	0.0339	8.455 mg/L	0.0339	0.40%
Mg RADIAL†	153519.9	101.3 mg/L	0.13	101.3 mg/L	0.13	0.13%
Na RADIAL†	99624.7	3.891 mg/L	0.0475	3.891 mg/L	0.0475	1.22%
Mo 202.031	-9.9	0.000 mg/L	0.0002	0.000 mg/L	0.0002	194.61%

Sequence No.: 75

Sample ID: BC60699-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 63

Date Collected: 3/14/2016 9:16:37 PM

Data Type: Reprocessed on 3/15/2016 5:41:55 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60699-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25102838.0	4.495 mg/L	0.0677			1.51%
Y RADIAL	788004.5	4.802 mg/L	0.0737			1.53%
As 188.979†	11292.0	2.022 mg/L	0.0471	2.022 mg/L	0.0471	2.33%
Tl 190.801†	14576.9	1.824 mg/L	0.0454	1.824 mg/L	0.0454	2.49%
Se 196.026†	5875.1	2.034 mg/L	0.0505	2.034 mg/L	0.0505	2.48%
Zn 206.200†	122186.9	0.9090 mg/L	0.01518	0.9090 mg/L	0.01518	1.67%
Sb 206.836†	2279.3	0.2558 mg/L	0.00871	0.2558 mg/L	0.00871	3.40%
Pb 220.353†	29589.6	0.9084 mg/L	0.02475	0.9084 mg/L	0.02475	2.72%
Cd 226.502†	24077.9	0.0509 mg/L	0.00158	0.0509 mg/L	0.00158	3.10%
Ce 228.616†	67243.0	0.5709 mg/L	0.01469	0.5709 mg/L	0.01469	2.57%
Ni 232.003†	37994.0	0.6555 mg/L	0.01875	0.6555 mg/L	0.01875	2.86%
Ba 233.527†	557077.2	2.493 mg/L	0.0409	2.493 mg/L	0.0409	1.64%
Mn 257.610†	4202796.7	1.924 mg/L	0.0317	1.924 mg/L	0.0317	1.65%
Cr 267.716†	107248.7	0.3283 mg/L	0.00652	0.3283 mg/L	0.00652	1.99%
Fe 273.955†	7815190.1	113.9 mg/L	1.88	113.9 mg/L	1.88	1.65%
Mg 279.077†	6426643.7	105.6 mg/L	1.79	105.6 mg/L	1.79	1.69%
V 292.402†	473541.2	0.8317 mg/L	0.01338	0.8317 mg/L	0.01338	1.61%
Al 308.215†	2701420.1	54.76 mg/L	1.015	54.76 mg/L	1.015	1.85%
Be 313.107†	461838.8	0.0503 mg/L	0.00074	0.0503 mg/L	0.00074	1.47%
Cu 324.752†	261186.5	0.5442 mg/L	0.00929	0.5442 mg/L	0.00929	1.71%
Ag 338.289†	7817.2	0.0288 mg/L	0.00114	0.0288 mg/L	0.00114	3.97%
Na 330.237†	4712.1	3.651 mg/L	0.1446	3.651 mg/L	0.1446	3.96%
Ca 227.546†	260321.6	324.7 mg/L	5.61	324.7 mg/L	5.61	1.73%
Al RADIAL†	298916.1	52.28 mg/L	0.123	52.28 mg/L	0.123	0.24%
Fe RADIAL†	166687.9	113.3 mg/L	0.30	113.3 mg/L	0.30	0.26%
Ca RADIAL†	5591000.6	314.5 mg/L	1.75	314.5 mg/L	1.75	0.56%
K RADIAL†	24566.4	8.433 mg/L	0.0452	8.433 mg/L	0.0452	0.54%
Mg RADIAL†	153222.5	101.2 mg/L	0.26	101.2 mg/L	0.26	0.26%
Na RADIAL†	101588.2	3.967 mg/L	0.0126	3.967 mg/L	0.0126	0.32%
Mo 202.031	-27.8	0.000 mg/L	0.0007	0.000 mg/L	0.0007	214.07%

Sequence No.: 76

Sample ID: 16C0477-02

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 64

Date Collected: 3/14/2016 9:23:57 PM

Data Type: Reprocessed on 3/15/2016 5:41:56 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0477-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27383942.4	4.903 mg/L	0.0508			1.04%
Y RADIAL	827655.2	5.043 mg/L	0.0630			1.25%

As	188.979†	371.0	0.0699 mg/L	0.00222	0.0699 mg/L	0.00222	3.18%
Tl	190.801†	-329.7	-0.0376 mg/L	0.00097	-0.0376 mg/L	0.00097	2.59%
Se	196.026†	-58.6	-0.0046 mg/L	0.00229	-0.0046 mg/L	0.00229	49.23%
Zn	206.200†	128163.9	0.9543 mg/L	0.00705	0.9543 mg/L	0.00705	0.74%
Sb	206.836†	83.2	0.0107 mg/L	0.00135	0.0107 mg/L	0.00135	12.63%
Pb	220.353†	166527.0	5.095 mg/L	0.0342	5.095 mg/L	0.0342	0.67%
Cd	226.502†	1916.6	0.0020 mg/L	0.00005	0.0020 mg/L	0.00005	2.42%
Co	228.616†	2266.5	0.0200 mg/L	0.00014	0.0200 mg/L	0.00014	0.70%
Ni	232.003†	2259.4	0.0384 mg/L	0.00023	0.0384 mg/L	0.00023	0.60%
Ba	233.527†	342893.4	1.534 mg/L	0.0122	1.534 mg/L	0.0122	0.80%
Mn	257.610†	673481.5	0.3108 mg/L	0.00203	0.3108 mg/L	0.00203	0.65%
Cr	267.716†	23482.4	0.0723 mg/L	0.00260	0.0723 mg/L	0.00260	3.59%
Fe	273.955†	2698439.9	39.33 mg/L	0.283	39.33 mg/L	0.283	0.72%
Mg	279.077†	2083889.2	34.24 mg/L	0.244	34.24 mg/L	0.244	0.71%
V	292.402†	49451.9	0.0855 mg/L	0.00025	0.0855 mg/L	0.00025	0.29%
Al	308.215†	1209710.4	24.52 mg/L	0.165	24.52 mg/L	0.165	0.67%
Be	313.107†	17253.5	0.0019 mg/L	0.00003	0.0019 mg/L	0.00003	1.41%
Cu	324.752†	900154.8	1.830 mg/L	0.0155	1.830 mg/L	0.0155	0.85%
Ag	338.289†	-4898.1	-0.0187 mg/L	0.00063	-0.0187 mg/L	0.00063	3.40%
Na	330.237†	4266.8	2.779 mg/L	0.0371	2.779 mg/L	0.0371	1.33%
Ca	227.546†	40778.6	51.04 mg/L	0.509	51.04 mg/L	0.509	1.00%
Al	RADIAL†	137914.0	24.12 mg/L	0.025	24.12 mg/L	0.025	0.10%
Fe	RADIAL†	55915.0	38.01 mg/L	0.060	38.01 mg/L	0.060	0.16%
Ca	RADIAL†	957367.3	53.86 mg/L	0.459	53.86 mg/L	0.459	0.85%
K	RADIAL†	11033.9	3.787 mg/L	0.0278	3.787 mg/L	0.0278	0.73%
Mg	RADIAL†	49982.1	33.00 mg/L	0.035	33.00 mg/L	0.035	0.11%
Na	RADIAL†	72642.3	2.837 mg/L	0.0283	2.837 mg/L	0.0283	1.00%
Mo	202.031	448.1	0.006 mg/L	0.0001	0.006 mg/L	0.0001	1.46%

Sequence No.: 77

Sample ID: 16C0477-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 65

Date Collected: 3/14/2016 9:31:39 PM

Data Type: Reprocessed on 3/15/2016 5:41:57 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0477-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	24612544.2	4.407 mg/L		0.0676			1.53%
Y RADIAL	783045.4	4.771 mg/L		0.1654			3.47%
As 188.979†	149.1	0.0361 mg/L		0.00215	0.0361 mg/L	0.00215	5.96%
Tl 190.801†	-374.4	-0.0380 mg/L		0.00130	-0.0380 mg/L	0.00130	3.42%
Se 196.026†	-116.3	-0.0012 mg/L		0.00534	-0.0012 mg/L	0.00534	443.59%
Zn 206.200†	65533.0	0.4872 mg/L		0.00206	0.4872 mg/L	0.00206	0.42%
Sb 206.836†	-128.4	-0.0104 mg/L		0.00348	-0.0104 mg/L	0.00348	33.56%
Pb 220.353†	10721.6	0.3341 mg/L		0.00663	0.3341 mg/L	0.00663	1.98%
Cd 226.502†	3518.5	0.0019 mg/L		0.00019	0.0019 mg/L	0.00019	9.75%
Co 228.616†	5001.0	0.0443 mg/L		0.00096	0.0443 mg/L	0.00096	2.18%
Ni 232.003†	5999.3	0.1020 mg/L		0.00084	0.1020 mg/L	0.00084	0.83%
Ba 233.527†	114390.5	0.5118 mg/L		0.00329	0.5118 mg/L	0.00329	0.64%
Mn 257.610†	3430614.1	1.571 mg/L		0.0184	1.571 mg/L	0.0184	1.17%
Cr 267.716†	51197.7	0.1580 mg/L		0.00118	0.1580 mg/L	0.00118	0.74%
Fe 273.955†	6643417.1	96.84 mg/L		1.133	96.84 mg/L	1.133	1.17%
Mg 279.077†	13047962.0	214.4 mg/L		0.38	214.4 mg/L	0.38	0.18%
V 292.402†	170352.0	0.2965 mg/L		0.00295	0.2965 mg/L	0.00295	0.99%
Al 308.215†	2526406.1	51.20 mg/L		0.668	51.20 mg/L	0.668	1.30%
Be 313.107†	-7609.5	-0.0008 mg/L		0.00011	-0.0008 mg/L	0.00011	13.19%
Cu 324.752†	249182.0	0.5176 mg/L		0.00461	0.5176 mg/L	0.00461	0.89%
Ag 338.289†	-5754.9	-0.0255 mg/L		0.00056	-0.0255 mg/L	0.00056	2.18%
Na 330.237†	6555.6	4.820 mg/L		0.0901	4.820 mg/L	0.0901	1.87%
Ca 227.546†	421956.0	525.5 mg/L		2.31	525.5 mg/L	2.31	0.44%
Al RADIAL†	272531.5	47.66 mg/L		0.166	47.66 mg/L	0.166	0.35%
Fe RADIAL†	140310.0	95.38 mg/L		0.286	95.38 mg/L	0.286	0.30%
Ca RADIAL†	8318020.0	467.9 mg/L		12.64	467.9 mg/L	12.64	2.70%
K RADIAL†	24405.0	8.377 mg/L		0.0256	8.377 mg/L	0.0256	0.31%
Mg RADIAL†	311341.3	205.5 mg/L		0.63	205.5 mg/L	0.63	0.31%
Na RADIAL†	144287.1	5.635 mg/L		0.0409	5.635 mg/L	0.0409	0.73%
Mo 202.031	26.7	0.000 mg/L		0.0002	0.000 mg/L	0.0002	73.11%

Sequence No.: 78
 Sample ID: 16C0477-04
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 66
 Date Collected: 3/14/2016 9:36:27 PM
 Data Type: Reprocessed on 3/15/2016 5:41:57 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0477-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26170836.3	4.686 mg/L	0.0231			0.49%
Y RADIAL	776817.0	4.733 mg/L	0.0645			1.36%
As 188.979†	12.4	0.0048 mg/L	0.00221	0.0048 mg/L	0.00221	45.81%
Tl 190.801†	-104.7	-0.0107 mg/L	0.00179	-0.0107 mg/L	0.00179	16.74%
Se 196.026†	-35.2	-0.0014 mg/L	0.00493	-0.0014 mg/L	0.00493	346.47%
Zn 206.200†	68900.1	0.5130 mg/L	0.00324	0.5130 mg/L	0.00324	0.63%
Sb 206.836†	-42.5	-0.0036 mg/L	0.00196	-0.0036 mg/L	0.00196	53.80%
Pb 220.353†	6800.8	0.2080 mg/L	0.00160	0.2080 mg/L	0.00160	0.77%
Cd 226.502†	894.3	0.0003 mg/L	0.00006	0.0003 mg/L	0.00006	17.02%
Co 228.616†	910.0	0.0082 mg/L	0.00011	0.0082 mg/L	0.00011	1.37%
Ni 232.003†	1718.1	0.0292 mg/L	0.00093	0.0292 mg/L	0.00093	3.17%
Ba 233.527†	21864.6	0.0978 mg/L	0.00036	0.0978 mg/L	0.00036	0.37%
Mn 257.610†	431591.3	0.1994 mg/L	0.00139	0.1994 mg/L	0.00139	0.70%
Cr 267.716†	9144.6	0.0285 mg/L	0.00035	0.0285 mg/L	0.00035	1.22%
Fe 273.955†	1804457.5	26.30 mg/L	0.391	26.30 mg/L	0.391	1.49%
Mg 279.077†	224874.7	3.692 mg/L	0.0274	3.692 mg/L	0.0274	0.74%
V 292.402†	19287.1	0.0328 mg/L	0.00025	0.0328 mg/L	0.00025	0.77%
Al 308.215†	553241.9	11.22 mg/L	0.187	11.22 mg/L	0.187	1.66%
Be 313.107†	-496.0	-0.0001 mg/L	0.00001	-0.0001 mg/L	0.00001	22.26%
Cu 324.752†	127041.2	0.2610 mg/L	0.00289	0.2610 mg/L	0.00289	1.11%
Ag 338.289†	-1704.7	-0.0062 mg/L	0.00069	-0.0062 mg/L	0.00069	11.06%
Na 330.237†	1374.7	0.9617 mg/L	0.06622	0.9617 mg/L	0.06622	6.89%
Ca 227.546†	13613.0	17.16 mg/L	0.092	17.16 mg/L	0.092	0.54%
Al RADIAL†	66746.4	11.67 mg/L	0.008	11.67 mg/L	0.008	0.07%
Fe RADIAL†	38598.1	26.24 mg/L	0.757	26.24 mg/L	0.757	2.89%
Ca RADIAL†	334566.9	18.82 mg/L	0.014	18.82 mg/L	0.014	0.08%
K RADIAL†	3971.1	1.363 mg/L	0.0459	1.363 mg/L	0.0459	3.36%
Mg RADIAL†	5512.9	3.637 mg/L	0.0975	3.637 mg/L	0.0975	2.68%
Na RADIAL†	17641.2	0.6889 mg/L	0.03350	0.6889 mg/L	0.03350	4.86%
Mo 202.031†	-96.2	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	19.85%

Sequence No.: 79
 Sample ID: 16C0477-05
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 67
 Date Collected: 3/14/2016 9:41:13 PM
 Data Type: Reprocessed on 3/15/2016 5:41:58 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0477-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	24921163.1	4.462 mg/L	0.0275			0.62%
Y RADIAL	792283.7	4.828 mg/L	0.0894			1.85%
As 188.979†	87.9	0.0260 mg/L	0.00403	0.0260 mg/L	0.00403	15.52%
Tl 190.801†	-486.4	-0.0512 mg/L	0.00152	-0.0512 mg/L	0.00152	2.97%
Se 196.026†	-124.3	-0.0008 mg/L	0.00360	-0.0008 mg/L	0.00360	461.02%
Zn 206.200†	73810.0	0.5488 mg/L	0.00388	0.5488 mg/L	0.00388	0.71%
Sb 206.836†	-163.4	-0.0139 mg/L	0.00276	-0.0139 mg/L	0.00276	19.86%
Pb 220.353†	14910.5	0.4602 mg/L	0.00212	0.4602 mg/L	0.00212	0.46%
Cd 226.502†	4006.6	0.0026 mg/L	0.00004	0.0026 mg/L	0.00004	1.60%
Co 228.616†	4776.5	0.0425 mg/L	0.00027	0.0425 mg/L	0.00027	0.64%
Ni 232.003†	6476.3	0.1101 mg/L	0.00043	0.1101 mg/L	0.00043	0.39%
Ba 233.527†	99598.1	0.4456 mg/L	0.00506	0.4456 mg/L	0.00506	1.14%
Mn 257.610†	3596799.6	1.647 mg/L	0.0208	1.647 mg/L	0.0208	1.26%
Cr 267.716†	43635.2	0.1353 mg/L	0.00084	0.1353 mg/L	0.00084	0.62%
Fe 273.955†	7201745.0	105.0 mg/L	1.33	105.0 mg/L	1.33	1.27%
Mg 279.077†	6154213.1	101.1 mg/L	1.15	101.1 mg/L	1.15	1.13%
V 292.402†	137905.7	0.2387 mg/L	0.00134	0.2387 mg/L	0.00134	0.56%

Al 308.215†	2711722.3	54.97 mg/L	0.794	54.97 mg/L	0.794	1.44%
Be 313.107†	-11011.4	-0.0012 mg/L	0.00011	-0.0012 mg/L	0.00011	9.03%
Cu 324.752†	87273.6	0.1904 mg/L	0.00211	0.1904 mg/L	0.00211	1.11%
Ag 338.289†	-7422.9	-0.0302 mg/L	0.00110	-0.0302 mg/L	0.00110	3.63%
Na 330.237†	4738.1	3.634 mg/L	0.0810	3.634 mg/L	0.0810	2.23%
Ca 227.546†	284862.5	355.1 mg/L	3.30	355.1 mg/L	3.30	0.93%
Al RADIAL†	295839.8	51.74 mg/L	0.348	51.74 mg/L	0.348	0.67%
Fe RADIAL†	151821.7	103.2 mg/L	0.67	103.2 mg/L	0.67	0.65%
Ca RADIAL†	5855194.9	329.4 mg/L	7.71	329.4 mg/L	7.71	2.34%
K RADIAL†	32693.0	11.22 mg/L	0.112	11.22 mg/L	0.112	1.00%
Mg RADIAL†	145240.3	95.88 mg/L	0.710	95.88 mg/L	0.710	0.74%
Na RADIAL†	130396.7	5.092 mg/L	0.0248	5.092 mg/L	0.0248	0.49%
Mo 202.031	-149.3	-0.002 mg/L	0.0002	-0.002 mg/L	0.0002	12.98%

Sequence No.: 80

Sample ID: 16C0477-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 68

Date Collected: 3/14/2016 9:46:01 PM

Data Type: Reprocessed on 3/15/2016 5:41:59 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0477-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26053157.0	4.665 mg/L	0.0451			0.97%
Y RADIAL	790781.8	4.819 mg/L	0.0314			0.65%
As 188.979†	352.8	0.0953 mg/L	0.00170	0.0953 mg/L	0.00170	1.78%
Tl 190.801†	-938.6	-0.0876 mg/L	0.00120	-0.0876 mg/L	0.00120	1.37%
Se 196.026†	-277.0	0.0360 mg/L	0.00161	0.0360 mg/L	0.00161	4.47%
Zn 206.200†	2913011.5	21.70 mg/L	0.143	21.70 mg/L	0.143	0.66%
Sb 206.836†	6438.5	0.7228 mg/L	0.00835	0.7228 mg/L	0.00835	1.15%
Pb 220.353†	2030287.5	62.09 mg/L	0.440	62.09 mg/L	0.440	0.71%
Cd 226.502†	14744.6	0.0133 mg/L	0.00090	0.0133 mg/L	0.00090	6.75%
Co 228.616†	10637.7	0.0967 mg/L	0.00100	0.0967 mg/L	0.00100	1.04%
Ni 232.003†	19789.4	0.3361 mg/L	0.00247	0.3361 mg/L	0.00247	0.73%
Ba 233.527†	3882335.9	17.37 mg/L	0.129	17.37 mg/L	0.129	0.74%
Mn 257.610†	4619683.8	2.140 mg/L	0.0172	2.140 mg/L	0.0172	0.80%
Cr 267.716†	164011.8	0.5067 mg/L	0.00509	0.5067 mg/L	0.00509	1.01%
Fe 273.955†	20909644.0	304.8 mg/L	0.78	304.8 mg/L	0.78	0.26%
Mg 279.077†	1126989.3	18.47 mg/L	0.139	18.47 mg/L	0.139	0.75%
V 292.402†	123773.3	0.2026 mg/L	0.00217	0.2026 mg/L	0.00217	1.07%
Al 308.215†	2220707.8	45.04 mg/L	0.415	45.04 mg/L	0.415	0.92%
Be 313.107†	-35994.0	-0.0039 mg/L	0.00020	-0.0039 mg/L	0.00020	5.04%
Cu 324.752†	4342037.6	8.845 mg/L	0.0791	8.845 mg/L	0.0791	0.89%
Ag 338.289†	-13824.0	-0.0477 mg/L	0.00079	-0.0477 mg/L	0.00079	1.66%
Na 330.237†	51363.6	32.29 mg/L	0.429	32.29 mg/L	0.429	1.33%
Ca 227.546†	71876.0	92.19 mg/L	1.050	92.19 mg/L	1.050	1.14%
Al RADIAL†	251039.7	43.93 mg/L	0.084	43.93 mg/L	0.084	0.19%
Fe RADIAL†	477218.3	324.4 mg/L	0.17	324.4 mg/L	0.17	0.05%
Ca RADIAL†	1637765.7	92.13 mg/L	0.063	92.13 mg/L	0.063	0.07%
K RADIAL†	12796.3	4.392 mg/L	0.0199	4.392 mg/L	0.0199	0.45%
Mg RADIAL†	28906.7	19.05 mg/L	0.111	19.05 mg/L	0.111	0.58%
Na RADIAL†	118670.3	4.634 mg/L	0.0191	4.634 mg/L	0.0191	0.41%
Mo 202.031	770.6	0.010 mg/L	0.0002	0.010 mg/L	0.0002	1.65%

Sequence No.: 81

Sample ID: SEQ-CCV7

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/14/2016 9:53:50 PM

Data Type: Reprocessed on 3/15/2016 5:41:59 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV7

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25665514.2	4.596 mg/L	0.0416			0.90%
Y RADIAL	754398.3	4.597 mg/L	0.0180			0.39%
As 188.979†	1447.8	0.2583 mg/L	0.00391	0.2583 mg/L	0.00391	1.51%

TL 190.801†	2087.0	0.2602 mg/L	0.00347	0.2602 mg/L	0.00347	1.33%
Se 196.026†	737.9	0.2519 mg/L	0.00477	0.2519 mg/L	0.00477	1.89%
Zn 206.200†	361389.9	2.692 mg/L	0.0428	2.692 mg/L	0.0428	1.59%
Sb 206.836†	2259.9	0.2494 mg/L	0.00441	0.2494 mg/L	0.00441	1.77%
Pb 220.353†	8646.8	0.2659 mg/L	0.00378	0.2659 mg/L	0.00378	1.42%
Cd 226.502†	53193.6	0.1296 mg/L	0.00163	0.1296 mg/L	0.00163	1.26%
Co 228.616†	321813.6	2.721 mg/L	0.0440	2.721 mg/L	0.0440	1.62%
Ni 232.003†	153677.0	2.660 mg/L	0.0448	2.660 mg/L	0.0448	1.68%
Ba 233.527†	2469101.0	11.05 mg/L	0.173	11.05 mg/L	0.173	1.56%
Mn 257.610†	6024602.0	2.737 mg/L	0.0472	2.737 mg/L	0.0472	1.73%
Cr 267.716†	361538.2	1.095 mg/L	0.0165	1.095 mg/L	0.0165	1.50%
Fe 273.955†	375126.7	5.468 mg/L	0.0906	5.468 mg/L	0.0906	1.66%
Mg 279.077†	1600946.1	26.31 mg/L	0.413	26.31 mg/L	0.413	1.57%
V 292.402†	1493499.4	2.641 mg/L	0.0506	2.641 mg/L	0.0506	1.92%
Al 308.215†	520983.3	10.56 mg/L	0.197	10.56 mg/L	0.197	1.86%
Be 313.107†	2422437.5	0.2638 mg/L	0.00567	0.2638 mg/L	0.00567	2.15%
Cu 324.752†	661558.2	1.342 mg/L	0.0234	1.342 mg/L	0.0234	1.74%
Ag 338.289†	351943.6	1.352 mg/L	0.0172	1.352 mg/L	0.0172	1.27%
Na 330.237†	41410.0	24.80 mg/L	0.438	24.80 mg/L	0.438	1.76%
Ca 227.546†	20447.3	25.48 mg/L	0.316	25.48 mg/L	0.316	1.24%
Al RADIAL†	60766.6	10.63 mg/L	0.187	10.63 mg/L	0.187	1.76%
Fe RADIAL†	7816.6	5.314 mg/L	0.0896	5.314 mg/L	0.0896	1.69%
Ca RADIAL†	459853.7	25.87 mg/L	0.058	25.87 mg/L	0.058	0.23%
K RADIAL†	15896.3	5.456 mg/L	0.0800	5.456 mg/L	0.0800	1.47%
Mg RADIAL†	40354.1	26.64 mg/L	0.550	26.64 mg/L	0.550	2.06%
Na RADIAL†	694420.6	27.12 mg/L	0.117	27.12 mg/L	0.117	0.43%
Mo 202.031	82914.8	1.035 mg/L	0.0119	1.035 mg/L	0.0119	1.15%

Sequence No.: 82

Sample ID: SEQ-CCB7

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/14/2016 10:01:37 PM

Data Type: Reprocessed on 3/15/2016 5:42:00 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB7

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27289548.2	4.886 mg/L	0.0940			1.92%
Y RADIAL	790682.6	4.818 mg/L	0.0341			0.71%
As 188.979†	-10.7	-0.0019 mg/L	0.00227	-0.0019 mg/L	0.00227	119.08%
Tl 190.801†	10.7	0.0013 mg/L	0.00271	0.0013 mg/L	0.00271	203.25%
Se 196.026†	-8.3	-0.0028 mg/L	0.00244	-0.0028 mg/L	0.00244	87.08%
Zn 206.200†	31.6	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	13.93%
Sb 206.836†	-22.7	-0.0025 mg/L	0.00171	-0.0025 mg/L	0.00171	68.23%
Pb 220.353†	39.3	0.0012 mg/L	0.00030	0.0012 mg/L	0.00030	24.60%
Cd 226.502†	-30.9	-0.0001 mg/L	0.00010	-0.0001 mg/L	0.00010	129.30%
Co 228.616†	-32.2	-0.0003 mg/L	0.00022	-0.0003 mg/L	0.00022	79.56%
Ni 232.003†	-41.6	-0.0007 mg/L	0.00038	-0.0007 mg/L	0.00038	52.25%
Ba 233.527†	-52.8	-0.0002 mg/L	0.00009	-0.0002 mg/L	0.00009	37.85%
Mn 257.610†	-137.6	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	43.48%
Cr 267.716†	82.9	0.0003 mg/L	0.00027	0.0003 mg/L	0.00027	107.69%
Fe 273.955†	501.6	0.0073 mg/L	0.00113	0.0073 mg/L	0.00113	15.49%
Mg 279.077†	40.5	0.0007 mg/L	0.00087	0.0007 mg/L	0.00087	131.47%
V 292.402†	4.8	0.0000 mg/L	0.00020	0.0000 mg/L	0.00020	>999.9%
Al 308.215†	642.6	0.0130 mg/L	0.00703	0.0130 mg/L	0.00703	53.95%
Be 313.107†	-787.2	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	32.86%
Cu 324.752†	-270.8	-0.0005 mg/L	0.00038	-0.0005 mg/L	0.00038	70.07%
Ag 338.289†	3.4	0.0000 mg/L	0.00061	0.0000 mg/L	0.00061	>999.9%
Na 330.237†	31.9	0.0191 mg/L	0.03823	0.0191 mg/L	0.03823	200.50%
Ca 227.546†	0.1	0.0002 mg/L	0.03989	0.0002 mg/L	0.03989	>999.9%
Al RADIAL†	39.2	0.0069 mg/L	0.00431	0.0069 mg/L	0.00431	62.91%
Fe RADIAL†	5.6	0.0038 mg/L	0.00198	0.0038 mg/L	0.00198	51.79%
Ca RADIAL†	4.3	0.0002 mg/L	0.00345	0.0002 mg/L	0.00345	>999.9%
K RADIAL†	-22.6	-0.0077 mg/L	0.01734	-0.0077 mg/L	0.01734	223.80%
Mg RADIAL†	0.9	0.0006 mg/L	0.00223	0.0006 mg/L	0.00223	366.76%
Na RADIAL†	-2245.9	-0.0877 mg/L	0.01936	-0.0877 mg/L	0.01936	22.07%
Mo 202.031	-49.5	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	19.21%

Sequence No.: 83
 Sample ID: 16C0477-07
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 69
 Date Collected: 3/14/2016 10:06:43 PM
 Data Type: Reprocessed on 3/15/2016 5:42:01 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0477-07

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25022617.4	4.480	mg/L	0.0451			1.01%
Y RADIAL	782489.9	4.768	mg/L	0.1374			2.88%
As 188.979+	68.2	0.0237	mg/L	0.00208	0.0237 mg/L	0.00208	8.77%
Tl 190.801+	-495.9	-0.0513	mg/L	0.00275	-0.0513 mg/L	0.00275	5.35%
Se 196.026+	-125.4	0.0037	mg/L	0.00251	0.0037 mg/L	0.00251	68.42%
Zn 206.200+	135782.1	1.010	mg/L	0.0035	1.010 mg/L	0.0035	0.35%
Sb 206.836+	-95.4	-0.0059	mg/L	0.00211	-0.0059 mg/L	0.00211	35.49%
Pb 220.353+	19812.2	0.6098	mg/L	0.00422	0.6098 mg/L	0.00422	0.69%
Cd 226.502+	4027.1	0.0018	mg/L	0.00019	0.0018 mg/L	0.00019	10.56%
Co 228.616+	6082.5	0.0538	mg/L	0.00028	0.0538 mg/L	0.00028	0.51%
Ni 232.003+	8422.6	0.1435	mg/L	0.00051	0.1435 mg/L	0.00051	0.36%
Ba 233.527+	114806.7	0.5137	mg/L	0.00221	0.5137 mg/L	0.00221	0.43%
Mn 257.610+	3732579.5	1.710	mg/L	0.0323	1.710 mg/L	0.0323	1.89%
Cr 267.716+	45684.8	0.1419	mg/L	0.00063	0.1419 mg/L	0.00063	0.45%
Fe 273.955+	7980590.5	116.3	mg/L	2.17	116.3 mg/L	2.17	1.87%
Mg 279.077+	9801709.8	161.1	mg/L	0.54	161.1 mg/L	0.54	0.34%
V 292.402+	297608.9	0.5205	mg/L	0.00460	0.5205 mg/L	0.00460	0.88%
Al 308.215+	2734620.5	55.43	mg/L	1.325	55.43 mg/L	1.325	2.39%
Be 313.107+	-4374.7	-0.0005	mg/L	0.00004	-0.0005 mg/L	0.00004	8.95%
Cu 324.752+	369138.5	0.7634	mg/L	0.00327	0.7634 mg/L	0.00327	0.43%
Ag 338.289+	-7426.4	-0.0303	mg/L	0.00070	-0.0303 mg/L	0.00070	2.32%
Na 330.237+	7181.7	5.177	mg/L	0.1079	5.177 mg/L	0.1079	2.08%
Ca 227.546+	308738.8	384.9	mg/L	2.97	384.9 mg/L	2.97	0.77%
Al RADIAL+	298727.7	52.24	mg/L	0.177	52.24 mg/L	0.177	0.34%
Fe RADIAL+	169631.3	115.3	mg/L	0.30	115.3 mg/L	0.30	0.26%
Ca RADIAL+	6341261.6	356.7	mg/L	12.21	356.7 mg/L	12.21	3.42%
K RADIAL+	25585.3	8.782	mg/L	0.0355	8.782 mg/L	0.0355	0.40%
Mg RADIAL+	235433.7	155.4	mg/L	0.47	155.4 mg/L	0.47	0.30%
Na RADIAL+	146189.0	5.709	mg/L	0.1013	5.709 mg/L	0.1013	1.77%
Mo 202.031	162.5	0.002	mg/L	0.0003	0.002 mg/L	0.0003	16.82%

Sequence No.: 84
 Sample ID: 16C0477-08
 Analyst: KV
 Logged In Analyst (Original) : administrator
 Initial Sample Wt:
 Dilution:

Autosampler Location: 70
 Date Collected: 3/14/2016 10:11:31 PM
 Data Type: Reprocessed on 3/15/2016 5:42:02 AM
 Initial Sample Vol:
 Sample Prep Vol:

Mean Data: 16C0477-08

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26936823.0	4.823	mg/L	0.0733			1.52%
Y RADIAL	812890.9	4.953	mg/L	0.0340			0.69%
As 188.979+	12.5	0.0048	mg/L	0.00114	0.0048 mg/L	0.00114	23.72%
Tl 190.801+	-149.2	-0.0162	mg/L	0.00213	-0.0162 mg/L	0.00213	13.10%
Se 196.026+	-26.4	0.0015	mg/L	0.00399	0.0015 mg/L	0.00399	274.55%
Zn 206.200+	61132.1	0.4551	mg/L	0.01125	0.4551 mg/L	0.01125	2.47%
Sb 206.836+	-28.5	-0.0021	mg/L	0.00173	-0.0021 mg/L	0.00173	81.91%
Pb 220.353+	3647.0	0.1115	mg/L	0.00130	0.1115 mg/L	0.00130	1.17%
Cd 226.502+	957.6	0.0005	mg/L	0.00008	0.0005 mg/L	0.00008	14.88%
Co 228.616+	1041.2	0.0093	mg/L	0.00019	0.0093 mg/L	0.00019	2.09%
Ni 232.003+	1676.3	0.0285	mg/L	0.00107	0.0285 mg/L	0.00107	3.76%
Ba 233.527+	27353.7	0.1224	mg/L	0.00342	0.1224 mg/L	0.00342	2.80%
Mn 257.610+	404689.1	0.1872	mg/L	0.00514	0.1872 mg/L	0.00514	2.74%
Cr 267.716+	10176.3	0.0316	mg/L	0.00061	0.0316 mg/L	0.00061	1.92%
Fe 273.955+	1813723.8	26.44	mg/L	0.382	26.44 mg/L	0.382	1.44%
Mg 279.077+	427019.3	7.014	mg/L	0.0996	7.014 mg/L	0.0996	1.42%
V 292.402+	27131.9	0.0467	mg/L	0.00137	0.0467 mg/L	0.00137	2.94%
Al 308.215+	594265.6	12.05	mg/L	0.171	12.05 mg/L	0.171	1.42%

Be 313.107†	-4262.4	-0.0005 mg/L	0.00005	-0.0005 mg/L	0.00005	11.03%
Cu 324.752†	109374.9	0.2251 mg/L	0.00683	0.2251 mg/L	0.00683	3.03%
Ag 338.289†	-2776.0	-0.0102 mg/L	0.00012	-0.0102 mg/L	0.00012	1.21%
Na 330.237†	1456.7	0.9994 mg/L	0.05237	0.9994 mg/L	0.05237	5.24%
Ca 227.546†	6308.2	8.076 mg/L	0.1102	8.076 mg/L	0.1102	1.37%
Al RADIAL†	73237.6	12.81 mg/L	0.052	12.81 mg/L	0.052	0.40%
Fe RADIAL†	38224.0	25.99 mg/L	0.159	25.99 mg/L	0.159	0.61%
Ca RADIAL†	150396.7	8.460 mg/L	0.0805	8.460 mg/L	0.0805	0.95%
K RADIAL†	6254.2	2.147 mg/L	0.0330	2.147 mg/L	0.0330	1.54%
Mg RADIAL†	10607.1	7.001 mg/L	0.0402	7.001 mg/L	0.0402	0.57%
Na RADIAL†	35794.7	1.398 mg/L	0.0121	1.398 mg/L	0.0121	0.87%
Mo 202.031	-40.1	-0.001 mg/L	0.0002	-0.001 mg/L	0.0002	37.26%

Sequence No.: 85

Sample ID: 16C0477-09

Analyst: KV

Logged In Analyst (Original): administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 71

Date Collected: 3/14/2016 10:16:17 PM

Data Type: Reprocessed on 3/15/2016 5:42:02 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0477-09

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27646938.5	4.950 mg/L	0.0247			0.50%
Y RADIAL	851310.8	5.187 mg/L	0.1229			2.37%
As 188.979†	65.7	0.0168 mg/L	0.00280	0.0168 mg/L	0.00280	16.60%
Tl 190.801†	-179.6	-0.0177 mg/L	0.00203	-0.0177 mg/L	0.00203	11.46%
Se 196.026†	-63.0	-0.0008 mg/L	0.00436	-0.0008 mg/L	0.00436	577.80%
Zn 206.200†	133895.6	0.9968 mg/L	0.00101	0.9968 mg/L	0.00101	0.10%
Sb 206.836†	17.1	0.0039 mg/L	0.00096	0.0039 mg/L	0.00096	24.47%
PH 220.353†	18741.0	0.5738 mg/L	0.00411	0.5738 mg/L	0.00411	0.72%
Co 226.502†	2217.6	0.0018 mg/L	0.00006	0.0018 mg/L	0.00006	3.26%
Co 228.616†	2290.0	0.0204 mg/L	0.00013	0.0204 mg/L	0.00013	0.66%
Ni 232.003†	3449.4	0.0587 mg/L	0.00041	0.0587 mg/L	0.00041	0.70%
Ba 233.527†	80017.0	0.3580 mg/L	0.00040	0.3580 mg/L	0.00040	0.11%
Mn 257.610†	1214736.0	0.5584 mg/L	0.00119	0.5584 mg/L	0.00119	0.21%
Cr 267.716†	18216.6	0.0568 mg/L	0.00038	0.0568 mg/L	0.00038	0.66%
Fe 273.955†	3647530.6	53.17 mg/L	0.122	53.17 mg/L	0.122	0.23%
Mg 279.077†	2003283.4	32.92 mg/L	0.075	32.92 mg/L	0.075	0.23%
V 292.402†	61124.7	0.1055 mg/L	0.00021	0.1055 mg/L	0.00021	0.20%
Al 308.215†	1153455.0	23.38 mg/L	0.070	23.38 mg/L	0.070	0.30%
Be 313.107†	-2018.1	-0.0002 mg/L	0.00003	-0.0002 mg/L	0.00003	12.25%
Cu 324.752†	402894.3	0.8235 mg/L	0.00140	0.8235 mg/L	0.00140	0.17%
Ag 338.289†	-3203.2	-0.0122 mg/L	0.00040	-0.0122 mg/L	0.00040	3.30%
Na 330.237†	4604.7	3.068 mg/L	0.0406	3.068 mg/L	0.0406	1.32%
Ca 227.546†	61611.1	77.06 mg/L	0.151	77.06 mg/L	0.151	0.20%
Al RADIAL†	130621.1	22.85 mg/L	0.037	22.85 mg/L	0.037	0.16%
Fe RADIAL†	75605.3	51.40 mg/L	0.058	51.40 mg/L	0.058	0.11%
Co RADIAL†	1407144.6	79.16 mg/L	1.389	79.16 mg/L	1.389	1.75%
K RADIAL†	8341.9	2.863 mg/L	0.0045	2.863 mg/L	0.0045	0.16%
Mg RADIAL†	47999.1	31.69 mg/L	0.116	31.69 mg/L	0.116	0.37%
Na RADIAL†	80286.6	3.135 mg/L	0.0423	3.135 mg/L	0.0423	1.35%
Mo 202.031	90.3	0.001 mg/L	0.0001	0.001 mg/L	0.0001	11.20%

Sequence No.: 86

Sample ID: 16C0481-01

Analyst: KV

Logged In Analyst (Original): administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 72

Date Collected: 3/14/2016 10:20:58 PM

Data Type: Reprocessed on 3/15/2016 5:42:03 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0481-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28418058.8	5.088 mg/L	0.0644			1.26%
Y RADIAL	848711.5	5.172 mg/L	0.0648			1.25%
As 188.979†	15.1	0.0053 mg/L	0.00215	0.0053 mg/L	0.00215	40.32%
Tl 190.801†	-104.4	-0.0106 mg/L	0.00108	-0.0106 mg/L	0.00108	10.14%

Se 196.026†	-33.1	-0.0006 mg/L	0.00212	-0.0006 mg/L	0.00212	359.40%
Zn 206.200†	214900.2	1.600 mg/L	0.0118	1.600 mg/L	0.0118	0.74%
Sb 206.836†	-56.3	-0.0052 mg/L	0.00098	-0.0052 mg/L	0.00098	19.10%
Pb 220.353†	11798.0	0.3618 mg/L	0.00478	0.3618 mg/L	0.00478	1.32%
Cd 226.502†	4152.4	0.0083 mg/L	0.00010	0.0083 mg/L	0.00010	1.26%
Co 228.616†	1808.0	0.0158 mg/L	0.00020	0.0158 mg/L	0.00020	1.24%
Ni 232.003†	3872.5	0.0665 mg/L	0.00037	0.0665 mg/L	0.00037	0.55%
Ba 233.527†	19217.2	0.0860 mg/L	0.00085	0.0860 mg/L	0.00085	0.99%
Mn 257.610†	441746.7	0.2041 mg/L	0.00138	0.2041 mg/L	0.00138	0.67%
Cr 267.716†	19443.0	0.0597 mg/L	0.00065	0.0597 mg/L	0.00065	1.08%
Fe 273.955†	1875752.4	27.34 mg/L	0.201	27.34 mg/L	0.201	0.73%
Mg 279.077†	649159.9	10.67 mg/L	0.079	10.67 mg/L	0.079	0.74%
V 292.402†	76276.0	0.1335 mg/L	0.00052	0.1335 mg/L	0.00052	0.39%
Al 308.215†	917498.8	18.60 mg/L	0.126	18.60 mg/L	0.126	0.68%
Be 313.107†	-831.1	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	19.76%
Cu 324.752†	142594.8	0.2925 mg/L	0.00281	0.2925 mg/L	0.00281	0.96%
Ag 338.289†	-1889.9	-0.0070 mg/L	0.00035	-0.0070 mg/L	0.00035	5.08%
Na 330.237†	3423.6	2.188 mg/L	0.0046	2.188 mg/L	0.0046	0.21%
Ca 227.546†	14940.6	18.82 mg/L	0.188	18.82 mg/L	0.188	1.00%
Al RADIAL†	108550.4	18.99 mg/L	0.052	18.99 mg/L	0.052	0.28%
Fe RADIAL†	39000.6	26.51 mg/L	0.114	26.51 mg/L	0.114	0.43%
Ca RADIAL†	349697.9	19.67 mg/L	0.084	19.67 mg/L	0.084	0.43%
K RADIAL†	3091.4	1.061 mg/L	0.0068	1.061 mg/L	0.0068	0.64%
Mg RADIAL†	15900.5	10.50 mg/L	0.005	10.50 mg/L	0.005	0.05%
Na RADIAL†	20722.0	0.8092 mg/L	0.01542	0.8092 mg/L	0.01542	1.91%
Mo 202.031†	56.6	0.001 mg/L	0.0002	0.001 mg/L	0.0002	23.76%

Sequence No.: 87

Sample ID: 16C0481-02

Analyst: KV

Logged In Analyst (Original): administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 73

Date Collected: 3/14/2016 10:25:40 PM

Data Type: Reprocessed on 3/15/2016 5:42:04 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0481-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28146714.6	5.040 mg/L	0.0131			0.26%
Y RADIAL	846113.9	5.156 mg/L	0.0403			0.78%
As 188.979†	34.5	0.0122 mg/L	0.00152	0.0122 mg/L	0.00152	12.41%
Tl 190.801†	-180.8	-0.0170 mg/L	0.00013	-0.0170 mg/L	0.00013	0.76%
Se 196.026†	-58.5	0.0047 mg/L	0.00368	0.0047 mg/L	0.00368	78.99%
Zn 206.200†	313631.0	2.336 mg/L	0.0266	2.336 mg/L	0.0266	1.14%
Sb 206.836†	-47.0	-0.0028 mg/L	0.00193	-0.0028 mg/L	0.00193	70.20%
Pb 220.353†	11691.5	0.3577 mg/L	0.00227	0.3577 mg/L	0.00227	0.63%
Cd 226.502†	4901.3	0.0077 mg/L	0.00016	0.0077 mg/L	0.00016	2.04%
Co 228.616†	2604.7	0.0233 mg/L	0.00003	0.0233 mg/L	0.00003	0.14%
Ni 232.003†	6904.1	0.1183 mg/L	0.00206	0.1183 mg/L	0.00206	1.74%
Ba 233.527†	24521.1	0.1097 mg/L	0.00095	0.1097 mg/L	0.00095	0.86%
Mn 257.610†	766606.0	0.3561 mg/L	0.00353	0.3561 mg/L	0.00353	0.99%
Cr 267.716†	60018.5	0.1837 mg/L	0.00233	0.1837 mg/L	0.00233	1.27%
Fe 273.955†	4170778.5	60.79 mg/L	0.173	60.79 mg/L	0.173	0.28%
Mg 279.077†	1165959.6	19.15 mg/L	0.104	19.15 mg/L	0.104	0.54%
V 292.402†	125662.0	0.2191 mg/L	0.00239	0.2191 mg/L	0.00239	1.09%
Al 308.215†	1421476.0	28.82 mg/L	0.133	28.82 mg/L	0.133	0.46%
Be 313.107†	-1895.7	-0.0002 mg/L	0.00006	-0.0002 mg/L	0.00006	27.47%
Cu 324.752†	351746.2	0.7211 mg/L	0.00628	0.7211 mg/L	0.00628	0.87%
Ag 338.289†	-2519.1	-0.0088 mg/L	0.00041	-0.0088 mg/L	0.00041	4.60%
Na 330.237†	4991.9	3.301 mg/L	0.0104	3.301 mg/L	0.0104	0.31%
Ca 227.546†	25981.4	32.85 mg/L	0.240	32.85 mg/L	0.240	0.73%
Al RADIAL†	170898.0	29.89 mg/L	0.566	29.89 mg/L	0.566	1.89%
Fe RADIAL†	89938.2	61.14 mg/L	1.150	61.14 mg/L	1.150	1.88%
Ca RADIAL†	609359.3	34.28 mg/L	0.032	34.28 mg/L	0.032	0.09%
K RADIAL†	3513.6	1.206 mg/L	0.0204	1.206 mg/L	0.0204	1.69%
Mg RADIAL†	29298.4	19.34 mg/L	0.374	19.34 mg/L	0.374	1.93%
Na RADIAL†	30833.6	1.204 mg/L	0.0177	1.204 mg/L	0.0177	1.47%
Mo 202.031	733.8	0.009 mg/L	0.0003	0.009 mg/L	0.0003	3.42%

Sequence No.: 88

Autosampler Location: 74

Sample ID: 16C0481-03

Date Collected: 3/14/2016 10:30:28 PM

Analyst: KV

Data Type: Reprocessed on 3/15/2016 5:42:04 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0481-03

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26412563.7	4.729 mg/L	0.0151			0.32%
Y RADIAL	803094.2	4.894 mg/L	0.0729			1.49%
As 188.979†	-1.9	0.0039 mg/L	0.00158	0.0039 mg/L	0.00158	40.08%
Tl 190.801†	-139.5	-0.0135 mg/L	0.00100	-0.0135 mg/L	0.00100	7.44%
Se 196.026†	-36.1	0.0049 mg/L	0.00266	0.0049 mg/L	0.00266	54.44%
Zn 206.200†	313994.8	2.338 mg/L	0.0248	2.338 mg/L	0.0248	1.06%
Sb 206.836†	-42.4	-0.0030 mg/L	0.00163	-0.0030 mg/L	0.00163	54.75%
Pb 220.353†	8772.6	0.2677 mg/L	0.00064	0.2677 mg/L	0.00064	0.24%
Cd 226.502†	4306.8	0.0075 mg/L	0.00004	0.0075 mg/L	0.00004	0.54%
Cd 228.616†	1705.7	0.0153 mg/L	0.00017	0.0153 mg/L	0.00017	1.12%
Ni 232.003†	8242.0	0.1418 mg/L	0.00053	0.1418 mg/L	0.00053	0.37%
Ba 233.527†	15053.3	0.0674 mg/L	0.00015	0.0674 mg/L	0.00015	0.22%
Mn 257.610†	684251.4	0.3163 mg/L	0.00270	0.3163 mg/L	0.00270	0.85%
Cr 267.716†	22281.2	0.0688 mg/L	0.00109	0.0688 mg/L	0.00109	1.58%
Fe 273.955†	3021026.9	44.03 mg/L	0.396	44.03 mg/L	0.396	0.90%
Mg 279.077†	1641945.0	26.98 mg/L	0.271	26.98 mg/L	0.271	1.01%
V 292.402†	67578.4	0.1174 mg/L	0.00137	0.1174 mg/L	0.00137	1.16%
Al 308.215†	629369.2	12.76 mg/L	0.118	12.76 mg/L	0.118	0.93%
Be 313.107†	102.0	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	515.75%
Cu 324.752†	2645469.3	5.369 mg/L	0.0376	5.369 mg/L	0.0376	0.70%
Ag 338.289†	-2331.4	-0.0086 mg/L	0.00045	-0.0086 mg/L	0.00045	5.22%
Na 330.237†	5128.3	3.308 mg/L	0.1572	3.308 mg/L	0.1572	4.75%
Ca 227.546†	35056.6	43.96 mg/L	0.025	43.96 mg/L	0.025	0.06%
Al RADIAL†	73247.9	12.81 mg/L	0.025	12.81 mg/L	0.025	0.20%
Fe RADIAL†	62911.9	42.77 mg/L	0.121	42.77 mg/L	0.121	0.28%
Cd RADIAL†	809364.2	45.53 mg/L	0.155	45.53 mg/L	0.155	0.34%
K RADIAL†	2991.5	1.027 mg/L	0.0038	1.027 mg/L	0.0038	0.37%
Mg RADIAL†	39636.0	26.16 mg/L	0.083	26.16 mg/L	0.083	0.32%
Na RADIAL†	19136.1	0.7473 mg/L	0.01589	0.7473 mg/L	0.01589	2.13%
Mo 202.031†	-13.6	0.000 mg/L	0.0002	0.000 mg/L	0.0002	101.28%

Sequence No.: 89

Autosampler Location: 75

Sample ID: 16C0504-01

Date Collected: 3/14/2016 10:38:08 PM

Analyst: KV

Data Type: Reprocessed on 3/15/2016 5:42:05 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0504-01

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26186510.6	4.689 mg/L	0.0406			0.87%
Y RADIAL	804271.6	4.901 mg/L	0.0870			1.78%
As 188.979†	-57.8	0.0159 mg/L	0.00288	0.0159 mg/L	0.00288	18.08%
Tl 190.801†	-572.8	-0.0477 mg/L	0.00228	-0.0477 mg/L	0.00228	4.78%
Se 196.026†	-261.5	0.0164 mg/L	0.00560	0.0164 mg/L	0.00560	34.18%
Zn 206.200†	59247.6	0.4387 mg/L	0.00722	0.4387 mg/L	0.00722	1.65%
Sb 206.836†	-313.8	-0.0242 mg/L	0.00172	-0.0242 mg/L	0.00172	7.10%
Pb 220.353†	3439.7	0.1049 mg/L	0.00282	0.1049 mg/L	0.00282	2.69%
Cd 226.502†	7040.2	-0.0012 mg/L	0.00046	-0.0012 mg/L	0.00046	39.44%
Cd 228.616†	12897.9	0.1145 mg/L	0.00153	0.1145 mg/L	0.00153	1.34%
Ni 232.003†	11573.9	0.1951 mg/L	0.00140	0.1951 mg/L	0.00140	0.72%
Ba 233.527†	199453.6	0.8924 mg/L	0.01094	0.8924 mg/L	0.01094	1.23%
Mn 257.610†	13795746.3	6.300 mg/L	0.0119	6.300 mg/L	0.0119	0.19%
Cr 267.716†	71308.2	0.2240 mg/L	0.00316	0.2240 mg/L	0.00316	1.41%
Fe 273.955†	17252361.3	251.5 mg/L	0.55	251.5 mg/L	0.55	0.22%
Mg 279.077†	2211614.2	36.31 mg/L	0.875	36.31 mg/L	0.875	2.41%
V 292.402†	290859.9	0.5012 mg/L	0.00729	0.5012 mg/L	0.00729	1.45%
Al 308.215†	6997819.9	141.9 mg/L	4.01	141.9 mg/L	4.01	2.83%
Be 313.107†	36274.7	0.0040 mg/L	0.00005	0.0040 mg/L	0.00005	1.17%

Cu 324.752†	82226.5	0.2008 mg/L	0.00339	0.2008 mg/L	0.00339	1.69%
Ag 338.289†	-11294.6	-0.0382 mg/L	0.00076	-0.0382 mg/L	0.00076	1.98%
Na 330.237†	-2479.4	-0.2606 mg/L	0.07868	-0.2606 mg/L	0.07868	30.19%
Ca 227.546†	5227.2	8.856 mg/L	0.0704	8.856 mg/L	0.0704	0.79%
Al RADIAL†	791240.5	138.4 mg/L	2.85	138.4 mg/L	2.85	2.06%
Fe RADIAL†	385789.9	262.3 mg/L	0.65	262.3 mg/L	0.65	0.25%
Ca RADIAL†	121021.8	6.808 mg/L	0.0141	6.808 mg/L	0.0141	0.21%
K RADIAL†	45077.1	15.47 mg/L	0.035	15.47 mg/L	0.035	0.23%
Mg RADIAL†	54199.8	35.76 mg/L	0.086	35.76 mg/L	0.086	0.24%
Na RADIAL†	26148.4	1.021 mg/L	0.0084	1.021 mg/L	0.0084	0.82%
Mo 202.031	-524.2	-0.007 mg/L	0.0003	-0.007 mg/L	0.0003	4.29%

Sequence No.: 90

Sample ID: 16C0504-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 76

Date Collected: 3/14/2016 10:42:59 PM

Data Type: Reprocessed on 3/15/2016 5:42:06 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0504-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25176394.5	4.508 mg/L	0.0613			1.36%
Y RADIAL	788139.2	4.802 mg/L	0.0591			1.23%
As 188.979†	-247.4	-0.0054 mg/L	0.00812	-0.0054 mg/L	0.00812	148.96%
Tl 190.801†	-244.0	0.0044 mg/L	0.00620	0.0044 mg/L	0.00620	141.53%
Se 196.026†	-371.6	0.0286 mg/L	0.01917	0.0286 mg/L	0.01917	66.98%
Zn 206.200†	86378.9	0.6396 mg/L	0.01113	0.6396 mg/L	0.01113	1.74%
Sb 206.836†	-318.3	-0.0197 mg/L	0.00043	-0.0197 mg/L	0.00043	2.18%
Pb 220.353†	6308.0	0.1863 mg/L	0.00344	0.1863 mg/L	0.00344	1.85%
Cd 226.502†	10709.0	-0.0008 mg/L	0.00084	-0.0008 mg/L	0.00084	99.30%
Co 228.616†	16060.5	0.1439 mg/L	0.00267	0.1439 mg/L	0.00267	1.85%
Ni 232.003†	20407.5	0.3456 mg/L	0.00341	0.3456 mg/L	0.00341	0.99%
Ba 233.527†	331977.9	1.485 mg/L	0.0202	1.485 mg/L	0.0202	1.36%
Mn 257.610†	12615578.4	5.780 mg/L	0.0114	5.780 mg/L	0.0114	0.20%
Cr 267.716†	96426.2	0.3039 mg/L	0.00457	0.3039 mg/L	0.00457	1.50%
Fe 273.955†	24619625.6	358.9 mg/L	1.19	358.9 mg/L	1.19	0.33%
Mg 279.077†	3980498.3	65.36 mg/L	1.026	65.36 mg/L	1.026	1.57%
V 292.402†	220148.6	0.3700 mg/L	0.00760	0.3700 mg/L	0.00760	2.06%
Al 308.215†	7184490.0	145.7 mg/L	1.70	145.7 mg/L	1.70	1.17%
Be 313.107†	141858.1	0.0154 mg/L	0.00031	0.0154 mg/L	0.00031	1.99%
Cu 324.752†	-8347.3	0.0333 mg/L	0.00074	0.0333 mg/L	0.00074	2.23%
Ag 338.289†	-6816.4	-0.0206 mg/L	0.00131	-0.0206 mg/L	0.00131	6.36%
Na 330.237†	972.3	2.555 mg/L	0.0331	2.555 mg/L	0.0331	1.30%
Ca 227.546†	155713.2	197.0 mg/L	2.36	197.0 mg/L	2.36	1.20%
Al RADIAL†	780604.8	136.5 mg/L	0.31	136.5 mg/L	0.31	0.22%
Fe RADIAL†	567751.0	386.0 mg/L	0.43	386.0 mg/L	0.43	0.11%
Ca RADIAL†	3366179.7	189.4 mg/L	4.43	189.4 mg/L	4.43	2.34%
K RADIAL†	119833.6	41.13 mg/L	0.059	41.13 mg/L	0.059	0.14%
Mg RADIAL†	95327.0	62.90 mg/L	0.061	62.90 mg/L	0.061	0.10%
Na RADIAL†	41945.4	1.638 mg/L	0.0165	1.638 mg/L	0.0165	1.00%
Mo 202.031	-712.6	-0.009 mg/L	0.0009	-0.009 mg/L	0.0009	10.00%

Sequence No.: 91

Sample ID: 16C0504-11

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 77

Date Collected: 3/14/2016 10:47:22 PM

Data Type: Reprocessed on 3/15/2016 5:42:07 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0504-11

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25229988.0	4.518 mg/L	0.0515			1.14%
Y RADIAL	790974.7	4.820 mg/L	0.0563			1.17%
As 188.979†	-142.6	0.0124 mg/L	0.00217	0.0124 mg/L	0.00217	17.45%
Tl 190.801†	-348.2	-0.0093 mg/L	0.00466	-0.0093 mg/L	0.00466	50.08%
Se 196.026†	-335.6	0.0377 mg/L	0.00820	0.0377 mg/L	0.00820	21.77%

Zn	206.200†	93948.0	0.6960 mg/L	0.01002	0.6960 mg/L	0.01002	1.44%
Se	206.836†	-372.4	-0.0260 mg/L	0.00540	-0.0260 mg/L	0.00540	20.75%
Pb	220.353†	6404.0	0.1922 mg/L	0.00419	0.1922 mg/L	0.00419	2.18%
Cd	226.502†	10926.0	0.0002 mg/L	0.00018	0.0002 mg/L	0.00018	80.10%
Co	228.616†	19069.1	0.1691 mg/L	0.00231	0.1691 mg/L	0.00231	1.36%
Ni	232.003†	22691.0	0.3853 mg/L	0.00402	0.3853 mg/L	0.00402	1.04%
Ba	233.527†	417190.5	1.867 mg/L	0.0296	1.867 mg/L	0.0296	1.58%
Mn	257.610†	19357868.9	8.841 mg/L	0.0404	8.841 mg/L	0.0404	0.46%
Cr	267.716†	101881.1	0.3202 mg/L	0.00403	0.3202 mg/L	0.00403	1.26%
Fe	273.955†	24125611.5	351.7 mg/L	1.83	351.7 mg/L	1.83	0.52%
Mg	279.077†	5549641.6	91.15 mg/L	1.353	91.15 mg/L	1.353	1.48%
V	292.402†	272091.5	0.4622 mg/L	0.00710	0.4622 mg/L	0.00710	1.54%
Al	308.215†	8652390.4	175.4 mg/L	2.91	175.4 mg/L	2.91	1.66%
Be	313.107†	94497.6	0.0103 mg/L	0.00012	0.0103 mg/L	0.00012	1.20%
Cu	324.752†	2354.5	0.0539 mg/L	0.00043	0.0539 mg/L	0.00043	0.79%
Ag	338.289†	-9006.4	-0.0287 mg/L	0.00036	-0.0287 mg/L	0.00036	1.25%
Na	330.237†	382.5	2.123 mg/L	0.0551	2.123 mg/L	0.0551	2.60%
Ca	227.546†	121716.1	154.7 mg/L	2.68	154.7 mg/L	2.68	1.73%
Al	RADIAL†	915067.3	160.1 mg/L	1.07	160.1 mg/L	1.07	0.67%
Fe	RADIAL†	556244.6	378.1 mg/L	0.55	378.1 mg/L	0.55	0.14%
Ca	RADIAL†	2583832.3	145.4 mg/L	0.68	145.4 mg/L	0.68	0.47%
K	RADIAL†	118695.7	40.74 mg/L	0.106	40.74 mg/L	0.106	0.26%
Mg	RADIAL†	132752.2	87.61 mg/L	0.110	87.61 mg/L	0.110	0.13%
Na	RADIAL†	47436.3	1.852 mg/L	0.0203	1.852 mg/L	0.0203	1.10%
Mo	202.031	-741.0	-0.009 mg/L	0.0003	-0.009 mg/L	0.0003	2.88%

Sequence No.: 92

Sample ID: 16C0504-14

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 78

Date Collected: 3/14/2016 10:51:46 PM

Data Type: Reprocessed on 3/15/2016 5:42:07 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0504-14

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25687189.4	4.599 mg/L	0.0295			0.64%
Y RADIAL	795455.2	4.847 mg/L	0.1136			2.34%
As 188.979†	-244.3	-0.0058 mg/L	0.00760	-0.0058 mg/L	0.00760	130.38%
Tl 190.801†	-389.8	-0.0146 mg/L	0.00701	-0.0146 mg/L	0.00701	48.02%
Se 196.026†	-406.7	0.0130 mg/L	0.00906	0.0130 mg/L	0.00906	69.54%
Zn 206.200†	92860.4	0.6879 mg/L	0.00900	0.6879 mg/L	0.00900	1.31%
Se 206.836†	-314.3	-0.0197 mg/L	0.00403	-0.0197 mg/L	0.00403	20.47%
Pb 220.353†	6173.2	0.1866 mg/L	0.00119	0.1866 mg/L	0.00119	0.64%
Cd 226.502†	10394.9	-0.0010 mg/L	0.00058	-0.0010 mg/L	0.00058	59.64%
Co 228.616†	19795.0	0.1752 mg/L	0.00089	0.1752 mg/L	0.00089	0.51%
Na 232.003†	20495.3	0.3473 mg/L	0.00434	0.3473 mg/L	0.00434	1.25%
Ba 233.527†	229291.7	1.026 mg/L	0.0129	1.026 mg/L	0.0129	1.25%
Mn 257.610†	18108184.1	8.273 mg/L	0.0087	8.273 mg/L	0.0087	0.11%
Cr 267.716†	105836.8	0.3321 mg/L	0.00364	0.3321 mg/L	0.00364	1.10%
Fe 273.955†	24219684.2	353.0 mg/L	0.35	353.0 mg/L	0.35	0.10%
Mg 279.077†	5320401.9	87.39 mg/L	1.117	87.39 mg/L	1.117	1.28%
V 292.402†	206252.0	0.3459 mg/L	0.00328	0.3459 mg/L	0.00328	0.95%
Al 308.215†	9632017.3	195.3 mg/L	2.06	195.3 mg/L	2.06	1.05%
Be 313.107†	98468.5	0.0107 mg/L	0.00008	0.0107 mg/L	0.00008	0.74%
Cu 324.752†	13657.7	0.0767 mg/L	0.00033	0.0767 mg/L	0.00033	0.43%
Ag 338.289†	-9428.8	-0.0289 mg/L	0.00057	-0.0289 mg/L	0.00057	1.96%
Na 330.237†	-560.6	1.430 mg/L	0.0331	1.430 mg/L	0.0331	2.31%
Ca 227.546†	16718.6	24.16 mg/L	0.254	24.16 mg/L	0.254	1.05%
Al RADIAL†	1053814.0	184.3 mg/L	4.26	184.3 mg/L	4.26	2.31%
Fe RADIAL†	554158.5	376.7 mg/L	2.44	376.7 mg/L	2.44	0.65%
Ca RADIAL†	361114.6	20.31 mg/L	0.016	20.31 mg/L	0.016	0.08%
K RADIAL†	115902.3	39.78 mg/L	0.226	39.78 mg/L	0.226	0.57%
Mg RADIAL†	126249.5	83.32 mg/L	0.511	83.32 mg/L	0.511	0.61%
Na RADIAL†	35812.9	1.399 mg/L	0.0291	1.399 mg/L	0.0291	2.08%
Mo 202.031	-772.0	-0.010 mg/L	0.0005	-0.010 mg/L	0.0005	4.79%

Sequence No.: 93

Sample ID: SEQ-CCV8

Autosampler Location: 8

Date Collected: 3/14/2016 10:56:09 PM

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Data Type: Reprocessed on 3/15/2016 5:42:08 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV8

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25842121.3	4.627 mg/L		0.0808			1.75%
Y RADIAL	776455.8	4.731 mg/L		0.0799			1.69%
As 188.979†	1430.6	0.2553 mg/L		0.00536	0.2553 mg/L	0.00536	2.10%
Ti 190.801†	2074.4	0.2586 mg/L		0.00655	0.2586 mg/L	0.00655	2.53%
Se 196.026†	745.9	0.2546 mg/L		0.00500	0.2546 mg/L	0.00500	1.96%
Zn 206.200†	357386.4	2.662 mg/L		0.0553	2.662 mg/L	0.0553	2.08%
Sb 206.836†	2208.3	0.2437 mg/L		0.00505	0.2437 mg/L	0.00505	2.07%
Ph 220.353†	8443.8	0.2596 mg/L		0.00462	0.2596 mg/L	0.00462	1.78%
Cd 226.502†	52691.0	0.1284 mg/L		0.00252	0.1284 mg/L	0.00252	1.96%
Co 228.616†	320372.0	2.709 mg/L		0.0499	2.709 mg/L	0.0499	1.84%
Ni 232.003†	152833.6	2.646 mg/L		0.0484	2.646 mg/L	0.0484	1.83%
Ba 233.527†	2413307.2	10.80 mg/L		0.287	10.80 mg/L	0.287	2.66%
Mn 257.610†	5899992.0	2.680 mg/L		0.0747	2.680 mg/L	0.0747	2.79%
Cr 267.716†	358763.9	1.087 mg/L		0.0216	1.087 mg/L	0.0216	1.98%
Fe 273.955†	376258.7	5.484 mg/L		0.1084	5.484 mg/L	0.1084	1.98%
Mg 279.077†	1568993.0	25.79 mg/L		0.689	25.79 mg/L	0.689	2.67%
V 292.402†	1458056.0	2.578 mg/L		0.0721	2.578 mg/L	0.0721	2.80%
Al 308.215†	518558.8	10.51 mg/L		0.197	10.51 mg/L	0.197	1.87%
Be 313.107†	2360849.3	0.2571 mg/L		0.00719	0.2571 mg/L	0.00719	2.80%
Cu 324.752†	654348.9	1.327 mg/L		0.0229	1.327 mg/L	0.0229	1.72%
Ag 338.289†	348953.5	1.341 mg/L		0.0267	1.341 mg/L	0.0267	1.99%
Na 330.237†	41216.9	24.69 mg/L		0.482	24.69 mg/L	0.482	1.95%
Ca 227.546†	20227.6	25.20 mg/L		0.424	25.20 mg/L	0.424	1.68%
Al RADIAL†	59415.6	10.39 mg/L		0.243	10.39 mg/L	0.243	2.34%
Fe RADIAL†	7705.5	5.238 mg/L		0.1248	5.238 mg/L	0.1248	2.38%
Ca RADIAL†	459747.5	25.86 mg/L		0.016	25.86 mg/L	0.016	0.06%
K RADIAL†	15672.1	5.380 mg/L		0.1348	5.380 mg/L	0.1348	2.51%
Mg RADIAL†	39442.5	26.04 mg/L		0.674	26.04 mg/L	0.674	2.59%
Na RADIAL†	684142.9	26.72 mg/L		0.250	26.72 mg/L	0.250	0.93%
Mo 202.031	82794.7	1.033 mg/L		0.0028	1.033 mg/L	0.0028	0.27%

Sequence No.: 94

Sample ID: SEQ-CCB8

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/14/2016 11:03:56 PM

Data Type: Reprocessed on 3/15/2016 5:42:09 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB8

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27637140.9	4.949 mg/L		0.0373			0.75%
Y RADIAL	793231.2	4.833 mg/L		0.1319			2.73%
As 188.979†	-12.3	-0.0022 mg/L		0.00129	-0.0022 mg/L	0.00129	58.76%
Ti 190.801†	9.6	0.0012 mg/L		0.00032	0.0012 mg/L	0.00032	26.74%
Se 196.026†	-9.1	-0.0031 mg/L		0.00287	-0.0031 mg/L	0.00287	93.78%
Zn 206.200†	-33.7	-0.0003 mg/L		0.00014	-0.0003 mg/L	0.00014	55.78%
Sb 206.836†	-22.2	-0.0025 mg/L		0.00072	-0.0025 mg/L	0.00072	29.32%
Ph 220.353†	7.8	0.0002 mg/L		0.00063	0.0002 mg/L	0.00063	262.33%
Cd 226.502†	0.7	0.0000 mg/L		0.00002	0.0000 mg/L	0.00002	>999.9%
Co 228.616†	-28.8	-0.0002 mg/L		0.00011	-0.0002 mg/L	0.00011	43.89%
Ni 232.003†	12.5	0.0002 mg/L		0.00036	0.0002 mg/L	0.00036	165.88%
Ba 233.527†	-80.2	-0.0004 mg/L		0.00004	-0.0004 mg/L	0.00004	10.08%
Mn 257.610†	235.8	0.0001 mg/L		0.00002	0.0001 mg/L	0.00002	14.98%
Cr 267.716†	88.3	0.0003 mg/L		0.00008	0.0003 mg/L	0.00008	29.13%
Fe 273.955†	925.9	0.0135 mg/L		0.00107	0.0135 mg/L	0.00107	7.91%
Mg 279.077†	36.7	0.0006 mg/L		0.00134	0.0006 mg/L	0.00134	221.78%
V 292.402†	18.4	0.0000 mg/L		0.00011	0.0000 mg/L	0.00011	346.55%
Al 308.215†	694.0	0.0141 mg/L		0.00310	0.0141 mg/L	0.00310	22.07%
Be 313.107†	-254.4	0.0000 mg/L		0.00003	0.0000 mg/L	0.00003	101.21%
Cu 324.752†	-545.0	-0.0011 mg/L		0.00028	-0.0011 mg/L	0.00028	25.29%

Ag 338.289†	494.8	0.0019 mg/L	0.00036	0.0019 mg/L	0.00036	19.06%
Na 330.237†	51.6	0.0309 mg/L	0.00686	0.0309 mg/L	0.00686	22.21%
Ca 227.546†	0.5	0.0008 mg/L	0.02758	0.0008 mg/L	0.02758	>999.9%
Al RADIAL†	43.4	0.0076 mg/L	0.00852	0.0076 mg/L	0.00852	112.12%
Fe RADIAL†	11.4	0.0078 mg/L	0.00216	0.0078 mg/L	0.00216	27.83%
Ca RADIAL†	53.1	0.0030 mg/L	0.00290	0.0030 mg/L	0.00290	96.90%
K RADIAL†	-36.0	-0.0124 mg/L	0.01443	-0.0124 mg/L	0.01443	116.68%
Mg RADIAL†	1.1	0.0008 mg/L	0.00977	0.0008 mg/L	0.00977	>999.9%
Na RADIAL†	-2176.5	-0.0850 mg/L	0.06219	-0.0850 mg/L	0.06219	73.17%
Mo 202.031	-56.5	-0.001 mg/L	0.0000	-0.001 mg/L	0.0000	5.69%

Sequence No.: 95

Sample ID: 16C0504-23

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 79

Date Collected: 3/14/2016 11:09:03 PM

Data Type: Reprocessed on 3/15/2016 5:42:10 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0504-23

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26316326.9	4.712 mg/L	0.0376			0.80%
Y RADIAL	805688.3	4.909 mg/L	0.0100			0.20%
As 188.979†	-186.9	0.0017 mg/L	0.00248	0.0017 mg/L	0.00248	144.99%
Tl 190.801†	-348.8	-0.0119 mg/L	0.00263	-0.0119 mg/L	0.00263	22.12%
Se 196.026†	-309.2	0.0353 mg/L	0.00682	0.0353 mg/L	0.00682	19.29%
Zn 206.200†	84048.3	0.6226 mg/L	0.00786	0.6226 mg/L	0.00786	1.26%
Sr 206.836†	-305.9	-0.0198 mg/L	0.00024	-0.0198 mg/L	0.00024	1.23%
Pb 220.353†	5675.2	0.1673 mg/L	0.00198	0.1673 mg/L	0.00198	1.19%
Cd 226.502†	9463.5	-0.0014 mg/L	0.00058	-0.0014 mg/L	0.00058	42.35%
Cd 228.616†	17336.4	0.1539 mg/L	0.00105	0.1539 mg/L	0.00105	0.68%
Ni 232.003†	16782.9	0.2836 mg/L	0.00438	0.2836 mg/L	0.00438	1.54%
Ba 233.527†	263788.8	1.180 mg/L	0.0126	1.180 mg/L	0.0126	1.07%
Mn 257.610†	17806273.3	8.133 mg/L	0.0035	8.133 mg/L	0.0035	0.04%
Cr 267.716†	90584.8	0.2851 mg/L	0.00295	0.2851 mg/L	0.00295	1.03%
Fe 273.955†	22444822.1	327.2 mg/L	0.15	327.2 mg/L	0.15	0.05%
Mg 279.077†	4211517.7	69.16 mg/L	0.076	69.16 mg/L	0.076	0.11%
V 292.402†	191929.0	0.3219 mg/L	0.00487	0.3219 mg/L	0.00487	1.51%
Al 308.215†	7059255.6	143.1 mg/L	0.23	143.1 mg/L	0.23	0.16%
Be 313.107†	92205.3	0.0100 mg/L	0.00016	0.0100 mg/L	0.00016	1.55%
Cu 324.752†	315.9	0.0461 mg/L	0.00088	0.0461 mg/L	0.00088	1.91%
Ag 338.289†	-8773.7	-0.0269 mg/L	0.00011	-0.0269 mg/L	0.00011	0.42%
Na 330.237†	-675.9	1.237 mg/L	0.0707	1.237 mg/L	0.0707	5.71%
Ca 227.546†	16641.9	23.81 mg/L	0.220	23.81 mg/L	0.220	0.92%
Al RADIAL†	788915.3	138.0 mg/L	0.51	138.0 mg/L	0.51	0.37%
Fe RADIAL†	514829.4	350.0 mg/L	0.87	350.0 mg/L	0.87	0.25%
Ca RADIAL†	370148.3	20.82 mg/L	0.011	20.82 mg/L	0.011	0.06%
K RADIAL†	84911.6	29.15 mg/L	0.121	29.15 mg/L	0.121	0.41%
Mg RADIAL†	102425.6	67.59 mg/L	0.076	67.59 mg/L	0.076	0.11%
Na RADIAL†	33695.3	1.316 mg/L	0.0147	1.316 mg/L	0.0147	1.12%
Mo 202.031	-751.8	-0.009 mg/L	0.0002	-0.009 mg/L	0.0002	1.82%

Sequence No.: 96

Sample ID: 16C0504-27

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 80

Date Collected: 3/14/2016 11:13:47 PM

Data Type: Reprocessed on 3/15/2016 5:42:10 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0504-27

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25784089.0	4.617 mg/L	0.0247			0.54%
Y RADIAL	806905.9	4.917 mg/L	0.1464			2.98%
As 188.979†	-194.9	0.0020 mg/L	0.00604	0.0020 mg/L	0.00604	296.14%
Tl 190.801†	-355.8	-0.0112 mg/L	0.00625	-0.0112 mg/L	0.00625	55.74%
Se 196.026†	-321.9	0.0380 mg/L	0.00852	0.0380 mg/L	0.00852	22.40%
Zn 206.200†	90680.0	0.6718 mg/L	0.00130	0.6718 mg/L	0.00130	0.19%

Sb	206.836†	-321.4	-0.0208 mg/L	0.00281	-0.0208 mg/L	0.00281	13.49%
Pb	220.353†	6212.6	0.1863 mg/L	0.00122	0.1863 mg/L	0.00122	0.66%
Cd	226.502†	10534.1	0.0000 mg/L	0.00036	0.0000 mg/L	0.00036	>999.9%
Co	228.616†	18314.6	0.1625 mg/L	0.00093	0.1625 mg/L	0.00093	0.57%
Ni	232.003†	21541.0	0.3656 mg/L	0.00347	0.3656 mg/L	0.00347	0.95%
Ba	233.527†	407741.0	1.824 mg/L	0.0026	1.824 mg/L	0.0026	0.14%
Mn	257.610†	19254296.8	8.793 mg/L	0.0031	8.793 mg/L	0.0031	0.04%
Cr	267.716†	97308.4	0.3060 mg/L	0.00116	0.3060 mg/L	0.00116	0.38%
Fe	273.955†	23506636.6	342.6 mg/L	0.04	342.6 mg/L	0.04	0.01%
Mg	279.077†	5303216.6	87.10 mg/L	0.055	87.10 mg/L	0.055	0.06%
V	292.402†	259713.1	0.4409 mg/L	0.00150	0.4409 mg/L	0.00150	0.34%
Al	308.215†	7911173.6	160.4 mg/L	0.37	160.4 mg/L	0.37	0.23%
Be	313.107†	92122.9	0.0100 mg/L	0.00007	0.0100 mg/L	0.00007	0.69%
Cu	324.752†	-1048.2	0.0456 mg/L	0.00011	0.0456 mg/L	0.00011	0.24%
Ag	338.289†	-8329.1	-0.0264 mg/L	0.00019	-0.0264 mg/L	0.00019	0.72%
Na	330.237†	388.8	2.084 mg/L	0.0904	2.084 mg/L	0.0904	4.34%
Ca	227.546†	126373.1	160.4 mg/L	0.79	160.4 mg/L	0.79	0.49%
Al	RADIAL†	872632.6	152.6 mg/L	3.74	152.6 mg/L	3.74	2.45%
Fe	RADIAL†	540500.2	367.4 mg/L	0.81	367.4 mg/L	0.81	0.22%
Ca	RADIAL†	2712716.9	152.6 mg/L	4.06	152.6 mg/L	4.06	2.66%
K	RADIAL†	112171.6	38.50 mg/L	0.115	38.50 mg/L	0.115	0.30%
Mg	RADIAL†	126846.0	83.71 mg/L	0.273	83.71 mg/L	0.273	0.33%
Na	RADIAL†	46983.0	1.835 mg/L	0.0462	1.835 mg/L	0.0462	2.52%
Mo	202.031	-785.0	-0.010 mg/L	0.0005	-0.010 mg/L	0.0005	5.19%

Sequence No.: 97

Sample ID: 16C0507-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 81

Date Collected: 3/14/2016 11:18:12 PM

Data Type: Reprocessed on 3/15/2016 5:42:11 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0507-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25780194.2	4.616 mg/L	0.0336			0.73%
Y RADIAL	780840.4	4.758 mg/L	0.0102			0.21%
As 188.979†	98.1	0.0320 mg/L	0.00029	0.0320 mg/L	0.00029	0.91%
Tl 190.801†	-203.6	-0.0123 mg/L	0.00207	-0.0123 mg/L	0.00207	16.87%
Se 196.026†	-126.8	0.0152 mg/L	0.00391	0.0152 mg/L	0.00391	25.77%
Zn 206.200†	41135.0	0.3050 mg/L	0.00504	0.3050 mg/L	0.00504	1.65%
Sb 206.836†	-178.0	-0.0139 mg/L	0.00128	-0.0139 mg/L	0.00128	9.21%
Pb 220.353†	3257.6	0.1006 mg/L	0.00063	0.1006 mg/L	0.00063	0.63%
Cd 226.502†	4217.8	0.0001 mg/L	0.00028	0.0001 mg/L	0.00028	192.67%
Co 228.616†	13905.6	0.1206 mg/L	0.00038	0.1206 mg/L	0.00038	0.31%
Ni 232.003†	10436.0	0.1778 mg/L	0.00187	0.1778 mg/L	0.00187	1.05%
Ba 233.527†	88282.7	0.3950 mg/L	0.00655	0.3950 mg/L	0.00655	1.66%
Mn 257.610†	22165819.2	10.09 mg/L	0.032	10.09 mg/L	0.032	0.32%
Cr 267.716†	33799.9	0.1068 mg/L	0.00131	0.1068 mg/L	0.00131	1.22%
Fe 273.955†	9574898.7	139.6 mg/L	0.39	139.6 mg/L	0.39	0.28%
Mg 279.077†	1549409.5	25.44 mg/L	0.354	25.44 mg/L	0.354	1.39%
V 292.402†	89503.6	0.1510 mg/L	0.00244	0.1510 mg/L	0.00244	1.62%
Al 308.215†	4264060.0	86.45 mg/L	1.412	86.45 mg/L	1.412	1.63%
Be 313.107†	18710.3	0.0020 mg/L	0.00004	0.0020 mg/L	0.00004	1.76%
Cu 324.752†	48211.1	0.1166 mg/L	0.00277	0.1166 mg/L	0.00277	2.38%
Ag 338.289†	-6206.7	-0.0210 mg/L	0.00021	-0.0210 mg/L	0.00021	0.99%
Na 330.237†	485.8	0.9690 mg/L	0.06671	0.9690 mg/L	0.06671	6.88%
Ca 227.546†	4717.4	7.176 mg/L	0.0787	7.176 mg/L	0.0787	1.10%
Al RADIAL†	485021.6	84.84 mg/L	0.339	84.84 mg/L	0.339	0.40%
Fe RADIAL†	213583.8	145.2 mg/L	2.68	145.2 mg/L	2.68	1.85%
Ca RADIAL†	111925.6	6.296 mg/L	0.1166	6.296 mg/L	0.1166	1.88%
K RADIAL†	20137.3	6.912 mg/L	0.1298	6.912 mg/L	0.1298	1.94%
Mg RADIAL†	38902.6	25.67 mg/L	0.499	25.67 mg/L	0.499	0.26%
Na RADIAL†	46230.4	1.805 mg/L	0.0047	1.805 mg/L	0.0047	13.61%
Mo 202.031	-167.8	-0.002 mg/L	0.0003	-0.002 mg/L	0.0003	

Sequence No.: 98

Sample ID: 16C0507-02

Analyst: KV

Autosampler Location: 82

Date Collected: 3/14/2016 11:23:02 PM

Data Type: Reprocessed on 3/15/2016 5:42:12 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0507-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27518827.0	4.927 mg/L		0.0575			1.17%
Y RADIAL	850713.1	5.184 mg/L		0.0919			1.77%
As 188.979+	-86.3	0.0022 mg/L		0.00187	0.0022 mg/L	0.00187	86.16%
Tl 190.801+	-1152.4	-0.1276 mg/L		0.00702	-0.1276 mg/L	0.00702	5.50%
Se 196.026+	-172.6	0.0117 mg/L		0.00429	0.0117 mg/L	0.00429	36.65%
Zn 206.200+	55421.8	0.4111 mg/L		0.00644	0.4111 mg/L	0.00644	1.57%
Sb 206.836+	-370.9	-0.0339 mg/L		0.00132	-0.0339 mg/L	0.00132	3.89%
Pb 220.353+	2570.1	0.0785 mg/L		0.00105	0.0785 mg/L	0.00105	1.34%
Cd 226.502+	5098.0	0.0002 mg/L		0.00031	0.0002 mg/L	0.00031	166.47%
Co 228.616+	12883.9	0.1126 mg/L		0.00211	0.1126 mg/L	0.00211	1.87%
Ni 232.003+	13325.3	0.2272 mg/L		0.00504	0.2272 mg/L	0.00504	2.22%
Ba 233.527+	108494.5	0.4855 mg/L		0.00841	0.4855 mg/L	0.00841	1.73%
Mn 257.610+	6511227.7	2.980 mg/L		0.0313	2.980 mg/L	0.0313	1.05%
Cr 267.716+	83645.4	0.2587 mg/L		0.00437	0.2587 mg/L	0.00437	1.69%
Fe 273.955+	11758520.3	171.4 mg/L		0.38	171.4 mg/L	0.38	0.22%
Mg 279.077+	3303658.7	54.27 mg/L		0.578	54.27 mg/L	0.578	1.06%
V 292.402+	172287.7	0.2959 mg/L		0.00586	0.2959 mg/L	0.00586	1.98%
Al 308.215+	4639486.0	94.06 mg/L		0.954	94.06 mg/L	0.954	1.01%
Be 313.107+	-45108.3	-0.0049 mg/L		0.00032	-0.0049 mg/L	0.00032	6.61%
Cu 324.752+	153882.4	0.3348 mg/L		0.00735	0.3348 mg/L	0.00735	2.20%
Ag 338.289+	-20165.9	-0.0743 mg/L		0.00198	-0.0743 mg/L	0.00198	2.67%
Na 330.237+	-5846.2	-2.658 mg/L		0.0245	-2.658 mg/L	0.0245	0.92%
Ca 227.546+	20014.1	26.46 mg/L		0.422	26.46 mg/L	0.422	1.59%
Al RADIAL+	522280.4	91.36 mg/L		0.339	91.36 mg/L	0.339	0.37%
Fe RADIAL+	257934.7	175.3 mg/L		0.53	175.3 mg/L	0.53	0.30%
Ca RADIAL+	445805.3	25.08 mg/L		0.027	25.08 mg/L	0.027	0.11%
K RADIAL+	84898.6	29.14 mg/L		0.134	29.14 mg/L	0.134	0.46%
Mg RADIAL+	80333.5	53.02 mg/L		0.183	53.02 mg/L	0.183	0.35%
Na RADIAL+	51326.8	2.004 mg/L		0.0320	2.004 mg/L	0.0320	1.60%
Mo 202.031	-350.3	-0.004 mg/L		0.0002	-0.004 mg/L	0.0002	4.16%

Sequence No.: 99

Sample ID: SEQ-SRD3

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 83

Date Collected: 3/14/2016 11:27:45 PM

Data Type: Reprocessed on 3/15/2016 5:42:12 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD3

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27013360.9	4.837 mg/L		0.0342			0.71%
Y RADIAL	818591.6	4.988 mg/L		0.0610			1.22%
As 188.979+	39.0	0.0091 mg/L		0.00091	0.0091 mg/L	0.00091	10.03%
Tl 190.801+	-63.7	-0.0060 mg/L		0.00157	-0.0060 mg/L	0.00157	26.18%
Se 196.026+	-43.7	-0.0061 mg/L		0.00356	-0.0061 mg/L	0.00356	58.09%
Zn 206.200+	11910.5	0.0885 mg/L		0.00047	0.0885 mg/L	0.00047	0.53%
Sb 206.836+	-75.3	-0.0074 mg/L		0.00051	-0.0074 mg/L	0.00051	6.82%
Pb 220.353+	2649.1	0.0816 mg/L		0.00031	0.0816 mg/L	0.00031	0.38%
Cd 226.502+	731.5	0.0003 mg/L		0.00004	0.0003 mg/L	0.00004	14.91%
Co 228.616+	1013.8	0.0090 mg/L		0.00014	0.0090 mg/L	0.00014	1.56%
Ni 232.003+	1261.1	0.0214 mg/L		0.00030	0.0214 mg/L	0.00030	1.41%
Ba 233.527+	17189.2	0.0769 mg/L		0.00033	0.0769 mg/L	0.00033	0.42%
Mn 257.610+	574648.4	0.2638 mg/L		0.00111	0.2638 mg/L	0.00111	0.42%
Cr 267.716+	8164.0	0.0254 mg/L		0.00009	0.0254 mg/L	0.00009	0.36%
Fe 273.955+	1514885.3	22.08 mg/L		0.093	22.08 mg/L	0.093	0.42%
Mg 279.077+	1196633.1	19.66 mg/L		0.070	19.66 mg/L	0.070	0.36%
V 292.402+	34863.7	0.0606 mg/L		0.00051	0.0606 mg/L	0.00051	0.83%
Al 308.215+	443389.5	8.988 mg/L		0.0574	8.988 mg/L	0.0574	0.64%
Be 313.107+	-864.4	-0.0001 mg/L		0.00002	-0.0001 mg/L	0.00002	24.62%
Cu 324.752+	21303.1	0.0460 mg/L		0.00052	0.0460 mg/L	0.00052	1.14%
Ag 338.289+	-1276.9	-0.0052 mg/L		0.00035	-0.0052 mg/L	0.00035	6.71%

Na 330.237†	483.2	0.4488 mg/L	0.01729	0.4488 mg/L	0.01729	3.85%
Ca 227.546†	45527.1	56.79 mg/L	0.425	56.79 mg/L	0.425	0.75%
Al RADIAL†	52379.1	9.161 mg/L	0.2108	9.161 mg/L	0.2108	2.30%
Fe RADIAL†	31778.9	21.60 mg/L	0.470	21.60 mg/L	0.470	2.18%
Ca RADIAL†	1084442.4	61.00 mg/L	0.124	61.00 mg/L	0.124	0.20%
K RADIAL†	4497.9	1.544 mg/L	0.0441	1.544 mg/L	0.0441	2.86%
Mg RADIAL†	29221.4	19.29 mg/L	0.465	19.29 mg/L	0.465	2.41%
Na RADIAL†	18722.1	0.7311 mg/L	0.01577	0.7311 mg/L	0.01577	2.16%
Mo 202.031	-77.1	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	11.53%

Sequence No.: 100

Sample ID: BC60700-BLK1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 84

Date Collected: 3/14/2016 11:32:26 PM

Data Type: Reprocessed on 3/15/2016 5:42:13 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60700-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27126023.6	4.857 mg/L	0.0442			0.91%
Y RADIAL	784016.6	4.777 mg/L	0.0435			0.91%
As 188.979†	-0.4	-0.0001 mg/L	0.00132	-0.0001 mg/L	0.00132	>999.9%
Tl 190.801†	10.0	0.0013 mg/L	0.00014	0.0013 mg/L	0.00014	10.89%
Se 196.026†	-8.1	-0.0027 mg/L	0.00051	-0.0027 mg/L	0.00051	18.50%
Zn 206.200†	1903.2	0.0142 mg/L	0.00021	0.0142 mg/L	0.00021	1.50%
Sb 206.836†	-36.1	-0.0040 mg/L	0.00036	-0.0040 mg/L	0.00036	9.11%
Pb 220.353†	14.0	0.0004 mg/L	0.00037	0.0004 mg/L	0.00037	82.70%
Cd 226.502†	-8.5	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	199.57%
Co 228.616†	-12.6	-0.0001 mg/L	0.00005	-0.0001 mg/L	0.00005	46.22%
Ni 232.003†	-72.3	-0.0013 mg/L	0.00053	-0.0013 mg/L	0.00053	42.55%
Ba 233.527†	-51.0	-0.0002 mg/L	0.00010	-0.0002 mg/L	0.00010	45.46%
Mn 257.610†	971.2	0.0004 mg/L	0.00001	0.0004 mg/L	0.00001	3.36%
Cr 267.716†	97.9	0.0003 mg/L	0.00005	0.0003 mg/L	0.00005	17.45%
Fe 273.955†	1759.8	0.0257 mg/L	0.00035	0.0257 mg/L	0.00035	1.38%
Mg 279.077†	549.1	0.0090 mg/L	0.00043	0.0090 mg/L	0.00043	4.72%
V 292.402†	111.5	0.0002 mg/L	0.00037	0.0002 mg/L	0.00037	190.70%
Al 308.215†	6459.3	0.1309 mg/L	0.00571	0.1309 mg/L	0.00571	4.36%
Be 313.107†	-743.8	-0.0001 mg/L	0.00001	-0.0001 mg/L	0.00001	12.56%
Cu 324.752†	-1375.8	-0.0028 mg/L	0.00038	-0.0028 mg/L	0.00038	13.79%
Ag 338.289†	-185.9	-0.0007 mg/L	0.00033	-0.0007 mg/L	0.00033	46.07%
Na 330.237†	85.2	0.0511 mg/L	0.00111	0.0511 mg/L	0.00111	2.18%
Ca 227.546†	-9.0	-0.0109 mg/L	0.01851	-0.0109 mg/L	0.01851	170.04%
Al RADIAL†	804.6	0.1407 mg/L	0.00740	0.1407 mg/L	0.00740	5.26%
Fe RADIAL†	44.3	0.0301 mg/L	0.00219	0.0301 mg/L	0.00219	7.26%
Ca RADIAL†	597.0	0.0336 mg/L	0.00018	0.0336 mg/L	0.00018	0.53%
K RADIAL†	-87.6	-0.0301 mg/L	0.04414	-0.0301 mg/L	0.04414	146.86%
Mg RADIAL†	6.4	0.0042 mg/L	0.00410	0.0042 mg/L	0.00410	97.53%
Na RADIAL†	-2774.4	-0.1083 mg/L	0.02318	-0.1083 mg/L	0.02318	21.39%
Mo 202.031	-96.1	-0.001 mg/L	0.0003	-0.001 mg/L	0.0003	21.05%

Sequence No.: 101

Sample ID: BC60700-SRM1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 85

Date Collected: 3/14/2016 11:37:30 PM

Data Type: Reprocessed on 3/15/2016 5:42:14 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60700-SRM1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25058133.4	4.487 mg/L	0.0353			0.79%
Y RADIAL	771181.6	4.699 mg/L	0.0536			1.14%
As 188.979†	6626.3	1.197 mg/L	0.0081	1.197 mg/L	0.0081	0.67%
Tl 190.801†	8408.1	1.062 mg/L	0.0330	1.062 mg/L	0.0330	3.11%
Se 196.026†	4652.4	1.643 mg/L	0.0318	1.643 mg/L	0.0318	1.93%
Zn 206.200†	237337.2	1.766 mg/L	0.0124	1.766 mg/L	0.0124	0.70%
Sb 206.836†	10563.9	1.172 mg/L	0.0030	1.172 mg/L	0.0030	0.26%

Pb 220.353†	30768.9	0.9412 mg/L	0.00602	0.9412 mg/L	0.00602	0.64%
Cd 226.502†	290433.3	0.6977 mg/L	0.00469	0.6977 mg/L	0.00469	0.67%
Co 228.616†	132532.2	1.124 mg/L	0.0060	1.124 mg/L	0.0060	0.53%
Ni 232.003†	63281.9	1.092 mg/L	0.0077	1.092 mg/L	0.0077	0.71%
Ba 233.527†	397750.6	1.780 mg/L	0.0111	1.780 mg/L	0.0111	0.63%
Mn 257.610†	9027219.6	4.122 mg/L	0.0239	4.122 mg/L	0.0239	0.58%
Cr 267.716†	597676.3	1.816 mg/L	0.0129	1.816 mg/L	0.0129	0.71%
Fe 273.955†	11495915.4	167.6 mg/L	0.50	167.6 mg/L	0.50	0.30%
Mg 279.077†	1900826.4	31.21 mg/L	0.221	31.21 mg/L	0.221	0.71%
V 292.402†	462821.0	0.8098 mg/L	0.00709	0.8098 mg/L	0.00709	0.87%
Al 308.215†	4389235.7	88.99 mg/L	0.565	88.99 mg/L	0.565	0.64%
Be 313.107†	10794367.4	1.176 mg/L	0.0013	1.176 mg/L	0.0013	0.11%
Cu 324.752†	718855.3	1.480 mg/L	0.0091	1.480 mg/L	0.0091	0.61%
Ag 338.289†	148832.3	0.5746 mg/L	0.00328	0.5746 mg/L	0.00328	0.57%
Na 330.237†	11223.4	7.565 mg/L	0.0180	7.565 mg/L	0.0180	0.24%
Ca 227.546†	52671.6	67.02 mg/L	0.459	67.02 mg/L	0.459	0.69%
Al RADIAL†	489369.7	85.60 mg/L	1.439	85.60 mg/L	1.439	1.68%
Fe RADIAL†	251913.6	171.3 mg/L	0.14	171.3 mg/L	0.14	0.08%
Ca RADIAL†	1147660.5	64.56 mg/L	1.153	64.56 mg/L	1.153	1.79%
K RADIAL†	91055.0	31.26 mg/L	0.091	31.26 mg/L	0.091	0.29%
Mg RADIAL†	46860.8	30.92 mg/L	0.033	30.92 mg/L	0.033	0.11%
Na RADIAL†	201503.9	7.869 mg/L	0.0374	7.869 mg/L	0.0374	0.48%
Mg 202.031	61563.1	0.768 mg/L	0.0044	0.768 mg/L	0.0044	0.57%

Sequence No.: 102

Sample ID: 16C0423-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 86

Date Collected: 3/14/2016 11:44:54 PM

Data Type: Reprocessed on 3/15/2016 5:42:15 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27096641.7	4.852 mg/L	0.0617			1.27%
Y RADIAL	850351.0	5.182 mg/L	0.0477			0.92%
As 188.979†	-132.8	0.0127 mg/L	0.00347	0.0127 mg/L	0.00347	27.30%
Tl 190.801†	-283.3	-0.0025 mg/L	0.00098	-0.0025 mg/L	0.00098	38.60%
Se 196.026†	-333.6	0.0325 mg/L	0.00842	0.0325 mg/L	0.00842	25.93%
Zn 206.200†	90406.8	0.6698 mg/L	0.00440	0.6698 mg/L	0.00440	0.66%
Sb 206.836†	-328.4	-0.0217 mg/L	0.00123	-0.0217 mg/L	0.00123	5.68%
Pb 220.353†	5036.5	0.1388 mg/L	0.00088	0.1388 mg/L	0.00088	0.63%
Cd 226.502†	9619.2	-0.0019 mg/L	0.00020	-0.0019 mg/L	0.00020	10.13%
Co 228.616†	17781.2	0.1579 mg/L	0.00239	0.1579 mg/L	0.00239	1.51%
Ni 232.003†	15160.7	0.2552 mg/L	0.00184	0.2552 mg/L	0.00184	0.72%
Ba 233.527†	169890.4	0.7602 mg/L	0.00502	0.7602 mg/L	0.00502	0.66%
Mn 257.610†	14421521.3	6.597 mg/L	0.0083	6.597 mg/L	0.0083	0.13%
Cr 267.716†	88876.1	0.2803 mg/L	0.00204	0.2803 mg/L	0.00204	0.73%
Fe 273.955†	23325029.5	340.0 mg/L	0.98	340.0 mg/L	0.98	0.29%
Mg 279.077†	1689997.7	27.72 mg/L	0.208	27.72 mg/L	0.208	0.75%
V 292.402†	266920.9	0.4538 mg/L	0.00317	0.4538 mg/L	0.00317	0.70%
Al 308.215†	4026710.7	81.65 mg/L	0.533	81.65 mg/L	0.533	0.65%
Be 313.107†	76043.9	0.0083 mg/L	0.00004	0.0083 mg/L	0.00004	0.51%
Cu 324.752†	-7446.0	0.0322 mg/L	0.00020	0.0322 mg/L	0.00020	0.62%
Ag 338.289†	-8054.2	-0.0239 mg/L	0.00040	-0.0239 mg/L	0.00040	1.69%
Na 330.237†	-331.5	1.503 mg/L	0.0491	1.503 mg/L	0.0491	3.27%
Ca 227.546†	14565.7	21.30 mg/L	0.163	21.30 mg/L	0.163	0.76%
Al RADIAL†	437147.2	76.49 mg/L	1.932	76.49 mg/L	1.932	2.53%
Fe RADIAL†	534626.8	363.4 mg/L	1.23	363.4 mg/L	1.23	0.34%
Ca RADIAL†	330931.2	18.62 mg/L	0.055	18.62 mg/L	0.055	0.29%
K RADIAL†	78092.6	26.81 mg/L	0.119	26.81 mg/L	0.119	0.44%
Mg RADIAL†	40702.4	26.84 mg/L	0.139	26.84 mg/L	0.139	0.52%
Na RADIAL†	32150.6	1.256 mg/L	0.0165	1.256 mg/L	0.0165	1.31%
Mg 202.031	-729.9	-0.009 mg/L	0.0005	-0.009 mg/L	0.0005	5.57%

Sequence No.: 103

Sample ID: BC60700-DUP1

Analyst: KV

Logged In Analyst (Original) : administrator

Autosampler Location: 87

Date Collected: 3/14/2016 11:49:40 PM

Data Type: Reprocessed on 3/15/2016 5:42:15 AM

Initial Sample Wt:
Dilution:

Initial Sample Vol:
Sample Prep Vol:

Mean Data: BC60700-DUP1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26687445.8	4.779 mg/L	0.0355			0.74%
Y RADIAL	824041.9	5.021 mg/L	0.0869			1.73%
As 188.979+	-130.8	0.0149 mg/L	0.00058	0.0149 mg/L	0.00058	3.86%
Tl 190.801+	-319.4	-0.0053 mg/L	0.00067	-0.0053 mg/L	0.00067	12.59%
Se 196.026+	-358.2	0.0317 mg/L	0.00100	0.0317 mg/L	0.00100	3.14%
Zn 206.200+	94103.0	0.6971 mg/L	0.01094	0.6971 mg/L	0.01094	1.57%
Sb 206.836+	-320.7	-0.0201 mg/L	0.00149	-0.0201 mg/L	0.00149	7.40%
Pb 220.353+	5251.0	0.1446 mg/L	0.00112	0.1446 mg/L	0.00112	0.78%
Cd 226.502+	10126.8	-0.0020 mg/L	0.00029	-0.0020 mg/L	0.00029	14.51%
Co 228.616+	18550.3	0.1648 mg/L	0.00147	0.1648 mg/L	0.00147	0.89%
Ni 232.003+	15827.2	0.2664 mg/L	0.00321	0.2664 mg/L	0.00321	1.21%
Ba 233.527+	179066.3	0.8012 mg/L	0.01464	0.8012 mg/L	0.01464	1.83%
Mn 257.610+	15111019.2	6.913 mg/L	0.0084	6.913 mg/L	0.0084	0.12%
Cr 267.716+	93788.2	0.2958 mg/L	0.00483	0.2958 mg/L	0.00483	1.63%
Fe 273.955+	24359967.0	355.1 mg/L	0.49	355.1 mg/L	0.49	0.14%
Mg 279.077+	1715012.6	28.13 mg/L	0.217	28.13 mg/L	0.217	0.77%
V 292.402+	283818.6	0.4827 mg/L	0.00685	0.4827 mg/L	0.00685	1.42%
Al 308.215+	4125206.4	83.65 mg/L	0.473	83.65 mg/L	0.473	0.57%
Be 313.107+	80831.0	0.0088 mg/L	0.00009	0.0088 mg/L	0.00009	1.02%
Cu 324.752+	-8876.2	0.0317 mg/L	0.00051	0.0317 mg/L	0.00051	1.61%
Ag 338.289+	-8730.9	-0.0261 mg/L	0.00096	-0.0261 mg/L	0.00096	3.68%
Na 330.237+	-445.6	1.524 mg/L	0.0544	1.524 mg/L	0.0544	3.57%
Ca 227.546+	15387.6	22.48 mg/L	0.243	22.48 mg/L	0.243	1.08%
Al RADIAL+	459297.9	80.36 mg/L	0.620	80.36 mg/L	0.620	0.77%
Fe RADIAL+	562478.9	382.4 mg/L	0.65	382.4 mg/L	0.65	0.17%
Ca RADIAL+	348053.5	19.58 mg/L	0.028	19.58 mg/L	0.028	0.14%
K RADIAL+	81877.4	28.10 mg/L	0.111	28.10 mg/L	0.111	0.39%
Mg RADIAL+	42833.1	28.24 mg/L	0.074	28.24 mg/L	0.074	0.26%
Na RADIAL+	32152.1	1.256 mg/L	0.0152	1.256 mg/L	0.0152	1.21%
Mo 202.031	-737.2	-0.009 mg/L	0.0002	-0.009 mg/L	0.0002	1.77%

Sequence No.: 104

Sample ID: BC60700-MS1

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 88

Date Collected: 3/14/2016 11:54:30 PM

Data Type: Reprocessed on 3/15/2016 5:42:16 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60700-MS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26287111.4	4.707 mg/L	0.0239			0.51%
Y RADIAL	789706.9	4.812 mg/L	0.0523			1.09%
As 188.979+	10578.4	1.922 mg/L	0.0177	1.922 mg/L	0.0177	0.92%
Tl 190.801+	14815.1	1.878 mg/L	0.0095	1.878 mg/L	0.0095	0.50%
Se 196.026+	5354.2	1.967 mg/L	0.0193	1.967 mg/L	0.0193	0.98%
Zn 206.200+	164090.2	1.218 mg/L	0.0107	1.218 mg/L	0.0107	0.87%
Sb 206.836+	1891.8	0.2240 mg/L	0.00225	0.2240 mg/L	0.00225	1.01%
Pb 220.353+	20904.4	0.6237 mg/L	0.00662	0.6237 mg/L	0.00662	1.06%
Cd 226.502+	30671.5	0.0479 mg/L	0.00093	0.0479 mg/L	0.00093	1.93%
Co 228.616+	81152.1	0.6942 mg/L	0.00677	0.6942 mg/L	0.00677	0.98%
Ni 232.003+	46370.5	0.7951 mg/L	0.00687	0.7951 mg/L	0.00687	0.86%
Ba 233.527+	662062.0	2.962 mg/L	0.0188	2.962 mg/L	0.0188	0.63%
Mn 257.610+	16413306.2	7.505 mg/L	0.0165	7.505 mg/L	0.0165	0.22%
Cr 267.716+	160963.0	0.4994 mg/L	0.00316	0.4994 mg/L	0.00316	0.63%
Fe 273.955+	24735674.3	360.6 mg/L	0.89	360.6 mg/L	0.89	0.25%
Mg 279.077+	1750719.9	28.71 mg/L	0.167	28.71 mg/L	0.167	0.58%
V 292.402+	564710.3	0.9792 mg/L	0.00543	0.9792 mg/L	0.00543	0.55%
Al 308.215+	4297215.3	87.14 mg/L	0.700	87.14 mg/L	0.700	0.80%
Be 313.107+	536105.8	0.0584 mg/L	0.00024	0.0584 mg/L	0.00024	0.41%
Cu 324.752+	129014.4	0.3119 mg/L	0.00237	0.3119 mg/L	0.00237	0.76%
Ag 338.289+	5476.9	0.0286 mg/L	0.00077	0.0286 mg/L	0.00077	2.68%
Na 330.237+	740.1	2.254 mg/L	0.0326	2.254 mg/L	0.0326	1.45%

Ca 227.546†	15235.1	22.34 mg/L	0.199	22.34 mg/L	0.199	0.89%
Al RADIAL†	489427.7	85.63 mg/L	2.154	85.63 mg/L	2.154	2.52%
Fe RADIAL†	569274.5	387.0 mg/L	0.40	387.0 mg/L	0.40	0.10%
Ca RADIAL†	350653.1	19.73 mg/L	0.031	19.73 mg/L	0.031	0.16%
K RADIAL†	82819.1	28.43 mg/L	0.145	28.43 mg/L	0.145	0.51%
Mg RADIAL†	43225.4	28.50 mg/L	0.048	28.50 mg/L	0.048	0.17%
Na RADIAL†	31526.3	1.231 mg/L	0.0387	1.231 mg/L	0.0387	3.15%
Mo 202.031	-801.3	-0.010 mg/L	0.0002	-0.010 mg/L	0.0002	2.17%

Sequence No.: 105

Sample ID: SEQ-CCV9

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution: 1:10

Autosampler Location: 8

Date Collected: 3/15/2016 12:01:52 AM

Data Type: Reprocessed on 3/15/2016 5:42:17 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCV9

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25572262.2	4.579 mg/L	0.0513			1.12%
Y RADIAL	771740.8	4.703 mg/L	0.0351			0.75%
As 188.979†	1451.9	0.2591 mg/L	0.00345	0.2591 mg/L	0.00345	1.33%
Tl 190.801†	2109.2	0.2629 mg/L	0.00304	0.2629 mg/L	0.00304	1.16%
Se 196.026†	747.7	0.2551 mg/L	0.00194	0.2551 mg/L	0.00194	0.76%
Zn 206.200†	359481.2	2.678 mg/L	0.0153	2.678 mg/L	0.0153	0.57%
Sb 206.836†	2283.3	0.2519 mg/L	0.00140	0.2519 mg/L	0.00140	0.56%
Pb 220.353†	8575.1	0.2637 mg/L	0.00293	0.2637 mg/L	0.00293	1.11%
Cd 226.502†	52969.4	0.1291 mg/L	0.00075	0.1291 mg/L	0.00075	0.58%
Co 228.616†	321119.4	2.715 mg/L	0.0141	2.715 mg/L	0.0141	0.52%
Ni 232.003†	152930.8	2.648 mg/L	0.0143	2.648 mg/L	0.0143	0.54%
Ba 233.527†	2448624.8	10.96 mg/L	0.110	10.96 mg/L	0.110	1.00%
Mn 257.610†	5967149.2	2.711 mg/L	0.0314	2.711 mg/L	0.0314	1.16%
Cr 267.716†	359627.0	1.090 mg/L	0.0064	1.090 mg/L	0.0064	0.59%
Fe 273.955†	374021.8	5.452 mg/L	0.0325	5.452 mg/L	0.0325	0.60%
Mg 279.077†	1589265.2	26.12 mg/L	0.285	26.12 mg/L	0.285	1.09%
V 292.402†	1478737.9	2.615 mg/L	0.0325	2.615 mg/L	0.0325	1.24%
Al 308.215†	516534.6	10.47 mg/L	0.074	10.47 mg/L	0.074	0.70%
Be 313.107†	2397080.9	0.2611 mg/L	0.00361	0.2611 mg/L	0.00361	1.38%
Cu 324.752†	651604.5	1.322 mg/L	0.0092	1.322 mg/L	0.0092	0.69%
Ag 338.289†	350172.7	1.345 mg/L	0.0035	1.345 mg/L	0.0035	0.26%
Na 330.237†	40960.6	24.53 mg/L	0.196	24.53 mg/L	0.196	0.80%
Ca 227.546†	20548.7	25.60 mg/L	0.214	25.60 mg/L	0.214	0.84%
Al RADIAL†	59423.9	10.39 mg/L	0.077	10.39 mg/L	0.077	0.75%
Fe RADIAL†	7620.7	5.181 mg/L	0.0320	5.181 mg/L	0.0320	0.62%
Ca RADIAL†	458347.3	25.78 mg/L	0.016	25.78 mg/L	0.016	0.06%
K RADIAL†	15504.6	5.322 mg/L	0.0414	5.322 mg/L	0.0414	0.78%
Mg RADIAL†	39392.6	26.01 mg/L	0.207	26.01 mg/L	0.207	0.79%
Na RADIAL†	709664.0	27.71 mg/L	0.190	27.71 mg/L	0.190	0.69%
Mo 202.031	82290.7	1.027 mg/L	0.0138	1.027 mg/L	0.0138	1.35%

Sequence No.: 106

Sample ID: SEQ-CCB9

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/15/2016 12:09:40 AM

Data Type: Reprocessed on 3/15/2016 5:42:17 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCB9

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27283912.1	4.885 mg/L	0.0663			1.36%
Y RADIAL	790076.9	4.814 mg/L	0.0929			1.93%
As 188.979†	-6.0	-0.0011 mg/L	0.00094	-0.0011 mg/L	0.00094	88.45%
Tl 190.801†	0.8	0.0001 mg/L	0.00089	0.0001 mg/L	0.00089	852.40%
Se 196.026†	-17.0	-0.0058 mg/L	0.00403	-0.0058 mg/L	0.00403	69.80%
Zn 206.200†	-53.8	-0.0004 mg/L	0.00003	-0.0004 mg/L	0.00003	7.55%
Sb 206.836†	-19.9	-0.0022 mg/L	0.00146	-0.0022 mg/L	0.00146	66.73%
Pb 220.353†	6.6	0.0002 mg/L	0.00021	0.0002 mg/L	0.00021	101.35%

Cd 226.502†	-1.3	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	>999.9%
Co 228.616†	-41.5	-0.0004 mg/L	0.00001	-0.0004 mg/L	0.00001	2.74%
Ni 232.003†	-38.8	-0.0007 mg/L	0.00023	-0.0007 mg/L	0.00023	34.54%
Ba 233.527†	-82.3	-0.0004 mg/L	0.00013	-0.0004 mg/L	0.00013	35.64%
Mn 257.610†	150.8	0.0001 mg/L	0.00001	0.0001 mg/L	0.00001	17.08%
Cr 267.716†	79.2	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	22.95%
Fe 273.955†	776.6	0.0113 mg/L	0.00098	0.0113 mg/L	0.00098	8.69%
Mg 279.077†	-22.1	-0.0004 mg/L	0.00219	-0.0004 mg/L	0.00219	602.01%
V 292.402†	35.0	0.0001 mg/L	0.00010	0.0001 mg/L	0.00010	163.05%
Al 308.215†	865.2	0.0175 mg/L	0.00525	0.0175 mg/L	0.00525	29.95%
Be 313.107†	-658.9	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	39.27%
Cu 324.752†	-278.4	-0.0006 mg/L	0.00025	-0.0006 mg/L	0.00025	45.22%
Ag 338.289†	91.2	0.0004 mg/L	0.00046	0.0004 mg/L	0.00046	131.98%
Na 330.237†	67.7	0.0405 mg/L	0.01702	0.0405 mg/L	0.01702	42.04%
Ca 227.546†	-13.8	-0.0172 mg/L	0.03870	-0.0172 mg/L	0.03870	225.46%
As RADIAL†	78.9	0.0138 mg/L	0.00715	0.0138 mg/L	0.00715	51.81%
Fe RADIAL†	5.4	0.0037 mg/L	0.00102	0.0037 mg/L	0.00102	27.56%
Ca RADIAL†	30.0	0.0017 mg/L	0.00274	0.0017 mg/L	0.00274	162.75%
K RADIAL†	-83.7	-0.0287 mg/L	0.01642	-0.0287 mg/L	0.01642	57.20%
Mg RADIAL†	-1.4	-0.0009 mg/L	0.00467	-0.0009 mg/L	0.00467	513.23%
Na RADIAL†	-3533.2	-0.1380 mg/L	0.03262	-0.1380 mg/L	0.03262	23.64%
Mo 202.031	-55.6	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	16.77%

Sequence No.: 107

Sample ID: 16C0423-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 89

Date Collected: 3/15/2016 12:14:46 AM

Data Type: Reprocessed on 3/15/2016 5:42:18 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-05

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	27753889.2	4.970	mg/L	0.0314				0.63%
Y RADIAL	862132.1	5.253	mg/L	0.0590				1.12%
As 188.979†	-207.3	0.0048	mg/L	0.00276	0.0048	mg/L	0.00276	57.88%
Ti 190.801†	-264.9	0.0046	mg/L	0.00188	0.0046	mg/L	0.00188	41.27%
Se 196.026†	-380.0	0.0381	mg/L	0.00339	0.0381	mg/L	0.00339	8.90%
Zn 206.200†	89172.1	0.6601	mg/L	0.00883	0.6601	mg/L	0.00883	1.34%
Sb 206.836†	-340.0	-0.0209	mg/L	0.00080	-0.0209	mg/L	0.00080	3.82%
Pb 220.353†	6144.0	0.1717	mg/L	0.00201	0.1717	mg/L	0.00201	1.17%
Cd 226.502†	11053.0	-0.0022	mg/L	0.00074	-0.0022	mg/L	0.00074	34.24%
Co 228.616†	16001.9	0.1440	mg/L	0.00107	0.1440	mg/L	0.00107	0.74%
Ni 232.003†	18116.0	0.3053	mg/L	0.00421	0.3053	mg/L	0.00421	1.38%
Ba 233.527†	211842.6	0.9479	mg/L	0.01241	0.9479	mg/L	0.01241	1.31%
Mn 257.610†	9803496.5	4.507	mg/L	0.0031	4.507	mg/L	0.0031	0.07%
Cr 267.716†	93356.4	0.2955	mg/L	0.00330	0.2955	mg/L	0.00330	1.12%
Fe 273.955†	26173021.1	381.5	mg/L	0.69	381.5	mg/L	0.69	0.18%
Mg 279.077†	2024215.3	33.20	mg/L	0.345	33.20	mg/L	0.345	1.04%
V 292.402†	192771.2	0.3200	mg/L	0.00590	0.3200	mg/L	0.00590	1.84%
Al 308.215†	5038742.0	102.2	mg/L	1.24	102.2	mg/L	1.24	1.22%
Be 313.107†	169603.1	0.0185	mg/L	0.00026	0.0185	mg/L	0.00026	1.40%
Cu 324.752†	-5153.6	0.0437	mg/L	0.00084	0.0437	mg/L	0.00084	1.92%
Ag 338.289†	-7143.9	-0.0194	mg/L	0.00103	-0.0194	mg/L	0.00103	5.32%
Na 330.237†	211.2	2.079	mg/L	0.0437	2.079	mg/L	0.0437	2.10%
Ca 227.546†	17972.8	26.01	mg/L	0.237	26.01	mg/L	0.237	0.91%
As RADIAL†	555666.8	97.22	mg/L	0.992	97.22	mg/L	0.992	1.02%
Fe RADIAL†	613168.6	416.8	mg/L	0.90	416.8	mg/L	0.90	0.22%
Ca RADIAL†	402855.1	22.66	mg/L	0.035	22.66	mg/L	0.035	0.16%
K RADIAL†	102331.6	35.13	mg/L	0.082	35.13	mg/L	0.082	0.23%
Mg RADIAL†	49607.7	32.71	mg/L	0.154	32.71	mg/L	0.154	0.47%
Na RADIAL†	34140.8	1.333	mg/L	0.0026	1.333	mg/L	0.0026	0.20%
Mo 202.031	-964.1	-0.012	mg/L	0.0002	-0.012	mg/L	0.0002	1.62%

Sequence No.: 108

Sample ID: 16C0423-10

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Autosampler Location: 90

Date Collected: 3/15/2016 12:19:36 AM

Data Type: Reprocessed on 3/15/2016 5:42:19 AM

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0423-10

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25956103.0	4.648 mg/L		0.0210			0.45%
Y RADIAL	799738.2	4.873 mg/L		0.0429			0.88%
As 188.979†	-179.4	0.0080 mg/L		0.00237	0.0080 mg/L	0.00237	29.58%
Tl 190.801†	-267.9	0.0026 mg/L		0.00164	0.0026 mg/L	0.00164	62.53%
Se 196.026†	-358.8	0.0383 mg/L		0.00328	0.0383 mg/L	0.00328	8.55%
Zn 206.200†	84488.8	0.6253 mg/L		0.00730	0.6253 mg/L	0.00730	1.17%
Sb 206.836†	-332.4	-0.0207 mg/L		0.00179	-0.0207 mg/L	0.00179	8.65%
Pb 220.353†	5880.9	0.1637 mg/L		0.00065	0.1637 mg/L	0.00065	0.40%
Cd 226.502†	10687.4	-0.0018 mg/L		0.00088	-0.0018 mg/L	0.00088	47.80%
Co 228.616†	16915.6	0.1514 mg/L		0.00089	0.1514 mg/L	0.00089	0.59%
Ni 232.003†	17188.9	0.2896 mg/L		0.00572	0.2896 mg/L	0.00572	1.97%
Ba 233.527†	184617.8	0.8261 mg/L		0.01231	0.8261 mg/L	0.01231	1.49%
Mn 257.610†	15528259.3	7.105 mg/L		0.0258	7.105 mg/L	0.0258	0.36%
Cr 267.716†	96240.8	0.3037 mg/L		0.00358	0.3037 mg/L	0.00358	1.18%
Fe 273.955†	25352693.7	369.5 mg/L		1.51	369.5 mg/L	1.51	0.41%
Mg 279.077†	1810008.3	29.68 mg/L		0.628	29.68 mg/L	0.628	2.12%
V 292.402†	250612.6	0.4232 mg/L		0.00822	0.4232 mg/L	0.00822	1.94%
Al 308.215†	4518029.4	91.62 mg/L		2.394	91.62 mg/L	2.394	2.61%
Be 313.107†	108391.5	0.0118 mg/L		0.00021	0.0118 mg/L	0.00021	1.74%
Cu 324.752†	-13747.7	0.0241 mg/L		0.00069	0.0241 mg/L	0.00069	2.87%
Ag 338.289†	-7650.3	-0.0217 mg/L		0.00058	-0.0217 mg/L	0.00058	2.68%
Na 330.237†	-53.1	1.840 mg/L		0.0804	1.840 mg/L	0.0804	4.37%
Ca 227.546†	17404.6	25.14 mg/L		0.064	25.14 mg/L	0.064	0.26%
Al RADIAL†	504609.5	88.29 mg/L		1.653	88.29 mg/L	1.653	1.87%
Fe RADIAL†	587568.1	399.4 mg/L		1.03	399.4 mg/L	1.03	0.26%
Ca RADIAL†	396251.6	22.29 mg/L		0.006	22.29 mg/L	0.006	0.03%
K RADIAL†	97381.9	33.43 mg/L		0.092	33.43 mg/L	0.092	0.27%
Mg RADIAL†	44833.5	29.56 mg/L		0.050	29.56 mg/L	0.050	0.17%
Na RADIAL†	33454.5	1.306 mg/L		0.0141	1.306 mg/L	0.0141	1.08%
Mg 202.031	-865.5	-0.011 mg/L		0.0001	-0.011 mg/L	0.0001	0.74%

Sequence No.: 109

Sample ID: 16C0423-13

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 91

Date Collected: 3/15/2016 12:24:27 AM

Data Type: Reprocessed on 3/15/2016 5:42:20 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-13

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27209558.5	4.872 mg/L		0.0244			0.50%
Y RADIAL	837582.3	5.104 mg/L		0.0460			0.90%
As 188.979†	-13.7	0.0228 mg/L		0.00056	0.0228 mg/L	0.00056	2.46%
Tl 190.801†	-713.6	-0.0661 mg/L		0.00285	-0.0661 mg/L	0.00285	4.31%
Se 196.026†	-243.5	0.0184 mg/L		0.00450	0.0184 mg/L	0.00450	24.42%
Zn 206.200†	57637.4	0.4268 mg/L		0.00364	0.4268 mg/L	0.00364	0.85%
Sb 206.836†	-342.2	-0.0277 mg/L		0.00051	-0.0277 mg/L	0.00051	1.83%
Pb 220.353†	3169.8	0.0962 mg/L		0.00054	0.0962 mg/L	0.00054	0.56%
Cd 226.502†	6918.5	-0.0007 mg/L		0.00007	-0.0007 mg/L	0.00007	9.14%
Co 228.616†	13751.3	0.1215 mg/L		0.00052	0.1215 mg/L	0.00052	0.43%
Ni 232.003†	12168.7	0.2056 mg/L		0.00191	0.2056 mg/L	0.00191	0.93%
Ba 233.527†	163295.6	0.7307 mg/L		0.00730	0.7307 mg/L	0.00730	1.00%
Mn 257.610†	14552701.0	6.642 mg/L		0.0271	6.642 mg/L	0.0271	0.41%
Cr 267.716†	66229.9	0.2083 mg/L		0.00202	0.2083 mg/L	0.00202	0.97%
Fe 273.955†	16648981.2	242.7 mg/L		0.91	242.7 mg/L	0.91	0.37%
Mg 279.077†	3085468.3	50.67 mg/L		0.438	50.67 mg/L	0.438	0.86%
V 292.402†	265113.6	0.4562 mg/L		0.00381	0.4562 mg/L	0.00381	0.84%
Al 308.215†	6541210.3	132.6 mg/L		1.38	132.6 mg/L	1.38	1.04%
Be 313.107†	33790.6	0.0037 mg/L		0.00007	0.0037 mg/L	0.00007	1.82%
Cu 324.752†	134825.0	0.3061 mg/L		0.00333	0.3061 mg/L	0.00333	1.09%
Ag 338.289†	-14633.7	-0.0513 mg/L		0.00145	-0.0513 mg/L	0.00145	2.83%
Na 330.237†	-3684.1	-1.026 mg/L		0.0270	-1.026 mg/L	0.0270	2.63%
Ca 227.546†	6200.6	9.973 mg/L		0.0256	9.973 mg/L	0.0256	0.26%

Al RADIAL+	737757.3	129.0 mg/L	0.40	129.0 mg/L	0.40	0.31%
Fe RADIAL+	370850.2	252.1 mg/L	0.80	252.1 mg/L	0.80	0.32%
Ca RADIAL+	144501.6	8.129 mg/L	0.0165	8.129 mg/L	0.0165	0.20%
K RADIAL+	53148.4	18.24 mg/L	0.128	18.24 mg/L	0.128	0.70%
Mg RADIAL+	74930.2	49.45 mg/L	0.135	49.45 mg/L	0.135	0.27%
Na RADIAL+	30599.8	1.195 mg/L	0.0175	1.195 mg/L	0.0175	1.46%
Mo 202.031	-705.3	-0.009 mg/L	0.0001	-0.009 mg/L	0.0001	0.62%

Sequence No.: 110

Sample ID: 16C0423-18

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 92

Date Collected: 3/15/2016 12:29:12 AM

Data Type: Reprocessed on 3/15/2016 5:42:20 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-18

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2670555.1	4.782 mg/L	0.0439			0.92%
Y RADIAL	812092.0	4.948 mg/L	0.0329			0.67%
As 188.979+	-4.8	0.0231 mg/L	0.00202	0.0231 mg/L	0.00202	8.73%
Tl 190.801+	-752.1	-0.0720 mg/L	0.00525	-0.0720 mg/L	0.00525	7.30%
Se 196.026+	-214.3	0.0234 mg/L	0.00831	0.0234 mg/L	0.00831	35.53%
Zn 206.200+	54827.5	0.4060 mg/L	0.00585	0.4060 mg/L	0.00585	1.44%
Sb 206.836+	-350.8	-0.0292 mg/L	0.00241	-0.0292 mg/L	0.00241	8.28%
Pb 220.353+	3170.2	0.0973 mg/L	0.00057	0.0973 mg/L	0.00057	0.59%
Cd 226.502+	6696.1	-0.0004 mg/L	0.00013	-0.0004 mg/L	0.00013	31.25%
Ce 228.616+	18131.2	0.1583 mg/L	0.00178	0.1583 mg/L	0.00178	1.13%
Ni 232.003+	11843.4	0.2002 mg/L	0.00096	0.2002 mg/L	0.00096	0.48%
Ba 233.527+	142340.3	0.6369 mg/L	0.00769	0.6369 mg/L	0.00769	1.21%
Mn 257.610+	19161145.3	8.734 mg/L	0.0088	8.734 mg/L	0.0088	0.10%
Cr 267.716+	64078.8	0.2014 mg/L	0.00255	0.2014 mg/L	0.00255	1.27%
Fe 273.955+	15870466.3	231.3 mg/L	0.27	231.3 mg/L	0.27	0.12%
Mg 279.077+	3023777.8	49.66 mg/L	0.518	49.66 mg/L	0.518	1.04%
V 292.402+	258308.2	0.4448 mg/L	0.00371	0.4448 mg/L	0.00371	0.83%
Al 308.215+	6754645.8	136.9 mg/L	1.34	136.9 mg/L	1.34	0.98%
Be 313.107+	21828.7	0.0024 mg/L	0.00013	0.0024 mg/L	0.00013	5.65%
Cu 324.752+	146295.1	0.3278 mg/L	0.00360	0.3278 mg/L	0.00360	1.10%
Ag 338.289+	-15589.4	-0.0552 mg/L	0.00074	-0.0552 mg/L	0.00074	1.34%
Na 330.237+	-4364.7	-1.492 mg/L	0.0521	-1.492 mg/L	0.0521	3.49%
Ca 227.546+	4698.9	8.002 mg/L	0.1075	8.002 mg/L	0.1075	1.34%
Al RADIAL+	753044.8	131.7 mg/L	0.06	131.7 mg/L	0.06	0.05%
Fe RADIAL+	352793.6	239.8 mg/L	0.32	239.8 mg/L	0.32	0.13%
Ca RADIAL+	109258.0	6.146 mg/L	0.0054	6.146 mg/L	0.0054	0.09%
K RADIAL+	45319.3	15.56 mg/L	0.054	15.56 mg/L	0.054	0.35%
Mg RADIAL+	73500.9	48.50 mg/L	0.051	48.50 mg/L	0.051	0.10%
Na RADIAL+	28165.4	1.100 mg/L	0.0128	1.100 mg/L	0.0128	1.16%
Mo 202.031	-607.0	-0.008 mg/L	0.0003	-0.008 mg/L	0.0003	3.72%

Sequence No.: 111

Sample ID: 16C0423-21

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 93

Date Collected: 3/15/2016 12:33:56 AM

Data Type: Reprocessed on 3/15/2016 5:42:21 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-21

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25560308.3	4.577 mg/L	0.0278			0.61%
Y RADIAL	803809.4	4.898 mg/L	0.0711			1.45%
As 188.979+	-220.8	-0.0022 mg/L	0.00263	-0.0022 mg/L	0.00263	120.72%
Tl 190.801+	-326.6	-0.0072 mg/L	0.00150	-0.0072 mg/L	0.00150	20.80%
Se 196.026+	-352.6	0.0292 mg/L	0.00161	0.0292 mg/L	0.00161	5.50%
Zn 206.200+	84005.3	0.6220 mg/L	0.00583	0.6220 mg/L	0.00583	0.94%
Sb 206.836+	-317.0	-0.0202 mg/L	0.00236	-0.0202 mg/L	0.00236	11.71%
Pb 220.353+	5606.0	0.1638 mg/L	0.00219	0.1638 mg/L	0.00219	1.34%
Cd 226.502+	10497.1	-0.0003 mg/L	0.00039	-0.0003 mg/L	0.00039	111.96%

Co 228.616†	16969.8	0.1512 mg/L	0.00129	0.1512 mg/L	0.00129	0.86%
Ni 232.003†	18780.5	0.3177 mg/L	0.00370	0.3177 mg/L	0.00370	1.16%
Ba 233.527†	320665.8	1.435 mg/L	0.0133	1.435 mg/L	0.0133	0.93%
Mn 257.610†	14970646.4	6.848 mg/L	0.0037	6.848 mg/L	0.0037	0.05%
Cr 267.716†	94719.0	0.2983 mg/L	0.00253	0.2983 mg/L	0.00253	0.85%
Fe 273.955†	23779616.4	346.6 mg/L	0.46	346.6 mg/L	0.46	0.13%
Mg 279.077†	3702207.5	60.79 mg/L	0.362	60.79 mg/L	0.362	0.60%
V 292.402†	188057.5	0.3140 mg/L	0.00224	0.3140 mg/L	0.00224	0.71%
Al 308.215†	6576501.8	133.3 mg/L	0.55	133.3 mg/L	0.55	0.41%
Be 313.107†	102657.5	0.0112 mg/L	0.00004	0.0112 mg/L	0.00004	0.38%
Cu 324.752†	-1665.2	0.0449 mg/L	0.00092	0.0449 mg/L	0.00092	2.04%
Ag 338.289†	-7994.3	-0.0248 mg/L	0.00100	-0.0248 mg/L	0.00100	4.02%
Na 330.237†	111.9	1.921 mg/L	0.0441	1.921 mg/L	0.0441	2.30%
Ca 227.546†	112222.5	142.8 mg/L	1.21	142.8 mg/L	1.21	0.85%
Al RADIAL†	722475.7	126.4 mg/L	0.19	126.4 mg/L	0.19	0.15%
Fe RADIAL†	546360.4	371.4 mg/L	0.54	371.4 mg/L	0.54	0.14%
Ca RADIAL†	2415794.4	135.9 mg/L	1.64	135.9 mg/L	1.64	1.20%
K RADIAL†	113587.4	38.99 mg/L	0.034	38.99 mg/L	0.034	0.09%
Mg RADIAL†	89663.9	59.16 mg/L	0.103	59.16 mg/L	0.103	0.17%
Na RADIAL†	40639.7	1.587 mg/L	0.0320	1.587 mg/L	0.0320	2.02%
Mo 202.031	-800.0	-0.010 mg/L	0.0004	-0.010 mg/L	0.0004	4.24%

Sequence No.: 112

Sample ID: BC60700-DUP2

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 94

Date Collected: 3/15/2016 12:38:48 AM

Data Type: Reprocessed on 3/15/2016 5:42:22 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60700-DUP2

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26117509.8	4.677 mg/L		0.0185			0.40%
Y RADIAL	807508.7	4.920 mg/L		0.0587			1.19%
As 188.979†	-234.9	-0.0044 mg/L		0.00125	-0.0044 mg/L	0.00125	28.23%
Tl 190.801†	-312.4	-0.0052 mg/L		0.00301	-0.0052 mg/L	0.00301	57.84%
Se 196.026†	-370.1	0.0243 mg/L		0.00132	0.0243 mg/L	0.00132	5.41%
Zn 206.200†	83699.1	0.6197 mg/L		0.00543	0.6197 mg/L	0.00543	0.88%
Sb 206.836†	-331.2	-0.0216 mg/L		0.00414	-0.0216 mg/L	0.00414	19.17%
Pb 220.353†	5610.2	0.1639 mg/L		0.00270	0.1639 mg/L	0.00270	1.65%
Cd 226.502†	10455.1	-0.0006 mg/L		0.00022	-0.0006 mg/L	0.00022	33.90%
Co 228.616†	17002.3	0.1516 mg/L		0.00116	0.1516 mg/L	0.00116	0.76%
Ni 232.003†	18756.2	0.3172 mg/L		0.00225	0.3172 mg/L	0.00225	0.71%
Ba 233.527†	319707.6	1.431 mg/L		0.0119	1.431 mg/L	0.0119	0.83%
Mn 257.610†	15061450.4	6.889 mg/L		0.0159	6.889 mg/L	0.0159	0.23%
Cr 267.716†	94512.1	0.2977 mg/L		0.00192	0.2977 mg/L	0.00192	0.64%
Fe 273.955†	23847391.3	347.6 mg/L		1.04	347.6 mg/L	1.04	0.30%
Mg 279.077†	3694316.1	60.66 mg/L		0.190	60.66 mg/L	0.190	0.31%
V 292.402†	188246.9	0.3142 mg/L		0.00254	0.3142 mg/L	0.00254	0.81%
Al 308.215†	6574143.5	133.3 mg/L		0.43	133.3 mg/L	0.43	0.32%
Be 313.107†	103194.1	0.0112 mg/L		0.00007	0.0112 mg/L	0.00007	0.62%
Cu 324.752†	-2617.1	0.0433 mg/L		0.00095	0.0433 mg/L	0.00095	2.19%
Ag 338.289†	-8126.8	-0.0253 mg/L		0.00100	-0.0253 mg/L	0.00100	3.96%
Na 330.237†	75.8	1.912 mg/L		0.1048	1.912 mg/L	0.1048	5.48%
Ca 227.546†	111905.9	142.4 mg/L		1.55	142.4 mg/L	1.55	1.09%
Al RADIAL†	727930.6	127.3 mg/L		0.72	127.3 mg/L	0.72	0.56%
Fe RADIAL†	550246.7	374.1 mg/L		2.30	374.1 mg/L	2.30	0.61%
Ca RADIAL†	2429893.7	136.7 mg/L		0.68	136.7 mg/L	0.68	0.50%
K RADIAL†	114729.9	39.38 mg/L		0.260	39.38 mg/L	0.260	0.66%
Mg RADIAL†	90310.9	59.59 mg/L		0.423	59.59 mg/L	0.423	0.71%
Na RADIAL†	40655.1	1.588 mg/L		0.0184	1.588 mg/L	0.0184	1.16%
Mo 202.031	-825.6	-0.010 mg/L		0.0003	-0.010 mg/L	0.0003	2.79%

Sequence No.: 113

Sample ID: BC60700-MS2

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 95

Date Collected: 3/15/2016 12:43:38 AM

Data Type: Reprocessed on 3/15/2016 5:42:23 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: BC60700-MS2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	28081312.9	5.028 mg/L	0.0196			0.39%
Y RADIAL	892401.1	5.438 mg/L	0.0400			0.74%
As 188.979†	10441.7	1.893 mg/L	0.0109	1.893 mg/L	0.0109	0.58%
Tl 190.801†	14560.9	1.842 mg/L	0.0228	1.842 mg/L	0.0228	1.23%
Se 196.026†	5408.3	1.966 mg/L	0.0132	1.966 mg/L	0.0132	0.67%
Zn 206.200†	144449.4	1.073 mg/L	0.0081	1.073 mg/L	0.0081	0.76%
Sb 206.836†	1925.8	0.2259 mg/L	0.00400	0.2259 mg/L	0.00400	1.77%
Pb 220.353†	20484.0	0.6198 mg/L	0.00692	0.6198 mg/L	0.00692	1.12%
Cd 226.502†	29642.5	0.0487 mg/L	0.00051	0.0487 mg/L	0.00051	1.05%
Co 228.616†	76837.0	0.6567 mg/L	0.00406	0.6567 mg/L	0.00406	0.62%
Ni 232.003†	47419.8	0.8142 mg/L	0.01250	0.8142 mg/L	0.01250	1.54%
Ba 233.527†	763001.4	3.414 mg/L	0.0446	3.414 mg/L	0.0446	1.31%
Mn 257.610†	14801246.8	6.767 mg/L	0.0128	6.767 mg/L	0.0128	0.19%
Cr 267.716†	151674.2	0.4698 mg/L	0.00496	0.4698 mg/L	0.00496	1.06%
Fe 273.955†	21838357.9	318.3 mg/L	0.43	318.3 mg/L	0.43	0.14%
Mg 279.077†	3421856.9	56.19 mg/L	0.725	56.19 mg/L	0.725	1.29%
V 292.402†	451626.6	0.7816 mg/L	0.01082	0.7816 mg/L	0.01082	1.38%
Al 308.215†	6194902.4	125.6 mg/L	1.69	125.6 mg/L	1.69	1.34%
Be 313.107†	547907.5	0.0597 mg/L	0.00059	0.0597 mg/L	0.00059	0.99%
Cu 324.752†	135061.3	0.3180 mg/L	0.00311	0.3180 mg/L	0.00311	0.98%
Ag 338.289†	7043.6	0.0325 mg/L	0.00082	0.0325 mg/L	0.00082	2.53%
Na 330.237†	1215.6	2.421 mg/L	0.0604	2.421 mg/L	0.0604	2.50%
Ca 227.546†	104761.9	133.3 mg/L	1.10	133.3 mg/L	1.10	0.82%
Al RADIAL†	670955.2	117.4 mg/L	0.34	117.4 mg/L	0.34	0.29%
Fe RADIAL†	499648.5	339.7 mg/L	0.89	339.7 mg/L	0.89	0.26%
Ca RADIAL†	2197492.7	123.6 mg/L	2.22	123.6 mg/L	2.22	1.80%
K RADIAL†	103477.6	35.52 mg/L	0.226	35.52 mg/L	0.226	0.64%
Mg RADIAL†	81857.7	54.01 mg/L	0.259	54.01 mg/L	0.259	0.48%
Na RADIAL†	40869.8	1.596 mg/L	0.0127	1.596 mg/L	0.0127	0.80%
Mo 202.031	-837.4	-0.010 mg/L	0.0006	-0.010 mg/L	0.0006	5.28%

Sequence No.: 114

Sample ID: 16C0423-23

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 96

Date Collected: 3/15/2016 12:51:00 AM

Data Type: Reprocessed on 3/15/2016 5:42:23 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-23

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27789892.4	4.976 mg/L	0.0073			0.15%
Y RADIAL	860685.6	5.244 mg/L	0.0527			1.01%
As 188.979†	-233.8	-0.0055 mg/L	0.00317	-0.0055 mg/L	0.00317	58.07%
Tl 190.801†	-242.0	0.0024 mg/L	0.00194	0.0024 mg/L	0.00194	79.44%
Se 196.026†	-331.1	0.0327 mg/L	0.00628	0.0327 mg/L	0.00628	19.21%
Zn 206.200†	81091.5	0.6004 mg/L	0.00389	0.6004 mg/L	0.00389	0.65%
Sb 206.836†	-305.3	-0.0192 mg/L	0.00303	-0.0192 mg/L	0.00303	15.74%
Pb 220.353†	5506.9	0.1579 mg/L	0.00077	0.1579 mg/L	0.00077	0.49%
Cd 226.502†	9877.3	-0.0012 mg/L	0.00035	-0.0012 mg/L	0.00035	29.25%
Co 228.616†	17202.3	0.1530 mg/L	0.00062	0.1530 mg/L	0.00062	0.41%
Ni 232.003†	18826.1	0.3187 mg/L	0.00449	0.3187 mg/L	0.00449	1.41%
Ba 233.527†	309070.2	1.383 mg/L	0.0114	1.383 mg/L	0.0114	0.82%
Mn 257.610†	14104220.9	6.453 mg/L	0.0164	6.453 mg/L	0.0164	0.25%
Cr 267.716†	90827.5	0.2862 mg/L	0.00169	0.2862 mg/L	0.00169	0.59%
Fe 273.955†	23100833.0	336.7 mg/L	0.76	336.7 mg/L	0.76	0.23%
Mg 279.077†	2771276.1	45.49 mg/L	0.110	45.49 mg/L	0.110	0.24%
V 292.402†	220143.1	0.3712 mg/L	0.00304	0.3712 mg/L	0.00304	0.82%
Al 308.215†	5509478.5	111.7 mg/L	0.29	111.7 mg/L	0.29	0.26%
Be 313.107†	116904.6	0.0127 mg/L	0.00012	0.0127 mg/L	0.00012	0.93%
Cu 324.752†	20396.2	0.0884 mg/L	0.00083	0.0884 mg/L	0.00083	0.94%
Ag 338.289†	-7162.2	-0.0210 mg/L	0.00020	-0.0210 mg/L	0.00020	0.95%
Na 330.237†	243.4	1.885 mg/L	0.0451	1.885 mg/L	0.0451	2.39%
Ca 227.546†	52766.9	68.80 mg/L	0.417	68.80 mg/L	0.417	0.61%
Al RADIAL†	609244.0	106.6 mg/L	0.71	106.6 mg/L	0.71	0.67%

Fe RADIAL†	532205.6	361.8 mg/L	1.32	361.8 mg/L	1.32	0.36%
Ca RADIAL†	1160539.1	65.29 mg/L	0.474	65.29 mg/L	0.474	0.73%
K RADIAL†	106014.1	36.39 mg/L	0.112	36.39 mg/L	0.112	0.31%
Mg RADIAL†	68189.5	44.99 mg/L	0.236	44.99 mg/L	0.236	0.53%
Na RADIAL†	38745.3	1.513 mg/L	0.0048	1.513 mg/L	0.0048	0.32%
Mo 202.031	-766.3	-0.010 mg/L	0.0002	-0.010 mg/L	0.0002	2.06%

Sequence No.: 115

Sample ID: 16C0423-26

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 97

Date Collected: 3/15/2016 12:55:51 AM

Data Type: Reprocessed on 3/15/2016 5:42:24 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-26

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27028844.8	4.840 mg/L	0.0316			0.65%
Y RADIAL	832807.5	5.075 mg/L	0.0642			1.26%
As 188.979†	-159.0	0.0104 mg/L	0.00327	0.0104 mg/L	0.00327	31.56%
Tl 190.801†	-315.8	-0.0045 mg/L	0.00307	-0.0045 mg/L	0.00307	68.15%
Se 196.026†	-355.9	0.0342 mg/L	0.00686	0.0342 mg/L	0.00686	20.06%
Zn 206.200†	74979.0	0.5546 mg/L	0.00526	0.5546 mg/L	0.00526	0.95%
Sb 206.836†	-377.7	-0.0262 mg/L	0.00489	-0.0262 mg/L	0.00489	18.64%
Pb 220.353†	4943.9	0.1354 mg/L	0.00065	0.1354 mg/L	0.00065	0.48%
Cd 226.502†	9824.7	-0.0031 mg/L	0.00037	-0.0031 mg/L	0.00037	12.17%
Co 228.616†	19223.6	0.1706 mg/L	0.00046	0.1706 mg/L	0.00046	0.27%
Ni 232.003†	12195.6	0.2034 mg/L	0.00242	0.2034 mg/L	0.00242	1.19%
Ba 233.527†	226153.9	1.012 mg/L	0.0095	1.012 mg/L	0.0095	0.94%
Mn 257.610†	12684481.3	5.811 mg/L	0.0112	5.811 mg/L	0.0112	0.19%
Cr 267.716†	85625.4	0.2712 mg/L	0.00177	0.2712 mg/L	0.00177	0.65%
Fe 273.955†	24667741.3	359.6 mg/L	0.92	359.6 mg/L	0.92	0.26%
Mg 279.077†	1513423.6	24.81 mg/L	0.201	24.81 mg/L	0.201	0.81%
V 292.402†	399220.6	0.6866 mg/L	0.00527	0.6866 mg/L	0.00527	0.77%
Al 308.215†	4364948.5	88.51 mg/L	0.946	88.51 mg/L	0.946	1.07%
Be 313.107†	84569.4	0.0092 mg/L	0.00007	0.0092 mg/L	0.00007	0.78%
Cu 324.752†	61607.5	0.1752 mg/L	0.00098	0.1752 mg/L	0.00098	0.56%
Ag 338.289†	-8219.9	-0.0240 mg/L	0.00121	-0.0240 mg/L	0.00121	5.04%
Na 330.237†	-1081.1	1.157 mg/L	0.0430	1.157 mg/L	0.0430	3.71%
Ca 227.546†	9782.5	15.55 mg/L	0.091	15.55 mg/L	0.091	0.58%
Al RADIAL†	488228.6	85.42 mg/L	0.269	85.42 mg/L	0.269	0.31%
Fe RADIAL†	568678.9	386.6 mg/L	0.87	386.6 mg/L	0.87	0.23%
Ca RADIAL†	230607.0	12.97 mg/L	0.024	12.97 mg/L	0.024	0.19%
K RADIAL†	53671.9	18.42 mg/L	0.018	18.42 mg/L	0.018	0.10%
Mg RADIAL†	37211.5	24.53 mg/L	0.115	24.53 mg/L	0.115	0.47%
Na RADIAL†	21200.4	0.8279 mg/L	0.02725	0.8279 mg/L	0.02725	3.29%
Mo 202.031	-791.6	-0.010 mg/L	0.0002	-0.010 mg/L	0.0002	2.42%

Sequence No.: 116

Sample ID: 16C0423-29

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 98

Date Collected: 3/15/2016 1:00:43 AM

Data Type: Reprocessed on 3/15/2016 5:42:25 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0423-29

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26557658.8	4.755 mg/L	0.0354			0.75%
Y RADIAL	806786.2	4.916 mg/L	0.0374			0.76%
As 188.979†	-157.4	-0.0006 mg/L	0.00300	-0.0006 mg/L	0.00300	544.94%
Tl 190.801†	-574.7	-0.0468 mg/L	0.00426	-0.0468 mg/L	0.00426	9.12%
Se 196.026†	-261.2	0.0215 mg/L	0.00228	0.0215 mg/L	0.00228	10.62%
Zn 206.200†	67390.4	0.4992 mg/L	0.00867	0.4992 mg/L	0.00867	1.74%
Sb 206.836†	-338.5	-0.0264 mg/L	0.00141	-0.0264 mg/L	0.00141	5.33%
Pb 220.353†	3659.8	0.1111 mg/L	0.00063	0.1111 mg/L	0.00063	0.57%
Cd 226.502†	7508.4	-0.0009 mg/L	0.00023	-0.0009 mg/L	0.00023	25.51%
Co 228.616†	14440.2	0.1278 mg/L	0.00123	0.1278 mg/L	0.00123	0.96%

Ni 232.003†	14330.1	0.2426 mg/L	0.00493	0.2426 mg/L	0.00493	2.03%
Ba 233.527†	323432.9	1.447 mg/L	0.0265	1.447 mg/L	0.0265	1.83%
Mn 257.610†	18538601.9	8.456 mg/L	0.0257	8.456 mg/L	0.0257	0.30%
Cr 267.716†	89897.6	0.2807 mg/L	0.00434	0.2807 mg/L	0.00434	1.54%
Fe 273.955†	18044644.1	263.0 mg/L	0.73	263.0 mg/L	0.73	0.28%
Mg 279.077†	3499913.9	57.48 mg/L	0.131	57.48 mg/L	0.131	0.23%
V 292.402†	271452.7	0.4663 mg/L	0.00696	0.4663 mg/L	0.00696	1.49%
Al 308.215†	7150327.4	145.0 mg/L	0.32	145.0 mg/L	0.32	0.22%
Be 313.107†	40972.2	0.0045 mg/L	0.00004	0.0045 mg/L	0.00004	0.96%
Cu 324.752†	87069.9	0.2122 mg/L	0.00367	0.2122 mg/L	0.00367	1.73%
Ag 338.289†	-12884.3	-0.0441 mg/L	0.00097	-0.0441 mg/L	0.00097	2.19%
Na 330.237†	-3033.5	-0.5313 mg/L	0.00436	-0.5313 mg/L	0.00436	0.82%
Ca 227.546†	7116.6	11.32 mg/L	0.103	11.32 mg/L	0.103	0.91%
Al RADIAL†	806723.5	141.1 mg/L	0.60	141.1 mg/L	0.60	0.43%
Fe RADIAL†	404182.0	274.8 mg/L	1.15	274.8 mg/L	1.15	0.42%
Ca RADIAL†	168199.8	9.462 mg/L	0.0138	9.462 mg/L	0.0138	0.15%
K RADIAL†	53796.9	18.47 mg/L	0.083	18.47 mg/L	0.083	0.45%
Mg RADIAL†	85243.2	56.25 mg/L	0.234	56.25 mg/L	0.234	0.42%
Na RADIAL†	27145.1	1.060 mg/L	0.0134	1.060 mg/L	0.0134	1.27%
Mo 202.031	-588.0	-0.007 mg/L	0.0001	-0.007 mg/L	0.0001	1.39%

Sequence No.: 117

Sample ID: SEQ-CCVA

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/15/2016 1:05:28 AM

Data Type: Reprocessed on 3/15/2016 5:42:25 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25770026.9	4.614 mg/L		0.0677			1.47%
Y RADIAL	777553.2	4.738 mg/L		0.0408			0.86%
As 188.979†	1468.0	0.2619 mg/L		0.00445	0.2619 mg/L	0.00445	1.70%
Tl 190.801†	2087.3	0.2602 mg/L		0.00585	0.2602 mg/L	0.00585	2.25%
Se 196.026†	747.1	0.2550 mg/L		0.00267	0.2550 mg/L	0.00267	1.05%
Zn 206.200†	359706.4	2.679 mg/L		0.0341	2.679 mg/L	0.0341	1.27%
Sb 206.836†	2238.9	0.2471 mg/L		0.00432	0.2471 mg/L	0.00432	1.75%
Pb 220.353†	8524.6	0.2621 mg/L		0.00343	0.2621 mg/L	0.00343	1.31%
Co 226.502†	53024.4	0.1292 mg/L		0.00128	0.1292 mg/L	0.00128	0.99%
Co 228.616†	321849.1	2.721 mg/L		0.0280	2.721 mg/L	0.0280	1.03%
Na 232.003†	153099.1	2.650 mg/L		0.0342	2.650 mg/L	0.0342	1.29%
Ba 233.527†	2455191.3	10.99 mg/L		0.064	10.99 mg/L	0.064	0.58%
Mn 257.610†	5973211.4	2.714 mg/L		0.0180	2.714 mg/L	0.0180	0.67%
Cr 267.716†	361089.2	1.094 mg/L		0.0142	1.094 mg/L	0.0142	1.30%
Fe 273.955†	377589.5	5.504 mg/L		0.0597	5.504 mg/L	0.0597	1.08%
Mg 279.077†	1596133.6	26.23 mg/L		0.180	26.23 mg/L	0.180	0.69%
V 292.402†	1478620.4	2.614 mg/L		0.0163	2.614 mg/L	0.0163	0.62%
Al 308.215†	519510.9	10.53 mg/L		0.133	10.53 mg/L	0.133	1.26%
Be 313.107†	2391934.5	0.2605 mg/L		0.00198	0.2605 mg/L	0.00198	0.76%
Cu 324.752†	648557.3	1.316 mg/L		0.0184	1.316 mg/L	0.0184	1.40%
Ag 338.289†	347765.0	1.336 mg/L		0.0142	1.336 mg/L	0.0142	1.06%
Na 330.237†	40951.7	24.53 mg/L		0.341	24.53 mg/L	0.341	1.39%
Ca 227.546†	20513.5	25.56 mg/L		0.401	25.56 mg/L	0.401	1.57%
Al RADIAL†	60287.4	10.54 mg/L		0.250	10.54 mg/L	0.250	2.37%
Fe RADIAL†	7790.2	5.296 mg/L		0.1291	5.296 mg/L	0.1291	2.44%
Ca RADIAL†	458605.4	25.80 mg/L		0.021	25.80 mg/L	0.021	0.08%
K RADIAL†	15841.4	5.438 mg/L		0.1082	5.438 mg/L	0.1082	1.99%
Mg RADIAL†	39884.5	26.33 mg/L		0.600	26.33 mg/L	0.600	2.28%
Na RADIAL†	710031.1	27.73 mg/L		0.221	27.73 mg/L	0.221	0.80%
Mo 202.031	83109.7	1.037 mg/L		0.0175	1.037 mg/L	0.0175	1.69%

Sequence No.: 118

Sample ID: SEQ-CCBA

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/15/2016 1:13:16 AM

Data Type: Reprocessed on 3/15/2016 5:42:26 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27441343.9	4.914 mg/L	0.0531			1.08%
Y RADIAL	805740.2	4.910 mg/L	0.1028			2.09%
As 188.979†	-5.1	-0.0009 mg/L	0.00154	-0.0009 mg/L	0.00154	169.37%
Tl 190.801†	9.2	0.0011 mg/L	0.00139	0.0011 mg/L	0.00139	120.93%
Se 196.026†	-13.4	-0.0045 mg/L	0.00107	-0.0045 mg/L	0.00107	23.53%
Zn 206.200†	-50.2	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	5.78%
Sb 206.836†	-20.5	-0.0023 mg/L	0.00098	-0.0023 mg/L	0.00098	43.27%
Pb 220.353†	14.3	0.0004 mg/L	0.00017	0.0004 mg/L	0.00017	37.73%
Cd 226.502†	6.9	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	263.72%
Co 228.616†	-41.7	-0.0004 mg/L	0.00011	-0.0004 mg/L	0.00011	31.08%
Ni 232.003†	-51.7	-0.0009 mg/L	0.00110	-0.0009 mg/L	0.00110	122.32%
Ba 233.527†	-67.8	-0.0003 mg/L	0.00006	-0.0003 mg/L	0.00006	20.00%
Mn 257.610†	461.8	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	12.27%
Cr 267.716†	70.3	0.0002 mg/L	0.00008	0.0002 mg/L	0.00008	39.81%
Fe 273.955†	1226.5	0.0179 mg/L	0.00155	0.0179 mg/L	0.00155	8.65%
Mg 279.077†	38.4	0.0006 mg/L	0.00112	0.0006 mg/L	0.00112	178.54%
V 292.402†	40.1	0.0001 mg/L	0.00020	0.0001 mg/L	0.00020	285.21%
Al 308.215†	857.9	0.0174 mg/L	0.00351	0.0174 mg/L	0.00351	20.19%
Be 313.107†	-802.3	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	32.92%
Cu 324.752†	-340.3	-0.0007 mg/L	0.00054	-0.0007 mg/L	0.00054	79.08%
Ag 338.289†	437.5	0.0017 mg/L	0.00038	0.0017 mg/L	0.00038	22.45%
Na 330.237†	43.5	0.0260 mg/L	0.03271	0.0260 mg/L	0.03271	125.68%
Ca 227.546†	-21.8	-0.0270 mg/L	0.06194	-0.0270 mg/L	0.06194	229.33%
Al RADIAL†	100.5	0.0176 mg/L	0.01112	0.0176 mg/L	0.01112	63.26%
Fe RADIAL†	17.9	0.0122 mg/L	0.00544	0.0122 mg/L	0.00544	44.74%
Ca RADIAL†	-73.2	-0.0041 mg/L	0.00405	-0.0041 mg/L	0.00405	98.47%
K RADIAL†	-38.6	-0.0133 mg/L	0.01387	-0.0133 mg/L	0.01387	104.60%
Mg RADIAL†	-5.3	-0.0035 mg/L	0.00440	-0.0035 mg/L	0.00440	125.42%
Na RADIAL†	-2942.1	-0.1149 mg/L	0.06264	-0.1149 mg/L	0.06264	54.52%
Mo 202.031	-71.0	-0.001 mg/L	0.0001	-0.001 mg/L	0.0001	15.36%

Sequence No.: 119

Sample ID: 16C0425-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 99

Date Collected: 3/15/2016 1:18:22 AM

Data Type: Reprocessed on 3/15/2016 5:42:27 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0425-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26857303.6	4.809 mg/L	0.0322			0.67%
Y RADIAL	809774.8	4.934 mg/L	0.0790			1.60%
As 188.979†	220.8	0.0489 mg/L	0.00161	0.0489 mg/L	0.00161	3.30%
Tl 190.801†	-184.3	-0.0143 mg/L	0.00289	-0.0143 mg/L	0.00289	20.12%
Se 196.026†	-87.9	0.0084 mg/L	0.00219	0.0084 mg/L	0.00219	26.07%
Zn 206.200†	215788.4	1.606 mg/L	0.0014	1.606 mg/L	0.0014	0.09%
Sb 206.836†	-86.3	-0.0057 mg/L	0.00062	-0.0057 mg/L	0.00062	10.85%
Pb 220.353†	8625.4	0.2620 mg/L	0.00145	0.2620 mg/L	0.00145	0.55%
Cd 226.502†	4600.3	0.0046 mg/L	0.00021	0.0046 mg/L	0.00021	4.55%
Co 228.616†	2258.7	0.0211 mg/L	0.00013	0.0211 mg/L	0.00013	0.61%
Ni 232.003†	5874.3	0.0998 mg/L	0.00037	0.0998 mg/L	0.00037	0.37%
Ba 233.527†	58566.4	0.2621 mg/L	0.00074	0.2621 mg/L	0.00074	0.28%
Mn 257.610†	1072476.9	0.4995 mg/L	0.00496	0.4995 mg/L	0.00496	0.99%
Cr 267.716†	29641.2	0.0927 mg/L	0.00033	0.0927 mg/L	0.00033	0.36%
Fe 273.955†	6434247.8	93.79 mg/L	0.893	93.79 mg/L	0.893	0.95%
Mg 279.077†	478472.7	7.849 mg/L	0.0160	7.849 mg/L	0.0160	0.20%
V 292.402†	46186.6	0.0769 mg/L	0.00043	0.0769 mg/L	0.00043	0.55%
Al 308.215†	1635849.7	33.17 mg/L	0.320	33.17 mg/L	0.320	0.96%
Be 313.107†	316.0	0.0000 mg/L	0.00003	0.0000 mg/L	0.00003	76.89%
Cu 324.752†	767171.1	1.568 mg/L	0.0142	1.568 mg/L	0.0142	0.91%
Ag 338.289†	-2687.8	-0.0088 mg/L	0.00022	-0.0088 mg/L	0.00022	2.52%
Na 330.237†	2685.6	2.083 mg/L	0.1122	2.083 mg/L	0.1122	5.38%
Ca 227.546†	28085.3	35.76 mg/L	0.329	35.76 mg/L	0.329	0.92%
Al RADIAL†	190269.5	33.28 mg/L	0.068	33.28 mg/L	0.068	0.20%
Fe RADIAL†	140245.6	95.34 mg/L	2.452	95.34 mg/L	2.452	2.57%

Ca RADIAL†	652016.0	36.68 mg/L	0.025	36.68 mg/L	0.025	0.07%
K RADIAL†	6014.1	2.064 mg/L	0.0621	2.064 mg/L	0.0621	3.01%
Mg RADIAL†	11729.0	7.734 mg/L	0.1963	7.734 mg/L	0.1963	2.54%
Na RADIAL†	16040.2	0.6264 mg/L	0.02491	0.6264 mg/L	0.02491	3.98%
Mo 202.031	858.8	0.011 mg/L	0.0000	0.011 mg/L	0.0000	0.43%

Sequence No.: 120

Autosampler Location: 100

Sample ID: 16C0425-02

Date Collected: 3/15/2016 1:23:11 AM

Analyst: KV

Data Type: Reprocessed on 3/15/2016 5:42:28 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0425-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27553269.5	4.934 mg/L	0.0555			1.12%
Y RADIAL	818430.1	4.987 mg/L	0.0445			0.89%
As 188.979†	6.6	0.0019 mg/L	0.00199	0.0019 mg/L	0.00199	105.53%
Tl 190.801†	-22.9	-0.0022 mg/L	0.00114	-0.0022 mg/L	0.00114	51.67%
Se 196.026†	8.4	0.0057 mg/L	0.00221	0.0057 mg/L	0.00221	38.61%
Zn 206.200†	583875.0	4.349 mg/L	0.0669	4.349 mg/L	0.0669	1.54%
Sb 206.836†	-1.4	0.0001 mg/L	0.00181	0.0001 mg/L	0.00181	>999.9%
Pb 220.353†	5771.8	0.1769 mg/L	0.00189	0.1769 mg/L	0.00189	1.07%
Cd 226.502†	1381.3	0.0029 mg/L	0.00005	0.0029 mg/L	0.00005	1.90%
Ce 228.616†	651.4	0.0057 mg/L	0.00008	0.0057 mg/L	0.00008	1.35%
Ni 232.003†	2411.2	0.0416 mg/L	0.00035	0.0416 mg/L	0.00035	0.84%
Ba 233.527†	18036.1	0.0807 mg/L	0.00132	0.0807 mg/L	0.00132	1.64%
Mn 257.610†	181555.3	0.0834 mg/L	0.00122	0.0834 mg/L	0.00122	1.47%
Cr 267.716†	6746.3	0.0207 mg/L	0.00024	0.0207 mg/L	0.00024	1.16%
Fe 273.955†	493557.9	7.194 mg/L	0.1034	7.194 mg/L	0.1034	1.44%
Mg 279.077†	211520.1	3.475 mg/L	0.0505	3.475 mg/L	0.0505	1.45%
V 292.402†	5384.4	0.0092 mg/L	0.00016	0.0092 mg/L	0.00016	1.80%
Al 308.215†	239528.1	4.856 mg/L	0.0815	4.856 mg/L	0.0815	1.68%
Be 313.107†	91.3	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	422.72%
Cu 324.752†	795708.8	1.614 mg/L	0.0264	1.614 mg/L	0.0264	1.64%
Ag 338.289†	370.9	0.0014 mg/L	0.00030	0.0014 mg/L	0.00030	20.95%
Na 330.237†	9600.3	5.783 mg/L	0.1141	5.783 mg/L	0.1141	1.97%
Ca 327.546†	8593.6	10.75 mg/L	0.149	10.75 mg/L	0.149	1.38%
Al RADIAL†	30540.8	5.341 mg/L	0.1054	5.341 mg/L	0.1054	1.97%
Fe RADIAL†	10545.8	7.169 mg/L	0.1576	7.169 mg/L	0.1576	2.20%
Cd RADIAL†	203514.4	11.45 mg/L	0.009	11.45 mg/L	0.009	0.08%
K RADIAL†	3341.9	1.147 mg/L	0.0546	1.147 mg/L	0.0546	4.76%
Mg RADIAL†	5421.8	3.579 mg/L	0.0700	3.579 mg/L	0.0700	1.95%
Na RADIAL†	17741.4	0.6928 mg/L	0.02283	0.6928 mg/L	0.02283	3.30%
Mo 202.031	5258.0	0.066 mg/L	0.0006	0.066 mg/L	0.0006	0.91%

Sequence No.: 121

Autosampler Location: 101

Sample ID: 16C0425-03

Date Collected: 3/15/2016 1:27:52 AM

Analyst: KV

Data Type: Reprocessed on 3/15/2016 5:42:28 AM

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 16C0425-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26947007.3	4.825 mg/L	0.0407			0.84%
Y RADIAL	822585.1	5.012 mg/L	0.0614			1.23%
As 188.979†	26.0	0.0073 mg/L	0.00042	0.0073 mg/L	0.00042	5.76%
Tl 190.801†	-112.2	-0.0115 mg/L	0.00060	-0.0115 mg/L	0.00060	5.20%
Se 196.026†	-34.4	-0.0009 mg/L	0.00491	-0.0009 mg/L	0.00491	546.27%
Zn 206.200†	39097.1	0.2910 mg/L	0.00279	0.2910 mg/L	0.00279	0.96%
Sb 206.836†	-59.5	-0.0055 mg/L	0.00102	-0.0055 mg/L	0.00102	18.49%
Pb 220.353†	2431.0	0.0751 mg/L	0.00079	0.0751 mg/L	0.00079	1.06%
Cd 226.502†	1077.7	0.0008 mg/L	0.00002	0.0008 mg/L	0.00002	2.04%
Ce 228.616†	1008.8	0.0091 mg/L	0.00011	0.0091 mg/L	0.00011	1.25%
Ni 232.003†	1710.6	0.0291 mg/L	0.00046	0.0291 mg/L	0.00046	1.59%

Ba 233.527†	33013.1	0.1477 mg/L	0.00130	0.1477 mg/L	0.00130	0.88%
Mn 257.610†	617849.8	0.2841 mg/L	0.00238	0.2841 mg/L	0.00238	0.84%
Cr 267.716†	27711.0	0.0848 mg/L	0.00051	0.0848 mg/L	0.00051	0.60%
Fe 273.955†	1890523.5	27.56 mg/L	0.239	27.56 mg/L	0.239	0.87%
Mg 279.077†	389891.8	6.404 mg/L	0.0514	6.404 mg/L	0.0514	0.80%
V 292.402†	20150.4	0.0343 mg/L	0.00034	0.0343 mg/L	0.00034	0.99%
Al 308.215†	843065.4	17.09 mg/L	0.181	17.09 mg/L	0.181	1.06%
Be 313.107†	1293.6	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	31.05%
Cu 324.752†	209230.1	0.4277 mg/L	0.00464	0.4277 mg/L	0.00464	1.08%
Ag 338.289†	-1634.9	-0.0061 mg/L	0.00040	-0.0061 mg/L	0.00040	6.53%
Na 330.237†	255.0	0.3093 mg/L	0.01367	0.3093 mg/L	0.01367	4.42%
Cd 227.546†	25334.4	31.74 mg/L	0.292	31.74 mg/L	0.292	0.92%
Al RADIAL†	96819.7	16.93 mg/L	0.074	16.93 mg/L	0.074	0.44%
Fe RADIAL†	39488.0	26.84 mg/L	0.482	26.84 mg/L	0.482	1.79%
Ca RADIAL†	588344.6	33.10 mg/L	0.016	33.10 mg/L	0.016	0.05%
K RADIAL†	4373.2	1.501 mg/L	0.0241	1.501 mg/L	0.0241	1.61%
Mg RADIAL†	9603.1	6.338 mg/L	0.1149	6.338 mg/L	0.1149	1.81%
Na RADIAL†	10715.5	0.4185 mg/L	0.01983	0.4185 mg/L	0.01983	4.74%
Mo 202.031	9.2	0.000 mg/L	0.0001	0.000 mg/L	0.0001	86.71%

Sequence No.: 122

Sample ID: 16C0425-04

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 102

Date Collected: 3/15/2016 1:32:34 AM

Data Type: Reprocessed on 3/15/2016 5:42:29 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0425-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27393887.1	4.905 mg/L	0.0599			1.22%
Y RADIAL	823157.2	5.016 mg/L	0.0659			1.31%
As 188.979†	37.9	0.0083 mg/L	0.00116	0.0083 mg/L	0.00116	13.86%
Tl 190.801†	-93.2	-0.0102 mg/L	0.00166	-0.0102 mg/L	0.00166	16.31%
Se 196.026†	-11.5	0.0025 mg/L	0.00232	0.0025 mg/L	0.00232	93.38%
Zn 206.200†	122435.7	0.9118 mg/L	0.00944	0.9118 mg/L	0.00944	1.04%
Sb 206.836†	-73.4	-0.0075 mg/L	0.00183	-0.0075 mg/L	0.00183	24.49%
Pb 220.353†	2380.7	0.0730 mg/L	0.00149	0.0730 mg/L	0.00149	2.03%
Cd 226.502†	666.8	0.0005 mg/L	0.00008	0.0005 mg/L	0.00008	15.63%
Co 228.616†	549.4	0.0050 mg/L	0.00010	0.0050 mg/L	0.00010	2.00%
Ni 232.003†	828.3	0.0140 mg/L	0.00032	0.0140 mg/L	0.00032	2.26%
Ba 233.527†	11244.5	0.0503 mg/L	0.00051	0.0503 mg/L	0.00051	1.01%
Mn 257.610†	300849.8	0.1387 mg/L	0.00121	0.1387 mg/L	0.00121	0.87%
Cr 267.716†	8446.5	0.0261 mg/L	0.00016	0.0261 mg/L	0.00016	0.61%
Fe 273.955†	1111925.2	16.21 mg/L	0.133	16.21 mg/L	0.133	0.82%
Mg 279.077†	144816.3	2.378 mg/L	0.0184	2.378 mg/L	0.0184	0.78%
V 292.402†	12945.1	0.0221 mg/L	0.00029	0.0221 mg/L	0.00029	1.29%
Al 308.215†	473487.7	9.599 mg/L	0.0765	9.599 mg/L	0.0765	0.80%
Be 313.107†	-3708.1	-0.0004 mg/L	0.00003	-0.0004 mg/L	0.00003	6.56%
Cu 324.752†	219998.7	0.4481 mg/L	0.00397	0.4481 mg/L	0.00397	0.89%
Ag 338.289†	-1648.2	-0.0060 mg/L	0.00013	-0.0060 mg/L	0.00013	2.13%
Na 330.237†	1597.7	1.032 mg/L	0.0189	1.032 mg/L	0.0189	1.83%
Ca 227.546†	2025.8	2.663 mg/L	0.0433	2.663 mg/L	0.0433	1.63%
Al RADIAL†	56869.3	9.947 mg/L	0.0114	9.947 mg/L	0.0114	0.11%
Fe RADIAL†	23495.3	15.97 mg/L	0.169	15.97 mg/L	0.169	1.06%
Ca RADIAL†	49682.7	2.795 mg/L	0.0456	2.795 mg/L	0.0456	1.63%
K RADIAL†	3662.5	1.257 mg/L	0.0097	1.257 mg/L	0.0097	0.77%
Mg RADIAL†	3664.2	2.418 mg/L	0.0335	2.418 mg/L	0.0335	1.39%
Na RADIAL†	8359.6	0.3265 mg/L	0.03026	0.3265 mg/L	0.03026	9.27%
Mo 202.031	538.6	0.007 mg/L	0.0002	0.007 mg/L	0.0002	3.23%

Sequence No.: 123

Sample ID: 16C0425-05

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/15/2016 1:37:15 AM

Data Type: Reprocessed on 3/15/2016 5:42:30 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0425-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27460576.6	4.917 mg/L	0.0448			0.91%
Y RADIAL	819739.8	4.995 mg/L	0.0852			1.71%
As 188.979+	175.8	0.0353 mg/L	0.00171	0.0353 mg/L	0.00171	4.83%
Tl 190.801+	-156.2	-0.0158 mg/L	0.00179	-0.0158 mg/L	0.00179	11.33%
Se 196.026+	-46.9	0.0003 mg/L	0.00149	0.0003 mg/L	0.00149	592.96%
Zn 206.200+	25156.1	0.1870 mg/L	0.00223	0.1870 mg/L	0.00223	1.19%
Sb 206.836+	-95.7	-0.0090 mg/L	0.00211	-0.0090 mg/L	0.00211	23.61%
Pb 220.353+	2957.1	0.0916 mg/L	0.00130	0.0916 mg/L	0.00130	1.42%
Cd 226.502+	1151.8	0.0000 mg/L	0.00009	0.0000 mg/L	0.00009	983.56%
Co 228.616+	1785.0	0.0159 mg/L	0.00026	0.0159 mg/L	0.00026	1.61%
Ni 232.003+	1815.4	0.0306 mg/L	0.00087	0.0306 mg/L	0.00087	2.84%
Ba 233.527+	28050.7	0.1255 mg/L	0.00150	0.1255 mg/L	0.00150	1.19%
Mn 257.610+	1066110.9	0.4894 mg/L	0.00248	0.4894 mg/L	0.00248	0.51%
Cr 267.716+	17041.2	0.0529 mg/L	0.00056	0.0529 mg/L	0.00056	1.07%
Fe 273.955+	2736948.9	39.89 mg/L	0.179	39.89 mg/L	0.179	0.45%
Mg 279.077+	298572.1	4.901 mg/L	0.0163	4.901 mg/L	0.0163	0.33%
V 292.402+	34389.0	0.0588 mg/L	0.00012	0.0588 mg/L	0.00012	0.21%
Al 308.215+	1469189.7	29.79 mg/L	0.165	29.79 mg/L	0.165	0.55%
Be 313.107+	1820.1	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	14.08%
Cu 324.752+	105443.8	0.2190 mg/L	0.00156	0.2190 mg/L	0.00156	0.71%
Ag 338.289+	-2924.3	-0.0105 mg/L	0.00049	-0.0105 mg/L	0.00049	4.65%
Na 330.237+	-712.8	-0.2356 mg/L	0.00405	-0.2356 mg/L	0.00405	1.72%
Ca 227.546+	2618.1	3.623 mg/L	0.0269	3.623 mg/L	0.0269	0.74%
Al RADIAL+	172260.6	30.13 mg/L	0.121	30.13 mg/L	0.121	0.40%
Fe RADIAL+	59331.9	40.33 mg/L	0.888	40.33 mg/L	0.888	2.20%
Ca RADIAL+	65434.0	3.681 mg/L	0.0864	3.681 mg/L	0.0864	2.35%
K RADIAL+	6873.0	2.359 mg/L	0.0449	2.359 mg/L	0.0449	1.90%
Mg RADIAL+	7677.0	5.065 mg/L	0.1279	5.065 mg/L	0.1279	2.52%
Na RADIAL+	1729.4	0.0675 mg/L	0.05176	0.0675 mg/L	0.05176	76.65%
Mo 202.031	1.8	0.000 mg/L	0.0003	0.000 mg/L	0.0003	>999.9%

Sequence No.: 124

Sample ID: 16C0425-06

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 3/15/2016 1:41:57 AM

Data Type: Reprocessed on 3/15/2016 5:42:31 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0425-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27324657.0	4.893 mg/L	0.0182			0.37%
Y RADIAL	801779.3	4.886 mg/L	0.0825			1.69%
As 188.979+	57.9	0.0163 mg/L	0.00118	0.0163 mg/L	0.00118	7.27%
Tl 190.801+	-110.5	-0.0084 mg/L	0.00175	-0.0084 mg/L	0.00175	20.89%
Se 196.026+	-71.1	-0.0002 mg/L	0.01060	-0.0002 mg/L	0.01060	>999.9%
Zn 206.200+	10152.3	0.0750 mg/L	0.00067	0.0750 mg/L	0.00067	0.90%
Sb 206.836+	-102.0	-0.0089 mg/L	0.00027	-0.0089 mg/L	0.00027	3.05%
Pb 220.353+	1007.3	0.0289 mg/L	0.00034	0.0289 mg/L	0.00034	1.17%
Cd 226.502+	1543.5	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	4.11%
Co 228.616+	1542.4	0.0143 mg/L	0.00037	0.0143 mg/L	0.00037	2.56%
Ni 232.003+	1444.4	0.0238 mg/L	0.00094	0.0238 mg/L	0.00094	3.94%
Ba 233.527+	13304.7	0.0595 mg/L	0.00048	0.0595 mg/L	0.00048	0.80%
Mn 257.610+	1598809.0	0.7339 mg/L	0.00694	0.7339 mg/L	0.00694	0.95%
Cr 267.716+	9232.7	0.0298 mg/L	0.00013	0.0298 mg/L	0.00013	0.43%
Fe 273.955+	4132194.9	60.23 mg/L	0.563	60.23 mg/L	0.563	0.94%
Mg 279.077+	212143.7	3.477 mg/L	0.0447	3.477 mg/L	0.0447	1.29%
V 292.402+	25447.6	0.0420 mg/L	0.00051	0.0420 mg/L	0.00051	1.22%
Al 308.215+	792315.2	16.07 mg/L	0.157	16.07 mg/L	0.157	0.98%
Be 313.107+	6360.1	0.0007 mg/L	0.00003	0.0007 mg/L	0.00003	3.90%
Cu 324.752+	14514.7	0.0372 mg/L	0.00081	0.0372 mg/L	0.00081	2.18%
Ag 338.289+	-2480.8	-0.0084 mg/L	0.00070	-0.0084 mg/L	0.00070	8.42%
Na 330.237+	-543.7	-0.0473 mg/L	0.02021	-0.0473 mg/L	0.02021	42.75%
Ca 227.546+	1289.2	2.128 mg/L	0.0320	2.128 mg/L	0.0320	1.50%
Al RADIAL+	96638.3	16.91 mg/L	0.031	16.91 mg/L	0.031	0.18%
Fe RADIAL+	87622.1	59.57 mg/L	0.134	59.57 mg/L	0.134	0.23%
Ca RADIAL+	33129.5	1.864 mg/L	0.0578	1.864 mg/L	0.0578	3.10%

K RADIAL†	6254.1	2.147 mg/L	0.0703	2.147 mg/L	0.0703	3.28%
Mg RADIAL†	5363.9	3.536 mg/L	0.0833	3.536 mg/L	0.0833	2.36%
Na RADIAL†	3329.4	0.1300 mg/L	0.03213	0.1300 mg/L	0.03213	24.71%
Mo 202.031	-221.1	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	7.90%

Sequence No.: 125

Sample ID: 16C0425-07

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 3/15/2016 1:46:45 AM

Data Type: Reprocessed on 3/15/2016 5:42:31 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0425-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26421569.7	4.731 mg/L	0.0663			1.40%
Y RADIAL	784796.9	4.782 mg/L	0.1441			3.01%
As 188.979†	68.1	0.0166 mg/L	0.00175	0.0166 mg/L	0.00175	10.53%
Tl 190.801†	-175.4	-0.0178 mg/L	0.00175	-0.0178 mg/L	0.00175	9.81%
Se 196.026†	-37.9	0.0051 mg/L	0.00108	0.0051 mg/L	0.00108	21.21%
Zn 206.200†	8657.3	0.0640 mg/L	0.00069	0.0640 mg/L	0.00069	1.08%
Sb 206.836†	-96.9	-0.0089 mg/L	0.00163	-0.0089 mg/L	0.00163	18.31%
Pb 220.353†	946.5	0.0282 mg/L	0.00094	0.0282 mg/L	0.00094	3.35%
Cd 226.502†	1185.8	-0.0002 mg/L	0.00025	-0.0002 mg/L	0.00025	101.16%
Co 228.616†	1790.3	0.0161 mg/L	0.00009	0.0161 mg/L	0.00009	0.55%
Ni 232.003†	1618.7	0.0271 mg/L	0.00055	0.0271 mg/L	0.00055	2.04%
Ba 233.527†	13981.0	0.0626 mg/L	0.00145	0.0626 mg/L	0.00145	2.32%
Mn 257.610†	2139397.8	0.9775 mg/L	0.01887	0.9775 mg/L	0.01887	1.93%
Cr 267.716†	13711.9	0.0429 mg/L	0.00099	0.0429 mg/L	0.00099	2.31%
Fe 273.955†	3084334.2	44.96 mg/L	0.887	44.96 mg/L	0.887	1.97%
Mg 279.077†	301320.7	4.945 mg/L	0.1021	4.945 mg/L	0.1021	2.06%
V 292.402†	30276.4	0.0513 mg/L	0.00120	0.0513 mg/L	0.00120	2.34%
Al 308.215†	884147.2	17.93 mg/L	0.349	17.93 mg/L	0.349	1.95%
Be 313.107†	1159.3	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	35.64%
Cu 324.752†	14135.7	0.0345 mg/L	0.00114	0.0345 mg/L	0.00114	3.29%
Ag 338.289†	-3162.9	-0.0113 mg/L	0.00048	-0.0113 mg/L	0.00048	4.27%
Na 330.237†	-981.5	-0.3772 mg/L	0.06313	-0.3772 mg/L	0.06313	16.74%
Ca 227.546†	1187.1	1.875 mg/L	0.0407	1.875 mg/L	0.0407	2.17%
Al RADIAL†	105675.8	18.49 mg/L	0.045	18.49 mg/L	0.045	0.24%
Fe RADIAL†	65989.8	44.86 mg/L	1.015	44.86 mg/L	1.015	2.26%
Cd RADIAL†	30294.3	1.704 mg/L	0.0439	1.704 mg/L	0.0439	2.58%
K RADIAL†	5643.0	1.937 mg/L	0.0521	1.937 mg/L	0.0521	2.69%
Mg RADIAL†	7358.1	4.854 mg/L	0.1066	4.854 mg/L	0.1066	2.20%
Na RADIAL†	299.7	0.0117 mg/L	0.06560	0.0117 mg/L	0.06560	560.44%
Mo 202.031	-172.7	-0.002 mg/L	0.0002	-0.002 mg/L	0.0002	9.16%

Sequence No.: 126

Sample ID: 16C0425-08

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 106

Date Collected: 3/15/2016 1:51:32 AM

Data Type: Reprocessed on 3/15/2016 5:42:32 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0425-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27799154.7	4.978 mg/L	0.0797			1.60%
Y RADIAL	841525.0	5.128 mg/L	0.1017			1.98%
As 188.979†	152.3	0.0318 mg/L	0.00130	0.0318 mg/L	0.00130	4.08%
Tl 190.801†	-177.8	-0.0179 mg/L	0.00133	-0.0179 mg/L	0.00133	7.44%
Se 196.026†	-51.8	0.0012 mg/L	0.00019	0.0012 mg/L	0.00019	15.45%
Zn 206.200†	11338.0	0.0840 mg/L	0.00083	0.0840 mg/L	0.00083	0.98%
Sb 206.836†	-104.7	-0.0097 mg/L	0.00108	-0.0097 mg/L	0.00108	11.12%
Pb 220.353†	1682.5	0.0521 mg/L	0.00067	0.0521 mg/L	0.00067	1.28%
Cd 226.502†	1294.8	-0.0001 mg/L	0.00020	-0.0001 mg/L	0.00020	164.61%
Co 228.616†	1854.9	0.0167 mg/L	0.00016	0.0167 mg/L	0.00016	0.99%
Ni 232.003†	2501.8	0.0424 mg/L	0.00038	0.0424 mg/L	0.00038	0.91%
Ba 233.527†	22349.0	0.1000 mg/L	0.00114	0.1000 mg/L	0.00114	1.14%

Mn 257.610†	1382115.2	0.6338 mg/L	0.00658	0.6338 mg/L	0.00658	1.04%
Cr 267.716†	17524.2	0.0545 mg/L	0.00060	0.0545 mg/L	0.00060	1.10%
Fe 273.955†	3246920.9	47.33 mg/L	0.518	47.33 mg/L	0.518	1.10%
Mg 279.077†	335109.7	5.500 mg/L	0.0600	5.500 mg/L	0.0600	1.09%
V 292.402†	37453.4	0.0639 mg/L	0.00071	0.0639 mg/L	0.00071	1.11%
Al 308.215†	1454046.8	29.48 mg/L	0.342	29.48 mg/L	0.342	1.16%
Be 313.107†	4350.2	0.0005 mg/L	0.00002	0.0005 mg/L	0.00002	3.36%
Cu 324.752†	29602.7	0.0661 mg/L	0.00058	0.0661 mg/L	0.00058	0.88%
Ag 338.289†	-3067.5	-0.0109 mg/L	0.00020	-0.0109 mg/L	0.00020	1.79%
Na 330.237†	-980.9	-0.3668 mg/L	0.01086	-0.3668 mg/L	0.01086	2.96%
Ca 227.546†	1693.9	2.531 mg/L	0.0416	2.531 mg/L	0.0416	1.64%
Al RADIAL†	172521.8	30.18 mg/L	0.197	30.18 mg/L	0.197	0.65%
Fe RADIAL†	68982.3	46.90 mg/L	1.698	46.90 mg/L	1.698	3.62%
Ca RADIAL†	41299.4	2.323 mg/L	0.0900	2.323 mg/L	0.0900	3.87%
K RADIAL†	6896.8	2.367 mg/L	0.0721	2.367 mg/L	0.0721	3.04%
Mg RADIAL†	8396.3	5.539 mg/L	0.1925	5.539 mg/L	0.1925	3.48%
Na RADIAL†	4286.5	0.1674 mg/L	0.04016	0.1674 mg/L	0.04016	23.99%
Mo 202.031	-155.7	-0.002 mg/L	0.0002	-0.002 mg/L	0.0002	12.44%

Sequence No.: 127

Sample ID: 16C0456-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 107

Date Collected: 3/15/2016 1:56:14 AM

Data Type: Reprocessed on 3/15/2016 5:42:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0456-01

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26390916.0	4.725 mg/L	0.0392			0.83%
Y RADIAL	812642.3	4.952 mg/L	0.0063			0.13%
As 188.979†	12.6	0.0168 mg/L	0.00242	0.0168 mg/L	0.00242	14.38%
Tl 190.801†	-615.5	-0.0635 mg/L	0.00127	-0.0635 mg/L	0.00127	2.00%
Se 196.026†	-141.9	0.0104 mg/L	0.00221	0.0104 mg/L	0.00221	21.34%
Zn 206.200†	69426.0	0.5157 mg/L	0.00877	0.5157 mg/L	0.00877	1.70%
Sb 206.836†	-257.1	-0.0226 mg/L	0.00055	-0.0226 mg/L	0.00055	2.42%
Pb 220.353†	8679.0	0.2679 mg/L	0.00297	0.2679 mg/L	0.00297	1.11%
Cd 226.502†	4440.9	0.0006 mg/L	0.00012	0.0006 mg/L	0.00012	18.38%
Co 228.616†	9421.6	0.0827 mg/L	0.00038	0.0827 mg/L	0.00038	0.46%
Ni 232.003†	8742.4	0.1484 mg/L	0.00087	0.1484 mg/L	0.00087	0.59%
Ba 233.527†	131927.0	0.5903 mg/L	0.01085	0.5903 mg/L	0.01085	1.84%
Mn 257.610†	8396359.9	3.832 mg/L	0.0112	3.832 mg/L	0.0112	0.29%
Cr 267.716†	67107.4	0.2077 mg/L	0.00374	0.2077 mg/L	0.00374	1.80%
Fe 273.955†	9885306.7	144.1 mg/L	0.46	144.1 mg/L	0.46	0.32%
Mg 279.077†	3333038.5	54.76 mg/L	0.164	54.76 mg/L	0.164	0.30%
V 292.402†	140576.1	0.2413 mg/L	0.00444	0.2413 mg/L	0.00444	1.84%
Al 308.215†	4434561.9	89.90 mg/L	0.356	89.90 mg/L	0.356	0.40%
Be 313.107†	12357.5	0.0013 mg/L	0.00007	0.0013 mg/L	0.00007	5.49%
Cu 324.752†	67679.2	0.1562 mg/L	0.00252	0.1562 mg/L	0.00252	1.62%
Ag 338.289†	-11042.9	-0.0406 mg/L	0.00035	-0.0406 mg/L	0.00035	0.87%
Na 330.237†	-2234.2	-0.5624 mg/L	0.04502	-0.5624 mg/L	0.04502	8.01%
Ca 227.546†	76261.6	96.13 mg/L	1.863	96.13 mg/L	1.863	1.94%
Al RADIAL†	496457.8	86.83 mg/L	0.243	86.83 mg/L	0.243	0.28%
Fe RADIAL†	214747.7	146.0 mg/L	0.33	146.0 mg/L	0.33	0.23%
Ca RADIAL†	1751074.5	98.51 mg/L	0.160	98.51 mg/L	0.160	0.16%
K RADIAL†	39597.0	13.59 mg/L	0.040	13.59 mg/L	0.040	0.29%
Mg RADIAL†	80359.8	53.04 mg/L	0.086	53.04 mg/L	0.086	0.16%
Na RADIAL†	32379.9	1.264 mg/L	0.0051	1.264 mg/L	0.0051	0.41%
Mo 202.031	-241.8	-0.003 mg/L	0.0001	-0.003 mg/L	0.0001	2.96%

Sequence No.: 128

Sample ID: 16C0456-03

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/15/2016 2:00:57 AM

Data Type: Reprocessed on 3/15/2016 5:42:33 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0456-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25579940.4	4.580 mg/L	0.0078			0.17%
Y RADIAL	805359.4	4.907 mg/L	0.0991			2.02%
As 188.979†	66.2	0.0261 mg/L	0.00196	0.0261 mg/L	0.00196	7.52%
Tl 190.801†	-713.5	-0.0759 mg/L	0.00335	-0.0759 mg/L	0.00335	4.41%
Se 196.026†	-158.9	0.0034 mg/L	0.00301	0.0034 mg/L	0.00301	88.97%
Zn 206.200†	165749.8	1.233 mg/L	0.0238	1.233 mg/L	0.0238	1.93%
Sb 206.836†	-255.9	-0.0225 mg/L	0.00198	-0.0225 mg/L	0.00198	8.78%
Pb 220.353†	75421.7	2.313 mg/L	0.0426	2.313 mg/L	0.0426	1.84%
Cd 226.502†	4949.1	0.0021 mg/L	0.00059	0.0021 mg/L	0.00059	28.28%
Co 228.616†	8919.2	0.0784 mg/L	0.00012	0.0784 mg/L	0.00012	0.16%
Ni 232.003†	9575.3	0.1629 mg/L	0.00263	0.1629 mg/L	0.00263	1.62%
Ba 233.527†	250725.8	1.122 mg/L	0.0233	1.122 mg/L	0.0233	2.08%
Mn 257.610†	8280225.4	3.779 mg/L	0.0340	3.779 mg/L	0.0340	0.90%
Cr 267.716†	58581.9	0.1818 mg/L	0.00374	0.1818 mg/L	0.00374	2.06%
Fe 273.955†	9726462.0	141.8 mg/L	0.20	141.8 mg/L	0.20	0.14%
Mg 279.077†	6977117.2	114.7 mg/L	0.94	114.7 mg/L	0.94	0.82%
V 292.402†	146268.4	0.2515 mg/L	0.00669	0.2515 mg/L	0.00669	2.66%
Al 308.215†	4913830.5	99.61 mg/L	1.072	99.61 mg/L	1.072	1.08%
Be 313.107†	1043.4	0.0001 mg/L	0.00024	0.0001 mg/L	0.00024	210.33%
Cu 324.752†	115304.0	0.2523 mg/L	0.00562	0.2523 mg/L	0.00562	2.23%
Ag 338.289†	-11931.2	-0.0459 mg/L	0.00172	-0.0459 mg/L	0.00172	3.75%
Na 330.237†	-561.9	0.5785 mg/L	0.04029	0.5785 mg/L	0.04029	6.96%
Ca 227.546†	215799.3	269.6 mg/L	5.96	269.6 mg/L	5.96	2.21%
As RADIAL†	543320.2	95.02 mg/L	0.819	95.02 mg/L	0.819	0.86%
Fe RADIAL†	210183.0	142.9 mg/L	1.05	142.9 mg/L	1.05	0.74%
Ca RADIAL†	4565559.4	256.8 mg/L	6.18	256.8 mg/L	6.18	2.40%
K RADIAL†	45145.3	15.50 mg/L	0.121	15.50 mg/L	0.121	0.78%
Mg RADIAL†	166763.5	110.1 mg/L	1.00	110.1 mg/L	1.00	0.91%
Na RADIAL†	45964.0	1.795 mg/L	0.0195	1.795 mg/L	0.0195	1.08%
Mo 202.031	-198.9	-0.002 mg/L	0.0004	-0.002 mg/L	0.0004	16.59%

Sequence No.: 129

Sample ID: SEQ-CCVB

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/15/2016 2:05:47 AM

Data Type: Reprocessed on 3/15/2016 5:42:34 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25892447.9	4.636 mg/L	0.0071			0.15%
Y RADIAL	784114.7	4.778 mg/L	0.0458			0.96%
As 188.979†	1464.6	0.2613 mg/L	0.00308	0.2613 mg/L	0.00308	1.18%
Tl 190.801†	2081.3	0.2594 mg/L	0.00272	0.2594 mg/L	0.00272	1.05%
Se 196.026†	744.4	0.2541 mg/L	0.00007	0.2541 mg/L	0.00007	0.03%
Zn 206.200†	358173.9	2.668 mg/L	0.0098	2.668 mg/L	0.0098	0.37%
Sb 206.836†	2243.0	0.2475 mg/L	0.00503	0.2475 mg/L	0.00503	2.03%
Pb 220.353†	8609.5	0.2647 mg/L	0.00206	0.2647 mg/L	0.00206	0.78%
Cd 226.502†	52913.0	0.1289 mg/L	0.00010	0.1289 mg/L	0.00010	0.08%
Co 228.616†	320767.7	2.712 mg/L	0.0106	2.712 mg/L	0.0106	0.39%
Ni 232.003†	152662.5	2.643 mg/L	0.0125	2.643 mg/L	0.0125	0.47%
Ba 233.527†	2466352.0	11.04 mg/L	0.060	11.04 mg/L	0.060	0.55%
Mn 257.610†	5999238.2	2.725 mg/L	0.0141	2.725 mg/L	0.0141	0.52%
Cr 267.716†	359969.8	1.091 mg/L	0.0024	1.091 mg/L	0.0024	0.22%
Fe 273.955†	374364.5	5.457 mg/L	0.0099	5.457 mg/L	0.0099	0.18%
Mg 279.077†	1604235.9	26.37 mg/L	0.147	26.37 mg/L	0.147	0.56%
V 292.402†	1486999.1	2.629 mg/L	0.0129	2.629 mg/L	0.0129	0.49%
Al 308.215†	518921.2	10.52 mg/L	0.035	10.52 mg/L	0.035	0.33%
Be 313.107†	2406280.4	0.2621 mg/L	0.00151	0.2621 mg/L	0.00151	0.58%
Cu 324.752†	654231.6	1.327 mg/L	0.0031	1.327 mg/L	0.0031	0.24%
Ag 338.289†	347686.1	1.336 mg/L	0.0053	1.336 mg/L	0.0053	0.39%
Na 330.237†	40979.6	24.54 mg/L	0.112	24.54 mg/L	0.112	0.46%
Ca 227.546†	20669.7	25.75 mg/L	0.203	25.75 mg/L	0.203	0.79%
As RADIAL†	60323.3	10.55 mg/L	0.095	10.55 mg/L	0.095	0.90%
Fe RADIAL†	7728.4	5.254 mg/L	0.0230	5.254 mg/L	0.0230	0.44%
Ca RADIAL†	460113.7	25.88 mg/L	0.035	25.88 mg/L	0.035	0.13%
K RADIAL†	15832.5	5.435 mg/L	0.0615	5.435 mg/L	0.0615	1.13%

Mg RADIAL+	40067.7	26.45 mg/L	0.218	26.45 mg/L	0.218	0.82%
Na RADIAL+	708461.4	27.67 mg/L	0.099	27.67 mg/L	0.099	0.36%
Mo 202.031	83208.3	1.038 mg/L	0.0045	1.038 mg/L	0.0045	0.43%

Sequence No.: 130

Sample ID: SEQ-CCBB

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/15/2016 2:13:34 AM

Data Type: Reprocessed on 3/15/2016 5:42:35 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27736989.1	4.966 mg/L		0.0618			1.24%
Y RADIAL	827408.6	5.042 mg/L		0.0583			1.16%
As 188.979+	-9.3	-0.0017 mg/L		0.00175	-0.0017 mg/L	0.00175	106.05%
Te 190.801+	1.7	0.0002 mg/L		0.00131	0.0002 mg/L	0.00131	632.11%
Se 196.026+	-10.4	-0.0035 mg/L		0.00256	-0.0035 mg/L	0.00256	72.70%
Zn 206.200+	-31.4	-0.0002 mg/L		0.00010	-0.0002 mg/L	0.00010	41.63%
Sb 206.836+	-13.3	-0.0015 mg/L		0.00053	-0.0015 mg/L	0.00053	35.89%
Pb 220.353+	18.3	0.0006 mg/L		0.00063	0.0006 mg/L	0.00063	111.93%
Cd 226.502+	-1.9	0.0000 mg/L		0.00004	0.0000 mg/L	0.00004	848.20%
Co 228.616+	-48.8	-0.0004 mg/L		0.00027	-0.0004 mg/L	0.00027	66.53%
Ni 232.003+	-26.0	-0.0004 mg/L		0.00071	-0.0004 mg/L	0.00071	159.06%
Ba 233.527+	-77.1	-0.0003 mg/L		0.00003	-0.0003 mg/L	0.00003	9.56%
Mn 257.610+	53.1	0.0000 mg/L		0.00004	0.0000 mg/L	0.00004	157.38%
Cr 267.716+	58.4	0.0002 mg/L		0.00020	0.0002 mg/L	0.00020	113.46%
Fe 273.955+	563.7	0.0082 mg/L		0.00096	0.0082 mg/L	0.00096	11.65%
Mo 279.077+	7.5	0.0001 mg/L		0.00063	0.0001 mg/L	0.00063	510.02%
V 292.402+	47.6	0.0001 mg/L		0.00006	0.0001 mg/L	0.00006	76.52%
Al 308.215+	764.0	0.0155 mg/L		0.00595	0.0155 mg/L	0.00595	38.44%
Be 313.107+	-1043.4	-0.0001 mg/L		0.00003	-0.0001 mg/L	0.00003	26.56%
Cu 324.752+	-573.3	-0.0012 mg/L		0.00031	-0.0012 mg/L	0.00031	26.75%
Ag 338.289+	479.6	0.0018 mg/L		0.00054	0.0018 mg/L	0.00054	29.06%
Na 330.237+	89.4	0.0534 mg/L		0.03410	0.0534 mg/L	0.03410	63.84%
Ca 227.546+	-4.2	-0.0052 mg/L		0.05307	-0.0052 mg/L	0.05307	>999.9%
Al RADIAL+	41.6	0.0073 mg/L		0.00168	0.0073 mg/L	0.00168	23.02%
Fe RADIAL+	3.7	0.0025 mg/L		0.00466	0.0025 mg/L	0.00466	184.42%
Ca RADIAL+	-231.9	-0.0130 mg/L		0.00440	-0.0130 mg/L	0.00440	33.74%
K RADIAL+	-16.4	-0.0056 mg/L		0.01903	-0.0056 mg/L	0.01903	338.54%
Mg RADIAL+	-5.5	-0.0036 mg/L		0.00168	-0.0036 mg/L	0.00168	46.22%
Na RADIAL+	-1824.7	-0.0713 mg/L		0.03117	-0.0713 mg/L	0.03117	43.74%
Mo 202.031	-66.0	-0.001 mg/L		0.0001	-0.001 mg/L	0.0001	14.28%

Sequence No.: 131

Sample ID: 16C0484-01

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 109

Date Collected: 3/15/2016 2:18:40 AM

Data Type: Reprocessed on 3/15/2016 5:42:36 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 16C0484-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	26049162.0	4.664 mg/L		0.0368			0.79%
Y RADIAL	823102.6	5.015 mg/L		0.0558			1.11%
As 188.979+	9.6	0.0258 mg/L		0.00374	0.0258 mg/L	0.00374	14.54%
Te 190.801+	-1171.9	-0.1242 mg/L		0.00323	-0.1242 mg/L	0.00323	2.60%
Se 196.026+	-213.8	0.0238 mg/L		0.00479	0.0238 mg/L	0.00479	20.10%
Zn 206.200+	86079.9	0.6388 mg/L		0.00719	0.6388 mg/L	0.00719	1.13%
Sb 206.836+	-513.3	-0.0471 mg/L		0.00051	-0.0471 mg/L	0.00051	1.08%
Pb 220.353+	3887.6	0.1267 mg/L		0.00154	0.1267 mg/L	0.00154	1.21%
Cd 226.502+	8904.5	0.0049 mg/L		0.00037	0.0049 mg/L	0.00037	7.57%
Co 228.616+	49501.5	0.4235 mg/L		0.00355	0.4235 mg/L	0.00355	0.84%
Ni 232.003+	21783.7	0.3723 mg/L		0.00781	0.3723 mg/L	0.00781	2.10%
Ba 233.527+	228555.7	1.023 mg/L		0.0119	1.023 mg/L	0.0119	1.17%
Mn 257.610+	54032125.5	24.57 mg/L		0.116	24.57 mg/L	0.116	0.47%

Cr 267.716†	86281.2	0.2687 mg/L	0.00307	0.2687 mg/L	0.00307	1.14%
Fe 273.955†	15983981.9	233.0 mg/L	1.09	233.0 mg/L	1.09	0.47%
Mg 279.077†	4870087.8	80.01 mg/L	0.611	80.01 mg/L	0.611	0.76%
V 292.402†	238459.8	0.4096 mg/L	0.00554	0.4096 mg/L	0.00554	1.35%
Al 308.215†	9654758.9	195.7 mg/L	0.75	195.7 mg/L	0.75	0.38%
Be 313.107†	-37163.1	-0.0040 mg/L	0.00088	-0.0040 mg/L	0.00088	21.81%
Cu 324.752†	127103.2	0.2889 mg/L	0.00377	0.2889 mg/L	0.00377	1.30%
Ag 338.289†	-27824.2	-0.1022 mg/L	0.00412	-0.1022 mg/L	0.00412	4.03%
Na 330.237†	-9794.6	-4.732 mg/L	0.0589	-4.732 mg/L	0.0589	1.24%
Ca 227.546†	6151.7	9.854 mg/L	0.1140	9.854 mg/L	0.1140	1.16%
Al RADIAL†	1080584.1	189.0 mg/L	3.55	189.0 mg/L	3.55	1.88%
Fe RADIAL†	353697.1	240.4 mg/L	0.43	240.4 mg/L	0.43	0.18%
Ca RADIAL†	146529.1	8.243 mg/L	0.0129	8.243 mg/L	0.0129	0.16%
K RADIAL†	89666.1	30.78 mg/L	0.069	30.78 mg/L	0.069	0.22%
Mg RADIAL†	115844.9	76.46 mg/L	0.231	76.46 mg/L	0.231	0.30%
Na RADIAL†	33932.1	1.325 mg/L	0.0237	1.325 mg/L	0.0237	1.79%
Mo 202.031	1138.1	0.014 mg/L	0.0002	0.014 mg/L	0.0002	1.09%

Sequence No.: 132

Sample ID: SEQ-SRD4

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: l10

Date Collected: 3/15/2016 2:23:41 AM

Data Type: Reprocessed on 3/15/2016 5:42:36 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD4

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	27777026.1	4.974 mg/L	0.0250			0.50%
Y RADIAL	826763.2	5.038 mg/L	0.1072			2.13%
As 188.979†	-35.3	0.0011 mg/L	0.00193	0.0011 mg/L	0.00193	180.08%
Tl 190.801†	-62.7	-0.0012 mg/L	0.00173	-0.0012 mg/L	0.00173	147.19%
Se 196.026†	-71.4	0.0053 mg/L	0.00612	0.0053 mg/L	0.00612	116.17%
Zn 206.200†	17745.0	0.1314 mg/L	0.00083	0.1314 mg/L	0.00083	0.63%
SB 206.836†	-103.0	-0.0084 mg/L	0.00079	-0.0084 mg/L	0.00079	9.42%
Pb 220.353†	976.8	0.0267 mg/L	0.00046	0.0267 mg/L	0.00046	1.72%
Cd 226.502†	1815.2	-0.0007 mg/L	0.00005	-0.0007 mg/L	0.00005	6.74%
Co 228.616†	3407.8	0.0304 mg/L	0.00030	0.0304 mg/L	0.00030	0.98%
Ni 232.003†	3036.6	0.0511 mg/L	0.00184	0.0511 mg/L	0.00184	3.59%
Ba 233.527†	32370.5	0.1448 mg/L	0.00196	0.1448 mg/L	0.00196	1.35%
Mn 257.610†	2871506.1	1.314 mg/L	0.0112	1.314 mg/L	0.0112	0.86%
Cr 267.716†	18137.4	0.0572 mg/L	0.00036	0.0572 mg/L	0.00036	0.63%
Fe 273.955†	4956798.9	72.25 mg/L	0.667	72.25 mg/L	0.667	0.92%
Mg 279.077†	329599.7	5.405 mg/L	0.0578	5.405 mg/L	0.0578	1.07%
V 292.402†	51604.0	0.0876 mg/L	0.00096	0.0876 mg/L	0.00096	1.09%
Al 308.215†	715197.5	14.50 mg/L	0.222	14.50 mg/L	0.222	1.53%
Be 313.107†	13880.0	0.0015 mg/L	0.00001	0.0015 mg/L	0.00001	0.38%
Cu 324.752†	-3031.5	0.0034 mg/L	0.00028	0.0034 mg/L	0.00028	8.13%
Ag 338.289†	-1774.1	-0.0054 mg/L	0.00033	-0.0054 mg/L	0.00033	6.15%
Na 330.237†	-92.6	0.2892 mg/L	0.01339	0.2892 mg/L	0.01339	4.63%
Ca 227.546†	2601.0	3.879 mg/L	0.0310	3.879 mg/L	0.0310	0.80%
Al RADIAL†	83949.7	14.69 mg/L	0.098	14.69 mg/L	0.098	0.67%
Fe RADIAL†	108265.2	73.60 mg/L	1.549	73.60 mg/L	1.549	2.10%
Ca RADIAL†	65954.9	3.710 mg/L	0.0830	3.710 mg/L	0.0830	2.24%
K RADIAL†	15871.3	5.448 mg/L	0.1209	5.448 mg/L	0.1209	2.22%
Mg RADIAL†	8235.3	5.430 mg/L	0.1075	5.430 mg/L	0.1075	1.98%
Na RADIAL†	3860.2	0.1507 mg/L	0.04294	0.1507 mg/L	0.04294	28.49%
Mo 202.031	-216.8	-0.003 mg/L	0.0003	-0.003 mg/L	0.0003	9.60%

Sequence No.: 133

Sample ID: SEQ-SRD5

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: l11

Date Collected: 3/15/2016 2:28:29 AM

Data Type: Reprocessed on 3/15/2016 5:42:37 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-SRD5

Mean Corrected

Calib.

Sample

Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	27038702.3	4.841 mg/L	0.0305			0.63%
Y RADIAL	809210.5	4.931 mg/L	0.1290			2.62%
As 188.979†	-63.2	-0.0039 mg/L	0.00102	-0.0039 mg/L	0.00102	26.37%
Tl 190.801†	-61.9	-0.0010 mg/L	0.00114	-0.0010 mg/L	0.00114	108.96%
Se 196.026†	-82.3	0.0017 mg/L	0.00119	0.0017 mg/L	0.00119	69.41%
Zn 206.200†	16512.1	0.1223 mg/L	0.00123	0.1223 mg/L	0.00123	1.01%
Sb 206.836†	-93.3	-0.0073 mg/L	0.00071	-0.0073 mg/L	0.00071	9.62%
Pb 220.353†	1073.8	0.0312 mg/L	0.00043	0.0312 mg/L	0.00043	1.39%
Cd 226.502†	1887.4	-0.0006 mg/L	0.00021	-0.0006 mg/L	0.00021	37.05%
Co 228.616†	3209.2	0.0287 mg/L	0.00019	0.0287 mg/L	0.00019	0.66%
Ni 232.003†	3593.0	0.0607 mg/L	0.00087	0.0607 mg/L	0.00087	1.43%
Ba 233.527†	59452.6	0.2660 mg/L	0.00227	0.2660 mg/L	0.00227	0.85%
Mn 257.610†	2950087.7	1.349 mg/L	0.0293	1.349 mg/L	0.0293	2.17%
Cr 267.716†	17816.9	0.0562 mg/L	0.00046	0.0562 mg/L	0.00046	0.83%
Fe 273.955†	5020706.2	73.18 mg/L	1.560	73.18 mg/L	1.560	2.13%
Mg 279.077†	709873.6	11.66 mg/L	0.083	11.66 mg/L	0.083	0.71%
V 292.402†	34754.7	0.0578 mg/L	0.00030	0.0578 mg/L	0.00030	0.52%
Al 308.215†	1124582.4	22.80 mg/L	0.571	22.80 mg/L	0.571	2.50%
Be 313.107†	17800.8	0.0019 mg/L	0.00004	0.0019 mg/L	0.00004	2.08%
Cu 324.752†	-1729.5	0.0061 mg/L	0.00053	0.0061 mg/L	0.00053	8.64%
Ag 338.289†	-1658.5	-0.0052 mg/L	0.00023	-0.0052 mg/L	0.00023	4.38%
Na 330.237†	29.0	0.3860 mg/L	0.01573	0.3860 mg/L	0.01573	4.08%
Ca 227.546†	19785.4	25.25 mg/L	0.181	25.25 mg/L	0.181	0.72%
Al RADIAL†	137605.9	24.07 mg/L	0.719	24.07 mg/L	0.719	2.99%
Fe RADIAL†	108695.0	73.89 mg/L	2.161	73.89 mg/L	2.161	2.92%
Ca RADIAL†	477542.2	26.86 mg/L	0.702	26.86 mg/L	0.702	2.61%
K RADIAL†	21769.9	7.473 mg/L	0.1874	7.473 mg/L	0.1874	2.51%
Mg RADIAL†	17633.1	11.63 mg/L	0.333	11.63 mg/L	0.333	2.86%
Na RADIAL†	5422.9	0.2118 mg/L	0.05606	0.2118 mg/L	0.05606	26.47%
Mo 202.031	-236.2	-0.003 mg/L	0.0002	-0.003 mg/L	0.0002	6.80%

Sequence No.: 134

Sample ID: SEQ-CCVC

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/15/2016 2:33:17 AM

Data Type: Reprocessed on 3/15/2016 5:42:38 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCVC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	25790235.3	4.618 mg/L	0.0504			1.09%
Y RADIAL	784150.3	4.778 mg/L	0.0716			1.50%
As 188.979†	1442.9	0.2575 mg/L	0.00215	0.2575 mg/L	0.00215	0.84%
Tl 190.801†	2055.8	0.2563 mg/L	0.00283	0.2563 mg/L	0.00283	1.10%
Se 196.026†	750.2	0.2560 mg/L	0.00671	0.2560 mg/L	0.00671	2.62%
Zn 206.200†	360931.5	2.688 mg/L	0.0281	2.688 mg/L	0.0281	1.04%
Sb 206.836†	2249.4	0.2482 mg/L	0.00144	0.2482 mg/L	0.00144	0.58%
Pb 220.353†	8537.4	0.2625 mg/L	0.00018	0.2625 mg/L	0.00018	0.07%
Cd 226.502†	53495.0	0.1304 mg/L	0.00161	0.1304 mg/L	0.00161	1.23%
Co 228.616†	323110.8	2.732 mg/L	0.0311	2.732 mg/L	0.0311	1.14%
Ni 232.003†	153837.7	2.663 mg/L	0.0296	2.663 mg/L	0.0296	1.11%
Ba 233.527†	2442492.0	10.93 mg/L	0.155	10.93 mg/L	0.155	1.42%
Mn 257.610†	5930150.3	2.694 mg/L	0.0361	2.694 mg/L	0.0361	1.34%
Cr 267.716†	362829.4	1.099 mg/L	0.0130	1.099 mg/L	0.0130	1.18%
Fe 273.955†	376211.5	5.484 mg/L	0.0707	5.484 mg/L	0.0707	1.29%
Mg 279.077†	1585760.7	26.06 mg/L	0.351	26.06 mg/L	0.351	1.35%
V 292.402†	1470634.5	2.600 mg/L	0.0340	2.600 mg/L	0.0340	1.31%
Al 308.215†	522698.1	10.59 mg/L	0.147	10.59 mg/L	0.147	1.39%
Be 313.107†	2377238.3	0.2589 mg/L	0.00321	0.2589 mg/L	0.00321	1.24%
Cu 324.752†	659351.9	1.337 mg/L	0.0182	1.337 mg/L	0.0182	1.36%
Ag 338.289†	351777.2	1.352 mg/L	0.0206	1.352 mg/L	0.0206	1.53%
Na 330.237†	41145.4	24.64 mg/L	0.320	24.64 mg/L	0.320	1.30%
Ca 227.546†	20566.1	25.62 mg/L	0.147	25.62 mg/L	0.147	0.57%
Al RADIAL†	60504.6	10.58 mg/L	0.066	10.58 mg/L	0.066	0.63%
Fe RADIAL†	7708.1	5.240 mg/L	0.0197	5.240 mg/L	0.0197	0.38%
Ca RADIAL†	458578.3	25.80 mg/L	0.039	25.80 mg/L	0.039	0.15%
K RADIAL†	15957.8	5.478 mg/L	0.0442	5.478 mg/L	0.0442	0.81%
Mo RADIAL†	40073.2	26.46 mg/L	0.144	26.46 mg/L	0.144	0.55%

Na RADIAL†	721383.8	28.17 mg/L	0.260	28.17 mg/L	0.260	0.92%
Mo 202.031	83208.2	1.038 mg/L	0.0172	1.038 mg/L	0.0172	1.65%

Sequence No.: 135

Sample ID: SEQ-CCBC

Analyst: KV

Logged In Analyst (Original) : administrator

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/15/2016 2:41:04 AM

Data Type: Reprocessed on 3/15/2016 5:42:39 AM

Initial Sample Vol:

Sample Prep Vol:

Mean Data: SEQ-CCBC

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029†	27563483.9	4.935 mg/L		0.0484			0.98%
Y RADIAL	802676.7	4.891 mg/L		0.0173			0.35%
As 188.979†	-13.5	-0.0024 mg/L		0.00072	-0.0024 mg/L	0.00072	29.86%
Tl 190.801†	7.0	0.0009 mg/L		0.00175	0.0009 mg/L	0.00175	201.00%
Se 196.026†	-4.3	-0.0014 mg/L		0.00154	-0.0014 mg/L	0.00154	106.75%
Zn 206.200†	-24.1	-0.0002 mg/L		0.00000	-0.0002 mg/L	0.00000	2.38%
Sb 206.836†	-19.2	-0.0021 mg/L		0.00201	-0.0021 mg/L	0.00201	94.70%
Pb 220.353†	9.2	0.0003 mg/L		0.00070	0.0003 mg/L	0.00070	249.69%
Cd 226.502†	25.9	0.0001 mg/L		0.00005	0.0001 mg/L	0.00005	73.03%
Co 228.616†	-48.6	-0.0004 mg/L		0.00013	-0.0004 mg/L	0.00013	31.35%
Ni 232.003†	-40.0	-0.0007 mg/L		0.00030	-0.0007 mg/L	0.00030	43.13%
Ba 233.527†	-63.0	-0.0003 mg/L		0.00002	-0.0003 mg/L	0.00002	6.99%
Mn 257.610†	342.9	0.0002 mg/L		0.00004	0.0002 mg/L	0.00004	24.13%
Cr 267.716†	63.9	0.0002 mg/L		0.00020	0.0002 mg/L	0.00020	102.70%
Fe 273.955†	499.1	0.0073 mg/L		0.00134	0.0073 mg/L	0.00134	18.46%
Mg 279.077†	38.0	0.0006 mg/L		0.00083	0.0006 mg/L	0.00083	133.73%
V 292.402†	98.2	0.0002 mg/L		0.00019	0.0002 mg/L	0.00019	112.03%
Al 308.215†	835.4	0.0169 mg/L		0.00122	0.0169 mg/L	0.00122	7.23%
Be 313.107†	-1195.0	-0.0001 mg/L		0.00004	-0.0001 mg/L	0.00004	32.70%
Cu 324.752†	-431.7	-0.0009 mg/L		0.00015	-0.0009 mg/L	0.00015	17.46%
Ag 338.289†	190.7	0.0007 mg/L		0.00052	0.0007 mg/L	0.00052	70.41%
Na 330.237†	110.4	0.0660 mg/L		0.06463	0.0660 mg/L	0.06463	97.92%
Ca 227.546†	36.3	0.0452 mg/L		0.01299	0.0452 mg/L	0.01299	28.74%
Al RADIAL†	32.4	0.0057 mg/L		0.00866	0.0057 mg/L	0.00866	153.06%
Fe RADIAL†	8.2	0.0056 mg/L		0.00072	0.0056 mg/L	0.00072	12.97%
Ca RADIAL†	-121.7	-0.0068 mg/L		0.00083	-0.0068 mg/L	0.00083	12.11%
K RADIAL†	-57.5	-0.0197 mg/L		0.00945	-0.0197 mg/L	0.00945	47.90%
Mg RADIAL†	-0.4	-0.0002 mg/L		0.00323	-0.0002 mg/L	0.00323	>999.9%
Na RADIAL†	-3714.0	-0.1450 mg/L		0.00270	-0.1450 mg/L	0.00270	1.86%
Mo 202.031	-59.2	-0.001 mg/L		0.0002	-0.001 mg/L	0.0002	23.44%

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: HG

METHOD: EPA 7473

DATA PACKAGE COVER PAGE

EPA 7473

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM I

INORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-01File ID: QBHgDMA80-02 031516A-024Sampled: 03/09/16 11:15Prepared: 03/15/16 05:59Analyzed: 03/15/16 10:12Solids: 88.45Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60748

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.446	1		EPA 7473

FORM I

INORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-02File ID: QBHgDMA80-02 031516A-025Sampled: 03/09/16 11:15Prepared: 03/15/16 05:59Analyzed: 03/15/16 10:21Solids: 83.47Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60748

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.480	1		EPA 7473

FORM I

INORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-03File ID: QBHgDMA80-02 031516A-026Sampled: 03/09/16 11:50Prepared: 03/15/16 05:59Analyzed: 03/15/16 10:31Solids: 83.60Preparation: EPA 7473 soilInitial/Final: 0.2 g / 0.2 gBatch: BC60748

Sequence:

Calibration:

Instrument: MileStone

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.627	1		EPA 7473

FORM I

INORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 7473

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterLaboratory ID: 16C0466-04

File ID:

Sampled: 03/09/16 12:55Prepared: 03/15/16 07:49Analyzed: 03/15/16 18:35Solids: 0.00Preparation: EPA 7473 waterInitial/Final: 0.125 mL / 0.125 mLBatch: BC60762

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.20	1	U	EPA 7473

Form 2A
CONTINUING CALIBRATION VERIFICATION (Hg)

Lab Name: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental
Services (NJ)

Project: 100433202

I Cal Source: Inorganic Ventures

Sequence: QBHg031516A

C Cal Source: Absolute Standards

Concentration units: ug/kG

Analyte	TRUE	CCV 1		TRUE	CCV 2		TRUE	CCV 3	
		FOUND	%R(1)		FOUND	% R(1)		FOUND	% R(1)
Mercury	20.0000	18.8614	94.3	20.0000	22.7640	113.8	20.0000	22.9683	114.8

(1) Control Limits Hg 80-120 %

Form 2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION (Hg)

Lab Name: York Analytical Laboratories, Inc.	SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ)	Project: 100433202
I Cal Source: Inorganic Ventures	Sequence: QBHg031516A
C Cal Source: Inorganic Ventures	Concentration units: ug/L

Analyte	CCV 1			TRUE	CCV 2			TRUE			
	TRUE	FOUND	%R(1)		FOUND	% R(1)			FOUND	% R(1)	
Mercury	10.00	10.33	103	10.00	10.41	104					

(1) Control Limits Hg 80-120 %

Form 3
BLANKS

Lab Name: York Analytical Laboratories, Inc

SDG: 16C0466

Client: Langan Engineering &
Environmental Services (NJ)

Project: 100433202

Preparation Blank Matrix: Soil

Prep Blank ID: BC60748-BLK1

Prep. Blank Conc. Units: mg/kg

Sequence ID: QBHg031516A

Analyte	Continuing Calibration Blanks (mg/kg)								Preparation Blank		M
	1	C	2	C	3	C			Result	C	
Mercury	0.03	U	0.03	U	0.03	U			0.03	U	CV

Form 3
BLANKS

Lab Name: York Analytical Laboratories, Inc

Client: Langan Engineering & Environmental
Services (NJ)

SDG: 16C0466

Project: 100433202

Preparation Blank Matrix: Aqueous

Prep Blank ID: BC60762-BLK1

Prep. Blank Conc. Units: ug/L

Sequence ID: QBHg031516A

Analyte	Continuing Calibration Blanks (ug/L)							Preparation Blank		M
	1	C	2	C				Result	C	
Mercury	0.2000	U	0.2000	U				0.2000	U	CV

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 7473

04/FB20160309

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
 Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
 Matrix: Water
 Batch: BC60762 Laboratory ID: BC60762-MS1
 Preparation: EPA 7473 water Initial/Final: 0.125 mL / 0.125 mL
 Source Sample Name: 04/FB20160309

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS % REC. #	QC LIMITS REC.
Mercury	0.00200	ND	0.00176	88.0	75 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

DUPLICATES

EPA 7473

04/FB20160309

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Laboratory ID: BC60762-DUP1

Batch: BC60762

Lab Source ID: 16C0466-04

Preparation: EPA 7473 water

Initial/Final: 0.125 mL / 0.125 mL

Source Sample Name: 04/FB20160309

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/L)	C	DUPLICATE CONCENTRATION (ug/L)	C	RPD %	Q	METHOD
Mercury	20	ND		ND				EPA 7473

* Values outside of QC limits

FORM IV**PREPARATION BATCH SUMMARY****EPA 7473**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60748 Batch Matrix: Soil Preparation: EPA 7473 soil

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01	HgDMA80-02 031516A-	03/15/16 05:59	
02/DUP	16C0466-02	HgDMA80-02 031516A-	03/15/16 05:59	
03/LSB-3	16C0466-03	HgDMA80-02 031516A-	03/15/16 05:59	
Blank	BC60748-BLK1	HgDMA80-02 031516A-	03/15/16 05:59	
Reference	BC60748-SRM1	HgDMA80-02 031516A-	03/15/16 05:59	

FORM IV**PREPARATION BATCH SUMMARY****EPA 7473**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60762 Batch Matrix: Water Preparation: EPA 7473 water

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04		03/15/16 07:49	
Blank	BC60762-BLK1		03/15/16 07:49	
04/FB20160309	BC60762-DUP1		03/15/16 07:49	
04/FB20160309	BC60762-MS1		03/15/16 07:49	
Reference	BC60762-SRM1		03/15/16 07:49	

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY****EPA 7473**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	BC60748-BLK1	QBHgDMA80-02 031516A-004	03/15/16 07:20
Reference	BC60748-SRM1	QBHgDMA80-02 031516A-003	03/15/16 07:30
01/LSB-3	16C0466-01	QBHgDMA80-02 031516A-024	03/15/16 10:12
02/DUP	16C0466-02	QBHgDMA80-02 031516A-023	03/15/16 10:21
03/LSB-3	16C0466-03	QBHgDMA80-02 031516A-024	03/15/16 10:31
04/FB20160309	BC60762-DUP1		03/15/16 18:35
Reference	BC60762-SRM1		03/15/16 18:35
04/FB20160309	BC60762-MS1		03/15/16 18:35
Reference	BC60762-SRM1		03/15/16 18:35
04/FB20160309	16C0466-04		03/15/16 18:35
Blank	BC60762-BLK1		03/15/16 18:35
04/FB20160309	BC60762-DUP1		03/15/16 18:35
04/FB20160309	BC60762-MS1		03/15/16 18:35
Blank	BC60762-BLK1		03/15/16 18:35

Sample listing "QBHgDMA80-02 031516A.d80"

Created by "Service"
15.03.2016 18:55:12

Page 1 of 3

Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
1 (1)	CCV-1	0.2000 g 15.03.16 06:09	✓ 15.03.16 06:55	0.0208	18.8614	94.3072		1.0000
2 (2)	mb	0.1000 g 15.03.16 06:09	✓ 15.03.16 07:02	0.0079	0.0557	0.5570		1.0000
3 (3)	CCB-1	0.1000 g 15.03.16 06:09	✓ 15.03.16 07:11	0.0037	0.0261	0.2609		1.0000
4 (4)	BC60748-BLK1	0.2000 g 15.03.16 06:09	✓ 15.03.16 07:20	0.0024	0.0169	0.0846		1.0000
5 (5)	BC60748-SRM1	0.0256 g 15.03.16 06:09	✓ 15.03.16 07:30	0.1272	176.0293	6876.146		1.0000
- (6)	auto BV (1)	0.0000 g 15.03.16 06:53	✓ B 15.03.16 07:39	0.0119	0.0839			1.0000
6 (7)	mb	0.1000 g 15.03.16 06:55	✓ 15.03.16 07:42	0.0101	0.0712	0.7121		1.0000
7 (8)	16C0423-21	0.1925 g 15.03.16 06:55	✓ 15.03.16 07:51	0.0297	0.2094	1.0877		1.0000
8 (9)	BC60748-DUP1	0.2163 g 15.03.16 06:55	✓ 15.03.16 08:00	0.0277	0.1953	0.9028		1.0000
9 (10)	BC60748-MS1	0.1993 g 15.03.16 07:27	✓ 15.03.16 08:14	0.0880	118.1254	592.7014		1.0000
- (11)	auto BV (1)	0.0000 g 15.03.16 07:35	✓ B 15.03.16 08:20	0.0102	0.0717			1.0000
10 (12)	CCV-2	0.2000 g 15.03.16 07:39	✓ 15.03.16 08:25	0.8419	22.7640	113.8200		1.0000
11 (13)	mb	0.1000 g 15.03.16 07:39	✓ 15.03.16 08:32	0.0170	0.1199	1.1985		1.0000
12 (14)	CCB-2	0.1000 g 15.03.16 07:39	✓ 15.03.16 08:42	0.0080	0.0564	0.5640		1.0000
13 (15)	16C0540-01	0.1808 g 15.03.16 07:39	✓ 15.03.16 08:51	0.7868	21.2215	117.3755		1.0000
14 (16)	16C0425-01	0.1837 g 15.03.16 07:41	✓ 15.03.16 09:00	0.7143	19.1900	104.4637		1.0000
15 (17)	16C0425-02	0.2043 g 15.03.16 07:41	✓ 15.03.16 09:09	0.0234	22.7020	111.1209		1.0000
16 (18)	16C0425-03	0.2089 g 15.03.16 07:41	✓ 15.03.16 09:18	0.3187	8.1069	38.8074		1.0000
17 (19)	16C0425-04	0.1892 g 15.03.16 07:41	✓ 15.03.16 09:27	0.3724	9.6136	50.8120		1.0000
18 (20)	16C0425-05	0.2065 g 15.03.16 07:41	✓ 15.03.16 09:36	0.5909	15.7330	76.1891		1.0000
19 (21)	16C0425-06	0.1890 g 15.03.16 07:41	✓ 15.03.16 09:45	0.1396	0.9842	5.2073		1.0000
20 (22)	16C0425-07	0.2663 g 15.03.16 07:41	✓ 15.03.16 09:54	0.2371	1.6716	6.2770		1.0000
21 (23)	16C0425-08	0.2123 g 15.03.16 07:41	✓ 15.03.16 10:03	0.3605	2.5415	11.9714		1.0000
22 (24)	16C0466-01	0.2021 g 15.03.16 07:41	✓ 15.03.16 10:12	0.0620	79.7197	394.4567		1.0000
23 (25)	16C0466-02	0.1832 g 15.03.16 07:41	✓ 15.03.16 10:21	0.0577	73.3680	400.4803		1.0000
24 (26)	16C0466-03	0.2592 g 15.03.16 07:41	✓ 15.03.16 10:31	0.1000	135.8511	524.1168		1.0000
- (27)	auto BV (1)	0.0000 g 15.03.16 09:54	✓ B 15.03.16 10:40	0.0037	0.0261			1.0000
25 (28)	16C0537-01	0.1915 g 15.03.16 07:41	✓ 15.03.16 10:43	0.5560	14.7554	77.0518		1.0000

Sample listing "QBHgDMA80-02 031516A.d80"

Created by "Service"
15.03.2016 18:55:12

Page 2 of 3

Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
26 (29)	16C0537-02	0.2842 g 15.03.16 07:41	✓ 15.03.16 10:52	0.7897	21.3021	74.9547		1.0000
27 (30)	16C0537-03	0.2212 g 15.03.16 07:41	✓ 15.03.16 11:01	0.0214	19.7477	89.2754		1.0000
28 (31)	16C0431-02	0.2538 g 15.03.16 08:00	✓ 15.03.16 11:10	0.2267	5.5305	21.7907		1.0000
29 (32)	16C0547-03	0.2255 g 15.03.16 08:00	✓ 15.03.16 11:19	0.1476	206.1630	914.2485		1.0000
- (33)	auto BV (1)	0.0000 g 15.03.16 10:43	✓ B 15.03.16 11:28	0.0082	0.0578			1.0000
30 (34)	16C0456-01	0.2265 g 15.03.16 08:03	✓ 15.03.16 11:32	0.8412	22.7447	100.4179		1.0000
31 (35)	16C0456-03	0.2159 g 15.03.16 08:03	✓ 15.03.16 11:40	0.0877	117.6822	545.0775		1.0000
- (36)	auto BV (1)	0.0000 g 15.03.16 11:04	✓ B 15.03.16 11:50	0.0053	0.0374			1.0000
32 (37)	CCV-3	0.2000 g 15.03.16 11:09	✓ 15.03.16 11:54	0.8492	22.9683	114.8417		1.0000
33 (38)	mb	0.1000 g 15.03.16 11:09	✓ 15.03.16 12:02	0.0113	0.0797	0.7967		1.0000
34 (39)	CCB-3	0.1000 g 15.03.16 11:09	✓ 15.03.16 12:11	0.0055	0.0388	0.3878		1.0000
35 (40)	BC60749-BLK1	0.2000 g 15.03.16 11:09	✓ 15.03.16 12:20	0.0036	0.0254	0.1269		1.0000
36 (41)	BC60749-SRM1	0.0198 g 15.03.16 11:58	✓ 15.03.16 12:44	0.1037	141.3165	7137.197		1.0000
- (42)	auto BV (1)	0.0000 g 15.03.16 12:06	✓ B 15.03.16 12:51	0.0081	0.0571			1.0000
37 (43)	mb	0.1000 g 15.03.16 12:26	✓ 15.03.16 13:12	0.0146	0.1029	1.0293		1.0000
38 (44)	16C0136-02	0.2029 g 15.03.16 12:26	✓ 15.03.16 13:19	0.4559	11.9519	58.9055		1.0000
39 (45)	BC60749-DUP1	0.2339 g 15.03.16 12:26	✓ 15.03.16 13:28	0.5629	14.9496	63.9144		1.0000
40 (46)	BC60749-MS1	0.2022 g 15.03.16 12:54	✓ 15.03.16 13:40	0.1048	142.9414	706.9307		1.0000
- (47)	auto BV (1)	0.0000 g 15.03.16 13:02	✓ B 15.03.16 13:46	0.0094	0.0663			1.0000
40 (48)	BC60749-MS1	0.2358 g 15.03.16 13:17	✓ 15.03.16 14:03	0.1048	142.9414	606.1975		1.0000
- (49)	auto BV (1)	0.0000 g 15.03.16 13:25	✓ B 15.03.16 14:10	0.0117	0.0825			1.0000
1 (50)	CCV-4	0.2000 g 15.03.16 13:31	✓ 15.03.16 14:16	0.8437	22.8138	114.0691		1.0000
2 (51)	mb	0.1000 g 15.03.16 13:31	✓ 15.03.16 14:23	0.0193	0.1361	1.3607		1.0000
3 (52)	CCB-4	0.1000 g 15.03.16 13:31	✓ 15.03.16 14:32	0.0092	0.0649	0.6486		1.0000
4 (53)	16C0136-04	0.2756 g 15.03.16 13:44	✓ 15.03.16 14:42	0.0236	22.9974	83.4450		1.0000
5 (54)	16C0136-06	0.1828 g 15.03.16 13:44	✓ 15.03.16 14:50	0.0312	34.2237	187.2195		1.0000
6 (55)	16C0537-04	0.1827 g 15.03.16 13:46	✓ 15.03.16 14:59	0.0246	24.4746	133.9605		1.0000
7 (56)	16C0537-05	0.2074 g 15.03.16 13:46	✓ 15.03.16 15:08	0.0720	94.4911	455.5984		1.0000

Sample listing "QBHgDMA80-02 031516A.d80"

Created by "Service"
15.03.2016 18:55:12

Page 3 of 3

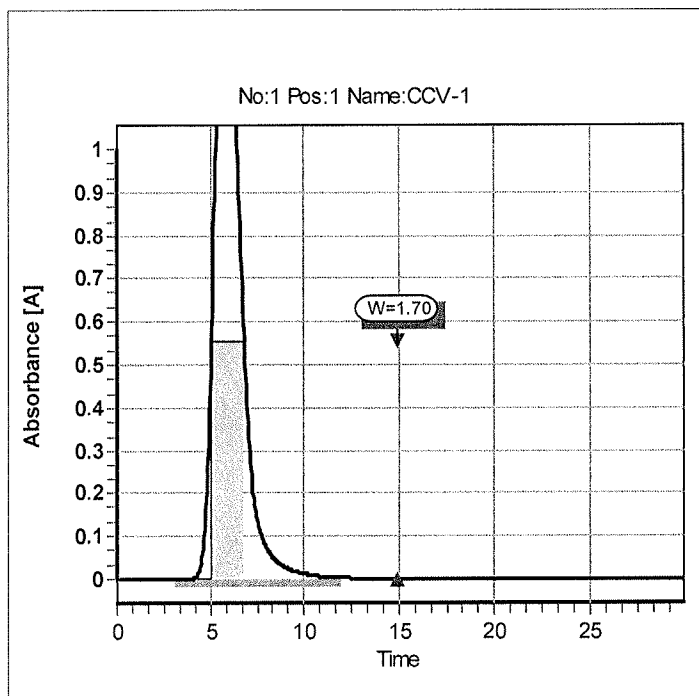
Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
8 (57)	16C0537-06	0.2575 g 15.03.16 13:46	✓ 15.03.16 15:17	0.0827	110.2965	428.3361		1.0000
- (58)	auto BV (1)	0.0000 g 15.03.16 14:42	✓ B 15.03.16 15:27	0.0038	0.0268			1.0000
9 (59)	16C0537-07	0.1947 g 15.03.16 13:46	✓ 15.03.16 15:30	0.1886	266.7259	1369.932		1.0000
- (60)	auto BV (1)	0.0000 g 15.03.16 14:54	✓ B 15.03.16 15:39	0.0056	0.0395			1.0000
10 (61)	16C0537-08	0.2247 g 15.03.16 13:46	✓ 15.03.16 15:42	0.7542	20.3087	90.3815		1.0000
11 (62)	16C0537-09	0.2427 g 15.03.16 13:46	✓ 15.03.16 15:51	0.1075	146.9296	605.3961		1.0000
- (63)	auto BV (1)	0.0000 g 15.03.16 15:15	✓ B 15.03.16 16:00	0.0034	0.0240			1.0000
12 (64)	16C0537-10	0.2299 g 15.03.16 13:46	✓ 15.03.16 16:04	0.0602	77.0608	335.1928		1.0000
13 (65)	16C0537-11	0.1872 g 15.03.16 13:46	✓ 15.03.16 16:12	0.0457	55.6423	297.2344		1.0000
14 (66)	16C0537-12	0.2282 g 15.03.16 13:46	✓ 15.03.16 16:21	0.1141	156.6788	686.5854		1.0000
- (67)	auto BV (1)	0.0000 g 15.03.16 15:46	✓ B 15.03.16 16:30	0.0053	0.0374			1.0000
15 (68)	16C0545-01	0.2332 g 15.03.16 13:51	✓ 15.03.16 16:34	0.2123	1.4967	6.4182		1.0000
16 (69)	16C0545-02	0.1919 g 15.03.16 13:51	✓ 15.03.16 16:42	0.2390	5.8751	30.6154		1.0000
17 (70)	16C0545-03	0.2169 g 15.03.16 13:51	✓ 15.03.16 16:52	0.3627	2.5570	11.7890		1.0000
18 (71)	16C0545-04	0.2027 g 15.03.16 13:51	✓ 15.03.16 17:01	0.0772	0.5443	2.6851		1.0000
19 (72)	16C0545-05	0.2264 g 15.03.16 13:51	✓ 15.03.16 17:10	0.0528	0.3722	1.6442		1.0000
20 (73)	16C0545-06	0.2193 g 15.03.16 13:51	✓ 15.03.16 17:19	0.0309	0.2178	0.9934		1.0000
21 (74)	16C0545-07	0.2481 g 15.03.16 13:51	✓ 15.03.16 17:28	0.0414	0.2919	1.1764		1.0000
22 (75)	16C0545-08	0.2751 g 15.03.16 13:51	✓ 15.03.16 17:37	0.0371	0.2616	0.9508		1.0000
23 (76)	CCV-5	0.2000 g 15.03.16 17:43	✓ 15.03.16 18:28	0.0210	19.1569	95.7843		1.0000
24 (77)	mb	0.1000 g 15.03.16 17:52	✓ 15.03.16 18:37	0.0101	0.0712	0.7121		1.0000
25 (78)	CCB-5	0.1000 g 15.03.16 17:52	✓ 15.03.16 18:44	0.0047	0.0331	0.3314		1.0000



DMA Result Report

Created by: Service
3/16/2016 10:05:51 AM

Signal curve C:\Documents and



Parameters

Position 1

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2000 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0208

Concentration 94.3072 $\mu\text{g/kg}$

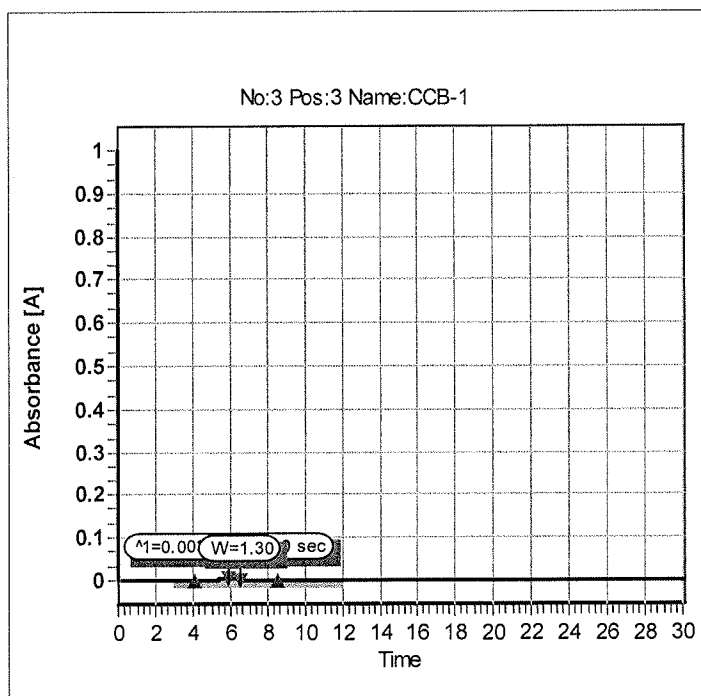
Absolute amount of Hg 18.8614 ng



DMA Result Report

Created by: Service
3/16/2016 10:05:57 AM

Signal curve C:\Documents and



Parameters

Position 3

Remarks

Method File

Soil.m80

27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1000 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0037

Concentration 0.2609 $[\mu\text{g}/\text{kg}]$

Absolute amount of Hg 0.0261 ng

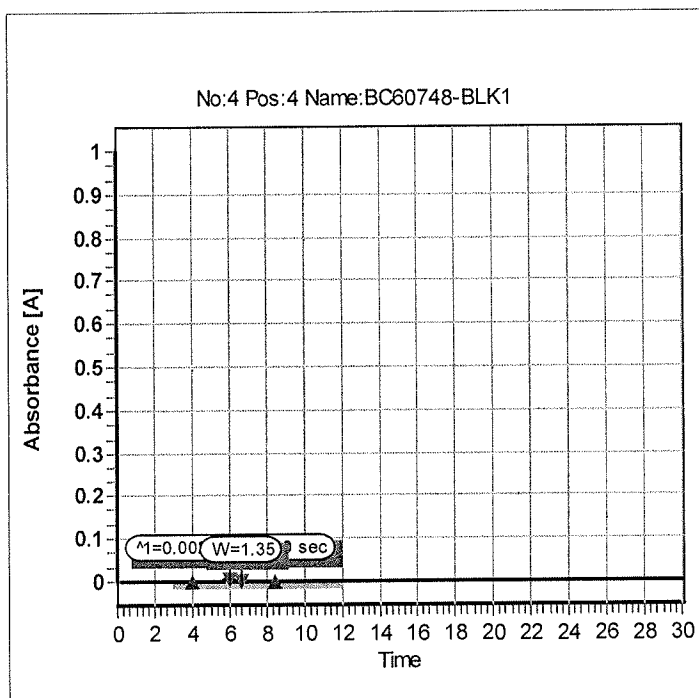
1020 of 1077
15.03.2016 06:09:24



DMA Result Report

Created by: Service
3/16/2016 10:06:03 AM

Signal curve C:\Documents and



Parameters

Position 4

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2000 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0024

Concentration 0.0846 $\mu\text{g/kg}$

Absolute amount of Hg 0.0169 ng

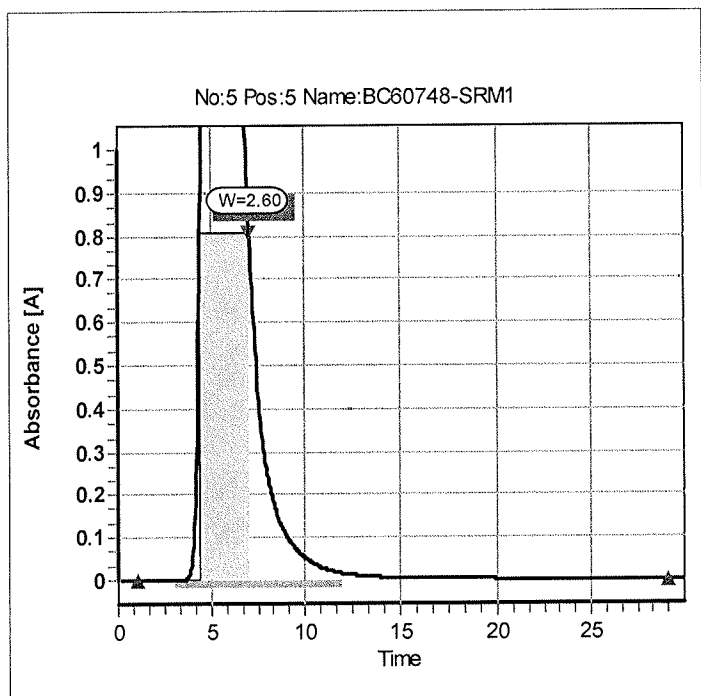
15.03.2016 10:09:27



DMA Result Report

Created by: Service
3/16/2016 10:06:08 AM

Signal curve C:\Documents and



Parameters

Position 5

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.0256 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.1272

Concentration 6,876.1465 $\mu\text{g/kg}$

Absolute amount of Hg 176.0293 ng

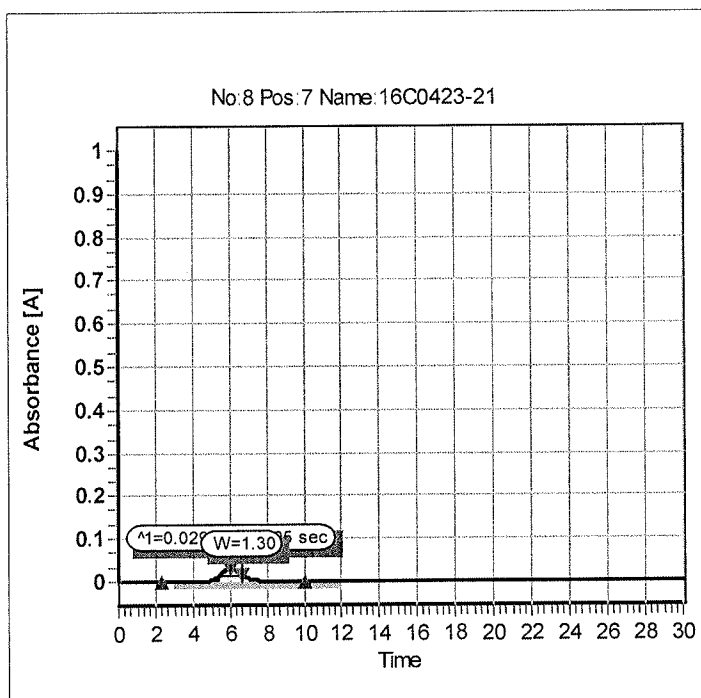
15.03.2016 06:09:34



DMA Result Report

Created by: Service
3/16/2016 10:06:15 AM

Signal curve C:\Documents and



Parameters

Position 8

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1925 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0297

Concentration 1.0877 $\mu\text{g/kg}$

Absolute amount of Hg 0.2094 ng

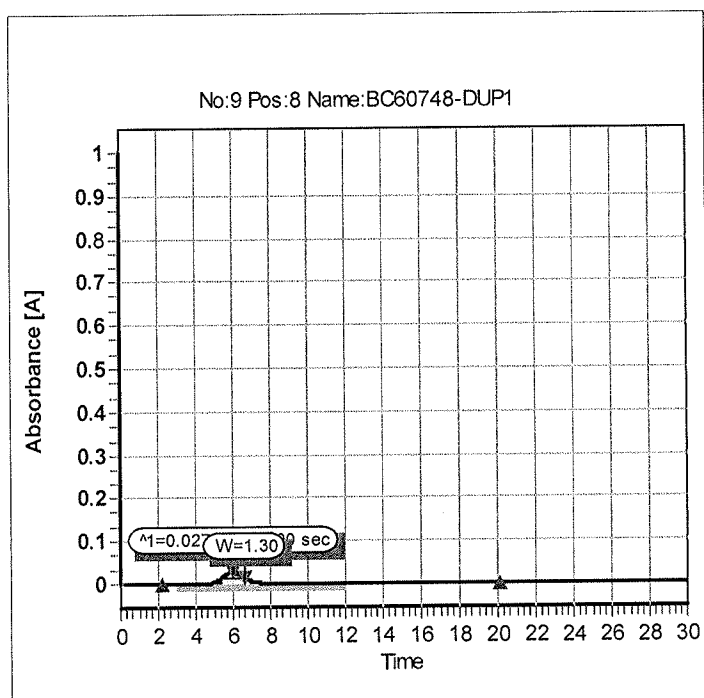
15.03.2016 10:23:54



DMA Result Report

Created by: Service
3/16/2016 10:06:20 AM

Signal curve C:\Documents and



Parameters

Position 9

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2163 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0277

Concentration 0.9028 $\mu\text{g/kg}$

Absolute amount of Hg 0.1953 ng

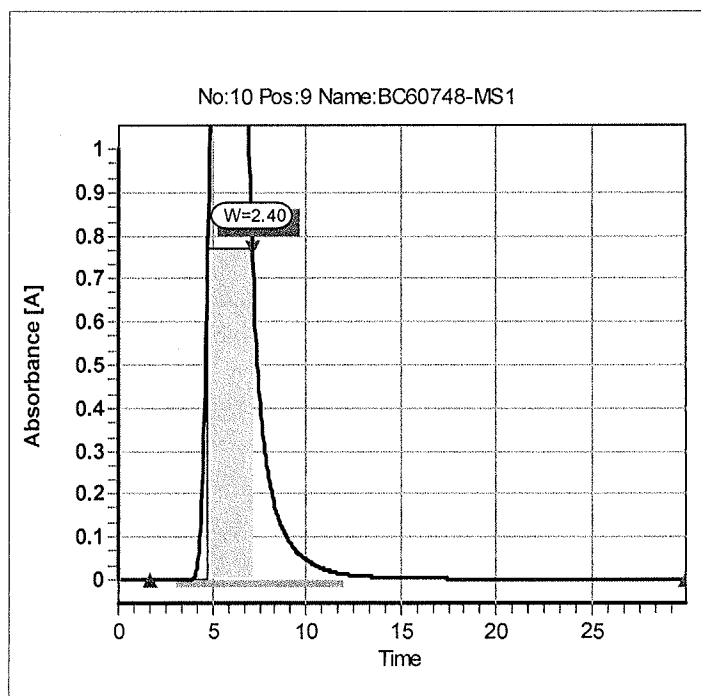
15.03.2016 06:55:57



DMA Result Report

Created by: Service
3/16/2016 10:06:26 AM

Signal curve C:\Documents and



Parameters

Position 10

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1993 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0880

Concentration 592.7014 $\mu\text{g/kg}$

Absolute amount of Hg 118.1254 ng

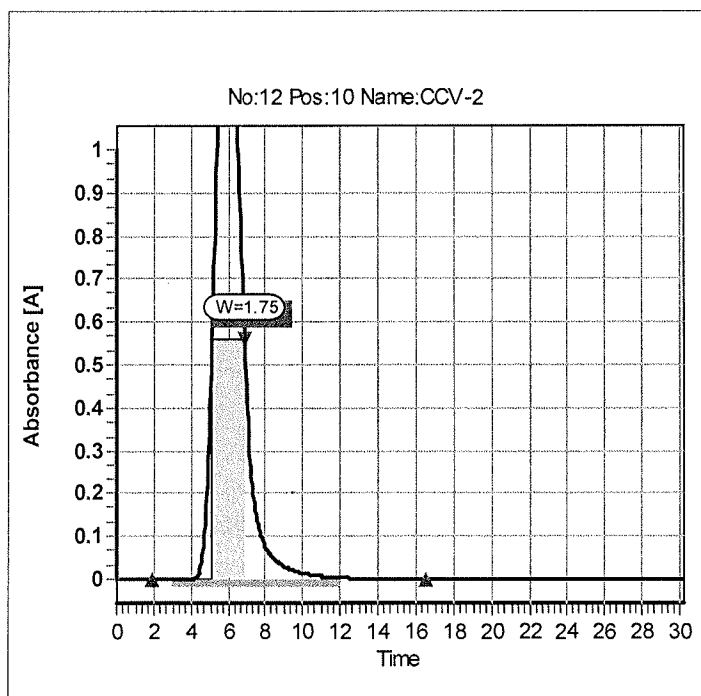
1025 of 1077
15.03.2016 07:27:46



DMA Result Report

Created by: Service
3/16/2016 10:06:34 AM

Signal curve C:\Documents and



Parameters

Position 12

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2000 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.8419

Concentration 113.8200 [µg/kg]

Absolute amount of Hg 22.7640 ng

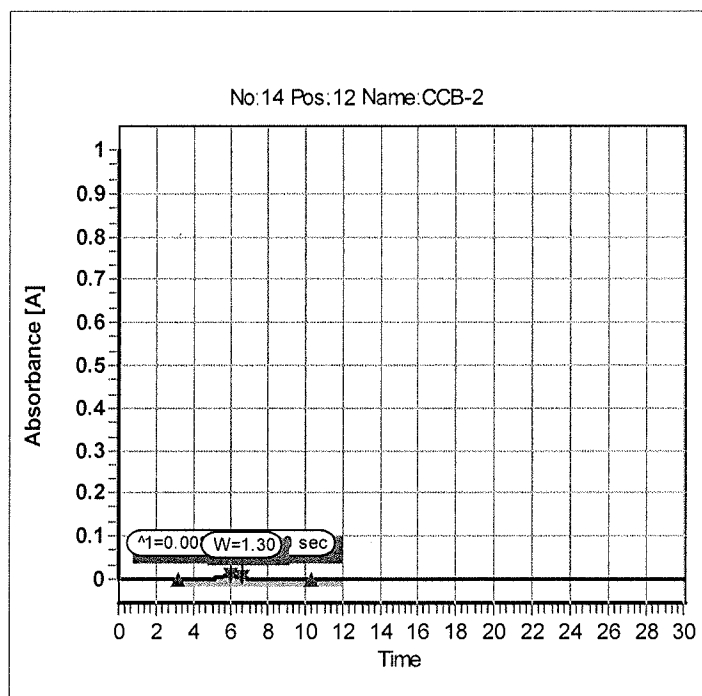
15.03.2016 07:39:20 1026 of 1077



DMA Result Report

Created by: Service
3/16/2016 10:06:40 AM

Signal curve C:\Documents and



Parameters

Position 14

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1000 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0080

Concentration 0.5640 [µg/kg]

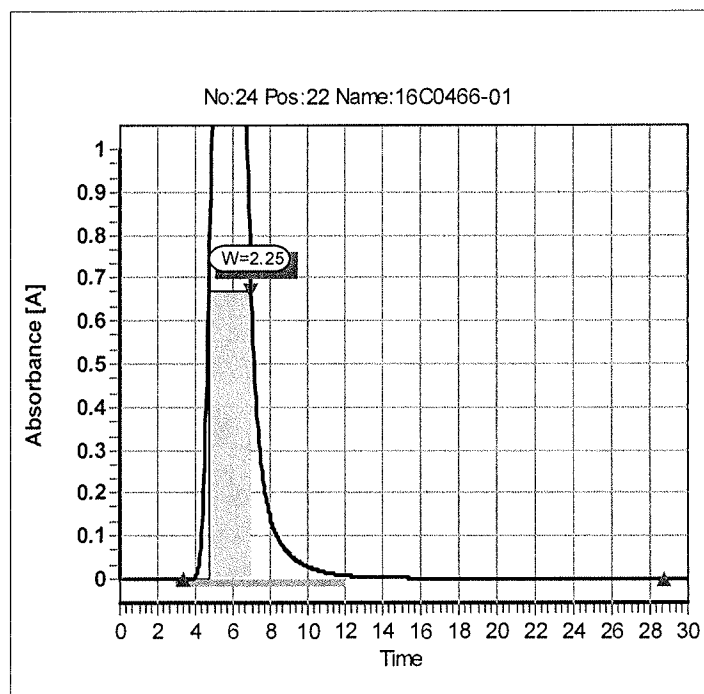
Absolute amount of Hg 0.0564 ng



DMA Result Report

Created by: Service
3/16/2016 10:07:00 AM

Signal curve C:\Documents and



Parameters

Position 24

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2021 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0620

Concentration 394.4567 $\mu\text{g/kg}$

Absolute amount of Hg 79.7197 ng

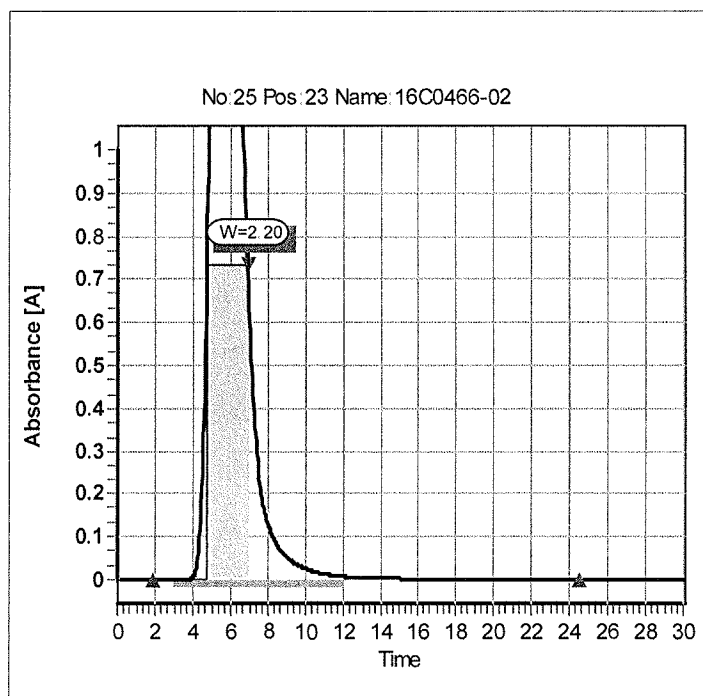
1028 of 1077
15.03.2016 07:41:35



DMA Result Report

Created by: Service
3/16/2016 10:07:06 AM

Signal curve C:\Documents and



Parameters

Position 25

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1832 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.0577

Concentration 400.4803 [µg/kg]

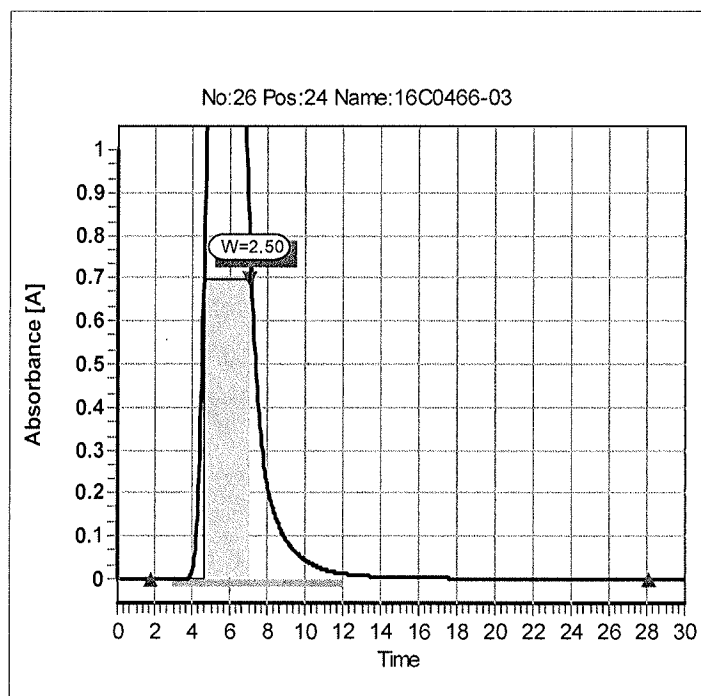
Absolute amount of Hg 73.3680 ng



DMA Result Report

Created by: Service
3/16/2016 10:07:12 AM

Signal curve C:\Documents and



Parameters

Position 26

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2592 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.1000

Concentration 524.1168 [µg/kg]

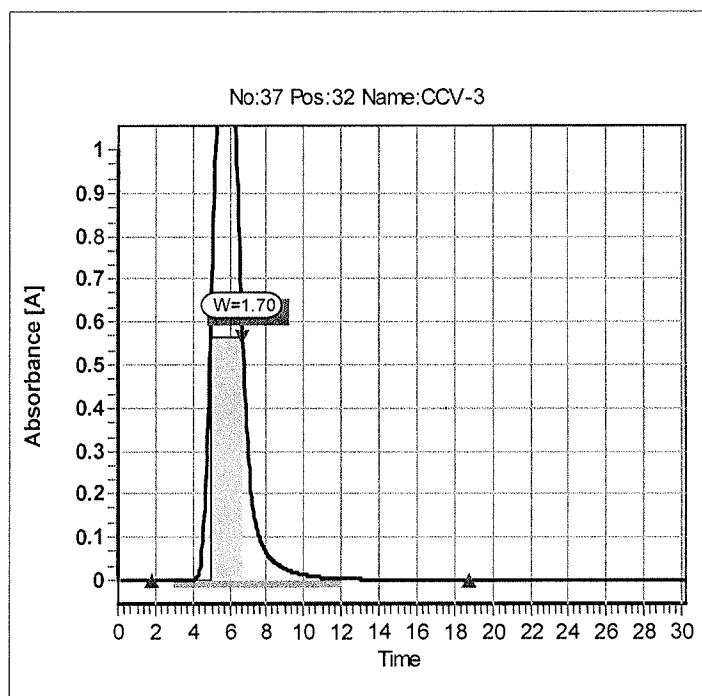
Absolute amount of Hg 135.8511 ng



DMA Result Report

Created by: Service
3/16/2016 10:07:22 AM

Signal curve C:\Documents and



Parameters

Position 37

Remarks

Method File Soil.m80 27.10.2015

Temperature

Max. start T 250

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.2000 g

Calibration file ical Soil DMA80-01 102815.c80 28.10.2015 08:39:54

Calibration factor 1.0000

Results

Status o.k.

Height 0.8492

Concentration 114.8417 $\mu\text{g/kg}$

Absolute amount of Hg 22.9683 ng

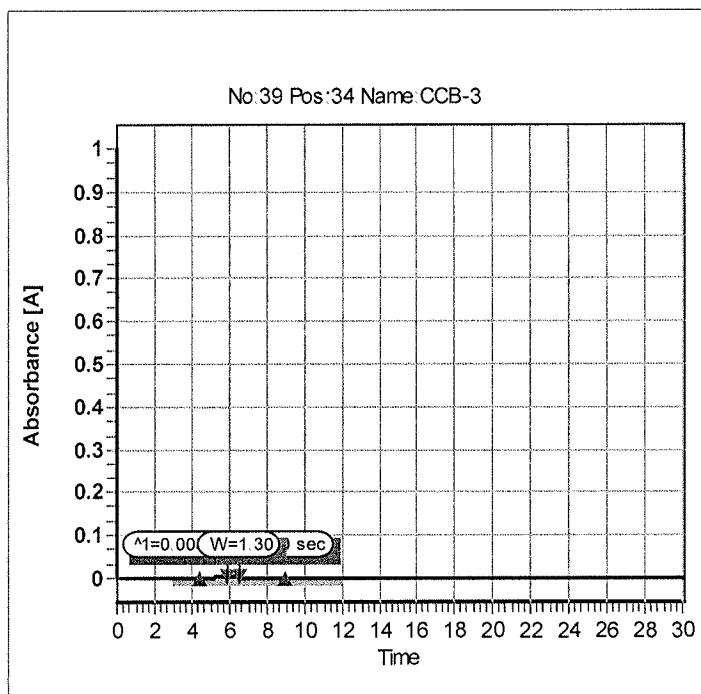
1031 of 1077
15.03.2016 11:09:06



DMA Result Report

Created by: Service
3/16/2016 10:07:28 AM

Signal curve C:\Documents and



Parameters

Position 39

Remarks

Method File

Soil.m80

27.10.2015

Temperature

Max. start T

250

Purge time

250

Amalgamator heating time

12

Signal recording time

30

Weight of sample

0.1000 g

Calibration file

ical Soil DMA80-01 102815.c80

28.10.2015 08:39:54

Calibration factor

1.0000

Results

Status

o.k.

Height

0.0055

Concentration

0.3878 $\mu\text{g/kg}$

Absolute amount of Hg

0.0388 ng

BC60748

Printed: 3/16/2016 10:15:17AM

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0423-21	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-01	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-02	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-03	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-04	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-05	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-06	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-07	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0425-08	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0431-02	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0456-01	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0456-03	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0466-01	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0466-02	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0466-03	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0537-01	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0537-02	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0537-03	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0540-01	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
16C0547-03	Mercury by 7473	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
3BC60748-BLK1	QC	03/15/2016 05:5	ALD	0.2	0.2					EPA 7473 soil	
3BC60748-DUP1	QC	03/15/2016 05:5	ALD	0.2	0.2		16C0423-21			EPA 7473 soil	
3BC60748-MS1	QC	03/15/2016 05:5	ALD	0.2	0.2	Y15J150	16C0423-21	100		EPA 7473 soil	

PREPARATION BENCH SHEET

BC60748

York Analytical Laboratories, Inc.

Printed: 3/16/2016 10:15:17AM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60748-SRM1	QC	03/15/2016 05:51	ALD	0.02	0.02	Y14L104		0.02		EPA 7473 soil	

Batch Comments:

Sample listing "QBHgDMA80-01 031516A.d80"

Created by "Administrator"
15.03.2016 17:29:19

Page 1 of 2

Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
1 (1)	mb	0.1000 g 15.03.16 06:49	✓ 15.03.16 06:48	0.0058	0.0235	0.2352		1.0000
2 (2)	CCV-1	0.1000 g 15.03.16 06:58	✓ 15.03.16 06:57	0.1245	1.0334	10.3343		1.0000
3 (3)	CCB-1	0.1250 g 15.03.16 06:58	✓ 15.03.16 07:06	0.0002	0.0000	0.0001		1.0000
4 (4)	BC60762-BLK1	0.1250 g 15.03.16 07:18	✓ 15.03.16 07:17	0.0004	0.0000	0.0001		1.0000
5 (5)	BC60762-SRM1	0.1000 g 15.03.16 07:34	✓ 15.03.16 07:33	0.0324	0.2500	2.4996		1.0000
6 (6)	mb	0.1000 g 15.03.16 07:43	✓ 15.03.16 07:42	0.0004	0.0000	0.0001		1.0000
7 (7)	16C0466-04 total	0.1250 g 15.03.16 07:43	✓ 15.03.16 07:51	0.0011	0.0000	0.0001		1.0000
8 (8)	BC60762-DUP1 total	0.1250 g 15.03.16 07:43	✓ 15.03.16 08:01	0.0008	0.0000	0.0001		1.0000
9 (9)	16C0466-04 dissolved	0.1250 g 15.03.16 07:44	✓ 15.03.16 08:12	0.0005	0.0000	0.0001		1.0000
10 (10)	BC60762-DUP1 dissolved	0.1250 g 15.03.16 07:44	✓ 15.03.16 08:22	0.0006	0.0000	0.0001		1.0000
11 (11)	BC60762-MS1 total	0.1250 g 15.03.16 08:36	✓ 15.03.16 08:35	0.0289	0.2201	1.7605		1.0000
12 (12)	BC60762-MS1 dissolved	0.1250 g 15.03.16 08:49	✓ 15.03.16 08:48	0.0276	0.2090	1.6720		1.0000
13 (13)	mb	0.1000 g 15.03.16 08:58	✓ 15.03.16 08:58	0.0006	0.0000	0.0001		1.0000
14 (14)	16C0536-01	0.1250 g 15.03.16 08:58	✓ 15.03.16 09:07	0.0010	0.0000	0.0001		1.0000
15 (15)	16C0536-02	0.1250 g 15.03.16 08:58	✓ 15.03.16 09:17	0.0017	0.0000	0.0001		1.0000
16 (16)	16C0536-03	0.1250 g 15.03.16 08:58	✓ 15.03.16 09:27	0.0007	0.0000	0.0001		1.0000
17 (17)	16C0536-04	0.1250 g 15.03.16 08:58	✓ 15.03.16 09:38	0.0007	0.0000	0.0001		1.0000
18 (18)	16C0467-01	0.1250 g 15.03.16 09:10	✓ 15.03.16 09:48	0.0004	0.0000	0.0001		1.0000
19 (19)	16C0467-02	0.1250 g 15.03.16 09:10	✓ 15.03.16 09:59	0.0006	0.0000	0.0001		1.0000
20 (20)	16C0467-03	0.1250 g 15.03.16 09:10	✓ 15.03.16 10:09	0.0008	0.0000	0.0001		1.0000
21 (21)	16C0514-05	0.1250 g 15.03.16 09:10	✓ 15.03.16 10:19	0.0004	0.0000	0.0001		1.0000
22 (22)	16C0546-02	0.1250 g 15.03.16 09:10	✓ 15.03.16 10:30	0.0006	0.0000	0.0001		1.0000
23 (23)	16C0477-10 total	0.1250 g 15.03.16 09:57	✓ 15.03.16 10:40	0.0016	0.0000	0.0001		1.0000
24 (24)	16C0477-10 dissolved	0.1250 g 15.03.16 09:57	✓ 15.03.16 10:51	0.0041	0.0088	0.0705		1.0000
25 (25)	CCV-2	0.1000 g 15.03.16 11:03	✓ 15.03.16 11:02	0.1254	1.0411	10.4109		1.0000
26 (26)	CCB-2	0.1250 g 15.03.16 11:03	✓ 15.03.16 11:12	0.0003	0.0000	0.0001		1.0000
27 (27)	BC60790-BLK1	0.1250 g 15.03.16 11:03	✓ 15.03.16 11:22	0.0004	0.0000	0.0001		1.0000
28 (28)	BC60790-SRM1	0.1000 g 15.03.16 11:34	✓ 15.03.16 11:33	0.0275	0.2081	2.0815		1.0000

Sample listing "QBHgDMA80-01 031516A.d80"

Created by "Administrator"
15.03.2016 17:29:19

Page 2 of 2

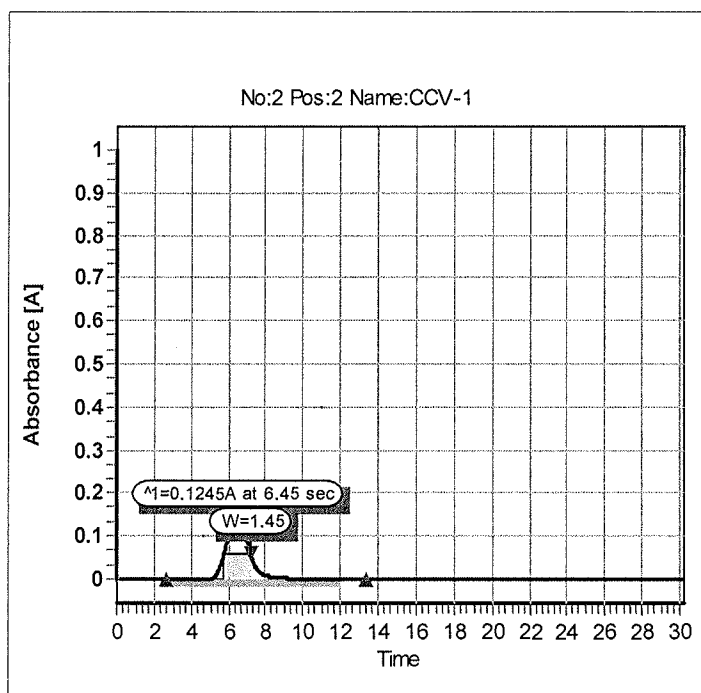
Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [µg/kg]	Σ	Cal- Factor
29 (29)	mb	0.1000 g 15.03.16 11:45	✓ 15.03.16 11:44	0.0004	0.0000	0.0001		1.0000
30 (30)	16C0407-22	0.1250 g 15.03.16 11:45	✓ 15.03.16 11:53	0.0010	0.0000	0.0001		1.0000
31 (31)	BC60790-DUP1	0.1250 g 15.03.16 11:45	✓ 15.03.16 12:03	0.0009	0.0000	0.0001		1.0000
32 (32)	BC60790-MS1	0.1250 g 15.03.16 12:15	✓ 15.03.16 12:14	0.0274	0.2073	1.6584		1.0000
33 (33)	mb	0.1000 g 15.03.16 12:28	✓ 15.03.16 12:27	0.0004	0.0000	0.0001		1.0000
34 (34)	16C0474-25	0.1250 g 15.03.16 12:28	✓ 15.03.16 12:35	0.0006	0.0000	0.0001		1.0000
35 (35)	16C0474-26	0.1250 g 15.03.16 12:29	✓ 15.03.16 12:46	0.0010	0.0000	0.0001		1.0000
36 (36)	16C0474-27	0.1250 g 15.03.16 12:29	✓ 15.03.16 12:56	0.0012	0.0000	0.0001		1.0000
37 (37)	16C0474-28	0.1250 g 15.03.16 12:29	✓ 15.03.16 13:06	0.0010	0.0000	0.0001		1.0000
38 (38)	16C0514-01	0.1250 g 15.03.16 12:29	✓ 15.03.16 13:17	0.0010	0.0000	0.0001		1.0000
39 (39)	16C0514-02	0.1250 g 15.03.16 12:29	✓ 15.03.16 13:27	0.0012	0.0000	0.0001		1.0000
40 (40)	16C0514-03	0.1250 g 15.03.16 12:29	✓ 15.03.16 13:38	0.0012	0.0000	0.0001		1.0000
1 (41)	16C0514-04	0.1250 g 15.03.16 12:29	✓ 15.03.16 13:48	0.0018	0.0000	0.0001		1.0000
2 (42)	16C0553-05	0.1250 g 15.03.16 12:31	✓ 15.03.16 13:58	0.0014	0.0000	0.0001		1.0000
3 (43)	16C0553-06	0.1250 g 15.03.16 12:41	✓ 15.03.16 14:09	0.0010	0.0000	0.0001		1.0000
4 (44)	CCV-3	0.1000 g 15.03.16 14:24	✓ 15.03.16 14:22	0.1168	0.9679	9.6792		1.0000
5 (45)	CCB-3	0.1250 g 15.03.16 14:24	✓ 15.03.16 14:30	0.0004	0.0000	0.0001		1.0000



DMA Result Report

Created by: Administrator
3/16/2016 9:09:12 AM

Signal curve C:\Users\Milestone\Desktop\DMA-80



Parameters

Position 2

Remarks

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1000 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.1245

Concentration 0.0103 [mg/kg]

Absolute amount of Hg 1.0334 ng

15.03.2016 16:58:30



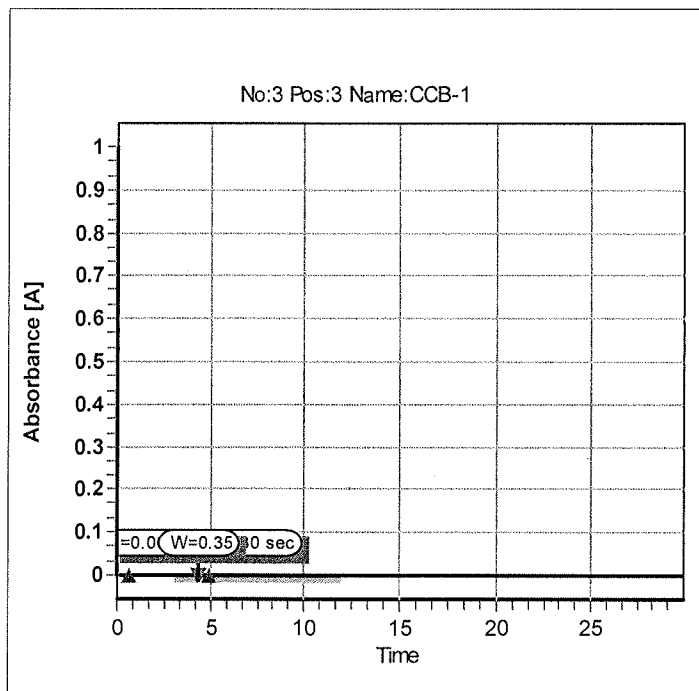
DMA Result Report

Created by: Administrator

3/16/2016 9:09:18 AM

Signal curve

C:\Users\Milestone\Desktop\DMA-80



Parameters

Position

3

Remarks

Method File

aq samples.m80

19.05.2015

Temperature

Max. start T

225

Purge time

250

Amalgamator heating time

12

Signal recording time

30

Weight of sample

0.1250 g

Calibration file

ical LLaq DMA80-01 102015.c80

20.10.2015 11:34:31

Calibration factor

1.0000

Results

Status

o.k.

Height

0.0002

Concentration

0.0000 [mg/kg]

Absolute amount of Hg

0.0000 ng

15.03.2016 15:58:34



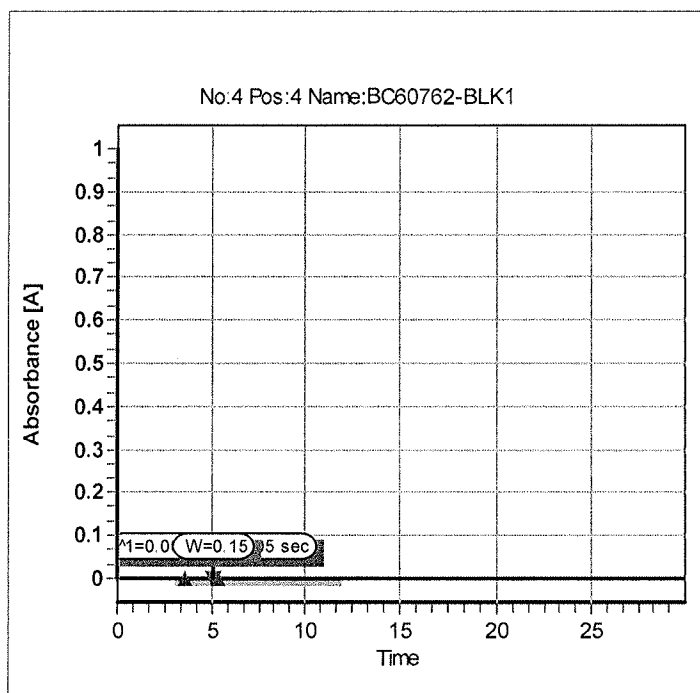
DMA Result Report

Created by: Administrator

3/16/2016 9:09:25 AM

Signal curve

C:\Users\Milestone\Desktop\DMA-80



Parameters

Position

4

Remarks

Method File

aq samples.m80

19.05.2015

Temperature

Max. start T

225

Purge time

250

Amalgamator heating time

12

Signal recording time

30

Weight of sample

0.1250

g

Calibration file

ical LLaq DMA80-01 102015.c80

20.10.2015 11:34:31

Calibration factor

1.0000

Results

Status

o.k.

Height

0.0004

Concentration

0.0000

[mg/kg]

Absolute amount of Hg

0.0000

ng

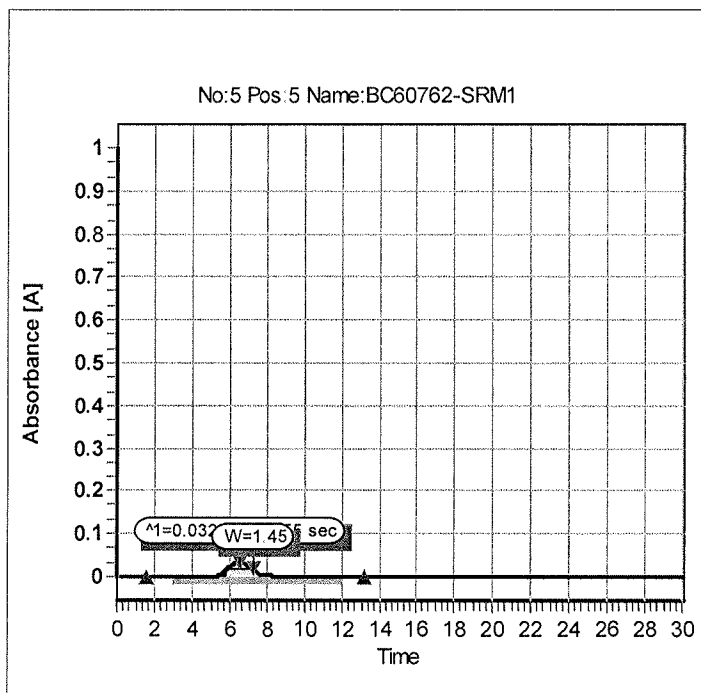
15.03.2016 07:10:08



DMA Result Report

Created by: Administrator
3/16/2016 9:09:30 AM

Signal curve C:\Users\Milestone\Desktop\DMA-80



Parameters

Position 5

Remarks

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1000 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.0324

Concentration 0.0025 [mg/kg]

Absolute amount of Hg 0.2500 ng

15.03.2016 07:34:04



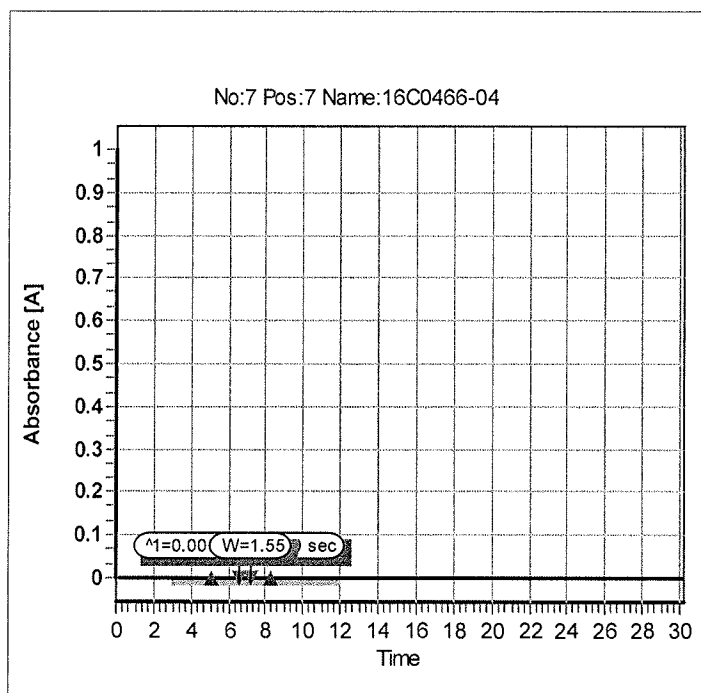
DMA Result Report

Created by: Administrator

3/16/2016 9:09:37 AM

Signal curve

C:\Users\Milestone\Desktop\DMA-80



Parameters

Position 7

Remarks total

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1250 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.0011

Concentration 0.0000 [mg/kg]

Absolute amount of Hg 0.0000 ng

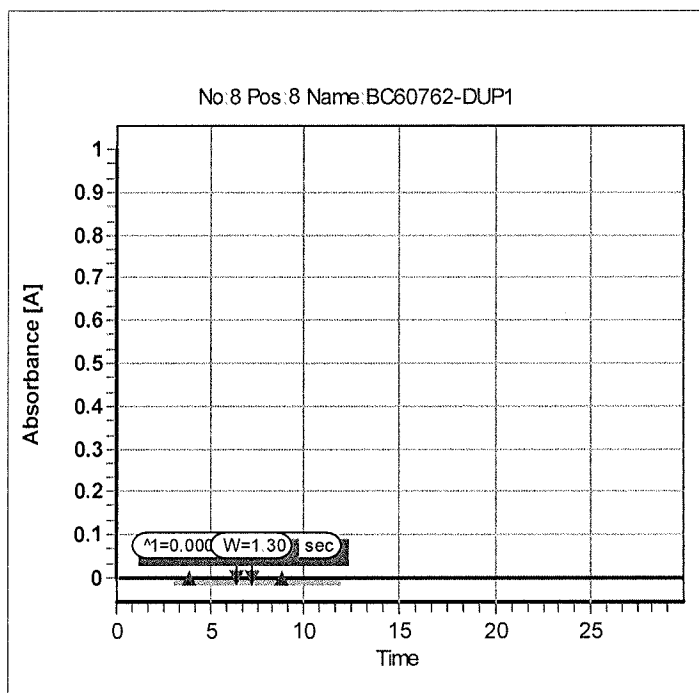
15.03.2016 10:43:51



DMA Result Report

Created by: Administrator
3/16/2016 9:09:42 AM

Signal curve C:\Users\Milestone\Desktop\DMA-80



Parameters

Position 8

Remarks total

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1250 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.0008

Concentration 0.0000 [mg/kg]

Absolute amount of Hg 0.0000 ng

15.03.2016 07:14:35



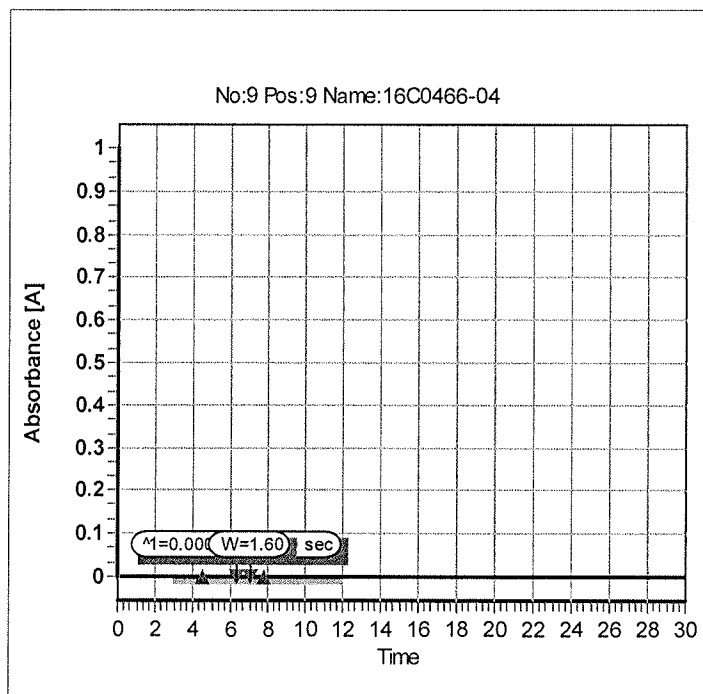
DMA Result Report

Created by: Administrator

3/16/2016 9:09:48 AM

Signal curve

C:\Users\Milestone\Desktop\DMA-80



Parameters

Position

9

Remarks

dissolved

Method File

aq samples.m80

19.05.2015

Temperature

Max. start T

225

Purge time

250

Amalgamator heating time

12

Signal recording time

30

Weight of sample

0.1250

g

Calibration file

ical LLaq DMA80-01 102015.c80

20.10.2015 11:34:31

Calibration factor

1.0000

Results

Status

o.k.

Height

0.0005

Concentration

0.0000

[mg/kg]

Absolute amount of Hg

0.0000

ng

15.03.2016 07:44:00

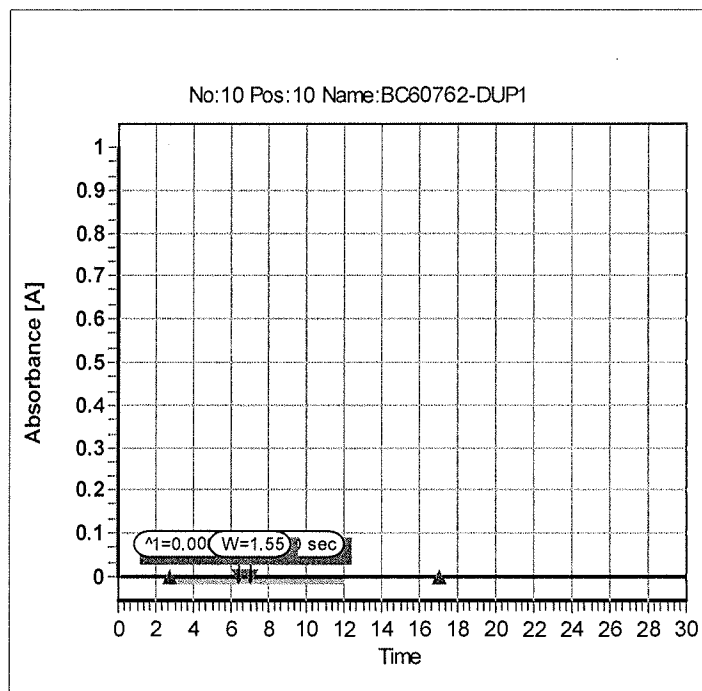


DMA Result Report

Created by: Administrator
3/16/2016 9:09:53 AM

Signal curve

C:\Users\Milestone\Desktop\DMA-80



Parameters

Position

10

Remarks

dissolved

Method File

aq samples.m80

19.05.2015

Temperature

Max. start T

225

Purge time

250

Amalgamator heating time

12

Signal recording time

30

Weight of sample

0.1250 g

Calibration file

ical LLaq DMA80-01 102015.c80

20.10.2015 11:34:31

Calibration factor

1.0000

Results

Status

o.k.

Height

0.0006

Concentration

0.0000 [mg/kg]

Absolute amount of Hg

0.0000 ng

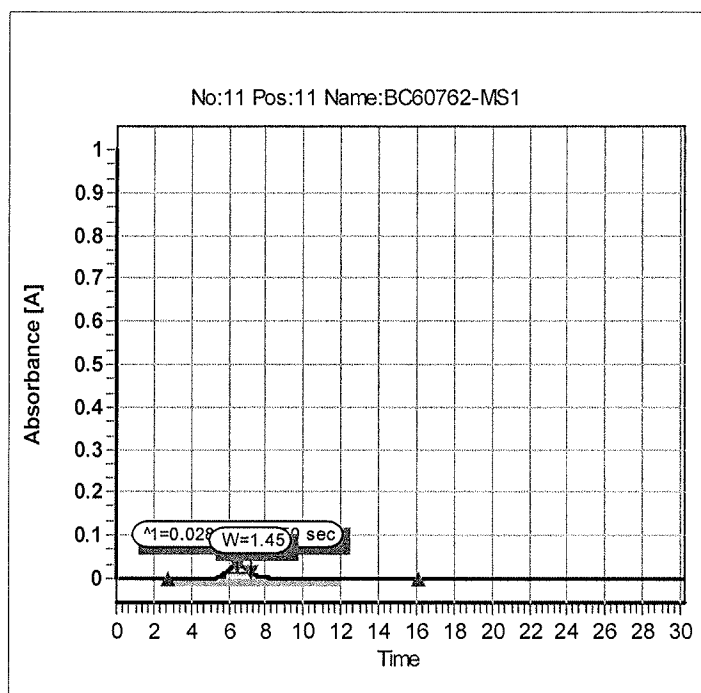
15.03.2016 07:44:06



DMA Result Report

Created by: Administrator
3/16/2016 9:10:00 AM

Signal curve C:\Users\Milestone\Desktop\DMA-80



Parameters

Position 11

Remarks total

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1250 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.0289

Concentration 0.0018 [mg/kg]

Absolute amount of Hg 0.2201 ng

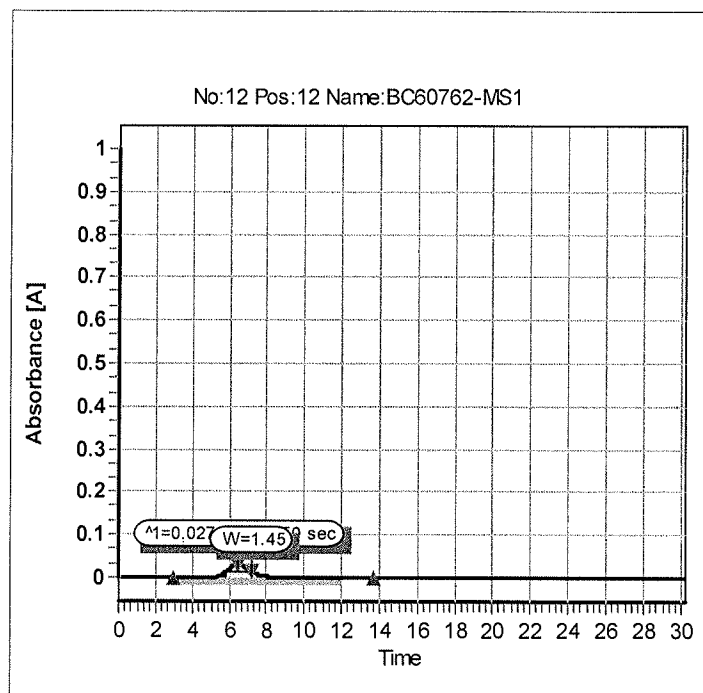
15.03.2016 08:36:02



DMA Result Report

Created by: Administrator
3/16/2016 9:10:05 AM

Signal curve C:\Users\Wilestone\Desktop\DMA-80



Parameters

Position 12

Remarks dissolved

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1250 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.0276

Concentration 0.0017 [mg/kg]

Absolute amount of Hg 0.2090 ng

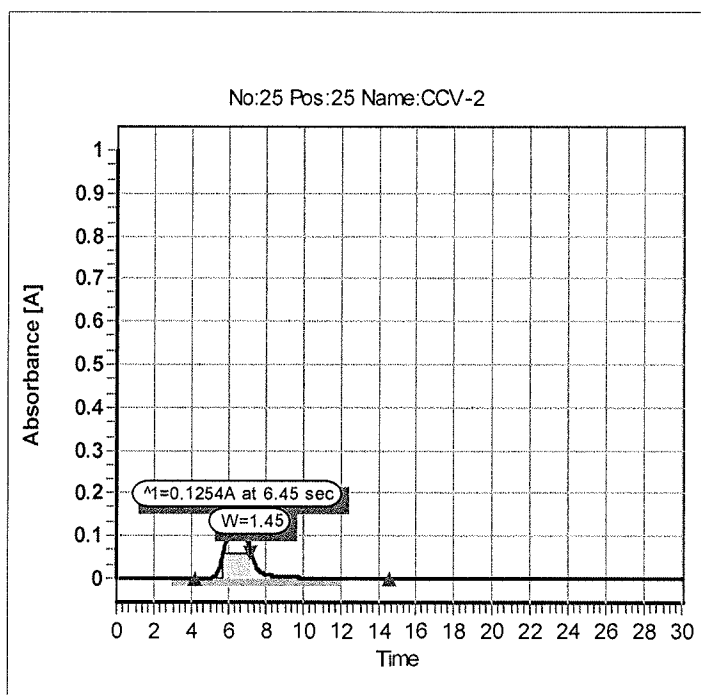
15.03.2016 08:49:19



DMA Result Report

Created by: Administrator
3/16/2016 9:10:13 AM

Signal curve C:\Users\Milestone\Desktop\DMA-80



Parameters

Position 25

Remarks

Method File aq samples.m80 19.05.2015

Temperature

Max. start T 225

Purge time 250

Amalgamator heating time 12

Signal recording time 30

Weight of sample 0.1000 g

Calibration file ical LLaq DMA80-01 102015.c80 20.10.2015 11:34:31

Calibration factor 1.0000

Results

Status o.k.

Height 0.1254

Concentration 0.0104 [mg/kg]

Absolute amount of Hg 1.0411 ng

15.03.2016 11:08:42



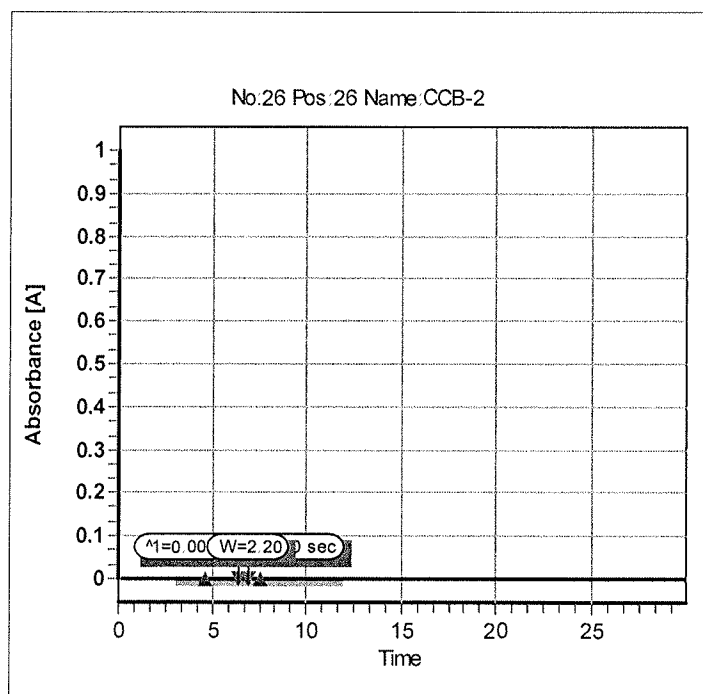
DMA Result Report

Created by: Administrator

3/16/2016 9:10:18 AM

Signal curve

C:\Users\Milestone\Desktop\DMA-80



Parameters

Position

26

Remarks

Method File

aq samples.m80

19.05.2015

Temperature

Max. start T

225

Purge time

250

Amalgamator heating time

12

Signal recording time

30

Weight of sample

0.1250

g

Calibration file

ical.LLaq.DMA80-01.102015.c80

20.10.2015 11:34:31

Calibration factor

1.0000

Results

Status

o.k.

Height

0.0003

Concentration

0.0000

[mg/kg]

Absolute amount of Hg

0.0000

ng

15.03.2016 11:08:47

PREPARATION BENCH SHEET

BC60762

York Analytical Laboratories, Inc.

Printed: 3/16/2016 10:15:44AM

Matrix: Water

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0466-04	Mercury by 7473, Dissolved	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	Added for BatchQC in: BC60762
16C0466-04	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0467-01	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0467-02	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0467-03	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0477-10	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0477-10	Mercury by 7473, Dissolved	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0514-05	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0536-01	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0536-02	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0536-03	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0536-04	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
16C0546-02	Mercury by 7473	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
BC60762-BLK1	QC	03/15/2016 07:4	ALD	0.125	0.125					EPA 7473 water	
BC60762-DUP1	QC	03/15/2016 07:4	ALD	0.125	0.125		16C0466-04			EPA 7473 water	
BC60762-MS1	QC	03/15/2016 07:4	ALD	0.125	0.125	Y15H008	16C0466-04	50		EPA 7473 water	
BC60762-SRM1	QC	03/15/2016 07:4	ALD	0.1	0.1	Y15H009		100		EPA 7473 water	

Batch Comments:

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: WET

METHOD: EPA 7196A

DATA PACKAGE COVER PAGE

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

04/FB20160309

Lab Sample Id:

16C0466-01

16C0466-02

16C0466-03

16C0466-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM I

INORGANIC ANALYSIS DATA SHEET

01/LSB-3

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-01

File ID:

Sampled: 03/09/16 11:15Prepared: 03/15/16 09:25Analyzed: 03/15/16 16:45Solids: 88.45Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60777

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.565	1	U	EPA 7196A

FORM I

INORGANIC ANALYSIS DATA SHEET

02/DUP

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-02

File ID:

Sampled: 03/09/16 11:15Prepared: 03/15/16 09:25Analyzed: 03/15/16 16:45Solids: 83.47Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60777

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.599	1	U	EPA 7196A

FORM I

INORGANIC ANALYSIS DATA SHEET

03/LSB-3

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-03

File ID:

Sampled: 03/09/16 11:50Prepared: 03/15/16 09:25Analyzed: 03/15/16 16:45Solids: 83.60Preparation: EPA SW846-3060Initial/Final: 2.5 g / 100 mLBatch: BC60777

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.598	1	U	EPA 7196A

FORM I

INORGANIC ANALYSIS DATA SHEET

04/FB20160309

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: WaterLaboratory ID: 16C0466-04

File ID:

Sampled: 03/09/16 12:55Prepared: 03/11/16 17:03Analyzed: 03/11/16 17:33Solids: 0.00Preparation: Analysis PreparationInitial/Final: 100 mL / 100 mLBatch: BC60662

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	Q	Method
18540-29-9	Chromium, Hexavalent	0.0100	1	U	EPA 7196A

CALIBRATION CURVE

ANALYSIS: Hexavalent Chromium

METHOD: Colorimetric

DATE: 3/17/2015

ppm	µg/100 ml	Absorbance
0.01	1	0.006
0.05	5	0.041
0.1	10	0.085
0.25	25	0.207
0.5	50	0.412
0.75	75	0.602

WAVELENGTH: 540 nm

LIGHT PATH: 1 cm

FILTER: NO

SLOPE	1.239181
INTERCEPT	-0.002769
CORRELATION	0.999628

ICV Concentration (ppm)	0.5

ICV Absorbance	0.412

ICV Calculated Conc. (ppm)	0.51

ICV Percent Recovery	101.55

ANALYST: STEPHANIE COUTURE

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 7196A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water
Batch: BC60662 Laboratory ID: BC60662-BS1
Preparation: Analysis Preparation Initial/Final: 100 mL / 100 mL

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Chromium, Hexavalent	0.500	0.507	101	80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM I

METHOD BLANK DATA SHEET
EPA 7196A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Water Laboratory ID: BC60662-BLK1 File ID:
Prepared: 03/11/16 17:03 Preparation: Analysis Preparation Initial/Final: 100 mL / 100 mL
Analyzed: 03/11/16 17:33 Instrument: Inst
Batch: BC60662 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/L)	Q
18540-29-9	Chromium, Hexavalent	0.0100	U

FORM I

METHOD BLANK DATA SHEET
EPA 7196A

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Matrix: Soil Laboratory ID: BC60777-BLK1 File ID:
Prepared: 03/15/16 09:25 Preparation: EPA SW846-3060 Initial/Final: 2.5 g / 100 mL
Analyzed: 03/15/16 16:45 Instrument: Inst
Batch: BC60777 Sequence: Calibration:

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
18540-29-9	Chromium, Hexavalent	0.500	U

FORM IV**PREPARATION BATCH SUMMARY****EPA 7196A**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Batch: BC60662Batch Matrix: WaterPreparation: Analysis Preparation

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
04/FB20160309	16C0466-04		03/11/16 17:03	
Blank	BC60662-BLK1		03/11/16 17:03	
LCS	BC60662-BS1		03/11/16 17:03	

FORM IV**PREPARATION BATCH SUMMARY****EPA 7196A**Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Batch: BC60777Batch Matrix: SoilPreparation: EPA SW846-3060

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01		03/15/16 09:25	
02/DUP	16C0466-02		03/15/16 09:25	
03/LSB-3	16C0466-03		03/15/16 09:25	
Blank	BC60777-BLK1		03/15/16 09:25	
Reference	BC60777-SRM1		03/15/16 09:25	

HOLDING TIME SUMMARY

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/15/16 09:25	5.92	30.00	03/15/16 16:45	0.31	7.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/15/16 09:25	5.92	30.00	03/15/16 16:45	0.31	7.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/15/16 09:25	5.90	30.00	03/15/16 16:45	0.31	7.00	
04/FB20160309	03/09/16 12:55	03/10/16 19:54	03/11/16 17:03	2.17	1.00	03/11/16 17:33	2.19	1.00	*

METHOD DETECTION AND REPORTING LIMITS

EPA 7196A

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Water

Instrument:

Analyte	LOD	LOQ	Units
Chromium, Hexavalent	0.0100	0.0100	mg/L
	0.350	0.500	mg/kg

PREPARATION BENCH SHEET

BC60777

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:26:28PM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0267-01	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0267-02	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-11	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-12	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-13	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-14	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-15	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-16	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-17	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-18	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-19	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-20	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-21	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0407-22	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0456-01	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0456-03	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0466-01	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0466-02	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0466-03	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
16C0540-01	Chromium, Hexavalent	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
BC60777-BLK1	QC	03/15/2016 09:2	SC	2.5	100					EPA SW846-3060	
BC60777-DUP1	QC	03/15/2016 09:2	SC	2.5	100		16C0267-01			EPA SW846-3060	
BC60777-MS1	QC	03/15/2016 09:2	SC	2.5	100	Y15J123	16C0267-01	1000		EPA SW846-3060	

PREPARATION BENCH SHEET

BC60777

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:26:28PM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
BC60777-SRM1	QC	03/15/2016 09:21	SC	0.5	100	Y15J134		1		EPA SW846-3060	

Batch Comments:

HEXAVALENT CHROMIUM (CR+6)

DATE: 03/11/16

ANALYST: CS

BATCH: B66777

MATRIX: S

ENTER
IN LIMS ↓

SAMPLE I.D.	DIL	ABS	mg/l from Curve	mg/kg	QA/QC
Method Blank (<0.1mg/L)		0.00	ND		
CCV (90-110%)		0.372	0.458		91 %
LCS (80-120%)		0.476	0.587	95.2	117 %
1 1660267-2		0.001	ND		
2 -52					
3 457-11					
4 -12					
5 -13					
6 -14					
7 -15					
8 -16					
9 -17					
10 -18					
11 -19					
12 -20					
13 -21					
14 -22					
15 456-01					
16 -53					
17 466-01					
18 -52					
19 -53					
20 542-01					
DUP (≤35% RPD) 466-11					
Spike (75-125%) 1-11		0.358	0.441		88 %
CCV (90-110%)		0.374	0.460		92 %
Calibration Date		Slope		y-intercept	
03/11/16		1.239181		-0.002269	

STANDARD/REAGENT	DATE PREPARED	EXPIRATION DATE	TRACEABILITY
CCV @ 50 mg/L	Make daily upon analysis		Page A
SPK @ 1 mg/L			Page A
LCS @ 110 mg/L			Page B
Diphenylcarbazide Solution	03/11/16	6 mos	Page C
Sulfuric Acid (Conc)	-	-	Page C
Digestion Solution	03/11/16	6 mos	Page D
Magnesium Chloride	-	-	Page D
Antifoam	-	-	Page D
Phosphate Buffer	03/11/16	6 mos	Page E
5M Nitric Acid	03/11/16	6 mos	Page E
Ottawa Sand -For Soil Method Blanks Only	-	-	Page E

York Analytical Laboratories, Inc.

SDG: 16C0466

CLASS: WET

METHOD: SM 2540G

DATA PACKAGE COVER PAGE

SM 2540G

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Client Sample Id:

01/LSB-3

02/DUP

03/LSB-3

Lab Sample Id:

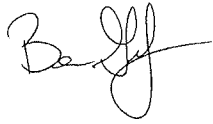
16C0466-01

16C0466-02

16C0466-03

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:



Name:

Benjamin Gulizia

Date:

3/28/2016

Title:

Laboratory Director

FORM I

INORGANIC ANALYSIS DATA SHEET

01/LSB-3

SM 2540G

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-01

File ID:

Sampled: 03/09/16 11:15Prepared: 03/11/16 11:17Analyzed: 03/11/16 16:08Solids: 88.45Preparation: % Solids PrepInitial/Final: 5 g / 5 gBatch: BC60641

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	88.5	I		SM 2540G

FORM I

INORGANIC ANALYSIS DATA SHEET

02/DUP

SM 2540G

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-02

File ID:

Sampled: 03/09/16 11:15Prepared: 03/11/16 11:17Analyzed: 03/11/16 16:08Solids: 83.47Preparation: % Solids PrepInitial/Final: 5 g / 5 gBatch: BC60641

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	83.5	1		SM 2540G

FORM I

INORGANIC ANALYSIS DATA SHEET

03/LSB-3

SM 2540G

Laboratory: York Analytical Laboratories, Inc.SDG: 16C0466Client: Langan Engineering & Environmental Services (NJ)Project: 100433202Matrix: SoilLaboratory ID: 16C0466-03

File ID:

Sampled: 03/09/16 11:50Prepared: 03/11/16 11:17Analyzed: 03/11/16 16:08Solids: 83.60Preparation: % Solids PrepInitial/Final: 5 g / 5 gBatch: BC60641

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	Q	Method
solids	% Solids	83.6	1		SM 2540G

FORM IV**PREPARATION BATCH SUMMARY****SM 2540G**

Laboratory: York Analytical Laboratories, Inc. SDG: 16C0466
Client: Langan Engineering & Environmental Services (NJ) Project: 100433202
Batch: BC60641 Batch Matrix: Soil Preparation: % Solids Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
01/LSB-3	16C0466-01		03/11/16 11:17	
02/DUP	16C0466-02		03/11/16 11:17	
03/LSB-3	16C0466-03		03/11/16 11:17	

HOLDING TIME SUMMARY
SM 2540G

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
01/LSB-3	03/09/16 11:15	03/10/16 19:54	03/11/16 11:17	2.00	28.00	03/11/16 16:08	2.20	28.00	
02/DUP	03/09/16 11:15	03/10/16 19:54	03/11/16 11:17	2.00	28.00	03/11/16 16:08	2.20	28.00	
03/LSB-3	03/09/16 11:50	03/10/16 19:54	03/11/16 11:17	1.98	28.00	03/11/16 16:08	2.18	28.00	

METHOD DETECTION AND REPORTING LIMITS

SM 2540G

Laboratory: York Analytical Laboratories, Inc.

SDG: 16C0466

Client: Langan Engineering & Environmental Services (NJ)

Project: 100433202

Matrix: Soil

Instrument:

Analyte	LOD	LOQ	Units
% Solids	0.100	0.100	%

PREPARATION BENCH SHEET

BC60432

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:26:18PM

Matrix: Soil

(No Surrogate)

Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments
16C0189-01	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0189-02	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0189-03	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-02	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-03	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-04	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-05	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-06	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-08	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-09	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-10	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-11	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-12	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-13	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-15	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0201-18	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0235-01	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0235-02	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0235-03	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C0235-04	Total Solids	03/08/2016 16:2	CLS	5	5					% Solids Prep	
16C60432-DUP1	QC	03/08/2016 16:2	CLS	5	5		16C0235-04			% Solids Prep	

PREPARATION BENCH SHEET

BC60432

York Analytical Laboratories, Inc.

Printed: 3/28/2016 3:26:18PM

Matrix: Soil											(No Surrogate)
Lab Number	Analysis	Prepared	By	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Preparation	Sample Comments

Batch Comments:

YORK

ANALYTICAL LABORATORIES, INC.

TOTAL SOLIDS ELECTRONIC LOG

<u>Sample No.</u>	<u>Analyte</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Batch ID</u>	<u>Init. Result</u>	<u>Final Result</u>	<u>Units</u>	<u>Prep. Units</u>
16C0235-01	% Solids	3/9/2016 1:57:34PM	CLS	BC60432	88.84	88.8	%	g
16C0235-01	Final Wt.	3/9/2016 1:57:34PM	CLS	BC60432	5.26	5.26	%	g
16C0235-01	Initial Wt.	3/9/2016 1:57:34PM	CLS	BC60432	5.76	5.76	%	g
16C0235-01	Tare Wt.	3/9/2016 1:57:34PM	CLS	BC60432	1.29	1.29	%	g
16C0235-02	% Solids	3/9/2016 1:57:34PM	CLS	BC60432	88.27	88.3	%	g
16C0235-02	Final Wt.	3/9/2016 1:57:34PM	CLS	BC60432	8.51	8.50	%	g
16C0235-02	Initial Wt.	3/9/2016 1:57:34PM	CLS	BC60432	9.46	9.46	%	g
16C0235-02	Tare Wt.	3/9/2016 1:57:34PM	CLS	BC60432	1.30	1.30	%	g
16C0235-03	% Solids	3/9/2016 1:57:34PM	CLS	BC60432	84.92	84.9	%	g
16C0235-03	Final Wt.	3/9/2016 1:57:34PM	CLS	BC60432	7.42	7.42	%	g
16C0235-03	Initial Wt.	3/9/2016 1:57:34PM	CLS	BC60432	8.51	8.51	%	g
16C0235-03	Tare Wt.	3/9/2016 1:57:34PM	CLS	BC60432	1.29	1.29	%	g
16C0235-04	% Solids	3/9/2016 1:57:34PM	CLS	BC60432	70.08	70.1	%	g
16C0235-04	Final Wt.	3/9/2016 1:57:34PM	CLS	BC60432	5.75	5.75	%	g
16C0235-04	Initial Wt.	3/9/2016 1:57:34PM	CLS	BC60432	7.66	7.66	%	g
16C0235-04	Tare Wt.	3/9/2016 1:57:34PM	CLS	BC60432	1.28	1.28	%	g
BC60432-DUP1	% Solids	3/9/2016 1:57:34PM	CLS	BC60432	77.58	77.6	%	g
BC60432-DUP1	Final Wt.	3/9/2016 1:57:34PM	CLS	BC60432	6.48	6.48	%	g
BC60432-DUP1	Initial Wt.	3/9/2016 1:57:34PM	CLS	BC60432	7.98	7.98	%	g
BC60432-DUP1	Tare Wt.	3/9/2016 1:57:34PM	CLS	BC60432	1.28	1.28	%	g

Note: Units for Tare, Initial and Final Wts. are in grams